

University of Southern Queensland

**ANTECEDENTS AND ORGANIZATIONAL PERFORMANCE
IMPLICATION OF INTERNAL AUDIT EFFECTIVENESS: EVIDENCE
FROM ETHIOPIA**

A dissertation submitted by

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Dedication

This dissertation is dedicated to my late sister, Melkamie Getie.

Summary

The literature suggests that the dynamics prevailing in an internal audit (IA) milieu possibly influence internal audit effectiveness. Besides organizational attributes that appear to influence IA effectiveness, other factors grounded in country context could influence IA effectiveness in developing countries. A study of IA practice as embedded in its broader context and identification of factors that enhance or inhibit its effectiveness could enable understanding IA's potential to support organizational performance and thereby assist national economic development. A few prior studies attempted to examine contextual influences on IA practices. The association of IA effectiveness with company performance, however, appears unexplored as yet. Using a combination of quantitative and qualitative research methods, this study examines IA practices in selected Ethiopian Government ministries, State-owned enterprises, and private companies. It aims to identify country- and organization-level influences on IA effectiveness from an institutional theory perspective. It then explores the association between internal audit effectiveness and company performance using Marx's theory of the circuit of industrial capital.

Results of canonical analysis suggest that IA effectiveness, as measured by *IA proficiency, IA independence and objectivity, scope of IA work, quality of IA planning and execution, and quality of IA reporting and follow up*, is significantly associated with a set of organization-level context factors. These factors are *organizational category, organizational size, organizational policies authorizing IA, organizational risk exposure, auditee cooperation, and internal-external audit linkages*. *IA proficiency, scope of IA work and IA planning and execution* appear to be higher in organizations where *organizational policy authorizing IA* is clearly defined and *organizational risk exposure and internal-external audit linkages* are stronger. Furthermore, Kruskal-Wallis tests show that *IA proficiency and IA independence and objectivity* are highest for State-owned enterprises followed by ministries and private companies. Spearman's correlation test results suggest that the association between IA effectiveness and company performance (as measured by *return on assets*) was not statistically significant. A hypothesized moderating

effect of *management attention to internal audit recommendations* on this association was also not statistically significant. This lack of support for the hypothesis is possibly explained by the relatively small sample used (for this hypothesis). Another potential reason is that the relatively young age of internal audit in Ethiopia could not help capture the possible positive association. Furthermore, the use of a single proxy measure of company performance (i.e., ROA) may not be sufficient to capture the contributions of effective IA to several dimensions of company performance. Survey results were then enriched through interviews with selected internal audit directors and leaders of three professional associations in Ethiopia as well as reviews of documentary evidence.

Overall, the results portray the State's contribution to the development of IA through coercive isomorphic pressures. These pressures are largely attributable to Government involvement in economic activity and its regulatory roles. Government's role in setting the overall scene of accountability mechanisms in government organizations appears to have contributed to IA adoption in Ethiopian organizations. The State also serves as a nexus for IA and international sources of normative pressure for IA development. Nevertheless, organization-level factors, i.e., *top management support for IA, extent of risk exposure, company connection with the international business environment, IA's information technology advancement, and IA leadership demeanour* tend to be linked with IA effectiveness to a greater extent than the contributing factors for IA adoption. In conclusion, country- and organizational-level contextual dynamics appear to influence IA effectiveness. In this process, government coercive pressures foster IA adoption while largely normative and mimetic pressures advance IA effectiveness by building upon the coercive inputs. Government coercive pressures also tend to transform into a normative pressure over time.

The study contributes to the IA literature and practice in several ways. First, it conceptualizes internal audit effectiveness as a multi-dimensional construct by measuring IA effectiveness in terms of its components rather than the hitherto dominant approach of using an aggregate measure or a proxy variable. Conceptualization of IA effectiveness as a multi-dimensional construct enabled

employing analytical approach of canonical analysis. This approach helps examine the nature of the relationships between context factors and specific dimensions of IA effectiveness. Canonical analysis also helps consider the interrelationships among the different dimensions of IA effectiveness.

Second, it is one of the few recent attempts to statistically test the relationships of IA effectiveness with its contextual influences. By formulating and testing such hypotheses, the study has attempted to identify major organization-level factors that tend to enhance or inhibit IA effectiveness. It also extends IA studies under institutional theory by considering a broader set of factors influencing IA practice and their possible interplay. Furthermore, it illustrates how the coercive, mimetic and normative isomorphic pressures interrelate and how this influences both IA adoption and IA effectiveness. This is considered an extension to existing literature because prior studies employed institutional theory largely to explain IA development at a national level by considering patterns of IA adoption by companies. Third, it contributes to the limited literature that employed Marx's theory of the circuit of industrial capital in accounting in general and IA research in particular. Specifically, the study extends IA theory by developing hypotheses on the relationship between IA effectiveness and organizational performance.

Fourth, prior IA research has largely been on the empirical context of developed economies. Thus, some of the findings of this study could be considered additional insights to the literature emanating from the empirical setting of a developing country. Finally, the study is expected to inform government policy makers, boards of directors, managers, Global as well as national IIA institutes, transnational corporations engaged in business in developing countries, and international financial institutions that provide funds in different arrangements to developing countries including Ethiopia. It does this in two ways. Firstly, being a study on a developing economy setting, it helps enhance understanding of the global configuration of the internal audit profession. Thus, it enables figuring out the current state of internal audit in Ethiopia vis-à-vis the profession's global status. This could then be extrapolated into the role of internal audit in the control

and governance mosaic of developing economies. Secondly, it highlights major factors that enhance or inhibit internal audit effectiveness. Thus it informs stakeholders on key priorities for the development of IA as a profession as well as its advancement as a key function in organizations.

Certification of Dissertation

I certify that the ideas contained in this dissertation are entirely my own, except where otherwise acknowledged. I also certify that the work is original and has not been submitted for any other award.

Signature of Candidate

12 March 2010
Date

ENDORSEMENT

Signature of Supervisor

12 March 2010
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Table of contents

SUMMARY	III
CERTIFICATION OF DISSERTATION.....	VII
ACKNOWLEDGEMENTS	VIII
TABLE OF CONTENTS	X
LIST OF FIGURES.....	XIII
LIST OF TABLES.....	XIII
LIST OF SYMBOLS	XIV
LIST OF ACRONYMS AND ABBREVIATIONS	XV
CHAPTER 1 INTRODUCTION	1
1.1 BACKGROUND	1
1.2 OVERVIEW OF THE INTERNAL AUDIT LITERATURE	2
1.3 STATEMENT OF THE PROBLEM AND PURPOSE OF THE STUDY	4
1.4 THE ETHIOPIAN SETTING AS A BACKGROUND TO THE STUDY	6
1.4.1 <i>Brief historical backdrop</i>	6
1.4.2 <i>Current government</i>	8
1.4.3 <i>Economy and related policy issues</i>	8
1.4.4 <i>Legal and audit framework of Ethiopia</i>	10
1.4.5 <i>Government initiatives with internal audit implications</i>	11
1.5 STUDY MOTIVATIONS	12
1.6 THEORETICAL PERSPECTIVES AND RESEARCH METHODOLOGY	14
1.7 STUDY SCOPE AND DELIMITATION	15
1.8 EXPECTED CONTRIBUTIONS	15
1.9 ORGANIZATION OF CHAPTERS.....	17
1.10 CONCLUSION	19
CHAPTER 2 LITERATURE REVIEW	20
2.1 THEORETICAL PERSPECTIVES	20
2.1.1 <i>Institutional theory</i>	21
2.1.2 <i>Marx's theory of the circuit of industrial capital</i>	24
2.1.3 <i>Linking institutional theory and Marx's theory</i>	27
2.2 THE ROLE AND EFFECTIVENESS OF INTERNAL AUDIT	30
2.2.1 <i>The role of Internal Audit</i>	30
2.2.2 <i>Internal Audit effectiveness</i>	38
2.3 POTENTIAL ANTECEDENTS OF INTERNAL AUDIT EFFECTIVENESS	44
2.3.1 <i>Country attributes and internal audit practice linkages</i>	45
2.3.2 <i>Organization-level setting and internal audit practice</i>	48
2.4 INTERNAL AUDIT EFFECTIVENESS AND ORGANIZATIONAL PERFORMANCE	51
2.5 GAPS IN THE LITERATURE	52
CHAPTER 3 RESEARCH DESIGN	54
3.1 RESEARCH QUESTIONS.....	54
3.2 CONCEPTUAL MODEL AND MEASURES	55
3.2.1 <i>Conceptual model</i>	55
3.2.2 <i>Definitions of measures</i>	57
3.3 RESEARCH HYPOTHESIS	61

3.3.1	<i>Internal audit context and internal audit effectiveness</i>	61
3.3.2	<i>Internal audit effectiveness and company performance</i>	63
3.4	CHAPTER SUMMARY	64
CHAPTER 4 RESEARCH METHODOLOGY.....		65
4.1	MIXED METHODS AND TRIANGULATION STRATEGY	65
4.2	MEASUREMENT AND INSTRUMENTATION.....	68
4.2.1	<i>Measurement</i>	68
4.2.2	<i>Data collection instruments</i>	71
4.2.3	<i>Pre-testing of instruments</i>	76
4.3	DATA COLLECTION PROCEDURES.....	76
4.3.1	<i>Sampling methods and strategy</i>	76
4.3.2	<i>Questionnaire administration</i>	81
4.3.3	<i>Qualitative data collection procedures</i>	81
4.4	DATA ANALYSIS	83
4.4.1	<i>Quantitative data analysis</i>	83
4.4.2	<i>Qualitative data analysis</i>	87
4.5	CHAPTER SUMMARY	88
CHAPTER 5 QUALITATIVE DATA RESULTS		89
5.1	COUNTRY-LEVEL CONTEXT AND INTERNAL AUDIT PRACTICE	89
5.1.1	<i>Government support of internal audit and IIA-Ethiopia</i>	90
5.1.2	<i>Development of accounting and auditing in Ethiopia: implication for IA</i>	94
5.1.3	<i>Current developments and future prospects</i>	114
5.1.4	<i>Summary: Ethiopia's country-level context and implications to IA</i>	116
5.2	ORGANIZATION-LEVEL INFLUENCES ON IA EFFECTIVENESS	117
5.2.1	<i>State-owned enterprises</i>	117
5.2.2	<i>Private companies</i>	124
5.2.3	<i>Government ministries</i>	133
5.3	CHAPTER SUMMARY	137
CHAPTER 6 QUANTITATIVE DATA RESULTS		139
6.1	DESCRIPTIVE STATISTICS	139
6.1.1	<i>Attributes of the sample</i>	139
6.1.2	<i>Internal audit staff and directors' responses</i>	143
6.2	RELIABILITY ANALYSIS	150
6.3	ASSESSMENT OF NORMALITY AND HOMOSCEDASTICITY	152
6.3.1	<i>Normality assessment and data transformations</i>	152
6.3.2	<i>Assessment of homoscedasticity</i>	154
6.4	HYPOTHESES TESTING	155
6.4.1	<i>Hypothesis 1</i>	155
6.4.2	<i>Hypothesis 2</i>	161
6.4.3	<i>Hypothesis 3</i>	163
6.5	MANAGEMENT'S PERCEPTION OF IA EFFECTIVENESS	165
6.6	CHAPTER SUMMARY	166
CHAPTER 7 DISCUSSION OF RESULTS.....		168
7.1	PURPOSE OF THE STUDY VIS-À-VIS THE LITERATURE	168
7.2	DISCUSSION OF MAJOR FINDINGS	170
7.2.1	<i>Contextual influences on IA effectiveness (RQ₁, H₁ and H₂)</i>	170
7.2.2	<i>Internal audit and organizational performance (RQ₂, H_{3a} and H_{3b})</i>	181
7.3	METHODOLOGICAL CONSIDERATIONS	183
7.4	CHAPTER SUMMARY	188

CHAPTER 8 CONCLUSION	189
8.1 OVERVIEW OF THE STUDY	189
8.2 CONTRIBUTIONS OF THE STUDY	197
8.2.1 <i>Contributions to the literature</i>	197
8.2.2 <i>Contributions to practice</i>	200
8.3 LIMITATIONS OF THE STUDY	201
8.4 SUGGESTIONS FOR FUTURE RESEARCH.....	203
8.5 CONCLUDING REMARKS.....	206
REFERENCES	208
APPENDICES	230
<i>Appendix 1: Summary of relationships among, hypotheses, research questions, variables/concepts, and the data.....</i>	<i>230</i>
<i>Appendix 2: Instrument Set A: Questionnaire for internal audit directors and staff.....</i>	<i>234</i>
<i>Appendix 3: Instrument Set B: Consent form to identify potential interview participants ...</i>	<i>240</i>
<i>Appendix 4: Instrument Set C: Questionnaire for managers</i>	<i>241</i>
<i>Appendix 5: Instrument Set D: Consent form and interview checklist for IA directors</i>	<i>243</i>
<i>Appendix 6: Instrument Set E: Consent form and interview checklist for IIA-Ethiopia</i>	<i>247</i>
<i>Appendix 7: Document review guide</i>	<i>249</i>
<i>Appendix 8: Ratios considered as a proxy for organizational performance (Hypothesis 3)</i>	<i>250</i>
<i>Appendix 9: Summary of results for management perception of internal audit services.....</i>	<i>251</i>

List of figures

Figure 1-1. Organization of the dissertation	18
Figure 3-1. Conceptual model of the study	56
Figure 3-2. Conceptual model for predicted relationship between internal audit context measures and IA effectiveness	62
Figure 3-3. Conceptual model for the predicted relationship between organizational category and internal audit effectiveness	63
Figure 3-4. Conceptual model for the predicted relationship between indicators of context and internal audit effectiveness	63
Figure 3-5. Conceptual model for the relationship among implementation of internal audit recommendations, IA effectiveness and organizational performance.....	64
Figure 6-1. Revised conceptual model supported by the data	167

List of tables

Table 2.1. Summary of key relevant literature on internal audit effectiveness.....	36
Table 5.1. Interview participants' profiles*	104
Table 5.2. Summary of patterns in interview data	130
Table 6.1. Gender, age, and job title of respondents.....	140
Table 6.2. Respondents' work experience	141
Table 6.3. Educational background and certification.....	142
Table 6.4. Organizational profile	143
Table 6.5. Questionnaire responses, <i>Internal audit context</i>	144
Table 6.6. Questionnaire responses, <i>Internal audit proficiency</i>	145
Table 6.7. Questionnaire responses, <i>IA independence and Objectivity</i>	146
Table 6.8. Questionnaire responses, <i>Scope of internal audit work</i>	147
Table 6.9. Questionnaire responses, <i>Internal audit planning</i>	148
Table 6.10. Questionnaire responses, <i>Reporting, follow-up and quality review</i> . ..	149
Table 6.11. Reliability statistics	150
Table 6.12. Item-total statistics	151
Table 6.13. Inter-item correlation matrix.....	152
Table 6.14. Assessment of normality (before transformation)	153
Table 6.15. Assessment of normality (after transformation)	154
Table 6.16. Spearman's correlations among variables.....	155
Table 6.17. Measures of overall model fit using canonical analysis	156
Table 6.18. Dimension reduction analysis	157
Table 6.19. Standardized canonical coefficients.....	158
Table 6.20. Structure correlations for function 1	159
Table 6.21. Redundancy analysis.....	161
Table 6.22. Inferential statistics results for hypothesis 2.....	162
Table 6.23. Kruskal-Wallis for all variables	163
Table 6.24. Inferential statistics results for hypothesis 3a and 3b*	165
Table 8.1. Summary of hypothesis testing results	197

List of symbols

- ρ Spearman's rho
 r_s Spearman's Rank order correlation
 r_c Canonical correlation
 R^2 Pooled squared canonical correlation
 χ^2 Chi-Square

List of acronyms and abbreviations

ACCA	Association of Chartered Certified Accountants
ANOVA	Analysis of Variance
ASC	Audit Service Corporation
ASE	Accounting Society in Ethiopia
CIA	Certified Internal Auditor
CPD	Continuing Professional Development
ETB	Ethiopian Birr (the Ethiopian Currency)
ECSAFA	Eastern, Central, and South African federation of Accountants
EPAAA	Ethiopian Professional Association of Accountants and Auditors
Eafa	Ethiopian Accounting and Finance Association
FDRE	Federal Democratic Republic of Ethiopia
IFAC	International Federation of Accountants
IA	Internal Audit
IIA	Institute of Internal Auditors
IMF	International Monetary Fund
MoFED	Ministry of Finance and Economic Development
MoTI	Ministry of Trade and Industry
OFAG	Office of the Federal Auditor General
PPESA	Privatization and Public Enterprises Supervisory Authority
ROA	Return on Assets
ROCE	Return on Capital Employed
ROSC	Reports on Observance of Standards and Codes
SOA	Sarbanes-Oxley Act
SOC	State-owned Companies
SPPIA	Standards on the professional practice of internal auditing
WB	World Bank
WPE	Workers Party of Ethiopia
WTO	World Trade Organization

Chapter 1 Introduction

1.1 Background

The importance of accounting—of which internal audit is a ‘subset’ (Reynolds 2000, p. 115)—is inextricably linked to economic, political, social, and cultural realities of nations (Toms 2005). Uddin and Hopper (2001) and Wickramasinghe and Hopper (2005) provide some evidence of how country-specific dynamics influence accounting. As society is a broad concept in which economy, politics, religion, and social relations are embedded (Polanyi 2001), accounting, and thus internal audit, tend to be influenced by the contextual dynamics that prevail in a society.

Some of the existing internal audit literature also indicates that country attributes (Al-Twajry, Brierley & Gwilliam 2003; Yee et al. 2008) and some organization-level factors (Arena, Arnaboldi & Azzone 2006; Mihret & Woldeyohannis 2008) tend to influence internal audit practices. Furthermore, Cohen, Krishnamoorthy and Wright (2004) consider internal audit as a cornerstone of corporate governance and point out that differences in national culture could influence corporate governance mechanisms. Similarly, Mat Zain and Subramaniam (2007) suggest that national culture may influence how internal auditors communicate about senior management to the board of directors. Apparently in recognition of such contextual influences, Ruud (2003) called for research to examine national differences in the role of internal audit. Likewise, Anderson (2003) recommended studies to identify organizational attributes that could influence internal audit’s value-added.

Internal audit is considered as a value adding activity in contemporary organizations (Al-Twajry, Brierley & Gwilliam 2003; Bou-Raad 2000; Roth 2002; Yee et al. 2008). Implicit in this notion is the assumption that *internal audit is effective*. Therefore, identifying country- and organization-level dynamics that influence IA effectiveness arguably enhances understanding of internal audit’s

value adding demeanour in respect of the context in which the function is practiced.

Nevertheless, organizations in developing countries seem to emulate the concepts and practices of internal audit as applied in Western societies (Al-Twajry, Brierley & Gwilliam 2003). Therefore, besides organization-specific attributes that are generally considered to influence internal audit effectiveness (Arena, Arnaboldi & Azzone 2006), other forces grounded in a country's context may impact on internal audit effectiveness in developing countries. Therefore, a study of internal audit effectiveness in its broader context and identification of its antecedents could enable understanding internal audit's potential to support organizational and thereby a country's¹ performance. The literature on internal audit in general and IA's contextual influences in particular, appear limited. This is possibly because the development of internal audit as a separate profession is still ongoing. The following section provides an overview of the internal audit literature since the early 1940s, when IA emerged as a discipline.

1.2 Overview of the internal audit literature

The emergence of internal audit as a discipline is traced to the early 1940s when the Institute of Internal Auditors (IIA) was established in 1941. The first book on internal auditing, *Modern Internal Auditing*, was also published by Victor Z. Brink in 1942 (Moeller 2005). Thenceforth, the internal audit profession has been growing globally under the global leadership of the Institute of Internal Auditors (IIA). The Institute has branches in various countries and administers certification examinations worldwide. For example, the IIA established chapters in Saudi Arabia (Al-Twajry, Brierley & Gwilliam 2003) and Ethiopia (Mihret, James & Mula 2009) in 1982 and 1996 respectively.

The literature suggests that in earlier stages of the development of internal audit, the function focused on internal audit's independence from management. In contrast, contemporary internal audit is expanding its scope to embrace consulting

¹ This study was conducted on the empirical setting of Ethiopia, an East African country of about 74 million people. A brief background about Ethiopia is provided in Section 1.4

activities in which managers are viewed as internal audit customers. Thus, internal audit has evolved from assurance-focused services to consulting-oriented services as an integral part of the function. Consequently, under the current paradigm, internal audit works as a partner of management towards adding value to an organization (Ahlawat & Lowe 2004; Bou-Raad 2000; Enyue 1997; Goodwin, J 2004; Mat Zain 2005; Moeller 2005; Roth 2000, 2002; Yee et al. 2008). The latest definition of internal auditing (Institute of Internal Auditors 2004) emphasizes this value adding prowess of the function when it states:

‘Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization’s operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.’

It is apparent from this definition that internal audit is expected to add value to organizations by providing a wide range of services including assurance and operational (performance) audits as well as consulting the management on a variety of areas. The extant literature also highlights the role of contemporary internal audit in assisting management at a strategic level (Melville 2003). The function is expected to play an essential role in helping organizations comply with regulatory requirements. Particularly, the role of internal audit in corporate governance through its services to the board of directors has strengthened after the Sarbanes-Oxley Act (SOA) (Congress of The United States of America 2002) of the United States of America (Antoine 2004; Carey, Subramaniam & Ching 2006).

Furthermore, the definition underscores internal audit’s contribution to accomplishment of organizational objectives. The empirical literature, nevertheless, indicates that internal audit may not always be effective. It also suggests that internal audit effectiveness tends to vary from one context to another (Al-Twajry, Brierley & Gwilliam 2003; Arena, Arnaboldi & Azzone 2006; Cohen, Krishnamoorthy & Wright 2004; Mat Zain, Subramaniam & Goodwin-Stewart 2006; Mihret & Woldeyohannis 2008; Yee et al. 2008). Despite this apparent context-dependence of internal audit practice, nevertheless, little prior

research has extensively examined contextual factors that augment or inhibit internal audit effectiveness. Furthermore, the association of internal audit effectiveness with organizational performance and thus accomplishment of organizational objectives appear not sufficiently explored as yet. This study aims to contribute to the understanding of contextual influences on internal audit effectiveness and the possible link between IA effectiveness and organizational goal achievement.

1.3 Statement of the problem and purpose of the study

It is apparent from the definition of internal auditing (Institute of Internal Auditors 2004) that internal audit's *raison d'être* is to add value to organizations and help organizations accomplish objectives. To meet this goal, internal audit (IA) is expected to provide a wide range of services. Consistent with this notion, the IA function has been expanding its scope to embrace consulting activities in which managers are viewed as internal audit customers. Thus, internal audit needs to consider itself as a partner of management and aim to ultimately add value to an organization. As part of its service of assisting organizations in risk management, internal audit's role in corporate governance has strengthened after the Sarbanes-Oxley Act (SOA) of 2002 (Antoine 2004; Carey, Subramaniam & Ching 2006). That is, as well as its consulting services to management, internal audit can play a pivotal role in assisting organizations to comply with regulatory requirements.

The internal audit literature (e.g., Gramling et al. 2004; Hermanson & Rittenberg 2003) indicates the possible contribution of internal audit to accomplishment of organizational objectives. Consistent with this theme, Hermanson and Rittenberg (2003) called for research on the relationship of internal audit effectiveness with organizational performance. Regardless of whether a normative or pragmatic perspective is considered appropriate to interpret the definition of internal auditing, the validity of IA's value adding notion and its assistance in organizational goal achievement rests on the implied assumption that *internal audit is effective* – and thus meets its *raison d'être*. Therefore, one approach to assess internal audit effectiveness could be to examine

the extent to which the function meets its *raison d'être*, which should arguably map onto organizational performance. Nevertheless, the association between internal audit effectiveness and organizational performance appears not empirically examined to confirm or refute the stipulations in the definition of IA.

Furthermore, some of the existing literature (e.g., Al-Twajry, Brierley & Gwilliam 2003; Cohen, Krishnamoorthy & Wright 2004; Mihret & Yismaw 2007; Raghunandan, Read & Rama 2001) suggests that internal audit may not always be effective. However, the antecedents of internal audit effectiveness appear not fully explored as yet. The limited prior research in this area also suggests that the extent of internal audit effectiveness is possibly associated with country- and organization-level dynamics that prevail in an internal audit milieu (Al-Twajry, Brierley & Gwilliam 2003; Arena, Arnaboldi & Azzone 2006; Mihret & Woldeyohannis 2008; Yee et al. 2008).

Apparently in recognition of this context-dependence of IA effectiveness, some scholars advocated future research on this topic. For example, Ruud (2003) called for research to examine national differences in the role of internal audit. Similarly, Goodwin (2004) encouraged future research to examine variations in IA practices between government and private organizations. Likewise, Anderson (2003) recommended future research to identify organizational attributes that could influence internal audit's ability to add value. Furthermore, Coram, Ferguson and Moroney (2008) called for research to study IA effectiveness from other perspectives than the hitherto dominant approach of external auditors' perceptions. Arena and Azzone (2009) recently tested some hypotheses on organizational drivers of IA effectiveness in Italian organizations. Generally however, little prior research has extensively examined IA effectiveness and its contextual influences. Thus, the above calls for research appear unheeded. Besides, the limited extant literature on internal audit effectiveness tends to have provided inadequate attention to the multi-dimensional nature of this construct.

In addition to these methodological issues that warrant further research on IA effectiveness, previous IA research seems to be largely on developed economies. The IIA recognizes the need for understanding internal audit's state of

affairs worldwide (Lower 1997, cited in Brierley, El-Nafabib & Gwilliam 2001). It also intends to nurture IA in developing countries (IIA 1999a, cited in Al-Twaijry, Brierley and Gwilliam, 2003). However, internal audit appears under-researched especially in the contexts of such countries. Besides advancing IA theory, studies aiming for a deeper understanding of key contextual influences on IA seem to offer useful practical contributions. Such studies could offer profound contributions by informing stakeholders on key priorities for the development of IA as a profession as well as its advancement as a key function in organizations.

With a view to filling part of these gaps in the existing literature, the purpose of this study is to:

1. examine internal audit practices in selected Ethiopian organizations to identify country- and organization-level contextual influences on internal audit effectiveness; and
2. explore the association between internal audit effectiveness and organizational performance.

1.4 The Ethiopian setting as a background to the study

1.4.1 Brief historical backdrop

The study is based on selected organizations in Ethiopia, an East African country of about 74 million people as of 2007 (census) (Federal Democratic Republic of Ethiopia Population Census Commission 2007). According to latest archaeological findings, Ethiopia is home to the oldest known evidence of the ancestor of the human race called *australopithecus afarensis* (nicknamed ‘Lucy’). Lucy is estimated to have lived more than three million years ago (Encyclopaedia Britannica Online 2008; Washington State University 2008). The East African region has a history of more than 5000 years. Nevertheless, Ethiopia’s recorded history can be traced to 1268 B.C., when Ethiopia’s Queen of Sheba is believed to have visited King Solomon of Jerusalem. This event was supposed to have been followed by the start of the Solomonic dynasty by Menelik, son of Solomon and Queen of Sheba. Despite some interruptions at different times, the dynasty

governed Ethiopia until 1974 where the Ethiopian Orthodox Church crowned the emperors.

The Country's history is largely tied to the development of Christianity in the Nation and defence of sovereignty. The Christian Kingdom of Axum, located in Northern Ethiopia circa 1st to 6th century A.D. was a regional power (Encyclopaedia Britannica Online 2008). Ethiopia has its own alphabet that originated from the *ge'ez* language of Axum. The alphabet is currently used in some Ethiopian languages including Amharic, the official language of the Federal Government of Ethiopia. *Ge'ez* is also still used in the Ethiopian Orthodox Church's services. The Church is also the origin of Ethiopian numerals that are in use in the Country to this day. The decline of the Axumite Kingdom was followed by another Christian dynasty named Zagwe. One of the kings of this dynasty, King Lalibela, constructed eleven rock-hewn monolithic churches, which are considered the eighth wonder of the world today (Ethiopian Embassy Washington 2007).

In terms of defending sovereignty, Ethiopia is the only African country that resisted attempts of colonization. The Nation fought several wars in the 19th century. Pankhurst (1963) and Zewde (2001), cited in Geda (2007) indicate that Ethiopia was at war three times, four times, five times, and once with the Egyptians, Dervishes, Italians, and the British respectively from 1868 to 1896. Especially, Ethiopia defended against a major Italian invasion in 1886, which concluded in the battle of Adowa. The Country also resisted Italian occupation from 1936 to 1941—in a second attempt for colonization—which finally ended with British support (Ethiopian Embassy Washington 2007; Nations Encyclopaedia 2004).

Ethiopia's modern political system with a central Government started during the time of Emperor Theodros II (1855-1868). Following Theodros II, Emperor Yohannes IV (1872-1889), Emperor Menelik II (1889-1913), Lij Iyasu (1913-1916), Empress Zewditu (1916-1930), and then Emperor Haileselassie I (1930 - 1974) governed the Country. Emperor Haileselassie I is the last emperor of the Solomonic dynasty. In 1974, a revolution overthrew Haileselassie I and subsequently a military Government with socialist ideology took power. The

Country remained under communist ideology for seventeen years, until the current Government came into power in 1991.

1.4.2 Current government

The existing Government of Ethiopia is a federated state comprised of nine autonomous regional states. The federated state has a bicameral parliamentary structure. The House of People's Representatives is the highest decision-making authority in Ethiopia with members of parliament representing the people. A Federal Council represents the interests of the States. The prime minister is the Head of Government and the president is the Chief of state. The prime minister nominates cabinet ministers for approval by the House of People's Representatives. The prime minister also recommends a president and vice president for the Federal Supreme Court and seeks approval of the House of People's Representatives (Ethiopian Embassy Washington 2007).

1.4.3 Economy and related policy issues

Ethiopia exports mainly coffee, gold, leather products, beeswax, canned vegetables, tea, sugar, cotton, oilseeds, and fresh flowers. It imports processed food, petroleum and related products, chemicals, machinery, civil and military aircraft, transport and industrial capital goods, agricultural machinery and equipment, and motor vehicles (National Bank of Ethiopia 2006; Nations Encyclopaedia 2004). The Nation is a member of the Common Market for Eastern and Southern Africa (Nations Encyclopaedia 2004) and is in line for World Trade Organization accession since February 2003 (World Trade Organization 2007).

The Country was a developing market-oriented economy until 1974, when the communist government took power and proclaimed a centrally planned economy. Following the change of government in 1974, private companies were nationalized and State-owned enterprises² (SOEs) established. Communist economies appear to use accounting as a central planning tool rather than as part of

² SOEs are wholly government-owned, for-profit organizations in Ethiopia that operate as per Public Enterprise Proclamation No. 25/1992.

accountability mechanisms (in the context of agency relationships) (Hao, Zhen Ping 1999; Seal, Sucher & Zelenka 1996). As a result, internal audit was encouraged during this period as compared to external audit (Mihret, James & Mula 2009). Consequently, IA became a separate mandatory activity in all government organizations in 1987. A survey of internal audit in Ethiopia conducted in 1991 indicates that over 90 and 70 per cent of State-owned enterprises and government budgetary organizations respectively adopted internal audit (Argaw 1997).

In 1991, the present Government came into power, proclaimed a free market economic system, and privatized a number of State-owned enterprises. It also granted enhanced management autonomy to the remaining SOEs by Proclamation 25/1992 (Government of Ethiopia 1992). SOEs are, nevertheless, dominant in the economy (World Bank 2007). Partly due to the ensuing Government involvement in economic activity (Mihret, James & Mula 2009), Government support for internal audit development appears considerable post-1991 as well (Argaw 1997).

Ethiopia is the seventh largest Sub-Sahara African economy (with a Gross National Product of USD 160 per capita) following the Republic of South Africa, Nigeria, the Sudan, Angola, Kenya, and Tanzania (World Bank 2007). During the post-1991 period the Country's GDP has shown some improvement. For instance, GDP growth per annum for the period from 1992 to 2007 was 4.68 per cent on average compared to 2.31 per cent for the period from 1980 to 1990 (IMF 2007). The Nation's economy grew at the rate of 11.9 percent, 10.5 per cent, and 9.6 per cent in the three consecutive years to 2006 inclusive (World Bank 2007). On the other hand, the Country's external debt has also been high post-1991. For example, the Country's total external debt was over 30 billion Ethiopian Birr³ (ETB) in 1996 compared to less than ETB 1.5 billion in 1970 (Gebrekidan 2005).

The growing trend of the economy could suggest the need for state-of-the-art accounting and audit practices. This is because accounting is regarded as having the capacity to support economic development (Asechemie 1997; Wallace

³ Ethiopian Birr (ETB) is the legal currency of Ethiopia, ETB 1 = USD 0.105 (approximate as of June 2008).

1999; Willmott 1986). Enthoven (1965, p. 31) states, ‘effective accounting controls and accounting practices will tend to stimulate the flow of foreign and domestic private capital’. The literature in the context of Western economies also confirms this notion. For instance, Bryer (2005, 2006a) argues that accounting has played an essential role in Britain’s industrial revolution. Furthermore, Ethiopia’s high external debt and its planned accession to WTO would make accounting and audit best practices in the Country imperative. Modern accounting and audit practices could enable Ethiopian organizations to achieve enhanced efficiency and effectiveness thereby advance the Nation’s competitiveness.

1.4.4 Legal and audit framework of Ethiopia

Commercial Code of Ethiopia⁴ (1960) governs the formation and operation of private companies in the Country. The Revised Public Enterprises Proclamation (1992) governs the affairs of public enterprises (hereafter, State-owned enterprises or SOEs). Financial reporting and external audit requirements of both private companies and State-owned enterprises are mainly guided by the Commercial Code of Ethiopia. Legal documents and regulations specifically concerning internal audit include the Federal Auditor General Proclamation (Government of Ethiopia 1997), the Federal Government of Ethiopia Financial Administration Regulation (Federal Government of Ethiopia 1996), the Ministry of Finance and Economic Development’s (MoFED) IA manual (MoFED 2004), and Privatization and Public Enterprises Supervisory Agency⁵ (PPESA) Regulations (Privatization and Public Enterprises Supervisory Agency 2004, 2005). The Auditor General Proclamation monitored internal audit in both SOEs and ministry organizations from 1987 to 1996. Since 1996 (Federal Government of Ethiopia 1996), MoFED monitors IA in Government ministries and PPESA monitors internal audit in SOEs.

⁴ This code is also available online at:

<http://www.law.ugent.be/pub/nwr/elw/Commercialmainpage.htm>.

⁵ PPESA is a Federal Government Agency that conducts oversight of the formation and operation of public enterprises in Ethiopia. It also conducts privatization of SOEs as necessary.

As another component of the overall accountability mosaic of the Country, the Federal Ethics and Anti-corruption Commission⁶ (Federal Ethics and Anti-Corruption Commission of Ethiopia 2007) was established as an independent body to mitigate fraud and investigate any major fraud cases in Government organizations. Ethics liaison units are also established in each public office and State-owned enterprise by Council of Ministers Regulation (Federal Democratic Republic of Ethiopia 2005). The ethics liaison units in each government organization link government organizations and the Federal Ethics and Anti-corruption Commission. Ethics liaison officers are assigned to these units; Article 14 (3) of proclamation 144/2008 provides power to the ethics liaison officers to follow-up internal and external audit findings.

The Office of the Federal Auditor General (OFAG) of Ethiopia is responsible for external audit of Federal ministries (Ejige 2003; Government of Ethiopia 1997). The regional states also maintain auditor general offices. Furthermore, OFAG monitors the professional practice of accounting and auditing in the Country. In the business sector, the Audit Service Corporation conducts external audit of State-owned enterprises and private audit firms undertake external audit of private companies.

1.4.5 Government initiatives with internal audit implications

During the post-1991 period, Ethiopia has been receiving World Bank (WB) and International Monetary Fund (IMF) loans, grants, and economic policy reform advice in managing its development. Largely with the assistance of these international financial institutions and Western consultants, the Ethiopian Government embarked on reforms of public sector financial reporting and internal auditing in the early 1990s (Peterson 2001). As part of economic policy reforms, the Ethiopian Government has been working to modernize the financial infrastructure of the Country and to encourage private investment via an improved platform for risk assessment and a climate of mitigated corporate failure. Under

⁶ The revised establishment proclamation of this commission is also available at: http://www.feac.gov.et/web_collection/proclamation_English_starter.htm.

this framework, a World Bank and IMF joint initiative study, i.e., Reports on Observance of Standards and Codes (ROSC), was conducted on Ethiopia in 2007. This report focuses on financial reporting and external audit in Ethiopia (World Bank 2007).

Internal audit is a cornerstone of corporate governance (Christopher, Sarens & Leung 2009; Cohen, Krishnamoorthy & Wright 2002; Coram, Ferguson & Moroney 2008; Gramling et al. 2004; Mat Zain & Subramaniam 2007; Vallario 2003). Consequently, as is the case in general (Goodwin, Jenny & Yeob 2001), the focus of the Ethiopian Government on corporate governance issues could arouse an emphasis on internal audit. Consistent with this notion, the Ethiopian government has been providing increasing support to the development of internal audit since 1994. It has provided this support not only by strengthening internal audit in ministry offices and SOEs (Mihret, James & Mula 2009; Teklegiorgis 2000) but also by supporting IIA-Ethiopia since its establishment as a chapter in 1996 (Argaw 2000b; IIA-Ethiopia 2009; Mihret, James & Mula 2009).

1.5 Study motivations

The growing importance of internal audit in contemporary organizations (Al-Twaijry, Brierley & Gwilliam 2003; Bou-Raad 2000; IIA 1999b; Roth 2002; Yee et al. 2008) and the possible influence of factors in the internal audit milieu on internal audit effectiveness (Al-Twaijry, Brierley & Gwilliam 2003; Arena, Arnaboldi & Azzone 2006; Mihret & Woldeyohannis 2008; Yee et al. 2008) provided the primary motivation for this study. Goodwin's (2004) recommendation to examine variations in internal audit across organizations, Ruud's (2003) call for research to examine national differences in the role of internal audit, Coram, Ferguson and Moroney's (2008) call for studies to examine internal audit effectiveness from a different perspective than the hitherto dominant approach, Anderson's (2003) recommendation for future research to identify organizational attributes that could influence internal audit's ability to add value, and Hermanson and Rittenberg's (2003) suggestion for research on the

relationship of internal audit effectiveness with organizational performance, provided a more focused motivation for the study.

The importance of internal audit in fraud prevention and detection (Ernst & Young 2006, 2008; Raghunandan & Mchugh 1994) and the perceived prevalence of fraud in developing countries make internal audit research in developing countries imperative. For instance, Transparency International's (2007) survey indicates that Ethiopia is one of the countries with a high corruption index. Possibly in an appreciation of the problem, the Government of Ethiopia has instituted legislation to fight corruption (Federal Ethics and Anti-Corruption Commission of Ethiopia 2007). Thus, a study of internal audit effectiveness in Ethiopia could provide useful insights by providing some empirical evidence on the control and governance infrastructure of the Country. This could inform various parties because Ethiopia is one of the major destinations of funds from international financial institutions (e.g., World Bank, IMF and other institutions) and developed countries' economies by way of loans and grants.

Furthermore, due to the increasingly globalised nature of business, corporate governance reforms are taking place in several developing countries (Reed 2002b; Tsamenyi, Enniful-Adu & Onumah 2007). As part of such reforms, the World bank has also undertaken ROSC (Reports on the Observance of Standards and Codes) studies on more than 100 developing and developed countries (World Bank 2009). Thus, studies of internal audit (which is a major component of corporate governance) in developing countries are expected to supplement such international efforts to understand and/or reform corporate governance mechanisms.

Moreover, a lack of extensive internal audit research in developing countries and IIA's interest to nurture internal audit in such countries (IIA 1999a, cited in Al-Twajjry, Brierley and Gwilliam, 2003) warrant internal audit research in such settings (Lower 1997, cited in Brieley, El-Nafabib & Gwilliam 2001). Efforts of the Ethiopian Government to foster internal audit (Teklegiorgis 2000) and other elements of corporate governance (World Bank 2007) provided yet additional motivation for the study. As they did in developed countries (Foster &

Greenawalt 1995), concerns of fraud in developing countries could stimulate interest in internal audit services. Furthermore, Foster and Greenawalt (1995) argue that globalization of business that enabled corporations to operate in countries of varied culture, control-awareness, and level of fraud makes international outlook of internal audit imperative. Studies on settings like Ethiopia are warranted as they are expected to contribute to such outlook.

1.6 Theoretical perspectives and research methodology

The study employs an integrated theoretical framework by combining institutional theory and Marx's theory of the circuit of industrial capital. Following recent internal audit studies (e.g., Al-Twaijry, Brierley & Gwilliam 2003; Arena, Arnaboldi & Azzone 2006; Arena & Azzone 2007), institutional theory is employed to examine contextual influences on internal audit effectiveness. Marx's theory of the circuit of industrial capital is then used to explore the link between internal audit effectiveness and company performance. Bryer (1999a, 1999b, 2006b) brought this theory into the accounting literature. Yee et al. (2008) argue that the theory can explain the role of internal audit as a value adding service in organizations. Thus, the theory is utilised in this study to explain the possible association of internal audit effectiveness and company performance.

Besides triangulation of theories, the study triangulates research methods. That is, it employs both quantitative and qualitative research approaches. Thus, the study addresses the research problem by collecting and handling a combination of quantitative and qualitative data. Accordingly, questionnaire surveys of internal audit practitioners (i.e., IA directors and staff) and middle-level managers are conducted. The study covers Government ministries, State-owned enterprises, and private companies. The results are then enriched by results of interviews with internal audit directors and leaders of professional associations as well as reviews of relevant documentary evidence.

1.7 Study scope and delimitation

The study aims to identify contextual influences on internal audit effectiveness and explore the association between internal audit effectiveness and performance of companies. For the purpose of this study, the scope of internal audit comprises financial audit, performance audit, and assisting organizations in risk management, control, and governance processes. That is, the Institute of Internal Auditors' (2004) definition of internal auditing is adopted in this study (see Section 1.2 for the definition). The study considers both assurance and consulting audit paradigms as value-adding in their appropriate settings. Therefore, despite a tendency of some recent literature to consider only the consulting focus of IA as value adding, this study does not attempt to establish a case for either an assurance or consulting paradigm as an ideal for internal audit practice.

1.8 Expected contributions

The study is expected to make contributions to internal audit theory and practice in several ways. **First**, it attempts to identify context factors that augment or inhibit internal audit effectiveness. This possibly provides a useful outcome by indicating priority areas that internal audit departments need to focus on to achieve high levels of effectiveness. The study is one of the few recent works (e.g., Arena & Azzone 2009) to statistically test the relationships of internal audit effectiveness with its potential contextual influences. Therefore, it contributes hypotheses that could be tested in other settings. Furthermore, it is expected to employ an analytical approach that enables to examine the nature of the relationships between context factors and multiple dimensions of IA effectiveness. Such an approach is considered as a useful contribution because prior IA research largely tends to treat IA effectiveness as a uni-dimensional construct.

Secondly, the themes suggested by prior studies have been investigated in a different empirical setting by identifying a broad range of contextual factors. Prior internal audit research has largely been on developed countries. Therefore,

empirical evidence from a developing country may contribute additional insights to the literature. In view of the apparently limited internal audit literature (Spraakman 1997), articulation of how internal audit effectiveness is influenced by factors in an internal audit context may inform both internal audit theory and practice. Further, by providing additional empirical evidence from a developing country, the study is expected to help broaden understanding of the global configuration of the IA profession.

Third, the study extends internal audit literature by employing Marx's theory of the circuit of industrial capital. Bryer (1999a, 1999b, 2006b) brought this theory into the accounting literature and Yee et al. (2008) argue that the theory has a potential to explain IA's usefulness to add value to organizations. The present study could thus provide useful hypotheses on the relationship between internal audit effectiveness and company performance. This will help confirm or refute the notion in the definition of internal audit that the function assists organizational accomplishment of objectives.

Fourth, Ethiopia is a developing country in which internal audit practice is apparently not sufficiently explored. A case study on an Ethiopian Government organization by Mihret and Yismaw (2007) suggests limited internal audit effectiveness. However, another IA case study of an Ethiopian SOE by Mihret and Woldeyohannis (2008) reported a relatively high internal audit profile. Thus, being a research of internal audit in Ethiopia, this study will help enhance the understanding of internal audit effectiveness in the Nation at large. Furthermore, the Ethiopian accountability and control framework is dominantly based on laws and government regulations. This environment differs from those of industrialized Western economies which are predominantly market-driven. The laws and regulations may pose different challenges and/or present opportunities for internal audit in Ethiopia vis-à-vis the dominant settings in the literature.

The dominant settings in the internal audit literature are largely market-based and corporate governance codes are stipulated these settings. Such codes are mostly voluntary, as compared to laws, although the market system may impel compliance. Furthermore, State-owned enterprises play a substantial role in the

Ethiopian Economy (World Bank 2007). Thus, Government involvement in economic activity could map onto state-profession dynamics concerning internal audit practice, which the study could uncover.

Finally, the study is expected to inform government policy-makers, boards of directors, managers, Global as well as national IIA institutes, transnational corporations that do business in developing countries, and international financial institutions⁷ that provide funds with different arrangements to developing countries including Ethiopia. It does this in two ways. Firstly, being a study on a developing economy setting, it helps enhance understanding of the IA profession's global configuration. It enables figuring out the current status of internal audit in Ethiopia vis-à-vis the profession's global picture. This could then be extrapolated into the role of internal audit in the control and governance mosaic of developing economies. Secondly, by highlighting major factors that enhance or inhibit internal audit effectiveness, the study informs stakeholders on key priorities for the development of IA as a profession as well as its advancement as a key function in organizations.

1.9 Organization of chapters

The remainder of the dissertation is organized into seven chapters. Figure 1.1 depicts the relationships among all chapters of the dissertation. In view of the purpose of the study specified in Chapter 1, Chapter 2 sets the scene for the dissertation by providing a review of the internal audit literature and of the theories employed in the study. The chapter discusses the theories adopted and then reviews the IA literature within the framework of these theories. Specifically, institutional theory and Marx's theory of the circuit of industrial capital are reviewed first. The literature on internal audit effectiveness and related methodological issues are then reviewed in light of the theoretical perspectives adopted.

⁷ The World Bank and IMF's joint initiative project, namely, Reports on the Observance of Standards and Codes (ROSC) is an illustration of international institutions, interests on governance issues in Countries worldwide. ROSC studies have been conducted on corporate governance in most developed and developing countries in the world. (See <http://www.worldbank.org/ifa/rosoc>)

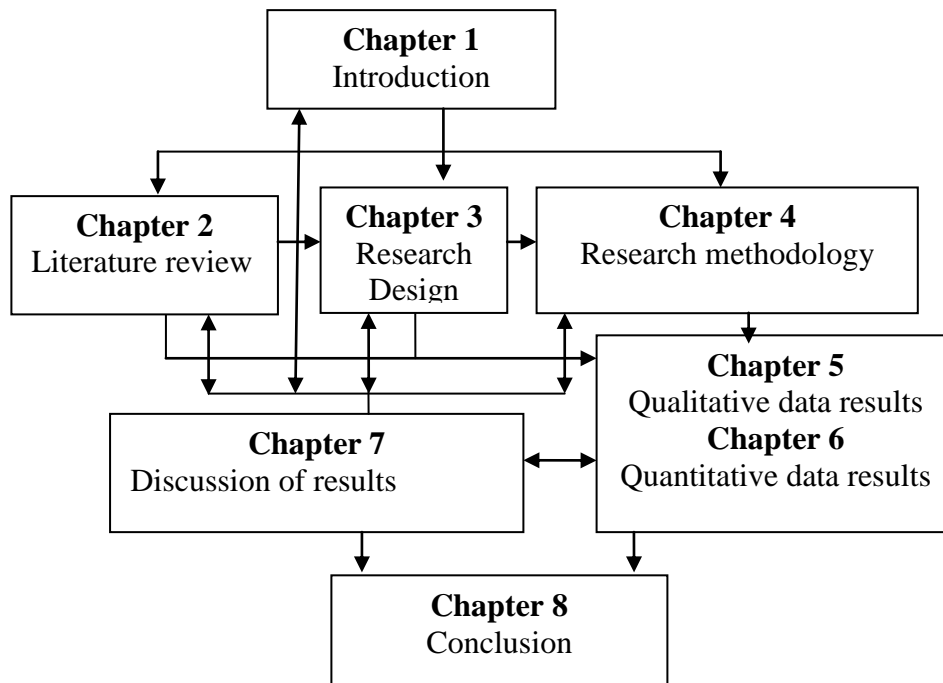


Figure 1-1. Organization of the dissertation

Chapter 3 develops the research design based on the concepts and themes that emerge from the literature review in Chapter 2. The research design is explained in terms of the conceptual model, research questions, hypotheses, and measures. This chapter then leads to Chapter 4 which outlines and explains the research methodology. Chapter 4 explains the mixed methods approach chosen as well as the triangulation strategy employed to integrate the quantitative and qualitative components of the study. Furthermore, it discusses data sources, construct measurement issues, data collection procedures, and data analysis techniques employed.

Chapters 5 and 6 report the results of the study. Chapter 5 presents the results of the qualitative components, i.e., interviews and reviews of documentary evidence. Chapter 6 then presents the quantitative study results. It reports the results of analytical survey data analysis in terms of attributes of the sample, data screening and related data transformation results, and results of testing hypotheses.

Chapter 7 discusses the results outlined in chapters 5 and 6 with emphasis on the purpose of the study in the context of the broader literature, the similarities

and differences of the study's results with those of key prior studies, evaluation of theory choice for the study, and methodological considerations. Then, Chapter 8 summarizes the dissertation, provides major conclusions drawn, outlines implications of the results to the literature and the practice, highlights potential limitations of the study, and suggests future research directions. Finally, it presents overall concluding remarks.

1.10 Conclusion

Internal audit is considered as a value adding activity in contemporary organizations. The effectiveness of internal audit, nevertheless, appears to vary across settings. There have been calls by some scholars to examine the association between internal audit effectiveness and contextual influences as well as the link between IA effectiveness and company performance. Nevertheless, little research has extensively examined these issues as yet. Furthermore, few prior studies approached internal audit effectiveness as a multi-dimensional construct and examined the consequent issues.

Moreover, IA's contribution for accomplishment of organizational goals has not been examined. To fill part of this gap in the internal audit literature, this study aims to examine internal audit practice in selected Ethiopian organizations to identify country- and organization-level contextual influences on internal audit effectiveness. It then explores the association between internal audit effectiveness and company performance. Institutional theory and Marx's theory of the circuit of industrial capital are employed. Both quantitative and qualitative methods are used to collect and analyse data with a view to providing evidence to the propositions that: IA effectiveness is influenced by internal audit context factors and that effective internal audit can add value to organizations.

Chapter 2 Literature review

The literature generally suggests that internal audit (IA) is expected to add value in contemporary organizations (Al-Twaijry, Brierley & Gwilliam 2003; Bou-Raad 2000; Roth 2002; Yee et al. 2008) and assist organizations to accomplish objectives (Gramling et al. 2004; Institute of Internal Auditors 2004). Although effectiveness of internal audit is an implicit assumption in this notion, some of the limited literature in this area (e.g., Al-Twaijry, Brierley & Gwilliam 2003; Cohen, Krishnamoorthy & Wright 2004; Mihret & Yismaw 2007) suggests that the function may not always be effective. The degree of IA effectiveness apparently varies with country- and organization-level dynamics in an internal audit milieu (Al-Twaijry, Brierley & Gwilliam 2003; Arena, Arnaboldi & Azzone 2006; Mihret & Woldeyohannis 2008; Yee et al. 2008). This chapter provides a review of the literature on internal audit effectiveness and its possible association with internal audit context and company performance. The chapter draws on institutional theory and Marx's theory of the circuit of industrial capital.

2.1 Theoretical Perspectives

The limited IA research has mainly been based on neoclassical economic theories, e.g., agency theory (Adams 1994) and transaction cost theory (Spraaakman 1997). In the present paper, it is argued that these theories may not sufficiently inform IA research in diverse contexts and from varied perspectives. This is because neoclassical economic theories make some assumptions that limit the theories' domains of application. For instance, the theories presume a developed market economic setting and large volume of transactions (Asechemie 1997). However, sophistication of the market system and volume of transaction usually exhibit differences across countries (Reed 2002a; Wallace 1999) depending on the level of economic development. This situation limits the ability of the theories to inform internal audit research in diverse range of settings. Moreover, the notion of market equilibrium is a core concept in neoclassical

economic theories. Other perspectives, e.g., the Marxist approach, reject this notion of equilibrium (Hula 1984).

Another central assumption of neoclassical economics is that organizational phenomena are driven by individuals' pursuit to maximize self-interest. Marxism and institutional theory criticize this assumption (Hula 1984) and they maintain that individuals' behaviors cannot be abstracted from the social settings in which they take place. Therefore, neoclassical economic theories may not sufficiently explain IA's development and operation in varied settings. On the other hand, institutional theory (Barley & Tolbert 1997) and Marx's theory (Avineri 1971) recognize the importance of cultural and social determinations as a major influence in decision making. With this understanding, this study employs a combination of institutional theory (DiMaggio & Powell 1983) and Marx's (1978) circuit of industrial capital.

2.1.1 Institutional theory

Institutional theory explains how organizational structures and practices are shaped through changes induced by institutional pressures. Institutional theorists consider organizations as members of an 'organizational field', which comprises several organizations or industries that are interrelated in some way. This interrelation is exhibited in the form of relationship of dependence of some form that leads some organizations to influence others. Barley and Tolbert (1997, p. 99) state 'institutions are historical accretions of past practices and understandings that set conditions on action'. DiMaggio and Powell (1983) argue that institutions result from 'structuration'. According to Giddens (1984), structures are rules and resources that enable functioning of social systems. DiMaggio and Powell employ the concept of structures to indicate the relationship between institutions and individual organizations (1983, p. 148):

Enterprises only exist to the extent that they are institutionally defined. The process of institutional definition, or 'structuration', consists of four parts: an increase in the extent of interaction among organizations in the field; the emergence of sharply defined inter-organizational structures of domination and patterns of coalition; an increase in the information load with which organizations must contend, and the development of a mutual awareness

among participants in the set of organizations that are involved in a common enterprise.

Structures are considered as the media as well as the products of agents' actions. That is, while serving to constrain actors' behaviors, structures are also shaped by actors' practices; Giddens (1984) calls this concept the duality of action and structure. Giddens argues that agents gain power to control others due to asymmetries in power distributions. He defines control as 'the capability that some actors, groups, or types of actors have of influencing the circumstances of action of others' (1984, p. 283). This power is possible because agents have resources at their disposal. The resources could be *allocative*, which are material in nature, or *authoritative*, which arise from agent's capacity to organize and coordinate social actors. The concepts of structuration are therefore useful to understand DiMaggio and Powell's (1983) institutional theory

DiMaggio and Powell (1983) explain coercive, mimetic and normative isomorphism that influence organizational structures and practices. Coercive isomorphism takes place as a consequence of organizational attempts for legitimacy; mimetic isomorphism occurs when organizations respond to uncertainty by emulating practices of other organizations; and normative isomorphism arises when institutional changes happen due to organizations' recognition of professions. Institutional theory also explains that organizations sometimes engage in decoupling; i.e., what organizations do may differ from what their external façade suggests. This phenomenon enables organizations to appear conforming to stakeholder expectations, thereby legitimizing their practices (Meyer & Rowan 1977). Some prior studies (e.g., Al-Twaijry, Brierley & Gwilliam 2003) employed this concept of 'decoupling' to interpret variations in internal audit practice and professional standards for internal audit practice.

Consistent with DiMaggio and Powell's (1983) arguments, Scott (1987, p. 493) supports maintain that institutional theory can explain how the 'means' and 'ends' of organizations change due to the impacts of government and professionalization. In this line of thinking, internal audit fits into the 'means' and hence be shaped by the influence of the two forces. Similarly, Zucker (1987)

explains institutional theory from the perspectives of isomorphic pressures on organizations. However, Zucker regards only mimetic and normative pressures as having the impact of institutionalization. She considers coercive pressures as ‘de-institutionalizing’ arguing that government impositions suggest the existence of attractive alternatives for organizations to follow. The difference in Zucker’s view and that of DiMaggio and Powell could be explained by the differences in their ontological perspectives to institutionalization. That is, while Zucker appears to consider institutionalization as a process that is initiated by a motivation from within organizations, DiMaggio and Powell’s view incorporates external pressures as well.

Institutional theory could inform research at different levels of units of analysis, i.e., individual organizations, industries or other collectives (Barley & Tolbert 1997). The theory is considered appropriate for IA research because it enables explaining organizational phenomena without assuming a limited set of organizational goals, i.e., without necessarily limiting scope to profit seeking organizations. The theory could also inform IA research in countries with diverse stages of development of the market system. Many developing countries have either systems characterized by less developed market economy (Reed 2002a; Wallace 1999), or—like the countries of Eastern Europe—have emerged from communism only in the past 20 years (Yee et al. 2008).

Furthermore, prior research indicates that the influence of government (i.e., as compared to market forces) on the development of internal audit tends to be substantial in some countries (e.g., see Al-Twaijry, Brierley & Gwilliam 2003). Institutional theory could, therefore, enable a study of internal audit from diverse perspectives compared to a mere principal-agent (i.e., shareholder-manager) focus of agency theory. Moreover, prior research suggests validity of this theory for internal audit research in the context of both developing (e.g., see Al-Twaijry, Brierley & Gwilliam 2003) and developed economies (e.g., see Arena, Arnaboldi & Azzone 2006; Arena & Azzone 2007).

Institutional theory has several implications relating to the possible context-dependence of IA effectiveness. For example, in organizations that face

high risk, one might expect mimetic pressures to contribute to the development of IA. This is because organizations, as part of their efforts to manage risk, may establish IA departments by emulating practices of other organizations. This suggests a positive association between level of risk and internal audit effectiveness (Goodwin-Stewart & Kent 2006). Likewise, the focus of internal audit, i.e., assurance versus consulting, might differ between government- and private sector organizations (Carcello, Hermanson & Raghunandan 2005). Furthermore, professionalization may exert different levels of impact on the advancement—or otherwise—of internal audit across institution (Al-Twaijry, Brierley & Gwilliam 2003, 2004; Albercht et al. 1988; Carey, Subramaniam & Ching 2006; Yee et al. 2008). Marxist theory explanations to the demand for internal audit could support institutional theory explanation for IA's development.

2.1.2 Marx's theory of the circuit of industrial capital

Marx's (1978) theory of the 'circuit of industrial capital', outlined in the first chapter of Volume 2 of *Capital* is brought into the accounting literature by Bryer (1999a, 1999b, 2006b). Bryer highlights investors' pursuit of 'surplus value' from capital and explains the role of accounting as an accountability mechanism in this pursuit. Marx explains capitalist production as aiming at 'valorization' of capital, i.e., increasing capital by continuously generating surplus value (profit). The capitalist creates value by using capital to buy commodities and then transforming them to other commodities for sale at higher prices.

Marx presents this process in a circuit of industrial capital: $M—C—M'$, where M is the original capital invested, C represents commodities purchased for input to production and then M' is the money generated by selling the commodities produced. This simple circuit is expanded as $M—C \{MP, LP\} \dots (P) \dots C'—M' = M + \Delta M$. That is, the commodity bought as input comprises the means of production, MP , and labour power, LP . The means of production and labour power are used in production process, P , to produce the new commodities C' that are to be sold for a higher price, M' , than the original capital invested, M . The difference between M'

and M (i.e., ΔM) is surplus value, which the valorization process aims to continuously maximize (Foley 1986).

In explaining the role of accounting in labour control process, Bryer (2006b) uses the concepts of ‘formal’ and ‘real’ subsumption of labour which Marx explained in the Appendix to Volume 1 of Capital (Marx, K. 1976, p. 948-1084). Formal subsumption of labour applies to the early stage of capitalism and real subsumption relates to advanced capitalism. When labour is formally subsumed by capital, it is only held accountable for the means of production and the production of commodities as “things” (Bryer 2006b, p. 563). On the other hand, under real subsumption, as in advanced capitalism, it is also held accountable for the rate of return on capital employed, i.e., for surplus value creation, or the use of capital to create more capital” (Bryer 2006b, p. 563-4).

Bryer (2006b) argues that accounting control systems serve to ensure accountability in the value creation process. He maintains that financial accounting serves to ensure accountability of senior management to the capitalist and management accounting serves to ensure accountability of workers to management. Internal audit can also be viewed, from this perspective, as an important element of labour process control. IA is of benefit to organizations in two ways, traditional assurance audits and performance/operational audits. While assurance audit helps prevent and detect irregularities that result from mistakes or fraud, operational/performance auditing helps enhance economy, efficiency and effectiveness (Al-Twaijry, Brierley & Gwilliam 2003; Allegrini & D'Onza 2003).

Therefore, the theory illuminates the concept of value and arguably serves to explain internal audit’s possible role in organizations not only as an assurance-based control mechanism but also as a forward-looking, value adding service. Assurance services of internal audit re-enforce the accountability of management to board of directors (Gramling et al. 2004; Yee et al. 2008) and thus to shareholders and worker accountability to management. This service also includes IA’s role in enhancing the quality of reported earnings (Cohen, Krishnamoorthy & Wright 2004; Cohen, Krishnamoorthy & Wright 2002; Gramling et al. 2004) and thus it helps ensure the accuracy of ROCE reported. This reasoning is consistent

with that of Shleifer and Vishny (1997) and Doidge, Karolyi and Stulz (2006) who view corporate governance as a means by which shareholders ensure that management generates the desired ROCE.

Thus, consistent with Bryer's (1999a, 1999b, 2006b) line of thinking, which considers accounting as a framework for other organizational control mechanisms, it could be argued that IA is embedded in the broader accountability framework of organizations. Bryer (2006) argues that owners of businesses invest in machinery and systems of control to increase the productivity and intensity of labor to achieve their overriding aim of maximising return on capital. Operational auditing, assisting in the management of risk, consulting the management, and the prevention of fraud and other wastage of capital are directly related to increasing the rate of return on capital. IA could be considered as rightly placed in the control process to serve the interest of shareholders. It contributes to the mitigation of wastage of capital by deterring fraud (Raghunandan & Mchugh 1994) and providing consulting services on the efficient and effective use of resources (Al-Twajry, Brierley & Gwilliam 2003; Yee et al. 2008). By doing so, IA can help management to increasing ROCE in businesses and enhance efficiency and effectiveness in public sector organizations as well.

From the Marxist perspective, therefore, IA arguably serves a useful function by helping maximize ROCE as well as enabling a society to achieve socially desirable goals such as mitigated fraud and corruption, and reduced wastage and devaluation of capital. Yee et al. (2008) concur with this notion as they also adopted a predominantly Marxist economic theory perspective in their empirical study of the role and effectiveness of IA in Singapore. They emphasize the importance of IA in the prevention of wastage and devaluation of capital from fraud, corruption and inefficiency. Capital that wastes is unable to earn the required ROCE. Marx commented in Volume 3 of *Capital* (Marx, 1981) that in the competitive struggle between rival capitalist firms, efficient businesses will see their capital maintained in times of crisis whilst inefficient businesses will see their capital waste or devalue either in whole or in part. Internal auditing, therefore, could assist a firm to remain competitive and maintain or increase its capital. On a

societal level, strong IA, through its consulting services to management, allows a society to channel capital into areas where it can yield an acceptable rate of return rather than into areas where it will waste or devalue.

In contrast to Bryer's (1999a, 1999b, 2006b) view, Alawattage and Wickramasinghe's (2008) study of a Sri Lankan tea plantation illustrates that cultural and political hegemony is more important than accounting in labour process control. Similarly, Ezzamel, Xiao and Pan (2007), using China as a case in point, indicate that the mode of production influences accounting's role. They demonstrate how change of dominant ideology in China had impacted on accounting. These contrasting observations suggest that the role and effectiveness of IA could vary across settings. It also provides part of the justification to consider triangulation of the two theories.

2.1.3 Linking institutional theory and Marx's theory

The use of the two theories in combination enables 1) considering social aspects of organizational dynamics as clearly assumed in institutional theory (Barley & Tolbert 1997) and 2) the economic dimensions of organizational phenomena. In this paper, while Marx's theory is mainly employed to understand economic motives for organizational phenomena, institutional theory informs analysis of social aspects of organizational dynamics. Therefore, it is necessary to assess compatibility of the two theories when used in combination. These theories originated from political economics and thus share similar foundations. This origin enables a study of organizational phenomena as embedded in broad social, political, and economic settings (Deegan 2006; Hardy, Ballis & Lacobs 2007). Marxist approach is also considered one of the origins of institutional theory (Scott 2004). Beyond this general similarity of the two theories, the rationale for employing the two theories in combination is the notion that they reinforce each other's arguments.

Marx's approach as used in this paper emphasizes economic aspects of organizational phenomena; yet, this approach does not rule out the impact of institutional forces. At a societal level, Marx (cited in Harman 1998, p. 9) states,

the pursuit of surplus-value made the feudal mode of production to give way to semi-capitalist forms and semi-capitalism to fully fledged capitalism. Marx, cited in Harman (1998, p. 9) stated:

‘In acquiring new productive forces, men [sic] change their mode of production; and in changing their mode of production, in changing their way of earning a living, they change all their social relations. The handmill gives society with a feudal lord; the steam mill society with an industrial capitalist.’

The quote indicates the importance of historical and social aspects of society to organizations. In addition to this general view of Marx on changes at societal level, his view on a capitalist organization focuses on organization level dynamics. The micro-economic view of Marx does not preclude social and cultural determinations on organizations (Foley 1986). As Foley (1986, p. 1) explains:

.... the phenomena he [Marx] discusses cannot be understood independent of the history that produced them. This approach contrasts with the view that phenomena will tend to reassert themselves regardless of historical context. He sees the relations he is studying as being in a constant process of change, not just unchanging elements undergoing some rearrangement. Thus, Marx’s aim is not to state universal principles that explain human and social interaction once and for all but to understand the regularities that govern the changes in specific social formations.

As the quote shows, Marx’s approach considers the importance of historical and social aspects to changes in organizational phenomena. Similarly, institutional theory underscores the importance of historical and social dynamics in shaping institutions (Barley & Tolbert 1997). To appreciate the link between institutional theory and Marx’s theory, it is necessary to understand the relation between the ideas of ‘young’ and ‘mature’ Marx. Mature Marx’s views are mostly interpreted as deterministic and those of young Marx are mostly interpreted as having a social aspect (Foley 1986). However, Foley argues that Marx’s thoughts need to be seen as one corpus rather than as having this kind of distinction. Therefore, Marx’s theory of the circuit of industrial capital is considered in this paper as having both economic and social dimensions (Avineri 1971) although it relates to the later works of Marx.

The concept of institution as applied in institutional theory relates to an ‘organizational field’, which comprises several organizations or industries. Thus, it

could be argued that while Marx's thinking on society focuses on changes in society at large, institutional theory concerns changes in parts of society as well. Despite a dominant focus on cultural aspects, institutional theory also recognizes the importance of efficiency motives causing institutionalization (DiMaggio & Powell 1983). As Barley and Tolbert (1997, p. 94) maintain:

“... institutional theorists acknowledge that cultural constraints do not completely determine human action. ... Rather, institutions set bounds on rationality by restricting the opportunities and alternatives we perceive and, thereby, increase the probability of certain types of behavior. However, just as perfect rationality is rare, so too is completely bounded rationality. Through choice and action, individuals and organizations can deliberately modify, and even eliminate, institutions.”

Owners of capitalist firms determine the goals of their organizations, i.e., creating surplus value. Marx's theory can inform this rational aspect of organizational phenomena, without precluding the impact of social determinations. While owners are a group of actors, there are other actors (e.g., employees, government, the management, and other components of society) that influence the structures and practices of organizations. Thus a combination of Marx's theory and institutional theory arguably enable a holistic understanding of internal audit as part of organizational systems and illuminates the link between internal audit and organizational goal achievement.

A combination of the institutional theory and Marx's approach is beginning to appear in empirical research. For example, Vidal (2009) employed these approaches to study institutionalization of lean production in US manufacturing firms. As Vidal (p.1) maintains:

“The manufacturing environment is constituted by interwoven technical and institutional pressures, as well as embedded organizational relations that generate institutional space for variation in organizational performance. Inside the factory, managers, who must strategically interpret and react to multiple environmental pressures, seek to alter workforce routines in pursuit of operational goals and ultimately to extract labor effort sufficient to achieve a satisfactory profit rate.”

Vidal argues that the pursuit of surplus value underlies the institutionalization process in competitive environments. This notion implies that

institutional theory and Marx's theory arguments can inform studies of organizational phenomena. With this understanding, the present paper employs these theories to develop propositions on antecedents and organizational performance implications of IA effectiveness.

2.2 The role and effectiveness of internal audit

2.2.1 The role of internal audit

The role of internal audit has been transforming along with changes in its environment. McNamee and McNamee (1995) discuss three major phases of transformation in the history of internal audit (IA). Pre 1940s, IA was mainly focused on checking propriety of transaction and records. In the 1940s, the development of information economy based on the concept of systems caused the emergence of modern IA with a systems evaluation approach. In this phase, IA has been concerned with checking compliance with policies and procedures. Then, since the 1990s another wave of transformation led IA to be viewed as a value adding service with a broader scope of activities including assisting organizations in the management of risk.

Similarly, Spira and Page (2003) explain contemporary IA's shift in emphasis as a result of pressures on organizations that caused changes in responsibilities of boards of directors, management and external auditors. Various corporate governance initiatives in the USA and the UK caused a change in the meaning of internal control to incorporate management of risk. For example, Committee of Sponsoring Organisations (COSO) framework's definition considers internal control as aiming to provide assurance regarding efficiency and effectiveness of operations, reliability of financial reports, and compliance with applicable laws and regulations (Committee of Sponsoring Organisations 1992). Such changes created opportunities for IA to provide consulting services to management and assist boards of directors to manage risk.

Furthermore, as society has transformed, the meaning of risk has evolved and control has broadened to incorporate the aim of achieving organizational efficiency and effectiveness. The shift in top management responsibility about

internal control from compliance with policies to a focus on important risks put IA at advantage. Management took responsibility for internal control systems and board of directors' responsibility expanded to incorporate organizational prosperity as well as accountability to shareholders. This gave internal auditors advantage over external auditors. As a result, IA grew a pre-eminent position as advisers to the board of directors although the tension remains between the consulting role and independence of AI (Spira & Page 2003).

Internal auditors' endeavors towards professionalization, under the leadership of the IIA, also seem to have helped redefine the scope of IA as necessary (McNamee & McNamee 1995). This endeavors could also be seen in the lens of inter profession competition of IA with external auditing (Rittenberg & Covaleski 2001). External auditors change in focus from systems approach to business risk approach coupled with their attempts to provide IA services on the one hand and societal pressure for external audit independence (following high profile corporate failures) on the other hand made IA an alternative mechanism to enter into the consulting arena (Spira & Page 2003).

The Institute of Internal Auditors' (Institute of Internal Auditors 2004) latest definition of internal auditing claims the broad scope and value-adding focus of the function. The definition and other literature (e.g., Davidson, Goodwin & Kent 2005) also presents both assurance and consulting activities as key components of the IA function. Similarly, Al-Twajjry, Brierley and Gwilliam (2003) and Albercht, Howe, Schueler, and Stocks (1988) explain that IA can be of benefit to organizations by ensuring compliance to policies, rules, and regulations, which are largely of a financial nature, and by working in partnership with management to help improve operations and manage risk.

The literature also shows contemporary IA's emphasis on a consulting approach as compared to 'traditional' IA, which has largely been assurance-oriented (Bou-Raad 2000; Goodwin, J 2004; Roth 2000, 2002; Yee et al. 2008). The assurance focus of internal audit promotes IA independence from management. On the other hand, the consulting paradigm advocates the notion that IA operates as a partner of management. Cooper, Leung and Wong (2006)

reviewed the Asia Pacific IA literature and concluded that internal audit is shifting towards a consulting orientation in this region. Similarly, a review of European IA literature by Allegrini, Paape, Meville and Sarens (2006) and a similar work on the American IA literature by Hass, Abdolmohammadi and Burnaby (2006) generally confirm this paradigm shift. Despite the general undercurrent about this paradigm shift, nevertheless, the empirical literature provides mixed results on IA's dominant focus.

For example, Hass, Abdolmohammadi and Burnaby (2006) observed, although IA has generally shifted to a consulting approach, it tended to re-emphasize compliance audit following the enactment of the Sarbanes Oxley Act (SOA) (Congress of The United States of America 2002). Also, Roth (2000, 2002) and Yee, Sujana and James (2008) documented evidence of a consulting approach to IA in North American and Singaporean organizations respectively. Yee et al. (2008) attribute their results to the Western-styled corporate sector and the well-developed external auditing profession in Singapore. Similarly, Allegrini et al. (2006) highlighted that IA was assurance-focused in some European countries. Furthermore, surveys of IA in Saudi Arabia (Al-Twajry, Brierley & Gwilliam 2003) and Belgium (Institute of Internal Auditors Belgium 2006, cited in Allegrini et al. 2006) reported dominance of the assurance audit paradigm.

Al-Twajry, Brierley and Gwilliam (2003) explored IA practices of Saudi Arabian companies from an institutional theory perspective, taking a sample of 135 companies listed on the Saudi Stock Exchange. They used questionnaires and interviews to assess the extent of compliance of IA practices with SPPIA and found that there was a low level of IA effectiveness and value-added in Saudi Arabia. IA was mainly focused on checking reliability of financial record keeping and information, compliance with rules and regulations, as well as evaluation and examination of internal controls. The study found low levels of auditee cooperation in Saudi Arabian companies, particularly when the audit scope extended beyond the traditional areas. The authors argue that this situation led to low levels of implementation of IA recommendations. The study's results also suggest that internal audit may be sometimes decoupled, i.e., the function may not

operate in compliance with SPPIA despite stakeholders' expectations of compliance. They further noted that the establishment of the IIA chapter in Saudi Arabia provided a normative isomorphic pressure for the development of IA in the Country.

Similarly Arena, Arnaboldi and Azzone (2006) and (Arena & Azzone 2007) employed institutional theory for a study of IA in Italian companies. Arena, Arnaboldi and Azzone (2006) focus on the coercive isomorphic pressure of stock exchange regulations influencing the development of IA. The authors describe and explain IA characteristics, activities, and levels of reporting in the context of the institutional settings in which companies operate. Specifically, their study draws on recent developments in corporate governance requirements for listed companies in the contexts of USA, UK, and Italian stock exchanges. They characterize the regulations of SOA of the USA, the Turbnull Report of UK, and Italian regulations, i.e., Draghi's law, the Preda Code, and legislative decree number 231/2001. The authors observed differences in the three institutional settings pertaining to the degree of cooperation between the management and IA, influence from market competition, influence from professional bodies and consultants, and IIA's role in promoting the profession.

Arena, Arnaboldi and Azzone (2006) point out that institutional pressure on companies leads IA to take on a particular audit focus. They found coercive pressures as having led to financial audit focus and argue that the stock exchange rules and regulations substantially impacted on the development of IA in Italy. They identified three categories of firms. In the first category were firms without internal audit as a stand-alone unit. For this category of companies there were no listing requirements for a separate IA function. The second category comprised companies with formal IA departments that mainly focused on compliance audits. In these organizations IA was adopted as a result of institutional pressure. This was shown by the fact that the companies operated under listing requirements. In category three, more focus was afforded to risk assessment and consulting. Nevertheless, assurance and financial audit were also within the domain of IA's services. Reasons for IA adoption in these companies went beyond a mere

response to institutional pressures. In addition to meeting regulatory requirements, internal control assessments were aimed to improve processes and add value. There were frequent interactions of IA with audit committees, and IA departments reported to boards of directors and audit committees. Audit committees are also found to require further investigation on specific issues following IA findings. Arena, Arnaboldi and Azzone's (2006) findings are consistent with that of Carcello, Hermanson and Neal (2002) which suggests that IA plays a prominent role in the internal control structure of organizations in regulated industries.

Other organization-specific factors could also influence IA's focus. Mihret and Woldeyohannis (2008) examined IA in an Ethiopian State-owned enterprise to identify factors that determine the value adding attributes of internal audit. They interpreted their results in view of Mihret and Yismaw's (2007) case study of a government organization in the same country setting. Mihret and Yismaw indicate management support and internal audit quality as the major determinants of IA effectiveness. Mihret and Woldeyohannis underscore that organizational goals and strategies and the level of risk exposure of organizations could be potential factors that shape the dominant focus of IA as either assurance or consulting.

From a slightly different perspective, Yee et al. (2008) examined the role of IA in Singapore. They studied the perception of Singaporean managers on the IA practice. Specifically, they identified whether IA is viewed as a partner with management or as a watchdog for routine compliance mechanisms. The authors argue that the importance of IA in organizations is increasing, and that the function can play a value adding role in modern organizations by expanding its scope of services to embrace operational areas. In contrast to Al-Twajry, Brierley and Gwilliam's (2003) findings, Yee et al. (2008) found that Singaporean managers were generally satisfied with the proficiency and services of internal auditors. They link their findings with Singapore having a well-developed corporate sector and a strong external auditing profession. Thus the resulting experience and competence of Singaporean internal auditors means that they are better able to serve in a value-adding role than those in Saudi Arabia. Yee et al. (2008) maintain that IA can assist management to meet its accountability to investors in Marx's

framework. The management is accountable for increasing ROCE and IA not only assists management through enhancing timely and accurate reporting of this rate but also it helps increase this rate.

Conclusions neither on the dominant nor ideal focus of IA can be drawn from the existing limited literature. This is because the scope of prior studies, except Roth (2000, 2002) and Yee et al. (2008), on this notion is restricted to private sector companies. Also, the studies were not aimed at explaining variations in IA's dominant orientation—and possibly in IA effectiveness. The evidences from the literature, nevertheless, suggest that IA effectiveness is possibly influenced by the context in which IA operates. Results of recent studies (e.g., Arena, Arnaboldi & Azzone 2006; Arena & Azzone 2009; Mihret & Woldeyohannis 2008; Mihret & Yismaw 2007) consolidate this notion of the possible context dependence of IA effectiveness. Albercht et al. (1988) stress the widening scope of IA to embrace a consulting role instead of a total de-emphasis of financial and compliance audit.

Major IA studies relating to the role and effectiveness of IA are summarized in Table 2.1.

TABLE 2.1
Summary of key relevant literature on internal audit effectiveness

Study	Method	Sample	Study focus and findings/conclusions
Allegrini, Paape, Meville, & Sarens, (2006)	Literature review	N/A	This study is a review of the European internal audit literature. The review concludes that internal audit has shifted to a value adding orientation as contrasted with the traditional compliance orientation.
Cooper, Leung and Wong (2006)	Literature review	N/A	This paper reviewed the internal audit literature of the Asia Pacific region. This study concludes that internal audit in the Asia pacific region has shifted to a value-adding orientation.
Abdolmohammadi and Burnaby (2006)	Literature review	N/A	This study reviewed the American internal audit literature. The review concludes that internal audit in the USA has shifted to a value-adding orientation in general. However, the review also noted that after the issuance of the Sarbanes-Oxley Act (2002), internal audit has emphasized to a compliance approach.
Al-Twaijry, Brierley and Gwilliam's (2003)	Questionnaire survey and interviews	145 companies	This study is survey of internal audit in Saudi Arabian companies listed in the Saudi Stock exchange. It also involved interviews with managers and external auditors of companies. This study employed compliance with SPPIA as an indicator of IA effectiveness. The study concludes that internal audit in Saudi Arabia is mainly compliance-focused. The study established the positive contribution that government brought about for the development of internal audit in the Country. It also noted the normative pressure of the IIA-Saudi Arabian Chapter.
Yee et al (2007)	Questionnaire survey	83 managers	This study is a survey of managers of Singaporean organizations aimed at identifying the perceptions of Singaporean managers on internal audit services. It concludes that Singapore managers consider internal audit as a business partner. The study attributed this value adding orientation of internal audit in Singapore to the Westernized business environment of Singapore and the existence of well-developed external audit profession.
Albercht et al. (1988)	Multiple Case study	13 cases organizations	The study aimed to identify the factors that lead internal audit to be perceived as effective. It concludes that good corporate environment, top management support, quality of internal auditors and quality of internal audit work characterize effective internal audit
Arena, Arnaboldi & Azzone (2006)	Multiple case study	6 cases companies	The study examined the attributes of internal audit departments of companies listed in Stock exchanges with different characteristics. It concludes that the characteristics of the stock exchange in which companies are listed determine the orientation of internal audit.

Table 2.1 (cont'd)

Summary of key relevant literature on internal audit effectiveness

Study	Method	Sample	Study focus and findings/conclusions
Arena and Azzone (2007)	Preliminary in-depth case study followed by a questionnaire survey	230 companies	The study was aimed at identifying the adoption and characteristics of IA in Italian companies in the context of changes in the politico-economic setting. The results of this study affirm the diffusion of internal audit practices induced by isomorphic pressures. This provides additional evidence to those of Arena, Arnaboldi & Azzone (2006) and Al-Twaijry, Brierley and Gwilliam's (2003) on the relevance of institutional theory for IA research.
Arena and Azzone (2009)	Questionnaire survey	153 companies	This paper examined internal audit in Italian companies to identify the determinants of internal audit effectiveness. They found that (a) internal audit team characteristics, (b) IA processes and activities, and (c) the organizational links influence IA effectiveness.
Goodwin (2004)	Questionnaire survey	120 organizations	This study aimed to identify differences between internal audit in private and public sector organizations in Australia and New Zealand. It reported that internal audit's status and the tendency to outsource internal audit are higher in the public sector. The study found little differences in internal audit activities and the extent of internal audit interaction with external auditors. The observed similarities in internal audit practices of the two sectors were attributed to the similarity of contexts in the two sectors resulting from public sector reforms in the two countries.
Mihret and Woldeyohannis (2008)	Case study	1 organization	This study examined internal audit in an Ethiopian State-owned enterprise to identify factors that determine the value adding attributes of internal audit. They interpreted their results in view of Mihret and Yismaw's (2007) case study of a government organization in the same country setting. The study concludes that organizational goals and strategies and the level of risk exposure of organizations could be potential factors that shape the dominant focus of internal audit as either assurance or consulting.
Mihret and Yismaw (2007)	Case study	1 organization	This study aimed to evaluate the effectiveness of internal audit in an Ethiopian public-sector organization and identify the factors that determine the level of effectiveness. The study concludes that management support to IA and IA quality as the major determinants of internal audit effectiveness.

2.2.2 Internal audit effectiveness

The value-adding role of IA presumes that *IA is effective*. Nevertheless, the literature implies that IA effectiveness tends to be influenced by the contextual dynamics within which internal audit is practiced. Al-Twajry, Brierley and Gwilliam (2003) consider compliance with the Standards for Professional Practice of Internal Auditors (SPPIA) as indicator of value adding IA and of internal audit effectiveness. They explored IA practices of Saudi Arabian companies from an institutional theory perspective, taking a sample of 135 companies listed on the Saudi Stock Exchange. They used questionnaires and interviews to assess the extent of compliance of IA practices with SPPIA and found that there was a low level of IA effectiveness and value-added in Saudi Arabia. IA was mainly focused on checking reliability of financial record keeping and information, compliance with rules and regulations, as well as evaluation and examination of internal controls. The study found low levels of auditee cooperation in Saudi Arabian companies, particularly when the audit scope extended beyond the traditional areas. They argue that this situation led to low levels of implementation of IA recommendations. The study's results also suggest that internal audit may be sometimes decoupled, i.e., the function may not operate in compliance with SPPIA despite stakeholders' expectations of compliance. They further noted that the establishment of the IIA chapter in Saudi Arabia provided a normative isomorphic pressure for the development of IA in the Country.

The evidences from the literature, nevertheless, suggest that IA effectiveness is possibly influenced by the context in which IA operates. Burnaby, Hass and Abdolmohammadi (2008), cited in Abdolmohammadi and Sarens (2009) show that there were differences in internal audit practices between Anglo-Saxon and some other countries. Abdolmohammadi and Sarens (2009) also found that cultural differences across countries are associated with differences in the level of internal auditors' compliance with IIA's standards. Further, results of recent studies (e.g., Arena, Arnaboldi & Azzone 2006; Arena & Azzone 2009; Mihret & Woldeyohannis 2008; Mihret & Yismaw 2007) consolidate this notion of the

possible context dependence of IA effectiveness. Albercht et al. (1988) explain differences in IA orientation and imply the context dependence of IA's value adding orientation. They conducted a study to identify factors that make IA to be perceived as effective by managers, IA directors, boards of directors and external auditors. They studied 13 best internal audit departments in the USA identified by the IIA. The results indicate that corporate environment, top management support, quality of internal auditors, and quality of IA work characterize effective IA. However, this result should also be interpreted in view of the results of Yee et al. (2008), which suggest that satisfaction with IA is likely to vary according to the level of management and there can be cultural tension in organizations between commercial and production worldviews.

Albercht et al. (1988) stress the widening scope of IA to embrace a consulting role instead of a total de-emphasis of financial and compliance audit. They comment (1988, p. 3) that IA may be perceived as effective in both the consulting role and the traditional financial audit role.

[...] At the onset of the project, the researchers anticipated that the roles of internal auditing could be conveniently grouped into "types" of audits performed, i.e., financial, operational, EDP, compliance or performance audits.

Moreover, the researchers assumed that highly effective audit functions would concentrate their efforts in their operational or performance audits, because these would benefit the company most. This proved fallacious. In fact, quite the contrary was true. In several of the companies reviewed, the audit departments were strictly financial audits, yet were evaluated as being very effective. The conclusion is that the critical issue is not the type of audit work performed, but rather that the audit work is completely consistent with the objectives and role as determined by top management and the audit committee.'

This quote suggests that what makes IA useful is its effectiveness, regardless of whether its role is assurance or consulting oriented. This notion is supported by other literature (e.g. Al-Twaijry, Brierley & Gwilliam 2003; Arena, Arnaboldi & Azzone 2006) and seems consistent with the IIA's (Institute of Internal Auditors 2004) definition of internal auditing. The definition embodies both consulting and assurance services of IA and stresses the necessity of IA's value adding role as well as its contribution to accomplishment of organizational

objectives. Therefore, it appears reasonable to consider that effective IA is characterized to a larger extent by a broad scope of services than a de-emphasis of financial and compliance audits. Under this broader scope, IA assists management in risk management, operational audits, and traditional financial and compliance audits (Al-Twajjry, Brierley & Gwilliam 2003; Albercht et al. 1988).

Generally, it is apparent from the literature that IA is considered value adding when it is effective. The literature however indicates that there exist few generally accepted approaches to assess IA effectiveness as yet. Arena and Azzone (2009) summarize three approaches employed in the hitherto literature to evaluate IA effectiveness as: a) those using the level of implementation of internal audit recommendations; b) output or outcome measures (using opinions of internal audit customers, i.e., management); and c) process measures (compliance with Statements for the Professional Practice of Internal Auditing [SPPIA]).

Under the first approach, Mihret and Woldeyohannis (2008) compared IA reports of two periods to identify IA findings that were not repeated. They considered percentage of non-repeated findings to total audit findings of an earlier audit period as a measure of implementation of IA findings, which they employed as an indicator of IA effectiveness. Similarly, Arena and Azzone (2009) used a four point scale to measure the extent of implementation of IA recommendations as an indicator of IA effectiveness. Arena and Azzone indicate the limitations of this approach that it does not help consider the type and quality of IA services provided. That is, the approach assumes that all audit findings are equally significant and that the service offer of IA is complete. In addition, when it is employed as in Mihret and Woldeyohannis, it assumes that the audit findings that are not repeated in subsequent audit reports are implemented (Mihret & Woldeyohannis 2008); however, this may not necessarily be the case. The second approach has a conceptual merit of considering IA customers'. This is a considerable advantage especially given that IA is expected to be customer-oriented. Nevertheless, it is difficult to operationalize this approach as backgrounds and experiences of IA customers are apparently diverse (Arena & Azzone 2009).

Under the third approach, Al-Twajry, Brierley and Gwilliam (2003) employed compliance with SPPIA as an indicator of IA effectiveness. This approach, which is adopted for the present paper, possibly offers a more comprehensive set of IA effectiveness indicators. It also relates to the normative standards (i.e., IIA standards) that internal auditors are supposed to follow. SPPIA compliance arguably provides the best approach to measure IA effectiveness because it helps to examine IA systems and processes. This approach also helps to take into account the multi-dimensional nature of IA effectiveness, which appears to be lacking in the existing internal audit literature. That is, it helps measure IA effectiveness from several dimensions than using a single proxy measure. The literature on these measures is discussed in what next. (Major prior studies are summarized on Table 1.)

a. Independence and Objectivity

Raghunandan and Mchugh (1994) consider IA effectiveness as a function of independence and objectivity. Objectivity is considered essential for internal auditors' proper discharge of responsibilities (Christopher, Sarens & Leung 2009). Internal audit's independence from the units being audited has been regarded as a surrogate for objectivity. The IIA stresses this need for independence when it recommends that the IA function report to the highest level of authority in the organization (Institute of Internal Auditors 2004). Mat Zain, Subramaniam and Goodwin (2006) point out that audit committees could enhance IA effectiveness. Reporting to and having frequent meetings with audit committees contribute to internal auditors' objectivity (Cohen, Krishnamoorthy & Wright 2004; Goodwin, Jenny & Yeob 2001; Mat Zain & Subramaniam 2007; Raghunandan & Mchugh 1994; Scarbrough, Rama & Raghunandan 1998). Mat Zain, Subramaniam and Goodwin's study also indicates that audit committees assist in enhancing management action on IA recommendations. Similarly, based on a study of Singaporean companies, Goodwin and Yeob (2001) suggest that IA interaction with audit committee enhances IA independence and objectivity. Furthermore,

they found that organizational size is associated with independence and objectivity.

Internal auditors' objectivity is also enhanced when a board retains the authority to hire and fire an IA director (Raghunandan & Mchugh 1994) and when it reviews IA's plans and performance (Scarborough, Rama & Raghunandan 1998). Thus, although complete independence is literally impossible because internal auditors are organizational employees, an independent frame of mind is essential. This should manifest itself in IA's ability to make the 'tough' recommendations without fear or favour.

Another substantial body of literature concerning the relationship between IA and the board of directors also explains internal audit's corporate governance role. Gramling et al. (2004, p. 194) underscore the importance of IA in enhancing quality of corporate governance. They view IA as a cornerstone of corporate governance that 'serves as a resource to each of the other three parties [1] responsible for corporate governance' (p. 194). Gramling et al. consider IA quality as a measure of the value of this resource. Similarly, Cohen et al. (2004) explain IA's essential position in corporate governance. Furthermore, other literature (e.g. Antoine 2004; Carey, Subramaniam & Ching 2006; Christopher, Sarens & Leung 2009) indicates that the enactment of the SOA following the big financial reporting scandals affirmed the importance of IA in corporate governance. Independent and objective IA could help enhance quality of reported earnings (Cohen, Krishnamoorthy & Wright 2004; Cohen, Krishnamoorthy & Wright 2002; Gramling et al. 2004) and possibly minimize earnings management (Davidson, Goodwin & Kent 2005).

Under the SOA, New York Stock Exchange listed companies are required to maintain IA that provides assistance to the audit committee in risk management and ensuring sound internal control (Gramling et al. 2004). IA contributes to financial reporting quality and fraud prevention (Beasley et al. 2000; Cohen, Krishnamoorthy & Wright 2004). Independence of the IA director from management determines the nature of IA work and its corporate governance role (Miguel & Govindarajan 1984). Furthermore, from the Marxist's (1981)

perspective, internal auditing helps prevent capital from remaining in loss-making areas and assists in detecting fraud.

b. IA Proficiency

The IIA's Standards for Professional Practice of Internal Auditing (1210-Proficiency), require that internal auditors possess the knowledge, skills and competencies needed to conduct an audit (Institute of Internal Auditors 2008). Technical competence and continuous training are considered essential for effective IA. Consistent with this thinking, Gramling and Meyers (1997) find that certification of internal auditors is perceived as an indicator of competence. Also, Al-Twaijry, Brierley and Gwilliam (2003) argue that internal auditors could not have power unless they possess the necessary competencies. Given the broad scope of contemporary IA, an IA department should employ internal auditors with a variety of skills to be able to undertake audits beyond financial activities (Flesher & Zanzig 2000).

Furthermore, Butt (1988) and Libby and Frederick (1990) suggest the importance of auditor experience in enhancing auditors' knowledge. Similarly, Bonner and Lewis (1990) consider years of experience as an indicator of auditors' knowledge and expertise. Although these scholars focused on external audit, the concept of expertise applies equally to internal auditors. This is because internal and external audit share a common body of knowledge and largely similar competencies (Krishnamoorthy 2001).

c. Scope of work and performance

The scope and quality of work is another important factor that reflects IA effectiveness. Specifically, the sufficiency of internal audit's scope of work and the standard with which the audits are planned, executed and reported are important illustrations of effective IA (Al-Twaijry, Brierley & Gwilliam 2003; Albercht et al. 1988).

2.3 Potential antecedents of internal audit effectiveness

The variations in empirical research results pertaining to the dominant focus of internal audit—highlighted in the preceding section—may arguably be explained by differences in context factors grounded in the environments in which empirical evidences are based. Following DiMaggio and Powell (1983) it appears logical to argue that internal audit's role and effectiveness is possibly associated with the isomorphic processes that could shape internal audit practices. Hass, Abdolmohammadi and Burnaby's (2006) review of the American internal auditing literature supports this claim. They point out that, the issuance of the SOA (2002) led internal audit to emphasize compliance audit. Likewise, Nagy and Cenger (2007) highlight a shift to assurance focus of internal audit after the SOA. They also argue that this trend could challenge the function's consulting role. Consistent with this notion, Arena, Arnaboldi and Azzone (2006) provide evidence that in companies to which strict regulations apply, greater focus tends to be on compliance audit. A key insight here is that both assurance and consulting approaches could arguably be considered value adding depending on the context (Roth 2002). Nonetheless, detailed investigations of the role and effectiveness of internal audit with inter-sector comparisons, aiming to explore variables associated with variations across organizations, are limited.

Goodwin (2004) compared internal audit in public and private sector organizations in Australia and New Zealand. She reported that internal audit's status and the tendency to outsource internal audit are higher in the public sector. Goodwin found little differences in internal audit activities and the extent of internal audit interaction with external auditors. She attributes the observed similarities in internal audit practices to the similarity of contexts in the two sectors resulting from public sector reforms in the two countries. This suggests the need for researching related issues in different settings—where the two sectors exhibit variations. Studies in such other settings arguably help identify country- and organization-level contextual factors that possibly influence internal audit effectiveness.

2.3.1 Country attributes and internal audit practice linkages

a. Economic setting and political ideology

The accounting literature suggests the context-dependence of the role of accounting in a society. Some context factors are linked to the economic, political, social, and a cultural reality of the nation in which accounting is practiced. Uddin and Hopper (2001) and Wickramasinghe and Hopper (2005) explain that country-level dynamics influence accounting. Society embodies concept like economy, politics, religion and social relations (Polanyi 2001). Thus, accounting and related systems like internal audit may be influenced by the dynamics that prevail in a society. Consistent with this notion, prior research suggests that country attributes (Al-Twaijry, Brierley & Gwilliam 2003) and some organizational characteristics (Arena, Arnaboldi & Azzone 2006; Mihret & Yismaw 2007; Yee et al. 2008) seem to influence internal audit practices. As a specific example on internal audit, the nature of trainings provided to internal auditors varies across countries as well as across training institutions within a country (Foster & Greenawalt 1995).

Alawattage and Wickramasinghe (2008) find that in some environments, political hegemony plays a more important role as a control mechanism than accounting. Similarly, Ezzamel, Xiao and Pan (2007) explain how a change from a dominantly socialist ideology to a more capitalist one in China influenced accounting perspectives. Specifically, in communist ideologies accounting is considered to be serving a capitalist to maximize wealth at the expense of the proletariat. On the other hand, accounting is taken as a tool for implementing central plan a communist economic system. Lemon and Tatum (2003) point out the factors in the organization's environment like country culture, legal environment, and skill-set of auditors could influence internal audit.

Brennan and Kelly (2007) argue that the adequacy of legal protection influences external auditors' likelihood to whistle-blow. In a similar vein, a country's legal protection could influence the fraud detection role of internal auditors. A country's environment also serves as an overall setting where professionals who serve as internal auditors are produced. The extent to which

universities produce well-trained individuals to serve as internal auditors is one dimension of this notion (Gramling et al. 2004).

Another implication of country setting is the rate of pay to internal auditors. For example, internal audit in developing countries could suffer from the impact of brain drain as trained professionals emigrate to the developed world seeking higher pay (Brierley, El-Nafabib & Gwilliam 2001).

b. Government support for internal audit development

Government influence on the development of internal audit may take different forms. For example, government enacts laws that concern internal audit directly or broad laws that influence the development of IA in more indirect ways. Government could also provide direct support to internal audit professional associations. Al-Twaijry, Brierley and Gwilliam (2003) indicate that government plays a pivotal role in the development of internal audit. They demonstrate how internal audit developed in Saudi Arabia with Government assistance.

c. Level of development of accounting and auditing

The extent of accounting and auditing development in a country is another aspect of a country's setting. This is as important element because internal audit is not quite distinct from accounting. Thus, a complete picture of internal audit professionalisation could be gleaned by examining the overall level of development of accounting and auditing in a country. To explain the process of accounting professionalization, prior studies have employed functionalist, interactionist and/or critical perspectives. Willmott (1986) indicates that the functionalist and interactionist perspectives were dominant before the 1970s, whereas the critical perspective has dominated afterwards.

Under the functionalist view, the crux of professionalization was regarded to rest on the profession's ability to produce the right professional with the competence as well as the commitment to serve society with altruistic motives. Thus, according to this paradigm, the presence of specialized knowledge of members of the profession that enables them to provide honorable, high-skill

service to society has been considered central to the recognition of professions. The interactionist perspective views professional associations as interest groups that defend the interest of their members by convincing the community to grant them the right status in society and to seek their services. Thus, under this view professionalization is a result of symbolic interactions where meanings are negotiated for professions to be accorded the desired image in society (Sian 2006; Uche 2002; Walker, Stephen P 2004; Willmott 1986; Yapa 2006).

More recently, studies on professionalization have taken a critical perspective (Abbott, A. 1988; Chua & Poullaos 1998; Sian 2007; Walker, Stephen P. & Shackleton 1996). These studies employed the sociological theories of Max Weber and/or Karl Marx to examine the professionalization processes within the wider context of power relations. Significantly, Willmott (1986) argues that this perspective extends the interactionist views by subjecting the professionalization process into a broader context of power structures where the state, the public and other stakeholders of the profession facilitate or constrain the professionalization process. From the critical standpoint, professions attempt to attain collective social mobility through the processes of exclusion and closure to restrict the supply of professional services to niche markets to their members. This process involves lots of dynamics with powerful others including state and other components of society. For example, professions operationalize the concept of “furthering the interest of members” by creating professional monopoly via legislation to that end; thus state-profession dynamics set in (Sian 2006; Uche 2002; Willmott 1986; Yapa 1999).

These perspectives on professionalization have been employed in the study of the development of the accounting and auditing professions in the different empirical settings of various developing countries. Examples include Uche’s (2002) study on Nigeria; Sian’s (2006, 2007) study on Kenya; Yapa’s (1999) study on Brunei; and Seal, Sucher and Zelenka’s (1996) study on the Czech Republic. These studies indicate the diverse forms in which accounting professionalization does take place.

Accounting’s development has been considered linked to the development of capitalism in the Western world (Sikka & Willmott 1995). Therefore,

examining context factors such as state ideology, the structure of an economy, the involvement of the state in economic activity, the role of the state in the market for accounting labor, and other relevant factors in varied settings may offer additional insights to the literature into the implication of accounting professionalization to internal audit. To that end, following Willmott (1986) and Chua and Sinclair (1994), a combination of the three perspectives on professionalization has been employed in Chapter 5 to examine the development of accounting and auditing in Ethiopia and draw the implications of IA development.

2.3.2 Organization-level setting and internal audit practice

Internal audit practice is apparently influenced by such factors as organizational category, organizational size, organizational risk exposure, management support to and auditee cooperation with IA, and internal-external audit linkages. Therefore, it appears reasonable to expect that the effectiveness of internal audit also varies among organizations. Potential organization-level influences on internal audit effectiveness are outlined in what follows.

a. Organizational category

The objectives, operating practices and stakeholders of organizations in different sectors apparently vary. Therefore, following institutional theory arguments, it appears logical to expect differences in internal audit's role across sectors. For example, Jacobs (1998) suggests that value for money audit is influenced by institutional context. The type of business in which a company is engaged may also influence the type of internal control and the extent of professional advice that internal audit provides to management (Roth 2002). As a result, the services required from internal auditors may differ by type of business. Goodwin (2003) highlights some differences in the relationship between internal audit and audit committees across sectors. Propensity to outsource internal audit, as well as all the resulting issues are also likely to vary across sectors (Goodwin, J 2004).

b. Company size

As the size of an organization increases, the complexity of the necessary organizational controls as well as the regulatory requirements imposed on it are also likely to increase. This increased complexity and regulation may mean greater demands from internal audit regarding IA's services relating to the control systems of organizations (Arena, Arnaboldi & Azzone 2006). Consistent with this notion, Carcello, Hermanson and Neal (2002) find that audit committees are likely to make reviews of internal audit results in larger companies than smaller ones. They also note that large companies are likely to allocate more resources to internal audit activity.

Similarly, Goodwin and Yeob (2001) suggest that organizational size is associated with the variables that could impact on internal audit independence and objectivity. Furthermore, Raghunandan and Mchugh (1994) point out that company size is positively associated with the strength of internal control systems. Increased company size is also sometimes associated with a propensity to outsource internal audit services to external auditors (Carey, Subramaniam & Ching 2006). Moreover, company size is related to risk and it has been employed as a proxy to measure risk (Cheng & McNamara 2000).

c. Risk exposure of an organization

Felix, Gramling and Maletta (2001) find that availability of internal audit in an organization depends on the level of risk. When organizations are exposed to high risk, management's demand for internal audit in the management of risk may be greater. Internal audit's focus on risk management in turn enables it to align its plans with organizational goals and strategies (Selim & McNamee 1999). As different organizations may be exposed to different levels of risk, the demand for internal audit services may vary accordingly (Arena, Arnaboldi & Azzone 2006). Goodwin and Kent's (2006) hypothesis of a positive relationship between business complexity and existence of internal audit in an organization could also suggest that the level of risk in an organization may influence internal audit practices.

Likewise, Allegrini and D'Onza (2003) examined risk assessment and internal audit in Italian organizations and find variations in the internal audit approaches followed in those organizations.

d. Management support, auditee cooperation, and organizational policy

Management support to internal audit in different forms is also considered as a determinant of internal audit effectiveness (Mihret & Yismaw 2007). This support could, for instance, be in the form of allocating adequate human and material resources to internal audit. It could also be by way of setting the overall tone in organizations that determines the level of cooperation of auditees to IA. The level of auditee cooperation in turn influences IA's extent of accomplishing its objectives properly (Al-Twajry, Brierley & Gwilliam 2003; Mihret & Yismaw 2007). Organizational policy authorizing IA is another potential influence that is closely related to management support and auditee cooperation (Mihret & Yismaw 2007). The management also sets the overall policy setting that helps IA garner authority in the organization and thus gain auditees' acceptance.

e. Internal-external audit linkages

External audit impacts on the development of internal audit. Rittenberg and Covaleski (2001) analysed the dynamics underlying the issue of internalization versus externalization of internal audit. They argue that external audit and internal audit engage in volitional behaviour which leads each profession to redefine its roles to encompass internal audit activities. The authors illustrated this notion with the AICPA's view of CPA firms providing internal audit services to their clients and the IIA's reaction to promote maintaining the service in-house. This suggests that external auditors' interest to provide internal audit services impels the internal audit profession to improve its services with a view to preserving a separate professional status. This maps onto the argument that external audit provides a normative isomorphic pressure for the development of internal audit.

Furthermore, external audit assists the development of internal audit by serving as a market for recruitment of internal auditors (Al-Twajry, Brierley &

Gwilliam 2003; Albercht et al. 1988; Arena, Arnaboldi & Azzone 2006). Also, companies could establish internal audit by initially outsourcing the function to external auditors (Carey, Subramaniam & Ching 2006). On the other hand, where organizations prefer to outsource internal audit services to their external auditors, establishment of internal audit could arguably be delayed or its development attenuated. For instance, Yee et al. (2008) find that some Singaporean organizations did not establish internal audit because of reliance upon external auditors. The SOA banned non-audit services by external auditors (Quick & Warming-Rasmussen 2005) and severely restricted internal audit outsourcing to external auditors (Abbott, L. et al. 2005). This restriction could necessitate launching internal audit in-house. Furthermore, to determine the extent of their reliance on internal audit work, external auditors assess internal audit effectiveness. This reliance is also an area where internal audit adds value to organizations through reduced external audit fees (Krishnamoorthy 2001, 2002; Morrill & Morrill 2003). Internal audit may therefore gain some feedback and improve its effectiveness when internal-external audit linkages are strong. This could be another possible normative pressure for internal audit's development.

2.4 Internal audit effectiveness and organizational performance

Effective internal audit is considered to add value to organizations. As the IIA's (2004) definition states, internal auditing '...helps an organization accomplish its objectives'. Internal audit's role in organizational goal achievement has also been recognized in the literature (e.g., Gramling et al. 2004; Hass, Abdolmohammadi & Burnaby 2006; Roth 2003; Yee et al. 2008). Consistent with this notion, Hermanson and Rittenberg (2003) called for research on the relationship between internal audit effectiveness and organizational performance.

As explained earlier in relation to Bryer's (2006b) view, internal audit's contribution to achievement of organizational objectives could be viewed from the perspective of improving ROA. Internal audit possibly contributes to organizational performance by assisting management to protect or improve ROA.

This could be achieved by IA's consulting role on efficient and effective use of resources as well as its assistance in the management of risk. It also assists the management in the mitigation of wastage and devaluation of capital from fraud (Coram, Ferguson & Moroney 2008; Raghunandan & Mchugh 1994; Yee et al. 2008).

Internal audit cannot be regarded as done unless its findings and recommendations are implemented (Sawyer 1995). Therefore, management action on internal audit recommendations is considered vital for internal audit's contribution to organizational performance (Raghunandan & Mchugh 1994). Consequently, management attention to IA findings is considered essential for enhanced role of internal audit in organizational goal attainment (Albercht et al. 1988; Rittenberg & Covaleski 2001).

2.5 Gaps in the literature

This review has argued that the dynamics in an internal audit setting influence internal audit effectiveness. It has also maintained that effective internal audit could contribute to accomplishment of organizational objectives. The review suggests the following gaps in the literature:

- a. little prior research has extensively examined the influence of context factors on internal audit effectiveness and the possible interplay of these factors;
- b. the literature suggests the possible contribution of effective internal audit to the accomplishment of organizational objectives. However, it provides little theoretical foundation for the study of this contribution and the contribution has not been empirically examined as yet;
- c. measures and theoretical bases of the various concepts related to internal audit effectiveness, its antecedents, and IA's contribution to organizational performance were neither sufficiently clear nor consistent;
- d. the internal audit literature tends to consider internal audit effectiveness as a uni-dimensional construct. This approach fails to properly capture

the multi-dimensional nature of IA effectiveness. Furthermore, the interrelationships among the different dimensions of IA effectiveness cannot be understood if IA effectiveness is conceptualized as a uni-dimensional construct, especially when it is treated as a dependent variable; and

- e. the limited literature to date largely focused on private sector companies in developed economies. As a result, understanding of the global configuration of the IA profession appears incomplete.

Thus, studies to examine internal audit from broader theoretical perspectives in diverse empirical settings become necessary. This is because the profession is getting global in orientation and the internal audit function is playing an increasingly essential role in the commercial world and the public sector alike. To that end, this review has attempted to arrive at a theoretical foundation for the study of antecedents and organizational performance implications of internal audit effectiveness. The following chapter outlines the research design employed in the study in the attempt to fill the gaps identified.

Chapter 3 Research design

The review of relevant literature presented in the preceding chapter has outlined the concept of internal audit effectiveness and highlighted the antecedents that possibly influence it. The review also emphasized that effective internal audit could contribute to realization of organizational goals. The review further argued that internal audit effectiveness could be associated with country- and organization-level dynamics in an internal audit setting. Thus, this study aims to examine internal audit practices in selected Ethiopian organizations to: a) identify contextual influences of internal audit effectiveness, and b) explore the association between internal audit effectiveness and company performance. This chapter outlines the research design in terms of the research questions, conceptual model of the study, measures employed, and research hypotheses.

3.1 Research questions

As outlined thus far, this study aims to examine internal audit practice in selected Ethiopian organizations to identify country- and organization-level contextual influences on internal audit effectiveness. It also explores the association between internal audit effectiveness and performance of companies. To achieve this purpose, the following research questions (RQ) and research sub-questions were addressed:

RQ₁. How does internal audit context influence internal audit effectiveness in Ethiopia?

RQ_{1a}. How does the status of accounting and auditing professionalization in Ethiopia influence internal audit practices?

RQ_{1b}. How does the Government contribute to internal audit development in Ethiopia?

RQ_{1c}. How do organizational category, risk exposure, organizational size, internal-external audit linkages, auditee cooperation, and

organizational policy authorizing IA impact on internal audit effectiveness in Ethiopia?

RQ₂. How does internal audit effectiveness associate with company performance in Ethiopian organizations?

RQ_{2a}. Is there a positive association between internal audit effectiveness and performance of Ethiopian organizations?

RQ_{2b}. Does management action on internal audit findings positively moderate the association between internal audit effectiveness and organizational performance in Ethiopia?

3.2 Conceptual model and measures

3.2.1 Conceptual model

The study was designed in a flexible manner to enable using multiple approaches, data types and sources, and theories. This is done for the following reasons. **First**, the research issues cannot be investigated under a well-developed structure that resulted from a long history of research with altering paradigms (Kuhn 1996). This is because the internal audit discipline is considered not to have reached a state of maturity (Vinten 1996). Consequently, the internal audit profession and the nature of internal audit activities need to be explored further. Internal audit is still on its way towards professionalization because of the optional nature of the need for certification (Gramling & Myers 1997), voluntary nature of compliance with internal audit standards, lack of exclusive authority, and largely short-tenure of internal audit staff (O'Regan 2001). **Second**, apparently little prior research has examined the association of IA effectiveness with context factors (an exception is a recent study by Arena & Azzone 2009). Furthermore, the association of IA effectiveness with organizational performance appears unexplored as yet. Thus, it was felt that this study could contribute useful insights

by employing flexible approaches. The utilization of multiple theories in the conceptual framework, for instance, exhibits some of this flexibility.

The study examined the association between internal audit context and internal audit effectiveness. This was then followed by the study of the association between internal audit effectiveness and company performance. Institutional theory and Marx's theory of the circuit of industrial capital were employed in an integrated fashion. Institutional theory was used to examine how contextual influences impact on internal audit effectiveness. Specifically, the theory is employed to explain how coercive, mimetic, and normative pressures influence variables that shape the extent of internal audit effectiveness.

Marx's theory of the circuit of industrial capital was used to explain the contribution that effective internal audit could make to organizational goal achievement, taking ROA as a proxy. This theory indicates that value is created in the production process. Thus, the notion of value adding internal audit is considered to fit in this framework. This is because internal audit recommendations directly or indirectly relate to the production process (Yee et al. 2008). Figure 3.1 displays the conceptual model for the study.

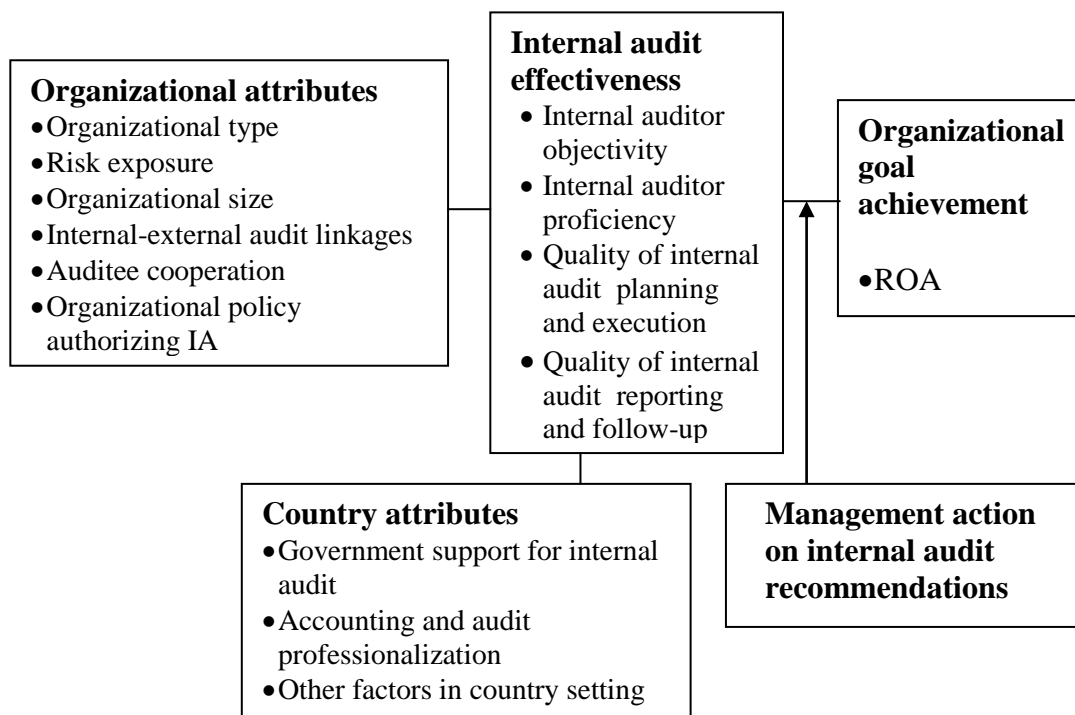


Figure 3-1. Conceptual model of the study

The conceptual model pools together the major concepts discussed in Chapter 2 and portrays their possible relationships. As argued from institutional theory perspective, organizational attributes were used to represent organization-level context. In a similar logic, Country-attributes are considered to represent country-level context. Organizational performance was also measured by ROA; the impact of management action on IA recommendations on the predicted positive association between IA effectiveness and organizational performance was then explored.

As most of the concepts in the model are abstract, they were operationalized to make measurement possible (Kumar 1996). Accordingly, organizational-attributes were represented by six indicators—organizational category, risk exposure, organizational category, company size, organizational policy authorizing IA, and internal-external audit linkages. Country-attributes were represented by government support for internal audit, accounting and audit professionalization, and other related factors.

Internal audit effectiveness was represented by four indicators: internal auditor objectivity, internal auditor proficiency, quality of internal audit planning and execution, and quality of internal audit reporting and follow-up (Al-Twajry, Brierley & Gwilliam 2003; Albercht et al. 1988). Definitions of measures and some general measurement issues are presented next (detailed measurement procedures and issues are considered in Chapter 4).

3.2.2 Definitions of measures

This section provides the definition of measures and general measurement issues as necessary.

a. Internal audit effectiveness

As highlighted in the preceding chapter, the literature suggests the difficulty of measuring internal audit effectiveness and the absence of a generally agreed approach for measurement (Arena & Azzone 2009). Arena and Azzone

identified three approaches from the extant literature: a) level of implementation of internal audit recommendations; b) output or outcome measures (using opinions of internal audit customers, i.e. management); and c) process measures (compliance with SPPIA). As argued in the preceding chapter, compliance with SPPIA (Al-Twajry, Brierley & Gwilliam 2003) was adopted in this study as an indicator of internal audit effectiveness. This approach is considered to provide a more robust measure of internal audit effectiveness. In the introduction to the latest standards, IIA (2008) states:

‘... compliance with the *International Standards for the Professional Practice of Internal Auditing (Standards)* is essential if the responsibilities of internal auditors are to be met.’

That is because it enables measuring internal audit effectiveness by examining internal audit activities and processes. This approach also helps consider the multi-dimensional nature of the construct. Since relationships between context factors and IA effectiveness are tested, conceptualizing IA effectiveness as a multi-dimensional construct helps understand the relationships between the two sets of variables in detail. In addition, the approach helps consider the interrelationships within the set of IA effectiveness dimensions (Fornell & Lacker 1980).

Further operationalisation into ‘second-order’ constructs (Jarvis et al. 2003, p. 204) was undertaken because compliance with SPPIA is also an abstract concept. This operationalisation is undertaken to identify more specific dimensions of internal audit effectiveness, i.e., *internal audit objectivity*, *internal audit proficiency* and *quality of internal audit work performance*. *Objectivity* is concerned with the extent to which internal audit is performed free of bias and external influence; *proficiency* refers to technical skills of the auditor; and *work performance* relates to the scope and quality of work performed by internal auditors (Institute of Internal Auditors 2008). Work performance is further operationalized into *quality of internal audit planning and execution*, and *quality of internal audit reporting and follow-up*. This approach is consistent with prior

empirical research on internal audit effectiveness (Al-Twaijry, Brierley & Gwilliam 2003; Albercht et al. 1988).

Gramling et al. (2004) classify prior internal audit quality research into a) those that consider internal audit's competence, objectivity, and quality of work, which is measured by compliance with the IIA's SPPIA; and b) those that examine auditors judgements and decisions. The approach adopted in this study is therefore consistent with the first approach identified by Gramling et al. (2004).

The empirical literature on the reliance of external auditors on internal audit work (e.g., Abdel-Khalik, Snowball & Wragge 1983; Brown 1983; Felix, Gramling & Maletta 2001; Haron et al. 2004; Margheim 1986) also suggests that the three dimensions help measure effectiveness of internal audit. The second approach examines how objective internal auditors could be in making their decisions. Therefore, under both approaches objectivity is an important concept except that the first approach considers reporting independence as a proxy, whereas the second considers how the auditor makes decisions on specific audit situations. For example Plumlee's (1985) study suggests that auditors objectivity may suffer when they are reviewing the systems in the design of which they were involved. Other studies, e.g., Harrell, Taylor and Chewning (1989) cited in Gramling et al. (2004) consider certification status as a proxy for objectivity.

b. Country attributes

The concept of country attributes refers to government support or other influence on the development of internal audit, accounting and audit professionalization, and the country's level of economic development. This component of the model is for a fully qualitative study. Thus, complete operationalisation is not necessary before the start of the study; instead, the concepts and issues were allowed to evolve during the process of data collection and interpretation.

c. Organizational attributes

Organizational attributes refer to the specific characteristics of an organization that may have implications for internal audit practices. It is operationalized into *organizational type*, *organizational size*, *organizational risk exposure*, *internal-external audit linkages*, *auditee cooperation*, and *quality of organizational policy authorizing IA*. *Organizational type* refers to whether an organization is a government ministry, a state-owned enterprise or a private company.

Risk exposure is the extent to which an organization's operations and structures are complex and the industry is dynamic. *Organizational size* refers to the extent to which the organization is large or small. *Internal-external audit linkages* stands for the extent to which external audit influences adoption of internal audit in organizations and/or the development of internal audit at large. *Auditee cooperation* is the extent to which auditees provide sufficient support to internal auditors to facilitate internal audit work. *Organizational policy authorizing IA* refers the quality of the written documents in organizations defining the authority, duties and responsibilities of the internal audit function. In line with institutional theory arguments developed in Chapter 2, the study examined how variations in these measures are associated with variations in the measures of internal audit effectiveness.

d. Company performance

Company performance refers to the extent to which an organization achieves its goals. Due to differences in the goals of business organizations and ministry organizations, only State-owned enterprises and private companies for were covered for this part of the study. *Return on Assets (ROA)*, i.e., income after tax divided by total assets, was employed as a proxy to measure company performance.

Although ROC is used in the Marxist oriented literature of labour process control (Bryer 2006b), ROA is employed in this study. This is because: first, ROC

is sensitive to a company's financing decisions. That is, part of the variations in return on capital employed could be due to differences in financing choice. Second, it is argued that internal audit assists organizations in the efficient and effective utilization of resources whether these resources are financed by equity or loan. Therefore, as ROA measures returns on all assets regardless of sources of finance, its use is warranted by logic. Third, ROA enables measuring the surplus 'generating capability' of an organization (McNamara & Duncan 1995, p. 6). Thus, it follows that the use of ROA is consistent with Marx's theory arguments.

e. Management action on internal audit recommendations

Management action on internal audit recommendations stands for the extent to which internal audit recommendations are implemented. An approximate measure considered was the number of internal audit recommendations in the past few years divided by total audit findings in the period. An alternative approach employed was IA directors' and staff's perceptions of the extent to which management implements internal audit recommendations.

3.3 Research hypothesis

By employing the measures defined in the preceding section, four hypotheses were formulated and tested to evaluate the conceptual model and answer the research questions. These are outlined in the following two subsections.

3.3.1 Internal audit context and internal audit effectiveness

Internal audit effectiveness could be associated with the setting in which internal audit operates. This is because, as the arguments formulated in the literature review signify, different institutional pressures possibly impact on internal audit practices in different organizations (Al-Twaijry, Brierley & Gwilliam 2003; Arena, Arnaboldi & Azzone 2006). This could in turn shape

internal audit effectiveness. Thus, the following hypothesis (depicted graphically in Figure 3.2) was tested:

***H₁.** The extent of internal audit's compliance with SPPIA is associated with organizational category, organizational size, organizational policy authorizing internal audit, organizational risk exposure, internal-external audit linkages, and auditee cooperation.*

A summary of variables and related measurement issues are summarised in Appendix 1 for each hypotheses.

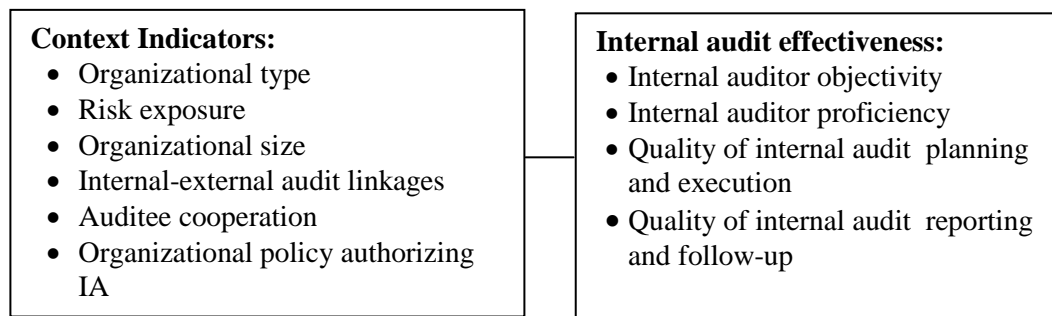


Figure 3-2. Conceptual model for predicted relationship between internal audit context measures and IA effectiveness

Organizational category, i.e., whether an organization is a private company, a State-owned enterprise, or a government ministry was considered a clear distinction among the organizations studied. Thus, its relationship with internal audit effectiveness was also tested separately. The literature (e.g., Goodwin, J 2004) also tends to predict differences in IA practices between government and private sector organizations. In the present study, it is argued that coercive pressures from government and the likelihood of mimetic pressures possibly differ across the three categories of organizations due to differences in the type of ownership and goals of organizations. Thus, Hypothesis 2 (depicted graphically in Figure 3.3) was tested:

H₂. *The extent of internal audit's compliance with SPPIA differs across Government ministries, government companies and private companies.*

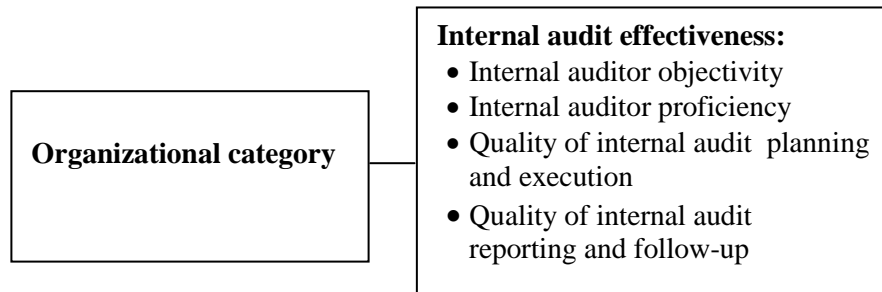


Figure 3-3. Conceptual model for the predicted relationship between organizational category and internal audit effectiveness

3.3.2 Internal audit effectiveness and company performance

As argued in Chapter 2, internal audit is expected to contribute positively to accomplishment of organizational goals (Gramling et al. 2004; Hermanson & Rittenberg 2003; IIA 2004). In this study, a positive association between internal audit effectiveness and performance of companies was predicted. Using ROA as a proxy for performance, Hypothesis 3(a) (shown in Figure 3.4) was tested:

H_{3a}. *Internal audit effectiveness is positively associated with Return on Assets (ROA).*

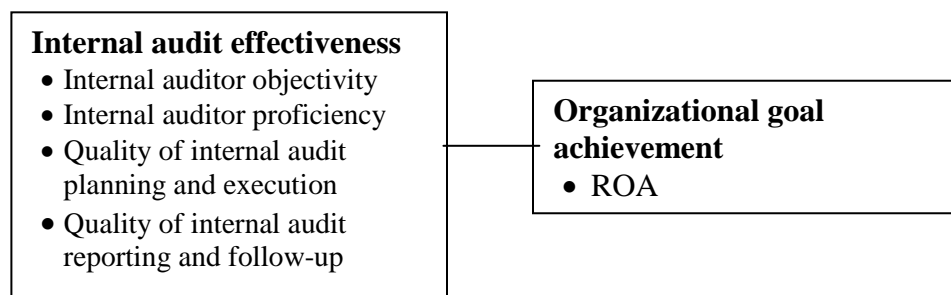


Figure 3-4. Conceptual model for the predicted relationship between indicators of context and internal audit effectiveness

The contribution of internal audit to performance of organizations is expected to be moderated by the extent to which management takes action based on recommendation of internal auditors. This relationship was tested using Hypothesis 3(b) (shown in Figure 3.5):

H_{3b}. Management's action on internal audit recommendations positively moderates the association between internal audit effectiveness and ROA.

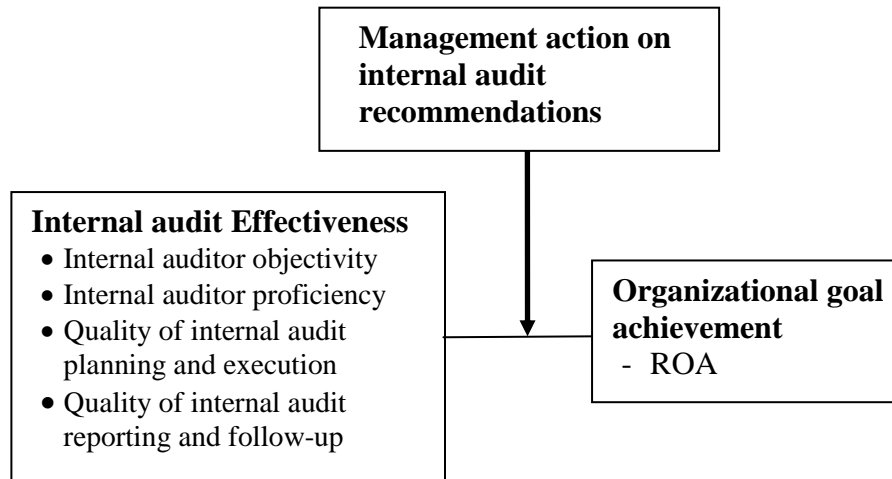


Figure 3-5. Conceptual model for the relationship among implementation of internal audit recommendations, IA effectiveness and organizational performance

3.4 Chapter summary

This chapter has provided the research design employed in the study. It has outlined the research questions, defined concepts/variables, stipulated the relationships among concepts in a conceptual model for the study, outlined general variable measurement issues, and formulated the research hypotheses. The following chapter outlines and explains the detailed procedures employed to address the research questions and to test the hypotheses.

Chapter 4 Research methodology

This chapter outlines and explains the methodology employed to address the research questions and test the research hypotheses formulated in Chapter 3. It starts by explaining the use of mixed methods and the triangulation strategy employed to integrate the quantitative and qualitative components of the study. Measurement and instrumentation procedures as well as the related issues are then outlined. This is followed by a discussion of data collection procedures. Data analysis techniques and procedures are then discussed. Finally, a chapter summary is provided.

4.1 Mixed methods and triangulation strategy

The study employed a combination of quantitative and qualitative approaches. Quantitative data was collected on organizational-level internal audit context, internal audit effectiveness, and organizational performance. Qualitative data was collected for country-level internal audit context, organizational level internal audit context, and internal audit effectiveness.

The use of quantitative and qualitative methods in the study is considered to help counter-balance the limitations of one approach with the strengths of the other and enhance reliability of the results (Dornyei 2003; Grix 2004; Jicks 1979; Punch 1998; Rudestam & Newtom 2001). Specifically, qualitative methods enable flexible and detailed exploration of issues in a broader context while quantitative methods help to make statistical inferences about the relationships between variables (Creswell 2009; Punch 1998). This approach enables detailed interpretation to enrich understanding of the results (Gillham 2000). Both qualitative and quantitative data normally serve to achieve various purposes. As Miles and Huberman (1994, p. 42) comment: ‘Both [quantitative and qualitative data] can be productive for descriptive, reconnoitring, exploratory, inductive, and opening purposes. And both can be productive for explanatory, confirmatory, hypothesis testing purposes.’

Important issues in such mixed methods are how the qualitative and quantitative components are integrated and how priorities are set between the components. Creswell (2009) explains six triangulation strategies that mainly differ in the sequence, priority, and point of integration (i.e., mixing the results) of quantitative and qualitative components in mixed methods.

- a) ***Sequential explanatory strategy:*** This strategy involves collection and analysis of quantitative data followed by qualitative data collection and analysis. Emphasis is given to the quantitative component of the study and integration of results of the two components takes place during the interpretation phase. This model is employed when the researcher intends to use qualitative data to help explain a dominantly quantitative study's results. This strategy is also used to further investigate unexpected results of quantitative studies.
- b) ***Sequential exploratory strategy:*** In contrast to the first model, this strategy involves collection and analysis of qualitative data followed by quantitative data collection and analysis. Priority is given to the qualitative component of the study and integration takes place at the interpretation phase. This strategy enables testing the relationships found in the qualitative study. This approach is especially useful when the researcher deals with an emerging theory.
- c) ***Sequential transformative strategy:*** Like the first two approaches, data collection and analysis for the two components of the study is sequential in this strategy. However, either the quantitative or qualitative component could come first unlike the first two models. In addition, in contrast to the first two strategies, this model is dominantly

guided by theoretical perspectives chosen rather than the methods employed.

- d) ***Concurrent triangulation strategy:*** This strategy helps the researcher to employ separate quantitative and qualitative data to corroborate the results. It enables the researcher to counter-balance the limitations of quantitative and qualitative results. Equal priority is given to both results and collection of quantitative and qualitative data are done concurrently. Creswell notes that this strategy is the most familiar of all the six models and it takes shorter data collection time than sequential strategies.
- e) ***Concurrent nested strategy:*** Like the case of concurrent triangulation, the two components of the study are conducted concurrently. However, there is a priority given to either the qualitative or quantitative component of the study. The component that is not dominant will then be embedded (nested) in the dominant strategy. The nested component could be used to achieve a different research objective.
- f) ***Concurrent transformative strategy:*** In this strategy, methods depend on the theoretical perspectives chosen. The design could be similar to either that of concurrent nested or triangulation strategy. Integration mainly takes place during analysis phase, but it could also be during the interpretation phase.

This study adopted concurrent triangulation strategy. Equal emphasis was thus afforded to both the quantitative and qualitative components. This logic of triangulation helps generate validated and substantiated results (Creswell 2009). The results of each component also helps enrich interpretations of the other (Punch 1998). Therefore, in this study, quantitative and qualitative data were collected

simultaneously and the results were integrated to cross-validate and supplement each other.

4.2 Measurement and instrumentation

General measurement issues regarding the variables used in the study have been highlighted in Chapter 3. This section describes in a greater detail measurement of each variable and indicates the data collection instruments employed. Measurement approaches are summarized in Appendix 1 and data collection instruments employed are presented in Appendices 2 to 7.

4.2.1 Measurement

a. First hypothesis

H₁. The extent of internal audit's compliance with SPPIA is associated with organizational category, organizational size, organizational policy authorizing internal audit, organizational risk exposure, internal-external audit linkages, and auditee cooperation.

Internal audit effectiveness was measured on a 5-point Likert-type scale that ranges from 'Strongly Agree' (coded as 5) to 'Strongly Disagree' (coded as 1) or 'Always' (coded as 5) to 'Never' (coded as 1) depending on the nature of the items for each dimension of IA effectiveness. Internal audit directors and staff were asked to indicate their opinions about internal audit in their organizations. As indicated in Chapter 2, *internal audit effectiveness* was measured by the extent of compliance with Standards for the Professional Practice of Internal Auditing (SPPIA). Thus, *internal audit objectivity, internal audit proficiency, quality of audit planning and execution and quality of reporting and follow-up* were measured using internal audit practitioners' views using specific items indicated on Appendix 2 (Sections E to I).

Although internal audit practitioners' views are also a proxy rather than direct measure, this is considered as the best practical measure. This is because practitioners are expected to have intimate knowledge of the concepts of interest to

the study. The validity of the measures is considered to be acceptable for the following reasons. First, most items relate to statements of fact, as compared to mere opinion. This is because auditors possess firsthand experience of the concepts of interest. Second, the literature indicates that constructs (i.e., variables measured using respondents' opinions) could be used to measure research phenomena about individuals and organizations so long as appropriate steps are taken to ensure validity and reliability (Kwok & Sharp 1998). As a step to ensuring validity, the items in the questionnaire in this study are largely derived from prior research instruments and/or the literature (discussed in Section 4.2.2). This procedure is considered to have ensured close relationships between the constructs and the items used to represent these constructs, thus enhancing construct validity (Brownell 1995). Prior studies (e.g., Goodwin, Jenny & Yeob 2001; Mat Zain & Subramaniam 2007; Mat Zain, Subramaniam & Goodwin-Stewart 2006) also used internal audit practitioners' views to measure concepts pertaining to internal audit practice.

As internal audit objectivity, proficiency, planning, and reporting are abstract concepts, further operationalisation was made to make them measurable. This operationalisation was undertaken by identifying specific constructs on which internal audit practitioners were asked to express their views. These constructs are specific aspects of internal audit department's organization, staffing, and work performance. Thus, 9 and 7 items were identified to measure *proficiency* and *independence and objectivity* respectively as shown in Section II, Instrument Set A (Appendix 2). Furthermore, appropriate items were identified for internal audit scope, audit planning and execution, and internal audit reporting, follow-up and quality review. To measure these concepts, 15, 8, and 8 items respectively were developed as shown in Section III, Instrument Set A (Appendix 2).

On the other hand, *risk exposure*, *organizational size*, *internal-external audit linkages*, *auditee cooperation*, and *organizational policy authorising IA* were measured using internal auditor staff and directors' opinions, on a 5-point Likert-type scale. This type of scale approximates interval scale (Bagozzi 1994). Therefore, such a scale helps generate data that can be subjected to statistical

analyses (Bohrnstedt & Knoke 1994; Hair Jr., Bush & Ortinau 2006). Prior studies that employed similar research design and statistical techniques, e.g., Schul, Pride and Little (1983), employed a 5-point Likert-type scale.

Audit directors and staff are expected to have adequate knowledge of the variables in this hypothesis as all of the variables relate to internal audit practices. Internal auditors supposedly possess intimate knowledge of several aspects of their organizations. Thus, their views were considered appropriate source of data on these context variables. *Quality of organizational policy authorising IA, Auditee cooperation, risk exposure, and internal-external audit linkages* were measured by 5, 3, 7, and 5 items respectively (Appendix 2, Section I). *Organizational type* and *organizational size* were captured in Section I of Instrument Set A using Question 1 and Question 3 respectively.

Classical measurement theory was invoked in developing the instruments. Most phenomena of interest are latent variables that cannot be measured directly. As a result, participants' views were considered as a proxy for the latent variables. Underlying this approach is the notion that items under each latent variable are correlated to one another if each item in the variable are correlated to the latent variable (DeVellis 2003).

b. Second hypothesis

H₂. *The extent of internal audit's compliance with SPPIA differs across Government ministries, government companies and private companies.*

Measures of internal audit effectiveness in Hypothesis 1 are employed for Hypothesis 1 as well. The dependent variables in H₁ are the dependent variables in H₂ as well. The independent variable of this hypothesis (organisational category) is a nominal measure of organizational classification into Government ministries, State-owned enterprises and private companies (Instrument Set A, Item 1).

c. Third hypothesis

H_{3a}. Internal audit effectiveness is positively associated with Return on Assets (ROA).

Company performance was measure only for private companies and State-owned enterprises. *Return on Assets*, i.e., income after tax divided by total assets, was used as a proxy to measure company performance. Measurement of internal audit effectiveness is the same as that of the first research hypothesis. ROA was computed using financial statement figures. Although Bryer (2006) used ROC as a measure of companies' value-added, ROA was used for this study. This is because ROC is sensitive to the capital structure of organizations. Nevertheless, internal audit's contribution to efficient and effective utilization of assets is equally applicable to businesses that are largely equity-financed and to those that are dominantly debt-financed.

H_{3b}. Management's action on internal audit recommendations positively moderates the association between internal audit effectiveness and ROA.

The new variable introduced in this sub-hypothesis, *management action on internal audit recommendations*, was measured by taking the respondents perception of the extent to which management implements internal audit recommendations (Item 7, Instrument Set A, Section III [I]). An alternative approach employed was the ratio of internal audit recommendations implemented to total number of internal audit recommendations made in the past two years. The first 10 items of Section IV, Instrument set A was used for this purpose.

4.2.2 Data collection instruments

Five sets of data collection instruments were employed. *Instrument set A* was a questionnaire for internal audit directors and staff. Set B was an interview checklist for IIA-Ethiopia. Set C was an interview checklist for internal audit directors. Set D was a questionnaire for middle level managers of the organizations included in the study. Finally, Set E was a document review guide.

Instrument set A (Appendix 2) was a questionnaire for internal audit practitioners (i.e., IA directors and staff). Items were grouped under sub-headings to help respondents gain easy grasp of the questions asked (Zikmund 2003). In the first part of the questionnaire, respondents were asked about their organizations, including *organizational category* and *size*. In the second part, *organizational policy authorizing internal audit*, *risk exposure of organization*, *auditee cooperation*, and *internal-external audit linkages* sections contained items on IA context. In the third part, respondents were asked about internal audit organization and operation under five sections, i.e., internal audit *proficiency*, *independence and objectivity*, *scope of work*, *planning and execution*, and *reporting, follow-up and quality review*. The final part contained questions on a respondent's profile.

Instrument set B (Appendix 3) was a questionnaire for collecting data on the views of managers on internal audit effectiveness. Cooper, Leung and Mathews (1994) explain that considering managers' views enables having a complete picture of internal audit practices. To this end, this questionnaire was aimed at obtaining the views of finance, procurement, operations, marketing, and human resources managers on some of the concepts under internal audit effectiveness. Middle-level managers' views (instead of those of top management or boards of directors) were used in this study. This is because, **first**, most of the middle-level management positions are common in the three groups of organizations covered in the study, i.e., Government ministries, State-owned enterprises, and private companies. On the other hand, the nature and composition of top management, board of directors⁸, and audit committees are not expected to be similar across the three groups of organizations studied. **Second**, occupants of these positions are expected to possess knowledge of several dimensions of internal audit effectiveness due to their close working relationships with internal auditors. Therefore, the use of middle-level managers' views in this study enabled to generate data from management's perspective within the scope of the research objectives. In addition, a more complete picture of an internal auditor's scope of

⁸ For example ministries in Ethiopia do not have boards of directors. Also, the private companies studied do not have audit committees.

work could be gained by taking views of multiple middle-level managers in each organization.

Larger number of items in a construct enhances reliability of measurement (Churchill Jr 1979; Kwok & Sharp 1998). Thus, multiple items were used to measure each construct, to the extent the literature warrants. Kwok and Sharp recommend at least three items under each scale. This procedure helps reduce measurement error as errors will cancel out (Brownell 1995). In Instrument Set A, Auditee cooperation has three items and all other constructs have at least five items.

To enhance validity, items in the data collection instruments (Bradburn, Sudman & Wansink 2004) were largely adapted from prior empirical studies and professional standards for internal and external audit. Mainly, Al-Twaijry, Brierley and Gwilliam (2003) was used for Instrument Set A (with permission granted by the second-named author). After selecting relevant items, modifications to wording and response formats were made as necessary. This is because the design of the present study is not identical to that of Al-Twaijry, Brierley and Gwilliam (2003). Then, IIA's Standards for the Professional Practice of Internal Audit (2008), International Standards on Auditing (ISA) 610, i.e., *Auditor's consideration of the internal audit function* (IFAC 2007), and other relevant literature were considered to ensure that latest developments in the field are incorporated. The IIA's standard is considered as a useful source of measures as it can apply to internal audit in a wide range of contexts. As the introduction to the standard, IIA (2008), states:

'Internal audit activities are performed in diverse legal and cultural environments; within organizations that vary in purpose, size, complexity, and structure; and by persons within or outside the organization. While differences may affect the practice of internal auditing in each environment, compliance with the *International Standards for the Professional Practice of Internal Auditing (Standards)* is essential if the responsibilities of internal auditors are to be met.'

Furthermore, the use of ISA 610 is expected to further enhance the validity of measures as extant literature suggests that external auditors' reliance on internal audit work largely depends on internal audit effectiveness (Mat Zain,

Subramaniam & Goodwin-Stewart 2006). This is because prior research on the reliance of external auditors on internal audit has mainly focused on objectivity, competence, and work performance of internal auditors (Krishnamoorthy 2001).

In the questionnaire, a 5-point Likert-type scale with response options ranging from 'Strongly Agree' (codes as 5) to 'Strongly Disagree' (coded as 1) was employed when questions sought responses that suit this format. Where the items sought responses about frequency of activities, response options ranging from 'Always' (codes as 5) to 'Never' (codes as 1) were used on a five-point scale. The descriptors 'Strongly Agree' (5), 'Agree' (4), 'Neutral' (3), 'Disagree' (2), and 'Strongly Disagree' (1) or 'Always' (5), 'Often' (4), 'Some times' (3), 'Seldom' (2), and 'Never' (1) were provided.

In such type of scales, it is necessary to clearly indicate the attitude object about which opinions are sought (Bradburn, Sudman & Wansink 2004). Thus, instructions are given that clearly state that respondents were expected to provide opinions on statements as applied to their organization⁹.

Likert-type scale has been used in prior research that applied statistical analysis. For example, Kalbers and Fogarty (1995) used a 5-point Likert-type scale to test hypotheses on the consequences of internal auditor professionalism. Flesher and Zanzig (2000) employed the same type of scale to test differences in management accountants' and internal auditors' views of internal audit. A 5-point Likert-type scale is also employed by Koo and Sim (1999) in the study of auditors' role conflict in Korea. Similarly, Kalbers and Cenker (2007) applied a 7-point Likert scale to test hypotheses on organizational commitment of external auditors. For the present study a 5-point scale was used because it is the most widely used in prior research (Dornyei 2003; Robson 1993). The literature shows that an even-point scales (i.e., with no 'Neutral' response option) and odd-point scales (i.e., with a 'Neutral' response option) have their own merits and limitations. The data, nevertheless, would not be substantially different by the use of either option (Bradburn, Sudman & Wansink 2004; Dornyei 2003). In line with Bradburn

⁹ Bradburn, Sudman and Wansink (2004) explain that attitude and opinion are clearly. However they consider opinion as measurable on a single item and attitudes as a set of opinions. Similarly, Dornyei (2003) share the opinion that the two are not clearly distinguishable and point out that attitudes opinions are more factual.

Sudman and Wansink's recommendation an odd-point scale is used for the present study.

In terms of length, Instrument Set A contained four pages. As DeVellis (2003) recommends, an attempt was made to optimize between reliability and brevity. Long items would enhance reliability, whereas shorter items would enhance response rate, thus decision of scale length is a compromise between the two (Kwok & Sharp 1998). Frazer and Lawley (2000) indicate that questionnaire size of more than 12 pages could be considered too long. Dornyei (2003) recommends a questionnaire of more than four pages only in exceptional cases. In the present study a four page questionnaire was used. This is considered to be not too long to be a burden on participants while at the same time it is felt long enough to provide a reliable measure of the phenomena of interest.

Instrument set C (Appendix 4) is an interview checklist employed to collect data from IA directors. This instrument is adapted from Arena, Arnaboldi and Azzone (2006) with permission of the first-named author. The checklist is accompanied by a consent form that was prepared in accordance with the Human Research Ethics requirement of the University of Southern Queensland. The body of the checklist comprised of three sections. The first section seeks information on organizational characteristics; the second contains questions on internal audit department characteristics; and the third asks about a participant's profile.

Finally, interviews with leaders of professional accounting and auditing associations in Ethiopia and document reviews were focused on country attributes. *Instrument set D* (Appendix 5) was used to collect data from IIA-Ethiopia on some aspects of the internal audit profession in Ethiopia, i.e., IIA-Ethiopia, Ethiopian Professional Association of Accountants and Auditors, and Accounting Society of Ethiopia. *Instrument set E* (Appendix 6) was a document review checklist used to guide the gathering of secondary data from various documentary sources. It specifies the documents to be reviewed and the objectives of the reviews.

4.2.3 Pre-testing of instruments

Kwok and Sharp (1998) emphasize the importance of proper measurement when a study involves constructs (i.e., variables measured using respondents opinions). With this understanding, the data collection instruments of this study were pre-tested at several stages before the actual data collection began. Fowler (2002, p. 114) points out that pre-testing a self-administered questionnaire is essential but difficult because the researcher cannot observe difficulties in answering questions and problems in question wording. Fowler indicates that the best way for pre-testing is to conduct it in person so as to clarify questionnaire problems.

The following steps were taken to ensure proper measurement. First, all the instruments were subjected to reviews by four PhD candidates who are researching internal audit or related areas. Second, all the instruments were subjected to a review by an auditing professor. Third, instruments Set A and Set B were reviewed by a survey research methodology professor. Finally, to ensure clarity of wording and overall adequacy of the items and response formats (Roberts 2004), instrument set A was pre-tested with fifteen individuals who would otherwise have been potential respondents. Instrument Set D was pre-tested with six individuals with similar background as potential respondents. Based on the comments and suggestions from the reviews and the pre-testing, the data collection instruments were revised before data collection commenced. These procedures were considered to have enhanced the reliability of measurement, which in turn possibly helped enhance statistical power (DeVellis 2003).

4.3 Data collection procedures

4.3.1 Sampling methods and strategy

Stratified purposive sampling was adopted for the study. This is because the purpose of the study was to generate inferences about the relationships among the variables rather than attempt to derive statistical generalizations about a population (Oppenheim 1992). That is, the use of these sampling methods enables

comparison of results (Miles & Huberman 1994) among the three categories of organizations in the study. As Brownell (1995, p. 31) points out

‘[T]hey [i.e., surveys] are ... powerful tools in analytic of “relational” studies undertaken to explore a specific hypothesis. In this sense, they can be employed by the researcher having much the same motive as the experimenter’.

The use of purposive sampling enables generating meaningful insights that help to gain a deeper understanding of the research phenomena by selecting the most informative participants (Carver 1978; Cohen 1990; Neuman 2006; Patton 1990).

In such a sampling strategy, stratification enables comparisons (Patton 1990) among groups of organizations. The limitation of this sampling approach—i.e., not enabling statistical generalizations on a population—remains. However, the technique is considered the most appropriate in view of the purpose of the present study. The interview and document review components of the study are designed with a qualitative nature. Furthermore, the purpose of the study was analytical, i.e., it seeks to understand the relationships among variables. Thus, the qualitative components and analytical purpose of the study require obtaining the right type of respondents rather than aiming to maintain representativeness. A quote from Oppenheim (1992, p. 21) clarifies this point:

‘The analytical, relational survey is set up specifically to explore the associations between particular variables. Its design is in many ways similar to that of the laboratory experiment. [...] [L]ike experiments in the laboratory, it is usually set up to explore specific hypotheses. It is less oriented towards representativeness and more towards finding associations and explanations, less towards description and enumeration and more towards prediction, less likely to ask “how many” or “how often than “why” and “what goes in what”.’

Studies that employed a similar research design to the quantitative component of this study have employed purposive sampling. For example, and Mahmood and Mann (1993) used a non-random sample for canonical analysis¹⁰ to study the association between investment in information technology and organizational performance. Similarly, Reimann (1975) employed a purposive

¹⁰ Canonical analysis, discussed later in this chapter, is employed for Hypothesis 1 of this study.

sample to study the association between organizational performance and leadership competence using canonical analysis. Reimann (p. 234) explains:

‘Since the sample of firms studied was not random in any sense, statistical hypothesis testing was not used with the usual purpose of generalizing to some population of organizations. Rather it was used to determine which of the observed relationships were strong enough not to have been likely to occur by chance alone.’

Mainly, organizations are the units of analyses in the study; thus, sample organizations were selected in the first stage. Government ministry organizations, State-owned enterprises, and private companies that have internal audit departments were included. In all the three categories, organizations that were willing to participate in the study were included. Ensuring willingness of the organizations was necessary because as human participants were involved in questionnaires and interviews, it was considered ethical to obtain such permissions. This procedure is also a requirement in the University of Southern Queensland’s research ethics standards.

To minimize the impact of organization-specific characteristics on the conclusions, organisations from various categories were considered (Kalbers & Fogarty 1995). Therefore, as in Kalbers and Fogarty (1995), manufacturing firms, merchandisers, banks, insurance companies, utilities, and Government ministries were represented in the sample. In the ministry category, all federal ministries of the Government of Ethiopia were considered as potential participants. In identifying the organizations to be included from the SOEs’ category, a discussion was conducted with an officer at the Privatization and Public Enterprises Supervisory Agency (PPESA). This discussion indicates that SOEs are classified as level 1, 2 or 3 where level 1 is the highest rank and 3 is the least by size. Thus, SOEs in level 1 were considered for this study. Private companies in the study were limited to banking and insurance sub-sectors. This is because, a preliminary assessment revealed, most private companies in Ethiopia have not adopted internal audit.

The list of ministry organizations was taken from the Ethiopian Ministry of Foreign Affairs, and that of private companies was obtained from the register of companies that the Ministry of Trade and Industry maintains. The list and

addresses of State-owned enterprises were taken from the register of Privatization and Public Enterprises Supervisory Agency. Addis Ababa University¹¹ wrote letters to the selected organizations inviting them to participate in the study. Questionnaire respondents and interview participants in the sampled organizations were approached once permissions to do so were obtained from their organizations.

All internal audit directors and staff in the organizations included in the sample were considered as potential participants. All ministry organizations were invited to participate in the study and the ones which showed willingness within the data collection period were included. For State-owned enterprises, those that operate in Addis Ababa¹² were chosen because organizations in the other two categories were all based in Addis Ababa. The ones that agreed to participate in the study were then approached. As for private companies, the initial assessment indicates that only financial institutions have internal audit departments. Therefore, all of these companies in the banking and insurance industries were approached and a similar procedure as used for the other two sectors was applied. Questionnaires were distributed to all internal auditors and directors in the organizations included in the study.

Questionnaire Set B was also distributed to occupants of middle-level management positions in the sample organizations as data was collected from middle-level managers of procurement, finance, operations, human resources, and marketing managers departments.

a. Questionnaire survey sample

As a general guide, the sample size for the survey of internal auditors was determined such that a minimum of ten observations per variable would be achieved to generate suitable data for canonical analysis¹³ (Hair Jr. et al. 1998). However, the objective in the study was to collect data from as many respondents

¹¹ Addis Ababa University is an Ethiopian Government institution that partly financed this study.

¹² Addis Ababa is the capital city of Ethiopia.

¹³ Data analysis techniques (including canonical analysis) assumed in sample size determination are explained in sections that follow.

as possible to improve statistical power. Lauter (1978), cited in Hair et al. (1998), suggests a sample size of 42 to achieve a statistical power of 0.80 with eight independent variables when the effect size is medium. Lauter also suggest that a sample of 160 to identify a small effect size at the same level of statistical power. The present study aimed at identifying up to a small effect size with 0.80 statistical power.

A total of 242 questionnaires were distributed for Set A, of out which 193 questionnaires were completed and returned, and 188 were usable. In Set B, 122 questionnaires were distributed, of which 42 were returned and 39 were usable. Thus, this gives usable response rates of 77.7 and 32 per cent for Set A and Set B respectively. The usable sample for set A is considered as sufficient because a response rate of 70 percent or above is usually taken as adequate (Roberts 2004).

The size of the sample is also considered sufficient when assessed in view of the experience of prior research in auditing. For example, Goodwin and Yeob (2001) used 65 chief internal auditors; Mat Zain, Subramaniam and Stewart (2006) employed 76 audit directors; and Flesher and Zanzig (2000) used 77 internal auditors and 64 management accountants. Likewise, Felix, Gramling and Maletta (2001) surveyed 66 external audit partners to identify the variables that are associated with the external auditors level of reliance on internal audit work. Similarly, Scarbrough, Rama and Raghunandan (1998) and Raghunandan, Read and Rama (2001), James (2003) used sample of 118, 114, and 65 respectively. On the other hand, a usable sample of 32 for Set B is considered relatively low.

b. Interview participants

Interview participants were selected with a view to generating insights from individuals that are expected to provide rich information on the phenomena of interest rather than attempt to draw a representative sample (Gall, Borg & Gall 1996; Lincoln & Guba 1985; Patton 1990). Interviews were, however, conducted in each of the three sectors because understanding differences across the three categories of organizations was an important aim of the study. Therefore, the sample size was determined by the point of redundancy in each category. That is, interviewing IA directors continued until such time that new insights were no longer forthcoming. Accordingly, a total twenty-three internal audit directors were

interviewed. In addition, interviews were conducted with leaders of three accounting and auditing professional associations in Ethiopia.

4.3.2 Questionnaire administration

After permissions were granted by the respective organizations, the researcher hand delivered the questionnaires to the respondents in their office addresses. Then, he visited the respondents for follow-up and collection of the completed questionnaires. This procedure is considered to have helped enhance response rates (Kumar 1996). To further improve response rates, contact persons were assigned in the sampled organizations. Prior studies show that such an approach facilitates collection of completed questionnaires and improves response rates (Kalbers & Fogarty 1995).

4.3.3 Qualitative data collection procedures

In the qualitative component of the study, attempt was made to interpret the phenomena of interest in a broader context. Data was collected through semi-structured interviews with internal audit directors, an executive committee member of IIA-Ethiopia, and executive committee members of two professional accountancy associations in Ethiopia. The interview's semi-structured design helped foster the flexibility that the purpose of the research presumed. That is, while the structured component enhanced reliability of the data collected (Albercht et al. 1988; Kumar 1996) the partially unstructured element offered the flexibility required for the qualitative component of the study (Maxwell 2005). A review of proclamations, Government directives, professional association publications, and other documents related to internal audit practice in Ethiopia was also conducted. This served to enrich the data obtained via the interviews and helped consolidate the major themes that emerged.

The interviews were conducted over a period of three months from October to December 2008. Following permissions from the organizations, a letter in the name of researcher was hand delivered to IA directors inviting them to participate in an interview. Subsequently, the researcher organized the interviews in

consultation with the participants. The researcher conducted all the interviews to establish data reliability. He briefed the participants on the purpose of the interview, clarified the procedures to be followed, and outlined the research ethics requirements of the University of Southern Queensland that obliges him to respect all the participants' rights. Then, he made appointments for the interviews at the convenience of the participants. This clarification of purpose of the study to participants was made to ensure that all participants had similar understanding about the study, thus enhancing data reliability (Fowler, 2002). Explanation of the standard of research ethics that the researcher was committed to uphold is also expected to have helped establish data reliability by encouraging genuine responses from participants.

The interviews lasted 58 minutes on average; minimum and maximum durations were about 30 and 90 minutes respectively. The interviewer read questions as presented in an interview checklist. This checklist is developed by adapting the checklist employed for Arena, Arnaboldi and Azzone (2006) after obtaining permission from the first-named author. While follow-on questions were asked as necessary, the interviewer took maximum care not to interrupt respondents. None of the interviews were digitally recorded. It was felt that recording the interviews could reduce data quality as respondents may not provide genuine responses to some questions if the interviews were recorded. Instead, the interviewer fully transcribed the participants' responses. To ensure that accurate meanings would be extracted from the data, each day's transcripts were entered into an electronic master file and a summary of major themes noted on the same day of each interview.

Furthermore, the interviews with the executive committee members of the three professional accounting and auditing associations supplemented the results. The interview with the participant from IIA-Ethiopia took about 2 hours. The interviews with the participants from EPAAA and ASE took about 1.5 hours and 1 hour respectively. These interviews were conducted largely using a similar procedure applied for the interviews with the IA directors. Nevertheless, attempts

were made to make interviews with professional association leaders less structured to gain as much deeper understanding about the profession as possible.

4.4 Data analysis

This section outlines the detailed data analysis techniques and procedures employed for both the quantitative and qualitative data.

4.4.1 Quantitative data analysis

a. Data screening

Before hypothesis testing was conducted, quantitative data were explored for missing values, outliers, and distributional characteristics. Missing values were examined to ascertain that they were random (Hair Jr. et al. 1998). Items in Instrument Set A with large number of missing values were excluded, and the remaining missing values were not replaced by imputed values to avoid a possible bias. This omission is expected to have little impact on the data as median values of the responses for all items under each dimension were taken for hypothesis testing. This procedure is expected to enhance the reliability of the data. For the first two hypotheses, the statistical technique (i.e., canonical analysis) assumes normal distribution of the data. Thus, data transformations were necessary when the distributions substantially deviated from normality (Hair Jr. et al. 1998). Outlier cases were excluded from the data for the third hypothesis. On the other hand, there were no outliers applicable to the other hypotheses as all the values took one of the five response options.

Kwok and Sharp (1998) explain the importance measurement reliability in accounting research and suggest Cronbach's alpha as a measure. The reliability of the measures was assessed using Cronbach's alpha for Likert-type data. This is a valid measure that has been widely used by prior research, including those in auditing (e.g., Koo & Sim 1998), that employed Likert-type data (Kerlinger & Lee 2000). When response options ranged from 'Always' to 'Never', Spearman's

correlation was used to assess correlation because the data generated by such a scale is ordinal in nature.

b. Units of analysis and units of response

Identifying the level of analysis for the study is an important step to ensure that conclusions reached are valid (Kwok & Sharp 1998). Kwok and Sharp (1998) explain that in most accounting research, individuals are the units of response and organizations serve as the units of analysis. In the present study, an individual was the unit of response and an organization was the unit of analysis for the first two hypotheses. Organizations were also the units of analysis for the third hypothesis. The units of measure for this hypothesis were organizations for ROA and individuals for IA effectiveness. For the qualitative section of the study, organizations were the units of analysis and individuals were units of response.

c. Test of Hypotheses

The data collected using instrument Set A was converted so that it suitably represents the variables in the hypotheses. This was done by taking median values of the item responses for each construct. Median values were chosen because item responses that ranged from ‘Always’ to ‘Never’ and ‘Strongly Agree’ to ‘Strongly Disagree’ generate ordinal data.

Procedures for testing Hypothesis 1

H₁. The extent of internal audit’s compliance with SPPIA is associated with organizational category, organizational size, organizational policy authorizing internal audit, organizational risk exposure, internal-external audit linkages, and auditee cooperation.

Canonical analysis was conducted using internal audit effectiveness as a set of dependent variables and context measures as a set of independent variables. This technique is chosen because the hypothesis predicts association between the

two sets of variables. This technique is appropriate because it enables to identify the association between the two sets of variables while accounting for interrelationships within each set (Van Auken, Doran & Yoon 1993). As a results of this feature, this techniques has been employed in empirical research in accounting and finance (e.g., Fornell & Lacker 1980; Fraser, Phillips Jr. & Rose 1974; Johnson, W. B. 1978; LeClere 2006 ; Milliron 1985; Shim & Lee 2003), management (e.g., Luthans, Welsh & Taylor III 1988; Reimann 1975), marketing (e.g., Schul, Pride & Little 1983), and information technology (e.g., Grandon & Pearson 2004; Mahmood & Mann 1993). Canonical analysis enables measuring strength of association between sets of variables (Alpert & Peterson 1972). As a result, canonical analysis is highly recommended for accounting research to test associations between two sets of variables without disregarding interrelationships within each set. Fornell and Lacker (1980, p. 469) argue:

‘Accounting researchers are commonly confronted with research problems which may be characterized by a multiple criteria-predictor orientation. Empirical work on these topics commonly employs a single criterion-single predictor methodology. The problem with this approach is that single criterion procedures ignore interrelationships within the criterion set.’

Furthermore, some of the variables in the present study were measured at ordinal or nominal level. Thus, canonical analysis is an appropriate technique to because it enables accommodating these variable in the analysis (Hair Jr. et al. 1998). Most of the variables in the hypothesis are also measured using a 5-pont Likert-type scale. Schul, Pride and Little (1983) employed canonical analysis to test an association between two sets of variables measured at a 5-pont Likert-type scale.

Statistical significance of the relationships was tested using Hotelling’s trace and practical significance of the canonical functions was assessed using coefficients of redundancy. A level of significance of 0.05, which is the typical level of Type I error used for most studies (Alpert & Peterson 1972; Hair Jr. et al. 1998), was used to increase statistical power and enable detection of effect that might be overlooked at alpha level of 0.01 (Gall, Borg & Gall 1996).

Procedures for testing Hypothesis 2

H₂. The extent of internal audit's compliance with SPPIA differs across Government ministries, government companies and private companies.

Kruskal-Wallis test was conducted to test H₂ because this hypothesis postulates differences in internal audit effectiveness in the three categories of organizations. The three indicators were represented by one indicator by taking the median values of the responses. Organization category served as a classification variable. This test is considered appropriate because organizational category is a trichomous variable while the dependent variables are ordinal (Coakes 2005). This test is also widely employed in auditing research that involved a similar design (e.g., Agoglia, Kida & Hanno 2003; Joyce & Biddle 1981; Monroe & Woodliff 1994; Mulligana & Inkster 1999; Spathisa, Doumpos & Zopounidis 2003; Whittred 1980).

Procedures for testing Hypothesis 3

a. Sub-hypothesis 3a

H_{3a}. Internal audit effectiveness is positively associated with Return on Assets (ROA).

Spearman's zero order correlation was employed to test H_{3a}. This test is chosen because internal audit effectiveness is generated as ordinal data. This test has been widely employed in and auditing research having similar design (e.g., Ali Fekrat, Inclan & Petroni 1996; Blacconiere & DeFond 1997; Fontes, Rodrigues & Craig 2005). Because independence and objectivity, proficiency, and work performance are interrelated (Krishnamoorthy 2002), it was felt that the data for each construct could be correlated. Thus, to arrive at valid results, it was necessary to take a single value representing the variables (Field 2005). Therefore, a single value was derived by taking median values.

b. Sub-hypothesis 3(b)

H_{3b}. *Management's action on internal audit recommendations positively moderates the association between internal audit effectiveness and ROA.*

Sub-hypothesis 3b was aimed at testing the moderating impact of management action on internal audit findings on the relationship claimed in H_{3a}. Thus, Spearman's partial correlation was run controlling for management's action on internal audit recommendations.

4.4.2 Qualitative data analysis

Analysis of the data generated from the interviews with internal audit directors was conducted using Miles and Huberman's three stage process of data reduction, data display and conclusion drawing (Miles & Huberman 1994). Data reduction was conducted by summarising the responses from the interview transcripts along major themes that emerged from the data. The interviews were all conducted by the researcher to ensure that all the interviews were conducted in a similar manner, thereby enhancing data reliability (Fowler 2002). The reduced data was then displayed in an organized fashion in matrices with rows and columns that represented the concepts in the conceptual model of the study. The cells these matrices indicate summary information that relate to the concepts in the particular columns and rows (this is explained further in Table 5.2, Chapter 5).

Responses from a similar category of organizations were analysed for common elements and the different categories were compared to identify patterns. This approach was also used by Albercht et al.(1988). The data were displayed in a table for ease of identification of themes in the third stage. In this stage, inferences were drawn by closely identifying the similarities, differences, and relationships among the concepts in the study. In drawing conclusions, ideal type strategy was adopted whereby indicators of the concepts in the research derived from the literature were used as yardstick (Neuman 2006). Although, Miles and Huberman (1994) suggest verification as part of conclusion drawing, a separate verification process was not conducted for this study. This is because the quantitative

component of the study, the interviews with professional association leaders, and the review of documentary evidence served to verify interview results.

4.5 Chapter summary

This Chapter has outlined and explained the detailed research methodology employed in the study. It has described the triangulation strategy adopted to integrate qualitative and quantitative components of the study. It has also discussed measurement, data collection instruments, the sample, and data collection procedures. It further discussed data analysis in terms of the statistical techniques and procedures employed to understand the nature of the data, make appropriate transformations, and test the hypotheses. Finally, it outlined the procedures employed in qualitative data analysis. The next two chapters report the results of the qualitative and quantitative components of the study respectively.

Chapter 5 Qualitative data results

As stated in the preceding chapters, one purpose of this study is to examine internal audit (IA) practices in selected Ethiopian organizations from an institutional theory perspective to identify contextual influences on IA effectiveness. It attempts to explain a broad set of country- and organization-level antecedents of IA effectiveness as well as the complex interplay among them. Following the research questions outlined in Chapter 3, this Chapter presents the results of qualitative data analysis. The qualitative part of the study comprised interviews and reviews of archival records with a view to identifying country- and organization-level context factors that tend to enhance or inhibit internal audit effectiveness. The chapter starts by presenting country-level factors based on interviews with leaders of professional accounting associations in Ethiopia and a review of relevant documentary evidence. Organization-level influences on IA effectiveness are then reported based on interviews conducted with internal audit directors as well as a review of relevant documents. Finally, a chapter summary is provided.

5.1 Country-level context and internal audit practice

In-depth understanding of internal audit practice, especially in developing countries like Ethiopia, arguably requires interpreting the issues within a broader context of accounting. This is because IA has not developed as a profession distinct from accounting (O'Regan 2001; Reynolds 2000) as yet, which is possibly more so in developing countries. In this study, country- and organization-level contextual factors were identified through interviews with professional association leaders, review of publications, directives, and proclamations concerning accounting and auditing in Ethiopia. The results are also supported by interviews with internal audit directors of selected organizations in the Country. This section presents the results of the study using the guiding research question:

RQ₁. How does internal audit context influence internal audit effectiveness in Ethiopia?

The findings are presented in terms of the dynamics in the Country that relate to the development of accounting and auditing with a view to understanding the implications for internal audit. Specifically, Government influence on the development of internal audit in Ethiopia is considered. Also, normative isomorphic pressures on IA in Ethiopia that emanate from accounting and auditing professionalization are assessed. In this regard, following Willmott (1986) and Chua and Sinclair (1994), a combination of the three perspectives on professionalization (explained in Chapter 2) is employed. This is undertaken to examine accounting professionalization processes in Ethiopia to glean the implications of such processes for internal audit practice. Thus, the following research sub-questions guided the empirical examination of county-level contextual influences on IA in Ethiopia.

RQ_{1a}. How does the status of accounting and auditing professionalization in Ethiopia influence internal audit practices?

RQ_{1b}. How does the Government contribute to internal audit development in Ethiopia?

Section 5.1.1 and 5.1.2 present the results relevant to these research questions.

5.1.1 Government support of internal audit and IIA-Ethiopia

Internal audit has been practiced in the Ethiopian public sector in various forms since the early 20th century. It, nevertheless, took a more formal shape in the early 1940s and its contemporary form in the late 1980s (Argaw 2000a; Mihret, James & Mula 2009). Communist economies tend to emphasize on using accounting as a central planning tool rather than as a part of accountability mechanisms in the context of agency relationships (Hao, Zhen Ping 1999; Seal, Sucher & Zelenka 1996). Consistent with this notion, IA was accentuated (compared to external audit) during the communist period in Ethiopia (Mihret,

James & Mula 2009). As a result, it became a separate necessary activity in all government organizations in 1987 (Government of Ethiopia 1987). As of 1991 over 90 and 70 per cent of State-owned enterprises and government budgetary organizations respectively adopted internal audit (Argaw 1997).

This emphasis has continued after the change of government in 1991 as well (Argaw 2000b). One potential explanation for this continued emphasis could be that some remnants of the earlier mode of production normally continue when a change of mode of production takes place (Marx, K. H. 1994). Another possible reason could be that the dynamics of the state and international financing institutions that led to economic policy reforms (Mihret, James & Mula 2009) necessitated government emphasis of organizational control mechanisms. These could be considered as the Gorbachev-style reforms of the public sector. In the former Soviet Union under Gorbachev there has been an emphasis on improving efficiency in the use of resources through the implementation of Western-styled accounting, management, and new technologies (Gorbachev 1987, 1996).

As the content of a speech by vice minister of Finance and Economic Development (Teklegiorgis 2000, p. 9) illustrates, the Ethiopian Prime Minister established in 1994 a taskforce to propose recommendations to upgrade internal audit in Government offices. Based on recommendations of the taskforce, legal backing was granted to internal audit by Council of Ministers Financial Administration Regulation (CMFAR) (Federal Government of Ethiopia 1996). This regulation provides the Ministry of Finance and Economic Development (MoFED) with the responsibility to monitor and regulate internal audit in the public sector. As part of this responsibility, MoFED developed an internal audit manual for use by all internal audit departments of public bodies. CMFAR also puts the responsibility on the heads of the public bodies to ensure that internal audit is appropriately staffed and functions well. This proclamation further led to the establishment of internal audit departments in almost all public bodies (MoFED 2004). For nearly the last decade and half, the Ethiopian government has been providing support for the development of internal auditing not only by strengthening internal audit in government offices but also by supporting the

development of the profession in the Nation. Government support to the IIA-Ethiopia Institute (Mihret, James & Mula 2009) is an illustration of this support.

The IIA-Ethiopia Institute was established in 1996 as a chapter of the Global IIA (Argaw 2000b, p. 5). Its formation was a result of the personal initiatives of some professionals who were engaged in accounting/audit practice and academics. Prior to the formation of the IIA Chapter, Woldegiorgis (1992) completed a masters degree at City University of London with a master's thesis on 'Training and Education of Internal Auditors in Ethiopia'. One of Woldegiorgis's recommended courses of action for the development of internal audit in Ethiopia has been establishing an IIA chapter in the country (Woldegiorgis 1992). In 1996 the chapter was established with a group of individuals including Woldegiorgis. A founding and an executive committee member of the institute [Participant 1] describe the process thus¹⁴:

'We talked to the Auditor General, whose office was given the responsibility to monitor internal audit in government organizations. We also organised other people including academics. A minimum of 17 members was required to establish a chapter. In 1996, we applied to the IIA-Global for establishment of the Chapter by meeting all the criteria. Then, as the chapter had to obtain legal personality to operate in Ethiopia, we had to translate the charter to Amharic [official language of the country]. Then we secured the legal personality and started operating [Participant 1, Executive committee member of IIA Ethiopia].'

A discussion with Participant 1 also indicates several points about the Institute. The Chapter developed into an institute status in January 2008 and as at November 2008 it had 492 members and more than 15 institutional members. Through IIA-Ethiopia, the IIA-Global has allowed Ethiopian members to sit exams with reduced fees. Through its exam centre, IIA-Ethiopia achieved 24 certified members as of October 2008. It also organizes conferences in the Country and facilitates members' attendances at international conferences of the IIA-Global. Participant 1 commented that IIA-Ethiopia is one of the few active African chapters (another being the South-African Chapter) that regularly participates in

¹⁴ There were a total of 26 interview participants in the study: three professional association leaders and 23 internal audit directors. For the purpose of analysis, each participant was assigned a number (i.e., 1 to 26).

Global IIA-conferences. The Ethiopian Institute has been promoting institutional membership and encouraging institutional members to finance their internal auditors' attendances at IIA-Global conferences. By doing this, the Institute was able to assist its members' to tap into IIA-Global.

Nevertheless, Participant 1 also believes that the absence of regional chapters in Africa restricts the Institute's possible opportunity of development. He believes that a regional chapter could enable a meaningful experience sharing among national institutes and help them tap into training/workshop resource persons having relevant regional experience. Despite this challenge, the Institute has created awareness of internal audit as a profession by, for example, conducting conferences, participating in public lectures and radio talks, and publishing a newsletter. Generally, the association is active at the time of this study and appears growing at a reasonably rapid pace. Nevertheless, the Institute has recognized that it did not develop adequate capacity to lead and grow the profession to the maximum extent desired. Interviews with the IA directors (discussed in section 5.2) indicate that IIA-Ethiopia has contributed to improvement of IA practice in the Country by enabling its members to gain access to latest publications of the Global IIA.

As compared to the environment's normative pressures for the development of IA nevertheless, Government initiatives and requirements appear to bode well with the adoption of internal audit by Ethiopian organizations (both pre- and post- 1991) and IA's level of development in the Country. Review of documentary evidence and interviews with IA directors show that government support for IA development has been considerable in government bodies and SOEs. Moreover, Government coercive pressures led to the development of internal audit in some private companies although mimetic influences are also notable. Specifically, Government requirements for internal audit in banking and insurance companies in Ethiopia resulted in IA development in these industries of the private sector. On the other hand, internal audit adoption is mostly lacking in other private sector companies. Government influence, through its various organs,

on the development of IA in Ethiopia is discussed fully in the two succeeding subsections.

The Federal Ethics and Anti-corruption Commission (Federal Democratic Republic of Ethiopia 2005) is another component of the country-level accountability infrastructure mosaic of the Country that could influence IA practice. The Commission undertakes oversight of ethical practice in all Ethiopian Government organizations (i.e., including SOEs). At an organization-level the Commission had ethics liaison officers who serve as a link between individual organizations and the Commission. The interviews suggest that this arrangement was felt (at least potentially) to enhance the effectiveness of IA especially in audits of fraud.

Another Country-level factor that the interviews suggest, which seems to have restricted IA's development, is a lack of a developed economy with a capital market setting to impel companies (e.g., through stock market expectations or monitoring) to maintain strong IA. This notion coupled with the lack of a well-developed market for the supply of training and other continuous professional development activities for internal auditors (discussed fully in the next subsection) seem to restrict IA development. On the other hand, Government support, initiatives, and regulatory requirements seem to fill part of the gap.

5.1.2 Development of accounting and auditing in Ethiopia: implication for IA

The development of internal audit in Ethiopia could be better understood if examined in the context of the development of accounting and auditing in the country at large. This is because internal audit does not appear to have achieved a separate professional status as yet. O'Regan (2001) explains that internal audit is under the process of professionalization at a global level because of the absence of a professional monopoly. Thus, internal audit is largely considered as a 'subset' of accounting (Reynolds 2000, p. 115), which is arguably more so in developing countries like Ethiopia. Accordingly, the process of accounting and auditing professionalization in Ethiopia in three distinct periods where the Nation has had

alternating political economic ideologies has been examined. Implications of the overall accounting professionalization on the development of internal audit are then drawn.

Ethiopia has been a developing market economy pre-1974 and a command economy from 1974 through to 1991. The country is market-oriented economy since 1991. This sub-section examines the accounting and auditing professionalization processes in Ethiopia during the past century. This is done based on discussions with selected members and leaders of professional associations as well as reviews of relevant documentary evidence. The process of accounting professionalization in general and internal audit development in particular appears to exhibit distinct patterns during the three epochs (i.e., pre-1974, 1974 to 1991, and post-1991) in which Ethiopia has had alternating state ideologies. The following sub-section outlines these patterns.

a. Pre-1974

Accounting and its key concepts appear to have had a long history in Ethiopia. Kinfu (1990) provides an account of the development of accounting in the Country and argues that the keeping of records in various forms might have existed in ancient Ethiopia as early as the 3rd century A.D. during the Axumite Kingdom of the Nation. The start of modern accounting in the country, nevertheless, is traced to the beginning of the 20th century. According to Kinfu, the keeping of formal records of government activities started in the 1900s when Emperor Menelik established Finance and *Gauda* (meaning treasury) Ministry, which was to maintain records of the King's treasury.

Kinfu also indicates that modern financial accounting in the private sector started in Ethiopia in 1905 when the Bank of Abyssinia was established. The Bank was established as a branch of the Bank of Egypt, which was in turn administered under the British financial system. Kinfu points out that, despite Italian and French involvement in the affairs of the Bank of Abyssinia, British citizens controlled its administration. As a result, usage of British accounting terminology, financial reporting requirements, and personnel training left their footprints. This

observation lends support to Frank's (1979) classification of Ethiopian financial reporting practices mainly under the British Commonwealth model¹⁵. This is despite Frank's indication that Ethiopian financial reporting was also not too far removed from the Latin American model¹⁶.

In the government sector, a commission of trade inspectors was established by government regulation in 1917 to undertake monitoring of trade and customs in the Country. The inspectors were required to report their 'negative' and 'positive' findings on (1990, p. 193):

- 'a) income raised and amounts expended on maintenance (consumption needs);
- b) employees who did little work, but have much expended on their maintenance (consumption needs);
- c) those who worked hard and brought much income with little expenditure on their maintenance;
- d) the period of service of an employee and the type of service he [sic] rendered;
- e) ways and means of minimizing cost by folding jobs to be performed by few employees;
- f) ... improving departments whose expenditures were too high relative to the income they generated;
- g) existence of proper and sufficient top executive authorization for all types of expenditures; and
- h) observing that surplus (more than necessary) employees were placed in market places and check-points.'

It is apparent from the foregoing quote that performance auditing in a rudimentary sense was started for the government system of Ethiopia in the early 20th century. Kinfu (1990) explains that the contribution of foreign advisors to the kings of Ethiopia during the period from the 1890s through to the 1970s led to the issuance of government regulations and proclamations. Some of the proclamations and regulations continue to define (or at least strongly influence) the legal basis of accounting and audit practice in Ethiopia to this date. Examples include the 1960 Commercial Code of Ethiopia (Government of Ethiopia 1960), the Audit

¹⁵ Other countries in the British Commonwealth category include Australia, Bahamas, Eire, Fiji, Jamaica, New Zealand, Rhodesia, Singapore, South Africa, Trinidad & Tobago, and United Kingdom.

¹⁶ Other countries in the Latin American Model include Argentina, Bolivia, Brazil, Chile, India, Pakistan, Paraguay, Peru, and Uruguay.

Commission Proclamation of 1944 (which was the foundation for the Auditor General Proclamation of 1961), and the Audit Service Corporation (ASC) Proclamation of 1977 (Government of Ethiopia 1977).

In discussing the contribution of foreign advisors to the development of accounting in Ethiopia, Kinfu (1990) considers as initial contributions the role of consultants during the construction of the Ethio-Djibouti railway in the 1890s. He also considers the legal, military, and foreign affairs advisers of the King in the 1930s. The author then attributes subsequent developments of accounting from 1934 to the early-1970s to the Anglo-American legal and financial advisors to Emperor Haile Silassie I (1928-1974). The first substantial development during this period was the issuance of Ministry of Finance directives in 1942 (Argaw 2000a; Kinfu 1990; Kinfu, Negash & Merissa 1981). This was followed by the formation of the Audit Commission by Proclamation No. 69/1944 to undertake external audits of accounts of the Ministry of Finance (Government of Ethiopia 1944). The Commission was subsequently mandated to conduct external audits of other budgetary institutions as well. This marks the start of today's Office of the Federal Auditor General of Ethiopia (OFAG), which, amongst other duties, monitors and regulates the accounting and auditing profession in the country.

In about the same time frame, the Ethiopian Highway Authority and Ethiopian Airlines were established. In addition, the Ethiopian Telecommunications Corporation and the Ethiopian Electric Light and Power Authority became autonomous State-owned enterprises. These phenomena led to involvement of foreign companies as partners, financiers or consultants to the Ethiopian State-owned enterprises. Consequently, internal audit was introduced in these enterprises with a view to strengthening internal controls (Kinfu 1990).

Another development in the 1940s was the start of public accounting in Ethiopia. This is traced to events when British accounting firms, like PriceWaterhouse Peat & Co., established branches in the Country. Kinfu (1990, p. 197) comments thus:

'It is apparent that different types of accounting systems were, at this stage [i.e., 1940s], instituted in Ethiopia by the financing agencies and expert advisers [to the State-owned enterprises]. While many foreign experts from

different countries played a role in introducing accounting into Ethiopian enterprises, the influence of Britain is particularly evident on the accounting side, especially in the books (...). Accounting and auditing advisory services were offered [to Ethiopian organizations] by British accounting firms, such as the Price Waterhouse and Peat etc., the first accounting firms to open a practice in Ethiopia. British influence penetrated the accounting practices of many client organizations as auditing and financial advisory services were provided by their foreign and indigenous counterparts and were to remain British-oriented even up to today.'

Argaw (2000a) reinforces Kinfu's (1990) points regarding the development of accounting in the 1940s, in noting that:

'The history of [modern] internal auditing [in Ethiopia] dates back to the 1940s just about the time the profession has also evolved in Europe and in the United States [of America]. The difference in the two situations is that, in Europe and the United States [of America], it was not so much of the commencement of the internal audit task within various institutions but the development of the real professionalization by the establishment of the Institute of Internal Auditors (IIA) in 1941.'

As a consequence of the growth of demand for trained manpower in accounting and auditing up to the early-1940s, the Addis Ababa College of Commerce was established in 1943. The Colleges of Business were then established at Addis Ababa University in 1963 and Asmara University in 1969. These institutions have played essential role in the development of the accounting profession in Ethiopia by producing trained manpower (Argaw 2000a; Kinfu 1990).

Other significant developments in the history of accounting in Ethiopia took place in the 1960s. Firstly, the Commercial Code of Ethiopia was proclaimed in 1960 (Government of Ethiopia 1960). This Code contains accounting and external auditing provisions, which still serve as the legal basis for financial reporting and external audit of companies (Argaw 2000a; Kinfu 1970; Kinfu, Negash & Merissa 1981; World Bank 2007). The code contains some requirements for financial accounting, reporting, and external auditing of companies that operate in Ethiopia. Limitations that possibly constrained the code's contribution to the development of accounting and auditing in the Nation include that it does *not*: (a) specify the accounting standards to be followed in financial reporting; (b) define the qualifications of an auditor; (c) require

compliance with professional standards on auditing; or (d) impose an audit requirement upon private limited companies with less than 20 members (World Bank 2007). The second development was the formation of the Office of the Auditor General (OAG) in 1961 by Proclamation 199/1961 (Government of Ethiopia 1961). This Proclamation accorded the OAG greater authority than was provided in the 1944 Proclamation that established the Audit Commission (Argaw 2000a; Kinfu 1990). The Proclamation has subsequently been revised three times, in 1979, 1987 and 1997 (Government of Ethiopian 1997). The 1997 version of the Proclamation is the legal basis for external audit for government organizations in Ethiopia to date of writing.

The idea of the need to monitor and regulate the accounting profession in Ethiopia was felt as early as 1966. In 1966, the then Ministry of Commerce and Industry drafted a legislation to this end (Kinfu, Negash & Merissa 1981). The legislation proposed establishing public accountants' certification committee; suggested minimum required qualifications for certification; and provided for the monitoring of public accounting practice. Kinfu, Negash and Merissa (1981) assert that the Act was not enacted due to: a lack of a sufficient number of well qualified Ethiopians to meet the requirement, presence of some accounting practitioners who received practicing licenses through practical experience, i.e., who did not meet the proposed minimum requirement, and dominance of foreign public accounting firms and experts who arguably lacked the motivation for a new system of certification because they were already members of foreign accountancy associations.

Kinfu, Negash and Merisa's (1981) assertions regarding the challenge of dealing with practitioners who appeared less qualified than the defined standard appears consistent with experiences in other countries, e.g., Kenya and Australia. The experience in Victoria, Australia (Chua & Poullaos 1993; Chua & Poullaos 1998) and Kenya (2006, 2007) suggest that inclusionary usurpation rather than closure might assist the development of the profession at least in early stages. This inclusionary strategy helps to attain a critical mass of members in the early stage of development of the profession (Ramirez 2001; Sian 2006). Kinfu, Negash and

Merisa's observation is also consistent with Uche's (2002) notion that dual membership to professional associations could lead to a conflict of interest and might complicate the struggle for jurisdiction. Dual membership creates a disadvantage of additional fees. Thus, members could tend to choose the accountancy body that is perceived as having an established reputation (Carnegie & Parker 1999). The challenges presented by the dominance of foreign qualified practitioners, be they locals or foreigners, in the development of indigenous professional associations were also experienced in Nigeria (Uche 2002; Wallace 1992).

Apart from this challenge, the absence of aspiring professional groups to take advantage of the 1966 Government initiative to establish a professional accountancy body in Ethiopia is evident. Although the state plays a role in the development of accounting professions (Sian 2006; Uche 2002) it may be efforts of the professionals that matter the most. Nevertheless, from both functionalist and interactionist perspectives, failure of the foregoing attempt to establish an indigenous professional accounting association should not come as a surprise. From the functionalist perspective, producing professionals with esoteric knowledge should precede the development of a regulated profession. This is because, from this perspective, the crux of professionalization rests on the product rather than in the process. Thus, without controlling key professionalization activities, i.e., developing the knowledge base, and training, examining and certifying potential members, a professional body cannot remain on the cutting edge (Carnegie & Napier 1996; O'Regan 2001; Walker, Stephen P 2004).

From the interactionist perspective it is the professional body, in its endeavours to further its members' interests, that promotes and develops the profession. The concepts of exclusion and closure may not come into play unless the profession first forms a critical mass of members (Sian 2006). In the context of Ethiopia the aspiring professionals do not seem capable of achieving a critical mass in the 1960s. Furthermore, the 1966 draft legislation does not seem to have encouraged inclusionary strategies regarding non-qualified and part-qualified practitioners who were in public practice. The experience of Kenya shows that

promoting inclusionary usurpation at the beginning would have been a more constructive strategy than exclusion and closure. In addition, aspiring members need to define a body of knowledge that the professional association would own, control, and develop. Carnegie and Edwards (2001, p. 303) maintain that the development of such body of knowledge is one of the key 'signals of movement' towards formation of a viable professional body.

The developments in the legal, educational, and commercial climate in Ethiopia until the early 1970s appear to have created conducive environment for the development of the accounting profession in the Country (Jones & Kinfu 1971). Consequently, an effort to establish indigenous professional accounting associations in Ethiopia took place in 1973. This effort led to establishment of the Ethiopian Professional Association of Accountants and Auditors (EPAAA) (Argaw 2000a; Kinfu 1990; Kinfu, Negash & Merissa 1981). The EPAAA was aspiring to develop to a level where it would certify and license public accountants to practice in Ethiopia. Composition of membership of the Association includes mainly accounting and auditing practitioners. As of 1975 the association had 38 practicing members. Kinfu, Negash and Merissa (1981) assert that the EPAAA achieved limited success because most of its members were expatriates who were already certified abroad. From the critical perspective, this may be interpreted as members lacking the motivation to abide by the newly proposed modes of exclusion and closure.

Specifically, certified members who were qualified abroad possibly lacked the willingness to shift professional commitments to EPAAA and away from the international association that certified them. In the face of these challenges, the EPAAA issued two directives related to audit practice, namely, Board of Directors Directive No. 1 on special investigations, and No. 2 on bidding for audit contracts. Subsequent to nationalization of private companies that followed the change of government in 1974, the Association issued Board of Directors Directive No.3 on financial accounting and reporting (Woldegiorgis 1992).

Following the 1966 government initiative and the 1973 private initiative, it could be noted that state and individual endeavours towards professionalization of

accounting were sequential rather than simultaneous. The literature indicates that the state has been a central actor in accounting professionalization processes in Europe (Caramanis 2002; Ramirez 2001). On the other hand, it is considered generally to be neutral in Anglo-American cases (Sian 2006). The sub-Saharan African experiences in Kenya (Sian 2006, 2007) and Nigeria (Uche 2002) suggest that governments make profound contributions to win the types of challenges observed in Ethiopia. Thus, the accounting professionalization endeavours in Ethiopia pre-1974 achieved little success at least partly because professional and government initiatives were not synchronized. Nevertheless, this first phase (pre-1974) was the time when the foundation was established for the development of accounting and auditing during the subsequent periods.

b. 1974 – 1991

Following a revolution, a military government with a communist ideology took power in Ethiopia in 1974. Subsequently, private companies were nationalized and the number of State-owned enterprises in the country increased. As a result of these changes, international public accounting firms, i.e., PriceWaterhouse Peat & Co. and Mann Judd & Co., closed their Ethiopian branches (Kinfu 2005; Woldegiorgis 1992; World Bank 2007). Some writers (e.g., Argaw 2000a; Blake 1997; Kinfu 2005) agree that the development of accounting (in the Western sense of the term) appears to have been inhibited during this period. Nevertheless, formation of the Audit Service Corporation (ASC) (Government of Ethiopia 1977) to conduct external audit of public enterprises was an important landmark in the development of accounting and auditing in this period. Woldegiorgis (1992) explains that this development was a result of the need to fill the gap created by the closure of international accounting firms.

Furthermore, internal audit as a separate function appeared during this period (in 1987) when the Auditor General was mandated by Proclamation No. 13/1987 to monitor and regulate internal auditing in government offices and State-owned enterprises (Argaw 2000a). This Proclamation also gave the Auditor General the authority to issue minimum requirements for recruitment of internal

auditors, provide training to internal auditors, and require reports on internal audit of government organizations. A survey of internal audit in Ethiopia in 1991 indicates that over 90 percent of State-owned companies and over 70 percent of government budgetary organizations in Ethiopia had internal audit units (Argaw 1997).

This period is generally considered a time when the development of accounting was directly or indirectly constrained (Blake 1997; Kinfu 2005). As a result, limited achievements were made in terms of development of professional associations as conceptualized in the context of the Western model. The EPAAA was inactive throughout this period (Blake 1997; Woldegiorgis 1992). The use of accounting as a useful tool in organizations also tends to have been limited. As one of the executive committee members of the Institute of Internal Auditors (IIA) – Ethiopia (Participant 1) commented:

‘During this period, private companies were nationalised. There were many public enterprises. There was no separation of technocrats and bureaucrats. Professionals could not succeed in their careers unless they were associated with the then Workers Party of Ethiopia. Hence, professional standards were attenuated during this period [Participant 1, Executive committee member of IIA-Ethiopia].’

Profile of all interview participants is provided in Table 5.1.

TABLE 5.1
Interview participants' profiles*

Educational Background	Year of Service (years)		Current Position
	Audit related	Other	
BA Degree	1.5	6	Internal audit director**
BA degree + studying for masters degree	10	10	Internal audit director
BA degree	20	20	Internal audit director
BA degree	20	6	Internal audit director
BA degree	4	8	A/Internal audit director
College diploma	29	0	A/Internal audit team coordinator
BA degree	12	1	Internal audit director
BA degree			Internal audit director
BA degree	6	14	Internal audit director
Master's degree	24	14	Executive committee member, IIA-Ethiopia
BA degree	6	14	Internal audit director
BA degree	4	16	A/Internal audit director
BA degree	8	10	Internal audit director
BA degree	2	4	Internal audit director
BA degree	2	4	Internal audit director
BA degree	6	19	Internal audit director
Diploma in Accounting			Internal audit director
BA degree	1.5	20	Deputy Internal Audit director
BA degree	10	4	Internal audit director
BA degree	1	2	A/Internal audit director
BA degree	11.5	10.5	Internal audit director
BA degree	10	7	Internal audit director
BA degree, CIA/CCFA	8	6	Internal audit director
BA degree	7	0	Internal audit director
BA degree	4	7	Internal audit director
BA degree	3	12	Internal audit director

* Serial numbers are omitted and orders rearranged to protect ensure that the identity of participants is disguised.

** 'Internal audit director' is used in a generic sense to protect identify of the participants. Other position titles include: Internal Audit Head, Internal Audit Division Manager, Controller, Inspection Division Head, and Internal Audit Process Owner.

Uche (2002, p. 478) indicates that military regimes could at times be used to the advantage of developing professions through clever lobbying:

'Given the power of the State and the supreme powers usually conferred on military rulers, the dynamics in the relationship between the State and the profession in developing countries [...] are usually less systematic. Given the existence of few checks and balances in the system, any party that is able to influence the top military class may well be in a position to define the history of the entire profession. In other words, interest groups' lobbying for regulatory benefit is easier under such military governments mainly because

legislative initiative during such periods is concentrated in a few individuals.'

Despite the existence of a military government during this episode of the development of accounting in Ethiopia, aspiring accounting professional groups did not exploit the situation possibly for two reasons. First, the professions do not appear to have had actively lobbied those in power to exploit the situation. Second, the Ethiopian military government of the time, having a communist ideology, arguably did not appreciate the role of Western-styled accounting. For example, Annisette (1999, 2000) observed that state ideology could influence accounting professionalization.

In a command economy, accounting serves as a central planning tool as compared to its accountability focus (i.e., in the context of agency relationships) in Western corporate governance mechanisms (Hao, Zhen Ping 1999; Seal, Sucher & Zelenka 1996). The greater emphasis of the Ethiopian Government on internal audit compared to external audit appears consistent with this notion of accounting's role in a centrally-planned economy. Arguably, Ethiopia's emphasis today (explained later) on internal audit built upon the foundations put in the communist years. Thus, in terms of accounting professionalization, the communist period in Ethiopia cannot be regarded as a total negative. This is because, the shift to communism resulted in emphasizing the use of accounting technologies for internal decision making (e.g., emphasis on internal audit) and in government involvement in the supply of external audit services through the Audit Service Corporation.

Overall, there seems to be a general consensus that the change of political ideology to communism in 1974 constrained the development of accounting professionalization in Ethiopia (Argaw 1997; Blake 1997). Nevertheless, it could be argued that it was more of a change in emphasis and structure of the market for accounting labor rather than inhibition of the development of accounting. The formation of the ASC has enabled the government to provide accountancy labor to the State-owned enterprises' sector. This sector remains to date in Ethiopia the largest sector in terms of economic activity (World Bank 2007). This state supply

of external audit might reduce the state's demand for accounting labor and thus yield little motivation for Government to support accounting associations' exclusionary closure moves.

As Hao (1999) and Seal, Sucher and Zelenka (1996) argue, in a centrally planned economy, accounting is a technical tool that assists the central planning process. These scholars illustrate that when such an economy transforms to a more liberalized one, the concept of accounting professional service as conceptualized in the Western context becomes evident.

c. Post-1991

Post-1991 is a period when Ethiopia shifted back to a free-market economic system after being structured as a command economy for seventeen years. This shift led to a number of public enterprises being privatized. The resulting new corporate governance structure in the private sector would be expected to enhance the importance of financial reporting and external auditing (Seal, Sucher & Zelenka 1996). Change of government and the type of government tend to be important influences on the development of the accounting profession. The contribution of government to the development of accounting in other sub-Saharan African countries, i.e., Nigeria (Uche 2002) and Kenya (Sian 2006) epitomize such influences. Consistent with this notion, there has arguably been some government interest in Ethiopia to enhance accounting and auditing in the Country during this post-1991 period.

The free-market system has been considered as one of the signals of hope for a better future for the accounting profession (Argaw 2000a). Matching this expectation, the Ethiopian Government has been undertaking financial reforms in the areas of financial reporting and internal audit in the public sector (Peterson 2001). As part of its economic policy reforms, the Government has been working to improve the financial infrastructure of the Country. It has also been attempting to encourage private investment via enhanced platform for risk assessment and reduced corporate failure. Under this framework, a World Bank and IMF joint initiative study, i.e., Reports on Observance of Standards and Codes (ROSC), was

conducted in 2007. The report focused on financial reporting and external audit in Ethiopia (World Bank 2007). The Ethiopian Government has also been providing increasing support to the development of internal audit since 1994 (Teklegiorgis 2000). In 1994, the Prime Minister of Ethiopia set up a taskforce that forwarded recommendations to improve internal audit in government offices. Consequently, the Ministry of Finance and Economic Development (MoFED) has been mandated to develop an internal audit manual for use by all government organizations (Federal Government of Ethiopia 1996).

Furthermore, the EPAAA has been re-activated and three other professional associations, i.e., the Ethiopian Association of Finance and Accounting (EAFA), Institute of Internal Auditors (IIA)-Ethiopia, and the Accounting Society of Ethiopia (ASE) have been established. Furthermore public sector financial reform of Ethiopia have been ongoing since the early-1990s (Peterson 2001), which has some implications for accounting and auditing (discussed in later subsections). There has also been state interaction with Western financial institutions like the World Bank and IMF that could be exploited to the advantage of the profession.

Re-activation of EPAAA

Post-1991, EPAAA has gained a more active status than in prior periods. At time of writing, the Association has authorized auditor, authorized accountant and non-practicing members. Authorized auditors are those having practicing certificates as a chartered or certified accountant and active memberships of recognized international accounting bodies. Membership as a practicing auditor also requires auditing experience. Auditors were mostly members of the UK-based Association of Chartered Certified Accountants (ACCA) (World Bank 2007) and some were members of the American Institute of Certified Public Accountants (AICPA). Membership to the EPAAA is not mandatory to obtain practicing license in Ethiopia. Authorized accountants are those who provide accounting services through independent accounting firms. Membership as an authorized accountant requires university/college accounting education plus practical

experience in the field. Office of the Federal Auditor General (OFAG) provides licenses to applicants who meet the practicing requirements. Members in the third category are those who meet the membership criteria but did not choose to obtain a license and engage in public practice.

An interview with one of the executive committee members of the EPAAA (Participant 2) indicates several points that clarify the association's current status. As at November 2008, the association had 123 active members. When compared to 38 members in 1975 (Kinfu, Negash & Merissa 1981), this number signifies arguably a slow development. Also, one of the reasons for this increase in membership appears that OFAG recently put a requirement that an applicant possess membership of any indigenous professional accountancy associations in order to obtain a practicing license.

Following launch of the Association of Chartered Certified Accountants' (ACCA) Ethiopia branch, the ACCA and the EPAAA made arrangements such that members of the former obtain automatic membership to the latter¹⁷. Under this arrangement, students and members of ACCA in Ethiopia are also members of the EPAAA. In this connection, the ACCA provides funding to EPAAA based on the number of ACCA students in Ethiopia and the two associations' emblems are affixed to the ID cards of the ACCA students. The two Associations also had a plan to launch a joint examination scheme such that the ACCA would include Ethiopian variants of its taxation and commercial law papers. This plan was on condition that relevant materials would be developed on Ethiopia for these papers. Under that scheme EPAAA was supposed to actively participate in the process. Participant 2 believes that the possible contribution of this arrangement to the development of EPAAA has not been exploited because of EPAAA's limitations. However, such an arrangement is also found to have inhibiting effect on indigenizing the profession in Trinidad and Tobago (Annisette 2000). Also, the financial dependence on the ACCA could put the EPAAA in a position where it

¹⁷ The ACCA is a UK-based professional accountancy body.

could not vociferously promote issues of indigenization without its role being circumscribed.

The interview also suggests that like the pre-1991 period, the challenge still remains that members' commitments to EPAAA have been limited. Members voluntarily maintain membership and pay fees out of interest to assist the development of the profession in Ethiopia. Consequently, not all members demonstrate high level of commitment to the Association. EPAAA membership does not provide exclusive benefit to members because there is no requirement for practitioners to be members of this Association. For auditors, international association membership is generally sufficient and EPAAA membership is not a mandatory requirement to obtain practicing license in Ethiopia. Participant 2 comments:

‘Practicing members regularly pay their fees and meet all the requirements of their international associations, because memberships provide exclusive benefit. But, understandably, that is not the case when we consider their commitment with EPAAA [Participant 2, Executive committee member of EPAAA].’

Also, the speech by former president of the EPAAA at an IFAC conference (Mengesha 2006) suggests that the Association did not perform brilliantly in this post-1991 period as well. This speech as well as the interview with Participant 2 indicate that there were some factors that restricted the development of the Association and thus of accountancy in the Country. The first is that the profession is not properly regulated. Although OFAG provides practicing licenses, there is no authorized professional accounting body to monitor the practice. The EPAAA does not have the legal backing that would enable it to monitor and regulate the profession. This made the Association to be considered as ‘a voluntary club’ rather than a strong professional association (World Bank 2007, p. 8). It is not a member of International Federation of Accountants (IFAC). Participant 2 highlights, such a membership requires having a large membership base, providing certification, having a code of ethics and professional conduct, provision of Continuing Professional Development (CPD) services to members, undertaking monitoring and regulation, and having local recognition. These prerequisites cannot be achieved unless the Association has a monopoly on the Ethiopian market. Sucher

and Zelenka (1996) argue that professionalization of a service could be achieved if a professional service is standardized through codification of the cognitive base where the professions could train and certify their members to enable the latter to provide the services. It is argued that the EPAAA could not achieve professional monopoly largely due to its inability to define, develop, and control its cognitive base to provide certifications.

Apparently, limitation of the Association's leadership is another factor. For instance, the researcher inferred from the interview that the EPAAA board had forums for consultation with key government officials but this initiative has not continued. Moreover, the tendering requirement for auditors to secure clients tends to have caused price competition (Lemessa 1996). This arguably puts auditors in competitive rather than cooperative positions. In response to the problems of price competition, OFAG assessed the audit firms and graded them as A, B, C, with A being the highest grade and C the lowest. However, somewhat understandably, this was not well received by most of the practitioners. In their view, insofar as practitioners possessed practicing certificates from recognized accountancy bodies, such a grading was not meaningful and should have been left to the market. The grading was also not regularly updated, which tended to worsen the problem.

Furthermore, public enterprises undertake the largest proportion of the Nation's economic activity (World Bank 2007). Thus, it could be argued that the private sector has not developed at a rapid pace in Ethiopia. As Marx (1994) observed, in each mode of production there always remain residues of the previous mode of production. Modern Ethiopia seems to exhibit a mix of capitalist and communist aspects with the public-sector having gone through reforms (Peterson 2001), which throws an additional ingredient into the mix. This could be one explanation of the apparently less well developed external audit market in the country to date. In addition, the State's supply of accounting labor to the State-owned enterprises reduces societal expectations from a self-regulated public accounting profession. Although the authority to sign audit reports is reserved for certified/chartered accountants, these professionals are equipped with imported expertise (mainly from the UK). This situation appears to limit the impetus of

aspiring indigenous professional associations to produce locally trained experts (Mihret, James & Mula 2009).

In addition, unlike the case in other countries, for example Nigeria (Uche 2002), Kenya (Sian 2006), and China (Hao, Zhen Ping 1999), there have been few state measures taken to promote indigenous qualifications and to protect indigenous knowhow from imported competition. Instead, like the case in Trinidad and Tobago (Annisette 2000), imported expertise tends to be encouraged. The experience of other developing countries suggests that surrendering the control of examination, which is a key certification activity, to foreign accountancy bodies (Annisette 1999; Briston & Kedslie 1997) could make indigenization of the profession exigent in Ethiopia. Due to the lack of control on the knowledge base and on exercise of certification, the nascent indigenous associations could be obliged to accede to the wishes of the international associations that export accountancy expertise to Ethiopia.

Furthermore, there seems to be a decoupling between the knowledge base employed by the accounting practice and the one taught in universities and colleges in Ethiopia. Accounting practice is largely UK oriented because of the contribution of British experts in the introduction of accounting in the Country (Frank 1979; Kinfu 1990) and arguably due to the dominance of Ethiopian accountants with UK certifications (World Bank 2007). Because Ethiopia has never been a colony, nevertheless, this British orientation of practice has come about piece meal as outlined in Section 5.1.2 (a). On the other hand, perhaps because the start of business education in Ethiopia is traced to the assistance of American experts (Kinfu 1990), USA textbooks (and thus accounting standards) are used in accounting education. This decoupling tends to limit the aspiring professional associations' ease of attempting to develop and control the knowledge base as a step forward to the provision of certifications.

Ethiopian Association of Finance and Accounting (EAFA)

Another notable attempt to establish an indigenous accounting body was the formation of Ethiopian Accounting and Finance Association in 1994, with a

broader planned membership base than that of EPAAA. As the experience of the British accounting profession indicates, restricting membership to a few qualified individuals leads to competing associations being formed (Walker, Stephen P. & Shackleton 1995; Willmott 1986). However, EAFA has not been highly visible except in its early years. As a result, issues linked with inter-association competition cannot be explored. Due to the broad membership, the threat of membership shortage may not have applied to EAFA. However, similar to EPAAA, membership to this Association did not offer exclusive benefits to members. This is because the Association had neither the capacity to administer certification exams nor the authority to regulate the profession. Former members whom the researcher contacted noted that the Association had been active during the term of office of the first executive committee members. Participant 16¹⁸ (IA director) stated, ‘since the change of leadership, the EAFA did little meaningful activity in the country’. The Association’s inability to effectively transfer power among successive generations exhibits its weakness and transitory nature.

Accounting Society of Ethiopia (ASE)

Yet another development in the current (post-1991) episode of the development of accounting and auditing is the formation of Accounting Society of Ethiopia (ASE) in 2004. ASE appears visible among the academic community because the executive committee members were mostly from Addis Ababa University. The Association aims for a broad-based membership that accepts accounting practitioners, academics, and students as members. A top official of the Association (Participant 3) believes that the Association is on the right track towards achieving its objectives. In the words Participant 3:

‘The Association has brought about some attitude change by starting to demonstrate the possibility of an active indigenous professional association. We have finalized the preparation to open branches in 4 regional towns in collaboration with regional university lecturers. This will help broaden our membership base. ASE is administering accreditation examinations of Grade 10⁺³ accounting graduates of the Technical and Vocational Education

¹⁸ Following the interviews with professional association leaders, interviews were conducted with internal audit directors. All interview participants are serially numbered for ease of reference and to maintain anonymity.

and Training under the Federal Ministry of Education [Participant 3, top official of ASE].’

Participant 3 believes that awareness in the business community has been raised and that this situation has helped the Association create a positive impression on members, potential members and the business community about the accounting profession. Nevertheless, there are some factors that have been constraining the success of the Association. First, there are major financial constraints to conduct its activities. The Association has been trying to alleviate this problem by following viable fund raising strategies. It has started publication of books which enabled the Association to generate income via sales and company sponsorships of these publications. The publications were also aimed to serve as part of the effort to develop the knowledge base for conducting certification exams in the future. The Association also administers accreditation examinations to accounting graduates of technical and vocational schools under the Ethiopian Federal Ministry of Education. This helps the Association to generate income and gain recognition. Secondly, absence of exclusive member benefits tended to constrain member commitment. As the Participant states, ‘members receive just recommendation letters in support of applications for promotions, jobs, or licensing as authorized auditors and accountants’. Thus, most of the challenges of similar associations in Ethiopia are also apply to ASE.

Summary of post-1991 period

It appears that the post-1991 period brought about some favourable conditions for the development of accounting and auditing in the country that could be exploited by aspiring professional groups. As the participant from IIA-Ethiopia (Participant 1) commented:

‘There are some developments that could be considered as a suitable environment for the development of the profession. But, at the same time “the tone at the top” is what matters the most. There needs to be a government commitment to provide professional associations with the legal authority to monitor, regulate, and grow the profession [Participant 1, Executive committee member of IIA-Ethiopia].’

This comment implies that there is a need for clever lobbying by aspiring professional associations to garner state support. This seems an important step because state support is an antecedent to professionalism (Birkett & Evans 2005). To date of writing, no indigenous professional accountancy association was empowered by legislation to set standards or to monitor and regulate the accounting profession. The EPAAA has not developed to a level where it could offer certification examinations. Thirty-five years of its existence could be considered long enough to develop this capacity in view of the experience of other professional associations like the Institute of Certified Accountants in Nigeria. The Institute of Certified Accountants in Nigeria started to administer certification examinations in six years after establishment (Uche 2002). In the absence of a strong professional accountancy body in Ethiopia, the Office of the Auditor General has been monitoring the profession as well as licensing practicing accountants and auditors. The Government is providing the services that the private-sector profession provides in developed Western countries. Nevertheless, given the limited capacity of the professional associations, government monitoring appears apposite (Wallace, 1999) and possibly continues as the only viable option in the short term. As indigenous professional associations in the country are yet to develop the capacity to administer professional certification exams, foreign qualified Ethiopian accountants are hitherto serving as a fallback.

5.1.3 Current developments and future prospects

There has been ongoing public sector financial reform in Ethiopia since the early-1990s that has been undertaken with the support of Western consultants and Western funding agencies (Peterson 2001). Particularly concerning the accountancy profession, World Bank and International Monetary Fund undertook a study that resulted in Reports on Observance of Standards and Codes (ROSC). ROSC recommended, among others recommendations, establishing a National Board of Accountants and Auditors, under which professional associations would be established. As has been the case in Greece (Caramanis 2002), the dynamics of

the state, such global agents, and the professions could create impetus for the development of the profession.

Earlier than the ROSC study, there was a Ministry of Trade and Industry initiative which led to a road map for the development of accounting standards in Ethiopia. This was done by the ACCA as a consultant and with the involvement of other stakeholders in the Country. Also, the Ethiopian Civil Service College had an initiative to establish an institute for certification of accountants in the public sector. At the time of writing, all these initiatives have been coordinated and a national steering committee has been formed to establish national financial reporting standards and a national board of accountants and auditors. The stakeholders of all the initiatives participate as members of the national steering committee.

The climate may be considered suitable for the existing professional associations to come together (perhaps by way of merger), review their strategies, and exploit the opportunities to evolve into a national accountancy body. Such a body would have greater power to obtain state support to regulate and monitor the profession. Such a strategy of transformation has contributed positively to the development of the accounting profession in Nigeria (Uche 2002). Creating a cooperative atmosphere among the associations does not appear complicated in the case of Ethiopia. This is because, unlike the cases in Nigeria (Uche 2002) and Kenya (Sian 2006), there has been little competition among the professional associations in Ethiopia. This situation is perhaps mainly because none of these associations were granted statutory authority of monopoly to monitor and regulate the profession. In addition, the associations have slightly different orientations. That is, the EPAAA has been predominantly focused on public practice whereas the rest have not clearly advocated public practice as a primary goal.

Considering a merger between some of the existing professional accounting associations could help develop greater influence in lobbying. That would also help achieve enhanced capacity to develop and control the knowledge base. This will help integrate the separate strands of effort to develop a viable accountancy association and to gather momentum for development of the

profession. Developing the capacity to train and produce indigenous qualified members may appear quite overwhelming, yet it is not insurmountable. Institute of Certified Accountants in Nigeria (ICAN) overcame such a challenge, inter alia, through collaborations with higher education institutions. Would-be members of ICAN were attached to universities to study the theoretical parts of the ICAN syllabus. This arrangement enabled ICAN to concentrate on the professional parts of the syllabus (Uche 2002). However, in the case of Ethiopia, the professional associations should, presumably, first work closely to resolve the issue of the difference between orientations of accounting education and accounting practice. As this appears to be a critical step in any attempt to develop the profile of accounting practice in Ethiopia, it seems an urgent need for the future.

5.1.4 Summary: Ethiopia's country-level context and implications to IA

The forgoing results suggest that accounting and auditing professions are at an early stage of development in Ethiopia. Establishing strong indigenous local professional accountancy associations in Ethiopia were attempted with little success (Kinfu 1990; Kinfu, Negash & Merissa 1981). Aspiring local professional associations had neither the capacity nor the legal basis to provide certification examinations that could serve as a prerequisite for licensing of practitioners. As a result professionals qualified from international professional accountancy bodies were permitted to engage in public practice. Such an environment arguably offers little normative pressure that could contribute to a well-developed IA profession.

As compared to the environment's normative pressures for the development of IA, nevertheless, government initiatives and requirements appear to bode well with the adoption of internal audit by Ethiopian organizations (both pre- and post- 1991) and the function's level of development. Government support for IIA-Ethiopia has been considerable. Moreover, Government requirements led to the development of internal audit in Ethiopian organizations. Government influence, through its various organs, to the development of IA in Ethiopia is discussed fully in the following section.

5.2 Organization-level influences on IA effectiveness

Organization level factors that could influence internal audit effectiveness were examined primarily based on interviews conducted with internal audit directors of 23 organizations. This number comprised of 5 Government ministries, 7 State-owned enterprises, and 13 private companies. The interview results are also enriched with review of relevant documentary evidence relating to internal audit in Ethiopia. The attributes of internal audit, its establishment, and development in Ethiopia for, State-owned enterprises, private companies and Government ministries are discussed in the following three sub-sections using the research question:

RQ_{1c}. How does organizational-level context impact on internal audit effectiveness?

5.2.1 State-owned enterprises

State-owned enterprises (SOE) are wholly government-owned, for-profit organizations that operate as per Public Enterprise Proclamation No. 25/1992 of Ethiopia (Government of Ethiopia, 1992). The adoption and development of IA in SOEs is largely attributable to government requirements through the Office of the Auditor general from 1987 to 1991 (Government of Ethiopia, 1987) and via PPESA since 1992. A Privatization and Public Enterprises Supervising Agency (PPESA) directive (Privatization and Public Enterprises Supervisory Agency, 2005b) requires that all SOEs establish internal audit departments. It also covers IA's role, authority, and responsibility as well as the function's relationship with the boards of directors. The agency also assigns boards of directors and audit committees for all SOEs under its supervision (Privatization and Public Enterprises Supervisory Agency, 2004, Privatization and Public Enterprises Supervisory Agency, 2005a). As of October 2008, PPESA has been supervising 104 SOEs; whereas some Government ministries supervised a few more SOEs. Yet, the mechanisms of governance of all SOEs are similar. That is, the roles, responsibilities, and reporting status of IA are similar in all SOEs. The interviews indicate that directors on boards are mostly high ranking Government officials.

Thus, arguably their political linkages provide them with the power to strengthen IA if they so aspired. Interviews also suggest audit committee members are largely individuals with professional knowledge and experience in IA.

The interviews further indicate that most companies chose to adopt the IA charter specified in the PPESA (2005b) directive in which the purpose, authority, and responsibility of internal audit are specified, whereas, others adapted it. By the time the interviews were conducted, draft IA charters were in progress for board approval in some SOEs. Nevertheless, almost in all SOEs covered by the study, there are other policy documents that specified IA's scope, authority, and responsibility. IA's reporting structure in organizations in this sector generally exhibits similarity. That is, IA largely reports functionally to boards of directors through audit committees and functionally to the general managers. Yet in some other SOEs, IA reports to the general managers. IA directors' efforts to liaise with boards of directors to implement PPESA directives appear to make differences. IA's reporting structure is stipulated in the PPESA directive and thus signifies the importance of coercive pressures in upgrading IA independence. There are differences also in the visibility of the audit committees among SOEs. Where audit committees are active, IA departments report to the audit committees, which in turn report to PPESA and maintain close working relationships with the board of directors of SOEs.

The focus of IA as specified in the PPESA (2005b) directive is wide-ranging. The directive indicates that the function shall report to and assist the board of directors. One participant (Participant 23, IA director), nevertheless, commented that general managers of some State-owned enterprises proffered to keep IA's reporting relationship to top management rather than shift to boards and audit committees. These managers argue that it is not logical for an organizational unit to report to an external body. Participant 23 expressed concern that 'the recent move to shift IA's reporting status to boards and audit committees might be reversed'. This would suggest that power relations and lobby efforts could bring about changes that could enhance or restrain IA practices.

Variations were observed among SOEs in internal organization of IA departments. In some SOEs, there are separate operational auditing units, whereas, in others, operational auditing is integrated with other audit activities. In large SOEs with complex operations, there are several sub-units (e.g., systems audit, quality audit, and other sub-units) for various aspects of IA's responsibilities.

Further, there are differences in qualifications and experiences of internal auditors among SOEs. Some SOEs, especially the ones engaged in highly specialised operations, there are shortages of operational audit staff as experts in these operations are not easily attracted to choose an IA careers. In some of such organizations, IA uses services of other experts in the organizations.

Moreover, the level of internal auditors' salaries and benefits and management's decision making autonomy appears to vary depending on the level of the SOE. Those classified as level 1 had greater decision making autonomy, and the level of salaries and benefits to IA staff (as well as other staff) are higher in level 1 SOEs. Although all SOEs in this study are in level 1, there are some differences in this regard within this level as well. Some of these enterprises seem to have a high level of flexibility in decision making, whereas others may not.

IA in this sector tends to exhibit a higher profile in SOEs having connection with the international business environment. This connection could be in the form of having international customers/suppliers or of being subjected to assessment of product/service standards by international agencies. This indicates that the pressure from the international business environment could serve as a normative force for the development of IA.

In most enterprises covered by this study, short-term training budgets are established. However, the interviews suggest that there appears to be a shortage of supply of relevant training in the market. Although this generally appears the case, SOEs in the banking and insurance industries established a joint training centre. Some other large enterprises in other industries also established in-house training institutes to provide tailored training to their internal auditors and other employees alike.

In most of the SOEs, which had an in-house training facilities, internal auditors participate in trainings provided to employees of other departments. A participant from one such enterprise (Participant 9, IA director) stated ‘...we use this approach because it provides a training opportunity to enhance internal auditors’ understanding of the organization’s systems and operations’. The contributions of in-house training institutes suggest how size of the enterprises could contribute to IA effectiveness by providing the capacity to establish training centres that could benefit internal auditors.

Some of the in-house training centres also provide IA training to other organizations’ internal auditors. This practice serves as a forum for experience sharing and improving practices through mimetic isomorphism. This could make a profound contribution for IA effectiveness especially given the inadequate IA training service suppliers in the Country. For example, participants frequently expressed that a leading SOE in the Country has a high-profile IA department. Internal auditors of various organizations attended training organized by this enterprise’s IA department. Several participants indicate that internal auditors who participated in those training sessions found them useful.

Some other organizational attributes also appear to vary substantially among SOEs. For example, limited attention to IA findings, especially where top management appeared ‘indifferent’, seems to have contributed to limited action of auditees on IA recommendations. Some internal audit departments indicated to have overcome this challenge via innovative IA leadership. As one of the participants (Participant 14) indicates:

‘We inform our findings to the auditees and discuss with them that we would wait to see rectifications done before we issue our final reports so that the rectified findings would not get reported. Since we started using this approach, our relationship with the auditees has improved a lot. Most auditees started considering our service as a support to them [Participant 14, IA director].’

Another IA department also managed to ease its relationship with auditees by reducing surprise audits and by allowing participation of auditees in setting audit priorities instead. It also uses in-house training centres as a forum to promote IA services. The participant from the same SOE (Participant 6) stated,

‘We started informing the auditee in advance of fieldwork and inviting them to provide input on priority areas. Another approach in our organization is that internal audit is provided a time slot to provide a briefing of its services when training is provided to managers in our in-house training programs. These approaches have helped improve our relationship with the auditees [Participant 6, IA director].’

In managing similar challenges of auditee discord that possibly emanated from auditee’s limited awareness of IA, yet some other internal audit departments approached the problem by redefining their audit philosophies. As a participant (Participant 16) commented:

‘... we are also trying to improve our approaches. As there has been awareness problem in the part of auditees, we approach our job such that they [auditees] could understand that we audit the jobs rather than the people. As much as possible, we try to follow a supportive approach and to emphasize identification of policy and procedural limitations and recommend possible improvements that could prevent similar irregularities. This approach has helped ease our relationship with auditees [Participant 16, IA director].’

The foregoing three quotes suggest that innovative IA leadership and approaches could help improve the function’s relationship with auditees and the broader setting in which IA operates. The interviews also indicate there are variations in the level of awareness of auditees. Some auditees invite audits to be conducted and provide tips on priority areas. On the other hand, others act in more defensive ways. These phenomena imply that in some organizations, internal auditors could perform their duties in a state of tension between the difficulty of managing auditee behaviour and the professional aspiration to conduct productive internal audit work by surmounting such challenges.

Furthermore, management support to internal audit is identified as one of the factors that bode well with a good IA department profile. Control-aware general managers tend to consider IA as a highly useful management tool. In such cases the demand for IA’s consulting services appears considerable. In a few such cases, top management recognizes the valuable services of internal audit. In such organizations, the salary levels of internal audit positions are upgraded separately from other positions that would require similar qualifications as internal audit positions.

Internal auditors are mostly called for advice on policy issues in most SOEs and they participate in committee assignments as observer (non-voting) members. However, the extent of top management's use of internal audit as a source of advice and management's support for internal audit appears considerable in enterprises where top management is supportive of IA. In one such enterprise, implementation of internal audit recommendations is considered as a part of the balanced scorecard performance measurement criteria for auditees. The control-awareness of top management tends to be linked with SOE size, the riskiness of operation, and/or complexity of operations. Overall, auditee cooperation appears substantial in enterprises where top management support for internal audit is high. Furthermore, management's appreciation of IA's services seems to moderate the link between high IA profile (and possibly effectiveness) and the level of an organization's risk exposure. This could be explained in terms of management's appetite to manage risk using internal audit as one of the tools.

Another factor considered in this study is the nature of the link between internal and external audit. The interviews provide mixed evidence on the influence of these forces. Coordination between internal and external audit is generally limited in most cases (Mihret et al., 2009a). Yet, some participants indicate that follow-up of external auditors' recommendations is integral part of IA's responsibility. In such organizations, internal auditors are invited to attend external auditors' exit conferences and/or receive internal control memoranda regularly. Reliance of external auditors on IA work and coordination between the two is, nonetheless, limited. Furthermore, participants believe that external auditors' recommendations serve as a source of increased attention to IA findings in their organizations especially when the recommendations of the two coincide. Although experiences vary, some IA departments are involved in evaluation of technical proposals during processing of bids for external auditor selection.

The interviews also indicate that external audit is not a major source of recruitment of internal auditors. Further, it is not the practice of internal audit being outsourced to external auditors, and thus the positive or negative consequences that it brings (Mihret et al., 2009d) seem to exhibit little relevance in

the context of Ethiopia. Generally, external audit seems to have little influence on internal audit practices.

In addition to that of external audit, the study considered the influence of external consultants as another potential source of normative pressure of IA effectiveness. Like the case in Government ministries (discussed in a later subsection), major changes that resulted in a higher IA profile in this sector are traced to international consultants' recommendations. The decisions to employ international consultants are in turn traced to Government decisions. Once the changes are made to IA practice, they are adopted by other SOEs and private companies, especially those within an industry. This offers evidence for the state's role as a nexus for internal audit and international sources of normative pressure for IA development.

Generally, there are variations in IA profiles in SOEs. Some IA departments are relatively high profile and make positive contributions to other organizations' IA departments via mimetic isomorphism. In such organizations, IA is relatively well accepted at all organizational levels. In contrast, there appears to be little appreciation of the value of IA services and thus inadequate support to IA at lower levels in several enterprises. Top management in SOEs are either supportive of or indifferent about internal audit, but had little impeding effects on IA practices. Top management's control awareness appears to have had a positive contribution to IA effectiveness. As a participant (Participant 14) commented:

'The General Manager considers internal audit as a useful function; he consults us when he makes major decisions. Even when special investigations are called for by the board on some decisions that he made, the General Manager invites us to investigate the issues and lets us do it with complete independence. And then he evaluates his decisions in light our independent views [Participant 14, IA director].'

In some SOEs, internal audit exhibits loose coupling in the sense that there is a gap between societal expectation and the actual practice of IA. This suggests a phenomenon where internal audit's level of service is not exploited well. The higher coercive pressures at a policy level (i.e., PPESA directives) together with the rather limited control awareness in some organizations appear to have resulted in the loose coupling of internal audit. Compared to most corporate governance

codes in Western countries, the Ethiopian corporate governance practices (at least the ones that apply to internal audit) are driven by Government requirements rather than market forces. Consequently, variations in internal audit's level of acceptance appear to be associated with top management's level of appreciation of internal audit services. The major factor that appears to have attenuated IA effectiveness was an awareness problem at lower levels. This situation sometimes led to auditee discord with IA, especially where management support for IA is inadequate. Major points for the three sectors are summarized in Table 5.2.

5.2.2 Private companies

Private companies are share companies established and run as per the Commercial Code of Ethiopia 1960 (Government of Ethiopia, 1960). As there are no publicly listed companies in Ethiopia, all companies studied in this sector are private companies. A preliminary assessment revealed that most Ethiopian private companies are small businesses and/or family owned firms which largely did not adopt internal audit. Private banking and insurance companies, however, are relatively sizable because of minimum start-up capital requirements. Direct government regulations that require IA establishment in private companies are also restricted to the banking and insurance industries. Thus, only banking and insurance companies were covered in the study from the private sector. Unlike the case for SOEs and ministries where at least development of separate IA charters are in progress, separate IA charters are non-existent in most private companies studied. The exception is that IA charters were at draft stages in some of these companies. Nevertheless, there are other policy documents that specify the scope, authority, and responsibility of IA.

IA departments mostly report to general managers rather than boards of directors and audit committees are absent. A few IA departments, nevertheless, have robust links with boards of directors and are in progress to upgrade reporting relationships of IA to boards. Generally, where IA departments report to boards of directors, IA directors hold regular periodic meetings with boards. The largest bank is a State-owned enterprise and its IA practices seem to have diffused to

other banks both in the SOE and the private sectors alike. This bank upgraded the reporting status of IA to the board of directors and then some of the banks in the private sector also started considering this change.

Such mimetic isomorphic pressures are also observed in the overall approach to internal audit. A notable example identified in interviews was a radical change to relinquish pre-audit, in favor of post-audit, of major banking transactions. Most participants feel that banking transactions involve risk, and that is especially that case in relation to loans. This is because once a loan is approved and disbursed a sub-optimal decision cannot easily be reversed. As a result, internal auditors in banks were involved in pre-audits. In this approach, audits are conducted before transactions are executed. Thus, bank branches had internal auditors who report administratively to branch managers and functionally to internal audit directors at headquarters. The interviews show that although IA played little decision making role in the pre-audit approach, the potential for compromising independence was felt.

Following recommendations by international consultants, the largest bank started to maintain IA only at headquarters such that internal auditors in each branch became a part of operations. IA then started conducting post-audits by prioritizing its work mainly based on risk. Some of the other banks also followed suit. However, one banking company that employed a well established information technology infrastructure started to employ a more innovative audit approach in this regard. Like some other banks did, they relinquished pre-audit and branch internal audit staff became part of operations. Yet, they believe that some banking transactions deserve closer audit attention. Therefore, they used their information technology infrastructure to view the progress of transactions in all branches online, on a real time basis. Based on this ‘concurrent’ rather than retrospective review of major transactions, auditors could provide immediate reports when they notice irregularities. This signifies how information technology could serve as an enabler to augment internal audit effectiveness.

A high level of Government regulation, through the National Bank of Ethiopia, applies to the banking and insurance industries in the Country. The

participants believe that this regulation and supervision made a direct contribution to the establishment of IA in companies operating in the two industries. Establishment of IA is mandatory upon establishment of any bank. As a result, all banks included in the study had IA departments from the beginning. Furthermore, the National Bank regularly inspects internal control practices of the banks. The National Bank's inspectors have close working relationships with the internal audit departments of banks. Audit priorities of IA departments in the banking and insurance industries are also closely aligned with the priorities of the National Bank's inspectors. This alignment suggests the importance of coercive pressures in shaping internal audit practices.

The monitoring and regulatory practices served as a coercive pressure for companies in the banking industry to maintain high profile internal audit departments. This is arguably because enhanced top management support for internal audit helps reduce the risk of failure to comply with regulatory requirements. Although the regulations constitute a coercive isomorphic pressure, the interview results suggest that such pressures tend to transform to normative pressure over time. This is because unlike the case in other private sector companies, internal audit is generally considered as a necessary activity in the banking industry's culture.

In comparison, the regulatory body (i.e., the National Bank of Ethiopia) does not oblige insurance companies to establish IA, but highly recommends it. Thus, in the case of insurance companies, the coercive pressure is not so strong. Although some insurance companies established IA from the very beginning, some did not adopt IA, and yet others adopted IA rather recently. The National Bank's inspectors regularly conduct assessments of control infrastructures of insurance companies and forward recommendations for improvement. The recommendations include strengthening internal audit or establishing one where it does not exist. Thus, unlike the case in the banking industry, the influence of the National Bank on the development of internal audit is more normative than coercive.

Internal audit is relatively strong in the banking and insurance industries whereas the function is absent in most other private sector companies. This contrast could suggest that the coercive and normative pressures that apply to the financial industries contributed to IA development in these industries. Another feature of IA in these sub-sectors is that, arguably due to the National Bank's supervision impact, IA exhibits a substantial operational audit focus. This goes to the extent that in some insurance companies, internal audit is almost entirely focused on operational audit, with only a scant attention to financial audit. This stands in contrast to the observations (e.g., Al-Twajry, Brierley & Gwilliam 2003; Mihret & Yismaw 2007) in developing countries where IA tends to focus on routine compliance audits.

Like the other two categories of organizations studied, top management in this sector is either supportive or indifferent to IA, with little restraining effect on IA practices. When top management is supportive, the contribution to IA effectiveness appears instrumental. As one participant (Participant 19) stated:

'The general manager is very much aware of the benefits of internal audit; he is excellent, he considers our input seriously and our independence has rarely been compromised. He focuses on quality of our work. As long as our findings were appealing to him, he always grants adequate attention to them. For that reason, we did not even push further with the idea of upgrading our reporting status to the board. The board may also have insufficient time to look into our reports; and board members might lack the expertise at times. In our experience so far, we prefer to report to the general manager [Participant 19, IA director].'

The interviews also suggest that middle and lower level management tend to be less supportive in some organizations. Especially when auditees have family relations with top management and/or board members, the tendency to be defensive is apparent. This latter observation could imply a significant challenge to the development of IA in other private sector organizations in a country like Ethiopia where most private sector companies possibly have less distributed ownership.

Auditors' qualifications and experiences in private companies included in the study appear to be higher than those in the other two categories of organizations. Companies in this sector generally tend to attract and retain relatively well-qualified internal auditors because they provide competitive offers.

The interviews indicate that salaries and benefits offered in this sector are generally higher than those in the other two sectors. There is also considerable flexibility in decision making in this sector. As and when the need is felt, decisions to upgrade internal auditor's salary and benefits as well as their career prospects would be made. This seems to put the sector in a better position than the other two sectors in terms of auditors' profile. Thus, this sector mostly exhibits relatively higher educational levels and greater work experience of internal audit staff.

Within the companies included in this sector, IA effectiveness tends to vary with types of business (i.e., banks vs. insurance) rather than by company size within an industry. The type of business is also linked to the profile of IA apparently through the impact of Government regulations and monitoring. As frequently mentioned in the interviews, there is also an experience sharing forum among internal audit directors of banking companies—both State-owned and private. The forum is aimed at controlling inter-bank fraudulent transactions and to share experiences. This seems to have enhanced the quality of IA practices in banks especially in audits of fraud. Again, within similar types of business where Government influence was similar, attributes of the specific organizations like level of advancement of IT infrastructure and top management control awareness seem to shape internal audit profiles. This signifies that the potential factors in isolation provide possibly inadequate explanation of variations in IA effectiveness across companies.

Sources of pressure for the development of IA and for the company-wide acceptance of the function largely emanate from Government requirements coupled with top management support for IA. In companies where the general managers consider IA as a crucial function, the acceptance of the function company-wide also appears high. Acceptance of IA at a top level is mostly high in the two industries. This is possibly because the establishment of internal audit is appreciated in this sector due to the assistance it could provide management to meet regulatory demands. That is, management possibly appreciates internal auditor's role in preventing adverse consequences of failure to meet regulatory

requirements. This makes it imperative for the IA profession in Ethiopia to advocate for internal audit in different ways to top management.

Furthermore, some variations are noted in some dimensions of IA practices across these private companies studied. On-the-job training is provided on a regular basis to internal audit staff in some companies. Budgets are also allowed for external short-term training options although the problem remains that there are not sufficient providers of relevant IA training in the Country. As compared to the other two sectors, the practice of establishing in-house training institutes is not frequently observed in the private companies covered in the study apparently due to the relatively small size of these companies.

TABLE 5.2
Summary of patterns in interview data

Parameters	Key observations by organizational category		
	Share Companies	State-owned Companies	Ministries
Internal audit charter and organizational status	<ul style="list-style-type: none"> - IA charters are mostly non-existent or at draft stages. But there are other policy documents that specify the scope, authority and responsibility of internal audit. - Level of reporting is to GM rather than the board of directors. - Where IA has a link with board of directors, IA directors usually hold periodic meetings with the board. - IA administrative and functionally reports mostly to top management. - Reports to the board of directors are limited. - Those having connection with the international business environment have better IA profile. - Large companies have sub-units within internal audit (e.g. separate systems audit units). - There are similarities in IA organization within banks and within insurance companies. 	<ul style="list-style-type: none"> - IA charters are mostly at draft stages. But there are other policy documents that specify the scope, authority and responsibility of internal audit. - Organization status of IA in SOEs tends to be similar. - Most IA departments functionally report to the to the audit committees and administratively to the general managers. - Directives issued by PPESA significantly influenced the operation of IA in the sector. - All SOEs are required to have audit committees and PPESA assigns audit committees. - SOEs having connection with the international business environment have better IA profiles. - IA department of a leading SOE has time slots in training sessions for managers. - Large SOEs with complex operations have several sub-units in the IA departments. - Some organizations have separate sub-units for operational audits. 	<ul style="list-style-type: none"> - A uniform IA charter for all organizations in this sector is being drafted by the MoFED. The IA produced by MoFED specifies the scope, authority and responsibility of internal audit. - IA in organizations studied in this sector report to the minister. - Requirement by the MoFED is for IA to report to the head of the public office. - There is no board of directors and audit committee. - IA departments in these organizations report to MoFED's inspection department.
Attribution of formation and reporting status of internal audit	<ul style="list-style-type: none"> - In the companies included in the study, were banks and insurance companies. - In the two industries there is a high level of government regulation through the National Bank of the Country. This regulation and supervision has a direct contribution for the establishment of internal audit in the companies operating in the sector. - For the banks, internal audit is required upon establishment. - In insurance companies, the influence is through inspectors' recommendations in the reports after they conduct supervision. 	<ul style="list-style-type: none"> - Directives by PPESA are the source of authority of internal audit. - The directives require SOEs to have internal audit departments. - PPESA assigns board of directors and audit committees for state-owned companies. 	<ul style="list-style-type: none"> - All organizations in the public sector are monitored by MoFED as the latter provides the former's budget. - The reporting to the ministers and the role MoFED has a positive contribution for internal auditor independence. - Poor staffing of IA departments appears to limit effectiveness. - At higher level, there are pressures that enhance IA effectiveness. At organization level, IA has less power than the auditees in some organizations. This phenomenon seems to lead to decoupling.

TABLE 5.2 (Continued)
Summary of patterns in interview data

Parameters	Key observations by organizational category		
	Share Companies	State-owned Companies	Ministries
Staffing	<ul style="list-style-type: none"> - Auditors' qualification and experience in this sector seem better than in organizations in other sectors. - This sector has the capacity to attract and retain well qualified internal auditors. - The salary and benefits offered are higher than those in the other two sectors. - Mostly general managers hire and fire IA directors. 	<ul style="list-style-type: none"> - There are variations among organizations in this sector in terms of qualification and experience of internal auditors. The level of salary and benefits in this sector and the autonomy of decisions tend to vary depending on the level of the SOEs. - SOEs in level 1 provide better offers to auditors and have the autonomy to make decisions. There are variations in this regard among the SOEs studied apparently as a result of differences in the attributes of top management. - The board of directors hire and fire IA directors; general managers have a say. 	<ul style="list-style-type: none"> - IA departments in this sector are mostly not well staffed. - The salary and benefits in this sector are low compared to the other two sectors. - There are also shortages of IA staff exhibited by vacant posts in most organizations. - There is high staff turnover.
Scope of work	<ul style="list-style-type: none"> - In the companies studied IA has both operational and financial focus. - There is mostly a tendency to focus on operations. Especially in the insurance sector, there are companies in which IA is largely focusing on operational auditing only. - The IA works are also aligned with National bank's areas of focus. - Consulting assignments take the form of: 1) written assignments by management, 2) providing comments on policy meetings, and 3) participation in committees as non-voting members. - IA mostly undertakes follow-ups of external audit findings. External auditors' reliance on IA work is not substantial. 	<ul style="list-style-type: none"> - The focus is wide ranging as per the PPESA regulation. - Consulting assignments take the form of: 1) written assignments by management, 2) providing comments on policy meetings, and 3) participation in committees as non-voting members. - IA mostly undertakes follow-ups of external audit findings. External auditors' reliance on IA work is not substantial. 	<ul style="list-style-type: none"> - There is mostly finance focus. The jobs are specified by MoFED. - Most transactions are structured and thus audit priorities are set based on audit cycle approach. - IA mostly undertakes follow-ups of external audit findings. External auditors' reliance on IA work is not substantial.
Limiting factors	<ul style="list-style-type: none"> - There is awareness problem at lower levels. - In some companies there is low level of management's appreciation of IA's role to some degree. 	<ul style="list-style-type: none"> - There appears to be awareness problem at lower levels. - To some degree, management's lower level of appreciation of IA's role seems to cause decoupling. - It is difficult to find IA staff for operational audits in SOEs that are engaged in specialized operations. 	<ul style="list-style-type: none"> - There appears to be awareness problem at lower levels. - There is high staff turnover and staff shortage

TABLE 5.2 (Continued)
Summary of patterns in interview data

Parameters	Key observations by organizational category		
	Share Companies	State-owned Companies	Ministries
Training	<ul style="list-style-type: none"> - Training budgets are available in most companies. - There is a shortage of supply of relevant trainings in the Country. This results in lower level of use of the budgets. 	<ul style="list-style-type: none"> - Trainings are budgeted for in most cases. - Often there is a problem of lack of relevance of the trainings because there are no relevant training suppliers in the Country. Some organizations have joined hands to establish training centre at industry level. Some other organizations have established training centres of their own. Such centres provide trainings to IAs of other organizations as well. - Generally the shortage of relevant trainings in the country is more pronounced than shortage of willingness and budget from organizations. 	<ul style="list-style-type: none"> - MoFED provides IA training. - MoFED also prepares IA manual, which could serve as a training ground. - Generally, the participants feel that the level of trainings provided is sufficient. Relevance of the trainings is also high.
IA acceptance at top level	<ul style="list-style-type: none"> - IA acceptance in banking and insurance companies is mostly high. This is perhaps because the formation of IA is due to the understanding of IAs value in assisting compliance of these companies to regulatory requirements. - IA acceptance appears to depend on the general managers control awareness. - Industry culture at banks seems to have contributed to enhanced IA acceptance 	<ul style="list-style-type: none"> - IA acceptance appears at a medium level in general because in some cases there is decoupling. - PPESA directive seems to have a huge impact. In addition, there is Federal ethics and anti-corruption commission in the control and ethics infrastructure. 	<ul style="list-style-type: none"> - IA acceptance appears generally low at organizational level but very high at sector level. - MoFED provides additional leverage for IA acceptance in ministry organizations. MoFED undertakes follow-up of IA finings.
IA acceptance at lower level	<ul style="list-style-type: none"> - Participants generally seem to believe that IA acceptance at lower organization levels is not adequate. - Industry culture at banks seems to have contributed to enhanced IA acceptance. 	<ul style="list-style-type: none"> - Participants generally seem to believe that IA acceptance at lower organization levels is not adequate. 	<ul style="list-style-type: none"> - Participants generally seem to believe that IA acceptance at lower organization levels is not adequate.
Remark	<ul style="list-style-type: none"> - In the case of share companies, normative pressures that are driven by high level of demand for control seem to have resulted in the need for IA. - There is a forum of heads of internal auditors in banks to control fraud detection experience and to share information. This seems to have enhanced the quality of the practice. - IA leadership attributes, innovative IA approaches, top management attributes and other organization level attributes seem to influence the quality of IA practice. - IA in most companies 	<ul style="list-style-type: none"> - A higher coercive pressure from the Government through PPESA coupled with the low level of acceptance of IA at organization level seems to lead to decoupling. - IA leadership attributes, innovative IA approaches, top management attributes and other organization level attributes seem to influence the quality of IA practice. 	<ul style="list-style-type: none"> - IA practice is largely explained by coercive pressures from government through MoFED. - Transactions are largely structured. Thus MoFED's uniform manual, its follow up of IA findings, and planning and provision of training centrally seem to contribute to IA effectiveness given the apparently low level of normative pressures for IA effectiveness.

5.2.3 Government ministries

For the purpose of this study, Government ministries are organizations that operate under a budget of the Federal Government of Ethiopia. The organizations in this category share a uniform IA manual that the Federal Ministry of Finance and Economic Development (MoFED) developed in 2004. The manual (MoFED 2004) specifies the scope, authority, and responsibility of IA and provides guidance on the conduct and documentation of internal audit work. The interviews indicate that the Ministry is in the process of drafting a uniform charter in addition to the scope, authority, and responsibility of IA specified in the manual. The interviews also show that MoFED monitors the operations of internal audit in all federal ministries and provides support in the form of training as well as other guidance as necessary.

In this sector, there are no boards of directors or audit committees. The interviews indicate that the necessity of audit committees in this sector was considered. However, it was concluded that committees are rarely successful in practice and thus it was decided not to establish audit committees. Internal audit departments in ministry organizations are required to report administratively as well as functionally to heads of public bodies (MoFED, 2004). While this is largely the case in practice, the interviews nevertheless show that there are organizations where internal audit had little reporting independence from other organizational units (e.g., finance and procurement).

Generally, as per the requirement of MoFED, the reporting status of IA in this sector is considered high. This is because IA reports to the head of the public body (the minister). To provide further leverage, MoFED conducts follow-ups of IA findings and considers IA reports as input for budget allocation. MoFED monitors all organizations in the sector and also provides budgets for all ministry organizations. Establishment of internal audit and the function's reporting status in the sector appears largely attributable to MoFED directives. Reporting to the ministers and the role of MoFED appear to contribute positively to enhance IA's independence. However, constraints to

auditors' independence are apparently observed in some organizations. This is either due to limited management support to IA or inadequate IA acceptance at lower and middle management levels.

Interviewed participants feel that most IA departments in this sector are not staffed with well-trained internal auditors. The sector appears not to be sufficiently competitive to attract and/or retain highly qualified internal audit staff. As a result, there were shortages of IA staff in most organizations studied. Most participants believe that the pay rates and career prospects are not as attractive in this sector as they are in most SOEs and private companies. Such a phenomenon potentially limits the effectiveness of the IA function in the sector. The flexibility of decision making to strengthen IA is rather limited compared to the other two sectors. IA policies as well as practices are uniform in organizations in this sector. The interviews also indicate that there are pressures and encouragement at government policy level (i.e., MoFED initiatives) to strengthen IA. This is also linked with the Government's initiative to modernize public sector financial management. This reform, in turn, is traced to the Government's interactions with international financial institutions, like the World Bank and International Monetary Fund. This pressure could be interpreted as the state being the conduit for international organizations' and professions' vested interests in developing countries.

IA's acceptance is apparently high at sector level. That is, MoFED, which could be considered as the ultimate top management as it is the resource provider to ministry organizations, provides attention and support to IA in this sector. At an organizational level, nevertheless, the awareness about IA and the tendency to utilize IA's services appear limited. The interviews suggest that at lower levels, the issue of IA's acceptance is complicated in some cases because the status of IA could be lower than that of auditees. In some such organizations where there is a culture of taking decisions by a majority vote rather than consensus, a not-well received IA director would be voted out in most decisions. In contrast, some other organizations, accept IA at a level apparently high enough to conduct effective internal audit. The differences appear to be largely

attributable to top management's appreciation of IA's usefulness and commitment of the former to pay attention to IA and its recommendations.

The scope of internal audit work as specified in the manual is wide-ranging. However, by the time the interviews were conducted, IA was mostly focused on financial audits. Organizational reforms were in progress in the sector with high Government priority. MoFED also prepared the IA manual with assistance from Western consultants as part of such reforms. The participants feel that the manual in use was largely focused on financial audit. Thus, preparation of systems and performance audit manuals were in progress. MoFED's influence on IA practice in this sector provides additional evidence of the State's role in the development of IA by serving as a nexus between global forces (e.g., international funding agencies and consultants) and IA practice in Ethiopia.

In addition to the contribution through the development of manuals and provision of other guidance, MoFED plays a positive role in IA effectiveness by conducting follow-ups of IA findings. Regular review meetings are conducted in which IA directors of all federal ministries participate. In these meetings model IA departments are named and their achievements highlighted. This situation serves as a forum for experience sharing and a source of isomorphic input for other organizations to utilize. Moreover, MoFED provides IA reporting formats as well as short-term training to internal auditors in the sector. The interviews indicate that these training sessions are valuable inputs to the participants. Generally, interviewees opine that the amount of training provided is adequate and contents are relevant to their work. This suggests how organizations in this sector benefit from economies of scale because MoFED plans training centrally at a national level. Thus, Government mechanisms enable training to become more systematic and relevant than is the case in the other two sectors. As opposed to the case in most SOEs and some private companies, organizations in this sector do not provide financial support to internal auditors to study for professional certification.

The Federal Ethics and Anti-corruption Commission also undertakes oversight of ethical practice in all Ethiopian Government organizations (including SOEs). While the Commission appears to have supported IA practice in some way, most participants indicate that the link between internal audit and ethics officers has not been clear and well developed. A participant (Participant 14) commented:

‘The Commission could have some positive contribution to internal audit. The challenge is that there is a difference in approach. Internal audit undertakes its activities as per its annual plan and mainly considers organizational phenomena that are supported by documentary evidence. On the other hand, they [Anti-corruption Commission officers] perform police-type investigations. Therefore, the Ethics and Anti-corruption commission conducts further investigations that are beyond our domain and capacity. When we find such cases, we refer them to the Commission through our Legal Services Department. However, I would say, the relationship between internal audit and the Commission is not clear and well developed as yet [Participant 14, IA director].’

Yet, most participants expect potential mutual support between IA and the Commission once the relationship between the two functions has become refined and mature. Given its potential for enhancing IA effectiveness, the Commission’s presence in the mosaic of government accountability mechanisms in Ethiopia could be considered as yet further evidence of the state’s role to shape the overall setting in which effective IA could take place.

Similarly, the link between internal and external audit is also limited in most ministries studied. The participants felt that a strong link between the two could have benefited both internal and external audit and could help enhance IA effectiveness. This is because external auditors’ reporting link to the House of People’s Representatives could apparently help IA tap into a higher decision making body.

Generally, the fact that all Government ministries adopted IA is an indication of the government’s high level of attention to IA. Despite this apparent will at Government policy level (i.e., MoFED initiatives) nevertheless, IA services have not been highly appreciated and supported at lower levels in most organizations. Consequently, IA departments in some organizations had lesser status than auditees. IA services appear not sufficiently exploited by top

management in most organizations. The support provided to IA at lower levels of organizational hierarchies also seems limited. Furthermore, the interview results suggest that IIA-Ethiopia did not develop the capacity to exploit opportunities and facilitate the development of IA in Ethiopia.

Like the situation in the other two sectors, top management in this sector seemed to have been either supportive or ‘indifferent’ about IA, with little restraining effects on IA practices. Where top management is supportive, IA appears to exhibit higher profile than in other organizations where top management is less supportive. Apparently due to the differences in the attention to IA at organizational level vis-à-vis the policy level coercive isomorphic pressures, there seems to be decoupling of IA. This seems to result in IA’s lower level of service to the organizations than the participants would have expected.

5.3 Chapter summary

This chapter examined country- and organization-level influences on internal audit effectiveness based on qualitative research evidence. At country level, the role of the Government (as well as accounting professionalization at large) on the development of internal audit has been discussed over the three epochs of Ethiopia’s politico-economic development. These periods are pre 1974 when Ethiopia was a developing capitalist-oriented economy, 1974 to 1991 when the Country was a communist economy, and post-1991 when the Country has been following a capitalist-oriented economy. Overall, the results demonstrate the State’s role in the development of IA through coercive pressures, which are largely attributable to government involvement in economic activity and its regulatory functions. In the absence of strong market forces, Government’s role in setting the overall scene of accountability mechanisms in government organizations appears to have contributed to IA adoption as well as effectiveness in Ethiopian organizations. The State also serves as a nexus between IA and international sources of normative pressure for IA development. Organization-level attributes, i.e., *top management support*,

extent of risk exposure, company connection with the international business environment, IA's information technology advancement, and IA leadership demeanour tend to be linked with IA effectiveness in Ethiopian organizations to a larger extent than the contributing factors for IA adoption. Overall, country- and organizational-level contextual dynamics appear to map onto IA effectiveness with coercive pressures from government leading to IA adoption and normative pressures largely accounting for IA effectiveness. The following chapter presents quantitative results from hypotheses testing of the relationships between some of the measures discussed in this and the preceding chapters.

Chapter 6 Quantitative data results

This chapter presents the results of quantitative data analysis. It reports results of survey of internal audit (IA) directors and staff as well as middle level managers of organizations covered in the study. It begins with questionnaires' response rates and descriptive statistics. Results of reliability analysis for data collected using Likert-type scale are then reported. This is followed by tests of distributions' normality and inter-item correlations. Section four presents the results of hypotheses testing. Then the penultimate section reports managers' perceptions of IA effectiveness. Finally, a chapter summary is provided.

6.1 Descriptive statistics

6.1.1 Attributes of the sample

The sample in Set A (Questionnaire for IA directors and staff) comprised of 136 males (72.3 per cent) and 41 females (21.8 per cent); eleven participants did not indicate gender. Respondents' age distribution ranged from 20 to 30 to over 60 years. In terms of job title, the sample was composed of junior auditors (n=29, 15.4 per cent), auditors (n=48, 25.5 per cent), senior auditors (n=27, 14.4 per cent), audit managers (n=13, 6.9 per cent), and internal audit directors (n=24, 12.8 per cent). Forty-seven participants did not respond to the job title question. This is possibly because the job title descriptors in the questionnaire do not fit exactly with the job titles in some organizations. For example, it was understood from the interviews that titles like *internal audit department head*, *internal audit process owner*, and *inspector* are used in some organizations. On the other hand, more generic titles were used in the questionnaires. Descriptive statistics of the data are presented in Table 6.1.

TABLE 6.1
Gender, age, and job title of respondents

<i>Gender</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	136	72.3	76.8	76.8
	female	41	21.8	23.2	100.0
	Total	177	94.1	100.0	
Missing	System	11	5.9		
Total		188	100.0		
<i>Age</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 to 29	50	26.6	28.9	28.9
	30 to 31	68	36.2	39.3	68.2
	40 to 49	36	19.1	20.8	89.0
	50 to 59	17	9.0	9.8	98.8
	Over 60	2	1.1	1.2	100.0
	Total	173	92.0	100.0	
Missing	System	15	8.0		
<i>Job title</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Total		188	100.0		
	Junior auditor	29	15.4	20.6	20.6
	Auditor	48	25.5	34.0	54.6
	Senior auditor	27	14.4	19.1	73.8
	audit manager	13	6.9	9.2	83.0
	Internal audit director	24	12.8	17.0	100.0
	Total	141	75.0	100.0	
Missing	System	47	25.0		
Total		188	100.0		

Participants' work experiences ranged from below 3 years to over 15 years (Table 6.2). Forty-seven participants (27.6 per cent) had 1-3 years of experience, 54 participants (31.6 per cent) had 3-6 years of experience, 33 (19.4 per cent) had 6-9 years of experience, 16 participants (9.4 per cent) had 9-12 years experience, 11 participants (6.6 per cent) had over 15 years experience, and 10 participants had 12-15 years experience.

TABLE 6.2
Respondents' work experience

		Frequency	Percent	Valid Percent	Cumulative Percent
<i>Number of years in internal audit</i>					
Valid	Below 3 years	47	24.9	27.6	27.6
	3-6 years	54	28.7	31.6	59.1
	6-9 years	33	17.6	19.4	78.4
	9-12 years	16	8.5	9.4	87.7
	12-15 years	10	5.4	5.9	93.6
	Over 15 years	11	5.7	6.6	100.0
	Total	171	91.0	100.0	
Missing	System	17	9.0		
Total		188	100.0		
<i>Years of experience other than internal audit</i>					
Valid	0.5-3 years	43	22.8	31.3	31.4
	3.5 – 6 years	25	13.3	18.1	49.6
	7-10 years	25	13.3	18.3	67.9
	11-15 years	22	11.8	16.1	83.9
	16-34 years	22	11.5	15.9	100.0
	Total	137	72.9	100.0	
Missing	System	51	27.1		
Total		188	100.0		

In terms of educational background, most participants had bachelor's degrees (n=125, 66.5 per cent) followed by college diplomas (n=38, 21.1 per cent) (Table 6.3). Others had master's degrees (n=10, 5.6 per cent) and vocational school certificates (n=7, 3.9 per cent). Twenty-three participants were certified internal auditors (CIA), certified public accountant, certified management accountant, or had other certifications. Sixteen participants (41 per cent) were progressing for their professional certifications. Participants were from accounting (128, 70.7 per cent), management (22, 12.2 per cent), economics (17, 9.4 per cent), and information technology (14, 7.7 per cent) backgrounds.

TABLE 6.3
Educational background and certification

<i>Level of education</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Technical/vocational school certificate	7	3.7	3.9	3.9
	College diploma	38	20.2	21.1	25.0
	Bachelors degree	125	66.5	69.4	94.4
	Masters Degree	10	5.3	5.6	100.0
	Total	180	95.7	100.0	
Missing	System	8	4.3		
Total		188	100.0		
<i>Professional certification</i>					
Valid	Certified internal auditor (CIA)	6	3.2	15.4	15.4
	Certified/chartered accountant (CPA)	4	2.1	10.3	25.6
	Certified management accountant (CMA)	1	.5	2.6	28.2
	Other certifications	12	6.4	30.8	59.0
	In progress for certification	16	8.5	41.0	100.0
	Total	39	20.7	100.0	
Missing	System	149	79.3		
Total		188	100.0		
<i>Field of study</i>					
Valid	Accounting	128	68.1	70.7	70.7
	Management	22	11.7	12.2	82.9
	Economics	17	9.0	9.4	92.3
	Information technology	14	7.4	7.7	100.0
	Total	181	96.3	100.0	
Missing	System	7	3.7		
Total		188	100.0		

Forty-eight respondents (25.5 per cent) were from Government ministries, 87 (46.3 per cent) from public enterprises, and 43 (22.9 per cent) were from private companies. Respondents were from organizations that employ 1 to 5 (n=57, 30.3 per cent), 6 to 10 (n=25, 13.3 per cent), 11 to 15 (n=11, 5.9 per cent) and over 15 (n=85, 45.2 per cent) internal auditors (Table 6.4).

TABLE 6.4
Organizational profile

<i>Organization category</i>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Government	48	25.5	27.0	27.0
	Public enterprise	87	46.3	48.9	75.8
	Private company	43	22.9	24.2	100.0
	Total	178	94.7	100.0	
Missing	System	10	5.3		
Total		188	100.0		
<i>Number of internal auditors</i>					
Valid	1 to 5	57	30.3	32.0	32.0
	6 to 10	25	13.3	14.0	46.1
	11 to 15	11	5.9	6.2	52.2
	over 15	85	45.2	47.8	100.0
	Total	178	94.7	100.0	
Missing	System	10	5.3		
Total		188	100.0		
<i>Total number of employees</i>					
Valid	less than 500	51	27.1	28.7	28.7
	501 to 1000	49	26.1	27.5	56.2
	1001 to 3000	47	25.0	26.4	82.6
	3001 to 5000	13	6.9	7.3	89.9
	5001 to 8000	8	4.3	4.5	94.4
	Over 8000	10	5.3	5.6	100.0
	Total	178	94.7	100.0	
Missing	System	10	5.3		
Total		188	100.0		

In terms of size of participants' organizations respondents were from organizations which employ less than 500 employees (n=51, 27.1 per cent), 501 to 1000 employees (n=49, 26.1 per cent), 1001 to 3000 employees (n=47, 25 per cent), 3001 to 5000 employees (n=13, 6.9 per cent), 5001 to 8000 employees (n=8, 4.3 per cent), or over 8000 employees (n=10, 5.3 per cent) (Table 6.4).

6.1.2 Internal audit staff and directors' responses

Descriptive statistics of responses of internal audit directors and staff to the items on Questionnaire Set A are presented next (Table 6.5 – 6.10). These statistics are considered self-explanatory and thus are not described further.

TABLE 6.5
Questionnaire responses, *Internal audit context*

Items	Strongly Agree N(%)	Agree N(%)	Neutral N(%)	Disagree N(%)	Strongly Disagree N(%)	Median
A. Organizational policy authorising internal audit						
1. The purpose of internal audit is clearly defined	67 * (36)**	90 (48)	13 (7)	13 (7)	3 (2)	4
2. The purpose of internal audit is in line with “Standards for the Professional Practice” formulated by the Institute of Internal Auditors	38 (20)	73 (39)	39 (21)	28 (15)	6 (3)	4
3. The authority of internal audit is clearly defined	48(26)	86(46)	26(14)	21(11)	4(2)	4
4. The authority of internal audit is in line with “Standards for the Professional Practice” formulated by the Institute of Internal Auditors	38 (20)	64 (34)	48 (26)	33 (18)	3 (2)	4
5. The document defining internal audit’s purpose and authority is approved by board of directors (or audit committee)	53 (28)	51 (27)	29 (16)	37 (20)	14 (8)	4
B. Auditee Cooperation						
1. Internal auditors have full access to records and information they need in conducting audits	78 (42)	83 (45)	4 (2)	20 (11)	2 (1)	4
2. Internal auditors receive full cooperation from auditees (units being audited)	23 (12)	99 (53)	26 (14)	30 (16)	5 (3)	4
3. Auditees regard internal audit as a value-adding service	18(10)	55(30)	49(26)	45(24)	14(8)	3
C. Risk Exposure of the organization						
1. There are adequate internal controls in the organization at large	15(8)	99(53)	32(17)	34(18)	6(3)	4
2. Frequency of transactions involving cash is high	81(44)	77(41)	14(8)	9(5)	4(2)	4
3. The organization has large amount of receivables	82(44)	63(34)	22(12)	18(10)	1(1)	4
4. The organization has large amount of inventories	54 (29)	49(26)	20(11)	54(29)	6(3)	4
5. There are enough employees to carry out tasks in the organization at large	40 (22)	97 (52)	24 (13)	21 (11)	3 (2)	4
6. Competence of employees is high in the organization at large	17 (9)	70 (38)	52 (28)	40 (22)	8 (4)	3
7. The organization’s operations are complex	29(16)	59(32)	35(19)	55(30)	8(4)	3
D. Internal-external audit linkages						
1. External auditors make recommendations that help improve internal audit	31(17)	71(38)	40(22)	37(20)	9(5)	4
2. External audit reports help enhance managements’ acceptance of internal audit findings	22 (12)	79 (42)	50 (27)	27 (17)	8 (4)	4
3. Internal audit follows up implementation of external auditor’s recommendations on improvement of internal control systems	30 (16)	79 (42)	50 (27)	20 (11)	6 (3)	4
4. External auditors use internal audit reports in conducting their audit	30 (16)	65 (35)	34 (18)	44 (24)	13 (7)	4
5. External auditors use internal audit working papers in conducting their audit	12 (6)	36 (19)	44 (24)	70 (38)	22 (12)	2.5

* Number of responses **Percentages

TABLE 6.6
Questionnaire responses, *Internal audit proficiency*

	Strongly Agree N(%)	Agree N(%)	Neutral N(%)	Disagree N(%)	Strongly Disagree N(%)	Median
E. Proficiency of internal audit						
1. The internal audit department is large enough to successfully carry out its duties	24 * (13)**	73 (39)	25 (13)	58 (31)	6 (3)	4
2. Internal audit obtains a sufficient budget to successfully carry out its duties	17 (9)	72 (39)	35 (19)	52 (28)	11 (6)	3
3. Internal auditors possess sufficient experience to understand the organization's systems	19 (10)	82 (44)	45 (24)	32 (17)	8 (4)	4
4. The internal audit staffs possess knowledge and skills in a variety of areas (beyond accounting and finance), as necessary	14 (8)	70 (38)	35 (19)	53 (28)	15 (8)	3
5. Internal audit has policies for hiring internal audit staff	13 (7)	48(26)	36 (19)	58 (31)	31 (17)	3
6. Internal audit has policies for training of internal audit staff	15 (8)	52 (28)	37 (20)	57 (31)	21 (11)	3
7. Internal auditors undertake continuous professional development activities (such as professional association sponsored programs and correspondence courses)	13 (7)	38 (20)	35 (19)	58 (31)	42 (23)	2
8. Adequate short-term training is arranged for internal auditors each year	16 (9)	65 (35)	30 (16)	54 (29)	22 (12)	3
9. There is a complete internal audit manual to guide internal audit work	44 (24)	74 (40)	30 (16)	35 (19)	5 (3)	4

* Number of responses **Percentages

TABLE 6.7
Questionnaire responses, IA independence and Objectivity

Items	Strongly Agree N(%)	Agree N(%)	Neutral N(%)	Disagree N(%)	Strongly Disagree N(%)	Median
1. Internal audit is free from intervention in performing its duties	30 * (16)**	82 (44)	32 (17)	33 (18)	9 (5)	4
2. Internal auditors feel free to include any audit findings in their audit reports	32 (17)	82 (43)	29 (16)	33 (18)	9 (5)	4
	Always N(%)	Often N(%)	Some times N(%)	Seldom N(%)	Never N(%)	
3. Internal audit provides reports to the board of directors (or audit committee)	59 (32)	42 (23)	27 (15)	14 (8)	39 (21)	4
4. The board of directors (or audit committee) oversees employment decisions in internal audit	22 (12)	28 (15)	22 (12)	30 (16)	67 (36)	2
5. Internal auditors are not assigned to audit areas in the system design of which they participated	45 (24)	40 (22)	44 (24)	27 (15)	22 (12)	3
6. Internal auditors do not participate in audit of activities for the operation of which they were responsible	53 (28)	40 (22)	31 (17)	20 (11)	33 (18)	4
7. Internal audit staff assignments are rotated periodically	36 (19)	44 (24)	38 (20)	37 (20)	29 (16)	3

* Number of responses **Percentages

TABLE 6.8
Questionnaire responses, *Scope of internal audit work*

Items How often does internal audit conduct the following activities?	Always N(%)	Often N(%)	Sometimes N(%)	Seldom N(%)	Never N(%)	Median
1. Checking adequacy of the auditees' record keeping when appropriate	77 (41)	72 (39)	26 (15)	6 (3)	4 (2)	4
2. Verifying accuracy of amounts in financial records	86 (46)	64 (34)	27 (15)	5 (3)	3 (2)	4
3. Reviewing information contained in reports of operating departments	59 (32)	66 (35)	46 (24)	10 (5)	5 (3)	4
4. Reviewing the systems for safeguarding of asset	55 (30)	69 (37)	43 (23)	12 (6)	8 (4)	4
5. Evaluating the internal control system	57 (31)	63 (34)	38 (20)	21 (11)	7 (4)	4
6. Performing audit of major fraud cases	66 (35)	54 (29)	44 (24)	15 (8)	7 (4)	4
7. Checking efficiency of operating results (e.g. whether cost saving alternatives are used)	41 (22)	47 (25)	46 (25)	25 (13)	25 (13)	3
8. Ascertaining compliance with organizational policies and procedures...	99 (53)	56 (30)	20 (11)	8 (4)	4 (2)	5
9. Checking compliance with contracts when applicable	84 (45)	58 (31)	31 (17)	9 (5)	6 (3)	4
10. Checking compliance with external laws and regulations when applicable	65 (35)	66 (35)	35 (19)	12 (6)	9 (5)	4
11. Ascertaining that operating objectives are consistent with organizational goals	60 (32)	60 (32)	40 (22)	16 (9)	11 (6)	4
12. Ascertaining that operating procedures are consistent with the operational goals	72 (39)	51 (27)	43 (23)	14 (8)	6 (3)	4
13. Reviewing operations to ascertain they were implemented as intended	60 (32)	65 (35)	51 (27)	7 (4)	5 (3)	4
14. Assisting the management by identifying risk exposures of the organization	51 (27)	63 (34)	48 (26)	14 (8)	12 (6)	4
15. Providing consulting services to management where internal audit has the expertise	49 (26)	49 (26)	52 (28)	22 (12)	16 (9)	4

* Number of responses **Percentages

TABLE 6.9
Questionnaire responses, *Internal audit planning*

Items	Strongly Agree N(%)	Agree N(%)	Neutral N(%)	Disagree N(%)	Strongly Disagree N(%)	Median
1. Annual internal audit plan is prepared	142 * (76)**	21 (11)	4 (2)	7 (4)	12 (6)	5
2. Risk assessment is done as part of audit planning	52 (28)	52 (28)	34 (18)	19 (10)	24 (13)	4
3. Fraud risk is considered in setting audit priorities	66 (35)	52 (28)	29 (16)	16 (9)	15 (8)	4
4. Senior management input is considered in setting internal audit priorities	60 (32)	44 (24)	38 (20)	18 (10)	17 (9)	4
5. A preliminary survey is conducted before an audit	38 (20)	40 (22)	45 (24)	21 (11)	36 (13)	3
6. During the examination of audit evidence, analytical audit procedures (e.g. ratios, trends, etc.) are used as appropriate	45 (24)	48 (26)	45 (24)	19 (10)	23 (12)	4
7. Audit work is documented and maintained in a file of audit working papers	119 (64)	34 (18)	18 (10)	8 (4)	3 (2)	5
8. In setting up audit programs:						
• The objectives and goals of the activities to be audited are reviewed	83 (45)	64 (34)	25 (13)	6 (3)	8 (4)	4
• potential risks relevant to the activity to be audited are identified	72 (39)	53 (28)	33 (18)	16 (9)	8 (4)	4
• prior audit reports are reviewed	98(53)	45(24)	26(14)	13(7)	4(2)	5
• prior audit working papers are reviewed	72(39)	41(22)	31(17)	22(12)	15(8)	4
• preliminary communication is made with auditees	72 (39)	39 (21)	32 (17)	11 (6)	31 (17)	4
• the resources necessary to perform the audit are reviewed	72(39)	51(27)	38(20)	11 (6)	10(5)	4
• reports by other agencies, where applicable, are obtained	36(20)	32(17)	51(27)	32(17)	30(16)	3
• audit objectives are established	112(60)	37(20)	20(11)	12(6)	5 (3)	5
• written audit programs are established	109(59)	30(16)	18(10)	15(8)	10 (5)	5

* Number of responses **Percentages

TABLE 6.10
Questionnaire responses, reporting, follow-up and quality review

Items	Always N(%)	Often N(%)	Sometimes N(%)	Seldom N(%)	Never N(%)	Median
1. An internal audit supervisor (or manager) supervises field work	58 * (31)**	52 (28)	44 (24)	13 (7)	19 (10)	4
2. An internal audit supervisor (or manager) reviews internal audit working papers	91 (449)	46 (25)	34 (18)	6 (3)	11 (6)	4
3. Audit findings are discussed with auditees before being reported on	131 (70)	45 (24)	7 (4)	4 (2)	0 (0)	5
4. Internal auditors follow up implementation of corrective actions relating to audit findings	88 (47)	48 (26)	29 (16)	14 (8)	9 (5)	4
5. The reporting level varies with the importance of internal audit findings	76 (41)	65 (35)	23 (12)	6 (3)	17 (9)	4
6. Corrective action plan is agreed with management before the report is issued	45 (24)	41 (22)	27 (15)	25 (13)	39 (21)	3
7. Management takes timely corrective action based on internal audit recommendations	124 (67)	35 (19)	7 (4)	4 (2)	1 (1)	5
8. How often are the following included in the internal audit reports?						
• The audit purpose and scope	114 (63)	44 (24)	14 (8)	5 (3)	7 (4)	5
• the audit findings and conclusions	143 (77)	38 (20)	4 (2)	1 (1)	1 (1)	5
• audit recommendations	140 (75)	36 (19)	6 (3)	4 (2)	1 (1)	5
• auditees' comments regarding audit findings	88 (44)	34 (18)	30 (16)	19 (10)	15(8)	4

* Number of responses **Percentages

6.2 Reliability analysis

Reliability analysis is undertaken for context factors using Cronbach's alpha. This statistic is appropriate because Likert-type scale is considered to be able to generate data that approximates interval data (Bohrnstedt & Knoke 1994). This measure has also been employed in prior auditing research (e.g., Koo & Sim 1998) using a Likert-type scale. The results of reliability analysis are reported in Table 6.11.

TABLE 6.11
Reliability statistics

Variable	Cronbach's alpha	Cronbach's alpha Based on Standardized Items
Organizational policy authorising IA	.850	.861
Auditee Cooperation	.616	.623
Organizational risk exposure	.536	.546
Internal-external audit linkages	.771	.772

Most researchers use 0.70 as a minimum acceptable level of coefficient alpha, whereas, in some cases 0.6 and 0.5 are also considered sufficient (Kerlinger & Lee 2000). In this study, Cronbach's alpha is well over 0.60 in most cases and over 0.50 in all cases (Table 6.11).

Items that could improve Cronbach's alpha if deleted were deleted (Table 6.12). As a result, items No. 5, 3, and 4 were deleted from Organizational policy authorizing IA, Auditee cooperation, and Organizational risk exposure respectively. After these deletions, alphas were 0.861, 0.623, 0.546 and 0.772 for Organizational policy authorising IA, auditee cooperation, organizational risk exposure, and internal-external audit linkages respectively (Table 6.11). The level of alpha was considered to be reliable enough to proceed with the data analysis.

TABLE 6.12
Item-total statistics

	Item Number	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Organization al policy authorizing IA	1	14.5251	12.442	.734	.584	.805
	2	15.0279	11.881	.678	.625	.815
	3	14.7933	12.053	.730	.590	.803
	4	15.0726	11.910	.709	.647	.807
	5	15.1285	11.719	.521	.318	.869
Auditee Cooperation	1	6.6517	3.042	.407	.263	.542
	2	7.2079	2.561	.571	.345	.301
	3	7.6798	2.976	.319	.140	.677
Organization al risk exposure	1	22.2197	11.905	.201	.193	.522
	2	21.4624	11.797	.265	.147	.499
	3	21.5607	11.271	.294	.208	.487
	4	22.1387	11.329	.153	.108	.555
	5	21.8786	11.724	.244	.122	.506
	6	22.4104	10.267	.439	.292	.425
Internal- external audit linkages	1	22.3873	10.622	.307	.167	.480
	2	13.0000	10.533	.525	.433	.736
	3	13.0000	10.200	.672	.549	.687
	4	12.8343	11.839	.415	.256	.769
	5	13.1381	9.931	.573	.534	.719
	6	13.7072	10.497	.541	.519	.730

Inter-item correlations were also examined to assess reliability (Table 6.13). Many of the inter-item correlations among variables are more than 0.30. This indicates adequate correlations among item responses (Hair Jr. et al. 1998). According to classical measurement theory, such a correlation among items suggests reliability of measures (DeVellis 2003).

TABLE 6.13
Inter-item correlation matrix

<i>a. IA charter quality</i>					
	Item #1	Item #2	Item #3	Item #4	Item #5
Item #1	1.000				
Item #2	.586	1.000			
Item #3	.705	.530	1.000		
Item #4	.555	.766	.614	1.000	
Item #5	.522	.362	.517	.384	1.000

<i>b. Auditee Cooperation</i>			
	Item #6	Item #7	Item #8
Item #6	1.000		
Item #7	.512	1.000	
Item #8	.178	.374	1.000

<i>c. Organizational risk exposure</i>							
	Item #9	Item #10	Item #11	Item #12	Item #13	Item #14	Item #15
Item #9	1.000						
Item #10	.158	1.000					
Item #11	-.048	.335	1.000				
Item #12	-.104	.062	.194	1.000			
Item #13	.203	.111	.128	.047	1.000		
Item #14	.348	.120	.240	.046	.307	1.000	
Item #15	.155	.097	.102	.239	.027	.316	1.000

<i>d. Internal-external audit linkages</i>				
	Item #16	Item #17	Item #18	Item #19
Item #16	1.000			
Item #17	.656	1.000		
Item #18	.353	.503	1.000	
Item #19	.311	.406	.239	1.000

6.3 Assessment of normality and homoscedasticity

6.3.1 Normality assessment and data transformations

Test of the first hypothesis was conducted using canonical analysis. This technique requires that the data exhibit normal distribution. The results of testing normality of the distributions for the nine variables are presented in Table 6.14. *Auditee cooperation, Independence and objectivity, and Reporting*

and Follow-up exhibited non-normal distributions. This is shown by the skewness and/or kurtosis out of the range of +1 and -1. Thus, transformation of these variables was undertaken.

TABLE 6.14
Assessment of normality (before transformation)

	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
Organizational policy on IA	187	-.592	.178	.023	.354
Auditee cooperation	187	-1.017	.178	.657	.354
Organizational risk exposure	188	-.657	.177	.777	.353
Internal-external audit linkages	188	-.300	.177	-.673	.353
IA proficiency	188	-.187	.177	-.809	.353
Independence and objectivity	188	-.138	.177	-1.040	.353
Scope work	188	-.639	.177	.098	.353
Planning and execution	188	-.827	.177	-.017	.353
Reporting and follow-up	188	-1.225	.177	1.422	.353
IA effectiveness (derived)	187	-.222	.178	-.416	.354
Management Action	188	-.459	.177	-.425	.353
Valid N (listwise)	185				

Various transformation methods are available from which researchers can choose to transform data into normal distribution (Hair Jr. et al. 1998). In this study logarithmic transformations were employed. Specifically, the use of LNgamma transformation for *Reporting and follow-up* and *Auditee cooperation*, and LN(numexpr) for *Independence and objectivity* resulted in normal distributions. Arena and Azzone (2009) employed logarithmic data transformation and argue that such techniques provide reliable data for analysis. After the transformations, the statistics show normal distributions for all variables, i.e., skewness and kurtosis were between +1 and -1 (Table 6.15).

TABLE 6.15
Assessment of normality (after transformation)

	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
Organizational policy on IA	187	-.592	.178	.023	.354
Auditee cooperation*	187	-.367	.178	-.515	.354
Organizational risk exposure	188	-.657	.177	.777	.353
Internal-external audit linkages	188	-.300	.177	-.673	.353
IA proficiency	188	-.187	.177	-.809	.353
Independence and objectivity**	188	-.893	.177	-.067	.353
Scope work	188	-.639	.177	.098	.353
Planning and execution	188	-.827	.177	-.017	.353
Reporting and follow-up*	188	-.613	.177	-.844	.353
IA effectiveness (derived)	187	-.222	.178	-.416	.354
Management Action	188	-.459	.177	-.425	.353
Valid N (listwise)	185				

* LNgamma transformation was employed.

** LN(numexpr) was employed.

6.3.2 Assessment of homoscedasticity

Data was assessed to ensure that heteroscedasticity¹⁹ is not a threat for the use of canonical analysis. As Hair et al. (1998, p. 448) recommend, this assessment was undertaken by examining linearity of the relationships. The use of canonical analysis requires that there be sufficient inter-correlation among the variables. As can be seen from Table 6.16, the variables were sufficiently inter-correlated. This assessment was undertaken on the data to be used for testing hypotheses. That is, the assessment was done after the data was transformed as necessary and after the median values were generated using the responses to each item under each construct. Most of the correlations were above 0.30 and almost all the correlations were statistically significant at 0.05 level. Thus, the data was considered appropriate for canonical analysis.

¹⁹ Heteroscedasticity is the opposite of homoscedasticity which occurs when the variance of the error term appears constant over a range of independent variables (Hair et al. 1998).

TABLE 6.16
Spearman's correlations among variables

	IA proficiency	Independence and Objectivity	Scope of work	Planning and execution	Reporting and Follow-up	IA Charter quality	Auditee cooperation	Organization risk exposure	Internal-external audit linkages
IA proficiency	1.00								
Independence and Objectivity	.761*	1.00							
Scope of work	.452*	.405*	1.00						
Planning and execution	.429*	.388*	.523*	1.00					
Reporting and Follow-up	.308*	.333*	.373*	.451*	1.00				
Organizational policy authorizing IA	.459*	.349*	.426*	.351*	.270*	1.00			
Auditee cooperation	.318*	.097	.255*	.187*	.131*	.263*	1.00		
Organization risk exposure	.259*	.144*	.236*	.277*	.209*	.236*	.308*	1.00	
Internal-external audit linkages	.299*	.268*	.324*	.310*	.283*	.254*	.154*	.213*	1.00

*significant at 0.05 level

6.4 Hypotheses testing

6.4.1 Hypothesis 1

H₁. The extent of internal audit's compliance with SPPIA is associated with organizational category, organizational size, organizational policy authorizing internal audit, organizational risk exposure, internal-external audit linkages, and auditee cooperation.

Internal audit effectiveness, i.e., the extent of internal audit's compliance with SPPIA was measured by *Internal audit proficiency*, *Independence and objectivity*, *Scope of work*, *Quality of audit planning and execution*, and *Quality of audit reporting and follow-up*. Canonical analysis is an appropriate statistical technique to test this hypothesis. This is because the hypothesis involves an association between two groups of multiple variables (Alpert & Peterson 1972) in which some of the variables are also measured as ordinal or nominal (Hair Jr. et al. 1998) data. Furthermore, this technique enables considering multi-dimensional nature of independent variables and the interrelationships among the various dimensions. As a result Fornell and Lacker (1980) recommend the

technique for accounting research that involves examining association between two sets of variables.

As a results of its features, canonical analysis has also been employed in empirical research in accounting and finance (e.g., Fraser, Phillips Jr. & Rose 1974; Johnson, W. B. 1978; LeClere 2006 ; Milliron 1985; Shim & Lee 2003), management (e.g., Luthans, Welsh & Taylor III 1988; Reimann 1975), marketing (e.g., Schul, Pride & Little 1983), and information technology (e.g., Grandon & Pearson 2004; Mahmood & Mann 1993).

Proper application of canonical analysis requires having sufficient subject-to-variable ratio. Stevens (2002) suggests a minimum subject-to-variable ratio of 20-to-1, when only one canonical function is significant, in order to obtain reliable statistical results. Hair et al. (1998, p. 447) recommend a minimum of 10 observations per variable to avoid ‘overfitting’ of the data. The total usable response of 188 provides observation-to-variable ratio of above 31-to-1 for both sets of variables. Therefore, the response is considered sufficient to generate valid canonical analysis results.

Results of testing the overall model fit for canonical analysis (Table 6.17) show that the canonical functions taken collectively are significant at the 0.01 level, i.e., significance of F for Pillai’s criterion, Hotelling’s trace, and Wilk’s lambda are all below 0.01. This suggests a statistically significant fit of the first canonical function at 0.01 level.

TABLE 6.17
Measures of overall model fit using canonical analysis

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillai’s criterion	.63900	4.07831	30.00	835.00	.000
Hotelling’s trace	1.06061	5.70610	30.00	807.00	.000
Wilk’s lambda	.44582	4.87885	30.00	654.00	.000

Statistical significance of the other canonical functions was tested using Wilk’s Lambda (Table 6.18). The analysis shows that there are five canonical functions as the lower of the number of IA effectiveness and contextual variables is 5. The first function is significant at a 0.01 level; whereas, the second is significant at 0.10.

TABLE 6.18
Dimension reduction analysis

Roots	Wilks L.	F	Hypoth. DF	Error DF	Canonical Correlation (r_c)	Squared canonical correlatio n	Eigenvalu e	Sig. of F
1 To 5	.44582	4.87885	30.00	654.00	.68199	.46511	.86956*	.000
2 To 5	.83348	1.53802	20.00	544.88	.34154	.11665	.13205**	.063
3 To 5	.94354	.80842	12.00	436.84	.19324	.03734		.642
4 To 5	.98014	.55770	6.00	332.00	.13218	.01747		.764
5 To 5	.99757	.20318	2.00	167.00	.04927	.00243		.816
						Pooled $R^2 =$ 0.639		

* $0.86956 = 0.46511/(1 - 0.46511)$; ** $0.13205 = 0.11665/(1 - 0.11665)$

Canonical correlation (r_c) for the first function (i.e., the correlation between the first pair of canonical variables) is 0.68199. This represents the highest possible correlation between any linear combinations of the two sets of variables. The statistic indicates the correlation between linear composites of the original variables (Alpert & Peterson 1972). Similarly, canonical correlation between the two sets of variables of the second function is 0.34154. Thus, taking the squared canonical correlations, the covariates (i.e., independent canonical variables) explain 46.511 per cent and 11.665 per cent of the variations in the dependent canonical variables in function 1 and function 2 respectively. This makes 58.27 per cent in total for the two functions.

Pooled R^2 (i.e., the total variation in the set of dependent variables associated with the variations in the set of independent variables) is 0.639. This shows that 63.90 per cent of the variance between the two sets of variables is shared. This measure shows the shared variability in the canonical variates rather than in the original variables (Sheskin 2007). Eigenvalues — the ratio of variance in the dependent variables explained by the changes in the independent variables to the variance not explained by these changes — are about 87 per cent for the first function and 13 per cent for the second. In both cases, the unexplained variances exceed the explained variances. This is despite the fact that the association between the two sets of variables is statistically significant at a 0.01 level for the first function and at a 0.10 level for the second. Sheskin suggests that canonical functions could be considered as having some value when they have canonical correlation of arbitrarily 0.30 or above. Yet, only the

first canonical function is further interpreted in this study because it is the only function significant at a 0.05 level (i.e., the typical level of alpha). The relative importance of each variable in the first canonical function is evaluated next.

Standardized canonical coefficients (Table 6.19) are used to interpret the relative importance of the variables of the function. This is because the raw canonical coefficients cannot be used as measurements in the original variables in this study are not uniform. That is, nominal, ordinal, and ratio scale data are used depending on the nature of the measures. The standardized canonical coefficients are based on standard deviations and the absolute values of the standardized canonical coefficients are used to interpret the relative importance of each variable (Sheskin 2007). These coefficients are used to formulate the optimal linear combination of the dependent and independent variables resulting from canonical analysis.

TABLE 6.19
Standardized canonical coefficients

Variate	Variable	Function 1
Dependent	IA proficiency	-.72986
	Independence and objectivity	.25041
	Scope of work	-.37655
	Planning execution	-.26900
	Reporting and follow-up	-.05507
Independent	Organizational Category	.29095
	Organizational Size	-.13130
	Organizational policy authorizing IA	-.46584
	Auditee cooperation	-.30294
	Organizational risk exposure	-.33509
	Internal-external audit linkages	-.36232

The standardized canonical coefficients of the canonical function for the dependent variables (Table 6.19) show that *IA proficiency* is the most significant variable in defining the canonical function followed by *Scope of IA work*, *Quality of IA planning and execution*, and *IA independence and objectivity* in that order. *Reporting and follow-up* was relatively of least importance. Independence and objectivity has a positive coefficient while the rest of the variables have negative coefficients. This signifies that *Independence and objectivity* exhibits an inverse relationship with the other variables. This relationship is not supported by existing theory. However, it may be a result of the fact that canonical correlation sometimes provides results that are difficult to

interpret (Sheskin 2007). Thus structure correlations that are considered as the most interpretable canonical results are discussed later.

For the independent variate, *organizational policy authorizing IA* is the most important variable in the function. This is followed by *Organizational risk exposure*, *Auditee cooperation*, *Organizational category*, and *Organizational size* in that order. An additional result is that *Organizational category* (nominally measured as ministry, State-owned enterprise or private company) has a positive coefficient. The rest of the variables have negative coefficients. This difference in sign implies that there is an inverse relation between *Organizational category* and the rest of the independent variables in the canonical function. This provides further support for the need to test the second hypothesis on the relationship between *Organizational category* and *IA effectiveness*.

Structure correlations were examined to further assess the relative importance of each variable in defining the canonical function. Sheskin (2007) recommends that structure correlations are the most interpretable weights in canonical analysis. These are the correlations between each individual variable and the relevant canonical variates, compared to the standardised canonical coefficients, which are analogous to partial correlations (Sheskin 2007).

TABLE 6.20
Structure correlations for function 1

		Function 1
Dependent Variate	IA proficiency	-.85424
	Independence and objectivity	-.55094
	Scope of work	-.79085
	Planning execution	-.70902
	Reporting and follow-up	-.47141
Independent Variate	Organizational Category	.15792
	Organizational Size	-.27767
	Organizational policy authorizing IA	-.77461
	Auditee cooperation	-.52247
	Organizational risk exposure	-.57468
	Internal-external audit linkages	-.56829

As the absolute values of the structure correlation coefficients indicate (Table 6.20), *IA proficiency*, *Scope of internal audit work*, and *Quality of IA planning and execution* are the most significant variables in the function. The

structure correlations for all the individual variables are negative. This implies that the variables are positively correlated to each other. Under the independent variate, *Organizational policy authorizing IA*, *Organizational risk exposure* and *Internal-external audit linkages* are the most significant variables. *Organizational size* and *Organizational category* are relatively the least important. On the other hand, all the variables except *Organizational category* had similar signs. This suggests that these variables are positively associated. In addition, only *Organizational category* has a positive coefficient. This is yet another indication for the need to examine its impact on the other variables (considered in the second hypothesis). All variables had structure correlations greater than 0.30 except *Organizational category* and *Organizational size*. This shows that the variables are significant in defining the canonical function.

As a final procedure, the canonical function was assessed through redundancy analysis. Redundancy index measures the shared variance between the dependent and independent variates (Fornell & Lacker 1980) (Table 6.21). It helps assess the strength of the relationships between the two sets of variables. This index is a more conservative measure of squared canonical correlation, which is inherently inflated (Alpert & Peterson 1972).

TABLE 6.21
Redundancy analysis

Variate/Variable	Canonical Loadings ^a	Canonical loading squared ^c	Average Loading Square	Canonical R ²	Redundancy index
<i>Dependent variable</i>					
IA proficiency	-0.85424	0.729726			
Independence and objectivity	-0.55094	0.303535			
Scope of work	-0.79085	0.625444			
Planning execution	-0.70902	0.502709			
Reporting and follow-up	-0.47141	0.222227			
Dependent Variate		2.383641	0.476728	.46511 ^c	0.22726971 ^d
<i>Independent variable</i>					
Organizational Category	0.15792	0.024939			
Organizational Size	-0.27767	0.077101			
Organizational policy authorizing IA	-0.77461	0.600021			
Auditee cooperation	-0.52247	0.272975			
Organizational risk exposure	-0.57468	0.330257			
Internal-external audit linkages	-0.56829	0.322954			
Independent Variate		1.628246	0.271374	.46511	0.12621888

a. Canonical loadings are the correlations between variables and canonical functions

b. $0.553 = 2.2383641/5$.

c. See Table 6.11

d. $.222 = .553 \times .402$

The dependent canonical variate has a redundancy index of 22.72 percent and the independent canonical variate has 12.62 per cent redundancy index. Overall, the assessments suggest that the canonical function is significant. This shows that **Hypothesis 1**, *the extent of internal audit's compliance with SPPIA is associated with organizational category, organizational size, organizational policy authorizing IA, organizational risk exposure, internal-external audit linkages, and auditee cooperation*, is **supported**.

6.4.2 Hypothesis 2

H₂. *The extent of internal audit's compliance with SPPIA differs across Government ministries, State-owned enterprises and private companies.*

To test this hypothesis, internal audit effectiveness is generated as a single variable. This is undertaken in two steps. First the median values of item

responses for *Organizational policy authorizing IA*, *Organizational risk exposure*, *Organizational size*, *Internal-external audit linkages*, and *Auditee cooperation* were taken. Second the median of all the five variables was generated. This procedure was followed instead of calculating an overall median because it would ensure that the responses to items under each factor are represented. Thus all factors, whether they comprise several or a few items, are represented in the combined measure of internal audit effectiveness. Kruskal-Wallis test is then undertaken because the data is ordinal in nature. As shown on Table 6.22, mean ranks are highest for State-owned enterprises, followed by Government ministries and private companies in that order. The differences are also statistically significant at the 0.05 level ($\chi^2 = 6.07$, sig. 0.048). This shows that State-owned enterprises have the highest IA effectiveness followed by Government ministries and private companies.

TABLE 6.22
Inferential statistics results for hypothesis 2

	Organization category	N	Mean Rank
IA_Effect	Government	48	89.91
	State-owned enterprise	86	95.61
	Private company	42	72.33
	Total	176	
Test Statistics^{a,b}			
IA Effectiveness			
Chi-Square	6.070		
df	2		
Asymp. Sig.	.048		

To gain a detailed understanding of each component of IA effectiveness, Kruskal-Wallis test was repeated for each component separately (Table 6.23). For the first three dimensions (i.e., *Internal audit proficiency*, *Independence and objectivity*, and *Scope of IA work*), mean ranks are highest for State-owned enterprises followed by government companies and private companies. On the other hand, for *Planning and execution* and *Reporting and follow-up*, Government ministries have the highest mean ranks, followed by State-owned enterprises and private companies. The differences were, however, statistically

significant at a 0.05 level only for *Internal audit proficiency* and *Independence and objectivity*.

TABLES 6.23
Kruskal-Wallis for all variables

(a) Ranks										
	IA proficiency		Independence and objectivity		Scope of work		Planning and execution		Reporting and follow-up	
	N	Mean Rank	N	Mean Rank	N	Mean Rank	N	Mean Rank	N	Mean Rank
Government	48	90.59	48	88.41	48	88.73	48	92.03	47	95.04
State-owned enterprise	87	96.34	87	97.95	87	91.17	87	91.01	86	89.62
Private company	42	71.96	42	71.14	42	84.82	40	76.62	42	76.81
Total	177		177		177		177		177	

(b) Kruskal-Wallis Test Statistics^{a,b}					
	IA proficiency	Independence and objectivity	Scope of work	Planning and execution	Reporting and follow-up
Chi-Square	6.852	8.095	.485	2.784	3.586
Df	2	2	2	2	2
Asymp. Sig.	.033	.017	.785	.249	.166

Overall, Kruskal-Wallis test results indicate that **Hypothesis 2**, *the extent of internal audit's compliance with SPPIA differs across Government ministries, State-owned enterprises and private companies*, is also **supported**.

6.4.3 Hypothesis 3

Internal audit effectiveness as used in Hypothesis 2 was again used in testing Hypothesis 3(a):

$H_{3(a)}$, *Internal audit effectiveness is positively associated with return on capital employed (ROA)*.

Individuals are units of response for IA effectiveness and organizations are units of analysis for this hypothesis. Thus, responses of individuals from the same organization were combined (Kwok & Sharp 1998) for the purpose of testing Hypothesis 3(a). This hypothesis is tested using Spearman's correlation coefficient because internal audit effectiveness is ordinal data. On the other hand, since ROA is metric data it is converted into rank order data (Appendix 8) to make it suitable for use in Spearman's rank order correlation (Sheskin 2007). The conversion was undertaken by assigning 1 for ROA less than 10 per cent, 2

for ROA of 10.01 to 20 per cent, 3 for ROA of 20.01 to 30 per cent, 4 when ROA is 30.01 to 40 per cent, and 5 when ROA is over 40 per cent. As reported in the first part of Table 6.24, the results show that Spearman's coefficient of correlation between internal audit effectiveness and return on assets is not statistically significant ($r_s = -0.060$; $p=0.389$). Statistically speaking this means that the association between these two variables for the sample is not different from zero. Thus **Hypothesis 3(a)**, *internal audit effectiveness is positively associated with return on capital employed (ROA)*, is **not supported**.

As argued in chapters 1 and 2, Management action on internal audit recommendations is considered as having a moderating effect on the relationship between internal audit effectiveness and Return on assets. Thus, Hypothesis 3(b) is tested to see if the level of management attention to internal audit findings has the effect of improving the relationship between return on capital employed and internal audit effectiveness:

H_{3(b)}. *Management's action on internal audit recommendations positively moderates the association between internal audit effectiveness and ROA.*

In other words, the correlation between internal audit effectiveness and return on capital employed was run controlling for *Management action on internal audit findings*. In terms of the data, attempt was also made to measure the ratio of internal audit recommendations implemented to total number of internal audit recommendations made in the past two years using Section IV of instrument set A. However, the responses were not sufficiently distributed and non-response to these items was high. Thus, that part of the data was not used in the test of *H_{3b}*. Therefore, Item 7, Instrument Set A, Section III (I) was used instead.

The results of this partial correlation are presented in the second part of Table 24. The results indicate that the relationship between internal audit effectiveness and return on assets is still statistically not significant ($r_s = -0.186$, $p=192$). Therefore, *Management action on internal audit findings* does not seem to make a significant difference in the correlation between return on capital

employed and internal audit effectiveness in the companies studied. Thus **Hypothesis 3(b)**, *Management's action on internal audit recommendations positively moderates the association between internal audit effectiveness and ROA*, is **not supported**.

TABLE 6.24
Inferential statistics results for hypothesis 3a and 3b*

a. Spearman's correlation between internal audit effectiveness and ROA

		IA_Effec	ROC_RANK
IA effectiveness	Correlation Coefficient	1.000	-.060
	Sig. (1-tailed)	.	.389
	N	25	25
ROA_RANK	Correlation Coefficient	-.060	1.000
	Sig. (1-tailed)	.389	.
	N	25	25

b. Partial correlations between internal audit effectiveness and ROA controlling for management action on internal audit findings

			IA_Effec	ROC_RANK
Management action on internal audit findings	IA effectiveness	Correlation	1.000	-.186
		Significance (1-tailed)	.	.192
		df	0	22
	ROC_RANK	Correlation	-.186	1.000
		Significance (1-tailed)	.192	.
		df	22	0

* Note that this hypothesis is tested only for SOEs and private companies.

6.5 Management's perception of IA effectiveness

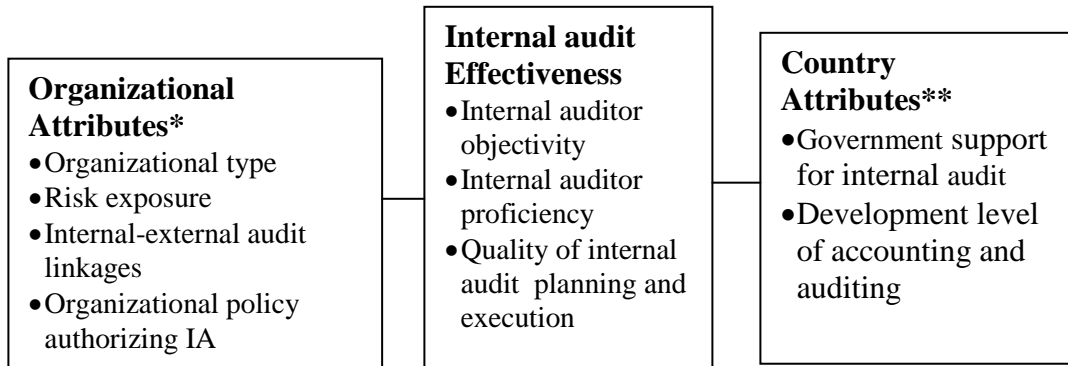
Some prior studies have used the perspectives of management to evaluate the effectiveness of internal audit. This approach has conceptual relevance because management is considered as a customer to internal audit. Therefore, the perception of middle level managers was considered in this study as an additional source of data to assess internal audit effectiveness. Instrument set B was used to collect data for this part of the study. Similar data collection procedures to those used for Instrument Set A were followed. The same organizations from which internal audit directors and staff participated in the study were also used in this part of the study.

A total of 42 usable questionnaires were collected. Respondents were from ministries (n=15, 35.7 per cent), State-owned enterprises (n=18, 42.9 per cent), and private companies (n=9, 21.4 per cent). Participants were heads of

Finance (n=23, 54.8 per cent), Marketing (n=9, 24.4 per cent), Human Resources (n=7, 17 per cent), Operations and procurement (n=3, 7 per cent) departments. Thirty-three respondents (78.6 per cent) were male, 7 (16.7 per cent) were female and the rest (2) did not answer the gender question. Fifteen (35.7 per cent) respondents were between the age of 30 and 40; 21 (50 per cent) were 41 and 50 inclusive; 3 (7.1 per cent) were over 50; and the rest (3) did not respond to the age item. Summary of the results is presented in Appendix 9. Most of the items had median minimum 2 and maximum 5. However, the number of usable responses was considered too small to allow conducting further analysis and making conclusions.

6.6 Chapter summary

This Chapter has presented the results from the questionnaire surveys. The data screening and transformation procedures as well as the results of reliability analysis are reported and discussed. The results of testing the three hypotheses have also been presented. The data **supports the first hypothesis** that *internal audit effectiveness is associated with risk exposure, organizational size, internal-external audit linkages, auditee cooperation, and organizational policy authorizing internal audit*. Similarly, the **second hypothesis** that *internal audit effectiveness differs across Government ministries, State-owned enterprises and private companies* is **supported**. The **third hypothesis** that *internal audit effectiveness is positively associated with return on capital employed (ROA)* was **not** supported. Likewise, the data did **not** provide support for the hypothesis that *management's action on internal audit recommendations positively moderates the association between internal audit effectiveness and ROA*. Therefore, a revised conceptual model (Figure 6.1) emerges from the results of the quantitative data analysis combined with those of the qualitative components.



* Only measures considered statistically important are included

** This part is based on qualitative data.

Figure 6-1. Revised conceptual model supported by the data

Chapter 7 Discussion of results

This study has examined internal audit practice in Ethiopian organizations to identify contextual influences on internal audit effectiveness. It also explored the association of internal audit effectiveness with company performance. Chapters 5 and 6 reported results of the qualitative and quantitative components of the study respectively. This Chapter brings together and discusses the results. It starts by discussing the significance of the study's purposes in the context of the existing internal audit literature. It then outlines and discusses major findings of the study. This is followed by a discussion of methodological considerations. Finally, a chapter summary is provided.

7.1 Purpose of the study vis-à-vis the literature

The study aimed to achieve two major objectives. First, it examined the influences of internal audit context factors on internal audit effectiveness in a sample of Ethiopian organizations from an institutional theory perspective. Second, it explored the association between internal audit effectiveness and company performance. The literature generally suggests that internal audit (IA) is expected to add value in contemporary organizations (Al-Twajjry, Brierley & Gwilliam 2003; Bou-Raad 2000; Roth 2002; Yee et al. 2008) and assist organizations to accomplish objectives (Gramling et al. 2004; Institute of Internal Auditors 2004). Although internal audit effectiveness is an implicit assumption in this notion, some of the limited literature on this topic (e.g., Al-Twajjry, Brierley & Gwilliam 2003; Cohen, Krishnamoorthy & Wright 2004; Mihret & Yismaw 2007) suggests that the function may not always be effective. The literature (e.g., Arena, Arnaboldi & Azzone 2006; Mihret & Woldeyohannis 2008) also implies that context factors influence internal audit effectiveness. Furthermore, the link between internal audit effectiveness and organizational accomplishment of objectives has not been empirically explored as yet.

Therefore, a study of the linkages of internal audit effectiveness with contextual factors as well as with performance of organizations is considered timely.

Being a research in this apparently timely research agenda, the study has attempted to address some of the recommendations identified from the literature for further research. Such recommendations are for instance made by Ruud (2003) on national differences in the role of internal audit, Goodwin (2004) on variations in internal audit between government and private organizations, Anderson (2003) on organizational attributes that could influence internal audit's ability to add value, and Coram, Ferguson and Moroney (2008) on the study of internal audit effectiveness from a perspective other than the hitherto dominant approach of external auditors' perceptions.

Furthermore, the hypotheses developed for this study and the empirical test of the association between internal audit effectiveness and company performance is considered timely. This is because the possible contribution of internal audit to accomplishment of organizational objectives has not yet been empirically examined although the literature (e.g., Gramling et al. 2004; Hermanson & Rittenberg 2003) suggests this potential contribution. Moreover, given IIA's recognition of the need to understand internal audit's state of affairs worldwide (Lower 1997, cited in Brieley, El-Nafabib & Gwilliam 2001) and its apparent intentions to nurture IA in developing countries (IIA 1999a, cited in Al-Twajjry, Brierley and Gwilliam, 2003), a study of IA on a developing country like Ethiopia is considered necessary.

Moreover, due to the increasingly globalised nature of business, corporate governance reforms are taking place in several developing countries (Reed 2002b; Tsamenyi, Enninful-Adu & Onumah 2007). As part of such reforms, the World bank has also undertaken ROSC (Reports on the Observance of Standards and Codes) studies on more than 100 developing and developed countries (World Bank 2009). Thus, being a study of internal audit (which is a major component of corporate governance) in a developing country, this study's results are expected to supplement such international efforts to understand and/or reform corporate governance mechanisms.

Thus, in addition to the topicality of the issues studied, the motivation for selection of the Ethiopian empirical setting is considered appropriate on two grounds. First, Ethiopia is a developing country in which internal audit practice is apparently at an early stage of development. Internal audit in Ethiopia is also not sufficiently explored except for two case studies by Mihret and Yismaw (2007) and Mihret and Woldeyohannis (2008). Second, the Ethiopian economy comprises both State-owned enterprises and private companies. Such an economic structure arguably provides the opportunity to examine variations in internal audit effectiveness resulting from ownership differences in business. Specifically, it helps highlight the role of government involvement in economic activity in the development of internal audit.

Third, the Ethiopian ethics and control framework is dominantly based on laws and government regulations. For example, the Federal Ethics and Anti-corruption Commission of Ethiopia undertakes fraud investigation in government organizations as necessary (Federal Democratic Republic of Ethiopia 2005). Such laws and regulations possibly pose different challenges and provide some opportunities for internal audit as compared to the dominant settings in the literature. The dominant settings are largely characterised by well developed market systems in which corporate governance codes are also stipulated.

7.2 Discussion of major findings

7.2.1 Contextual influences on IA effectiveness (RQ_1 , H_1 and H_2)

The study examined internal audit context to understand the impact of country and organization level dynamics that tend to augment or inhibit internal audit effectiveness. The study attempted to look into internal audit in a broader context in which it is practiced. As part of this attempt, the study employed the sociological paradigms on professions. This enabled interpretation of country level phenomena related to the development of accounting and auditing that have direct or indirect implications for internal audit development in Ethiopia. On the other hand, institutional theory has enabled understanding of country-

and organization-level phenomena that influence internal audit practices. Thus, the study addressed the general research question: *how does internal audit context influence internal audit effectiveness in Ethiopia?* To partly address this question, the impact of country level context was examined using the guiding question: *how does the status of accounting and auditing professionalization in Ethiopia map onto audit practice?*

The results of the study suggest that the process of accounting professionalization in Ethiopia exhibited distinct patterns during the three chronological periods of the country's alternating political ideology between capitalism and communism. These patterns are interpreted in what follows, with a view to highlighting the implications on internal audit practice.

Modern accounting in Ethiopia has been practiced in various forms since the early-1900s. Government regulations and proclamations since the 1920s have contributed to the development of accounting in the Country. The development of accounting as conceptualised in the Western sense seems to have been continuous from the 1900s through to 1974.

This development appears to have been in a relative state of ossification from 1974 through to 1991. Nevertheless, this condition seems to be a reflection of the change of emphasis regarding the use of accounting tools rather than a total lack of interest. Prior research (e.g., Hao, Zhen Ping 1999; Seal, Sucher & Zelenka 1996) shows that in communist economies accounting tools are predominantly used for internal managerial decision making as compared to the use of accounting in the context of agency relationships. Consistent with this notion, there was a greater emphasis on internal audit (compared to external audit) in Ethiopia during the communist era. In contrast, accounting professionalization as conceptualized in capitalist settings did not show a progress during the communist years. It then appears to be reviving since the Country has started following capitalist oriented ideology in 1991.

The results also indicate that attempts to establish strong local professional accountancy bodies that could exercise professional monopoly achieved little success. This remains the case despite some attempts by

accounting professionals and the State for several reasons. Firstly, there has been no legislation to enable nascent professional associations to regulate the profession. Accounting professions develop where associations gain the support of governments while, at the same time, they maintain some autonomy to monitor and regulate the profession (Yapa 1999). This appears to be lacking in the context of Ethiopia perhaps because the profession did not cleverly lobby the State apparatus towards enactment of legislation. Another explanation could be the structure of the economy. Similar to Yapa's (1999) observation in the Bruneian context, there is a prevalence of small and medium enterprises in Ethiopia that could have led to a less developed external audit market. Also, there is no external audit requirement on most medium private companies in Ethiopia.

Furthermore, public enterprises undertake a large proportion of economic activities in the country. Thus, it could be said that the Country still exhibits a mix of communist and capitalist aspects. The State also supplies external audit services to public enterprises via a State-owned Audit Service Corporation. These conditions create little social expectation for the services of the accounting profession as compared to that in the ultra-capitalist Western countries. This tends to make the market for external audit services rather thin. This thinness of the market is exhibited by the high level of competition among audit firms in the private sector (Lemessa 1996).

Secondly, the existing indigenous professional associations have not developed the capacity to define, own, and control a cognitive base that could enable the exercise of closure. The EPAAA's (Ethiopian Professional Association of Accountants and Auditors) attempt of closure was also without success. This provides additional evidence to Carnegie and Edwards (2001, p. 303) who argue that there are "signals of movement" of a profession both pre and post formation of a professional association that help materialize closure moves. The lack of control of a body of knowledge by the EPAAA suggests that a key signal of movement was missing at the time of association formation and it continues to be missing to date of writing. Therefore, as in Brunei (Yapa

1999), no association has sufficient legal basis to provide certification examinations that would serve as a prerequisite for licensing of practitioners. The State's (e.g., the 1966 government initiative) and professionals' endeavours (e.g., formation of EPAAA in 1973) to establish a strong indigenous professional accountancy body could be characterized as unilateral and sequential rather than coordinated and simultaneous.

Another important theme is that state-profession dynamics exhibited different forms in the three periods in which Ethiopia had alternating state ideologies. The moves in the direction of accounting professionalization in the Western conceptualization are evident in the capitalist oriented state ideologies of pre-1974 and post-1991. On the other hand, emphasis on internal audit and involvement of the State in the supply of external audit services to State-owned enterprises began in the communist era. Nevertheless, in none of the three periods have the professionalisation processes produced adequate impetus to establish a viable indigenous professional accounting body. As a result, the professionalization process has been ongoing during the three periods with varying pace. This process has been taking place in the face of challenges of competition from imported accountancy expertise that has been serving as a fallback. Overall, the level of accounting professionalization in Ethiopia does not seem to be at a level where it could greatly contribute to internal audit development via normative pressures.

The other sub-question addressed under the first research question was *how does the Government influence internal audit practice in Ethiopia?* The results suggest that at policy level, there is some coercive pressure by way of regulation and directives concerning internal audit in State-owned enterprises and ministries. At organizational level, nevertheless, internal audit appears to be sometimes decoupled. In some organizations, there was low level of auditee cooperation and in others, management did not exploit internal audit to the fullest extent.

Government influence on internal audit development is also observed in the private sector to some extent. That is, the National Bank of Ethiopia's

regulations noticeably contributed to the development of internal audit in the insurance and banking industries. Although the regulations constitute a coercive isomorphic pressure, the interview results suggest that such pressures tend to transform to a normative pressure over time. Unlike the case in other private sector companies, internal audit is established in all private banks and most private insurance companies. This phenomenon is attributable to the regulatory requirements of the National Bank of Ethiopia. Yet, the interviews indicate that over time it has become the banking industry's culture that the necessity of internal audit in banks is well understood.

There also appears to be more decoupling of internal audit in the government sector than the private sector. In the private sector, internal audit seems strong although internal audit adoption was limited to industries where there are government requirements. However, the result about the decoupling of IA cannot be generalized to all private companies as the observed differences could be due to the nature of business of private companies (banks and insurance companies) covered in this study.

Furthermore, there have been ongoing public sector financial reforms in Ethiopia since the early-1990s that have been undertaken with the assistance of Western consultants and Western funding agencies. Internal audit seems to have been benefiting from this government initiative either directly or indirectly. An example of the direct benefits is the reform of internal audit in ministry organizations. Internal audit also seems to benefit from the overall corporate governance reforms in the Country (World Bank 2007). These phenomena offer evidence for the State's role as a nexus for internal audit and international sources of normative pressure for IA development.

The start and development of internal audit is also traced to government initiatives. Internal audit had been practiced in various forms in Ethiopia since the early 20th century in the public sector. It has taken a more formal shape in early 1940s. It then has taken its contemporary form in 1987, when it became a separate necessary activity in all government organizations (Argaw 2000a; Mihret, James & Mula 2009). Consequently, over 90 and 70 per cent of State-

owned enterprises and government budgetary organizations respectively adopted internal audit as of 1991 (Argaw 1997). This encouragement of internal audit during the communist era of Ethiopia is consistent with the observation by Hao (1999) and Seal, Sucher and Zelenka (1996) that in communist economies, accounting tools are emphasized as a central planning tool as compared to the Western conception of ensuring managers' accountability to shareholders and creditors.

Furthermore, SOEs are dominant in the economy post-1991 as well (World Bank, 2007). This dominance implies involvement of the Government in economic activity. This involvement could, at least partly, explain the considerable government support for internal audit development in this post-1991 period. Several Government directives have resulted in establishment and development of internal audit in SOEs. Internal audit practices of SOEs also diffused to private sector companies that operate in the same industries as some SOEs.

It is apparent that change of government and state ideologies served as important junctures that marked the essence of accounting professionalization process in Ethiopia. Government attempts to establish internal audit within the context of a communist system were partially successful. The apparent government emphasis on internal audit relative to external audit in Ethiopia today (Mihret, James & Mula 2009) seems to have its roots in these communist-era developments. In terms of accounting development in Ethiopia therefore, the communist-era can be viewed as having led to a shift in emphasis on the use of accounting tools. This shift is towards using accounting for internal managerial decision-making as compared to their importance in ensuring accountability of managers to shareholders and creditors. Post-1991, government support for the development of accounting and auditing has been evident. However, this support has not resulted in the institutionalization of accounting legislation.

Organizational-level influences on IA were also examined from an institutional theory perspective using the guiding question: *how does organizational-level context impact on internal audit effectiveness in Ethiopia?*

Consistent with institutional theory arguments, there appear to be patterns of differences and similarities in internal audit practices across and within the three categories of organizations studied, i.e., ministries, State-owned enterprises, and private companies. The State played a considerable role in the development of IA in all three categories of organizations not only by serving as a nexus for IA in Ethiopia and international sources of normative pressure for IA development but also by issuing statutes and regulatory requirements with apparent IA implications. The results also suggest that organization level attributes such as top management control-awareness, extent of government regulation, company linkage with an international business environment, IA's information technology advancement, and IA leadership quality tend to be linked with internal audit effectiveness to a greater extent than the immediate factors that lead to IA adoption.

Although top management has not inhibited IA effectiveness directly, possibly there appears to be indirect adverse effect of 'indifference' to internal audit findings in some organizations. In organizations where top management was considered supportive of IA, internal audit directors felt that they were performing to the best of their potential and they received adequate cooperation from middle and lower level management. This finding is consistent with the findings of Mihret and Yismaw (2007) and Albercht et al (1988) which indicate management support as a major determinant of internal audit effectiveness.

An important implication here is that to enhance IA effectiveness, internal audit professional associations and directors need to devise strategies to garner top management support for IA. Enhancing leadership and negotiation skills of IA directors is imperative as a useful strategy to gain such support. Given the substantial contribution of the State to IA development thus far, employing such a strategy on key government bodies is likely to bear fruit as well.

Internal audit's level of reporting is largely higher in SOEs than in ministries and private companies. IA directors in SOEs report to audit committees and/or the boards of directors, compared to ministries and private

companies where internal audit largely reports to top management. This higher reporting status in SOEs was a result of Government influence through one of its various organs. This notion consolidates one of the themes that emerged from the study, i.e., coercive pressures helped foster IA adoption in Ethiopian organizations. The adoption of IA by all SOEs and ministries as well as the limited development of IA achieved in some private sector companies is also attributable to government regulatory requirements. These findings provide support to Al-Twajry, Brierley and Gwilliam's (2003) recommendation for more coercive pressures from government to enhance the development of IA in Saudi Arabia, where internal audit was also at apparently early stage of development.

While different government initiatives largely explain IA adoption, the level of IA effectiveness in the organizations studied nevertheless tends to be influenced by organization-level factors. Differences were exhibited in the level of IA effectiveness within sectors. This suggests that organization-level attributes influence internal audit effectiveness to a greater extent than the sector to which an organization belongs. Generally, companies in highly regulated sectors had stronger IA departments. Private companies in these regulated sectors also generally maintain strong IA departments. Overall, such organization-level factors as top management support for IA, internal audit leadership quality, risk exposure of organizations, and IA's level of information technology advancement appear to determine IA effectiveness to a greater extent than the contributing factors for IA adoption.

This is arguably because country-level corporate governance mechanisms and the relationship between boards of directors and IA are not well developed in Ethiopia. Thus, it appears that Government's coercive pressures shape the overall scene in which IA operates and thus inducing IA adoption. Normative and mimetic pressures then build upon the coercive isomorphic input to advance IA effectiveness. This is illustrated by the differences in organization level attributes among organizations within sectors (where coercive pressures are generally similar) and the associated differences

in IA profile. Furthermore, the results suggest that government coercive pressures tend to transform to a normative pressure as it becomes industry culture for companies in regulated sectors to have internal audit. Overall, the results suggest that country- and organizational-level contextual dynamics map onto IA effectiveness. In this process, government coercive isomorphic pressures help foster IA adoption while largely normative and mimetic pressures advance IA effectiveness.

The hypotheses tested on the association between internal audit context and internal audit effectiveness also provides evidence that IA effectiveness as measured by *scope of internal audit work*, *quality of IA planning and execution*, and *quality of IA reporting and follow up* vary with *organizational category*, *organizational size*, *organizational risk exposure*, *internal-external audit linkages*, *auditee cooperation*, and *organizational policy authorizing IA*. The hypotheses tested on this relationship are supported. However, all the variables are not equally important. *IA proficiency*, *scope of IA work* and *quality of IA planning and execution* appear to be higher in organizations where *organizational policy authorizing IA* is clearly defined and *organizational risk exposure* and *internal-external audit linkages* are greater. Furthermore, Kruskal-Wallis tests show that *IA proficiency* and *IA independence and objectivity* are greater for public enterprises followed by ministries and private companies.

The results of the hypotheses tested are consistent with institutional theory arguments and with findings of prior IA studies that employed this theory. The quantitative and qualitative results of the association between IA effectiveness and context factors are also consistent. These results support the evidence provided by Arena, Arnaboldi and Azzone (2006) and Arena and Azzone (2007) on Italian companies and by Al-Twaijry, Brierley and Gwilliam (2003) on Saudi Arabian companies. The importance of IA proficiency in the association is consistent with the theme that emerged in the literature review. This theme suggests that organizational attributes that appear to vary by organizational category and industry influence an organization's ability to

maintain a high profile internal audit department. This is also observed in the interview results of the study.

Similarly, the significance of *organizational policy authorizing IA* in defining the relationships between the set of variables is consistent with the interview results. The interview results show that IA charter implementations were at various stages in Ethiopian organizations although IA's authority and responsibility were stated in other policy documents in most organizations. This is also consistent with the theme from the interviews that there is a difference in IA's level of reporting and the adoption of IA charter across the three categories of organizations. The significance of this variable suggests that implementing a clear IA charter and empowering IA through other organizational policy need to be some of the key priorities in efforts to strengthen IA effectiveness.

Internal audit's linkages with boards of directors and audit committees might also have significant impact on the relationships tested. However, this impact cannot be assessed in this study because ministries and private companies have no audit committees. Also, most of the private companies' IA departments do not report to boards of directors.

Overall, statistical significance of the canonical function suggests that there is a pattern of relationships between the two sets of variables. Furthermore, despite the weak statistical significance, *Quality of IA planning and execution* and *Quality of reporting and follow-up* were highest for ministries. This result is consistent with another theme that emerged from the interviews. This theme indicates that the guidance of MoFED to internal audit in ministries resulted in a more systematic planning and execution of IA as well as follow-up procedures on audit findings.

Furthermore, the role of Government coercive pressures vis-à-vis normative and mimetic forces is evident. As the interview themes highlight, the coercive pressures were high for ministries followed by SOEs and private companies. In all the three categories, nevertheless, government influence is apparent. On the other hand, the second hypothesis indicates that key IA effectiveness variables were highest for SOEs followed by ministries and private

companies. Moreover, all SOEs and ministries adopted IA as a result of Government requirements. In addition, IA is largely adopted by private companies largely where government regulatory requirements demand. The level of IA effectiveness, nevertheless, appears to depend on organization level factors. Thus, overall, these results suggest that although coercive pressures generally contribute to IA adoption, IA effectiveness is enhanced when organization level mimetic and normative pressures build upon the impetus of coercive initiatives.

The results are also considered useful when viewed from the perspective of theory choice. Taking an institutional theory perspective enabled interpretation of IA practices in a broader context. In addition, it provided a source of rich explanation for the complex interplay among contextual antecedents of IA effectiveness. The theory is considered appropriate for the study for the following reasons. **Firstly**, the theory's domain encompasses IA practices as a part of all organizational phenomena. **Secondly**, it enables explanation of organizational phenomena without assuming a limited set of organizational goals. Theories that have been employed in previous IA research, e.g., agency theory (Adams 1994) and transaction cost theory (Sprakman 1997) are predicated on the assumption of shareholder wealth maximization. In contrast, institutional theory does not assume a restricted set of organizational objectives. Thus, the theory helps consider a broad range of internal and external factors that could shape internal audit practices including those in public sector organizations. In addition to maximization of shareholders' wealth, agency and transaction cost theories assume a developed market economic setting (Asechemie 1997).

In contrast, institutional theory is apparently relevant for research on developing countries where the market system is considered mostly less well developed (Reed 2002a). The theory is also arguably relevant to settings where the government ideological context does not necessarily exhibit a market economic orientation. Many developing countries like the countries of Eastern Europe have emerged from communism only in the past two decades (Yee et al.

2008). Institutional theory could, therefore, enable understanding internal audit from broad perspectives than just a principal-agent (i.e., shareholder-manager) focus, which is relevant to well developed market economic settings.

Furthermore, prior research indicates the influence of government (i.e., as compared to market forces) on the development of IA tends to be considerable in developing countries (e.g., see Al-Twaijry, Brierley & Gwilliam 2003). Furthermore, prior research suggests validity of institutional theory for internal audit research in the context of both developing (e.g., Al-Twaijry, Brierley & Gwilliam 2003) and developed economies (e.g., Arena, Arnaboldi & Azzone 2006; Arena & Azzone 2007).

7.2.2 Internal audit and organizational performance (*RQ₂*, *H_{3a}* and *H_{3b}*)

The literature and the definition of internal audit suggest that IA should add value to an organization. With this understanding, this study has attempted to examine the association between internal audit effectiveness and organizational performance using the major guiding question: *how does internal audit effectiveness associate with company performance in Ethiopian organizations?* The hypothesis that *internal audit effectiveness and ROA are positively associated* has been tested to address this research question. Nevertheless, this association was not statistically significant. The moderating effect of management attention to internal audit reports on the relationship between internal audit effectiveness and company performance was also tested using the hypothesis that *management action on internal audit findings positively moderates the association between internal audit effectiveness and ROA*. This later relationship was also not statistically significant.

This lack of statistical significance for the two hypotheses is probably attributable to two reasons. Firstly, the small sample size for this component of the study (which is 25 organizations) might not be sufficient to capture any positive relationship that might have existed. Only organizations, the financial statements of which were publicly available were considered for this hypothesis. Second, internal audit in Ethiopia is at its early stage of development and thus it

might not be at a stage where it could make a difference in performance across companies. Third, the measures employed for internal audit effectiveness and company performance might need further refinement. For example, the use of a single proxy measure of company performance (i.e., ROA) may not be sufficient to capture the contributions of IA to several dimensions of performance. Little prior research has empirically tested the relationship between internal audit effectiveness and organizational performance. Thus, studies of this relationship in other environments could enable a better understanding in this area.

Despite the lack of statistical significance of the relationships tested on this topic, nevertheless, the study is expected to make useful contributions to the literature. First, it extends Bryer's (1999a, 1999b, 2006b) studies using Marx's theory of the circuit of industrial capital in accounting literature. Following Bryer, Yee et al. (2008) argue that Marx's theory can explain the role of internal audit in organizations. In line with Yee et al., this study extends Bryer's work by developing hypothesis for internal audit research using Marx's theory of the circuit of industrial capital. This extends the theory's use to areas beyond financial accounting, management accounting, and accounting regulation (Yee et al. 2008).

Specifically, the present study has developed testable hypotheses based on the association between internal audit effectiveness and company performance. Finally, the results provide a useful starting point to further examine the relationship of internal audit effectiveness and company performance. The IIA's (2004) definition of internal audit apparently provides a pragmatic definition of IA regarding the function's role in organizational goal achievement. Thus this study's results on the relationship of IA effectiveness with organizational performance could ignite interest in further research that would further advance IA theory.

7.3 Methodological considerations

The use of mixed methods in the study is considered to enable capturing rich source of data necessary to examine various issues relating to internal audit in Ethiopia. Internal audit in general is a relatively young discipline and it is certainly not advanced in the Ethiopian setting. Thus, as most IA issues are arguably emerging, the use of flexible research methods is considered appropriate. The qualitative part of the study helped make rich interpretation and understanding of the issues, some of which are then further supported via statistical testing. The use of mixed methods also helps build on the strengths of each method while counterbalancing the inherent limitations of each method by the strength(s) of the other.

The use of purposive sampling is also linked to the nature of the study and the Ethiopian setting. Purposive sampling is the most appropriate choice given the analytical purpose of the study. That is because, in the context of Ethiopia, random sampling would mean including in the study organizations that have not adopted internal audit. As most private companies do not have internal audit departments, purposive sampling has enabled selection of organizations that maintain internal audit departments. This is an appropriate strategy because the concepts and issues of interest for the study presume existence of internal audit.

The purposive sample does not undermine the usefulness of the conclusions drawn from the tests of hypotheses. This is because purposive sampling enables making analytical generalisations on relationships among variables (Oppenheim 1992) rather than statistical generalizations to a population. Prior studies having similar design to the present study and that employed the major statistical technique employed in this study (i.e., canonical analysis) (e.g., Mahmood & Mann 1993; Reimann 1975) also employed purposive sampling. As Reimann (1975, p. 234) justifies:

‘Since the sample of firms studied was not random in any sense, statistical hypothesis testing was not used with the usual purpose of generalizing to some population of organizations. Rather it was used to determine which of

the observed relationships were strong enough not to have been likely to occur by chance alone.'

Moreover, the sample size of 188 for H_{1a} is considered large enough to meet the assumptions of canonical analysis. This is also a large sample size when compared with other studies that utilized a similar statistical technique. For instance Luthans, Welsh and Taylor III (1988) employed canonical analysis on a sample size of 78 with nine and eight variables in the independent and dependent variable sets respectively. Likewise, Van Auken, Doran and Yoon (1993) employed canonical analysis on a sample of size of 45 with 4 variables in each set. Similarly, Shim and Lee (2003) used a sample size of 125 for a study of the association between chief executive officer compensation and company performance employing canonical analysis.

Furthermore, as the study involved a comparison across sectors, there was a need to take approximately equal numbers of organizations in the study from ministries, State-owned enterprises, and private companies. This notion of approximately equal samples of organizations from the three sectors is especially necessary for the quantitative component of the study. Thus the sample size was necessarily determined by the limited number of companies in the private sector—i.e., mostly banks and insurance companies—that maintain internal audit departments. The ministries covered in the study were also those forming part of the Federal Government. This provides the next limit to the sample of organizations.

Nevertheless, the purposive sample does not affect the usefulness of the results because the study did not aim for statistical generalizations about internal audit in Ethiopian organizations. That is, the purpose of the study is analytical in nature. Consequently, the results of the study need to be interpreted with a view to enhancing understanding of the relationships among the concepts and variables as well as the dynamics of the issues. However, issues of sampling were considered carefully because organizations are generally considered as units of analysis of the study, which is especially a necessary consideration for the second and third hypotheses.

The quality of the data and the types of analysis and conclusions it provides could be seen from several dimensions. Adapting the data collection instruments from those employed in prior studies is expected to have ensured the validity of the data generated. Reliability assessment using Cronbach's alpha further strengthens data reliability for the quantitative component of the study. Consideration of latest professional standards in adapting the instruments is another attempt to enhance the validity of items in the instruments. The multi-staged pre-testing is yet another step employed to ensure the instruments' ability to generate reliable data. It needs to be noted, however, that the existing literature does not provide a generally agreed measurement of internal audit effectiveness (Arena & Azzone 2009).

This study employed compliance with *SPPIA* and management's views on internal audit's performance to measure IA effectiveness. However, the latter was inconclusive due to limited response rate. While the researcher acknowledges these measurement issues, nevertheless, it is felt that the use of internal auditors' views is the best possible measure. This is because direct measurement of internal audit effectiveness is virtually impossible. The use of compliance with *SSPIA* also enables measuring IA effectiveness using its several dimensions. This is arguably a better approach than employing a single proxy measure. Furthermore, measuring IA effectiveness as a multidimensional construct enables to generate data that could be analysed by considering the interrelationships among the various dimensions (Fornell & Lacker 1980).

Moreover, *SPPIA* comprise statements that relate to IA departments as well as those that focus on individual auditors. Thus, the use of *SPPIA* compliance enables understanding of internal audit quality both at the level of IA as a unit and at the individual auditor level. Sarens (2009) argue that it is essential to examine internal audit quality at these two levels.

The use of ROA to measure company performance is also considered conceptually appropriate. Bryer (2006b) considers return on capital employed as a measure of surplus value in arguing for the use of accounting in the labour control process. However, in the present study ROA is taken as an appropriate

proxy because: first, return on capital employed is sensitive to a company's financing decisions. That is, part of the variations in return on capital employed could be due to financing choice. Second, it is argued that internal audit assists organizations in the efficient and effective utilization of resources whether these resources are equity- or loan-financed. Therefore, as ROA measures returns on all assets regardless of sources of finance, its use is warranted by logic. Third, the literature (e.g., McNamara & Duncan 1995) indicates the usefulness of ROA to measure an organization's capability to generate surplus. Despite these conceptual merits, however, ROA is an aggregate (uni-dimensional) measure that may not help adequately capture the contribution that internal audit may make to different dimensions of organizational performance.

Despite the care taken in instrumentation and choice of measures, the inherent problems of dealing with human participants would still apply. Quality of the data in such a study depends on the extent to which participants provide genuine responses. Social desirability bias could be a potential threat to data validity. This is because questions were asked about organizations for which employees were working (Dornyei 2003) and departments that the respondents (i.e., IA directors) managed. For example, Hollindale, Kent and McNamara (2008) indicate that self-reporting bias may prejudice results when auditors are asked about what they have done. Furthermore, acquiescence bias, i.e., a tendency to agree when unsure, or halo effect (tendency to over generalize) are potentially inherent in the method (Dornyei 2003).

As a precaution to these threats, data was collected from as many participants as necessary. As part of this effort, in the questionnaire survey data collection, the researcher's hand delivery and visits to collect the completed questionnaires is considered to have helped achieve the high response rate. This procedure nonetheless, does not provide a mechanism to generate data for computation of non-response bias. Thus non-response bias could not be computed. The researcher believes that this absence of a measure for non-response bias has little impact on the usefulness of results. This is because the

analytical purpose of the survey and the non-random sampling were not meant to generalize about the population in the first place.

Moreover, multiple data sources were employed to consolidate results. Yet as a further step to enhance data reliability, interviews were conducted until it was felt that the saturation point has been reached for each of the three categories of organizations. This procedure is considered to enhance validity of the conclusions.

The choice of statistical tests was also appropriate for the purpose of the study. For example, the use of canonical analysis for H_{1a} is an appropriate choice as it is a flexible method in terms of measurement. Fornell and Lacker (1980) recommend using this technique in accounting research because it enables considering interrelationships that exist within dependent variable sets. The limited prior research on internal audit effectiveness apparently treated IA effectiveness as a uni-dimensional construct. This approach requires aggregating the components of IA effectiveness and/or using a proxy measure. Thus the use of canonical analysis in this study enabled considering the multi-dimensional nature of IA effectiveness and the interrelationships within the components of this construct.

As data were measured largely using Likert-type scale the use of canonical analysis is considered the most appropriate. For example, Schul, Pride and Little (1983) employed canonical analysis to test the association between two sets of variables measured on a five point Likert-type scale. Despite its usefulness in testing the association between sets of variables nevertheless, canonical analysis cannot be regarded as a highly confirmatory technique. Furthermore, the significant association in canonical analysis suggests association, which may not necessarily signify causation.

Similarly, H_{1b} has been tested using Kruskal-Wallis test, which is a non-parametric equivalent of ANOVA. This test is appropriate because the data was ordinal in nature. This test has been widely employed in auditing research (e.g., Agoglia, Kida & Hanno 2003; Joyce & Biddle 1981; Monroe & Woodliff 1994; Mulligana & Inkster 1999; Spathisa, Doumpos & Zopounidis 2003; Whittred

1980) that tested similar hypotheses. Yet, the test may not be considered as powerful as its parametric equivalent. Overall, the use of more flexible statistical tests was appropriate for nature of the data and the purpose of the study. This is because testing the hypotheses with strict statistical assumptions of highly confirmatory statistical techniques is neither desirable nor warranted in the context of this study.

7.4 Chapter summary

This chapter has discussed the results of the study presented in Chapters 5 and 6. Generally, the results of the study are consistent with the literature. The data supported the hypothesized association between context factors and internal audit effectiveness. The study also empirically tested the relationship between internal audit effectiveness and company performance. Nevertheless, the results on this relationship were not statistically significant. Three potential reasons are speculated to explain this lack of support. Firstly, the fact that internal audit is at an early stage of development in Ethiopia possibly could not help capture a positive relationship that might exist. Secondly, the small sample used for this component of the study may fail to capture the possible positive relationship. Thirdly, a single measure (i.e., ROA) may not sufficiently capture the contribution of effective IA to arguably multiple dimensions of company performance. The results are generally considered useful in view of the existing literature, the research methods employed, and the theories used. The discussion has also highlighted the appropriateness of the research methods and statistical techniques employed in view of the purpose of the study and the stage of development of internal audit research.

Chapter 8 Conclusion

This final chapter aims to conclude the study. It summarizes the study, outlines major findings, draws main conclusions of the study, and discusses implications of results. The following section summarizes the study and outlines the main findings. Implications of the findings to internal audit (IA) theory and practice are then outlined in terms of the study's contributions. This is followed by a discussion of the limitations of the study. Suggestions for future research are then provided and, finally, overall concluding remarks are made.

8.1 Overview of the study

The extant literature (e.g., Gramling et al. 2004; Hermanson & Rittenberg 2003) and the Global Institute of Internal Auditors' definition of internal auditing (Institute of Internal Auditors 2004) indicate that internal audit's *raison d'être* is to add value to organizations and help organizations accomplish objectives. Regardless of whether a normative or pragmatic perspective is considered appropriate to interpret the definition of internal auditing, the validity of the notion of IA's value-added and its contribution to organizational goal achievement rests on the implied assumption that *internal audit is effective*. Nevertheless, the association between internal audit effectiveness and organizational performance appears not empirically examined to confirm or refute the stipulations regarding IA's contribution to organizational goal achievement.

Some of the existing literature (e.g., Al-Twaijry, Brierley & Gwilliam 2003; Cohen, Krishnamoorthy & Wright 2004; Mihret & Yismaw 2007; Raghunandan, Read & Rama 2001) suggests that internal audit may not always be effective. Furthermore, the limited prior research in this area suggests that the extent of internal audit effectiveness is possibly associated with country- and organization- level dynamics that prevail in an internal audit milieu (Al-Twaijry, Brierley & Gwilliam 2003; Arena, Arnaboldi & Azzone 2006; Mihret & Woldeyohannis 2008; Yee et al. 2008). Nevertheless, the antecedents of internal

audit effectiveness and the association of IA effectiveness with company performance appear not sufficiently explored as yet. Besides, the limited extant literature on internal audit effectiveness tends to have provided inadequate attention to the multi-dimensional nature of this construct.

Some scholars (e.g., Anderson 2003; Coram, Ferguson & Moroney 2008; Goodwin, J 2004; Ruud 2003) advocated future research that could advance understanding of the association between internal audit context and internal audit practice. Similarly, Hermanson and Rittenberg (2003) called for research on the relationship of internal audit effectiveness with organizational performance. However, the association between IA effectiveness and its contextual influences is not extensively examined as yet. In addition, few empirical studies have been made on the association between effective IA and company performance. Also, the literature does not provide theory-based hypotheses on this potential association as yet.

Furthermore, prior IA research tends to be largely on developed economies. The Global Institute of Internal Auditors (IIA) recognizes the need to understand internal audit's state of affairs worldwide (Lower 1997, cited in Brierley, El-Nafabib & Gwilliam 2001). It also intends to nurture IA in developing countries (IIA 1999a, cited in Al-Twaijry, Brierley and Gwilliam, 2003). However, internal audit appears under-researched particularly in the contexts of such countries. Moreover, due to the increasingly globalised nature of business, corporate governance reforms are taking place in several developing countries (Reed 2002b; Tsamenyi, Enninful-Adu & Onumah 2007). As part of such reforms, the World bank has also undertaken ROSC (Reports on the Observance of Standards and Codes) studies on more than 100 developing and developed countries (World Bank 2009). Thus, apart from contributing to the literature, studies of IA on developing countries would offer practical significance to several stakeholders.

Against this background, this study has:

1. examined internal audit practices in selected Ethiopian organizations to identify country- and organization-level contextual influences on internal audit effectiveness; and
2. explored the association between internal audit effectiveness and organizational performance.

The study employed both qualitative and quantitative methods. The two components of the study are used to enhance and supplement each other's findings and to counter balance each other's limitations. Thus, the mixed methods enabled a rich understanding of the issues as well as statistical tests of relationships among some measures. Mainly questionnaires were used to collect the data used for testing the hypothesis. Financial statements were also used to capture a proxy for organizational performance for the second part of the study. The quantitative results are supplemented and enriched through interviews conducted with selected internal audit directors and leaders of three professional associations in Ethiopia. Review of relevant documentary evidence was also conducted, which helped further consolidate the results.

The development of accounting in Ethiopia and the level of professionalization were assessed with a view to understanding the implications for internal audit practice. Modern accounting in Ethiopia has been practiced in different forms since the early 1900s. Government regulations and proclamations since the 1920s have contributed to the development of accounting in the Country. The process of accounting professionalization in Ethiopia appears to exhibit distinct patterns during the three epochs when the state followed capitalist-oriented (pre 1974), communist (1974 through to 1991), and then capitalist-oriented (1991 onwards) ideologies. While the development of accounting from the 1900s through to 1974 seems to be continuous, it appeared in a relative state of ossification from the 1974 through to 1991. Internal audit, however, gained recognition as a separate function in Ethiopian government organizations during this period. This is despite the function's existence in various forms since the early 20th century. Post-1991, government

support to the development of accounting and auditing in general and for internal audit in particular tends to have contributed to the development of internal audit. Since 1994, the Government has been supporting IA by strengthening the function in government organizations and assisting IIA-Ethiopia in different ways.

There is a prevalence of small and medium enterprises in Ethiopia, which is possibly associated with the less developed external audit market. Also there is little external audit requirement on most medium-sized private enterprises in Ethiopia. Furthermore, public enterprises undertake a large proportion of economic activities in the Country and the state supplies accounting labour to this sector. This tends to make the market for accounting services rather thin and create little societal expectation for the service of the accounting profession as conceived of in Western contexts.

The overall accounting professionalization, the state's role in this process, and implications for internal audit development in Ethiopia are also assessed. Accounting and external auditing professions are at an early stage of development in Ethiopia compared to the case in developed countries. Establishing strong indigenous local professional accountancy associations in Ethiopia was attempted with little success. Nascent indigenous professional associations have neither the capacity nor the legal basis to provide certification examinations that could serve as a prerequisite for licensing of practitioners. As a result, professionals qualified from international professional accountancy bodies are permitted to engage in public practice. Such an environment arguably offers little normative pressures that could contribute to a well-developed IA profession. On the other hand, Government initiatives and requirements appear to bode well with the adoption of internal audit by Ethiopian organizations (both pre- and post- 1991) and the function's level of development.

An institutional theory perspective was taken to identify the coercive, mimetic and normative isomorphic pressures that lead to the adoption and development of internal audit in Ethiopian organizations. The study identified coercive pressures by way of government directives in ministries and State-

owned enterprises. Furthermore, internal audit is relatively well developed in banking and insurance companies in the private sector while companies in other private sector industries exhibit little IA adoption. This is a result of regulatory requirements and/or recommendations of government agencies.

At organizational level, sometimes internal audit appears decoupled. In some organizations low level of auditee cooperation with IA is observed and in some others management does not seem to exploit internal audit to the fullest extent. There seems to be more decoupling in the Government sectors than the private sector. In the private sector, internal audit seems strong where it is established. However, internal audit adoption in the private sector is largely restricted to industries where regulatory requirements apply. Therefore, the result cannot be extrapolated to other private sector companies in Ethiopia. It, nevertheless, suggests the importance of nature of industry as one of the determinants of IA effectiveness.

Differences are observed in internal audit effectiveness within public enterprises apparently attributable to organization level factors. The industry in which the organizations operate seems to have greater bearing than state or private ownership. Both private companies and SOEs in highly regulated sectors tend to maintain strong internal audit departments. This implies that both coercive and normative pressures apply to strengthening internal audit. Also, individual differences of general managers and internal audit directors appear to determine internal audit effectiveness to a larger extent than organizational category, i.e., being a ministry, a State-owned enterprise or a private company. This could arguably be because corporate governance systems of Ethiopian organisations and the relationship between the board of directors and internal audit are not strong as yet.

The level of internal audit reporting is higher in State-owned enterprises than in ministries and private companies. Internal audit directors in State-owned enterprises functionally report to audit committees or boards of directors and administratively to the general managers. In contrast, internal audit departments of ministries and private companies mostly report both administratively and

functionally to top management. The higher level of reporting in SOEs is a result of implementing directives issued by the Privatization and Public Enterprises Supervisory Authority; this signifies a coercive pressure.

The second part of the study focused on the relationship between internal audit effectiveness and organizational performance. Nevertheless, the results are not statistically significant. This is possibly due to the small sample used for this component of the study, the relatively young age of internal audit in Ethiopia, and/or limitations in the measure used for company performance.

In summary, based on the surveys of internal audit practitioners and middle-level managers²⁰, interviews with IA directors and professional association leaders, and reviews of documentary evidence, the following major findings are noted:

- 1) Internal audit in Ethiopia appears to be operating in a context where accounting and auditing in general are at an early stage of development. This provides a limited opportunity for internal audit to benefit from a possible normative isomorphic input of a well-developed external audit profession.
- 2) Alternating government ideology in Ethiopia between capitalism and communism seems to have unfavourably affected financial reporting and external auditing during the communist years. Nevertheless, there was an emphasis on the use of accounting tools for internal decision-making purposes during this period. As a result, internal audit has been established as a separate mandatory organizational activity in Ethiopian government organizations during this period.
- 3) The State contributed to the development of IA through coercive isomorphic pressures. These are largely attributable to government involvement in economic activity and its regulatory functions. In the

²⁰ The survey on middle-level managers was inconclusive due of low response rate. Some results are presented in Appendix 8.

absence of an advanced market economic system, the Government's role in setting the overall scene of accountability mechanisms in government organizations appears to have contributed to IA adoption in Ethiopian organizations. The state also serves as a nexus for IA and international sources of normative pressure for IA development.

- 4) There appears to be a pattern of relationships between context factors and internal audit effectiveness at organization level. Results of canonical analysis suggest that IA effectiveness, as measured by *IA proficiency, IA independence and IA objectivity, scope of IA work, quality of IA planning and execution, and quality of IA reporting and follow up*, is associated with a set of organization-level context factors. These factors are *organizational category, organizational size, organizational policies authorizing IA, organizational risk exposure, auditee cooperation, and internal-external audit linkages*. *IA proficiency, scope of IA work and quality of IA planning and execution* appear to be higher in organizations where *organizational policy authorizing IA* is clearly defined, *organizational risk exposure* is higher, and *internal-external audit linkages* are stronger. Also, Kruskal-Wallis tests show that *IA proficiency* and *IA independence and objectivity* are highest in public enterprises followed by ministries and private companies.

- 5) Organization-level concepts, i.e., *top management support for IA*, an organization's *extent of risk exposure, company connection with the international business environment, IA's information technology advancement*, and *IA leadership demeanour* tend to be linked with IA effectiveness to a greater extent than the contributing factors for IA adoption. This suggests that normative and mimetic isomorphic pressures build upon the coercive isomorphic input to advance IA effectiveness. This is illustrated by differences in organization level

attributes among organizations within sectors (where coercive pressures are generally similar) and the associated differences in IA profile.

- 6) *Government* coercive pressures tend to transform to a normative pressure over time. This is shown by the fact that it becomes industry culture to have internal audit departments in companies that operate in regulated sectors.
- 7) The predicted positive association between internal audit effectiveness and organizational performance was not supported. This is possibly because of the relatively young age of IA in Ethiopia, the relatively small sample used for this hypothesis (other parts of the study were based on large enough samples), and/or limitation of using a single measure for an arguably *multi-dimensional* concept of company performance. The results of hypothesis testing are summarized below (Table 8.1).

TABLE 8.1
Summary of hypothesis testing results

Hypothesis	Results and level of significance
H1. The extent of internal audit's compliance with SPPIA is associated with organizational category, organizational size, organizational policy authorizing internal audit, organizational risk exposure, internal-external audit linkages, and auditee cooperation.	Supported, significant at $p = 0.01$
H2. The extent of internal audit's compliance with SPPIA differs across Government ministries, government companies and private companies.	Supported, significant at $p = 0.05$
H _{3(a)} . Internal audit effectiveness is positively associated with return on assets (ROA).	Not supported
H _{3(b)} . Management's action on internal audit recommendations positively moderates the association between internal audit effectiveness and ROA.	Not supported

The support for the first two hypotheses in view of the qualitative data results indicates that internal audit effectiveness is influenced by the context in which IA is practiced. The results suggest that country- and organizational-level contextual dynamics influence IA effectiveness. Government coercive pressures foster IA adoption in this process and largely normative and mimetic pressures advance IA effectiveness by building upon the coercive inputs. The results are consistent with institutional theory arguments and support the results of prior IA research under institutional theory. On the other hand, the lack of support for the third hypothesis is considered inconclusive.

8.2 Contributions of the study

8.2.1 Contributions to the literature

This study is one of the few recent attempts—another recent study being Arena and Azzone (2009)—to statistically test the relationships of internal audit effectiveness with its potential contextual influences. Despite the need for

validating the results with similar studies in different settings, the study offers the following useful contributions to the literature.

- 1) The study extends IA research under institutional theory, i.e., Arena, Arnaboldi and Azzone (2006), Arena and Azzone (2007) and Al-Twaijry, Brierley and Gwilliam (2003), by considering a broad range of factors influencing IA practice as well as their possible interplay. In addition, the study portrays how the coercive, mimetic, and normative isomorphic pressures interrelate and how the interrelationships influence internal audit at two stages, i.e., IA adoption and then IA effectiveness. That is, normative and mimetic isomorphic pressures build upon the coercive isomorphic input to advance IA effectiveness. This is illustrated by the differences in organization level attributes among organizations within sectors (where coercive pressures are generally similar) and the associated differences in IA profile. Government coercive pressures also tend to transform into a normative pressure over time. This is shown by the fact that, through time, it becomes industry culture to have internal audit departments in companies that operate in regulated sectors. These findings are considered an extension to existing literature because prior studies employed institutional theory mainly to explain IA development at country level by outlining patterns of IA adoption by companies.

- 2) The study conceptualizes internal audit effectiveness as a multi-dimensional construct. It does this by measuring internal audit effectiveness using its components rather than employing an aggregating measure or a proxy. This is arguably an important contribution as the hitherto internal audit literature tends to consider internal audit effectiveness as a uni-dimensional construct. Because of this treatment, the hitherto dominant approach fails to properly capture the multi-dimensional nature of internal audit effectiveness. Furthermore, the interrelationships

among the different dimensions of internal audit effectiveness cannot be taken into account when IA effectiveness is measured as a uni-dimensional construct.

- 3) As recommended by Fornell and Lacker (1980) for accounting research, this study employed canonical analysis. This enabled examining the association between IA effectiveness and its contextual antecedents while, at the same time, considering the interrelationships within components.
- 4) This study articulated (based on theory-based arguments) how a set of context factors augments or inhibits IA effectiveness. Given the apparently limited IA literature (Spraaakman 1997), this articulation could inform IA theory by highlighting possible relationships among variables and/or concepts.
- 5) The study attempted to interpret IA practice in the context of accounting and auditing professionalization. This could be a useful approach that helps better understand internal audit especially in developing countries where IA is relatively at an early stage of development. In this study, this approach also enabled to capture how alternating state-ideology in Ethiopia impacted the relative emphasis on internal and external audit and the ensuing impact on IA development.
- 6) The study established a theory-based link between internal audit effectiveness and company performance by employing Marx's theory of the circuit of industrial capital. It also extends Bryer's (1999a, 1999b, 2006b) studies by using Marx's theory of the circuit of industrial capital in the accounting literature. Following Bryer, Yee et al. (2008) argue that this theory can explain the role of internal audit in organizations. In line with Yee et al. (2008), this study extends Bryer's works by developing hypotheses for

internal audit research under this theory. This extends the theory's use to areas beyond financial accounting, management accounting, and accounting regulation.

- 7) The results provide useful insights that indicate the need to further examine the relationship of internal audit effectiveness and company performance. The definition of internal audit apparently provides a pragmatic implication of the function's contribution to organizational accomplishment of objectives. Thus, the results of this study could ignite interest in further research in this topic that could advance theory.

8.2.2 Contributions to practice

The study provides several useful contributions to practice. It informs IA directors, managers, boards of directors, government policy-makers, and national as well as Global IIA institutes. As prior IA research has largely been on the empirical setting of developed economies, some of the findings of this study could be considered additional insights about internal audit emanating from the empirical setting of a developing Country. Furthermore, by providing additional empirical evidence from a developing Country, the study broadens the international perspective of IA theory and practice. This is arguably an important contribution because IA practice is intricately linked to the cultural, political, social, and economic contexts.

Specifically, the results are expected to inform government policy-makers, boards of directors, managers, and Global and national IIA institutes. It could also inform international financial institutions that provide funds in different arrangements to developing countries including Ethiopia. Due to the increasingly globalised nature of business, corporate governance reforms are taking place in several developing countries (Reed 2002b; Tsamenyi, Enninful-Adu & Onumah 2007). As part of such reforms, the World bank has also undertaken ROSC (Reports on the Observance of Standards and Codes) studies on more than 100 developing and developed countries (World Bank 2009).

Thus, being a study of internal audit (which is a major component of corporate governance) on a developing country, the results are expected to supplement such international efforts to understand and/or reform corporate governance mechanisms.

Specifically results are expected to contribute the following. Firstly, as a study on a developing economy setting, it enables to enhance the understanding of the internal audit profession's global configuration. It helps figure out the current state of internal audit in Ethiopia vis-à-vis the profession's status globally. This could then be extrapolated into the role of internal audit in the control and governance mosaic of developing economies. Secondly, by highlighting the major factors that enhance or inhibit internal audit effectiveness, it helps stakeholders to outline key priorities for the development of IA as a profession as well as its advancement as a key function in organizations.

8.3 Limitations of the study

Despite the several contributions that the study aims to make, some carefulness is necessary in interpreting the results. The first caution emanates from the sample. The use of purposive sampling makes the conclusions analytical rather than statistical generalizations to a population. However, this causes little concern because the purpose of the study is to make conceptual inferences about relationships of concepts/variables rather than draw statistical generalizations to the population. Nevertheless, caution is deemed appropriate to underscore this purpose of the study. Prior studies that employed a similar study design and statistical techniques (e.g., Mahmood & Mann 1993; Reimann 1975) also emphasize the importance of this caution.

As in most prior studies, a purposive sample is employed as it is the best alternative available (Zikmund 2003) given the purpose of the study. In such a context, generalizability is a function of conceptual strength (Miles & Huberman 1994). The researcher believes that this conceptual strength has been

achieved because the research design is well supported by theoretical and empirical literature.

Furthermore, the sample size for the third hypothesis (i.e., on the relationship between IA effectiveness and company performance) was rather small. Therefore, the results of this part of the study are considered as tentative. On measurement of company performance, ROA helps measure surplus ‘generating capability’ (McNamara & Duncan 1995, p. 6) of companies and thus is consistent with the theory employed in this study. Despite this conceptual merit, however, considering multi-dimensional indicators of performance—rather than a single financial measure (i.e., ROA)—could also provide improved results. ROA also tends to be sensitive to changes in industry. Thus, differences in the level of performance may not be the only reason of differences in performance.

Other methodological limitations and limitation of the theory employed are also worth noting. The statistical tests employed in the study are based on ordinal data. This level of measurement is adequate for the concepts studied because IA is not a highly developed discipline in general and is certainly young in Ethiopia. The use of Likert-type data for canonical analysis (the major quantitative component in the study) is also considered to provide acceptable results (e.g., Milliron 1985; Schul, Pride & Little 1983). Nevertheless, the researcher recognizes that the use of metric measures for the variables (which the extant literature does not provide as yet) could provide more robust results. The limitation of institutional theory is also worth noting. The theory mainly focuses on structure and it emphasises external pressures.

A further limitation, the relationship between internal audit and board of directors was not included in the set of independent variables. This is because the governance mechanisms of the three groups of organizations were different. SOEs have boards of directors and IA departments report to audit committees. In contrast, IA departments mostly report to top management in private companies and few private companies have audit committees. Further, the Ministry of Finance and Economic Development plays some governance role in

Government ministries, where there are no boards of directors. As a result of the apparently different governance mechanisms, the quantitative component of the study has not considered IA's relationship with the board as a context variable.

Finally, the study involves largely latent constructs that are not directly measurable. Thus, the inherent limitations of the questionnaire and interview methods in measurement of such constructs remain. A related limitation that needs to be acknowledged is the assumption underlying measurement theory. Classical measurement theory, on which the first two hypothesis and partly the third hypothesis are based, assumes that variations in the measures are a function of the true scores plus error (Jarvis et al. 2003). It also assumes that the items under latent variables do not share a common sources of error (DeVellis 2003). The study's results need to be interpreted in view of these assumptions inherent in the measurement approach.

In general, the results need to be interpreted in the spatial, temporal, and methodological context of the study. That is, the country context and age of IA as well as the nature of the measurement employed for the statistical tests need to be considered in interpreting the results. The use of a combination of methods also relates to this need for flexibility in the study. Thus, the hypotheses need to be tested in other empirical settings to confirm further support.

8.4 Suggestions for future research

The researcher encourages further research to extend the results of this study, improve the results by minimising the limitations of the study, and/or confirm the results in different settings. Specifically, the researcher suggests future research on the following:

- 1) Replicating this study in other settings helps to validate the conclusions. Studies both in settings where IA is well-developed and in other contexts, like Ethiopia, where IA is relatively at an early stage of development could provide useful insights. Especially, stemming from one of the limitations of the study (purposive sampling), a replication of this study in different

settings based on random samples could help provide additional evidence.

- 2) Examining the nexus between company performance and internal audit effectiveness in the context of well-developed internal audit settings would help understanding of the utility of IA in contemporary organizations. This will help deepen the understanding of internal audit's value in organizations. This is because the IIA's definition of internal audit (Institute of Internal Auditors 2004) as well as other literature (Gramling et al. 2004; Hermanson & Rittenberg 2003) imply IA's role in organizational accomplishment of objectives. A study in this area will also help enhance understanding of whether company managers and boards perceive a value-adding potential in internal audit. If they do not, identifying the motives of organizations for IA adoption would be a useful extension to the literature. This will further enable figuring out strategies that could be employed to further develop IA as a profession and augment its acceptance in contemporary organizations.
- 3) Examining the association between IA effectiveness and organizational performance where the latter is measured in a multi-dimensional manner is also worthwhile. This is because an aggregate measure like ROA may not help adequately capture the contribution that internal audit may make to different dimensions of organizational performance.
- 4) Exploring the relationship between internal audit directors' and auditees' views of internal audit effectiveness is also another potential area of future research.
- 5) The relationship between internal audit effectiveness and company performance could also be tested in a more refined way. This could

be done by examining differences in this relationship among private companies competing in different sectors. This could be a fruitful area because companies operating in different industries apparently experience different contextual pressures.

- 6) The association between internal audit effectiveness and performance of government and other not-for-profit organizations could be another fruitful area of research. As this study has used only SOEs and private sector companies in this regard, future studies on the non-profit sector would be a useful extension.
- 7) Studies aimed at refining the measures of internal audit effectiveness could be another useful area. This is because the existing literature does not provide an agreed measurement for IA effectiveness (Arena & Azzone 2009).
- 8) The researcher also encourages future studies to examine the relationships of specific context variables with the individual dimensions of internal audit effectiveness.
- 9) In this study compliance with internal audit professional standards is considered as a measure of IA effectiveness. As these standards encompass assurance and consulting, possibly a focus on one compromises the other. Thus, studies to examine how internal audit can balance between the consulting role of internal audit (that requires working in partnership with management) and the assurance role (that advocates independence) could be another promising avenue for future research (Flesher & Zanzig 2000).
- 10) The test of H_1 could be done by including a variable for the relationship between internal audit and board of directors. This could be done by first restricting the study to organizations with comparable governance mechanisms. This again necessitates

dropping some of the variables used for this study under the independent variables' set, which needs to be warranted by appropriate theory.

- 11) A study of how culture impacts on internal audit practices is also a promising area for future research, which is not addressed in this study. National cultures may have different implications to IA effectiveness. For example, Johnson (1992) indicates that some African cultures could lead to reduced acceptance of auditors. Thus, a study of internal audit effectiveness in the context of cultural tension could yield useful insights to internal audit theory and practice.

8.5 Concluding remarks

This study examined contextual influences on internal audit effectiveness and the association between internal audit effectiveness and company performance. The study conceptualizes internal audit effectiveness as a multi-dimensional construct by measuring internal audit effectiveness in terms of its components rather than the hitherto dominant approach of using an aggregating measure or a proxy variable. Conceptualization of internal audit as a multi-dimensional construct enables taking into account the interrelationships among the different dimensions of internal audit effectiveness. Canonical analysis, which enables considering such interrelationships, has been employed in the study.

A combination of institutional theory and Marx's theory of the circuit of industrial capital as well as quantitative and qualitative methods were employed. The results confirm that contextual antecedents influence internal audit practice. On the other hand, the results of the predicted positive association between internal audit effectiveness and company performance were not supported and are considered inconclusive. Methodological issues i.e., the use of an empirical setting where IA is not highly developed, small sample size (for this part of the

study), and using a uni-dimensional measure for organizational performance (i.e., ROA) are considered possible explanations for the lack of support for the predicted association.

The study concludes that country- and organizational-level contextual dynamics appear to map onto IA effectiveness. In this process, government's coercive pressures lead to IA adoption while largely normative and mimetic pressures augment IA effectiveness. The study also highlights how coercive isomorphic pressures transform over time into normative pressures. Generally, the results of the study are consistent with the existing literature and extend it. The results of the quantitative and qualitative components of the study are also consistent with each other and are in line with institutional theory arguments. The conclusions seem to exhibit practical utility and the findings appear to pave the way for further research.

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Appendices

Appendix 1: Summary of relationships among, hypotheses, research questions, variables/concepts, and the data

a. Variables under each hypothesis, their measurement, sources and data collection instruments

Hypothesis	Variable definition		Measurement		Data source and instrument	
	Variables	Definition	Level of measurement	Method of measurement	Source of data	Data collection instrument
H ₁	Organizational category	Refers to whether an organization is a government ministry, a state-owned company or a private company.	Nominal	Nominally measured as: Category 1 (government ministry) Category 2 (State-owned company) Category 3 (private company)	Internal authors	Questionnaire (Instrument Set A)
	Risk exposure	The extent to which an organization's operations and structures are complex and the industry is dynamic.	Interval	Measured using auditors perceptions on a 7-point Likert-type scale using Part II, Item 3.1 to 3.8 of Instrument Set A (see Appendix 2)	“	“
	Organizational size	The extent to which the organization is large or small.	Ratio	Measured by the number of employees of an organization. This is regarded as a common measure because asset size is affected by accounting method differences; i.e. the use of cash-basis of accounting in Ministries and accrual basis in companies makes financial statement numbers of ministries and companies non-comparable.	“	“
	External-external audit linkages	The extent to which internal audit assists an organization in the introduction and development of internal audit.	Interval	Measured by internal auditors' perceptions on a 7-point Likert-type scale using Items 4.1 to 4.4 of Instrument Set A (see Appendix 2)	“	“
	Auditee cooperation	The extent to which auditees provide sufficient assistance to internal auditors to facilitate internal audit work.	“	Measured by auditors' perceptions on a 7-point Likert-type scale using part II, Items 2.1 to 2.3 of Instrument Set A (see Appendix 2)	“	Questionnaire (Instrument Set A and Set B)

Appendix 1 (cont'd)

H ₁	Organizational policy authorizing internal audit	The quality of the written document stating the authority, duties and responsibilities the internal audit function.	“	Measured by internal auditors' views of the quality of internal audit charter or its equivalent on a 7-point Likert-type scale using Part I, Items 1.1 to 1.3 of Instrument Set A (see Appendix 2)	“	“
	IA Objectivity*	The extent to which internal audit is performed free of bias and external influence.	“	Measured by internal auditors' views on a 7-point Likert-type scale using Part III, Items 5.1 to 5.4 of Instrument Set A (see Appendix 2)	“	Questionnaire (Instrument Set A)
	IA Proficiency*	Refers to technical skills of the auditor.		Measured by educational level and short term trainings taken by internal auditors using Part III, Items 6.1 to 6.6 of Instrument Set A (see Appendix 2)	“	Questionnaire (Instrument Set A)
	IA Work performance*	The scope and quality of work performed by internal auditors.	Interval	Measured using auditors views on: <ul style="list-style-type: none"> • Scope of internal audit work to be measured on a 7-point Likert-type scale using Part III, Items 7.1 to 7.15 of Instrument Set A (see Appendix 2) • Quality of audit planning and execution to be measured on a 7-point Likert-type scale using Part III, Items 8.1 to 8.8 of Instrument Set A (see Appendix 2) • Quality of internal audit reporting, follow-up and quality review to be measured on a 7-point Likert-type scale using Part III, Items 9.1 to 9.9 of Instrument Set A (see Appendix 2) 	“	Questionnaire (Instrument Set A)

N/A = Not applicable

*Instrument Set B will also be used to collect data from managers on some aspects of internal audit effectiveness.

Appendix 1 (cont'd)

H ₂	Organizational category	Refers to whether a company is state or private-owned	Nominal	Nominally measured as: Group 1 (State-owned company) Group 2 (private company)	“	“
	IA Objectivity	As defined above	Interval	As stated above	“	“
	IA Proficiency	“	“	As stated above	“	“
	IA Work performance	“	“	As stated above	“	“
H _{3a}	IA Objectivity	“	“	As stated above	“	“
	IA Proficiency	“	“	As stated above	“	“
	IA Work performance	“	“	As stated above	“	“
	IA Return on assets	Net income after tax divided by total assets.	Ratio	Measured as the ratio of net income to total assets. This variable applies to companies only.	Company balance sheet and income statements	N/A
H _{3b}	IA Objectivity	“	Interval	As stated above	Internal authors	“
	IA Proficiency	“	“	As stated above	“	“
	IA Work performance	“	“	As stated above	“	“
	Return on assets	“	Ratio	As stated above	“	“
	Management action on internal audit recommendations	The extent to which internal audit recommendations are implemented	Ratio	Measured as approximate number of internal audit recommendations in the last three years divided by total audit reports in the period using Part III, Item 4.1 to 4.3 of Instrument Set A. In addition, internal auditors view of the extent to which internal audit recommendations are implemented will be measured on a 7-point Likert-type scale using Part III, Item 5.5 of Instrument Set A	“	“

N/A = Not applicable

*Instrument Set B will also be used to collect data from managers on some aspects of internal audit effectiveness.

b. Research questions, qualitative data, sources and data collection instruments

Research Questions	Concept/Construct	Data collection method	Data Source	Data Collection instruments
RQ1	Country attributes	Document review Interview	Review of relevant laws Commercial code of Ethiopia 1960 Public enterprise proclamation 25/1995 Auditor General proclamation 1997 Audit Service Corporation Proclamation 1979 Review of relevant documents issued by professional accounting associations Review of relevant government reports Interviews with IIA-Ethiopia leaders	Instrument Set E Instrument Set D
	Organizational attributes	Interview	Selected internal audit practitioners	Instrument Set D
RQ2	Internal audit effectiveness	Interview	Selected internal audit practitioner	Instrument Set C
	Management action on internal audit recommendations	Interview	Selected internal audit practitioners	Instrument Set C

**Appendix 2: Instrument Set A: Questionnaire for internal audit directors
and staff**

Dessalegn Getie Mihret, PhD candidate
P.O.Box 150306, Addis Ababa
E-mail: mihret@usq.edu.au

10 September 2008

Dear Sir/Madam:

The enclosed questionnaire is designed to gather information about internal audit practices in Ethiopian organizations. The questionnaire has been sent to all internal audit directors and staff in 54 organizations in Ethiopia. The information you provide in response to the items in the questionnaire will be used as part of the data needed for a study of *Antecedents and Organizational Performance Implications of Internal Audit Effectiveness*. The study is being conducted as part of the undersigned researcher's study for the degree of PhD in Accounting at the University of Southern Queensland, Australia. The results of the study are expected to contribute to the understanding of internal audit's role in Ethiopian organizations and to the development of the profession in Ethiopia.

The questionnaire is anonymous; please do not write your name on it. The conclusions of the study will be drawn in aggregate terms, without any reference to specific organizations or individual respondents. I would also like to assure you that the information you provide will be treated as strictly confidential.

Further, I would like to advise that participation in this survey is completely voluntary. Nevertheless, your participation is regarded as a valuable assistance. Therefore, I believe that you will extend your assistance by participating in the study.

To ensure anonymity of your responses, two stamped self-addressed envelopes are enclosed. Please use the first envelope to post the attached questionnaire separately and use the second one to post the other questionnaire that is enclosed. This second questionnaire asks whether you would be willing to participate in an interview that will follow the questionnaire survey. It also asks if you are interested to receive a summary of the results of the study. Please mail this paper separately in one of the stamped self-addressed envelopes.

Your honest and thoughtful responses are appreciated.

Thank you for your participation.

Kind regards,

Dessalegn Getie

General Instruction: This questionnaire contains 4 pages and is expected to take about 20 minutes of your time to complete. Please provide your responses to the questions based on the instructions under each section. If you have additional comments, please use the space provided at the end of the questionnaire

Section I: Organizational Profile

Please indicate your choice by ticking (✓) on the spaces in front of one of the response options:

1. Type of your organization: () Government Ministry () Public enterprise () Private Company
2. Number of internal auditors employed in your organization: () 1 to 5, () 6 to 10, () 11 to 15,
() more that 15,
3. Total number of employees of your organization: () less than 500 () 501 – 1000
() 1001 – 3000 () 3001– 5000 () 5001 – 8000 () Over 8, 000

Section II: Internal audit context

Instruction: Below are statements pertaining to internal audit ***in your organization***. Please indicate whether you agree or disagree with each statement by ticking (✓) the appropriate one from the options that range from 'Strongly Agree', to 'Strongly Disagree'.

A. Organizational policy authorising internal audit	Strongly Agree (5)	Agree(4)	Neutral (3)	Disagree(2)	Strongly disagree (1)
1. The purpose of internal audit is clearly defined.....	()5	()4	()3	()2	()1
2. The purpose of internal audit is in line with “Standards for the Professional Practice” formulated by the Institute of Internal Auditors.....	()5	()4	()3	()2	()1
3. The authority of internal audit is clearly defined.....	()5	()4	()3	()2	()1
4. The authority of internal audit is in line with “Standards for the Professional Practice” formulated by the Institute of Internal Auditors.....	()5	()4	()3	()2	()1
5. The document defining internal audit’s purpose and authority is approved by board of directors (or audit committee).....	()5	()4	()3	()2	()1
B. Auditee Cooperation					
1. Internal auditors have full access to records and information they need in conducting audits.....	()5	()4	()3	()2	()1
2. Internal auditors receive full cooperation from auditees (units being audited)	()5	()4	()3	()2	()1
3. Auditees regard internal audit as a value-adding service.....	()5	()4	()3	()2	()1
C. Risk Exposure of the organization					
1. There are adequate internal controls in the organization at large.....	()5	()4	()3	()2	()1
2. Frequency of transactions involving cash is high.....	()5	()4	()3	()2	()1
3. The organization has large amount of receivables.....	()5	()4	()3	()2	()1
4. The organization has large amount of inventories.....	()5	()4	()3	()2	()1
5. There are enough employees to carry out tasks in the organization at large.....	()5	()4	()3	()2	()1
6. Competence of employees is high in the organization at large.....	()5	()4	()3	()2	()1
7. The organization’s operations are complex.....	()5	()4	()3	()2	()1
D. Internal-external audit linkages					
1. External auditors make recommendations that help improve internal audit.....	()5	()4	()3	()2	()1
2. External audit reports help enhance managements’ acceptance of internal audit findings.....	()5	()4	()3	()2	()1
3. Internal audit follows up implementation of external auditor’s recommendations on improvement of internal control systems.....	()5	()4	()3	()2	()1
4. External auditors use internal audit reports in conducting their audit.....	()5	()4	()3	()2	()1
5. External auditors use internal audit working papers in conducting their audit	()5	()4	()3	()2	()1

	Strongly Agree (5)	Agree(4)	Neutral (3)	Disagree(2)	Strongly disagree (1)
E. Proficiency of Internal Audit					
1. The internal audit department is large enough to successfully carry out its duties.....	()5	()4	()3	()2	()1
2. Internal audit obtains a sufficient budget to successfully carry out its duties.....	()5	()4	()3	()2	()1
3. Internal auditors possess sufficient experience to understand the organization's systems.....	()5	()4	()3	()2	()1
4. The internal audit staffs possess knowledge and skills in a variety of areas (beyond accounting and finance), as necessary.....	()5	()4	()3	()2	()1
5. Internal audit has policies for hiring internal audit staff.....	()5	()4	()3	()2	()1
6. Internal audit has policies for training of internal audit staff.....	()5	()4	()3	()2	()1
7. Internal auditors undertake continuous professional development activities (such as professional association sponsored programs and correspondence courses).....	()5	()4	()3	()2	()1
8. Adequate short-term training is arranged for internal auditors each year.....	()5	()4	()3	()2	()1
9. There is a complete internal audit manual to guide internal audit work....	()5	()4	()3	()2	()1
F. Independence and Objectivity of Internal Audit					
1. Internal audit is free from intervention in performing its duties.....	()5	()4	()3	()2	()1
2. Internal auditors feel free to include any audit findings in their audit reports.....	()5	()4	()3	()2	()1
	Always (5)	Often (4)	Some times (3)	Seldom(2)	Never (1)
3. Internal audit provides reports to the board of directors (or audit committee).....	()5	()4	()3	()2	()1
4. The board of directors (or audit committee) oversees employment decisions in internal audit.....	()5	()4	()3	()2	()1
5. Internal auditors are not assigned to audit areas in the system design of which they participated.....	()5	()4	()3	()2	()1
6. Internal auditors do not participate in audit of activities for the operation of which they were responsible.....	()5	()4	()3	()2	()1
7. Internal audit staff assignments are rotated periodically.....	()5	()4	()3	()2	()1
G. Scope of internal audit work					
How often does internal audit conduct the following activities?					
1. Checking adequacy of the auditees' record keeping when appropriate.....	()5	()4	()3	()2	()1
2. Verifying accuracy of amounts in financial records.....	()5	()4	()3	()2	()1
3. Reviewing information contained in reports of operating departments.....	()5	()4	()3	()2	()1
4. Reviewing the systems for safeguarding of asset.....	()5	()4	()3	()2	()1
5. Evaluating the internal control system.....	()5	()4	()3	()2	()1
6. Performing audit of major fraud cases.....	()5	()4	()3	()2	()1
7. Checking efficiency of operating results (e.g. whether cost saving alternatives are used).....	()5	()4	()3	()2	()1
8. Ascertaining compliance with organizational policies and procedures....	()5	()4	()3	()2	()1
9. Checking compliance with contracts when applicable.....	()5	()4	()3	()2	()1
10. Checking compliance with external laws and regulations when applicable.....	()5	()4	()3	()2	()1
11. Ascertaining that operating objectives are consistent with organizational goals.....	()5	()4	()3	()2	()1
12. Ascertaining that operating procedures are consistent with the operational goals.....	()5	()4	()3	()2	()1
13. Reviewing operations to ascertain they were implemented as intended.....	()5	()4	()3	()2	()1
14. Assisting the management by identifying risk exposures of the organization.....	()5	()4	()3	()2	()1
15. Providing consulting services to management where internal audit has the expertise.....	()5	()4	()3	()2	()1

Section III: Internal audit organization and operation

Instruction: Below are lists of statements about internal audit ***in your organization***. Please indicate whether you agree or disagree with each statement by ticking (✓) on the spaces that indicate your choice from the options that range from 'Strongly Agree', to 'Strongly Disagree' or from 'Always' to 'Never'.

H. Audit Planning and Execution	Always (5)	Often (4)	Some times (3)	Seldom (2)	Never (1)
1. Annual internal audit plan is prepared.....	()5	()4	()3	()2	()1
2. Risk assessment is done as part of audit planning.....	()5	()4	()3	()2	()1
3. Fraud risk is considered in setting audit priorities.....	()5	()4	()3	()2	()1
4. Senior management input is considered in setting internal audit priorities...	()5	()4	()3	()2	()1
5. A preliminary survey is conducted before an audit.....	()5	()4	()3	()2	()1
6. During the examination of audit evidence, analytical audit procedures (e.g. ratios, trends, etc.) are used as appropriate.....	()5	()4	()3	()2	()1
7. Audit work is documented and maintained in a file of audit working papers	()5	()4	()3	()2	()1
8. In setting up audit programs:					
• The objectives and goals of the activities to be audited are reviewed.....	()5	()4	()3	()2	()1
• potential risks relevant to the activity to be audited are identified.....	()5	()4	()3	()2	()1
• prior audit reports are reviewed.....	()5	()4	()3	()2	()1
• prior audit working papers are reviewed.....	()5	()4	()3	()2	()1
• preliminary communication is made with auditees.....	()5	()4	()3	()2	()1
• the resources necessary to perform the audit are reviewed.....	()5	()4	()3	()2	()1
• reports by other agencies, where applicable, are obtained.....	()5	()4	()3	()2	()1
• audit objectives are established.....	()5	()4	()3	()2	()1
• written audit programs are established.....	()5	()4	()3	()2	()1
I. Reporting, follow-up and quality review					
1. An internal audit supervisor (or manager) supervises field work.....	()5	()4	()3	()2	()1
2. An internal audit supervisor (or manager) reviews internal audit working papers.....	()5	()4	()3	()2	()1
3. Audit findings are discussed with auditees before being reported on.....	()5	()4	()3	()2	()1
4. Internal auditors follow up implementation of corrective actions relating to audit findings.....	()5	()4	()3	()2	()1
5. The reporting level varies with the importance of internal audit findings...	()5	()4	()3	()2	()1
6. Corrective action plan is agreed with management before the report is issued.....	()5	()4	()3	()2	()1
7. Management takes timely corrective action based on internal audit recommendations.....	()5	()4	()3	()2	()1
8. How often are the following included in the internal audit reports?					
• The audit purpose and scope.....	()5	()4	()3	()2	()1
• the audit findings and conclusions.....	()5	()4	()3	()2	()1
• audit recommendations.....	()5	()4	()3	()2	()1
• auditees' comments regarding audit findings.....	()5	()4	()3	()2	()1

Section IV: Management action on internal audit recommendations

Instruction: The following questions relate to audit recommendations you might have made in the last two years. Please tick (✓) on the spaces representing your choice from the response options provided.

Approximately,	0 to 40 (1)	41 to 80 (2)	81 to 100 (3)	101 to 140 (4)	Over 140 (4)
1. how many minor breaches of internal control did you report in the last two years?.....	()1	()2	()3	()4	()5
2. how many of your recommendations relating to No. 1 above were implemented?.....	()1	()2	()3	()4	()5
3. how many major breaches of internal control did your report in the last two years?.....	()1	()2	()3	()4	()5
4. how many of your recommendations relating to No. 3 above were implemented?.....	()1	()2	()3	()4	()5
5. how many minor frauds or thefts did you report in the last two years?	()1	()2	()3	()4	()5
6. how many of your recommendations relating to No. 5 above were implemented?.....	()1	()2	()3	()4	()5
7. how many major thefts did you report in the last two years?.....	()1	()2	()3	()4	()5
8. how many of your recommendations relating to No. 7 above were implemented?.....	()1	()2	()3	()4	()5
9. how many major breaches of company policy did you report in the last two years?.....	()1	()2	()3	()4	()5
10. how many of your recommendations relating to No. 9 above were implemented?.....	()1	()2	()3	()4	()5

11. Is it the internal audit department’s responsibility to follow-up and ensure that corrective actions are taken?

() Yes () No. **If Yes**, is there a formal policy for subsequent audit follow-up? ()Yes ()No

12. When are significant audit findings and recommendations brought to the attention of management? Please tick (✓):

() immediately () within one month () Other (please specify) _____
 () within 10 days () in a periodic report _____

13. If you are internal audit **director/head**, please indicate the following; if not, go to Section V:

Who appoints or removes the director/head of internal audit department? () Board of directors
 () Audit committee () General Manager () Chief Financial Officer () Other (specify) __

How many meetings did you attend with the board of directors (or audit committee) during the last financial year?

() Did not meet, () Once, () Twice, () four 4 times, () other (specify) _____

Who approves the internal audit department’s annual plan? ()Board of directors ()General Manager

() Audit committee () Chief Financial Officer () Other (please specify) _____

What is the annual budget of the internal audit department (in **Ethiopian birr**)? Please tick (✓):

()1 – 20,000 ()20,001 – 50,000 ()50,001 – 100,000 ()100,001– 200,000 () over 200,000
 () Internal audit does not have a separate annual budget

Section V: Profile

Instruction: The following questions seek general information. Please provide your response by ticking (✓) or writing

1. Have you worked as an external auditor before? Yes No

2. Please indicate your:

Current position (and job grade if applicable) in your organization: _____

Your field of study: Accounting, Management, Economics, Others (specify): _____

Level of education: Technical/Vocational school certificate Bachelor's degree Masters

Degree College/University diploma Other (Specify) _____

Number of years of experience as an internal auditor: _____

Years of work experience other than as internal auditor? ___ years as ___ (specify type of job)

Professional association membership: _____

Professional certifications (if any):

Certified internal auditor (CIA), Certified public accountant (ACCA, CPA..)

Certified Management accountant (CMA), Other certifications (specify): _____

In progress for certification (specify): _____

Duration of short-term training attended during the last year: 0 hours, 1 to 20 hours 21-40 hours

41-80 hours over 80 hours

Gender: Male Female

Age: 20 to 29 30 to 39 40 to 49 50 to 59 60 or above

**Additional
comments** _____

Thank you!

Appendix 3: Instrument Set B: Consent form to identify potential interview participants

Antecedents and Organizational Performance Implications of Internal Audit Effectiveness: Evidence from Ethiopia

Dear participant:

The following two questions are separate from the questionnaire. The first one asks whether or not you will be willing for an interview; if you are willing, you will be contacted for an interview. The second question asks if you would be interested in the summary report of the results of the study. If you are interested, a copy of the summary of the results will be sent to you. Please mail this page separately from the questionnaire, in one of the paid and addressed envelopes enclosed in this package.

1. Will you be willing to participate in an interview that will follow this study?
 Yes No

If yes, please provide contact details

Telephone: _____

E-mail address: _____

2. Are you interested to receive a summary report of the results of the study?
 Yes No

If 'yes', which one do you prefer? (Please circle one)

a. Printed copy

b. Electronic version as e-mail attachment

If 'yes', provide your mailing address:

Appendix 4: Instrument Set C: Questionnaire for managers

Dessalegn Getie Mihret, PhD candidate
P.O.Box 150306, Addis Ababa
E-mail: mihret@usq.edu.au

10 September 2008

Dear Sir/Madam:

The enclosed questionnaire is designed to gather information about internal audit practices in Ethiopian organizations. The questionnaire has been sent to all department/division managers of 54 organizations in Ethiopia. The information you provide in response to the items in the questionnaire will be used to generate part of the data needed for a study of *Antecedents and Organizational Performance Implications of Internal Audit Effectiveness*. The study is being conducted as part of the undersigned researcher's study for the degree of PhD in Accounting at the University of Southern Queensland, Australia. The results of the study are expected to contribute to the understanding of internal audit's role in Ethiopia.

The questionnaire is anonymous; please do not write your name on it. The conclusions of the study will be drawn in aggregate terms, without any reference to specific organizations or individual respondents. I would also like to assure you that the information you provide will be treated as strictly confidential.

Further, I would like to advise that participation in this survey is completely voluntary. Nevertheless, your participation is regarded as a valuable assistance. Therefore, I believe that you will extend your assistance by participating in the study.

Two stamped self-addressed envelopes are enclosed. Please mail this questionnaire separately in one of these envelopes. A separate sheet with a question is also enclosed. It asks if you are interested in receiving a summary of the results of the study. If your answer is 'yes', please complete the form and mail it separately using one of the stamped self-addressed envelopes.

Your honest and thoughtful responses are appreciated.

Thank you for your participation.

Kind regards,

Dessalegn Getie

General Instruction: This questionnaire contains 4 questions and will take you about 6 minutes of your time to complete. Please provide your responses by ticking (✓) or writing.

- Please indicate your: Organization: () Private Company, () Public Enterprise, () Ministry
 Department: () Finance, () Human Resources, () Procurement,
 () Marketing () Operations, () Others (specify): _____
- What is your current position title in your organization? _____

In your organization:	Strongly Agree (5)	Agree(4)	Neutral (3)	Disagree(2)	Strongly disagree(1)
1. Internal auditors possess appropriate knowledge to audit your department.....	()5	()4	()3	()2	()1
2. Internal auditors have appropriate skills to audit your department.....	()5	()4	()3	()2	()1
3. Internal auditors possess adequate experience to understand your department's operations and procedures.	()5	()4	()3	()2	()1
4. The existence of internal audit assists efficient use of resources in the organization.....	()5	()4	()3	()2	()1
5. Internal auditors include in their reports any fault, fraud, wrongdoing, and mistake without influence from any one.....	()5	()4	()3	()2	()1
6. Audit findings are correct.....	()5	()4	()3	()2	()1
7. Audit findings are supported by sufficient evidence.....	()5	()4	()3	()2	()1
8. Audit recommendations are constructive.....	()5	()4	()3	()2	()1
9. Internal auditors are not considered as disrupting regular activity.....	()5	()4	()3	()2	()1
10. The audit function provides useful service for the management of your department.....	()5	()4	()3	()2	()1
Please indicate how often the following are done in your organization:	Always (5)	Often (4)	Some times (3)	Seldom (2)	Never (1)
1. Internal auditors ascertain your department's compliance with organizational policies and procedures.....	()5	()4	()3	()2	()1
2. Internal auditors ascertain your department's compliance with external laws and regulations when applicable.....	()5	()4	()3	()2	()1
3. Internal auditors check your department's compliance with contracts when applicable.....	()5	()4	()3	()2	()1
4. Internal audit assists the organization in managing risk.....	()5	()4	()3	()2	()1
5. Internal auditors assist the organization in the investigation of major fraud cases.....	()5	()4	()3	()2	()1
6. Internal auditors check the adequacy of internal controls.....	()5	()4	()3	()2	()1
7. Internal auditors check the adequacy of operating objectives, goals, and criteria in your department.....	()5	()4	()3	()2	()1
8. Internal auditors check whether the operating procedures are consistent with the organization's objectives and goals.....	()5	()4	()3	()2	()1
9. Internal auditors discuss audit findings with your department before they issue audit reports.....	()5	()4	()3	()2	()1
10. After completing an audit, internal auditors provide a copy of a signed audit report to your department.....	()5	()4	()3	()2	()1
11. Internal auditors follow-up implementation of corrective actions (audit recommendations).....	()5	()4	()3	()2	()1
12. Top management demands implementation of corrective actions recommended by internal audit.....	()5	()4	()3	()2	()1
13. Internal auditors obtain unrestricted access to records in your department.....	()5	()4	()3	()2	()1
14. Internal auditors obtain unrestricted access to any information regarding your department.....	()5	()4	()3	()2	()1

3. If internal auditors did not audit your department in the last three years, what, in your opinion, is (are) the reason(s): _____ (If

you need more space, please use the back of this page)

- Please indicate: Your gender: () male ()female
 Your age: () Less than 30 () 30 to 40 () 41 to 50 () More than 50

Thank you!

Appendix 5: Instrument Set D: Consent form and interview checklist for
IA directors

**Antecedents and Organizational Performance Implications of Internal Audit
Effectiveness: Evidence from Ethiopia**

Dear participant:

The following two questions are separate from the questionnaire. The first one asks if you would be interested in the summary report of the results of the study. If you are interested, a copy of the summary of the results will be sent to you. Please mail this page separately from the questionnaire, in one of the paid and addressed envelopes enclosed in this package.

Are you interested to receive a summary report of the results of the study?

Yes

No

If 'yes', which one do you prefer? (Please circle one)

a. Printed copy

b. Electronic version as e-mail attachment

If 'yes', provide your mailing address:

Dessalegn Getie Mihert, PhD candidate
 P.O.Box 150306, Addis Ababa
 E-mail: mihret@usq.edu.au

Dear interview participants:

I am a PhD candidate at the University of Southern Queensland, Australia. I am conducting interviews with internal audit directors in Ethiopia to generate part of the data needed for my PhD dissertation titled: *Antecedents and Organizational Performance Implications of Internal Audit Effectiveness: Evidence from Ethiopia*. You are one of at least the participants being interviewed.

In this interview, you are being asked questions about internal audit in your organization (questions attached). During the interview, I will listen to and transcribe your responses. The transcripts from all the interviews will be used to draw some conclusions in aggregate terms, without any reference to specific participants or their organization. Therefore, your name and your organization's name or any identifier will not appear in any of the outputs of the research.

I would also like to advise that participation in this interview is voluntary and you may choose to withdraw at any time during or after the interview.

I, _____ have read the above statements and agree to participate in an interview under the conditions stated.

Signature of participant

Signature of interviewer

Date

ORGANIZATIONAL CHARACTERISTICS

1. Describe the profile of your organization?

- type of organization,
- type of business,
- market of the organization,
- No. of employees,
- complexity of activities,
- Any other special characteristics.

INTERNAL AUDIT DEPARTMENT CHARACTERISTICS

2. Tell me about establishment of internal audit in your organization?

- When was it established?
- What led to its establishment?
- Does it have a charter (or terms of reference) approved by the Board of Directors?
- What does the charter (or terms of reference) cover?
- What is auditees' acceptance of and cooperation with internal audit in your organization?

3. Are the role and benefits of internal audit sufficiently understood in your organization?

4. Is internal audit held in high esteem in your organization?

5. What is the relationship of internal audit with:

- board of directors (audit committee)? Are there accounting/finance experts in the board (audit committee)?
- chief executive officer (or general manager)?
- Who makes a decision to hire/remove the internal audit director?
- Which periodic reports and in what frequency does internal audit provide to top management or the board?

6. Does internal audit have sufficient budget and adequate number of auditors?

7. What do the competencies of the internal auditors look like in your organization in terms of:

- educational background,
- work experience,
- professional certification,
- affiliation to professional associations?
- IT audit skills vis-à-vis the need in your organization,

8. What continuing professional development or training programs are provided to internal auditors in your organization?

9. How do you compare the salary rates of internal auditors in Government ministries, State-owned companies and private companies in Ethiopia?

10. Tell me about recruitment of auditors

- What are your main sources of trained manpower to recruit internal auditors?
- What criteria are considered in recruiting internal audit staff?

11. What are the activities carried out by internal auditors in your organization? What activities do internal auditors do in relation to:

- Internal controls,
- performance audits,
- risk management in the organization,
- reliability of financial and operating information,
- compliance with laws and regulations,
- fraud?

12. Please describe the audit planning process in your organization in terms of:

- Types of plans

- Considerations in setting audit priorities
 - How issues of risk are considered
 - Whether plans are communicated to top management including the impact of any resource limitations?
13. How do you describe the risk profile of your organization?
 14. How do you describe the phases of an audit in your organization?
 15. How often are internal audit recommendations implemented?
 - What determines the extent of implementation?
 - Who has the mandate to follow-up implementation of internal audit recommendations?
 16. How do you ascertain the quality of audit work on individual audit assignments?
 17. How is the performance of internal audit assessed?
 - How is quality assured?
 - Who conducts it?
 - How frequently?
 - Against what criteria? What is the relationship of such criteria with organizational goals?
 - Is feedback taken from management and auditees?
 18. What (if any) limits internal audit from providing high standard of service in your organization?
 19. Does your organization outsource any activity that could be in the domain of internal audit?
 20. What is the contribution and/or influence of external audit on the development of internal audit in your organization?
 - Is there any cooperation between the two?
 21. What is the implication of anti-corruption laws, regulations and practices in Ethiopia to internal audit?
 - Attention to audit reports
 - Whistle-blowing
 - Relationship of internal audit with anti-corruption and ethics officers
 22. Are there factors that hinder or enhance internal audit especially in your organization? (cultural, political, social, or other factors)

PARTICIPANT'S PROFILE

23. What is your level of education?
 ___ College/University diploma ___ Bachelor's degree ___ Masters Degree
 ___ Other (specify; include certifications if any) _____
24. How long have you worked in internal audit? _____ years
25. How long have you worked in jobs other than internal audit? _____ years
26. What is your age? () below 30 () 30 to 40 () 41 to 50 () More than 50
27. If you are interested in receiving a copy of summary results of this study, please write your contact details here:

Thank you!

Appendix 6: Instrument Set E: Consent form and interview checklist for
IIA-Ethiopia

Dessalegn Getie Mihert, PhD candidate
P.O.Box 150306, Addis Ababa
E-mail: mihret@usq.edu.au

Dear interview participant:

I am a PhD candidate at the University of Southern Queensland, Australia. I am conducting an interview to generate part of the data needed for my PhD dissertation titled: *Antecedents and Organizational Performance Implications of Internal Audit Effectiveness: Evidence from Ethiopia*.

In this interview, you are being asked the questions attached with this form. During the interview, I will listen to and transcribe your responses. These transcripts will be used to extract some conclusions in aggregate terms, without any reference to your identity. Therefore, your name or any identifier will not appear in any of the outputs of the research.

I would also like to advise that participation in this interview is voluntary and you may choose to withdraw at any time during or after the interview.

I, _____ have read the above statements and agree to participate in an interview under the conditions stated.

Signature of participant

Signature of interviewer

Date

INTERVIEW CHECKLIST FOR IIA-ETHIOPIA LEADERS

1. What initiated the formation of IIA-Ethiopia?
2. What role has IIA-Ethiopia played in the development of internal audit in Ethiopia?
3. What factors and triggering points contributed to the development of internal audit in Ethiopia?
4. What is the contribution or influence of external audit in the development of internal audit in Ethiopia?
5. What are the contributions or influences of government on the development of internal audit in Ethiopia?
6. What is the implication of anti-corruption laws, regulations and practices in Ethiopia to internal audit?
7. What, if any, factors (cultural, political, economic etc) inhibited or enhanced internal audit practice especially in Ethiopia?
8. How do you describe the market for recruitment of internal auditors in Ethiopia?
9. Have you observed any differences in internal audit's level of development among sectors or type of organizations in Ethiopia? If yes, what in your opinion is the reason for this difference?
10. In your opinion, what (if anything) has been limiting the development of internal audit in Ethiopia?
11. How do you compare pre-1974, 1974 to 1991 and post-1991 in terms of accounting professionalization in general in Ethiopia?
12. Do you think that internal audit is accepted as a value-adding service by management, board of directors and employees in Ethiopian organizations?

PARTICIPANTS' PROFILE

13. What is your level of education? () Masters Degree () Bachelor's degree
() Other (specify; include certifications if any) _____
14. What is your work experience (related to internal/external auditing and accounting)? _____ years
15. If you are interested in receiving a copy of results of this study, please provide your contact details:

Thank you!

Appendix 7: Document review guide

Activity	Objective
1. Review constitution of the Federal Democratic Government of Ethiopia	<ul style="list-style-type: none"> To collect information relevant to public sector audit with implications to internal audit.
2. Review the commercial Code of Ethiopia 1960.	<ul style="list-style-type: none"> To identify the legal basis of accounting and audit in Ethiopian companies.
3. Review Ethiopian the Office of Federal Auditor General (OFAG) Proclamation.	<ul style="list-style-type: none"> To collect information relevant to accounting and external audit monitoring and regulation in Ethiopia. To collect information relevant to internal audit monitoring and regulation
4. Review Ethiopian Anti-Corruption Commission Proclamation.	<ul style="list-style-type: none"> To discern implications of the commission's duties and authorities on fraud prevention role of internal audit
5. Review Public Enterprise proclamations No. 197—and 1992 and the two earlier proclamations.	<ul style="list-style-type: none"> To collect additional legal basis of accounting and audit of State-owned companies in Ethiopia pre- and post-1991.
6. Review the Ethiopian Government internal audit manual	<ul style="list-style-type: none"> To collect information relevant to internal audit in the Ethiopian public sector.
7. Review other Ethiopian Government regulations relating to internal audit	<ul style="list-style-type: none"> To collect information relevant to public sector audit.
8. Review published and unpublished earlier studies on accounting and auditing in Ethiopia.	<ul style="list-style-type: none"> To collect information relevant to public sector audit.
9. Review charters of professional accounting and auditing associations in Ethiopia, i.e. Ethiopian Professional Accountants and Auditors (EPAA), Ethiopian Accounting and Finance Association (EAFA), and Institute of Internal Auditors (IIA)-Ethiopia and Accounting Society of Ethiopia(ASE).	<ul style="list-style-type: none"> To collect relevant data to assess professionalization of accounting and auditing in Ethiopia and its implication for internal audit development.
10. Review reports or other relevant documents issued by EPAA, EAFA, and IIA-Ethiopia and ASE.	<ul style="list-style-type: none"> To collect relevant data to assess professionalization of accounting and auditing in Ethiopia and its implication for internal audit development.

Appendix 8: Ratios considered as a proxy for organizational performance
(Hypothesis 3)

Organization	ROA (ETB) (%)	ROA (Rank)	ROE (ETB) (%)	ROE (Rank)	Year
1*	1.73*	1	5.18*	1	2007
2	8.43	2	18.66	2	2005
3	6.15	2	17.82	2	2006
4	9.94	2	12.13	2	2006
5	19.78	4	55.99	5	2004
6	3.80	1	77.19	5	2005
7	6.37	2	20.0	2	2007
8	4.59	2	10.98	2	2005
9	3.73	2	7.16	1	2007
10	2.58	2	27.85	3	2006
11	18.30	4	20.85	3	2007
12	1.89	1	3.07	1	2007
13	7.77	2	19.98	2	2007
14	7.22	2	24.68	3	2007
15	-6.49	1	59.18	1	2003
16	24.76	5	56.11	5	2007
17	1.03	1	9.51	1	2007
18	2.32	1	54.65	5	2006
19	3.09	1	42.59	5	2006
20	-0.06	1	-0.41	1	2004
21	3.34	1	42.29	5	2006
22	3.0	1	29.30	3	2006
23	3.3	1	27.8	3	2006
24	3.7	1	32.6	4	2006
25	3.1	1	22.8	3	2006

* Organizations' names and financial statement amounts are omitted for confidentiality reasons

Appendix 9: Summary of results for management perception of internal audit services

Item	Strongly Agree N(%)	Agree N(%)	Neutral N(%)	Disagree N(%)	Strongly Disagree N(%)	Median	Missing	Valid (N)
Internal auditors possess appropriate knowledge to audit your department	9* (21.4)**	16 (38.1)	9 (21.4)	4 (9.5)	2 (4.80)	4	2	40
Internal auditors have appropriate skills to audit your department	2 (4.8)	17 (40.5)	9 (24.4)	7 (16.7)	2 (4.8)	4	4	38
Internal auditors possess adequate experience to understand your department's operations and procedures.	8 (19.0)	16 (38.1)	17 (40.5)	0 (0)	0 (0)	4	1	41
The existence of internal audit assists efficient use of resources in the organization	23 (54.8)	12 (28.6)	5 (11.9)	1 (2.4)	1 (2.4)	5	0	42
Internal auditors include in their reports any fault, fraud, wrongdoing, and mistake without influence from any one	16 (38.1)	8 (19.0)	11 (26.2)	4 (9.5)	0 (0)	4	3	39
Audit findings are correct	11 (26.2)	14 (33.3)	7 (16.7)	6 (14.3)	4 (9.5)	4	0	42
Audit findings are supported by sufficient evidence	9 (21.4)	16 (38.1)	9 (21.4)	7 (16.7)	1 (2.4)	4	2	40
Audit recommendations are constructive	10 (23.8)	13 (31.0)	9 (21.4)	8 (19)	2 (4.8)	4	0	42
Internal auditors are not considered as disrupting regular activity	9 (21.4)	12 (28.6)	16 (38.1)	5 (11.9)	0 (0)	3.5	0	42
The audit function provides useful service for the management of your department	13 (31.0)	15 (35.7)	10 (23.8)	2 (4.8)	0 (0)	4	2	40
	Always N(%)	Often N(%)	Sometimes N(%)	Seldom N(%)	Never N(%)	Median	Missing	Valid (N)
Internal auditors ascertain your department's compliance with organizational policies and procedures	11 (26.2)	14 (33.3)	14 (33.3)	3 (7.1)	0 (0)	4	0	42
Internal auditors ascertain your department's compliance with external laws and regulations when applicable	5 (11.9)	7 (16.7)	8 (19.0)	15 (35.7)	6 (14.3)	2	1	41
Internal auditors check your department's compliance with contracts when applicable	9 (21.4)	9 (21.4)	11 (26.2)	10 (23.8)	3 (7.1)	3	0	42
Internal audit assists the organization in managing risk	11 (26.2)	8 (19.0)	10 (23.8)	11 (26.2)	1 (2.4)	3	1	41
Internal auditors assist the organization in the investigation of major fraud cases	9 (21.4)	17 (40.5)	9 (21.4)	3 (7.1)	0 (0)	4	4	38
Internal auditors check the adequacy of internal controls	6 (14.3)	6 (14.3)	16 (38.1)	6 (14.3)	6 (14.3)	3	2	40

* Number of responses

** Percentages

Appendix 9 (cont'd)

Item	Always N(%)	Often N(%)	Some times N(%)	Seldom N(%)	Never N(%)	Median	Missing	Valid (N)
Internal auditors check the adequacy of operating objectives, goals, and criteria in your department	9* (21.4)**	7 (16.7)	16 (38.1)	10 (23.8)	0 (0)	3	0	42
Internal auditors check whether the operating procedures are consistent with the organization's objectives and goals	8 (19.0)	0 (0)	13 (31.0)	20 (47.6)	0 (0)	3	1	41
Internal auditors discuss audit findings with your department before they issue audit reports	15 (35.7)	12 (28.6)	5 (11.9)	5 (11.9)	4 (9.5)	4	1	41
After completing an audit, internal auditors provide a copy of a signed audit report to your department	24 (57.1)	10 (23.8)	7 (16.7)	1 (2.4)	0 (0)	5	0	42
Internal auditors follow-up implementation of corrective actions (audit recommendations)	9 (21.4)	15 (35.7)	8 (19.0)	5 (11.9)	3 (7.1)	4	2	40
Top management demands implementation of corrective actions recommended by internal audit	12 (28.6)	9 (21.4)	15 (35.7)	5 (11.9)	0 (0)	4	1	41
Internal auditors obtain unrestricted access to records in your department	22 (52.4)	12 (28.6)	5 (11.9)	0 (0)	0 (0)	5	3	39
Internal auditors obtain unrestricted access to any information regarding your department	31 (73.8)	8 (19.0)	3 (7.1)	0 (0)	0 (0)	5	0	42

* Number of responses

** Percentages