



ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
Department of Accounting and Finance (MBA)

**DETERMINANTS OF INTERNAL AUDIT EFFECTIVENESS: A STUDY OF
ETHIOPIAN PUBLIC ENTERPRISES**

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Jan, 2018
ADDIS ABABA, ETHIOPIA

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**A THESIS SUBMITTED TO ST.MARY UNIVERSITY; SCHOOL OF GRADUATE
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DECLARATION

I, undersigned declare that this thesis is my original work, prepared under the guidance of **Abraham Gebre Giorgies (Ass. Professor)**. All sources of material used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full in any other higher learning institutions for the purpose of earning any degree .

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This research report has been submitted for examination with my approval as a university advisor.

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Abstract

The objective of this study is to investigate the determinants of internal audit effectiveness in public enterprises of Ethiopia. The research is explanatory type and it used quantitative research approach. Primary data through questionnaire is used to conduct this research. 100 participants from both internal auditors and senior management of the sample organizations were participated in responding the questionnaire. The questionnaires' was adopted and modified from earlier researchers that were studied on effectiveness of IA and its determinants and those questionnaires are prepared in the form of Likert –Scale. The study revealed that all of the four independent variables aggregately contributed 79% to internal audit effectiveness. That means, the effect of these four independent variables contributed for the dependent variable; IAE were 79%, and the remaining 21% were other variables that are not included in this study. The regression result indicate that organizational independence, management support and adequate and competent internal audit are positively and significantly contribute to the Effectiveness of Internal Audit function. However, availability of strong audit committee is negatively related to internal audit effectiveness in case of Ethiopian Public Enterprises. The research implies that in order to have effective internal audit function in identifying non compliance activities and adding values, Ethiopian public enterprises should excel on organizational independence, management support and adequate and competent internal audit. Besides, public enterprises should enhance and give grate attention to avail strong audit committee. As in most studies, generalisability of the conclusion is limited in this research. It is recommended that the future researchers might conduct another study in this subject matter by using other variables that are not covered in this research, but tested by earlier researchers in different case study areas(organizational setting, IA quality, Auditee attribute).

Key Words: *Internal Audit, Internal Audit Effectiveness, Determinants of Internal audit Effectiveness, Ethiopian Public enterprises.*

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ACRONYMS AND ABBREVIATIONS

IA	Internal Auditors
IIA	Institute of internal auditors
IAE	Internal Audit Effectiveness
OI	Organizational Independence
MS	Management Support
ACIAS	Adequate and Competent Internal Audit Staff
AC	Audit committee
IIA	Institute of internal auditors
SPSS	Statistical Package for Social Science
CFIA	Competency Framework for Internal Auditing
IAF	Internal Audit Function
IPPF	International Professional Practices Framework
MoFED	Ministry of finance and Economic Development of Ethiopia
MoPE	Ministry of public enterprises of Ethiopia
SAP	Statement on Auditing Practice
SIG	Significance
SPSS	Statistical Package for Social Science

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CHAPTER ONE

1. Introduction

Currently, IA has faces dramatic changes that have extended its area of engagement in a way that allow it to add more value to a company. Internal auditor has become an essential monitoring mechanism in corporate governance by cooperating with the external auditor, audit committee, and executive management (Gramling et al. 2004). The purpose of IA is to support an organization in achieving its intended objectives (Roth 2003; Hass et al. 2006). To achieve this purpose, IA should perform a wide variety of activities generally in the form of assurance or consulting services and ultimately internal audit function should be effective.

This research paper tries to examine the determinants of internal audit effectiveness in the Ethiopian public enterprises. The paper organized in five consecutive chapters. Issues that are covered in chapter one are structured in ten sections. The first section describes the background of the study. Statement of the problem is presented in section two. In section three objective of the study stated followed by research questions in section four. Research hypothesis, significant of the study, scope of the study; limitation of the study and organization of the study presented from section five up to section ten respectively. Chapter two presents review of related literature. In chapter three basically Research Methodology, data analysis method and model of the research are presented. Research Findings: analysis and discussion is provided in chapter four and chapter five presents summary, conclusions and recommendations of the research.

1.1 Background of the study

Organizations are currently expanded their regulatory and technological advancement due to suffering from rapid changes in economic complexity (Burnbay and Hass, 2006). Accordingly, this rapid changes and complexity of transactions needs dynamic regulatory environments and that resulted opportunities and challenges to internal audit (Cooper et al, 2006; Hass et al, 2006; Allegrini et al, 2006)

On one hand, these rapid changes enable internal audit function (here after IAF) to get great attention and expanded the role of internal audit (here after IA) in supporting managements and it generate direct reporting link to audit committee. On the other hand, these opportunities have also inherent challenges to internal auditors who seek a vision of the future from The Institute of Internal Auditors (IIA). IA has advanced its area of engagement and scope from more traditional accounting and financial control to operational control, risk management and corporate governance and it enable to add significant value on the organizations (Cromlin, 2004 Arena and Azzone, 2009).

Improving organizational efficiency and effectiveness through constructive criticism is the main purpose of IA (Goodwin and Kent, 2006). In order to shoulder the expected role, IA should be effective and committed to add value in organizations activities. Effective IA can play invaluable role in improving organization's control system by analyzing risks and giving assurance and consulting service (Burnaby and Abdolmohamedi, 2006).

Effectiveness is *"the degree to which established objectives are achieved"* (IIA, 2004). In addition to this, Mihret and Yismaw, 2007 describe internal audit effectiveness as the extent to which an IA department meets its purposes .Therefore; it is of great importance to identify factors that determines IAE. Previous studies have used different approaches to investigate IAE, as effective IA is influenced by series of factors.

Public enterprises have gained enormous economic significance and are no more confined to areas of their traditional concern like infrastructure and public utilities. Today they have moved into every sector of economic endeavor, with the range and diversity breathtaking. Different Studies reveal that public enterprises have a dominating share in and contribution to gross national product (GNP) and value added in both the industrialized and developing countries,

indeed with varying degrees; it is 50% of GDP in case of Ethiopia (MoPE, Report 2017). Currently government has established different public enterprises by allocating huge amount of capital. Due to this significant money allocated to different corporations & other enterprises as capital, government need efficient and effective financial management to functioning with accountability and due diligent conforming to the specific rules and regulation and other instruction appropriate to financial management.

The role of public enterprises in Ethiopia is marked in terms of capital they command and the magnitude of the economy's dependence on such enterprises. Fundamental services such as air line transport, electricity, telecommunication, shipping and logistics, Railways transport and the like are provided by public enterprises (MoPE, 2017).

Having effective IA department as part of modern governance system in public enterprises is very crucial. This research was focused on the determinants of IAE in the Public enterprises of Ethiopia that are engaged in different activities. Internal auditors, the key employee of public enterprises, are expected to work independently and objectively to enhance high quality of public services, achieve good internal control system, avoid corruption, ensure good corporate governance system, promote accountability and greater transparency (Coram et al, 2008). IA has got significant attention in current corporate governance .This is because it enables organizations to have effective and efficient activities by giving constructive criticism and recommendation; reduce information asymmetry in decision making; serve as internal assurance on financial information's (Arena and Azone,2007; Miheret and Yismaw,2007; Cohen and Sayang,2010; Sohand Bennie,2011)

Many studies have been conducted on the effectiveness of IA and its determinants in Ethiopia and elsewhere. (Montondon and Fischer 1999; Mihret & Yismaw, 2007; Asare, 2008; Arena & Azzone, 2009; Cohen & Sayag, 2010; Stewart and Subramanian, 2010; Shewamene, 2014; Yalew, 2015; George, 2016 e.t.c). However, the scope of their study was focused either on public sector as a whole or specific organization and it might lead to hasty generalization.

1.2 Statement of the Problem

IA system helps governments to have more effective and efficient resource utilization and it also enable organizations to achieve their objectives. An ineffective IA system, on the contrary, couldn't assure on efficient utilization of governments resource and also will not adding value on the accomplishment of organizational objectives (Sterck and Bouckaert, 2006).

Since they are held responsible to diverse stakeholders' perception, government organizations internal auditors shall be more credible compared to private entities (Montondon and Fischer, 1999). To ensure the IAE, it is essential that action shall be taken in order to achieve continuous escalation of the importance of the effectiveness of IA in the management process (Dittenhofer 2001).

While performing their duties, fundamental assumption of independence of mind and appearance is reflected on the value and credibility of internal auditors (Stewart and Subramanian, 2010; Wines, 2012). ISPPIA (Standard 1100) also states that in order to achieve the intended work and to add value to the organization, the IA department must be independent and also internal auditors must be objective.

The support and commitment of management also have the significant impact on function of IA effectively and value addition to their organization. George & Konstantinos (2015) examined that management support in terms of enabling IA department to have skilled staff, large enough structure to efficiently carry out its duties and aware of its need is positively impacts IAE. This implies that, the success of IA function will depend on the strength of management's support and commitments for the auditing process.

Standards for the Professional Practice of IA need internal auditors to fulfill minimum educational requirements and professional standards (ISPPIA, 2015). Internal auditors' competency and their size together contribute to the quality of IAF. This means without fulfill both dimension together; each cannot contribute to the quality of internal auditors separately. Furthermore, in order to conduct full range of audit activities internal auditors should possess necessary knowledge, experience, skill and professional qualification (Al-Twajjiry, 2004).

IA is a key component of corporate governance – the eyes and ears of the board and its committees, above all the audit committee (IIA, 2015). Arena and Azzone (2009) point out that internal audit's structural characteristics may influence its effectiveness. They also reveal that IAE increases when audit committee is involved in the internal auditor's activities.

Even though many studies have been conducted on the effectiveness of IA and its determinants, virtually the scope of their study was either focused on public sector as a whole or specific organization and it might lead to hasty generalization. Public sector in general contains both commercial and non commercial, capital based and budget based, established as independent and dependent organizations. Based on their unique mission and nature, IA is accordingly different on the role, involvement, purpose and scope in case of public enterprises compared to other public sectors (MoPE, 2017). Therefore the researcher identified that public sector in general might lead in hasty generalization and the scope shall limited on determinants of IAE in public enterprises only that has commercial nature, independently organized, and engaged themselves as competitor of privet sector and has huge amount of capital, which are currently contributing 50% GDP in case of Ethiopia (MOPE report, 2017).

Beside, previous studies that were studied in Ethiopia ignored the impact of availability of strong audit committee (See Mihret and Yismaw, 2007; Mihret and Woldeyohannis, 2008; Getie, 2014; Shewamene, 2014; Yalew, 2015) though different researchers show that availability of strong audit committee is significant factor for IAE (Brdard and Gendron, 2010; Barua and Sharma 2010; Alzaban and Sawan 2015). IIA, (2015) also states that the audit committee (AC), in collaboration with high level managements, can play vital role in empowering and evaluating the image of the activities of internal audit. Therefore, this research aims to evaluate the determinants of IAE specifically in case of public enterprises of Ethiopia by using Organizational Independence, Management Support, adequate and competent Internal Audit Staffs, and availability of strong internal audit committee as independent variables.

1.3 Objective of the study

1.3.1 General Objective

The main purpose of this study is to investigate the determinants of IAE in the Ethiopian public enterprises.

1.3.2 Specific Objective

Specific objective of the research is:-

- To examine the effect of internal audit's organizational independence on IAE.
- To investigate management support's effect on IAE.
- To examine how adequate and competent internal audit affect IAE.
- To examine how availability of strong Audit committee contribute for IAE in the public enterprise.

1.5 Research Hypothesis

The under mentioned directional hypotheses were designed after critically reviewed different literatures that are related to this research.

H1: The organizational independence of internal audit positively affects IAE

H2: The management supports are positively and significantly affects IAE.

H3: The presence of adequate and competent internal audit staff positively and significantly affects IAE.

H4: The availability of strong audit committee has positive and significant effect on IAE.

1.6 Significance of the study

This research is very important to show how effective internal audit contribute to the achievement of organizational objectives by assessing factors that determine and influence the effectiveness of IA in case of public enterprises of Ethiopia. Above all, this research used to MoPE to build modern corporate finance and corporate governance in all public enterprises that are regulated under the ministry and it is the main part of its mission. Effective IA is one of the tool that enable organizations to develop and implement modern corporate finance and corporate governance. Public enterprises also can learn some lesson and build some corrective actions for the weakness based on the research recommendations. In addition, this research is important for future researchers as a reference material to develop a literature framework.

1.7 Scope of the Study

The intent of this study is to investigate the determinants of the IA effectiveness in case of Ethiopian Public Enterprises. This research was conducted on Ethiopian public Enterprises that have commercial nature (profit making organizations) and who are regulated by MoPE. Other public sector organizations that have no commercial substances and privet enterprises were not included in this study. Four independent variables are used to examine factors that determine the effectiveness of IAF, such as Independence of internal audit, management support, Competence of internal audit staff and availability of strong Audit committee. The target groups of the population were ten sample organizations' internal audit staff and auditee that are engaged in public enterprise in different position.

1.8 limitation of the study

Since the research uses Likert scale questioner, it has its own limitation. This is because of likert scale measures perception and this perception might lead to some what unrealistic conclusion. As such, individuals' perceptions are not claimed to accurately measure the underlying reality that they are supposed to represent. Furthermore, result in this research shows that all of the four independent variables aggregately contributed 79% to internal audit effectiveness. That means, the effect of these four independent variables contributed for the dependent variable; IAE were

79%, and the remaining 21% were other variables that are not included in this study. Future researchers might conduct another study in this subject matter by using other variables that are not covered in this research, but tested by earlier researchers in different case study areas (organizational setting, IA quality, Auditee attribute).

1.10 Organization of the Study

The study has five subsequent chapters. Introduction, statement of the problem, objectives of the study, research hypothesis, significant of the study and scope of the study are sequentially presented in chapter one. Chapter two basically comprises theoretical and empirical literatures, which are related to internal audit effectiveness and its determinants, ends by putting summary and gaps in existing body of knowledge. Chapter three described about research methodology and research design. The fourth chapter presents discussion of case study evidence and its results, and the last chapter; chapter five presents the summary and conclusions, and recommendations given and remarked based on the case study results; followed by the list of references used and appropriate appendixes.

CHAPTER TWO

RELATED LITERATURE REVIEW

In the previous chapter, the main problems and objectives to be addressed in the study have been stated. This chapter presents the review of related literature and it has three sections.

The first section reviews theories on IA and its effectiveness while the second section presents the empirical evidence on IAE and related issues. The final sections provide concluding remarks on the review of the literature and identify the knowledge gap that has been addressed in the study and the conceptual framework of the study.

2.1. Theoretical Review

2.1.1 Definition and evolution of internal audit

Now a days IA function plays vital role in the organizational process. It is not limited only on to perform ordinary assurance activities, but also to serve as a strategic partner of the high level officials of the organization. Furthermore, it add value by enabling organizations to ensure whether their organizational process were effective and efficient. Effective IA activities could enhance confidence to the user of financial reports. Organizations with having effective IA function are able to detect fraud more than those that have not such a function within their organizations (Corama, Ferguson and Moroney, 2008).

IA has developed gradually following the changes in different social and economic developmental changes and the intrinsic needs of enterprise management (Xingdong, 1997). As Dittenhofer (2001), IA was established by both public and private organizations as a tool for management process. Tatiana (2010) also noted IA is developed in order to ensure whether organizational objectives are achieved effectively and efficiently by providing independent report for the decision makers. This implies that IA plays vital role to realize organizational objectives.

Institute of Internal Auditors defined internal auditing as

“Independent appraisal activity established within an organization as a service to the organization. It is a control, which function is examining and evaluating the adequacy and effectiveness of other controls (IIA, 1978)”.

Asare (2009) described that IA has been perceived as being simply the proper maintenance of accounting and underlying records, the safeguarding of assets and the compliance with policies and procedures. With changing times, the concept and practices of internal auditing has goes to significant changes in terms of its definition, scope (engagements) and approach. Currently, in some organizations, the scope of modern internal auditing is going to broadened from financial issues to include value for money, evaluation of risk, managerial effectiveness and governance processes.

Later on Institute of Internal Auditors (2004) revised its definition of the internal audit as

“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.”

IA has advanced its area of engagement & scope from more traditional accounting and financial control to operational control, risk management and corporate governance and it enable to add significant value on their organizations (Arena and Azzone, 2009). Rapid changes and complexity of transactions needs dynamic regulatory environments and that resulted opportunities and challenges to internal audit (Cooper et al, 2006; Hass et al, 2006; Allegrini et al, 2006).

2.1.2 Internal Audit effectiveness

According to IIA (2004), effectiveness is “*the degree to which established objectives are achieved*” (IIA, 2004). In addition, different researchers defined the word effectiveness in different ways. For instance: - Dittenhofer (2001) interpret the term effectiveness as “the achievement of IA goals and objectives using the factor measures provided for determining such factors”.

Mihret and Yismaw (2007) describe IAE as “the extent to which an internal audit department meets its purposes” Arena and Azzone (2009) also define effectiveness as “the capacity to obtain results that is consistent with target” Effective IAF could be a major asset for improving public confidence in financial reporting and corporate governance.

2.1.3 Establishments and history of internal audit in Ethiopia

In history, the first audit directive was issued in 1942 by Ethiopian ministry of finance. The main focus of the directive was fund utilization public sector and modernizing the activities of IA across the country. Then after in 1961 office of the audit general (O.A.G) was established and it modifies the duties and responsibilities of the beauraus and also the auditors. Moreover, proclamation 13/1987 empowered O.A.G to direct internal auditors in three ways. Firstly, internal auditors shall assure whether there is proper accounting records and reliable financial information within the organization. Secondly, internal auditors shall assure whether the assets of the ministries and enterprises are adequately safeguarded and properly maintained; and thirdly, internal auditors shall assure whether policies and procedures laid down by top management are complied with that implies less attention was given to operational audit as a service to management (Kinfu, 1990; Argaw, 2000). Beside, regulation no.17/1997 was issued in July 1997, and this regulation was characterized basically by transferring the responsibility & authority of managing internal audit function from the O.A.G to ministry of finance. Now a day, IA in Ethiopia is conducted mainly based on the IA standards that are developed by Ministry of Finance and Economic Development (MoFED). Mihret and Yismaw (2007) described that these newly formed standards are similar with the standards of IIA

Currently government has established different public enterprises by allocating huge amount of capital. Due to this significant money allocated to different corporations and other enterprises as capital, government need efficient and effective financial management to functioning with accountability and due diligent conforming to the specific rules and regulation and other instruction appropriate to financial management. In this regard, developing IA department and support the stuff so that they add value to their organization they belong is one of the best tools to ensure whether each and every organization meet their obligation as well as follow the rules and regulations firmly at the time of doing their activities. Furthermore, in order to add value and impose significant impact, the IA should be effective.

2.1.4 Types of Internal Audit services

2.1.4.1 Compliance Audits

The compliance audit function focuses mainly on compliance risks and their plan to mitigation the risk. The audit procedure could start by developing audit programs, then assess the availability and adequacy of internal controls that effectively prevent and/or detect violations of laws, regulations, organizations policies or code of conduct; then evaluate whether organization's compliance program is effective and finally give respective recommendations. Compliance audit further evaluates whether the compliance program that are developed by organization's advocate a culture that encourage ethical and compliant behavior.

2.1.4.2 Financial Audits

Financial audit focuses mainly on ensuring whether the financial statements presented by organizations are faithful, complete and accurate. The financial audit is conducted by developing audit program to evaluate conditions, organizing findings and finally provides audit reports with the respective recommendations to the management.

2.1.4.3 Operational Audits

Assessing and evaluating internal controls over different departmental operations are assessed and evaluated in this type of audit. It is conducted in order to ensure that whether operations are operated efficiently, effectively and also aligned with organizational mission and management's intent.

2.1.4.4 Construction Audit

Construction audit comprises all financial, compliance and operational audit. This type of audit is conducted to provide recommendation especially on project performance by assessing and evaluating construction projects.

2.1.4.5 Management audit

Management audit is an evaluation of all activities of an entity with a view to provide appropriate suggestion to the management to help their work. It focuses on the critical evaluation of management as a team rather than appraisal of individual. The main objectives of management audit is to improve the profit earning capacity, work of management ,objectives of program human resource development so that organizational goal can be attained. Unlike financial audit, management audit mainly examines the non-financial data.

2.1.4.6 Information Technology Audits

It is other types of audit mainly conducted to evaluate the adequacy of internal control and security and to assess the extent to which organization's IT system maintain data integrity. Besides, it assesses whether the IT system operate in compliance with its respective policy provide reliable and accurate information.

2.1.4.7 Performance auditing

Performance audit refers to an audit of a program, function, operation or the management systems and procedures of an entity to assess whether the entity is achieving economy, efficiency and effectiveness in the employment of resources. Performance audit is simply an audit of 3E'S namely of the economy, efficiency and effectiveness in other terms the value for money with

which organizations' have carried out their responsibilities. Performance Auditing Focus Mainly on programs, projects, systems or activities.

2.1.4.8 Advisory and Consulting Engagements

These engagements are usually occurred when there is a need to do so by higher officials of respective organizations' and it is obviously conducted out IA annual Plan. It includes issues such as consulting on policies and other managers requites that are critical for decision.

2.2 Empirical Review

In Ethiopia different studies have been conducted in the IAF (For instance, Mihret and Yismaw, 2007; Mihret and Woldeyohannis, 2008; Mihret, 2010; shewamen, 2014; Yalew, 2015).

Miheret and yismaw (2007) studied on IAE by using Ethiopian higher educational institution as a case study. They have formulated a model with audit quality, management support, organizational setting and attribute of the auditees as an attribute of IAE. The finding revealed that internal audit quality and management supports are the main factors that influence IAE. In contrast organizational setting and auditees attributes haven't significant impact on IAE.

In addition Mihret and Woldeyohannis, (2008) conducted a case study research in an Ethiopian public sector. This study assessed the value-adding role of internal audit function in an Ethiopian public sector. The value adding role of internal audit function is determined by the perception of auditees and internal auditors. They found that the traditional/ compliance audit is dominant in the organization under study contrast to value-added auditing. IAE on the other hand, stands for the functions capability to achieve the functions objectives.

Similarly, Miheret (2010) examines factors that are associated with attribute of IAF. He used analytical survey responses of 188 CIA and internal auditors from ministers, state owned enterprises and private companies. He finds that in organizations where the role of IA is clearly defined, high risk profile and IA is highly linked with external audit has good internal audit quality.

Shewamene (2014) also studied on “determinants of internal audit effectiveness in the public sector offices”. The researcher founds that management support, adequate and competent internal audit staff and presence of approved charter has positive and significant impact on IAE. On the other hand management perception and organizational independence has positive relation but they are no significant to IAE.

Yalew (2015) conducted a case study research in Construction and Business Bank of Ethiopia. The objective of the study was to investigate the determinants of IAE in the Construction and Business Bank. The result of the study revealed that the management support, the existence of adequate and competent IA staff followed by the organizational independence and managements perception highly affect the IAE in the Construction and Business Bank. The researcher also founds that the presence or absence of approved IA charter has no effect on the effectiveness of IA task accomplishments.

Arena and Azzone (2009) studied on factors of IAE in case of Italian Companies. They found that characteristics of IA team, Audit process and activities and organizational link determine IAE. They used questionnaire to collect the data from 364 companies with returned rate of 47%. They noted that IAE enhances when number and qualification of internal auditors and employees grows, the head of IA department is associated to IIA, and the activities of IA are supported by audit committee.

Cohen and Sayag (2010) also studied on determinants of effectiveness of IA in Israeli organization. It was an exploratory study by using questionnaire on 108 organizations. The study revealed that support from top management is the main determinant following organizational independence for IAE.

Furthermore, George and Konstantinos (2015) studied on Factors that are associated with IAE in case of Greece. The research used mailed survey to collect evidences. The findings indicate that quality of IA, Competency of staff, departmental independency and management supports are the main factors to IAE. Above all, the result revealed that independency of IA department is the main foundation and crucial factor to IAE.

Different literatures that are related to this research were critically reviewed and analyzed. In order to present those literature easily, factors that determine the effectiveness of IAF, such as Independence of internal audit, management support, Competence of internal audit staff and availability of strong Audit committee are sequentially presented hereunder.

2.2.1 Organizational Independence

The concept of independence is subject to ambiguity and uncertainty and it has not sole meaning and interpretation (Wines, 2012). However, IPPF (2015) describes organizational independence as the freedom from conditions that threaten the ability of the IA activity to carry out IA responsibilities in an unbiased manner. To achieve the degree of independence necessary to effectively carry out the responsibilities of the IA activity, IPPF also recommended that the chief audit executive has direct and unrestricted access to senior management and the board.

The independence and objectivity are key elements of the effectiveness of IA (Mutchler 2003; Ahmad et al. 2009; Al-Akra et al. 2016). While performing their duties, fundamental assumption of independence of mind and appearance is reflected on the value and credibility of internal auditors (Stewart and Subramanian, 2010; Wines, 2012).

Different researchers (Yalew, 2015; Alizadeh, 2011; Cohen and Sayag, 2010, Georeg and Konstantinos, 2015 e.t.c) that examined this issue have found that the greater the independence and objectivity of IA department, the greater the internal auditor's effectiveness.

Yalew (2015) conducted research on determinants of IAE. The result revealed that Organizational independence in terms of free access to necessary documents, information and data about the auditee under investigation, decision based on the scope, time and extent of auditing procedures, task accomplishments work without interference, has positive impact on IAE in case of Construction and investment Bank of Ethiopia. A survey conducted by Alizadeh (2011) has also shown that organizational independency is among the five important factors of the effectiveness of IA in Iranian companies.

Cohen and Sayag (2010) also revealed that organizational independence in terms of accessing the relevant document and information about activities of organizations activates and reporting any audit findings freely to the higher officials can play vital and significant role to the effectiveness of IAF in case of Israel context. Furthermore, George & Konstantinos (2015)

studied on Factors associated with IAE in case of Greece. The research measuring independency in terms of internal audit report to the highest level within the business, internal auditors possess unrestricted access to all departments and employees in the organization, IA participate in the development of the company processes. It finally revealed that independency of IA department is the main foundation and crucial factor to IAE.

Other studies (see Hung and Han 1998; Yee, 2008; Soh and Bennie 2011; Alzeban and Gwilliam 2014) supported the positive association between the effectiveness of IA and the organizational status of CAE. For instance, Yee (2008) argued that without organizational independence, IA merely becomes part of the management and it makes the department unable to provide reliable and objective assurance.

Arena and Azzone (2009) also revealed that IAE increases when the CAE is affiliated to the IIA. Stewart and Subramaniam (2010) states that in order to perform audit tasks independently and objectively, IA should have appropriate status within the organization.

Level of authority and structure of IA department and to whom the audit work to be reported is also determine for its independency which enable IA to reduce pressure and interventions and to increase the objectivity of the audit work in return (Cohen and Sayag, 2010; Van Peurse, 2005; Boa- Read, 2000). Thus, the empirical studies on IA independency shows a positive attribute towards IAE and can be hypothesized as:

H1: the organizational independence for internal audit positively affects IAE

2.2.2 Management support

Organization's management has to have a close relationship with internal auditors in their day to day activities. Management support is crucial to the acceptance and appreciation of the IAF within an organization. ISPPA declared that support from top management and board of director is vital to IAF and fulfillment of its responsibilities. Previous studies (see Miheret and Yismaw 2007; Cohen and Sayag 2010; Onumah and Yao Krah 2012; Alzeban and Gwilliam 2014; George and Konstantinos 2015) also identified support and commitment of management has significant impact on function of IA effectively and value addition to their organization. For instance, Miheret and Yismaw (2007) Revealed that management response towards the audit

finding and their commitments to strength audit department contribute a lot to IAE in Ethiopian Public sector. Ahmad (2009) also investigated that support from top management in terms of fulfilling qualified staff and budget has significant impact on IAE. Similarly, Cohen and Sayag (2010) revealed that management support is the main factor that determines the audit quality and effectiveness of IAF in the Israel Context.

Furthermore, Onumah and Yao Krah (2012) revealed that IAE was hindered mainly by when there is little or absence of management support in terms of fulfilling respective resources in case of Ghana. Besides, Alzeban and Gwilliam (2014) revealed that management support was the most important factor influencing IA effectiveness in case of Saudi Arabian public sector organizations. They also noted that IAE will be enhanced when there is management support in terms of hiring skilled staff and availing sufficient resources. George and Konstantinos (2015) also identified that management support in terms of enabling IA department to have skilled staff, large enough structure to efficiently carry out its duties and aware of its need is positively impacted IAE in case of Greece.

Thus, the above studies lead to formulating the hypothesis of:

H2: The management supports are positively and significantly affects IAE.

2.2.3 Adequate and competent Internal Audit Staff

In order to maintain the effectiveness of IA, staff competency is vital (Alzeban & Gwilliam 2014). Mihret and Yismaw (2007) indicated that IA department has been suffering from professional competency and high staff turnover. This makes IAF unable to provide value adding service to their organization.

Furthermore, external auditors use competencies as a critical criterion to evaluate IA performance (Al-Twaijry, 2004). A standard for the Professional Practice of Internal audit states that internal auditor should possess knowledge, skills, and other competencies in order to perform IA activities efficiently and effectively (ISPPIA, 2015). The internal audit activity collectively should possess or obtain the knowledge, skills, and other competencies needed to perform its responsibilities. Besides, internal auditors should enhance their knowledge, skills, and other competencies through continuing professional development (ISPPIA, 2015).

Previous studies (see Smith, 2005; Zain, 2006; Abdolmohammadi, 2009; Leung and Cooper, 2009; Arena and Azzone, 2009; Cohen and Sayag, 2010) were revealed that professional competences are key determinant to IAE. For instance, Smith (2005) stated that the development of effective communication skills (such as listening, interpersonal, written and oral communication skills) is an important part of internal auditor's advancement potential. Moreover, Abdolmohammadi (2009) demonstrated that certified internal auditors improve the compliance with the ISPPPIA in Anglo-Saxon countries. Furthermore, Zain (2006) argue that a larger size internal audit is likely to be better resourced, including having a broader work scope, higher organizational status and wider staff talent and accordingly has higher audit quality than a smaller unit. Competence of internal auditors can also be measured in terms of academic level, experience and the efforts of staff for continuous professional development and compliance with audit standards. Both the quantity of audit effort and the quality of professional care exercised will determine the overall quality of the IA work (Cohen and Sayag, 2010; Leung and Cooper, 2009). Arena and Azzone, (2009) also stated that when number of skilled internal auditors grows, IAE will enhanced accordingly. This shows that sufficiently large number of skilled professionals enables the IA to do its duties and it can be proposed that:-

H3: The presence of adequate and competent IA staff in the public enterprise is positively and significantly affects IAE.

2.2.4 Availability of strong Audit committee

AC in collaboration with high level managements can play vital role in empowering and evaluating the image of the activities of IA (IIA, 2015). The existence of strong AC and effective IA and the foundation of good corporate governance has been increasingly recognized after the occurrence of financial collapse in different countries (Brdard and Gendron, 2010). Alzaban and Sawan, 2015 also states that since it is a mechanism for corporate governance, the AC is responsible to evaluate organization's financial information and empowering the activities of IA. IA is a key component of corporate governance – the eyes and ears of the board and its committees, above all the AC (IIA, 2015). Working independently of management within the organization, IA provides assurance that, in the pursuit of the company's objectives, internal controls are operating, risks are being managed effectively within the defined risk appetite, and the organization is being properly governed.

Today's AC must encompass independence and knowledge on the subject matter, risk management and internal control (IIA, 2015). Furthermore, members of AC must have commitment and experience to support IA activities. IIA,2015 also states that among the many important roles the audit committee plays within an organization is provide internal audit oversight. In order to provide adequate oversight of the activities of internal audit, IIA recommend AC to ensure the following points:-

- AC engages in an open, transparent relationship with the chief audit executive (CAE).
- AC reviews and approves the internal audit charter annually.
- AC has a clear understanding of the strengths and weaknesses of the organization's internal control and risk management systems.
- the IA activity is sufficiently resourced with competent, objective internal audit professionals to carry out the IA plan, which has been reviewed and approved by the audit committee.
- the IA activity is empowered to be independent by its appropriate reporting relationships to executive management and the audit committee.
- the AC addresses with the CAE all issues related to IA independence and objectivity.
- the IA activity is quality- oriented, and has in place a quality assurance and Improvement Program.
- the AC regularly communicates with the chief audit executive about the performance and improvement of the CAE and the IA activity.
- IA reports are actionable, and audit recommendations and/or other improvements are satisfactorily implemented by management.
- the AC meets periodically with the CAE without the presence of management.

AC is also examined in some studies (see Zain, 2006; Zhang, 2007; Arena and Azzone, 2009; Barua and Sharma, 2010; Alzaban and Sawan, 2015) as a variable associated with IAE. For instance, Zain (2006), studied on the characteristics of AC. The researcher found that when members of AC posses knowledge of accounting and auditing and independency, they contribute a lot to IAE.

Zhang (2007) also examined the relation between AC quality and auditor independency and the disclosures of IA issues after the implementation of Sarbanes-Oxley. The research, after analyzing 208 companies, revealed that quality of AC and auditor independencies are significantly related.

In line with the above study, Arena and Azzone (2009) described that whenever there is AC involvement in the IA activities IAE would be enhanced. They point out that IA structural characteristics may influence its effectiveness.

Barua and Sharma (2010) studied on ‘‘AC characteristics and Investing in IA’’ by using 181 SEC registrants. They found that internal Audit budget is positively related to the number of AC meeting (a proxy for AC diligence). This implies that when there is diligence AC, the IA will have good budget.

Moreover, Alzaban and Sawan (2015) conduct research on ‘‘the impact of AC characteristics on the Implementation of IA recommendation’’. The research used survey data from CIA of UK-listed companies and revealed that Implementation of IA recommendations are strongly related to the availability of strong AC whose members are possess independency and knowledge of accounting and auditing.

To sum up, the aforementioned studies shows that availability of strong AC impacts IAE. Besides, IIA (2015) suggests that there should be a good working relationships and mutual respect for the role of IA and the AC. AC should enable IA in Response to audit findings by addressing and requiring timely responses on audit reports including those that are justifiably critical of management controls. Moreover AC also should ensure inclusion of CAE, where appropriate in the communications and forums of the senior management team to keep the chief audit executive informed of strategic and business plans. In return, an Effective IA can enable AC to discharge their responsibilities by doing independent evaluation of accounting practice and process, risk analysis, fraud analysis, special investigations and finally giving assurance regarding to the effectiveness of internal controls (Hermanson and Rittenberg, 2003). Thus, it can be hypothesize as:

H4: The availability of strong Audit committee in the public enterprise has positive and significant impact to the IAE.

Earlier researchers also examine the effectiveness of IA and its determinants by using another variable that are not included in this study. For instance Miheret and Yismaw(2007) uses IA quality ,Organizational Setting and Auditee attribute as factors that determine IAE.Further more Shewaane (2014) and Yalew (2015) also used management perception and audit charter as variables that determinants of IAE. However, Auditee attribute and management perception are ultimately related to management support and the researcher collectively replace those variables as management support. Besides, IA quality, Organizational Setting and audit charter also reflected in organizational independence and availability of strong AC. Therefore the aforementioned variables are not included separately in this research there proxies are reflected in selected four variables (organizational independence, management support, adequate and competent IA staff and availability of strong AC).

2.3 Summary and literature gap

In the ever-changing business environment, IA plays a vital role by providing value adding service to the organization. This value adding service on the other hand is influenced by the effectiveness of the function (Mihret, 2010; Mihret and Woldeyohannis, 2008; Arena and Azzone, 2009; Cohen and Sayag, 2010; George and Konstantinos, 2015).

From the empirical literature it can be noted that effectiveness of IAF is determined by the Organizational Independence, Management Support, adequate and competent IA Staffs, and availability of strong internal AC.

Even though, many studies have been conducted on the effectiveness of IA and its determinants, virtually the scope of their study was either focused on public sector as a whole or specific organization and it might lead to hasty generalization. For instance, Mihret and Yismaw (2007) conducted research on “IAE: an Ethiopian public sector case study”. Even though the research title was said public sector, it was focused only on higher educational institution. They used IA quality; management support, organizational setting and attributes of the auditees as independent variables.

Getie (2011) conducted research on ‘‘ the contribution of internal audit reengineering to its effectiveness’’ an Ethiopian public enterprise case study. The study used the model of factors influencing IAE developed by Mihret and Yismaw, (2007). The factors are Organizational setting, Internal Audit Quality, Management support, and Auditee attributes and their effect on IAE. The Case study design was employed and used only Ethiopian electric power corporation as a unit of analysis.

Shewamene (2014) also studied on ‘‘determinants of internal audit effectiveness in the public sector offices’’. The research shows that management support, adequate and competent internal audit staff and presence of approved charter has positive and significant impact on IAE. On the other hand, management perception and organizational independence has positive relation but they are no significant to IAE. Furthermore, Yalew (2015) conducted a research on the ‘‘determinant factors for the effectiveness of IA process in the Construction and Business Bank’’. The research used five independent variables that are similar with shewamene (2014) but the only difference was case study area i.e. Construction Bank of Ethiopia.

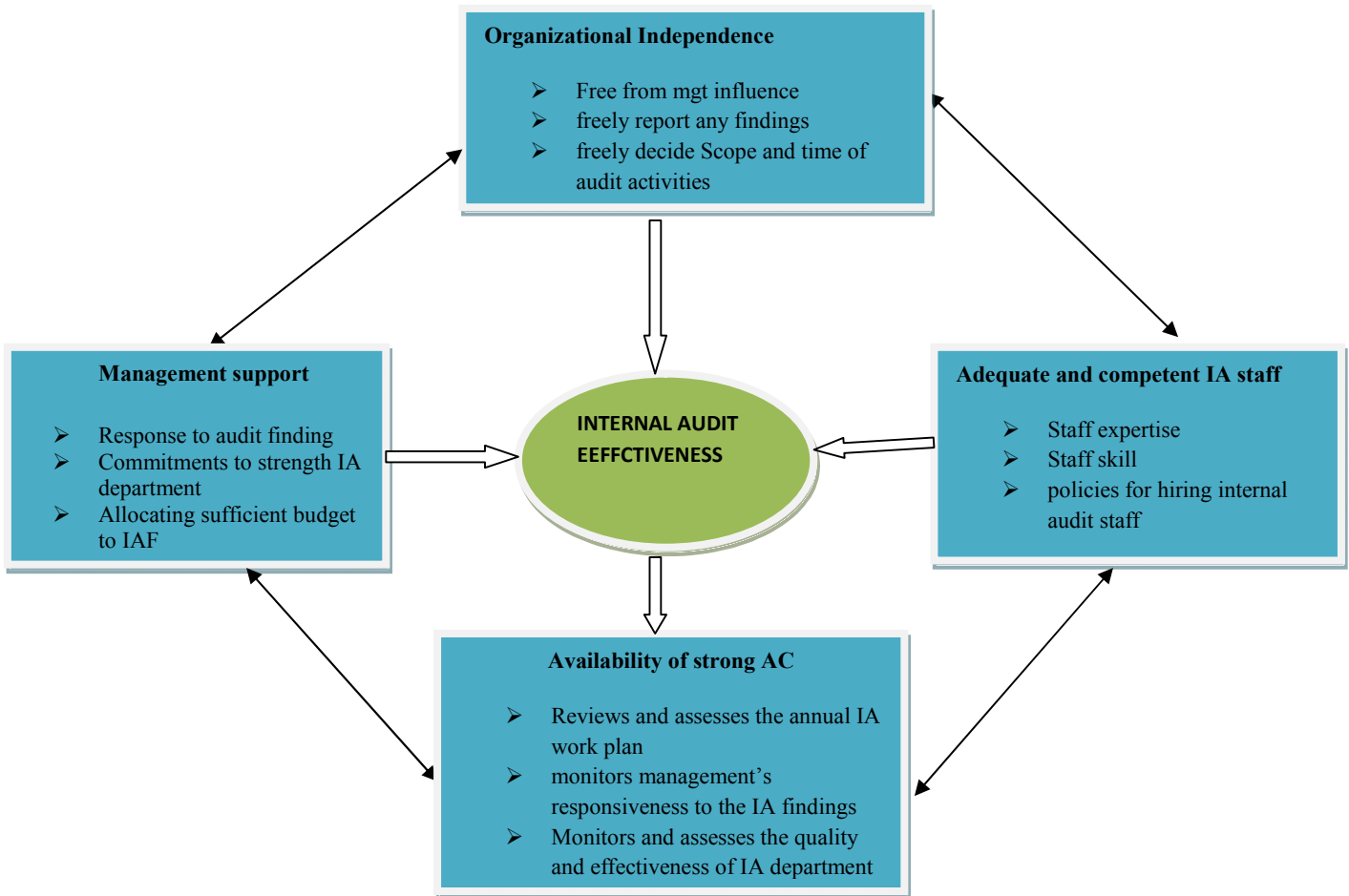
Thus, determinants of IAE specifically in public enterprises, that are currently contributing 50% GDP in case of Ethiopia, shall be separately assessed.

Beside, previous studies that were studied in Ethiopia ignored the impact of availability of strong audit committee (See Mihret and Yismaw, 2007; Mihret and Woldeyohannis, 2008; Getie, 2014; Shewamene, 2014; Yalew, 2015) though different researchers show that availability of strong audit committee is significant factor for IAE (Brdard and Gendron, 2010; Barua and Sharma 2010; Alzaban and Sawan 2015). IIA, (2015) also states that the audit committee (AC), in collaboration with high level managements, can play vital role in empowering and evaluating the image of the activities of internal audit. Therefore, this research aims to evaluate the determinants of IAE specifically in case of public enterprises of Ethiopia by using Organizational Independence, Management Support, adequate and competent Internal Audit Staffs, and availability of strong internal audit committee as independent variables.

The conceptual framework which is depicted below is showing the interdependence between variables.

2.4 Conceptual Frame work

Figure 1: framework of determinants of IAE



Source: Adopted from Miheret and Yismaw, 2007

CHAPTER THREE

3.1 Research Methodology

The previous chapter reviewed both theoretical and empirical studies, and it has tried to give a concise summary and excavate the gap in the existing body of knowledge. This chapter has presented the research design and methodology that was used in this study.

This section sequentially contain research design, research approach, sampling method, sample size, data collection instrument, data analysis method and model that used to regress the dependent and independent variables of the research.

3.2 Research Design

The study is conducted to investigate the determinants of IAE in case of Ethiopian public enterprises. Research design shows method, data collection instrument and sampling plan of the intended research (De Wet, 1997). The research is explanatory research type and used quantitative research approach. Primary data through questionnaire is used to conduct this research. The research used Ordinary least squares (OLS) regression model for the analysis of data.

3.3 Research Approach

There are three types of research approach i.e. qualitative, quantitative and mixed approach. They are different in data collection, analysis and interpretation and they are discussed hereunder.

Qualitative research Approach explores attitude through interview or focus group discussion (Dawson, 2002). It attempts to get an in depth opinion from participants. It is explores issues which cannot properly studied in the past and also capable to generate theory by addressing issues that cannot be quantified (Creswell, 2007). However it faces biasness due to high inference of the researcher and lack of scientific rigor.

Quantitative research approach can generate statistical data by using methods such as questionnaires and/or structured interviews (Dawson 2002). By examining the relationship among variables, quantitative research approach can be a means for testing objective theories. Creswell (2009) argues that quantitative research approach enable the researcher to develop inquiries to collect data by using data collection instrument, that provide numeric data and the numeric data can be analyzed through statistical procedure. Since it follows scientific approach, quantitative research is advantageous to test reliability and validity of instrument and it minimizes researcher's bias. However it is not capable to address issues that cannot be quantified.

Mixed Approach is the combination of both qualitative and quantitative approach .The data collection involves both numeric and text information and resulting on best understanding of the research problem (Creswell, 2009). However, it need much effort and time intensive to collect and analyze both numeric and text data.

To sum up; the research problem, researchers' experience and will and support of the audiences matters to select research approach (Creswell, 2009).

Therefore, this research used quantitative approach in collecting and analyzing data that enable the researcher to collect data that provide numeric information and analyze through statistical procedure.

3.4. Sampling Techniques

Public enterprises of Ethiopia are the target population of this research. In Ethiopia there are around 33 public enterprises (MOPE, 2017). Due to the difficulty of covering all the total existing public enterprise, the researcher classified those enterprises in to five stratum as transport sector, manufacturing sector, communication sector, Banking and finance sector, and trading sector based on their unique nature and business engagement and the study area minimized to 10 by using disproportionate stratified sampling. Under disproportionate stratified sampling plan, there are different sampling fractions for different strata and numbers of fractions are decided by the researcher on the basis of the pursued research objective.

3.5. Sample Size

From the five strata that were discussed on sampling technique section, the researcher used disproportionate stratified sampling to sample organizations and the sample public enterprises were as follows: from transport sector Ethiopian Air lines, Ethiopian Shipping and Logistics Service Enterprise, and Ethiopian Railway Corporation. From manufacturing sector Ethiopian Sugar Corporation. From communication sector Ethio Telecom and Ethiopian postal enterprise, from Banking and finance sector Commercial Bank of Ethiopia and Development bank of Ethiopia from trading sector Ethiopian agricultural business corporation and Ethiopian Tourist trade enterprise were the focus of this case study. Besides, in order to get sufficient and appropriate response, ten questionnaires were distributed to each selected organizations in such a way that five questionnaires were distributed to management members that contain deputy chief officers and chief finance officer and also to five internal audit department staff that contain chief IA officer and their experienced senior auditors. Hence, from selected organizations totally one hundred respondents were participated in this research.

3.6. Data Collection Instrument

The research data was collected from the respondents via questionnaires so that the data combination resulted in relatively consistent and cross-checked results. As Wilson and McLean (1994), questionnaire could provide structured information, being administered without the presence of the researcher, and often comparatively straightforward to analyze. The questionnaires were distributed to both IA and senior management of sample organizations that has significant involvement on IA activities. The respondents were answered the questionnaires using their ample experience, attitude, opinion, and perception. The questionnaires' was adopted and modified from earlier researchers (Miheret and Yismaw(2007);Cohen and sayag(2010); Arena and Azzone(2009) and Shewamane(2014) that were studied on effectiveness of IA and its determinants and those questionnaires are prepared in the form of Likert –Scale, i.e. strongly agree=5, agree=4, neutral =3, disagree=2 and strongly disagree=1. The questionnaires' has two parts. Demographic questions are presented in part one and issues regarding to IAE and its determinants are presented in part two i.e. dependent and independent variables of the research. High level officials and internal auditors of each public enterprise were participated on responding the questionnaires.

3.7. Data analysis method

In order to get detail information about demographic questions and determinants of IAE, data analyses were conducted through Statistical Package for Social Sciences (SPSS) version 20 and Excel for descriptive statistics. Moreover, in order to test reliability of the instrument Cronbach Alpha (α) was conducted. Since it is the most common measure of scale, Cronbach's Alpha (α) greater than 0.600 is very acceptable (Cronbach's, 1951). Cohen and Sayag, 2010 also states that Cronbach's Alpha (α) greater than 0.700 is very acceptable.

Beside, in order to determine the relationship among the independent and dependent variables and to test the research hypothesis, correlation and regression analysis were conducted by using Ordinary least squares (OLS) regression model

3.8. Model Specification

The researcher used Ordinary least squares (OLS) regression model. Ordinary least-squares (OLS) regression is a generalized linear modeling technique that may be used to model a single response variable which has been recorded on at least an interval scale. The technique may be applied to single or multiple explanatory variables and also categorical explanatory variables that have been appropriately coded (Hutcheson, 2011).

In order to test the research hypothesis the following research model is formulated.

$$IAE = \alpha + \beta_1 OIN + \beta_2 MS + \beta_3 CIAS + \beta_4 AC + e_i$$

Where

IAE- Internal Audit Effectiveness

OIN- The organizational independence,

MS - The Managements Support,

CIAS-Competence of internal audit staff

AIAC- availability of strong Audit committee

α - is a constant, represents the effectiveness of IA when every independent variables are zero.

β_1 -4 is the coefficient in which every marginal change in independent variables affects corresponding dependent variables

e_i - the error term.

3.9 study Variables

3.9.1. Dependent Variable

The dependent variable for this research was the IAE. IAE is measured by audit quality and added contributions to the organizations. This measurement further decomposed in such a way that whether the existing role that the IA playing is sufficient enough to address the very purpose for which it is established, IA is capable of carrying out internal control function under current corporate governance rules, The audit planning process is aligned with the Organization's strategic objectives, Internal auditors can effectively identify and report any noncompliance activities, Recommendations, criticisms and information provided by internal auditor are useful for decision making, Non compliance activities are sufficiently identified and reported by Internal Auditors, Internal auditors ensure whether organization's resources are utilized Economically, efficiently and effectively (3e's), information and recommendations provided by internal auditor are reliable, practical , address corporate risk management problems within the organization and useful for decision making, Internal auditors are capable to address organizations' corporate risk problems, Internal auditors' existence and their activities is as of my expectations. In order to grasp the respondent perception on the dependent variable, the researcher organizes 10 different questions by using Likert scale type and summative score techniques were used. Likert scale is the common summative score technique (Banaves and Capuit, 2001).

3.9.2 Independent Variables

The study was focused on four independent variables (determinants) that might have effect on IAE in case of Ethiopian public enterprises. These are: **Independence of internal audit, management support, Competence of internal audit staff, availability of strong Audit committee.** Totally 21 questions are organized in order to measure the perceptions of the respondent concerned to the independent variable of the study in such a way that 5 items for Independence of IA ,5 items for management support, 5 items for Competence of internal audit staff and 6 items for availability of strong Audit committee. The detail items are annexed on appendix I.

CHAPTER FOUR

Analysis and Discussions

4.1 Introduction

As indicated in the previous chapters, the main purpose of this study is to investigate the determinants of IAE in the public enterprises. This chapter presents the analysis and discussions for the research findings that were obtained from the questionnaire.

The discussion begins with the questionnaires response rate followed by demographic information of the respondents. Results of Reliability analysis, descriptive statistics result about IAE and its determinants and finally the hypothesis testing results are sequentially presented.

4.2 General information of respondents

4.2.1 Response Rate

From 100 questionnaires that were distributed to 10 public enterprises' management members and internal auditors, 98 questionnaires were collected (48 responses from management members and 50 responses from internal auditors). This shows that there was 98% response rate and it shows there was good response rate from both managements and internal auditors also.

4.2.2 Respondent Demographic Information

Respondent's general profile regarding age, sex, field of study and level of education are presented hereunder.

Table 4.1 respondents general profile

Demographic question		responses			
		managers		internal auditors	
		frequency	%	frequency	%
Gender	Male	36	72.9	37	74
	Female	12	27.1	13	26
	Total	48	100	50	100
Age	20-29	2	4.2	8	16
	30-39	13	27.1	29	58
	40-49	26	54.2	12	24
	50-59	7	14.6	1	2
	Total	48	100	50	100
Field of study	Accounting	13	20.8	26	52
	Management	22	45.8	14	28
	Economics	13	33.3	10	20
	Total	48	100	50	100
Educational level	Diploma	–	–	–	–
	Degree	25	52.1	33	66
	Masters Degree	23	47.9	17	34
	Total	48	100	50	100

Source: questionnaire results, 2017

From table 4.1, 72.9% respondents from senior managers are male and 27.1% respondents are female. Also from the internal auditors side 74% respondents are male 26% and respondents are females.

Most of managers are fall at age of 40-49 (54.2%) followed by 30-39 (27.1%), 50-59(14.6%) and finally 20-29(4.2%). Most of internal auditors on the other hand fall at the age of 30-39(58%), 40-49(24%), 20-29(16%) and 50-59(2%) respectively. This is an indication that respondents were well distributed in terms of their age bracket. The age bracket implies that the respondents were comprised of heterogeneous groups; which in turn enabled the researcher to get varied responses across the sample units' fairly distributed.

In the case of profession of study the respondents from Management (45.8%), Economics (33.3%), Accounting (20.8%) for managers, while the Internal auditors were composed of from Accounting (52%), Management (28%) and economics (20%) fields. This implies that the respondents were comprised of heterogeneous groups.

The level of education shows most of management members and internal auditors have first degree (52.1%) and (66%) followed by Masters Degree (47.9%) and (34%) respectively and no one has Diploma in both managers and internal auditors. This implies that most of the respondents were in good level of education.

4.3 Reliability Analysis

Cronbach's Alpha (α) was conducted in order to test the reliability of the instrument. Since it is the most common measure of scale, Cronbach's Alpha (α) greater than 0.600 is very acceptable (Cronbach's, 1951). Cohen and Sayag, 2010 also states that Cronbach's Alpha (α) greater than 0.700 is very acceptable.

Table 4.2 Reliability Statistics

Cronbach's Alpha (α)	Cronbach's Alpha (α) based on standardized items	Number of items
.697	.695	5

Source: Questionnaires result, 2017

From table 4.2 above, the value for Cronbach's Alpha (α) was 0.697 for all variables. This implies that, Compared to minimum value of Cronbach's Alpha (0.600), responses generated for all variables used in this research were reliable enough for data analysis.

4.4 Descriptive Statistics

The study sought to establish the view of the respondents regarding the determinant factors for the effectiveness of IAF. The findings are presented in the consecutive Tables from 4.3 to 4.7.

4.4.1 Organizational Independence

Table 4.3 Organizational Independence

<i>Organizational Independence</i>	N	Mean	<i>Std. Deviation</i>
The auditing activity is performed without any interference and influence from anybody	98	4.20	.717
By using auditing standards, internal auditors can freely decide Scope and time of audit activities.	98	4.23	.797
Internal auditors examined auditing issues based on objective evidence and auditing standards without the involvement of Management interest.	98	4.00	.963
Internal auditors can freely include any auditing issues and all findings reported to the high level officials.	98	3.89	1.004
Internal auditors access any document and information, which are necessary to the audit work, with minimum effort.	98	3.28	1.013
Total items mean		3.95	

Source: Questionnaires result, 2017

The study conducted on the organizational Independence revealed that the mean score value for the category in average was 3.95 which falls on an agree degree of agreement. This implied that the overall average response for the organizational Independence was agreed by the respondents. All the questions under this category have got high rate as explained by mean scores of each of 4.20, 4.23, 4.0, 3.89, and 3.28 respectively. The summative score of questionnaires designed for the Organizational Independence category revealed Organizational Independence in terms of

auditing activity is performed without any interference and influence from anybody, auditors freely decide the scope, time and extent of auditing procedures, no management interest is involved for adjustment beyond auditing standards and values, Internal auditors can freely include any auditing issues and all findings reported to the high level officials, Internal auditors access any document and information, which are necessary to the audit work, with minimum effort for the internal auditors to become effective in their task accomplishments. The study has found that the organizational independence excels all the independent variables included together in this study in influencing IAE.

4.4.2 Management Support

Table 4.4 Management Support

<i>Management Support</i>	N	Mean	Std. Deviation
The appropriate levels of financial and other resources are available to the internal audit activity to enable it to achieve its objectives in an efficient and effective manner..	98	2.92	.858
Based on audit recommendation management take relevant corrective action on time	98	2.43	1.252
There is higher management commitment to strengthen the internal audit department.	98	2.56	1.094
Management support in terms of allocating sufficient budget that enables internal auditors to have relevant education, skill and certification to do audit activity efficiently and effectively.	98	2.76	1.472
Management support Internal audit department to have large enough structure to efficiently carry out its duties.	98	4.38	.868
Total items mean		3.05	

Source: Questionnaires result, 2017

The study conducted on the level of management support reveals that the mean score value for the category in average was 3.05 which falls on Neutral degree of agreement. This implied that the overall average response for the management support was neither agreed nor disagreed by the respondents. All the questions under the category have got relatively lower rate as explained by mean scores of each of 2.92, 2.43, 2.56, 2.76 and 4.38 respectively. The summative score of questionnaires designed for the management support category revealed appropriate levels of financial and other resources, take timely corrective, management commitment to strengthen the internal audit department, budgeting funds for certification, and to have large enough structure to efficiently carry out its duties is not supportive for the IA team to become effective in their daily task accomplishments. In other words, the effect of internal management support isn't this much important.

4.4.3 Adequate and competent IA staff

Table 4.5 Adequate and competent Internal Audit Staff

<i>Adequate and competent Internal Audit Staff</i>	N	Mean	Std. Deviation
Internal audit has policies for hiring internal audit staff	98	4.56	.675
Internal auditors possess sufficient experience to understand the organizations system	98	4.74	.647
Internal auditors have enough knowledge, skills and other competencies that enable them to add value to their organizations' and perform expected responsibilities.	98	3.54	.965
The scope of organizational operation match with the structure of internal audit department and number of internal auditors	98	3.60	.971
Internal audit department are supported by modern technologies and its activities are conducted through specific IA software.	98	3.49	.922
Total items mean		3.88	

Source: Questionnaires result, 2017

The study conducted on the Adequate and competent Internal Audit Staff revealed that the mean value for the category in average was 3.88 which falls on an agree degree of agreement.

This implied that the overall average response for the Adequate and competent IA Staff was agreed by the respondents. All the questions under this category have got high rate as explained by mean scores of each 4.56, 4.74, 3.54, 3.60, and 3.49 respectively. The summative score of questionnaires designed for the adequate and competent Internal Audit Staff category revealed adequacy and competency of the Internal Audit Staff in terms of policies for hiring internal audit staff, sufficient experience, skill, staff number, and information technology knowhow are important for the IA team to become effective in their task accomplishments.

4.4.4 Availability of strong AC

Table 4.6 Availability of strong audit committee

<i>Availability of strong audit committee</i>	N	Mean	Std. Deviation
Strong audit committee is available in the organization.	98	1.83	1.122
The audit committee Ensures that internal audit is appropriately tasked and resourced, and has sufficient authority and standing to carry out its tasks effectively	98	1.78	1.162
The audit committee Reviews and assesses the annual internal audit work plan;	98	1.85	.998
The audit committee Receives a periodic report on the results of the internal auditors' work	98	1.74	1.008
The audit committee Reviews and monitors management's responsiveness to the internal auditor's findings and recommendations	98	1.59	1.063
The audit committee Monitors and assesses the quality and effectiveness of internal audit, and its role in the overall context of the company's risk management system.	98	1.57	1.252
Total items mean		1.39	

The study conducted on the level of availability of strong AC reveals that the mean score value for the category in average was 1.39 which falls on **strongly disagree** of agreement. This implied that the overall average response for the availability of strong AC was strongly disagreed by the respondents. All the questions under the category have got relatively lowest rate as explained by mean scores of each of 1.83, 1.78, 1.85, 1.74, 1.59 and 1.57 respectively. The summative score of questionnaires designed for the availability of strong AC category revealed Availability of strong AC, AC Ensures that IA is appropriately tasked and resourced, Reviews and assesses the annual IA work plan, Receives a periodic report on the results of the internal auditors' work, Reviews and monitors management's responsiveness and Monitors and assesses the quality and effectiveness of IA is not supportive for the IA team to become effective in their daily task accomplishments.

4.4.5 Internal Audit effectiveness

Finally, the study conducted on the effectiveness of IA which is the dependent variable in the study, revealed that the mean score value for the category in average was 3.45 which falls on neutral degree of agreement. This implied that the overall average response for the IAE was neutral by the respondents. All the questions under this category have got mean scores of each 3.81, 4.01, 3.83, 3.83, 3.28, 3.30, 3.44, 3.47, 3.68 and 3.95 respectively.

Table 4.7 Internal Audit Effectiveness

<i>Internal Audit Effectiveness</i>	N	Mean	Std. Deviation
The existing role that the internal audit is playing sufficient enough to address the very purpose for which it is established.	98	3.81	.991
Internal audit are capable of carrying out internal control function under current corporate governance rules.	98	4.01	.793
The audit planning process is aligned with the Organization's strategic objectives.	98	3.83	.953
Internal auditors can effectively identify and report any noncompliance activities	98	3.83	1.158
Recommendations, criticisms and information provided by internal auditor are useful for decision making.	98	3.28	1.368
Non compliance activities are sufficiently identified and reported by Internal Auditors.	98	3.30	1.416
Internal auditors ensure whether organization's resources are utilized Economically, efficiently and effectively (3e's).	98	3.44	1.244
information and recommendations provided by internal auditor are reliable, practical , address corporate risk management problems within the organization and useful for decision making	98	3.47	1.302
Internal auditors are capable to address organizations' corporate risk problems.	98	3.68	1.181
Internal auditors' existence and their activities is as of my expectations.	98	3.95	1.009
Total items mean		3.45	

Source: Questionnaires result, 2017

4.5 Assessment of Multicollinearity

Tolerance value below 0.10, VIF greater than 10 in correlation matrix and When there is strong correlation among R value greater than 0.8 and the predictors is the causes for multicollinearity (Myers, 1990; Pallant, 2007; Field, 2009). Tolerance is a statistics used to indicate the variability of the specified independent variable that is not explained by the other independent variables in the model.

Table 4.8 Muticollinarity statistics

Model	collinearity Statistics	
	Tolerance	VIF
INDEPENDENCY	.761	1.315
MANAGEMENT SUPPORT	.848	1.180
COMPETENCY	.806	1.241
AUDIT COMMITEE	.952	1.051

Source: Questionnaires result, 2017

Table 4.8 shows the tolerance levels for all variables are greater than 0.10 and the VIF value are less than 10. Furthermore, all variables have the paired values among the predictors are less than 0.80 (see Table 4.9). These all revealed that there was no multicollinearity problem that alters the analysis of the findings. Thus, R value, tolerance and VIF are acceptable.

Table 4.9 Pearson correlation Matrix

	IAE	OIN	MS	ACIAS	AC
EFFECTIVENESS	1				
INDEPENDENCY	.696**	1			
MANAGEMENT SUPPORT	.592**	.372**	1		
COMPETENCY	.553**	.399**	.246*	1	
AUDIT COMMITTEE	-.175	.123	.113	.209*	1

Source: Questionnaires result, 2017

In addition to the regression analysis, the correlation analysis is used to accept or reject research hypothesis (Cohen and Sayag, 2010). The Pearson correlation matrix shows that there is correlation between dependent and independent variables. Moreover, the correlation also significant. That means OIN ($r = .696^{**}$), MS ($r = .592^{**}$) and ACIAS ($r = .553^{**}$) with ($P < 0.01$) level of significant. Thus, the first, the second and the third hypothesis is accepted. However, the result revealed that there is no correlation between IAE and availability of strong AC and it leads to reject the fourth hypothesis.

Based on the coefficients of the dependent variable (β sign) all the three hypotheses proposed by the researcher are acceptable and only one hypothesis is not acceptable (AC). Because three hypotheses stated the positive relationship between the independent and the dependent variables

are meet. The variable with the level of significance (sig) value less than 5% could make a significance unique contribution to the predicted value of the dependent variable, beyond this level of significance the variable are not making a significance contribution for the prediction of the dependent variable. Thus, as we can see on Table 4.12, three independent variables (OI, MS and ACIAS) are significantly contribute for the dependant variable (IAE) at 95% level of confidence ($p < 0.01$). This implies that OI, MS and ACIAS are the most important determinants and they need more emphasis for the effectiveness of IA in case of Ethiopian Public enterprises.

4.6 model results and discussion

The study conducted a linear regression analysis for the independent variables and the dependent variable. Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (IAE) that is explained by all the four independent variables (Organizational Independence, Management Support, Adequate and competent Internal Audit Staff, and strong Audit committee).

4.6.1 Value of R square

The value of R square explains how much of the variance in the dependant variables are identified by the model and the larger the value of r square implies the better the model is. Thus, as we can see Table 4.10, the overall contribution of Organizational Independence, Management Support, Adequate and competent Internal Audit Staff, and strong Audit committee, accounted for 79% (adjusted $R^2 = 0.785$). The rest 21% were other variables that are not included in this study.

Table 4.10 Regression model summary

Model	R	R square	Adjusted R square	Std.Error of Estimate	Durbin Watson
1	.891 ^a	.794	.785	.283	2.072

Source: Questionnaires result ,2017

4.6.2 ANOVA results (test)

Table 4.11 regression ANOVA summary

Model	Sum of Squares	df	Mean Squares	F	Sig.
1 Regression	28.789	4	7.197	89.781	.000^b
Residual	7.455	93	.080		
Total	36.245	97			

Source: Questionnaires results,2017

From the ANOVA test in table 4.11 the Organizational Independence, Management Support, Adequate and competent IA Staff, and strong AC have great contribution to improve internal audit effectiveness. But it does not mean that all these determinants of internal audit effectiveness have equally significant correlation with IAE. Moreover, the F statistics, 89.781 in this research, which used to measure the overall test of significance of the model, is well fitted at 1 percent level of significance.

4.6.3 Regression Result Analysis

In any regression model, the +ve or –ve sign of beta (β) shows the effect (increase or decrease) of the independent variables coefficients over the independent variable. And as shown in Table 4.12 below, beta sign of all the independent variables except AC (negative) shows the positive effect of the predicting independent variables. That means any proportional increase in the independent variables lead to a proportional increase in the dependent variable. This finding is consistent with most of the earlier researches that are identified in literature reviewed section (Arena and Azone, 2009; Cohen and Sayag, 2010; Sehwamane, 2014; Yalaw, 2015 George and Konstantinos, 2015 ;).

Table 4.12 Regression Coefficients

Model	Unstandardized coefficients		standardized Coefficients	t	Sig.
	β	Std.Error	Beta		
1 (Constant)	.028	.224		.124	.901
INDEPENDENCY	.397	.047	.460	8.527	.000
MANAGEMENT SUPPORT	.288	.039	.373	7.305	.000
COMPETENCY	.381	.057	.350	6.674	.000
AUDIT COMMITTEE	-.361	.050	-.346	-7.177	.000

Source: Questionnaires result, 2017

Based on the coefficients of the dependent variable (β sign) all the three hypotheses proposed by the researcher are acceptable and only one hypothesis is not acceptable (AC). Because three hypotheses stated the positive relationship between the independent and the dependent variables are met. The variable with the level of significance (sig) value less than 5% could make a significance unique contribution to the predicted value of the dependent variable, beyond this level of significance the variable are not making a significance contribution for the prediction of the dependent variable. Thus, as we can see on Table 4.12, three independent variables (OI, MS and ACIAS) are significantly contribute for the dependant variable (IAE) at 95% level of confidence ($p < 0.01$). This implies that OI, MS and ACIAS are the most important determinants and they need more emphasis for the effectiveness of IA in case of Ethiopian Public enterprises.

The regression results obtained from the model were utilized to test the hypotheses developed in chapter One. The hypotheses sought to test significant influences of Organizational Independence, Management Support, Adequate and Competent Internal Audit Staff, and strong audit committee on the internal audit effectiveness.

4.6.3.1 Organizational independence to IAE

As shown in Table 4.12, above the coefficient of OI ($\beta = 0.397$, $t = 8.527$, and $P < 0.01$) support the proposed hypothesis. The result is consistent with earlier studies (Mihert and Yismaw, 2007; Arena and Azzone, 2009; Cohen and Sayag, 2010; Sehwamane, 2014; Yalew, 2015; George & Konstantinos, 2015;) on which they revealed that OI plays significant role for the effectiveness of internal audit function.

Organizational independence refers to auditing activity is performed without any interference and influence from anybody, auditors freely decide the scope, time and extent of auditing procedures, no management interest is involved for adjustment beyond auditing standards and values, Auditors include any audit finding during audit work and report directly to responsible body, and access to necessary documents. On the other hand, the findings of this study is inconsistent with the previous study conducted by (Haile Mariam, 2014) on which he found that organizational independence and the IA effectiveness have no positive relationships.

4.6.3.2 Management supports to IAE

Table 4.12, above shows that management support has positive relationship with IAE the coefficient of MS ($\beta = 0.288$, $t = 7.305$, and $P < 0.01$) support the proposed hypothesis. Management support in terms of appropriate levels of financial and other resources, take timely corrective, management commitment to strengthen the internal audit department, budgeting funds for certification, and to have large enough structure to efficiently carry out its duties contributes for the IAE. The result were consistent with the previous studies (Arena and Azone, 2009; Cohen and Sayag, 2010; Sehwamane, 2014; Yalew, 2015; George & Konstantinos, 2015) on which the studies found and reported that the top management support was the determinant factor for the effectiveness internal audit in particular.

4.6.3.3 Adequate and competent internal audit staff to IAE

The existence of adequate and competent internal audit staff was also found among the determinant factors for the internal audit effectiveness. The findings of this study is consistent with the previous study conducted by (Shewamene, 2014, Haile Mariam, 2014, Yalew, 2015 and George & Konstantinos, 2015) on which they found that organizational independence and the IA effectiveness have strong positive relationships. On the other hand, the result is not consistent with some earlier studies .For instance, Arena and Azone, 2009 & Cohen and Sayag, 2010 argued that presence of adequate and competent internal audit staff has no effect on IAE.

Therefore, the existence of adequate and competent IA staff in the public enterprises results with positive relationship with IAE and high contribution for the IAE in terms of policies for hiring internal audit staff, sufficient experience, skill, staff number, and information technology knowhow.

4.6.3.4 Availability of strong Audit committee to the IAE

The last hypothesis proposed to support the availability of strong Audit committee to IAE in public enterprises. The regression output result doesn't supported the hypothesis with negative coefficients ($\beta = -0.361$ and $t = -7.177$) with the level of significance ($P < 0.01$) which implies that even though availability of strong Audit committee has significantly affect on the internal audit effectiveness, but not at all. The negative sign on the other hand shows the negative relationship between availability of strong Audit committee and internal audit effectiveness. Availability of strong Audit committee in terms of audit committee Ensures that internal audit is appropriately tasked and resourced, Reviews and assesses the annual internal audit work plan, Receives a periodic report on the results of the internal auditors' work, Reviews and monitors management's responsiveness and Monitors and assesses the quality of IA not supportive for the internal audit team to become effective in their daily task accomplishments. The result is inconsistent with previous researches. For instance, Hermanson & Rittenberg, 2003; Brdard & Gendron, 2010; Barua & Sharma 2010; Alzaban & Sawan 2015 revealed that availability of strong audit committee is significant factor for IAE. Therefore, H4 is completely rejected due to the regression result in case of Ethiopian public enterprises.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1.1. Summary of Major Findings

In line with the objective of this research to examine the determinant of the IAE in the Ethiopian public enterprises, the researcher has adopted questionnaires to gather firsthand information from the respondents with heterogeneous age bracket, level education, field of study, and service period. Then, reliability and validity test was conducted in order to check the inconsistency of the data. As the reliability test confirmed the consistency of the data for the analysis, the collected data from the respondents was analyzed using Spread Sheet/Excel/ and SPSS. The outputs of the Excel and SPSS were then described and presented using tables.

In summary, it is found from the descriptive analysis that among the questionnaires distributed to assess the effectiveness of internal audit, *Adequate and competent Internal Audit Staff* followed by the *Organizational Independence* affects the internal audits quality/effectiveness. On the contrary, **availability of strong audit committee** followed by the **management support** is not supportive for the internal audit team effectiveness in the public enterprises of Ethiopia.

5.1.2. Conclusions

The study found out that all the independent predictors except availability of strong AC, it was negative, were positively related with the internal audit effectiveness in the Ethiopian public enterprises. However, as per their significant contribution levels, adequate and competent internal audit staff followed by the organizational independence and the management support respectively were the major determinant factors for the effectiveness of the IA in the Ethiopian public enterprises. On the other hand, only availability of strong AC was not supportive for the IAE in the Ethiopian public enterprises. The regression coefficients also remarked that, IAE increases when competent, skilled and adequate staff is placed in the office, organizational independence exists in ground in actual task accomplishments freely without interference, and the IA receives support from management. The researcher while developing statement of the

problem in chapter one and identify gap on existing body of knowledge in chapter two has emphasized that, researches done by some scholars on the same topic were a bit hasty generalizations. The study also found that the overall contribution of Organizational Independence, Management Support, Adequate and competent IA Staff, and strong Audit committee, accounted for 79% (adjusted $R^2 = 0.785$) in determining the IAE in the Public enterprises of Ethiopia. That means, the effect of these four independent variables contributed for the dependent variable; IAE were 79%, and the remaining 21% were other variables that are not included in this study.

5.1.3. Recommendations

Based on the analysis and subsequent findings from the study, the following recommendations are forwarded which the Ethiopian public enterprises would consider in its attempt for improved IAE.

- Even though the research ensures organizational independence is the most significant factor that affects IAE in the public enterprise, it has to be enhanced for the better effectiveness of IA. Organizational independence could be enhanced by ensuring auditing activities performed without any interference and influence from anybody, auditors freely decide the scope, time and extent of auditing procedures, no management interest is involved for adjustment beyond auditing standards and values, Auditors include any audit finding during audit work and report directly to responsible body, and access to necessary documents.
- The research also revealed that management support has significant and positive impact for effectiveness of IA function. Different studies also show that without management support, IA could not contribute a lot to identify noncompliance activities and value addition to their organization. Therefore, it has to be enhanced for the better effectiveness of IA. management support could be enhanced by allocate appropriate levels of financial and other resources to IAF, taking timely corrective actions, giving strong commitment to strengthen the IA department, budgeting funds for certification of internal auditors, and support IA department to have large enough structure to efficiently carry out its duties.
- The research found that the presence of adequate and competent IA staff is significant variable for IAE in case of Ethiopian public enterprises. This implies that Ethiopian

public enterprises should keep their policies for hiring IA staff with sufficient experience, skill, staff number, and information technology knowhow.

- Finally, the regression output result doesn't support the hypothesis about the contribution of availability of strong AC for the effectiveness of IAF in case of Ethiopian public enterprises though different researchers show that availability of strong AC is significant factor for IAE (Brdard and Gendron, 2010; Barua and Sharma 2010; Alzaban and Sawan 2015). IIA (2015) also states that the AC, in collaboration with high level managements, can play vital role in empowering and evaluating the image of the activities of internal audit. This implies that there should be strong and functional AC and their role need to be enhanced in public enterprises of Ethiopia though the regression result rejected the availability of strong AC. Therefore, AC should to ensure internal audit is appropriately tasked and resourced, Reviews and assesses the annual internal audit work plan, Receives a periodic report on the results of the internal auditors' work, Reviews and monitors management's responsiveness and Monitors and assesses the quality of the report for the internal audit team to become effective in their daily task accomplishments.

5.1.4 Future Research Directions

Result in this research shows that all of the four independent variables aggregately contributed 79% to internal audit effectiveness. That means, the effect of these four independent variables contributed for the dependent variable; IAE were 79%, and the remaining 21% were other variables that are not included in this study. Future researchers might conduct another study in this subject matter by using other variables that are not covered in this research, but tested by earlier researchers in different case study areas (organizational setting, IA quality, Auditee attribute).

REFERENCES

Kinfu, J. (1990). Accounting and auditing in Ethiopia: a historical perspective, Proceedings of the First National Conference of Ethiopian Studies, Institute of Ethiopian Studies. (pp. 189-225). Addis Ababa: Addis Ababa.

Argaw, L. (2000). Proceedings inaugural ceremony of IIA-EC, The State of internal Auditing in Ethiopia, the Way Forward to Professionalism.

Mihret, D. G., & Yismaw, A. (2007). Internal audit effectiveness: an Ethiopian public sector case study.

Mihret, D., & Woldeyohanes, G. Z. (2008). Value-added role of internal audit: an Ethiopian case study. *Managerial Auditing Journal*, 23(6), 567-95.

Shewamane (2014), "determinants of IAE" .case study on Ethiopian public sectors.

Yalew (2015). "determinants of IAE" .case study on Costruction Bank Of Ethiopia.

Belay, Z. (2007). Effective Implementation of Internal Audit Function to Promote Good. Addis Ababa: Ethiopian Civil Service College Research, Publication.

Arena, M., & Azzone, G. (2009). Identifying Organizational Drivers of Internal Audit Effectiveness. *International Journal of Auditing*, 13, 43–60.

Cohen, A., & Sayag, G. (2010). the Effectiveness of Internal Auditing: An Empirical examination of its Determinants in Israeli Organizations.

Anderson, U. (1983), "Quality Assurance for Internal Auditing, Institute of Internal Auditors": Altamonte Springs, Florida, 327-42. B.N.

Tandon, (2010), Practical Auditing: 14th edition, pp.112-15. Internal Audit Departments.

Balves, & Cputi. (2001). Introduction to Quantitative Research Methods, an investigative Approach.

Cronbach, L. J. (1951). *Coefficient alpha and the internal structure of tests* (Vol. 16).

Davidson, R., Goodwin-Stewart, J., & Kent, P. (2006). *Internal Governance Structures and Earnings Management* (Vol. 45).

Dittenhofer, M. (2001). Internal audit effectiveness: an expansion of present methods. *Managerial Auditing Journal*, 16(8), 443-50.

Ellis, J. (2000). The who, how, what, where and why on internal audit. *University of new England internal audit unit*.

Fadzil, F., Haron, H., & Jantan, M. (2005). Internal auditing practices and internal control. *Managerial Auditing Journal*, 20(8), 844-866.

Field, A. (2009). *Discovering statistics using SPSS* (3rd edition ed.).

IIA. (2001). Standards for the Professional Practice of Internal Auditing.

IIA. (2003). The Professional Practices Framework The IIA Research Foundation.

Letza, S. R. (1996). Performance Measurement and Management Integrated Frameworks. *Business Process Re-engineering & Management Journal*, 54-76.

MoFED. (2004). Internal Audit Standards and Code of Ethics for Internal Auditors and Internal Audit Procedural Manual.

Negarit, G. (1961). Auditor general proclamation. *Negarit Gazette* (179).

Pilcher, R. G. (2011). The Relationship between internal and external audit in the public sector – A Case Study. 1-23.

Smet, D. a. (2011). Improving auditor effectiveness in assessing KYC/AML. *Managerial Auditing Journal*, 26(2), 182-203.

Smith, G. (2005). Communication skills are critical for internal auditors. *Managerial Auditing*, 20(5), 513-519.

Stewart J., & Subramaniam. (2010). Internal audit independence and objectivity: emerging. *Managerial Auditing Journal*, 25(4), 328-360.

Volosin, E. (2007). The Theories of Audit Expectations and the Expectations Gap. Munich, GRIN Publishing GmbH.

Leung, P. and Cooper, B.J. (2009), “Internal audit – an Asia-Pacific profile and the level of compliance with Internal Audit Standards”: *Managerial Auditing Journal*, 24(9),

Woodard, C. (2002). Administrators’ Perceptions of Internal Auditing Roles and Effectiveness

Zain, M. S., & Stewart, J. (2006). Internal Auditors’ Assessment of their Contribution to Financial Statement Audits: The Relation with Audit Committee and Internal Audit (The institute of internal auditors (2001),

Standards for the Professional Practice of Internal Auditing (SPPIA): Audit Tools/NewIIAStandards.htm,

APPENDIX

Appendix I- Questioners



ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
Department of Accounting and Finance (MBA)

Dear Participants:

The purpose of this questionnaire is to gather information regarding to Determinants of Internal Audit effectiveness in case of Ethiopian public enterprises for the accomplishments of Masters Degree in accounting and Finance in St. Mary's University.

The questionnaires are distributed to management members and chief internal audit officer and his/her respective experienced senior auditors. The questionnaire includes all the directions necessary to complete the response without assistance and the success of this study depends on the rationality and commitments of the respondents. Since the conclusion of the research will be drawn aggregately, Specific enterprise and individuals will not be referenced. I would also assure you that all information that you provide will be confidential and the information will be used only for the research purpose.

Your honest and rational response is invaluable!

Thank you in advance for your participation

With best regards,

Yelekale Fekadu, Mobile: +251- 913 23 63 96, Email: yf0385@yahoo.com

Objective of the Questionnaire

Effective internal audit function is an important management tool to monitor and direct the internal operations of an organization effectively and appropriately. Thus, the aim of this research is to identify determinants of internal audit effectiveness in case of Ethiopian Public enterprises which will be measured in terms of ability to identify non compliance activities and value addition and quality of internal audit. So, you are kindly request to give your response.

A. Personal Profile

Indicate your choice by putting “√” marks inside the box please.

1. Sex/Gender: Male Female
2. Age (in Years): 20-29 30-39 40-49 50-59 Above 60
3. Field of Study: Accounting Management Economics Other
Specify
4. Level of education: Diploma Degree Masters PhD
5. Current position in your organization _____
6. Number of years of experience in your organization _____

B. The questionnaire Items

Please indicate your choice by ticking (circle) your appropriate opinion in the given scales. The values of the scales are:-

5= strongly agree, 4= agree, 3= neutral, 2= disagree and 1= strongly disagree

#	IA quality and it's added contribution to the organization	The scales				
		SA	A	N	DA	SDA
1.	The existing role that the internal audit is playing sufficient enough to address the very purpose for which it is established.	5	4	3	2	1
2.	Internal audit are capable of carrying out internal control function under current corporate governance rules.	5	4	3	2	1
3.	The audit planning process is aligned with the Organization's strategic objectives.	5	4	3	2	1
4.	Internal auditors can effectively identify and report any noncompliance activities	5	4	3	2	1
5.	information and recommendations provided by internal auditor are reliable, practical , address corporate risk management problems within the organization and useful for decision making	5	4	3	2	1
6.	Non compliance activities are sufficiently identified and reported by Internal Auditors in my organization.	5	4	3	2	1
7.	Internal auditors ensure whether organization's resources are utilized Economically, efficiently and effectively (3e's).	5	4	3	2	1
8.	The recommendations of internal audit department provide practical, cost-benefit solutions for correcting the problems that were found.	5	4	3	2	1
9.	Internal auditors are capable to address organizations' corporate risk problems.	5	4	3	2	1
10.	Internal auditors' existence and their activities is as of my expectations.	5	4	3	2	1

Organizational independence

11.	The auditing activity is performed without any interference and influence from anybody	5	4	3	2	1
12.	By using auditing standards, internal auditors can freely decide Scope and time of audit activities.	5	4	3	2	1
13.	Internal auditors examined auditing issues based on objective evidence and auditing standards without the involvement of Management interest.	5	4	3	2	1
14.	Internal auditors can freely include any auditing issues and all findings reported to the high level officials.	5	4	3	2	1
15.	Internal auditors access any document and information, which are necessary to the audit work, with minimum effort.	5	4	3	2	1

The Management Support

16.	The appropriate levels of financial and other resources are available to the internal audit activity to enable it to achieve its objectives in an efficient and effective manner.	5	4	3	2	1
17.	Management take timely corrective action based on internal audit recommendations.	5	4	3	2	1
18.	There is higher management commitment to strengthen the internal audit department.	5	4	3	2	1
19.	Management support in terms of allocating sufficient budget that enables internal auditors to have relevant education, skill and certification to do audit activity efficiently and effectively.	5	4	3	2	1
20.	Management support Internal audit department to have large enough structure to efficiently carry out its duties.	5	4	3	2	1

The adequate competent internal audit staff

21.	Internal audit has policies for hiring internal audit staff	5	4	3	2	1
22.	Internal auditors possess sufficient experience to understand the organizations system	5	4	3	2	1

23.	Internal auditors have enough knowledge, skills and other competencies that enable them to add value to their organizations' and perform expected responsibilities.	5	4	3	2	1
24.	The internal audit department structure and its staff number match with the scope of organizations' internal operations.	5	4	3	2	1
25.	Internal audit department are supported by modern technologies and its activities are conducted through specific IA software.	5	4	3	2	1

Availability of strong audit committee

26.	Strong audit committee is available in the organization.	5	4	3	2	1
27.	The audit committee Ensures that internal audit is appropriately tasked and resourced, and has sufficient authority and standing to carry out its tasks effectively	5	4	3	2	1
28.	The audit committee Reviews and assesses the annual internal audit work plan;	5	4	3	2	1
29.	The audit committee Receives a periodic report on the results of the internal auditors' work	5	4	3	2	1
30.	The audit committee Reviews and monitors management's responsiveness to the internal auditor's findings and recommendations	5	4	3	2	1
31.	The audit committee Monitors and assesses the quality and effectiveness of internal audit, and its role in the overall context of the company's risk management system.	5	4	3	2	1

APPENDIX II: FREQUENCY TABLES

Demographic question		responses			
		managers		internal auditors	
		frequency	%	frequency	%
Gender	Male	36	72.9	37	74
	Female	12	27.1	13	26
	Total	48	100	50	100
Age	20-29	2	4.2	8	16
	30-39	13	27.1	29	58
	40-49	26	54.2	12	24
	50-59	7	14.6	1	2
	Total	48	100	50	100
Field of study	Accounting	13	20.8	26	52
	Management	22	45.8	14	28
	Economics	13	33.3	10	20
	Total	48	100	50	100
Educational level	Diploma	–	–	–	–
	Degree	25	52.1	33	66
	Masters Degree	23	47.9	17	34
	Total	48	100	50	100

Source: Questionnaires result, 2017

APPENDIX III: Reliability Statistics

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.697	.695	5

Source: Questionnaires result, 2017

APPENDIX IV: Collinearity Statistics

Model	collinearity Statistics	
	Tolerance	VIF
INDEPENDENCY	.761	1.315
MANAGEMENT SUPPORT	.848	1.180
COMPETENCY	.806	1.241
AUDIT COMMITTEE	.952	1.051

APPENDIX V: PEARSON CORRELATIONS MATRIX

	IAE	OIN	MS	ACIAS	AC
EFFECTIVENESS	1	.696**	.592**	.553**	-.175
INDEPENDENCY	.696**	1	.372**	.399**	.123
MANAGEMENT SUPPORT	.592**	.372**	1	.246*	.113
COMPETENCY	.553**	.399**	.246*	1	.209*
AUDIT COMMITTEE	-.175	.123	.113	.209*	1

** Correlation is sig.at the 0.01 level (2-tailed)

Source: Questionnaires result, 2017

* Correlation is sig.at the 0.05 level (2-tailed)

APPENDIX VI: REGRESSION COEFFICIENTS

Model	Unstandardize coefficient		Standardize coefficients	t	Sig.
	β	Std. Error	Beta		
1 (Constant)	.028	.224		.124	.901
INDEPENDENCY	.397	.047	.460	8.527	.000
MANAGEMENT SUPPORT	.288	.039	.373	7.305	.000
COMPETENCY	.381	.057	.350	6.674	.000
AUDIT COMMITEE	-.361	.050	-.346	-7.177	.000

a. Dependent Variable: EFFECTIVENESS **Source: Questionnaires result, 2017**