



DETERMINANTS OF INTERNAL AUDIT EFFECTIVENESS IN ETHIOPIA: THE CASE OF SELECTED BUDGETARY PUBLIC SECTORS

By: Alemzewed Ayele

Advisor: Alem Hagos (PhD)

**A thesis submitted to the Department of
Accounting and Finance, College of Business and
Economics, Addis Ababa University, in partial
fulfillment of the requirement of Master of
Science (Msc) in Accounting and Finance**

Addis Ababa, Ethiopia

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Statement of Declaration

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

Name of Student: Alemzewed Ayele

Signature: _____

Date: February, 2019

Statement of Certification

This is to certify that the research project done by Alemzewed Ayele entitled “Determinants of Internal Audit Effectiveness in Ethiopia: The Case of Selected Budgetary Public Sectors” submitted in partial fulfillment of the requirement of Master of Science (Msc) in Accounting and Finance complies with the regulations of the university and meets the accepted standards in respect to originality and quality.

Name of Advisor: Alem Hagos (PhD)

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Date: February, 2019

ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF ACCOUNTING AND FINANCE

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DETERMINANTS OF INTERNAL AUDIT
EFFECTIVENESS IN ETHIOPIA: THE CASE OF
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Alemzewed Ayele

Addis Ababa, Ethiopia

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LIST OF ACRONYMS AND ABBREVIATIONS

AC: Audit Committee

CIA: Certified Internal Auditor

CLM: Classical Linear Model

COMP: Competence of IA teams,

FDRE: Federal Democratic Republic of Ethiopia

IA: Internal Audit

IAD: Internal Audit Department

IAF: Internal Audit Function

IIA: Institute of Internal Auditors

IEA: Internal Audit Effectiveness

INDP: Independence of IA,

IPPF: International Professional Practices Framework

ISPPIA: Institute of Standards on the Professional Practice of Internal Audit

IT: Information Technology

MGTS: Management Support

MoFEC: Ministry of Finance and Economic Cooperation

MoFED: Ministry of Finance and Economic Development

OAG: Office of the Audit General,

OECD: Organization for Economic Cooperation and Development

OLS: Ordinary Least Squares

QUA: Quality of IA Work

SPPIA: Standards on the Professional Practice of Internal Audit

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ABSTRACT

Internal audit effectiveness has received limited attention in the literature especially in the context of developing countries such as Ethiopia. Among these limited literatures little researches focused on public sectors. However, some of them done in a single company and the others are a mix of Public Enterprise, Share Company and Private Company. Due to this, as to the researcher's understanding getting a complete clear picture on determinants of IA effectiveness related with budgetary public sectors was impossible. Therefore, the overall objective of this study was to identify determinants of internal audit effectiveness in Ethiopian budgetary public sectors which are located in Addis Ababa. The study used purposive sampling method and cover selected budgetary public sectors. The researcher used mixed research method by employing quantitative and qualitative research method. The quantitative research method used 85 usable self-administered questionnaires. These questionnaires were adapted and constructed in 5-point Likert scale and distributed to selected budgetary public sectors Internal Auditors and analyzed using Stata statistical software. The qualitative research method used document review in selected budgetary public sectors. According to the result of the study internal audit work quality & management supports have statistically significant positive relation with the effectiveness of internal audit. Independence of internal audit & competence of internal audit team have statistically insignificant relation with the effectiveness of internal audit.

Key words: Internal Audit, Ethiopian budgetary public sectors, and Internal Audit Effectiveness

CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

Organizations have encountered rapid changes in economic complexity, expanded regulatory requirements, and technological advancements in recent years. In addition to these changes the current corporate scandals and the global financial crisis also pushed the public and regulatory bodies to give unique position to Internal Audit (IA) in corporate governances for internal assurances services (Soh & Bennie, 2011). These changes have given the IA a set of expanded opportunities to support and advice management; evaluate risk exposures relating to the organizations governance, operations and information systems, identify internal control system efficiency and effectiveness, provide services to other organizational functions; and generate direct reporting links to the audit committee and shareholders; safeguarding of assets; and compliance with laws, regulations, and contracts (IIA, 2001; MoFED, 2004).

The demand for an effective internal audit department (IAD) now equally applies to all government agencies and public sector organizations as public sector organizations are also facing increasing demand for governance and accountability. Montondon & Fisher (1999) emphasize that the credibility of the IAD is significantly important especially in public sectors organizations as they are held responsible to diverse stakeholders compared to private entities. Internal audit systems are crucial to helping public managers achieve results and make governments more efficient and effective (Sterck & Bouckaert, 2006).

The Ethiopian ministry of finance first issues the audit directive in 1942, by focusing mainly on the public sector utilization of funds, and it marked on the modernization of audit practice in the country. By following this, the Office of the Audit General (OAG) is formulated in 1961 with the necessary modifications with respect to the duties and responsibilities of the bureaus and the auditors; and in 1987 and on wards there are significant developments in public sector auditing systems in the country.

Moreover, the coming of Proclamation No. 13/1987 empowered the OAG to direct the internal auditors of government offices and public enterprises in three aspects that are whether

accounting records are properly maintained and reliable, whether the assets of the ministries and enterprises are adequately safeguarded and properly maintained; and 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; Lemma, 2000).

To reinforce the impact of IA, the Government of Ethiopia amends Proclamation No.669/2010 to establish the Office of the Federal Auditor General with the objective of:

Strengthening an audit system required for a reliable information necessary for the proper management and administration of the plans and budget of the Federal Government; ascertain that all receivable money and property of the Federal Government are collected, preserved and used properly, in accordance with the laws and regulations of the Federal Government and report same to the council; undertake a financial, performance, environment, information technology, control, special and other audits of the offices and organizations of the Federal Government; make efforts, in cooperation with concerned other organs, to promote and strengthen accounting and audit profession; give professional assistance and advice to Regional and Federal Offices and organizations engaged in accounting and audit professions and finally, to draw up a standard of auditing by which accounts of the offices of the Federal Government shall be examined and follow up the implementation of same (FDRE, Proclamation NO. 982/2016).

1.2. Background of the Organizations

The study conducted on selected budgetary public sectors in Ethiopia. Public sectors are part of the public body partially or wholly owned by a government and financed by the government budget. As per proclamation No. 916/2015 of the Federal Democratic Republic of Ethiopia Twenty Five (25) Ministries are established. Public sector provides basic public services such as education, health care, public securities, public transit, and so on, which benefit all society and encourage equal opportunity (Mihret & Yismaw, 2007).

The efficiency and effectiveness of management operations in public sectors are ensured by the effectiveness of their employees. Internal auditors, the focus of this study have always been a sensitive issue, especially for internal auditor in which the internal auditor is expected to be independent and qualified, while he/she is the employees of the organization, above all, not clearly organized structure or reporting line make the problem more complicated (Buregaya,

2007 as cited in Mastan, Habatamu, Rajeswari, & Muhammed, 2015). (Dittenhofer, 2001 as cited in Mastan, et al., 2015) also discussed that if the quality of internal audits unit/ department is effective it can improve the organizational performance.

The government of Ethiopia as per FDRE, Financial Administration Proclamation No.648/2009, revise the proclamation No.57/1996 to render effective and efficient the budget preparation, collection and payment of public money, maintenance of accounts, internal audit and the management of public resource and debt by alleviating the problems encountered in the implementation the proclamation during the period in which it was in force.

As per the proclamation The Minister of Finance and Economic Cooperation shall have the duty to: supervise and monitor the finance of the Federal Government; and conduct audit of public bodies, if it deems necessary; to ensure that systems are established for planning, allocating resources and appropriation of budget which enable proper utilization of public resources and to oversee the internal audit functions of public bodies and develop appropriate standards of work and conduct for application throughout all public bodies internal audit functions and develop internal control standards, assist in building the capacities of the internal audit.

In relation to this, currently Ethiopia has undergone the Second Growth and Transformation Plan (GTP).The major objective of GTP II is to serve as a spring board towards realizing the national vision of becoming a low middle-income country by 2025, through sustaining the rapid, broad based and inclusive economic growth, which accelerates economic transformation and the journey towards the country's Renaissance. Thus, GTP II is primarily considered to be an important milestone towards realizing the national vision. In this context, during GTPII implementation period, effective public participation in a coordinated and structured manner at all levels is critical to ensuring equitable development and to build developmental political economy (National Planning Commission, 2016).

Accordingly, in order to accomplish the said GTP and to improve the growth of the country as a whole, the Government of Ethiopia is budgeted huge amount of money, for example for 2010 E.C Budget year it has approved Birr 320,803,602,160.00for Adm. & General Service, Economic Service, Social Service and Others (FDRE, Federal Democratic Republic of Ethiopia Budget Proclamation, 2010) and further for 2011 E.C Budget Year the Government has

approved Birr 346.9 billion for the above budget category (FDRE, MoFEC, Budget Speech, June, 2018), which in turns needs internal auditors to make an extensive follow up and report to the concerned body whether the budgeted amount is used for the predetermined goals or not which in turn needs effectiveness of IA.

According to the Federal Auditor General Report (2017) 158 Federal public sectors office has been audited for the budget year 2008 E.C., among them most of them did not close the financial statements timely and not provide their report to the Federal Auditor General Auditor as per the predetermined schedule. The report also disclosed billions of money didn't show their normal balance in different areas like on Accounts Payable, Revenues not collected, outstanding revenue and on unclear balance of Receivable and etc. In addition to this, most of the reports of the public sector offices are subjected to Except for Opinion, Adverse Opinion and Disclaimer Opinion. Moreover, the performance and budget utilization of these public sectors are less than the par. Due to this, The Federal Auditor General, Gemechu Dubisso, said public sectors which are repeatedly not bind by proclamations, rules and Regulations and as per their respective audit findings the government will take appropriate measure (Lessane-Auditor, 2017).

1.3. Statement of the problem

The professional practice of IA commenced around 1941 in the USA. Before the 1950s, IA focused on financial audit and was heavily involved in the review of financial statements. Since 1941 the IIA has played an important role in developing and enhancing the professional stature of internal auditors (Yee, Sujun, James, & Leung, 2008). Although IA has become a crucial function within organizations, academic researchers have tended to focus on external audit as an organizational control function, while ignoring IA (Gendron & Bedard, 2006). More specifically, IA effectiveness has not been extensively studied and, to date, there has been relatively little research conducted concerning IA effectiveness (Al-Twaijry, Brierley & Gwilliam, 2003; Albercht, Howe, Schueler, & Stocks, 1988; Arena & Azzone, 2009; Cohen & Sayag, 2010; Mihret, James & Mula, 2010; Mihret & Yismaw, 2007; Mizrahi & Ness-Weisman, 2007; Yee et al. 2008). According to Mizrahi & Ness-Weisman (2007) there is relatively little in the literature regarding the measurement of IA effectiveness in the public sector. Moreover, some authors suggest that the function may not always be effective ((Al –Twaijry et al., 2003; Crockett &

Albin, 1995; Mihret, et al., 2010; Mihret & Yismaw, 2007; Montondon L. , 1995; Financial Reporting Council, 2011).

Despite scholars 'attempts to investigate IA effectiveness, there is no generally acknowledged guide or tool for this purpose (Arena & Azzone, 2009). The literature also indicates that no generally accepted approaches to assess IA effectiveness exist as yet (Mihret, 2010; Shewamene, 2014; Mastan, Habatamu, Rajeswari, & Muhammed, 2015; Fetu, 2016; Wondwossen, 2016; Wondimagegn, 2016; Hawa, 2016). For this reason, the limited previous research which addresses the issue of IA effectiveness has used different approaches in studying IA effectiveness.

Among these, some of the researchers have related effectiveness of IA with Level of management and their cultural tension in organizations (Yee et al. 2008); Co-operation between internal auditors and external auditors, management support, and organizational setting (Arena & Azzone, 2009); Proficiency, objectivity, performance, and information technology (Wubishet & Dereje, 2014); Quality of IA, competence of IA team, independence of IA, and management support (George, Theofanis, & Arampatzis, 2015); Quality of IA, competence of IA team, independence of IA, and management support (Tadiwos, 2016); Quality of internal audit, competences of the team of internal audit, the independence of internal audit and support of internal audit by the management (Rudhani, Vokshi, & Hashani, 2017); and Internal audit scope, internal auditors' experience and management response (Shamki & Alhajri, 2017) and others can be listed as an indicator of lack of consensus in determining factors that affect the effectiveness of IA.

Ethiopia's economy experienced strong, broad-based growth averaging 10.3% a year from 2005/06 to 2015/16, compared to a regional average of 5.4%. According to official statistics, Ethiopia's gross domestic product (GDP) is estimated to have rebounded to 10.9% in Fiscal Year 2017 (The World Bank In Ethiopia, 2018). In order to uphold this growth, the role of budgetary public sectors is vital. Hence, the Government of Ethiopia have budgeted a huge amount of money for the sectors.

Furthermore, the huge amount of money budgeted to implement the GTP of Ethiopia & to improve the growth of the country as a whole on one side and the Audit report of Federal Auditor General which expressed its opinion as Except for opinion, Adverse opinion & Disclaimer opinion and also the less than par performance & budget utilization of most of

budgetary public sectors (Lessane-Auditor, Volume 18, 2017) on the other side shows the need for study on IA effectiveness.

Therefore, to follow up the performance of the sectors and report the utilization of this public money in accordance with the budget, having effective IA is a must to do and also knowing the fact that how IA is working need an extensive research.

In contrast to this fact, in past decades, limited studies have been conducted in IA activity in Ethiopia with different study area. Some researchers investigated the effectiveness of IA in Ethiopian budgetary public sectors in a single public sector or with a mix of public enterprise share company and private company (Mihret, 2010; Shewamene, 2014; Mastan, Habatamu, Rajeswari, & Muhammed, 2015; Fetu, 2016; Wondwossen, 2016; Wondimagegn, 2016; Hawa, 2016). Among the limited researches conducted, Mihret (2010) focused on selected Ethiopian Government ministries, State-owned enterprises, and private companies; the study of Shewamene (2014) was in selected Banking & Finance Sectors, Public Enterprises and Corporation; and the research of Tadiwos (2016) were in Ethiopian commercial banks.

Several academic studies (Al-Twaijry et al. 2003; Anderson, 2003; Arena & Azzone, 2009; Goodwin, 2004; Mihret & Yismaw, 2007; Yee, et al., 2008; Mihret D. G., 2010; Shewamene, 2014; Tadiwos, 2016) have advocated further research and the need for a more comprehensive study and on different setting of the issue of IA effectiveness.

Thus, examining budgetary public sectors IA effectiveness in developing countries could contribute to address the gap in the literature. The study identify the factors determining the effectiveness of IA, which were used repeatedly by the previous researchers in different settings, in budgetary public sectors according to the framework created by George et al. (2015) & Tadiwos (2016) that are quality of IA, competence of IA team, independence of IA, and management support. Therefore, this study aimed to provide evidence on the factors that determine the effectiveness of IA in budgetary public sectors.

1.4. Research Questions

The researcher has raised the following research questions;

1. What is the impact of competent internal audit staff to determine IA effectiveness?
2. What is the influence of organizational independence of internal auditors for IA effectiveness?
3. What is the level of internal audit work quality to affect IA effectiveness?
4. What is the effect of management support given to internal auditors for IA effectiveness?

1.5. Objective of the Study

1.5.1. General Objective

The overall objective of the study is to identify determinants of Internal Audit effectiveness in selected budgetary public sectors in Ethiopia.

1.5.2. Specific Objectives

The study tried to achieve the following specific objectives that are related with the research hypothesis.

1. To examine internal auditor's competency to the effectiveness of internal audit in selected budgetary public sectors in Ethiopia;
2. To investigate internal auditor's independence to the effectiveness of internal audit in selected budgetary public sectors in Ethiopia;
3. To measure internal audit work quality to the effectiveness of internal audit in selected budgetary public sectors in Ethiopia; and
4. To examine the management support for the effectiveness of Internal Audit in selected budgetary public sectors in Ethiopia.

1.6. Research Hypotheses

As per well observed theoretical & empirical literature the researcher tried to develop the following guiding research hypotheses. They are formulated to achieve the general and specific objectives.

1. H 1: Competence of IA teams is positively related with the effectiveness of IA.
2. H 2: Independence of IA is positively related with the effectiveness of IA.
3. H 3: Quality of Internal Audit Work is positively related with the effectiveness of IA.
4. H 4: Management supports are positively associated with the effectiveness of IA.

1.7. Significance of the Study

The study is believed to make contributions to IA theory and practice. The points that follow explain how the study contributes in several ways:

The study extends IA theories by combining agency, institutional, and communication theory to understand the determinant of IA effectiveness. The study adds to the existing knowledge on budgetary public sectors effectiveness of IA.

Due to the lack of IA research and the fact that the limited previous IA research has focused mainly on developed countries, this study provides empirical evidence from a developing country that may contribute additional insight to the literature and enhance understanding of the global configuration of the IA profession, particularly in Ethiopia where there has been relatively little research conducted regarding IA.

Most prior literatures regarding on IA effectiveness were made through either quantitative or qualitative method (Mihret, et al., 2010; Abu-Azza, 2012). The study expects to expand the limitation in literature regarding research method through the study in mixed method research (Abu-Azza, 2012; Migiro & Magangi, 2011; Tadiwos, 2016).

It can help budgetary public sectors in Ethiopia and in other countries with same settings to evaluate their IA. That is the finding of the study identified the gaps in the effectiveness of IA in budgetary public sectors in Ethiopia.

There is a limitation of literature on the area of effectiveness of IA in Ethiopia especially in case of budgetary public sectors (Mihret D. G., 2010; Shewamene, 2014). So, the study contributes to the existing literature regarding the effectiveness of IA in budgetary public sectors and other related sectors.

The findings of this research provides multipurpose information to different users, including budgetary public sectors, government, policy planners, academicians and the public at large and it is useful to the top management.

The study identified future research areas that have advantage for future researchers to conduct further study in this study area.

1.8. Scope of the Study

The study would be more successful if it is conducted in all budgetary public sector offices but it is out of the touch of the individual researcher. Therefore, the researcher restricted the study to 17 selected budgetary public sectors in Ethiopia which are located in Addis Ababa and focused on IAD staff, external auditors and inspections department staff of MoFEC in relation with effectiveness of IA.

1.9. Limitation of the Study

The study results were based on the perceptions of the participants in spite of the researcher's effort to gather the necessary information as objective as possible. And also the results of the study cannot be generalized to internal audit functions in other countries public sectors than Ethiopia because each country has its own nature and culture. In addition, the findings of the study are not necessarily generalizable to the internal audit function in other setting of developing or developed countries.

1.10. Organization of the Study

The study report divided into five chapters. Chapter one is the introduction part which contains background of the study, background of the company, statement of the problem, research objective, research questions, research hypothesis, significance of the study, scope of the study, limitation of the study, and organization of the research paper. In chapter two a discussion of basic concepts of auditing (Internal auditing), role of internal auditing, internal auditing theories, and effectiveness of IA, conceptual framework, and literature gaps included. Chapter Three contains research methodology; research design; research methods; ethical considerations procedure for data collection and relationship between research objective, research hypothesis, and source of data. Chapter four have tried to report and analyze the results and a discussion thereon. In the final chapter that is Chapter Five, findings and conclusions summarized, recommendations are forwarded and suggestions for further research are given.

CHAPTER TWO: LITERATURE REVIEW

2.1 Theoretical Review

This part of the research aimed to draw a picture in mind about what theories say about effectiveness of IA. It provides a review of the literature on IA, IA theories which draws on agency, institutional, and communication theory and background of the study area.

2.1.1 Basic Concepts of Internal Auditing

A comprehensive definition of auditing expressed in Arens, Elder, & Beasley (2012) as follows: “Auditing is the accumulation and evaluation of evidence about information to determine and report on the degree of correspondence between the information and established criteria. Auditing should be done by a competent, independent person. ”

According to Arens et al. (2012), Auditing can be classified based on the primary audit beneficiaries into two: External Audit and Internal Audit. The auditors who act in such type of audit are known as External Auditors and Internal Auditors respectively. According to Arens, et al. (2012), external auditors are those who are not the employee of the audited company and they provide a report on the financial statements prepared through checking whether the report show a true and fair view of the financial performance of the company.

Internal audit is a cornerstone for good governance in the public sector (Goodson, Mory, & Lapointe, 2012). Given that the Ethiopia government is the largest and principal employer and the institution that allocates public funds, namely the budget for all budgetary organizations, it needs a functional mechanism of responsibility to give special attention to the management of public finances in accordance with the applicable law. Internal audit is a very important element in public sector governance, as it supports the role of government oversight, insight and foresight (Goodson et al. 2012). According to this source, internal audit is the key to good governance of public finances.

2.1.2 The Role of Internal Auditing

Asare (2009) asserted that the role of internal audit can be identified as involving three main elements, namely the evaluation and improvement of risk management, control and governance process. The three elements are further discussed below as reinforcements of the fundamentals of an internal audit function in the public sector. Risk management, control and governance encompass the policy and procedures established to ensure the achievement of objectives and include the appropriate assess of risk, the reliability of internal and external reporting and accountability process, compliance with applicable laws and regulations and compliance with the behavioral and ethical standards set for public organizations and employees. Internal auditors can provide independent evaluation of risk management systems and internal control systems, thereby providing assurance. This can be complimented with assistance to management within this area, thus providing consultancy (Sarens & Beldee, 2006b).It is mandatory to enhance the quality of IA activities and processes (Ramachandran, Subramanian, Kisoka, & I, 2012).

Risk management

According to the Australian Department of Finance and Deregulation, risk management is an important responsibility for any public sector entity for effective and efficient use of resources. It defines risk management as follows;

Risk is the possibility of an event or activity impacting adversely on an organization, preventing it from achieving organizational outcomes. Risk management comprises the activities and actions taken to ensure that an organization is conscious of the risks it faces, makes informed decisions in managing these risks, and identifies and harnesses potential opportunities.

Managing risk well requires careful consideration of the key concepts of minimizing loss, maximizing opportunities and preparing for uncertainties (Sarens & De Beelde, 2006b).

The demand for proper risk management strategies in the public sector emanates from the complexity and dynamism of the operating environment, ever increasing needs of society coupled with general unpredictability pattern and dwindling of resources for national development. The internal auditors role in risk management involves assessing and monitoring the risk that organization faces, recommending the controls required to mitigate those risks and evaluating the trade-offs necessary for the organization to accomplish its strategic and operational objectives. Griffiths (2006) asserted that internal auditing provides independent and

objective assurance to an organization's management that its risks are being mitigated to an acceptable level, and reports where they are not.

Asare (2009) argued that, Moving towards risk-based internal audit will require a foresight function of monitoring and advising on the improvement of program efficiency and effectiveness and mitigating risks that hinder the achievement of organizational objectives.

Control

Management control in the public sector includes all the policies and procedures put in place by management and the management of public sector entities aimed at promoting accountability of resources. Another term for management control is internal control. In the public sector, controls are mainly in-built in the public financial management system. Internal audit has the key function of reporting to the senior management in the public sector entities on the functioning of the management control systems and recommending improvements where applicable.

According to Baltaci & Yilmaz (2006), the effort to reform a fiscal system should include internal control and audit due to crucial role they play in enhancing accountability and effectiveness. Internal auditing provides both government and related parties with powerful tool for understanding the extent to which the public institution in question has delivered on budget and effective services. Internal auditing activity has become an essential internal assurance mechanism in public financial controls and tool for monitoring and evaluating managerial activities prior to external evaluation by external auditors. Internal Auditors in the public sector work with management to improve internal controls and to ensure compliance with applicable laws.

Internal audit activities further enhance transparency, fairness, reduce corruption and ensure value for money in public procurement which constitutes a huge portion of government expenditure and is an area that is often vulnerable to conflicts of interest and corruption of public officials (Asare, 2009). According to Szymanski & Ross (2007), control systems play an important role in enhancing the accountability and transparency of public procurement system and hence in detecting and preventing corruption. Such systems should include adequate independent internal control and audit with a clear coordination of all control mechanisms.

However, internal auditing as a control measure does not only minimize the opportunities for corruption through the verification of procurement processes but also ensure effective physical monitoring of capital items procured and actual utilization to avoid fraud and abuse.

Internal audit adds value through improving the control and monitoring environment within organizations to detect fraud (Coram, Ferguson, & R, 2007). The very presence of internal audit review in an institution serves as a deterrent measure on the assumption that any fraud perpetuated may be uncovered. Good governance principles require that audit committees or similar bodies, work closely with internal auditors in fraud risk evaluation and investigation especially when recent trends suggests perpetration by senior management in collusion with other employees.

Governance

Public sector governance relates to the means by which goals are established and accomplished. It also includes activities that ensure government creditability, establish equitable provision of services, and assure appropriate behavior of government officials whilst reducing the risk of public corruption (IIA, 2006).

According to Australian National Audit Office ANAO (2003), public sector governance has a very broad coverage, including how an organization is managed, its corporate and other structures, its culture, its policies and strategies and the way it deals with its various stakeholders. The concept encompasses the manner in which public sector organizations acquit their responsibility of stewardship by being open, accountable and prudent in decision-making, in providing policy advice, and in managing and delivering programs.

The broader nature of public sector governance necessitates an effective internal auditing function in order to meet the demanding responsibilities imposed by stakeholders. Internal audit can help to improve governance processes by focusing on how values are established to ensure effective and efficient control and management of public sector entities. The complexity of the public sector operating environment requires that the internal audit structural design, approach, practice and scope are reformed to ensure open, accountable and product decision-making with all public sector organizations (Asare, 2009).

According to IIA (2006), internal audit role in governance are broadly identified to be twofold. Firstly, internal auditing provides independent, objective assessment on the appropriateness of the organizations governance structure and the operating effectiveness of specific governance activities. Secondly, they act as catalysts for change, advising or advocating improvements to enhance the organizations governance structure and practices.

The Institute of Internal Auditors Standard 2110 on the role of Internal auditors must play in governance process states that internal auditing activity should assess and make appropriate recommendations for improving the governance process to accomplish the following objectives: making strategic and operational decisions; overseeing risk management and control; promoting appropriate ethics and values within the organization; ensuring effective organizational performance management and accountability and effectively coordinating the activities of, and communicating information among the broad, external and internal auditors ,other assurance providers, and management and management (IIA,2016)

Internal audit is the mechanism through which information about the effectiveness of the quality system is gathered by auditors selected from within the company but, who are independence of the area, function or procedures being audited. Or the Internal Audit Function (IAF) is the mechanism through which the operation of the quality management system is formally monitored and in accordance with the documented quality system is assured (MoFED, 2004).

On the other hand, internal audit is a critical appraisal of functioning of various operations of an enterprise including the functioning of the system of internal check. Exceptions from normal functioning of internal check system are exposed in internal audit. Accuracy, completeness, reliability and timeliness of accounting information are tested and reported for remedial action. Non-accounting areas with the operational side of enterprise are critically studied, analyzed and weakness of the system or practice with inefficiency, wastage and frauds are brought to the notice of the management. Suggestions for increasing the effectiveness of the system, for improving the productivity and profitability of business practices are offered. Internal audit is the independent appraisal of activity within an organization for the review of accounting, financial and other business practices as a protective and constructive arm of management. It is a type of control which functions by measuring and evaluating the effectiveness of other types of control (Tandon, Sudharsanam, & Sundharabahu, 2010).

2.1.3 Theories of Internal Audit

A new approach which is adopted from Endaya & Hanefah (2013) is a combination of three theories: agency, institutional, and communication.

A. Agency Theory

Agency theory is all about the relationship among the organization owner(s) and its top management (Adams, 1994). It supports a positivist group of philosophy (Changwony & Rotich, 2015; Adams, 1994). In corporate form of organizations the top management manages the whole organization on behalf of the owners as an agent. As a result of this, management can use its power for personal benefits. Therefore, it is unquestionable to employ an independent body (internal auditors) which control whole activities of the organization to protect the owners from such theft (Peurseem & Pumphrey, 2005). Internal auditors as a professional must perform their activity perfectly (Endaya & Hanefah, 2013). To perform their activity professionally and perfectly, they must have the ability to make well-justified judgments, educational and professional certification, and experience in conducting an audit (Greenawalt, 1997; Mihret & Yismaw, 2007). Internal auditors with such a quality would increase the board of directors and audit committee confidence level (Endaya & Hanefah, 2013).

Internal auditing is used to reduce the problems for the sake of the organization stakeholder's by controlling the top management activities. Internal auditors are the agents of audit committee and the board of directors' to evaluate the top management performance (Endaya & Hanefah, 2013). However, internal auditors may have different motives (financial rewards from managers, personal relationships with managers) to act against the board of directors interest and its audit committee. It is as a result of the power given to top managers' like in deciding the future positioning of internal auditors and their salaries (Endaya & Hanefah, 2013). The existence of an effective audit committee with absolute authority in the organization has resolved such problems (Endaya & Hanefah, 2013). Agency theory is more relevant to discuss the problems which arise between top managers and owners of an organization.

Agency theory is so important to points that organizational management and control structures tend to confirm to stakeholders expectations. Xiangdong (1997) explained the role of IA over an economy through agency theory. Similarly, Fadzil, Haron, & Jantan (2005) discussed bonding costs paid to internal auditors in achieving of organizational interest in respect of agency theory.

B. Institutional Theory

Institutional theory explains about institutional pressures effect on organizational structures and practices (Abbu-Azza, 2012). Institutional pressures can include external or internal sources (Mihret, Mula, & James, 2010; Zucker, 1987). According to DiMaggio & Powell (1983) there are three institutional pressures coercive, normative, and mimetic. Similarly, Arena & Azzone (2007) identified the institutional pressures that impact both individuals in part and organization as a whole as laws and regulations (coercive isomorphism); choices of other organizations (mimetic isomorphism); and consultation or professional bodies (normative isomorphism). Isomorphic processes can increase the efficiency of IA activities of an organization. Because being similar to other organizations in their industry rewarded organizations (DiMaggio & Powell, 1983). This similarity can make easier to transact with other organizations to attract carrier- minded staff, to be acknowledged as legitimate and reputable, and to fit into administrative eligibility (Abbu-Azza, 2012). Coercive isomorphism is a pressure which applied to establish (Al -Twaijry, Brierley, & William, 2003).

Institutional theorists consider organizations as members of an organizational field, which comprises several organizations or industries that are interrelated in some way. This interrelation leads organizations to influence others (Mihret, et al., 2010). Arena & Azzone (2006) indicate that institutional theory provides a means of understanding the conforming and legitimating processes which affect the development of IA. Institutions are social structures that have attained a high degree of resilience (Changwony & Rotich, 2015).

Normative isomorphism is a pressure which develops from increased proficiency within organizations. It has a positive relationship with institutional changes due to an organization's recognition of professions (Abbu-Azza, 2012). There are two aspects of professionalization which are important for sources of isomorphism (DiMaggio & Powell, 1983). The first is the formal education which is provided by higher education professionals. To this regard, internal auditors must undertake courses about internal auditing in higher education institution level. Secondly, training programs produced by professional institutions. In this regard, internal auditors must qualify like a Certified Internal Auditors (CIA) or establishing a chapter of the Institute of Internal Auditors (IIA) in their organization. Therefore, higher education and professional training institutions are important for the development of organizational departments like internal auditing.

Several studies in internal audit have adopted an institutional theory (Abbu-Azza, 2012; Al - Twaijry et al. 2003; Arena & Azzone, 2007; Changwony & Rotich, 2015; Mihret et al. 2010). Institutional theory is relevant for this study according to the following reasons. Firstly, institutional theory includes IA practices which are part of organizational structures and it helps to discuss such organizational phenomena without a limited set of organizational goals (Abbu-Azza, 2012). Secondly, institutional theory supports countries where the equity market is underdeveloped like Ethiopia (Mihret et al. 2010). Therefore, this study draws on isomorphic processes of normative and coercive as suggested by institutional theory to investigate the factors determining IA effectiveness.

C. Communication Theory

Both IIA Standards and previous studies support the study of internal auditing according to effective communication theory. Earlier studies confirm the importance of effective communication skill in organizations specifically in Internal Audit Department (IAD) (Golen, 2008; Hahn, 2008). In ability to communicate effectively can be related to inappropriate information or communication complexity (Endaya & Hanefah, 2013). Both little and much information are not suitable to communicate effectively (Hahn, 2008). Internal auditors effective communication can be explained through the existence such effective communication between internal auditors and auditees, internal auditors and organization members, and internal auditors themselves (Endaya & Hanefah, 2013). Effective communication skill is a need for internal auditors and internal audit effectiveness since this study examined such a skill through communication theory.

D. Linking Theories

Research in auditing has traditionally been conducted under the framework of agency theory (Pilcher, Gilchrist, & Singh, 2011). However, Mihret et al. (2010) argued that neo classical economic theories including agency theory were the main reason for limited research in IA. Thus, they suggested institutional theory. The use of more than a theory in combination enables considering social and behavioral aspects and the economic dimensions. Some studies have adopted both agency and institutional theories (Abbu-Azza, 2012; Mihret et al. 2010). In this study, while agency theory mainly employed to understand economic motives that make internal auditors seek in achieving their personal interests even if they were against the organization

member interests or organizational interests. Institutional theory informs about the level of compliance with International standards for the Professional Practice of Internal Auditing (ISPPIA) and its impact on the companies' support of IA. Communication theory used to explain the importance of effective communication between internal auditors and auditees.

2.1.4 Public Sector Governance

The public sector consists of governments and all publicly controlled or publicly funded agencies, enterprises, and other entities that deliver public programs, goods, or services (Goodson et al. 2012). A public sector organization may exist at any of these four levels which include international, national, regional and local government. On the other hand, public sector governance encompasses the policies and procedures used to direct an organization's activities to provide reasonable assurance that objectives are met and that operations are carried out in an ethical and accountable manner (Karanja, 2010, as cited in Wondwossen, 2016).

Based on the above scenario, it is therefore imperative that the public sector governance and performance needs to be improved. In order to make that happen, the internal audit unit of the public sector must play an important role in ensuring the transparency and accountability of the public sector governance (Goodson et al. 2012).

2.2 Empirical Review

As the main aim of the research is to assess the effectiveness of internal audit in the public sector offices, different authors and researcher's idea and recommendations regarding the related topic of internal audit effectiveness are analyzed and presented below.

2.2.1 Internal Audit Effectiveness

Mihret et al. (2010) state that the value-adding role of IA presumes that IA is effective, therefore, IA effectiveness should be studied to assess the value-adding potential of IA. There are two basic reasons why it is important to examine IA effectiveness. One is that it is an indication of the quality of performance and can describe whether or not the IA function is performing in a satisfactory manner. The second is that the examination can serve as a motivator for an individual or an organization to improve their performance. Mizrahi & Ness-Weisman (2007) maintain that, in general, there are two important tools for achieving managerial accountability in the policy-making process, namely, evaluation and auditing. Nonetheless, as explained earlier, to

date very few academic studies have been conducted on IA effectiveness, and despite the general suggestion in relation to an IA paradigm shift, research has provided mixed findings on IA effectiveness (Mihret et al. 2010), and has assessed IA effectiveness differently.

For example, Al -Twaijry et al. (2003) studied the development of IA in the Saudi Arabian corporate sector by using an institutional theory perspective, and taking a sample of 135 companies listed on the Saudi Stock exchange. They highlighted that it is important for internal auditing to comply with ISPPPIA to be considered a value added activity. Therefore, they used questionnaires and interviews to assess the extent of compliance of IA practices with ISPPPIA in terms of quality of IA staff; quality of IA work; an appropriate corporate environment; and support of top management to examine IA effectiveness. The results of this study show that IA in the Saudi Arabian corporate sector is ineffective and it is not a value adding service to organizations. IA work in the Saudi Arabian corporate sector was mainly focused on checking reliability of financial records, compliance with rules and regulations, as well as evaluation and examination of internal controls. The study's results also highlighted that managers sometimes do not implement the recommendation of internal audit departments. Further, the results indicate that IA may sometimes be decoupled, that is, the function may not operate in compliance with ISPPPIA—despite stakeholders' expectations of compliance. However, Al -Twaijry et al. (2003) focused solely on the Saudi Arabian corporate sector.

Furthermore, data was collected only from IA directors within organizations. The authors suggest that future research is necessary to evaluate IA effectiveness accurately, because factors used in this study may have acted to reduce the value of IA.

Mihret & Yismaw (2007) studied IA effectiveness in public sector higher educational institutions in Ethiopia. The study attempted to introduce a new perspective for evaluation of IA effectiveness by using a model which consisted of four potential factors which may impact on IA effectiveness, namely, IA quality, management support, organization setting and auditee attributes. The results indicate that IA is ineffective in terms of proficiency, planning, recommendations and limitations to the scope of work. Furthermore, the study revealed that audit quality and management support are the two most important factors influencing IA effectiveness respectively. These researchers also suggest a need for future research to fully understand IA effectiveness in the public sector by identifying other variables affecting IA

effectiveness. Their study also focused solely on one public sector—higher educational institutions in Ethiopia.

Yee, Sujan, James, & Leung (2008) studied the role and effectiveness of IA in Singapore. They studied the perception of Singaporean managers on IA practice. Specifically, they considered whether IA is viewed as a partner with management or as a watch dog for routine compliance mechanisms. In contrast to prior research, this study applied Marxist economic theory to the IA function. Furthermore, in contrast to Saudi Arabia Al -Twaijry et al. (2003) and Ethiopia Mihret & Woldeyohannis (2008); Mihret & Yismaw (2007), Yee et al. (2008) overall findings were that 1) the IA function in Singapore is improving and has become an integral part of organizations' structures as a value adding service; 2) in general, managers are satisfied with IA; and 3) the IA function can play a value adding role in modern organizations by expanding its scope of services to embrace operational areas. As Yee et al. (2008) explain, IA may allow a company to improve its efficiency so that during times of economic downturn it is their competitors who suffer the greatest share of loss of surplus-value and capital.

According to Marx (1981), in equilibrium, profit-making companies all earn a general rate of profit on invested capital but in times of downturn firms try to force losses on to their competitors. They also recommend the need to explore the role and effectiveness of IA in the Middle-East, because in a developing country the IA function might be important in ensuring that capital is not wasted through inefficiency, fraud or corruption.

Cohen & Sayag (2010) study explored the determinants of IA effectiveness by developing a model of its determinants. The model consists of six potential factors which may impact on IA effectiveness, namely, the sector of the organization; professional proficiency of internal auditors; quality of audit work; organizational independence; career and advancement; and top management support. They state that IA effectiveness is an important concept rarely examined in the academic literature. In the few studies dealing with IA effectiveness, mostly there was a concentration on the external auditor and whether the external auditor utilizes the work of the internal auditor. The results of Cohen & Sayag (2010) study suggest that there are very high correlations between perceptions of top management support and IA effectiveness. In other words, their study emphasizes the importance of perceived top management support for the effectiveness of IA; and the results indicate positive relationships between greater quality of the auditing work, and greater organizational independence and IA effectiveness.

However, no significant correlations were found between the variables of professional proficiency, career advancement and auditing effectiveness. The authors indicate that future research should consider organizational independence and the quality of the auditing work as determinants to dimensions of IA effectiveness.

Mihret et al. (2010) apply institutional theory and Marx (1978) theory of the 'circuit of industrial capital' to relevant theoretical and empirical literature to develop propositions and suggest a research agenda on the antecedents and organizational performance implications of IA effectiveness.

Similar to that of Al -Twaijry et al. (2003), their study employed compliance with ISPPA as an indicator of IA effectiveness. It relates to the normative standards (IIA standards) that internal auditors are expected to follow. The authors suggest that the dynamics prevailing in an IA setting impact on IA effectiveness. The extent of internal audit's level of compliance with ISPPA could serve as an additional approach to assess IA effectiveness. They also indicate that empirical testing should not require the adoption of a hard-core positivist mindset or an exclusive focus on agency theory.

Arena & Azzone (2009) state that, in light of recent changes in the role of the internal audit function, their study attempts to identify the organizational drivers of IA effectiveness in Italian companies. They indicate that the importance of IA has increased in recent times because of its links to the internal control-risk management system. Their study proposed a model to measure IA effectiveness that included IA effectiveness as a dependent variable; and resources and competencies of internal audit team; the audit processes and activities; and the level of interaction between IA and audit committee as independent variables. The results of this study suggest that internal auditors need to create new skills to perform activities that are more closely related to risk management, because risk management needs auditors who are able to deal with different sources of risk and who are also able to increase managers' confidence in risk management and control. The results of this study also explain that IA effectiveness is influenced by the characteristics of IA, the audit processes and activities, and the organizational links. Arena & Azzone (2009) state that: Internal audit effectiveness increases in particular when the ratio between the number of internal auditors and employees grows, the chief executive officer is affiliated to the Institute of Internal Auditors, the company adopts control risk self-assessment techniques, and the audit committee is involved in the activities of the internal auditors.

Furthermore, the authors highlight the need for more detailed analysis of the internal auditor's competencies in order to understand which specific skills can influence internal auditors.

2.2.2. Determinants of Internal Audit Effectiveness

2.2.2.1 Internal Auditors Competence

IA team requires a wide range of competencies to improve organizational and department performance with a value adding role (Burnaby, Abdolmohammadi, Hass, Sarens, & Allegrini, 2009). Authors expressed such competency in different aspect. For instance, Baharud-din, Shokiyah, & Ibrahim (2014) and Belay (2007) relate competence to the ability of an individual to perform a job or task properly based on the educational level, professional experience, and the effort of the staffs for continuing professional development. To this regard Baharud-din et al. (2014) measure competency in terms of academic level, experience, skill, and training and as development effort of IA team. According to Mihret et al. (2010) competence requires knowledge and professionalism which acquire from education, job training, and experience. Similarly, internal auditors must be competent in their work and educational level to enhance effectiveness of IA (Burnaby, et al., 2009; Al-Twajjry, et al., 2003; Abu-Azza, 2012).

Libby & Frederick (1990) indicates that experience is an important tool in enhancing auditor's knowledge. In addition, Bonner & Lewis (1990) state those years of experience is considered as an indicator of auditors 'knowledge and expertise. Competence requires knowledge and professionalism that the auditor should acquire from education, on-the-job training, and experience. Engle (1999) categorizes the most important benefits that are realized from competent internal audit staff, namely, 1) staff be able to conduct useful audits that effectively contribute to the achievement of organizational goals; 2) internal auditor's competence increase the probability that external auditors use the work of internal auditors, leading to a potential reduction in the cost of external audits; and 3) internal auditors who are familiar with the organization under audit are in an ideal position to provide information about financial statements.

In addition, internal auditors need to acquire a broad range of skills, for example, communication, interpersonal, knowledge of general business, and information technology and technical knowledge of auditing (Hass, Abdolmohammadi, & Burnaby, 2006; Mihret & Woldeyohannis 2008). According to ISPPIA (1210 Proficiency), internal auditors must possess

or obtain the knowledge, skills and other competencies needed to perform their responsibilities (IIA, 2011). This view is supported by Fitsum (2017) who indicate that internal audit departments should have internal auditors who possess a variety of skills to enable them to undertake audits of areas beyond financial activities. Gramling & Myers (1997) found that certification of internal auditors is perceived as an indicator of competence. For example, internal auditors should have reasonable computer skill levels to carry out the audit tasks. Burnaby and Klein (2000) indicate that auditing has become increasingly complex as businesses globalize and information is stored in computers. Therefore, in this new environment of information technology, the ability of internal auditors to operate within this environment is essential.

2.2.2.2 Internal Auditors Independence

The concept of independence is generally used to mean the ability of the auditor to be fair and objective in his/her review and appraisal and not to be under undue pressure from any party to the extent that this could bias his/her opinion. The IA's Standards for Professional Practice of Internal Auditing (glossary) defines independence of internal auditors as:

‘The freedom from conditions that threaten objectivity or the appearance of objectivity such threats to objectivity must be managed at the individual auditor, engagement, functional, and organizational levels (IIA, 2011b).

Independence of IA has been identified by the IIA, the American Institute of Certified Public Accountants (AICPA) and others as crucial to the viability of the IA function. The IIA has issued a number of attribute standards under which the IIA explored the issue of independence in the ISPPIA, more specifically, the Standard 1100 Independence and Objectivity. This standard states the internal audit activity should be independent, and internal auditors must be objective in performing their work‘. The standard 1100 states Independence is the freedom from conditions that threaten the ability of the internal audit activity to carry out internal audit responsibilities in an unbiased manner (IIA, 2016).

A large body of research has examined auditor independence, but this has been predominantly in the context of external audit (Gendron & Bedard, 2006). In other words, limited prior research has focused on internal auditor independence. In the few studies dealing with IA effectiveness, they have mostly concentrated on the external audit and whether the external auditors utilize the work of the internal auditors (Cohen & Sayag, 2010). However, recently, there has been more

attention to issues associated with the independence of IA (Christopher, Sarens, & Leung, 2009; Stewart & Subramaniam, 2010). This growth in research, as explained earlier, relates to the way the role of IA is gradually being transformed from primarily being concerned with checking the propriety of transactions and records and a systems evaluation approach, to becoming a value-adding service with a broader scope of activities, including assisting organizations in the management of risk. Subsequently, the role of IA has developed to a pre-eminent position of advising the board of directors, although tensions remain between this consulting role and the need for independence (Mihret et al. 2010).

IA services derive their value and credibility from the fundamental assumptions of independence of mind and independence in appearance (Stewart & Subramaniam, 2010). Vanasco, Skousen, & Santagato (1996) point out that without independence the desired results of internal auditing cannot be realized.

Therefore, the position of IA in an organization is bounded; it is a corporate unit that should have a large degree of autonomy and independence in order to perform its activities in a proper manner (Arena & Azzone, 2009), and the independence of IA activity is a prerequisite to providing a wide range of IA services (IIA, 2016). Similarly, Clark, Gibbs, & Schroeder (1981) found that the independence of the internal audit department is the most important criteria influencing IA services. Bou-Raad (2000) believes that the strength of an internal audit department is assessed according to the level of IA independence from management and from other operating responsibilities. Independence of internal auditors increases the internal auditor's effectiveness because this independence may reduce the level of conflict between loyalty to the employer and loyalty to specific managers, and gives auditors an encouraging work environment in which they can perform their task without pressure. Thus, internal auditors should be sufficiently independent from the auditee to be able to conduct their work objectively and without interference (Cohen & Sayag, 2010). Therefore, a key characteristic of an effective internal audit department is the independence with which it operates.

In essence, two factors might influence the independence of IA. Firstly, the organizational independence of IA functions and secondly, the individual independence of internal auditors Goodwin & Yeo (2001). Organizational independence can be explained as the relationship between the internal audit activity and the audit committee. Whereas, individual independence of internal auditors is all about individual staffs in IAD independence and objectivity with look

upon the use of IA activity as a ground for top management level (Goodwin & Yeo, 2001). To this view, organizational independence can be fulfilled through reporting IA activities to higher bodies in the organization. While, individual independence can be fulfilled through staffs impartiality, unbiasedness, and avoiding of conflict of interests (IIA, 2001).

2.2.2.3 Internal Audit Quality

The internal audit departments should prepare an audit plan that identifies IA's objectives and strategies, and the audit work they intend undertaking. Prior empirical research on IA effectiveness (Al -Twaijry et al. 2003; Mihret et al. 2010) suggests quality of internal audit planning is an indicator of IA effectiveness. Mihret et al. (2010) state that work performance is further operationalized into quality of internal audit planning and execution, and quality of internal audit reporting and follow-up.

Planning is generally considered a vital audit activity and it includes preparing a strategic plan, annual plans and programs for individual audit assignments (Mihret & Yismaw, 2007). According to ISPPA, the IA director must establish risk-based plans consistent with the organization's goals to determine the priorities of the IA activity (IIA, 2011d).

Time budgets are also a necessary management tool for evaluation of internal audit departments (Azad, 1994). Santiso (2006) states that, the timeliness of reports and the credibility of the audit findings are considered an indicator of IA effectiveness. Internal audit departments use time budgets, prepared in accordance with audit programs, to plan and monitor auditing assignments. Furthermore, another important factor established by prior research (Al -Twaijry et al. (2003); IIA (2011d); Mihret & Yismaw (2007) and Ziegenfuss (2000) is the importance of IA programs to monitor internal auditor work performance. This IA programs must be approved before implementation.

IA fieldwork is all about the performance what the auditors planned in the initial stage (Mihret & Yismaw, 2007). At the time of IA field work, internal auditors are required to be careful while collection of evidence and evaluating the audittee status (Mihret A. G., 2011). Thus, internal auditors should give special attention to IA fieldwork. Because it is the vantage point of IA works. Working papers are used in the field work stage audit process (Arens et al. 2012). Audit programs can be supported by audit working papers (Tandon et al. 2010). Working papers can be used to document evidences so as to make a report, provide reference during the process of the

audit which assists audit plan, and evaluate IA activity (Ratliff, Wallace, Leobbecke, & McFarm, 1996).

The end product of any audit work culminate in writing of an audit report, but unlike the external auditor's report, the internal audit report is not standardized short -form in its content (Kinfu & Bayou, 2009). According to Sawyer & Vinten (1996) one of the roles of IA is to identify the main weaknesses of the organization and provide recommendations to such problems. Further, ISPPIA 2060 of IIA state that, the chief audit executive or audit director must prepare accurate audit reports which include significant risk exposures and control issues to senior management administratively and the board functionally (IIA, 2016). Consequently, the audit report of internal auditor requires a lot of imagination and creativity with communicative ability in its writing. Therefore, internal audit report should basically include: detail of purpose and scope of audit; description of tools and procedures of audit; findings, suggestions and opinions; and recommendations (Kinfu & Bayou, 2009).

The trust of external auditors on the work of internal auditors has grown quite fast (Ward & Robertson, 1980). The main reason for such trust on internal auditors is the quality of work performed by internal auditors (Schneider, 1984; Haron, Chambers, Ramsi, & Ismail, 2004; Mihret & Admassu, 2011).

2.2.2.4 Management Support

Management support is another critical factor that enhances IA effectiveness. In order for the internal audit department to be effective, the support of top management is absolutely critical. Boyle (1993) finds that the support of IA by top management was identified in his interviews as a critical validation of the fact that internal auditors should perform their work effectively. Mihret & Yismaw (2007) and Mihret & Woldeyohannis (2008) studies state that management support to IA is considered as a determinant of IA effectiveness.

According to Mihret (2010) management support to IA is identified as one of the factors that promise well for a good IA department profile. In addition, Zain, Subramaniam, & Stewart (2006) indicate that with the appropriate level and type of resources directed to the internal audit function, firms should subsequently reap the benefits in terms of the internal audit function aiding and supporting the external audit. Albercht, Howe, Schueler, & Stocks (1988) state that there are four factors that IA directors could develop to enhance IA effectiveness, namely, 1) top management support; 2) an appropriate corporate environment; 3) high quality internal audit

staff; and 4) an appropriate corporate environment. The authors also highlight that the visible support of top management to the internal audit department may be the single most important factor that enhances IA effectiveness. Furthermore, Sarens & De Beelde (2006a) find that the overall acceptance and appreciation of IA within the company is strongly dependent upon the support it receives from senior management. They also find indications that this support is related to the maturity of the internal audit function. Therefore, internal audit actively seeks this support by promoting and communicating its potential to add value. The IIA's Standards for Professional Practice of Internal Auditing (1110–Organizational Independence) recognizes that internal auditors should have the support of senior management and of the board so that they can gain the cooperation of auditees and perform their work free from interference (IIA,2016). According to this statement and based on above literature there is no doubt that top management support plays an important role in enhancing internal audit independence. Therefore, for effective work performance, internal auditors should have the support of top management and the board of directors. Management support is also important for an internal audit department to monitor management risk. Walker, Shenkir, & Barton (2002) state that enterprise risk management may not succeed without strong support in the organization from senior management because internal auditors have primary responsibilities related to risk identification and assessment and they are likely to be interacting with senior management on risk management implementation issues. Furthermore, top management support is crucial to the success of a variety of initiatives. Top management support is shown by the motivation provided by top management to internal auditors.

Abbu-Azza (2012) explains management support as a motivation provided by top management to internal auditors. These motivations were explained by Abbu-Azza (2012) as providing education and training programs to IA teams; adequate budget to IAD; bonuses and recompense to IA teams; and acceptance and implementation of IA recommendations.

Financial support can be expressed in terms of providing adequate budget to IAD and giving financial incentives (bonuses and recompense) to IA teams (Abbu-Azza, 2012). According to Paape (2007) adequate budget to IAD has a crucial role to have a competent IA team. In addition, such financial support has a positive influence on the independence of IA team (Mizrahi & Ness-Weisman, 2007). Gortiz (2004) argued that financial incentives through bonuses and recompense enhance the effectiveness of IA team in working area.

2.3 Summary and Research Gap

This chapter has provided a review of the literature on the internal audit effectiveness. To that end, it has attempted to arrive at a theoretical foundation for the study of IA effectiveness. And also the role of internal auditing in governance, risk management and control were examined in addition to the internal audit and its effectiveness in safeguarding resources.

The chapter also reviewed empirical literature on effectiveness of internal audit and its determinants. However, some of the literature highlighted that in order for IA to be considered as a value adding service to organizations it should be effective. Limited research was found to have been conducted in the specific area of IA effectiveness. The discussion in this chapter shows that there are no specific standards or recognized methods of evaluating IA effectiveness. Therefore, previous research has provided mixed findings on IA effectiveness, and has assessed determinants of IA effectiveness differently.

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

- Internal Auditor's role and its effectiveness have not been extensively studied. In other words, to date, there has been relatively little research conducted concerning IA effectiveness.
- The limited literature to date largely focused on private sector companies and in developed economies. As a result, to get the understanding of the global picture of the IA profession seems incomplete.
- In past decades, limited studies have been conducted in IA effectiveness in Ethiopia some researchers advocated further research and the need for a more comprehensive study on the issue of IA effectiveness.
- The limited researches conducted on Ethiopian public sectors, of which some of them in a single company and the others are a mix of Public Enterprise Share Company and Private Company.

The present research investigates the determinants of internal audit effectiveness in selected budgetary public sector offices based on Internal Auditors Competence, Internal Auditors Independence, Internal Audit Quality and Management Support.

2.4 Conceptual Framework

Based on Abbu-Azza (2012); Endaya & Hanefah (2013); Badara & Saidin (2014); George, Theofanis, & Arampatzis (2015) and Tadiwos (2016) study on IA; the researcher adopted conceptual framework on the factors determining effectiveness of IA as stated below.

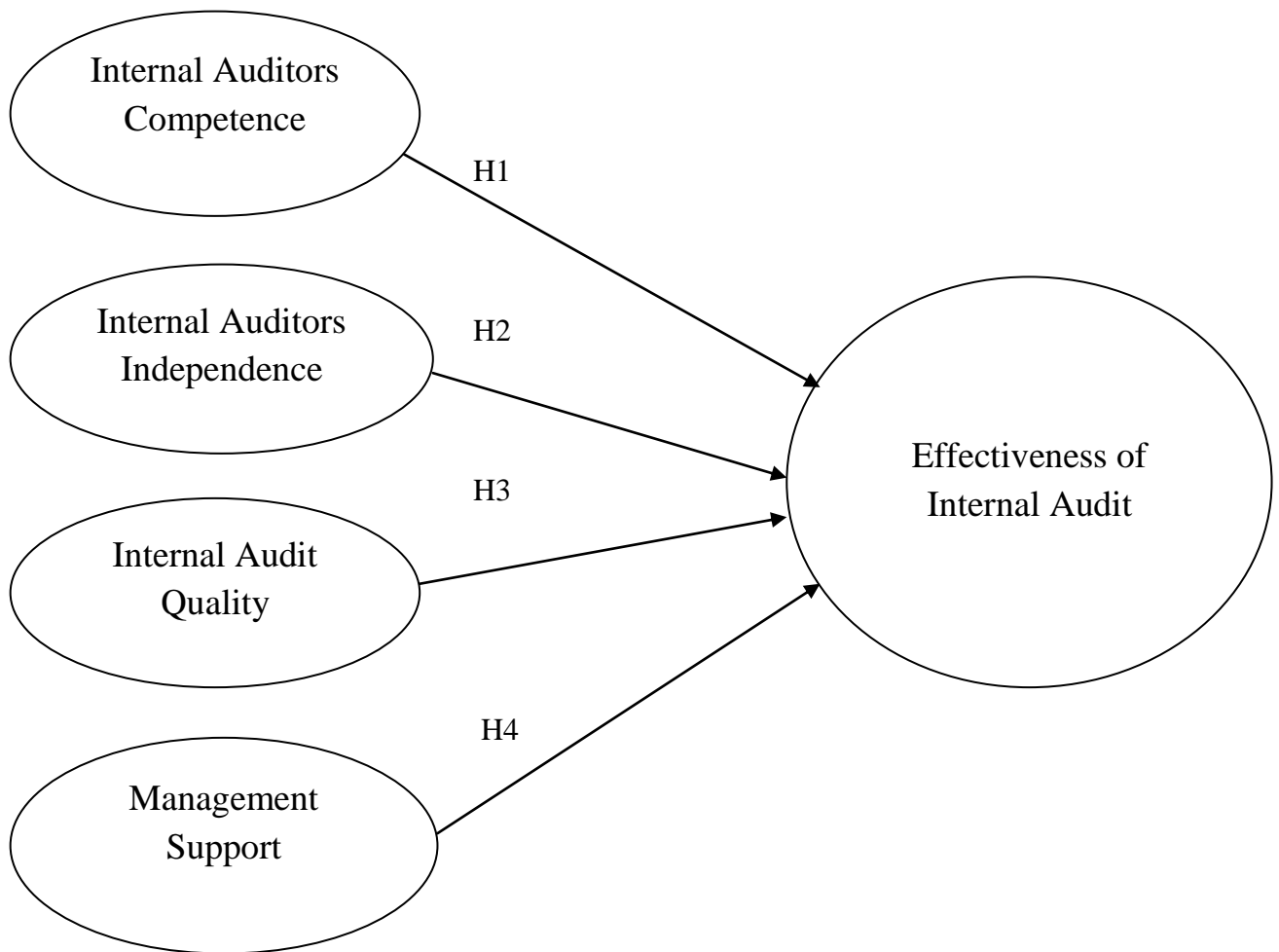


Figure 2.1: Conceptual Model for Effectiveness of Internal Audit in Public Sectors

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research Design

In this study the researcher used explanatory research to discuss the outcome of study. Explanatory studies capture the causal relationship between variables (Saunders, et al., 2009). In explanatory studies a situation or problem leads to the explanation of the relationship between variables. Therefore, studying the data in quantitative method through statistical tests such as correlation and regression in order to get the clearer view of the relationship explained in detail with reasons through qualitative data.

3.2 Research Method

Research methods may be understood as all those methods/techniques that are used for conduction of research. Research methods or techniques, thus, refer to the methods the researchers use in performing research operations. In other words, all those methods used by the researcher during the course of studying his/her research problem (Saunders et al. 2009).

The terms quantitative and qualitative are used widely in business and management research to differentiate both data collection techniques and data analysis procedures. One way of distinguishing between the two is the focus on numeric (numbers) or non-numeric (words) data.

3.2.1 Quantitative Research Method

It is predominantly used as a synonym for any data collection technique (such as a questionnaire) or data analysis procedure (such as graphs or statistics) that generates or uses numerical data. Quantitative study aim is to find data needed to generalize the result to the population as stated by (Marczyk, DeMatteo, & Festinger, 2005). For this purpose data gathered using self-administered survey.

3.2.2 Qualitative Research Method

It is used predominantly as a synonym for any data collection technique (such as an interview) or data analysis procedure (such as categorizing data) that generates or uses non-numerical data. Qualitative therefore can refer to data other than words, such as pictures and video clips.

In choosing your research methods you either use a single data collection technique and corresponding analysis procedures (mono method) or use more than one data collection technique and analysis procedures to answer your research question (multiple methods). This choice is increasingly advocated within business and management research (Curran & Blackburn, 2001), where a single research studies may use quantitative and qualitative techniques and procedures in combination as well as use primary and secondary data.

3.2.3 Data Sources and Collection Tools

Cross sectional survey is used for this study. When cross-sectional survey is used, data can be collected at one point of time not overtime like longitudinal (Creswell, 2009). Self-administered questionnaires, interviews, structured record reviews, and structured observations are types of surveys (Creswell, 2009).

3.2.3.1 Primary Data Collection Tool

Questionnaire

In this study the researcher applied self-administered questionnaire as of its advantages. Some advantages can be like lowest cost option; allow participants to think more about the questions, perceived as more anonymous, and a rapid data collection technique (Cooper & Schindler, 2006). Therefore, the survey conducted to know the determinants for the effectiveness of IA with regard to competence of IA team, independence of IA, quality of IA work, and management support. There are three ways of administering self-administered questionnaire including face to face, telephone, and mail (Marczyk et al. 2005). Since the return rate and objectivity in filling a questionnaire is high in face to face method (Marczyk et al. 2005). The researcher used a face to face method to administer a questionnaire.

The self-administered questionnaire developed by Mihret (2010) and Tadiwos (2016) used for this study. However, the researcher modifies and adds some questions with regard to their content to make the questions easy to understand to the respondents. The questionnaire is directly related with the research hypotheses and objective of the study. Two types of questionnaire are prepared for Internal Audit Department Staffs and for Inspection Department staffs of MoFEC & External Auditors of budgetary public sectors. The questionnaire is organized in two sections. The first part deals about respondent profile or general information. The general information section includes questions which are related with the respondent's

background and current status. The second part of Internal Audit Department Staffs holds 21 likert scales questions and also the second part of Inspection Department staffs & external auditor's holds 20 likert scales questions which are divided into five groups that are targeted to analyze research hypothesis in manageable, uniform and objective way. The first group is composed of questions which are about competence of IA team; the second group is composed of questions which are about independence of IA; the third group is composed of questions which are about quality of IA work; the fourth group is composed of questions which are about management support; and the fifth group is composed of question which is about effectiveness of IA. The language of the questionnaire is English. The samples of the questionnaires are attached in the appendix 1&2.

Mostly, likert scale questions have five degrees namely Strongly Agree, Agree, Neutral (Undecided), Disagree, and Strongly Disagree that are combined into a single composite score/variable during the data analysis process (Kothari, 2004; Boone Jr & Boone, 2012).

A “good” Likert scale is a scale which is balanced on both sides of a neutral option, creating a less biased measurement. The actual scale labels, as well as the numeric scale, may vary (Vanek, 2012). The researcher used five point likert-scales by indicating scores as follows:

(1) indicate strongly agree (2) agree (3) neutral (4)disagree and (5) indicate strongly disagree. The numbers indicate in the questions provided to feed ordinary scale measurement and to generate data suitable for quantitative analysis (Boone Jr & Boone, 2012). In this regard, the mean response less than 3.0 considered as an agreement with the statement of the questionnaire whereas, the mean response greater than 3.0 considered as a disagreement with the statement of the questionnaire (Boone Jr & Boone, 2012). In addition, the standard deviation results of less than 1.0 indicated that the respondent's perceptions close to one another. But the standard deviation results of greater than 1.0 indicated that the respondent's perceptions vary each other (Shewhart & Wilks, 2004).

3.2.3.2 Secondary Data Collection Tool

Document Review

Document review is relevant to enhance the quality of finding through quantitative methods and support the interview data (Leedy & Ormrod, 2005). This technique is the most means of gathering data to make the study rich in information. As written information, it also saves the

researcher time in addition of expanding the information (Yin, 2003). It is also used by prior IA researchers (Abu-Azza, 2012; Mihret, 2010; Tadiwos, 2016). The document review method of data collection is adopted to gather relevant information from documents held in the selected budgetary public sectors in relation to IA. So, IA reports, external audit report, plans, programs, working papers, organizational chart, IA department chart, and legislation rule documents have been reviewed. Document review guide is attached in the appendix 3.

3.2.4 Population and Sampling of the Study

3.2.4.1 Population of the Study

Defining the population is the first step in designing the sample (Creswell, 2009). The population of the study is internal auditors of budgetary public sectors. Therefore, the population of the study is internal auditors of 25 budgetary public sectors and for triangulation purpose inspection team members of MoFEC and external auditors are included since they are expected to have adequate knowledge of the variables in the hypothesis as all of the variables relate to internal audit practices. They are supposedly possessing intimate knowledge of several aspects of the public sectors. Thus, their views considered as appropriate source of data.

3.2.4.2 Sampling of the Study

The researcher used Non- probability sampling procedure that is purposive sampling method in the study. The use of purposive sampling enables generating meaningful insights that help to gain a deeper understanding of the research phenomena by selecting the most informative participants (Carver, 1978; Cohen, 1990; Neuman, 2006; patton, 1990 as cited in Mihiret, 2010). Using purposive sampling method is linked to the nature of the study and recommended to the Ethiopian setting (Mihret et al., 2010).

The study conducted on purposively selected samples of 17 budgetary public sectors out of the 25 budgetary public sectors (executive organs). From the total population it covers 68% of the population in sector level. These sampled budgetary public sectors are selected from the respective well known three budget centers that are from Administration & General service, Economic Service and Social Service.

These sampled budgetary public sectors are selected based on their budget size and the number of IAD staffs from the above respective budget centers with the aim to include health, education,

social, military etc. services in order to draw the true representatives of budgetary public sectors (executive organs) which are mainly focused on economic, political, poverty reduction and their social aspects are more reliable. The researcher believed that since the structure and regulation of the public sectors are more or less the same since they are under the control of MoFEC and the inclusion of all IAD staffs of the selected budgetary public sectors have justified the objectives of the research. The selected budgetary public sectors with returned questionnaires are listed in Table 1.

Table 3.1 Selected Representatives of Budgetary Public Sectors

Ser. No.	Budget Center (1-3)	Selected Public Sectors	No. of Questionnaires
1.Administrative & General Service			
1.1		The Ministry of National Defense	8
1.2		The Ministry of Science and Technology	5
1.3		The Ministry of Justice	5
1.4		The Ministry of Public Service and Human Resource Dev't	5
1.5		The Ministry of Finance and Economic Cooperation	8
2.Economic Service			
2.1		The Ministry of Agriculture and Natural Resources	6
2.2		The Ministry of Industry	5
2.3		The Ministry of Trade	5
2.4		The Ministry of Transport	5
2.5		The Ministry of Urban Development and Housing	5
2.6		The Ministry of Construction	4
2.7		The Ministry of Water, Irrigation and Electricity	8
2.8		The Ministry of Public Enterprises	5
2.9		The Ministry of Mines, Petroleum and Natural Gas	6
3.Social Service			
3.1		The Ministry of Education	8
3.2		The Ministry of Health	8
3.3		The Ministry of Labor and Social Affairs	4
Total			100

Summary

Ser. No.	Description	Total Number of Questionnaires
1	For Selected Budgetary Public Sectors	85
2	For Inspection Team of MoFEC	10
3	For External Auditors of Federal Auditor General	5
Total		115

To obtain the adequate responses through questionnaire the researcher believed that for unit of analysis distributing 100 questionnaires to the selected budgetary public sectors internal audit department staffs and also for triangulation purpose distributing 10 questionnaires to inspection department staffs of MoFEC and 5 questionnaires to external auditors were appropriate. Therefore, a total of 115 questionnaires have been distributed.

3.2.5 Data Analysis Method

Data analysis is all about examining, categorizing, tabulating, and recombining the data collected, to address the initial objective of a study (Yin, 2003).

3.2.5.1 Quantitative Data Analysis

The researcher used econometrics package STATA software to analyze the data collected. According to the survey instrument selected which is Likert scale questionnaire model, the researcher used ordinal (ranked) type of categorical data. In this aspect, the data that had been collected using a questionnaire converted to represent the variables in the hypotheses. This is done through taking mean values of the item responses for each construct. Mean values are chosen because item responses that ranged from “Strongly Agree” to “Strongly Disagree” generate ordinal data (Mihret et al. 2010).

After the quantitative data collected, edited, and proceed, and entered into STATA software, a test for reliability has been made. Having a descriptive statistics mainly frequency counts, percentage, measure of central tendency (mean), measure of dispersions (Standard deviations) used to summarize and describe the results of observation. In addition to this other statistics like t-test, and regression analysis used to identify the factors which determine IA effectiveness. In the course of this, with the property of Ordinary Least Squares (OLS) under Classical Linear Model (CLM) assumptions Normality, Correlation and Heteroskedasticity test have been made.

The regression analysis model stated below is used to identify the factors determining effectiveness IA.

$$EIA = \beta_1 + \beta_2COMP + \beta_3INDP + \beta_4QUA + \beta_5MGTS + e$$

Where:

EIA = Effectiveness of Internal Audit in budgetary public sectors

β_1 = Constant Term

β_2 to β_5 = Coefficients of independent factors and

COMP= Competence of IA teams

INDP= Independence of IA

QUA= Quality of IA Work

MGTS=Management Support and

e = error term

3.2.5.2 Qualitative Data Analysis

The researcher reviewed relevant documents from the various documentary sources (see Appendix 3) to gain extra data related to the research objectives. Documents can provide evidence about personalities and conflicts between individuals (Brownell, 1995 as cited in Abbu-Azza, 2012).

3.2.6 Reliability Test

Reliability refers to the consistency of data collection procedures so they can be repeated to produce similar findings. The objective is to ensure that if one researcher follows the same procedures as those followed by a different researcher and conducted the same research all over again, both data sets should produce similar results and conclusions (Yin, 2003). Therefore, in order to enhance the reliability in this study, the researcher builds a clear research design and adopted an appropriate methodology that gives high reliability. As mentioned earlier the researcher used documentary evidence as an additional source to enhance the reliability of the data from the questionnaire. Reliability assessment using Cronbach's alpha test also performed to further strengthens data reliability for the quantitative component of the study.

3.2.7 Validity Test

Adapting the data collection instruments from those employed in prior studies is expected to ensure the validity of the data generated. Consideration of latest professional standards in adapting the instruments is another attempt to enhance the validity of items in the instruments (Mihret , 2010).

The second chapter of this research provides an extensive background to the research by reviewing the relevant academic and professional literature. Therefore, the researcher is able to develop a theoretical framework reflecting what is perceived to be effective IA. In this chapter, the data analysis process combined evidence from different sources in a way that demonstrates the inter-dependence of evidence and enhancement of validity.

In this research, triangulation in terms of theory, data sourcing and investigation employed to fulfill the validity of the research approach. The researcher used some documents to triangulate results. Yin (1994) indicates that document information is important for triangulation, in order to corroborate and add to the evidence from other sources, thereby increasing validity. Validity in this research also relates to whether the findings of the study are true and certain: =True‘ in the sense of the research findings accurately reflecting the real situation; and =Certain‘ in the sense of the findings being backed by evidence.

Important issues in such mixed methods were how the qualitative and quantitative components integrated and how priorities set between the components. Creswell (2009) explains six triangulation strategies that mainly differ in the sequence, priority, and point of integration (i.e., mixing the results) of quantitative and qualitative components in mixed methods. Therefore, the researcher used concurrent triangulation strategy which suit for the study. This strategy helped the researcher to employ separate quantitative and qualitative data to corroborate the results. It enabled the researcher to counterbalance the limitations of quantitative and qualitative results. Equal priority is given to both results and collection of quantitative and qualitative data which have been done concurrently.

3.3 Procedure for Data Collection

3.3.1 Permission

To produce effective results from research, risks to the participants should be taken into consideration. Matsuda & Silva (2005) state, the researcher should put certain protections to protect participants. Ensuring the consent of organizations was necessary step in this study as human participants is involved in the questionnaire. Thus, it was considered ethical to formally obtain such permission.

In order to get permission and also to increase the confidence of the respondents the researcher asked a recommendation letter from Addis Ababa University, College of Business and Economics, Department of Accounting and Finance.

3.3.2 Confidentiality and Privacy

In order to keep the confidentiality of the data that have been given by respondents, the respondents were not required to write their name and assured that their responses treated confidentially. The purposes of the study disclosed in the introductory part of the questionnaire. Furthermore, the researcher attempted to his best to avoid misleading or deceptive statements in the questionnaire.

3.3.3 Voluntary Participation and Informed Consent

After permission granted the questionnaires distributed to voluntary respondents of selected budgetary public sectors. To make the research result fruitful the respondents right to participate or not maintained and nothing processed unethically. As Cooper & Schindler (2006) states participant perception influence the outcome of the research in subtle way; so no one is participated obligatorily. The researcher visited the respondents for follow-up and collection of the completed questionnaires. This procedure is considered to enhance response rates (Kumar, 1996). To further improve response rates, contact persons assigned in the sampled sectors. Prior studies show this kind of approach facilitates collection of completed questionnaires and improves response rates (Kalbers & Fogarty, 1995).

3.4 Relationship between Specific Objectives, Research Hypothesis, and Data Sources

The relationship between the research specific objectives, hypothesis, and data sources as adopted from Tadiwos (2016) and Abbu-Azza (2012) are listed accordingly using a tabular form.

Table 3.2 Relationship between Specific Objectives, Research Hypothesis, and Data Source

Specific Objectives Research	Hypothesis	Data sources
To examine the internal auditor's competency to the effectiveness of IA in budgetary public sectors	1	Survey Question No. 1-6 of Internal Auditors AND Survey Question No.1-5 of Inspection Department Staff & External Auditors
To investigate the internal auditor's independence to the effectiveness of IA in selected budgetary public sectors	2	Survey Question No. 7-10 of Internal Auditors AND Survey Question No.6-9 of Inspection Department Staff & External Auditors
To measure the internal audit work quality to the effectiveness of IA in selected budgetary public sectors	3	Survey Question No. 11-16 of Internal Auditors AND Survey Question No.10-15 of Inspection Department Staff & External Auditors
To examine the management support for the effectiveness of IA in selected budgetary public sectors	4	Survey Question No. 17-20 of Internal Auditors AND Survey Question No.16-19 of Inspection Department Staff & External Auditors

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The research attempted to identify the factors determining the effectiveness of IA the case of selected budgetary public sectors. In this chapter the results of the study are presented with triangulating of the different source results. The chapter consists of two sections in addition to the introduction. The first section deals about the analysis of econometric results which collected through questionnaire from IAD staffs. The second section deals about the results and interpretation of quantitative and qualitative results which is collected through questionnaire and document review using triangulation. Therefore, this chapter presents the analysis and discussion of the research findings from primary and secondary sources.

4.2 Econometric Data Analysis

In this section the results of econometric data analysis is presented. That is questionnaires that were distributed for unit of analysis purpose in public sectors IA department staffs response rate, demographic characteristics and demonstration of reliability analysis for data collected using questionnaire is presented. Tests of normality distributions and inter- item correlations are then reported. For unit of analysis purpose 100 questionnaires were distributed to 17 budgetary public sectors IA department staffs. Out of 100 questionnaires 85 have been collected and all 85 questionnaires were usable for analysis. The response rate of administered questionnaire is 85%.

4.2.1 Demographic Characteristics

Demographic characteristics of the respondents to this regard consist of educational background (academic qualification), field of study, and working experience in a public sector and specifically in IAD. In terms of educational background, the respondents indicated their highest level of education.

According to their response, 88.2% of the respondents obtained a bachelor degree as their highest educational level. In addition, 9.4% of the respondents obtained a post graduate degree or masters and above as their highest level of education. The remaining 2.4 % respondents obtained diploma as their highest level of academic qualification. Descriptive statistics of the data are

presented in table 4.1. There were also Five respondents (5.9%) those have a certification in addition of their highest academic qualification. Based on this result, most of IA team members were well educated. They held a bachelor degree in different field of study. This result is consistent with prior IA standards IIA (2011) and those studies of Al-Twaijry et al. (2003); Mihret & Woldeyohannis (2008); Mihret et al. (2010); Abu-Azza (2012); George et al. (2015) and Tadiwos (2016). In terms of professional certifications, IA teams of public sectors have no sufficient certified personnel. Professional certifications have great quality in regard of adding value, and enhance department and organizational performance (Bou-Read & Capitano, 1999). According to the participants' response, public sectors lack sufficient certified personnel with regard to their number. In addition, it is difficult to be effective without professionally qualified staff (Okafor & Ibadin, 2009; Cohen & Sayag, 2010; Abu-Azza, 2012). This result is less than the finding of Burnaby et al. (2009) in which the study participants held CIA certification were 62.4% in UK and Ireland, 55.9% in Belgium, and 48.2% in Netherlands. But it is in line with the finding of similar developing countries (Changwony & Rotich, 2015; Abu-Azza, 2012).

Table 4.1 Educational Background of IAD Staffs

	Frequency	Percent	Cumulative Percent
Diploma	2	2.35	2.35
Degree	75	88.24	90.59
Masters	7	8.24	98.83
Above Masters	1	1.18	100.00
Total	85	100.00	

Source: Field Survey, 2018

According to the field of study the participants of study indicated their field of study. In this regard 63 respondents (74.1%) have Accounting and Finance educational background; 13 respondents (15.3%) have management educational background; 9 respondents (10.6%) have an educational background of Economics, Business Education, Cooperative Accounting & Auditing, Public Finance Management, Accounting & Information System and Information Technology educational background. Descriptive statistics of the data are presented in table 4.2. Most IA teams have educational background in "Accounting and Finance". This shows that IA

activity in public sectors have focused on financial operation areas. The scope of IA in those public sectors had not expanded to non-financial operation areas. IA team including most “Accounting and Finance” educational background staffs could lack skills, experience, and knowledge in other fields (Paape, 2007).

Table 4.2 Field of Study of IAD Staffs

	Frequency	Percent	Cumulative Percent
Accounting and Finance	63	74.12	74.12
Economics	1	1.18	75.29
Management	13	15.29	90.59
Others	8	9.41	100.00
Total	85	100.00	

Source: Field Survey, 2018

Respondents working experiences in public sectors ranged from Two years and less up to above Ten years. Twenty Nine respondents (34.1%) have above Ten years working experience in a public sector, 24 respondents (28.2%) have above Five years less than Ten years working experience in a public sector, 17 respondents (20%) have above Two years less than Five years working experience in a public sector, and 15 participants (17.7%) have Two years and less working experience in a public sector. This shows that respondents have a good work experience in a public sector as the majority of the respondents that is 53 participants (62.3%) have a working experience between Five years and above Ten years in public sectors. Descriptive statistics of the data are presented in table 4.3.

Based on the participants’ response internal auditors in public sectors have a good years of experience in public sector in different positions. It shows that auditors have a reasonable knowhow on the public sector activities due to this they could have the ability to investigate audittee and add value to the public sectors or departments specifically. This finding is not supported by prior studies of (Mihret, et al., 2010; Abu-Azza, 2012). But it is in line with George et al. (2015); Wubishet & Dereje (2014) and Tadiwos (2016) studies which deals about having adequate and experienced auditors in their study area.

Table 4.3 Years of Experience of IAD Staffs in Public Sectors

	Frequency	Percent	Cumulative Percent
2 Years and Less	15	17.65	17.65
Above 2 Years Less than 5 Years	17	20.00	37.65
Above 5 Years Less than 10 Years	24	28.24	65.89
Above 10 Years	29	34.12	100.00
Total	85	100.00	

Source: Field Survey, 2018

Respondents working experiences in IAD ranged from Two years and less up to above Ten years. Sixteen respondents (18.8%) have above Ten years working experience in IAD, 23 respondents (27.1%) have above Five years less than Ten years working experience in IAD, 30 respondents (35.3%) have above Two years less than Five years working experience in IAD, and 16 participants (18.8%) have Two years and less working experience in IAD. This shows that respondents have a satisfactory work experience in IAD as 39 participants (46%) have a working experience between Five years and above Ten years in IAD of public sectors. Descriptive statistics of the data are presented in table 4.4. The response indicated that internal auditors in public sectors have satisfactory levels of experience in the area of internal auditing. It shows that relatively low turnover of employees in the IAD of public sectors. This finding also is not supported by prior studies of (Mihret et al. 2010; Abu-Azza, 2012). But it is in line with George, et al. (2015); Wubishet & Dereje (2014) and Tadiwos (2016) studies which deals about having adequate and experienced auditors in their study area.

Table 4.4 Years of Experience of IAD Staffs in Internal Audit Department

	Frequency	Percent	Cumulative Percent
2 Years and Less	16	18.82	18.82
Above 2 Years Less than 5 Years	30	35.29	54.11
Above 5 Years Less than 10 Years	23	27.06	81.17
Above 10 Years	16	18.82	100.00
Total	85	100.00	

Source: Field Survey, 2018

4.2.2 Descriptive Statistics

According to the first section of the questionnaire (Q₁-Q₆) which examines the competence of IA team had a mean response less than 3.00. This implies that participants were agreed on the competence of IA teams in public sectors.

The standard deviations of (Q₁-Q₆) were greater than 1.00. It indicates that the respondents perception were far from one another. Descriptive statistics of the data are presented in table 4.5.

Table 4.5 Descriptive Statistics of Competence of Internal Auditors

Questions	Obs	Mean	Std. Dev.	Min	Max
1. Internal auditors have a deep professional knowledge on the overall activities of the department.	85	2.318	1.382	1	5
2. Do you think that the sectors audit department or division has improved in terms of appropriately qualified or professional staff?	85	2.247	1.224	1	5
3. Internal auditors are proactive (creating or controlling a situation rather than just responding).	85	2.341	1.181	1	5
4. Internal audit had been developed a good cooperation between auditors and auditees.	85	2.306	1.363	1	5
5. Internal auditors undertake continuous professional development trainings or attend educational seminars	85	2.376	1.205	1	5
6. Internal auditors have adequate educational background.	85	2.141	1.236	1	5

Source: Field Survey, 2018

According to the second section of the questionnaire (Q₇-Q₁₀) which examines the independence of IA had a mean response less than 3.00. This implies that participants were agreed on the independence of IA in public sectors. The standard deviations of all questions were greater than 1.00. It indicates that the respondents' perceptions differed from each other. Descriptive statistics of the data are presented in table 4.6.

Table 4.6 Descriptive Statistics of Independence of Internal Audit Team

Questions	Obs	Mean	Std. Dev.	Min	Max
7. Internal audit provides reports to the Minister (or audit committee).	85	2.765	1.360	1	5
8. Internal auditors include in their reports any fault, fraud, wrongdoing, and mistake without influence from any one	85	2.659	1.350	1	5
9. Internal auditors have unrestricted access to all departments and employees in the sector	85	2.365	1.344	1	5
10. Internal audit participate in the development of the sector processes.	85	2.259	1.264	1	5

Source: Field Survey, 2018

According to the third section of the questionnaire (Q₁₁-Q₁₆) which examines the quality of IA work had a mean response less than 3.00. This implies that participants were agreed on the quality of IA work in public sectors. The standard deviations of (Q₁₁-Q₁₆) were greater than 1.00. It indicates that the respondents perception were far from one another. Descriptive statistics of the data are presented in table 4.7.

Table 4.7 Descriptive Statistics of Quality of IA Work

Questions	Obs	Mean	Std. Dev.	Min	Max
11. Established internal audit objectives were accomplished.	85	2.494	1.269	1	4
12. There is an effective communication between internal and external auditors.	85	2.576	1.189	1	5
13. Internal audit work was efficiently performed according to the audit plan.	85	2.247	1.327	1	5
14. Internal audit findings are correctly argued and justified.	85	2.106	1.310	1	5
15. Internal audit recommendations can be easily implemented.	85	2.424	1.340	1	5
16. Internal audit report is accurate (clear and logical).	85	2.071	1.261	1	5

Source: Field Survey, 2018

According to the fourth section of the questionnaire (Q₁₇-Q₂₀) which examines management supports had a mean response less than 3.00. This implies that participants were agreed on the management support in public sectors. The standard deviations of (Q₁₇-Q₂₀) were greater than

1.00. It indicates that the respondents perceptions were varied each other. Descriptive statistics of the data are presented in table 4.8.

Table 4.8 Descriptive Statistics of Management Support

Questions	Obs	Mean	Std. Dev.	Min	Max
17. Senior management supports internal audit personnel.	85	2.141	1.264	1	5
18. Internal audit department is large enough to efficiently carry out its duties.	85	2.282	1.287	1	5
19. Senior management is aware of internal audit needs.	85	2.165	1.271	1	5
20. Top management of public sectors demands implementation of corrective actions recommended by external auditors	85	2.365	1.299	1	5

Source: Field Survey, 2018

According to the fifth section of the questionnaire (Q₂₁) which examines the effectiveness of IA had a mean response less than 3.00. This implies that participants were agreed on the effectiveness of IA in public sectors. The standard deviation of the question was greater than 1.00. It indicates that the respondents perception differ each other. Descriptive statistics of the data are presented in table 4.9.

Table 4.9 Descriptive Statistics of Effectiveness of Internal Audit

Questions	Obs	Mean	Std. Dev.	Min	Max
21. Internal Audit function of your public sector is effective	85	2.235	1.269	1	5

Source: Field Survey, 2018

4.2.3 Reliability Analysis

In a likert-scale questionnaire measuring the consistency or reliability of the questionnaire is essential. Reliability analysis has been employed in prior IA researches those adopt likert-scale questionnaire (Mihret, et al., 2010; George, et al., 2015; Tadiwos, 2016). To measure such a reliability analysis Cronbach's Alpha (α) is the most common measure of reliability scale. A reliability analysis value (α) greater than 0.600 is acceptable (Cronbach's, 1951). According to (Field, 2009) are liability analysis value (α) greater than 0.700 is very acceptable. Based on Table 4.10 the reliability analysis values for Cronbach's Alpha (α) of this study show that 0.7188

for all variables. Therefore, the responses generated from all variables in this study were very acceptable (reliable) for data analysis.

Table 4.10 Reliability Statistics

No. of Variables	Cronbach's Alpha (a)	Cronbach's Alpha (a) Based on Standardized Items
5	0.7188	0.7412

Source: Field Survey, 2018

Inter- item correlations were also examined to assess reliability of the study. According to Table 4.11 almost all of the variables in the study show more than 0.30. This indicates that sufficient and adequate correlations were among item responses (Hair, Anderson, Tatham, & Black, 1998; DeVellis, 2003).

Table 4.11 Inter-Item Correlation Matrix

	Competency of Internal Auditors	Independence of Internal Audit Team	Quality of Internal Audit	Management Support	Effectiveness of Internal Audit
Competency of Internal Auditors	1.000				
Independence of Internal Audit Team	0.311	1.000			
Quality of Internal Audit	0.437	0.335	1.000		
Management Support	0.401	0.298	0.430	1.000	
Effectiveness of Internal Audit	0.361	0.278	0.391	0.400	1.000

Source: Field Survey, 2018

4.2.4 Assessment of Ordinary Least Square Assumptions

4.2.4.1 Assessment of Normality

In order to test the normality of data, Skewness and Kurtosis test of normality distribution were used and conducted on Stata 14.2. The Skewness and Kurtosis tests are showing normality when the result is within the range of +1 and -1 (Hair et al. 1998). The result of normality distribution is presented below in Table 4.12. According to the table, the result of normality distribution test

shows that Skewness and Kurtosis were between the range of +1 and -1. Therefore, it indicates that the data were normal and reliable for analysis.

Table 4.12 Assessment of Normality

	Obs	Skewness	Kurtosis
Competency of Internal Auditors	85	0.097	0.835
Independence of Internal Audit Team	85	0.543	0.563
Quality of Internal Audit	85	0.203	0.858
Management Support	85	0.001	0.122
Effectiveness of Internal Audit	85	0.029	0.026

Source: Field Survey, 2018

4.2.4.2. Assessment of Heteroskedasticity

For the regression output of the model Breusch-Pagan/Cook-Weisberg test for Heteroskedasticity was conducted on Stata 14.2 to test for homogeneity of variance and a P value of greater than 0.05 is acceptable. As the result revealed in table 4.13 below, P value (0.0573) for the model is greater than 0.05 the critical value, which shows homogeneity of variance across the model.

Table 4.13 Test of Heteroskedasticity

Breusch-Pagan / Cook-Weisberg test for Heteroskedasticity
Ho: Constant variance
Variables: fitted values of Effectiveness of Internal Audit
chi2(1) = 3.61
Prob > chi2 = 0.0573

Source: Field Survey, 2018

4.2.4.3 Assessment of Multicollinearity

Multicollinearity is a statistical problem which occurs when the explanatory variables (independent variables) are much correlated with each other (Hair, et al., 1998). It means when the strong correlation among predictors and the existence of r value greater than 0.80, tolerance value below 0.10, and Variance Inflation Factor (VIF) greater than 10 in the correlation matrix (Field, 2009). Tolerance in this case defined as a statistical tool which used to indicate the variability of the specified independent variables from other independent variables in the model (Pallant, 2007). Based on Table 4.14, the tolerance levels for all variables are greater than 0.10 and the Variance Inflation Factor (VIF) value for all variables were less than 10.

According to Table 4.15 which show the correlation between dependent and independent variables, the correlation matrix of all variables among the predictor was also less than 0.80. Therefore, correlation value, tolerance level, and VIF value indicates that there were no multicollinearity problem in this study. In the relationship between dependent variable (effectiveness of IA) and independent variables (competence of IA team, independence of IA, quality of IA, and management support) two variables are significant.

The correlation analysis is used to accept or reject the research hypothesis in addition of regression analysis (Mihret, et al., 2010; Cohen & Sayag, 2010; Arena & Azzone, 2009). To this regard, there were a significant correlations between dependent variable (Effectiveness of IA) and independent variables competence of IA team ($r=0.361$), independence of IA ($r=0.278$), quality of IA ($r=0.391$), and management support ($r=0.400$) with ($P<0.01$) level of significance.

Therefore, it shows a strong support for all hypotheses.

Table 4.14 Collinearity Statistics

Model	Tolerance (1/VIF)	VIF
Competency of Internal Auditors	0.735	1.36
Independence of Internal Audit Team	0.838	1.19
Quality of Internal Audit	0.707	1.41
Management Support	0.744	1.34

Source: Field Survey, 2018

Table 4.15 Pearson Correlation Matrix

		Competency of IA	Independence of IA	Quality of IA	Management Support	Effectiveness of IA
Competency of IA	Pearson Correlation	1				
	Sig. (1-tailed)					
	Obs	85				
Independence of IA	Pearson Correlation	0.311*	1			
	Sig. (1-tailed)	0.004				
	Obs	85	85			
Quality of IA	Pearson Correlation	0.437*	0.335*	1		
	Sig. (1-tailed)	0.000	0.002			
	Obs	85	85	85		
Management Support	Pearson Correlation	0.401*	0.298*	0.430*	1	
	Sig. (1-tailed)	0.000	0.006	0.000		
	Obs	85	85	85	85	
Effectiveness of IA	Pearson Correlation	0.361*	0.278*	0.391*	0.400*	1
	Sig. (1-tailed)	0.001	0.010	0.000	0.000	
	Obs	85	85	85	85	85

*Correlation is significant at 0.01 level (1-tailed).

Source: Field Survey, 2018

4.2.4.4 Assessment of Autocorrelation

If there are patterns in the residuals from a model, then they can be considered as auto correlated (Brooks, 2008). The Durbin-Watson (DW) is a test for first order auto correlation (Field, 2009). The Durbin-Watson statistic ranges in value from 0 to 4. A value near 2 indicates non-autocorrelation; a value toward 0 indicates positive autocorrelation; a value toward 4 indicates negative autocorrelation. In this type of test, the null hypothesis can't be rejected when DW result is near 2 (Hair et al. 1998), because, it shows there is little or no evidence of autocorrelation. Based on Table 4.16 the Durbin-Watson (DW) statistics value of this study is near 2 that is 2.450. Therefore, there is no evidence of autocorrelation among error terms in this study.

Table 4.16 Durbin Watson Test Model Summary^b

Model	R Square	Adjusted R Square	Durbin-Watson
1	0.249	0.212	2.450

a. Predictors: (Constant), Competency of IA, Independence of IA, Quality of IA & Management Support

b. Dependent Variable: Effectiveness of IA

Source: Field Survey, 2018

4.2.5 Regression Results for IAE

The classical linear regression model is the standard procedure for analyzing dependencies between variables that are measured on a metric scale (Thompson, 2002). In the course of model estimation, it is common practice to evaluate the appropriateness of a single descriptive model for the problem under study with the help of the coefficient determination, R^2 in empirical studies, the most important benefit of R^2 is that it serves as a fast and easily interpretable measure for the goodness of fit of the estimated model (Reisinger, 1997).

However, R^2 is not an absolute indicator of goodness of fit. It is just a relative measure of explained variance in relation to total variance in the dependent variable (Mayer, 1975; Reisinger, 1997; Nau, 2007; Thompson, 2002).

Some authors particularly in social science largely reject the usage of the coefficient of determination (Reisinger, 1997; Thompson, 2002). Further, Cross-sectional studies achieved lesser than time-series studies (Reisinger, 1997). Thus, the best value for R-square depends on what the researcher measured. This study depends on participant's perception which is collected through questionnaire. Therefore, R-squared value more than 25% can be respectable and good to fit (Reisinger, 1997; Thompson, 2002).

The regression result explores the necessary indicators of IA effectiveness using the variables identified in the model (Hair et al. 1998). Based on Table 4.16 the appropriate indicators of the variables used to show the effectiveness of IA are listed. It means the overall contribution of competence of IA teams, independence of IA, quality of IA work, and management support to effectiveness of IA accounted for 25% (0.249) of the variation in the effectiveness of IA which is almost equals to the literature referred.

The regression results coefficient of beta (β) sign includes a sign of positive (+) and negative (-). It shows the effect of independent variables over the dependent variable (Field, 2009). Based on Table 4.18 beta sign of all the independent variables shows positive (+). Thus, independent variables (competence of IA team, independence of IA, quality of IA work, and management support) had a positive effect on the predicting dependent variable (effectiveness of IA). Therefore, any increase in independent variables lead to increase in dependent variable. This result is consistent with prior IA studies (Al- Twaijry et al. 2004; Arena & Azzone, 2009; Cohen & Sayag, 2010; Mihret & Yismaw, 2007; Ramachandran et al. 2012; Wubishet & Dereje, 2014; Tadiwos, 2016).

The independent variable with the level of significance (sig.) value less than 5% can make a significant contribution to the predicted value of the dependent variable whereas, a variable beyond this level of significance (sig.) cannot make a significant contribution to the predicted value of the dependent variable (Brooks, 2008; Hair et al. 1998). Based on Table 4.18 the statistical significance of the independent variable over the dependent variable at 5% level of significance; management support was significantly contributed for the dependent variable (effectiveness of IA). And also at the statistical significance of the independent variable over the dependent variable at 10% level of significance, quality of IA was significantly contributed for the dependent variable (effectiveness of IA). But the independent variables (competency of IA and Independence of IA) were not significantly contributed for the dependent variable (effectiveness of IA).

Table 4.17 Regression Results Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	Beta	Std. Error	Beta			Tolerance	VIF
(Constant)	-.280	.200		-0.52	0.602		
Competency of IA	.276	.166	.156	1.38	0.172	0.735	1.36
Independence of IA	.153	.207	.098	0.92	0.359	0.838	1.19
Quality Of IA	.346	.155	.193	1.67	0.098	0.707	1.41
Management Support	.312	.534	.226	2.01	0.048	0.744	1.34

Source: Field Survey, 2018

4.3 Data Results and Interpretation

This section presents the results of quantitative and qualitative data analysis. The hypotheses testing are used to test a significant influence of independent variables on dependent variable (Field, 2009). In this study, the hypotheses testing used to test a significant influence of competence of IA teams, independence of IA, quality of IA, and management support on effectiveness of IA which was measured in audit function effectiveness of public sectors. According to Table 4.18 the p- value for management support was statistically significant at ($P < 0.05$) which shows a strong support for hypothesis 4. And also the p-value for quality of IA was statistically significant at ($P < 0.1$) which shows a strong support for hypothesis 3. Whereas, the p-value for competency of IA and Independence of IA were statistically insignificant at ($P < 0.05$) which shows a weak support for hypothesis 1 & 2. This section also reports the results of questionnaire completed by MoFEC inspection staffs & external auditors and documents review in public sectors simultaneously. In general this section addressed the research hypotheses underlying this study. The data collected from questionnaire and document review was analyzed through the techniques mentioned in chapter three earlier.

4.3.1 Competence of Internal Audit Team

This section discusses the views of participants regarding on the competence of IA team as a factor may impact on IA effectiveness. To this regard, the study examined the competence of IA from adequate educational background, proficiency, experience, effective communication, training and development, and access to information technology perspective.

H 1: Competence of IA teams is positively related with the effectiveness of IA in public sectors.

The first hypothesis tested is about the positive relation of competence of IA team with the effectiveness of IA in public sectors. The result shows that there was a positive relation between competence of IA team and the effectiveness of IA in public sectors but not statistically significant at a level of ($P < 0.05$). The magnitude (β) of the effect of this variable on the effectiveness of IA was 0.276 and the t-value of 1.38. The positive magnitude sign and t-value of more than 2 are indicating a strong relationship between the independent and dependent variable (Hair et al. 1998).

As per significant level of ($P < 0.05$) competency of IA is statistically insignificant, the questionnaires result which are collected from MoFEC inspection teams and external auditors of OAG shows a mean value of 2.677 and standard deviation of 0.806. This implies that participants were agreed on the competency of IA in public sectors. The standard deviation was less than 1.00. It indicates that the respondents' perceptions were close to one another. Descriptive statistics of the data are presented in Appendix 5.

Proficiency comprises of adequate knowledge with a minimum requirement of first degree, professional membership and certification in specific field like Certified Internal Auditor (CIA) (IIA, 2011; Abu-Azza, 2012; Mihret et al. 2010). Currently as per Table 4.1 public sectors hired IA team almost with a minimum requirement of bachelor degree which is 98 %, regarding field of study as per Table 4.2, 75% of IA are in business and finance field and as per Table 4.4, 81% of audit staffs are above two years of experience in the area of audit.

But they were not engaged in searching of certified personnel like CIA. In this regard, Participant no. 5 wrote the suggestion as follows:

“The major determinant of internal audit effectiveness is lack of competency of internal auditors (lack of adequate trainings & limited professional development training.”

In relation to this, Participant 9 also gave the following suggestion:

“According to the Ethiopia Internal Audit of rigorous and rigorous professional qualification certification has not been give special attention”

In addition there was shortage of certified staff due to the fact that lack of opportunity to take CIA qualifications. It means public sectors have not been concerned to encourage and give a chance to IA team to take such a qualification. In this regard the finding is line with prior studies (Al-Twajjry et al. 2003; Abu-Azza, 2012).

Auditors should have good communication skill (Hass, Abdolmohammadi, & Burnaby, 2006; Turley & Zaman, 2007). It is expected from internal auditors to communicate effectively with audittees (Peurseem, 2005). Based on the participants No. 5 suggestion in the questionnaire:

“There are different determinants which affect internal audit effectiveness, lack of cooperation between audit staff and other departments, no mutual relationship between internal auditors & the auditee. The attitude of other departments the internal audit department is reactive which weakness the effectiveness of the internal audit”

This result is consistent with Al-Twajjry et al. (2003) study who finds that lack of effective communication between IAD and audittees in Saudi Arabia institutions. Although those internal auditors directors agreed in complex of creating an effective relationship with those audittees, understanding the main role of modern internal auditor is not clear for audittees.

According to communication theory, inability to communicate effectively can be related to inappropriate information or communication complexity (Endaya & Hanefah, 2013). Both little and much information are not suitable to communicate effectively (Hahn, 2008).

Training and development can be offered by external bodies such as educational institution, industry controlling body or training institutions and internal bodies such as in house trainings developed by companies themselves (Abu-Azza, 2012; Mihret et al. 2010). In this regard, IA team members have not taken trainings which are provided by internal and external sources. According to the participant No. 7 suggestion:

“The public body should organize continuous audit trainings and educational seminars to strength internal audit effectiveness, build capacity and confidence of the auditor.”

Therefore, the researcher rejects the hypothesis of the study that is “competence of IA teams is positively associated with the effectiveness of IA in public sectors” as a result shows that competence of IA teams had a positive effect on the effectiveness of IA but statistically

insignificant. It means proficiency of internal auditors, experience of internal auditors, effective communication with auditee and training and development had insignificant effect on the effectiveness of IA in public sectors. The result is consistent with the previous studies (Wondwossen, 2016) but inconsistent with previous studies (Arena & Azzone, 2009; George et al. 2015; Mihret, 2010; Ramachandran et al. 2012; Wubishet & Dereje, 2014; Tadiwos, 2016).

4.3.2 Independence of Internal Audit

Independence is the basis of IA effectiveness. Effectiveness of IA cannot be realized without the independence of IAD (Vanasco et al. 1996; Cohen & Sayag, 2010). This section evaluates the views of participants regarding on the independence of IA as a factor may impact IA effectiveness. To this regard, the study examined the independence of IA from existence of effective reporting to the minister (audit committee), individual internal auditors' independence, and organizational independence of IA function perspective.

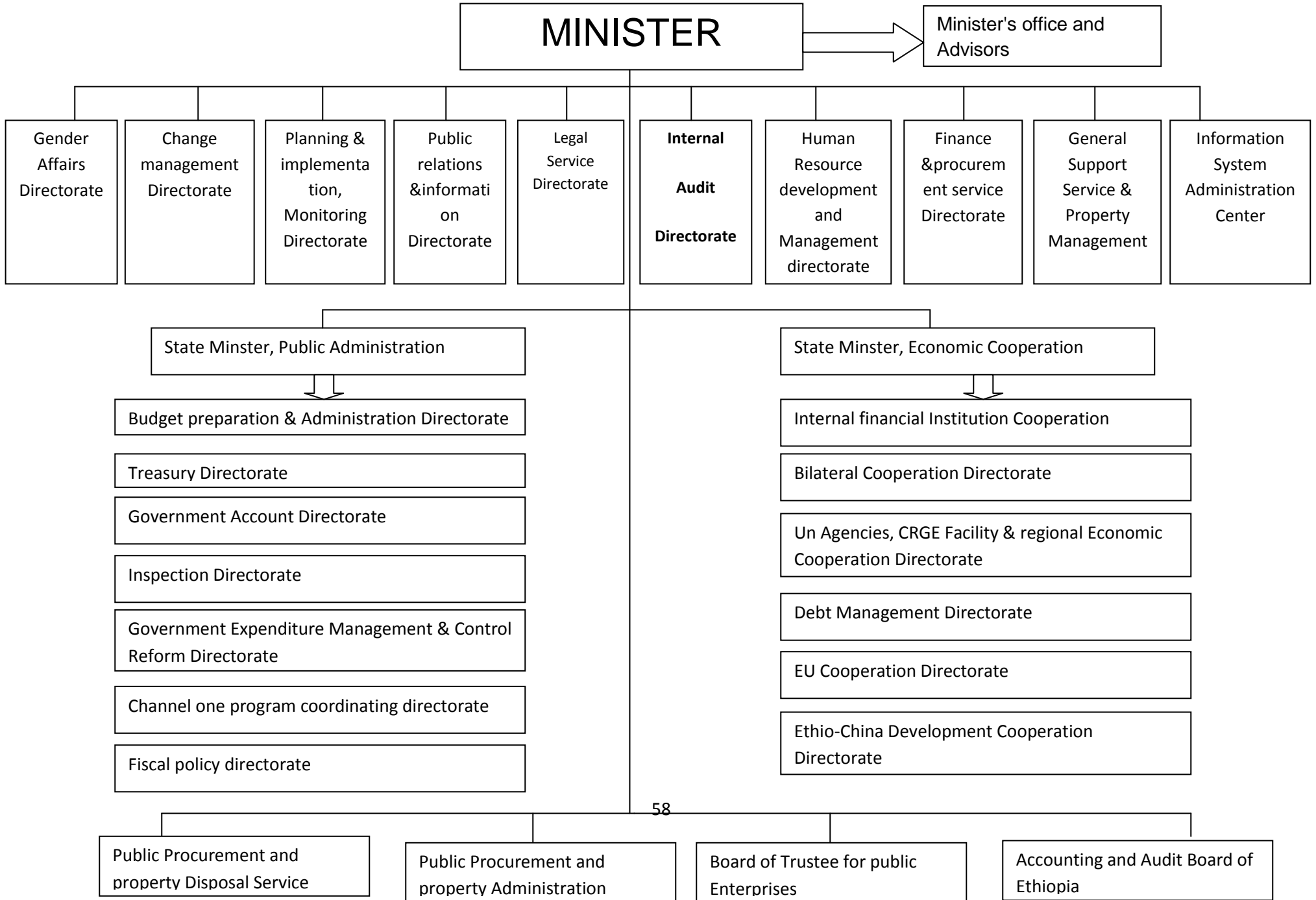
H 2: Independence of IA is positively related with the effectiveness of IA in public sectors

The second hypothesis tested is about the positive relation of independence of IA team with the effectiveness of IA in public sectors. The result shows that there was a positive relation between independence of IA team and the effectiveness of IA in public sectors but not statistically significant at a level of both ($P < 0.05$). The magnitude (β) of the effect of this variable on the effectiveness of IA was 0.153 and the t-value of 0.92.

As per significant level of ($P < 0.05$) independence of IA is statistically insignificant, the questionnaires result which are collected from MoFEC inspection teams and external auditors of OAG shows a mean value was 2.923 and standard deviation was 0.598. This implies that participants were agreed on the independence of IA in public sectors. The standard deviation was less than 1.00. It indicates that the respondents' perceptions were close to one another. Descriptive statistics of the data are presented in Appendix 5.

The researcher reviewed the organizational chart of the public sectors to examine the organizational position of IAD. As per the organizational chart of the public sectors, IAD is independent and at the top level of the organizational hierarchy. This finding is in line with (Abu-Azza, 2012) study. The IAD is responsible to the minister. Figure 4.1 shows the organizational chart of sampled public sector.

Figure 4.1 Organizational Chart of Sampled Public Sector



This type of direct communication between IA and BOD enhances the independence of IAD (IIA, 2011). Thus, such direct communication must also be practicable. To this regard as per Figure 4.1 the sampled organizational chart of public sector have seen by the researcher at the time of document review there is direct relationship between internal audit directorate and the minister. Having such a direct communication between IA & Minister can enhance the independence of IA.

The above finding is consistent with KPMG (2003) that the independence of IA enhanced based on the organizational position of IAD. But it does not consider as a guarantee of independence (Paape, 2007; Abu-Azza, 2012). Therefore, the researcher tried to investigate through report addressee.

The report addressee has also a significant impact on independence of IA (Chapman, 2001; Eisa, 2008). To whom the department makes the report functionally can an indicator of both its independence and its position in the organization (Abu-Azza, 2012). The IA director can make a report to BOD and senior manager in different positions (IIA, 2009; IIA, 2010; Yee et al. 2008). In relation to this, the researcher tried to see the audit report of selected public sectors at the time of document review to understand to whom they prepared the audit reports, the extent of the discussion and the report addressee; and whether they include every finding in their audit reports without any influence. In this regard, they addressed the audit reports to the Minister, MoFEC Inspection Directorate and audittee. Meanwhile they discussed with those bodies in regard of the audit findings. This is also stated in the Federal Government Internal Audit Directive No. 7/2003.

The researcher has been tried to get the IA charter, but there is no Internal Audit Charter rather they are using the Federal Government Internal Audit Administration Directive No. 47/2009 as Audit Charter. Further, most of the participants agreed that internal auditors in public sectors had the ability to include any finding in their report without any bias or restrictions. In this regard Participant No. 7 suggested this as follows:

“These days there is no lack of independence because the department is under the Ministry of Finance .There is no fear to point out the mistakes”

In support of this idea, Participant No.12 suggested that:

“The internal audit department looks like its department leader. If the head of the department is strong and has confidence on his work the internal audit department will be strong”

This result is in line with George et al. (2015) and Al-Twajjry et al. (2003) studies which indicated that IA directors have the right and ability to include every finding in their report without fear of dismissal from their working position. However, Sawyer (1995) argued that practically expecting complete independence is unattainable goal rather respect and avoidance fear is needed. Fear of dismissal from working place lack the independence of internal auditors (Pickett, 2005; KPMG, 2003).

Another important factor examined in this study was the ease of unrestricted access to all bodies in the public sectors, documentation, and peoples. IAD must be able to exercise its assignments in its own initiative in all departments, establishments, and functions of the public sectors. IA must be free to report its findings and appraisals and to disclose them internally (IIA, 2011; Raghunandan & Mchugh, 1994). In the process of the document review, the researcher in the audit report found that the detailed issues in each department of public sectors which in turn shows at least in average terms there is unrestricted access to the IA. This is also stated in the Federal Government Internal Audit Administration Directive No. 47/2009 which is currently using by the public sectors as Audit Charter .The result is inconsistent with Abu-Azza (2012) and Al-Twajjry et al. (2004) studies.

The communication of between IA head and Board Audit Committee were the criteria of (Kolins, Cangemi, & Tomasko, 1991). AC should meet internal auditors at least twice a year. The first stage at the beginning of the audit task to review the audit plan and the second stage at the ending of the audit task to review audit findings (Kolins et al. 1991). However, there is no Audit Committee in the public sectors and this has been confirmed by the researcher at the time of documents review but currently MoFEC is trying to establish the Audit Committee in public sectors as the researcher have seen the proposal document. The result is inconsistent with (Kolins et al. 1991).

Therefore, the researcher rejects the hypothesis of the study that is “independence of IA is positively associated with the effectiveness of IA in public sectors” as the result reveals that independence of IA had a positive impact on the effectiveness of IA but statistically

insignificant. It means the existence of effective audit committee, individual IA independence, and organizational independence of IA had insignificant effect on the effectiveness of IA in public sectors. The result is consistent with the previous studies Shewamene (2014); Wondwossen (2016) and Wondimagegn (2016) but it is inconsistent with previous studies George et al. (2015); Goodwin-Stewart (2001); Stewart & Subramaniam (2010) and Tadiwos, (2016).

4.3.3 Quality of Internal Audit

IA quality can be expressed by internal auditors office and field work capability to do their duty to provide useful findings and recommendations (Mihret & Yismaw, 2007; Mihret A.G., 2011). This study evaluated audit quality in perspective of effective audit planning and supervision Prawit, Prawit, & Wood (2010), IA field work Ratliff, Wallace, Leobbecke, & McFarm (1996), finding and reporting, follow-up of IA recommendations, and effective communication with external auditors.

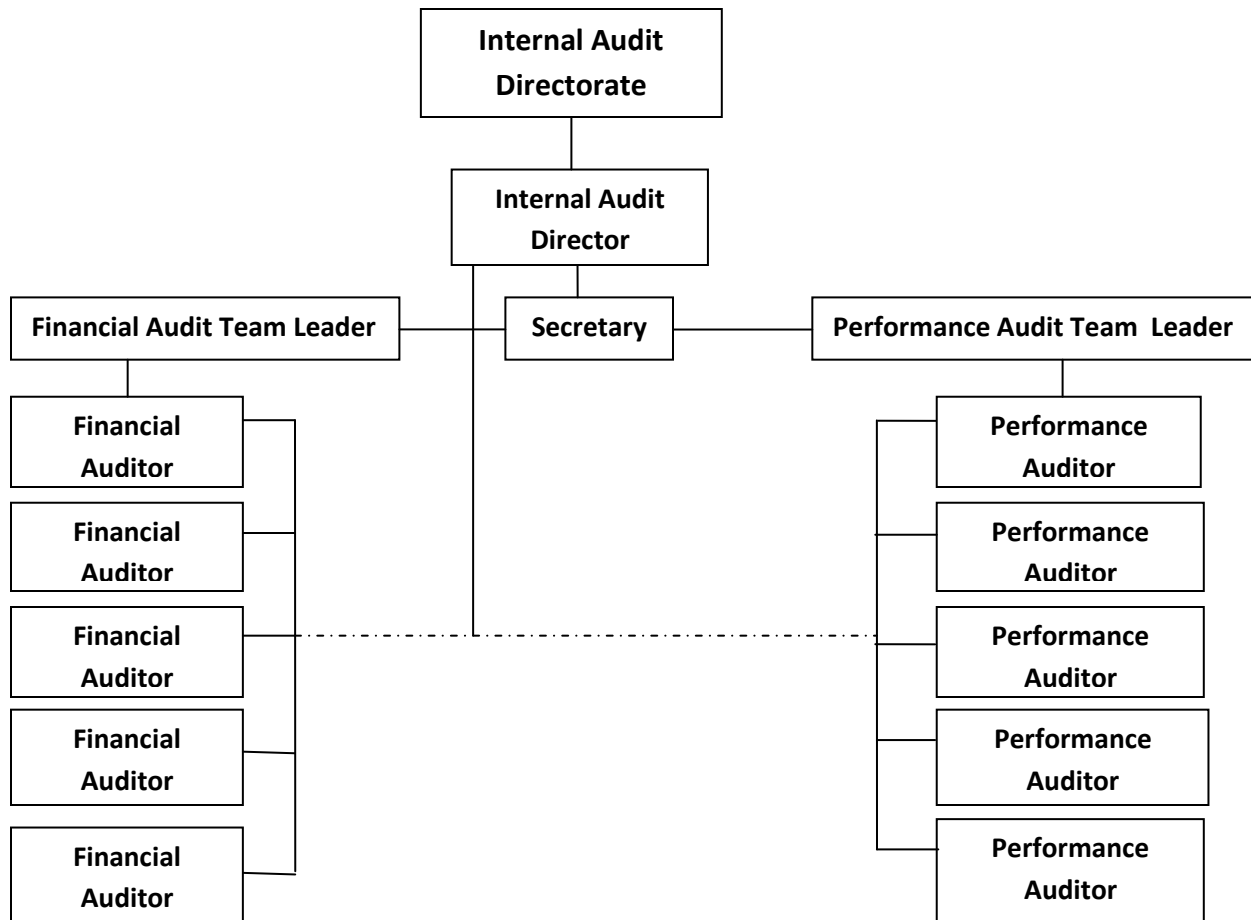
H 3: Quality of IA work is positively associated with the effectiveness of IA in public sectors

The third hypothesis tested is about the positive relation of quality of IA work with the effectiveness of IA in public sectors. The result shows that there was a positive relation between quality of IA work and the effectiveness of IA in public sectors and also statistically significant at a level of ($P < 0.1$). The magnitude (β) of the effect of this variable on the effectiveness of IA was 0.346 and the t-value of 1.67.

The questionnaires results which are collected from MoFEC inspection teams and external auditors of OAG shows a mean value of 2.320 and standard deviation of 0.685. This implies that participants were agreed on the quality of IA work in public sectors. The standard deviation of was less than 1.00. It indicates that the respondents' perceptions were close to one another. Descriptive statistics of the data are presented in Appendix 5.

For the quality of IA the IA charter format, content and type are important. Accordingly, the researcher has tried to get IA charter of public sectors but they don't have such document instead currently they are using Federal Government Internal Audit Administration Directive No. 47/2009 as a charter. Figure 4.2 give a picture of the departmental chart of sampled public sector.

Figure 4.2 Departmental Chart of Sampled Public Sector



In the Internal audit directive the objective and scope of audit work; authority, responsibility, accountability of internal auditors; independence, objectivity, and impartiality of internal auditors; competence of internal audit team; follow-up; and audit planning, reporting, periodic assessment, and quality assurance procedures of IA are included. In addition, IAD of public sectors have organizational structure which used to take their activity. Mihret & Yismaw (2007) indicate that organizational authorizing IA including prepared IA charter is considered as a determinant of IA effectiveness. Therefore, even if there is no IA charter in the public sectors having IA directive which is more or less similar to IA charter has positive impact on effectiveness of IA in public sectors.

According to IA directive of public sectors all IA activity responsibility is in the hand of the directorate and staff of IAD. Therefore, it shows separation of duties based on the departmental structure.

As Arens et al. (2012) state that working papers are used in the field work stage audit process. Working papers can be used to document evidences so as to make a report, provide reference during the process of the audit which assists audit plan, and evaluate IA activity (Ratliff, et al., 1996). To this regard, the researcher tried to ensure the existence such documents. Therefore, the researcher reviewed working papers with in public sectors.

In this regard Participant No. 11 suggested this as follows:

“Though audit communication takes place throughout the period of field work, written audit reports are issued up on completion of audits. The auditors held a discussion on audit findings with auditee which will use to resolve questions or concerns of the auditee on audit findings before the final audit report is released”

This could help enhance the quality of audit communication which in turn improves the quality of the report.

Meanwhile, the researcher also has seen the sampled audit recommendation of MoFEC Inspection Directorate to the public sectors as a result of reviewing the IA report of the sectors.

Therefore, the researcher couldn't reject the hypothesis of the study that is “quality of IA work is positively associated with the effectiveness of IA in public sectors” as the result reveals that quality of IA work had a positive association on the effectiveness of IA and statistically significant but its contribution was not as the same level as the other hypothesis. It means effective audit planning and supervision; IA fieldwork; reporting, finding, and recommendations; follow- up of IA recommendations; and effective communication with external auditors had relatively significant effect on the effectiveness of IA in public sectors. The result is consistent with the previous studies Mihret & Yismaw (2007) and Wubishet & Dereje (2014) but inconsistent with previous studies Abu-Azza (2012); Ramachandran et al. (2012) and Tadiwos (2016).

4.3.4 Management Support

Management support is the determinant of IA effectiveness (Mihret & Yismaw, 2007; Mihret & Woldeyohannis, 2008). Given the fact that IA activities are performed in dynamic and supportive environment; internal auditor expects a support from top management. According to SPPIA of 1110-organizational independence to perform their work effectively; internal auditors should get a support from top management, BOD, cooperation from audittees (IIA, 2011). So, top management support has also necessary for effective work performance and enhancing IA team competence and independence. In this study the researcher also focused on top management support.

H 4: Management supports are positively associated with the effectiveness of IA in public sectors

The last hypothesis tested is about the positive relation of management support with the effectiveness of IA in public sectors. The result shows that there was a positive relation between management support and the effectiveness of IA in public sectors and also statistically significant at a level of ($P < 0.05$). The magnitude (β) of the effect of this variable on the effectiveness of IA was 0.312 and the t-value of 2.01.

The questionnaires results which are collected from MoFEC inspection teams and external auditors of OAG shows an agreement with a mean value of 2.173 and standard deviation of 0.724. This implies that participants were agreed on the management support for IA in public sectors. The standard deviation of was less than 1.00. It indicates that the respondents' perceptions were close to one another. Descriptive statistics of the data are presented in Appendix 5.

Abu-Azza (2012) explains management support as a motivation provided by top management to internal auditors. Financial support can be expressed in terms of providing adequate budget to IAD and giving financial incentives (bonuses and recompense) to IA teams.

In this aspect, Participant No. 13 made the following comment related with this issue:

“In most cases specially previous times, internal audit department of most government offices filled with staffs who had challenged the management of the office and thought that place (Department) of punishment. So not gave attention by officials. May know Ministry of Finance Previously MoFED) has given attention for this area and prepared a lot of constructive action but when come to practical still remained on paper”

The result is consistent with Abu-Azza (2012) study that finds 96% of participant agreed limited resource were allocated to IAD. In addition, Al- Twaijry et al. (2003) and Arena & Azzone, (2006) studies result through organizations under study was not large enough to undertake their duties and responsibilities.

According to the document review, IAD of public sectors are somehow well-organized structurally. In other hand, top management financial support in terms of allocating sufficient budget to IAD also is good which is important to contribute a significant impact on the effectiveness of IA.

Therefore, the researcher accepts the hypothesis of the study that management support is positively associated with the effectiveness of IA in public sectors as the result indicates that management supports play a critical role on the effectiveness of IA and statistically significant. It means the senior management (top management) awareness on IA needs, demands implementation of corrective actions recommended by external auditors and supports internal audit personnel were a significant effect on the effectiveness of IA in public sectors. The result is consistent with previous researches (Albercht et al. 1988; Cohen & Sayag, 2010; Gortiz, 2004; George et al. 2015; Mihret & Yismaw, 2007; Paape, 2007; Tadiwos, 2016).

CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

5.1 Introduction

The aim of this chapter is to conclude and recommend about the study. It includes conclusion of the study results, recommendations based on the study results, and recommendations to future study. In conclusion section the researcher tried to show the findings and the consequences of the study. And finally, the researcher provides a recommendation according to the study result.

5.2 Conclusion of the Study

The purpose of the research was to analyze the effect of competency of IA, independence of IA, quality of IA work and management support to the internal audit effectiveness. The following major findings are distinguished based on the survey of IAD staffs, inspection teams of MoFEC & external auditors, and document review evidence.

For the research question that was “What is the impact of competent internal audit staff to determine IA effectiveness?” Based on the finding of the research, competence of IA teams plays a minimum role on the effectiveness of IA in public sectors. It means professional knowledge of IA, experience of IA, effective communication of IA with auditee, training and development of IA had a positive but insignificant effect at a statistical significance level of ($P < 0.05$) on the effectiveness of IA in public sectors.

Regarding the research question that was “What is the influence of organizational independence of internal auditors for IA effectiveness?” Based on the finding of the research, independence of IA plays a very minimal role on the effectiveness of IA in public sectors. It means the existence of effective audit committee, individual IA independence; organizational independence of IA and IA unrestricted access had a positive but insignificant effect at a statistical significance level of ($P < 0.05$) on the effectiveness of IA in public sectors.

For the research question that was “What is the level of internal audit work quality to affect IA effectiveness?” Based on the finding of the research, the quality of IA work plays reasonable role on the effectiveness of IA in public sectors. It means effective audit planning and supervision; IA fieldwork; reporting, finding, and recommendations; follow-up of IA recommendations; IA

report accuracy and effective communication with external auditors had a positive and significant effect at a statistical significance level of ($P < 0.1$) on the effectiveness of IA in public sectors.

In relation to the research question that was “What is the effect of management support given to internal auditors for IA effectiveness?” Based on the finding of the research, the management supports plays a critical role on the effectiveness of IA in public sectors. It means the senior management (top management) awareness on IA needs and demands for the implementation of corrective action recommended by external auditors had a positive and significant effect at a statistical significance level of ($P < 0.05$) on the effectiveness of IA in public sectors.

To conclude, management support and quality of IA work had positive and statistically significant effect on the effectiveness of IA in public sectors. Therefore, management supports and quality of IA work were the factors determining effectiveness of IA in public sectors. On the other hand, competence of IA teams and independence of IA had positive but insignificant impact on the effectiveness of IA. This means competence of IA teams and independence of IA were not the factors determining effectiveness of IA in public sectors.

5.3 Recommendation of the Study

The overall objective of the study is to identify the factors determining the effectiveness of IA in public sectors. In relation to this, the data analysis using quantitative and qualitative methods were made. According to the research objective and based on the analyzed data, the researcher provides the following recommendations to the public sectors management, internal auditors of public sectors, MoFEC and educational institutions.

- The finding of this research proved that the management support and quality of IA work were positively related and statistically significant with the IAE in the public sectors. And also public sectors' management should not undermine the contributions of other determinants which are independence of IA and competency of IA that were positively related but statistically not significant with the IAE in the public sectors. Thus, the public sectors management should support more for the internal audit functions by facilitating the IA works, recruit more adequate and competent IA staff and give sufficient training and professional certification for the existing IA staffs, and should maintain the approved IA charter and workable manuals for their office because it directs the overall activities of

the internal auditors in line with IIA standards and the policies and guidelines of the sectors.

- The internal auditors of the public sectors are recommended in maintaining and improving their effective contribution for the IAE in their office, by using the supports of the management team appropriately, by improving their professional certification in line with the IIA standards and organizational guidelines and also by leading themselves to the modern technologies that improve their IA function to the enhanced level.
- The internal audit staffs of the public sector also recommended working in accordance with the available internal audit directives, as it helps the internal auditors to provide the appropriate reports and to know the extent of their relationships with the managements, and also to know their rights and duties with regarding to IA effectiveness.
- The research found that the existence of management support and quality of IA work were the major determinants of IAE in the public sector Therefore, MoFEC is recommended to design, provide and continually evaluated the internal audit charters for each public sector office; and also MoFEC is recommended to support the internal audit works by increasing the number of certified internal auditors by funding the certification fees and also by facilitating the way for certification. In addition, MoFEC is recommended to establish the Audit Committee as much as possible as there is strong relationship between the audit committee and IA function.
- Finally, the Ethiopian higher educational institution should contribute for the IAE by working in collaboration with MoFEC and other public sectors to have effective internal audit work by providing adequate and competent internal audit staffs and also by giving short term trainings to upgrade the existing IA staffs proficiency in line with the IIA standards.

5.4 Suggestion for Future Research

Due to the limitations of the study and/or in order to confirm the results in different settings, the researcher's insights into the nature of future researches are as follows:

- 1) To supplement internal audit research, further studies could be conducted in countries where IA is well-developed, as well as in developing countries such as Ethiopia where IA is in the relatively early stages of development. More specifically, and lessening from one of the limitations of the study (the target population), further research and a replication of this study in a different sector could help provide additional evidence and extend the generalizability of the results.
- 2) The limited previous research which addresses the issue of IA effectiveness has provided mixed findings on IA effectiveness because it has utilized different criteria. Therefore, examining the factors that influence IA effectiveness and the possible interactions among them is important. In other words, further research into identifying other factors that impact on IA effectiveness could contribute to reducing the gap in the literature. This also will help deepen the understanding of internal audit practices and establish whether internal audit is perceived to be value-adding to organizations.
- 3) Finally, future studies should look at the possibility of the influence of different variables from different field of study (like Information Technology) on internal audit effectiveness so that it contributes to the factors that determine internal audit effectiveness literature.

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Appendix 1: Questionnaire for Internal Audit Department Staffs

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACCOUNTING AND FINANCE

Dear Sir/Madam:

The questionnaire is designed to gather information about determinants of internal audit effectiveness in Ethiopian budgetary public sectors. The information you provide in response to the items in the questionnaire will be used as part of the data needed for a study of *Determinants of Internal Audit Effectiveness in Ethiopia the case of selected budgetary public sectors*. The study is conducting as part of the undersigned researcher's study for the partial fulfillment for the award of *Master's Degree in Accounting and Finance at Addis Ababa University, College of Business & Economics, department of Accounting and Finance*. The results of the study are expected to identify determinants of Internal Audit effectiveness in the case of selected budgetary public sectors in Ethiopia and to help the development of the Internal Audit profession in Ethiopia.

The questionnaire is anonymous; please do not write your name on it. The conclusions of the study will be drawn in aggregate terms, without any reference to specific sectors or individual respondents. I would also like to assure you that the information you provide will be treated as strictly confidential. Further, I would like to advise that participation in this survey is completely voluntary. Nevertheless, your participation is regarded as a valuable assistance. Therefore, I believe that you will extend your assistance by participating in the study.

You are kindly requested to make a tick mark (✓) on your choice.

Your honest and sympathetic responses are appreciated.

With Best Regards,

Alemzewed Ayele

Thank you in advance for your cooperation!

Part I: General Information

1. Qualification (Educational background)

Below Diploma

Diploma

Degree (BA, BSC)

Certified like: CIA (Certified Internal Auditor), ACCA, CPA, or Other

Other (Including Audit Profession Certification) Specify _____

Masters (MA, MSC, MBA)

Above Master

2. Field of study on your highest educational level

Accounting and Finance

Management

Economics

Information Technology

Law

Other Specify _____

3. Year of experience in the ministry office in any position

Two years and less

Above two years less than five years

Above five years less than ten years

Above ten years

4. Year of experience in internal audit department

Two years and less

Above two years less than five years

Above five years less than ten years

Above ten years

Part II: Internal Audit Questions (Tick on Your Selection)

SD= Strongly Disagree
D= Disagree
N= Neutral

A= Agree
SA=Strongly Agree

		SD 5	D 4	N 3	A 2	SA 1
A. Competency of Internal Auditors						
1	Internal auditors have a deep professional knowledge on the overall activities of the department.	(5)	(4)	(3)	(2)	(1)
2	Do you think that the sectors audit department or division has improved in terms of appropriately qualified or professional staff?	(5)	(4)	(3)	(2)	(1)
3	Internal auditors are proactive (creating or controlling a situation rather than just responding).	(5)	(4)	(3)	(2)	(1)
4	Internal audit had been developed a good cooperation between auditors and audittees.	(5)	(4)	(3)	(2)	(1)
5	Internal auditors undertake continuous professional development trainings or attend educational seminars	(5)	(4)	(3)	(2)	(1)
6	Internal auditors have adequate educational background.	(5)	(4)	(3)	(2)	(1)
B. Independence of Internal Audit Team						
7	Internal audit provides reports to the Minister (or audit committee).	(5)	(4)	(3)	(2)	(1)
8	Internal auditors include in their reports any fault, fraud, wrongdoing, and mistake without influence from any one	(5)	(4)	(3)	(2)	(1)
9	Internal auditors have unrestricted access to all departments and employees in the sector	(5)	(4)	(3)	(2)	(1)
10	Internal audit participate in the development of the sector processes.	(5)	(4)	(3)	(2)	(1)
C. Quality of Internal Audit						
11	Established internal audit objectives were accomplished.	(5)	(4)	(3)	(2)	(1)
12	There is an effective communication between internal and external auditors.	(5)	(4)	(3)	(2)	(1)
13	Internal audit work was efficiently performed according to the audit plan.	(5)	(4)	(3)	(2)	(1)

14	Internal audit findings are correctly argued and justified.	(5)	(4)	(3)	(2)	(1)
15	Internal audit recommendations can be easily implemented.	(5)	(4)	(3)	(2)	(1)
16	Internal audit report is accurate (clear and logical).	(5)	(4)	(3)	(2)	(1)
D. Management Support						
17	Senior management supports internal audit personnel.	(5)	(4)	(3)	(2)	(1)
18	Internal audit department is large enough to efficiently carry out its duties.	(5)	(4)	(3)	(2)	(1)
19	Senior management is aware of internal audit needs.	(5)	(4)	(3)	(2)	(1)
20	Top management of public sectors demands implementation of corrective actions recommended by external auditors	(5)	(4)	(3)	(2)	(1)
E. Effectiveness of Internal Audit						
21	Internal Audit function of your public sector is effective	(5)	(4)	(3)	(2)	(1)

Please suggest if you face any kind of idea in evaluation of internal audit effectiveness in your sector that is not addressed in this questionnaire.

Appendix 2: Questionnaire for Inspection Department Staffs & External Auditors

ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS DEPARTMENT OF ACCOUNTING AND FINANCE

Dear Sir/Madam:

The questionnaire is designed to gather information about determinants of internal audit effectiveness in Ethiopian budgetary public sectors. The information you provide in response to the items in the questionnaire will be used as part of the data needed for a study of *Determinants of Internal Audit Effectiveness in Ethiopia the case of selected budgetary public sectors*. The study is conducting as part of the undersigned researcher's study for is for the partial fulfillment for the award of *Master's Degree in Accounting and Finance at Addis Ababa University, College of Business & Economics, department of Accounting and Finance*. The results of the study are expected to identify determinants of Internal Audit effectiveness in some selected budgetary public sectors in Ethiopia and to help the development of the Internal Audit profession in Ethiopia.

The questionnaire is anonymous; please do not write your name on it. The conclusions of the study will be drawn in aggregate terms, without any reference to specific sectors or individual respondents. I would also like to assure you that the information you provide will be treated as strictly confidential. Further, I would like to advise that participation in this survey is completely voluntary. Nevertheless, your participation is regarded as a valuable assistance. Therefore, I believe that you will extend your assistance by participating in the study.

You are kindly requested to make a tick mark (✓) on your choice.

Your honest and sympathetic responses are appreciated.

With Best Regards,

Alemzewed Ayele

Thank you in advance for your cooperation!

Part I: General Information

1. What is your current position title in your Office? _____

2. Qualification (Educational background)

Below Diploma

Diploma

Degree (BA, BSC)

Certified like: CIA (Certified Internal Auditor), ACCA, CPA, or Other

Other (Including Audit Profession Certification) Specify _____

Masters (MA, MSC, MBA)

Above Master

3. Field of study on your highest educational level

Accounting and Finance

Management

Economics

Information Technology

Law

Other Specify _____

4. Year of experience in auditing of public sectors

Two years and less

Above two years less than five years

Above five years less than ten years

Above ten years

Part II: Internal Audit Questions (Tick on Your Selection)

SD= Strongly Disagree A= Agree
D= Disagree SA=Strongly Agree
N= Neutral

		SD 5	D 4	N 3	A 2	SA 1
A. Competency of Internal Auditors						
1	Internal auditors of public sectors possess appropriate knowledge to conduct audit	(5)	(4)	(3)	(2)	(1)
2	Do you think that the sectors audit department or division has improved in terms of appropriately qualified or professional staff?	(5)	(4)	(3)	(2)	(1)
3	Internal auditors have appropriate skills to perform audit of public sectors	(5)	(4)	(3)	(2)	(1)
4	The existence of internal audit assists efficient use of resources in the public sectors	(5)	(4)	(3)	(2)	(1)
5	Do you think internal auditors had been developed a good understanding with external auditors in terms of the subject matters	(5)	(4)	(3)	(2)	(1)
B. Independence of Internal Audit Team						
6	Internal auditors include in their reports any fault, fraud, wrongdoing, and mistake without influence from any one	(5)	(4)	(3)	(2)	(1)
7	Internal auditors obtain unrestricted access to information and records in public sectors	(5)	(4)	(3)	(2)	(1)
8	Internal auditors assist the public sectors in the investigation of major fraud cases	(5)	(4)	(3)	(2)	(1)
9	Internal audit participate in the development of the sector processes.	(5)	(4)	(3)	(2)	(1)
C. Quality of Internal Audit						
10	Public sectors Internal Audit findings are correct	(5)	(4)	(3)	(2)	(1)
11	Public sectors Internal Audit findings are supported by sufficient evidence	(5)	(4)	(3)	(2)	(1)
12	Public sectors Internal Audit recommendations are constructive	(5)	(4)	(3)	(2)	(1)
13	Internal auditors ascertain compliance with their public sectors policies and procedures	(5)	(4)	(3)	(2)	(1)

14	Internal auditors ascertain the public sectors compliance with external contracts, laws and regulations when applicable	(5)	(4)	(3)	(2)	(1)
15	Internal auditors of public sectors check the adequacy of internal controls of the sectors	(5)	(4)	(3)	(2)	(1)
D. Management Support						
16	Internal audit department is large enough to efficiently carry out its duties.	(5)	(4)	(3)	(2)	(1)
17	Do you think Senior management is aware of internal audit needs?	(5)	(4)	(3)	(2)	(1)
18	Internal auditors of public sectors discuss audit findings with your office	(5)	(4)	(3)	(2)	(1)
19	Top management of public sectors demands implementation of corrective actions recommended by external auditors	(5)	(4)	(3)	(2)	(1)
E. Effectiveness of Internal Audit						
20	Internal Audit function of public sectors you audit is effective	(5)	(4)	(3)	(2)	(1)

Please suggest if you face any kind of idea in evaluation of internal audit effectiveness in the sectors you audit that is not addressed in this questionnaire.

Appendix 3: Document Review Guide

Activity	Objective
1. Review reports and other relevant documents issued by internal audit departments & external auditors such as internal audit plans, programs, audit reports and other working papers	To collect information relevant to internal audit quality.
2. Review the organizational chart of the the public sectors	To establish the organizational position of the internal audit departments within the organizations
3. Review charters, legislations, rules of internal audit departments.	To collect information relevant to authority and responsibility of the internal audit activity
4. Review charters, legalizations, rules of auditors general.	To collect information relevant to auditors general monitoring in Ethiopia.

Appendix 4: Descriptive Statistics for Questionnaire Survey of Internal Audit Department Staffs

1. Internal auditors have a deep professional knowledge on the overall activities of the department.

	Frequency	Percent	Cumulative Percent
Strongly Agree	27	31.76	31.76
Agree	38	44.71	76.47
Neutral	5	5.88	82.35
Disagree	13	15.29	97.65
Strongly Disagree	2	2.35	100.00
Total	85	100.00	

2. Do you think that the sectors audit department or division has improved in terms of appropriately qualified or professional staff?

	Frequency	Percent	Cumulative Percent
Strongly Agree	13	15.29	15.29
Agree	33	38.82	54.11
Neutral	19	22.35	76.46
Disagree	17	20.00	96.47
Strongly Disagree	3	3.53	100.00
Total	85	100.00	

3. Internal auditors are proactive (creating or controlling a situation rather than just responding)

	Frequency	Percent	Cumulative Percent
Strongly Agree	15	17.65	17.65
Agree	31	36.47	54.12
Neutral	27	31.76	85.88
Disagree	11	12.94	98.82
Strongly Disagree	1	1.18	100.00
Total	85	100.00	

4. Internal audit had been developed a good cooperation between auditors and auditees.

	Frequency	Percent	Cumulative Percent
Strongly Agree	19	22.35	22.35
Agree	38	44.71	67.06
Neutral	14	16.47	83.53
Disagree	10	11.76	95.29
Strongly Disagree	4	4.71	100.00
Total	85	100.00	

5. Internal auditors undertake continuous professional development trainings or attend educational seminars

	Frequency	Percent	Cumulative Percent
Strongly Agree	10	11.76	11.76
Agree	26	30.59	42.35
Neutral	23	27.06	69.41
Disagree	21	24.71	94.12
Strongly Disagree	5	5.88	100.00
Total	85	100.00	

6. Internal auditors have adequate educational background

	Frequency	Percent	Cumulative Percent
Strongly Agree	13	15.29	15.29
Agree	40	47.06	62.35
Neutral	20	23.53	85.88
Disagree	10	11.76	97.65
Strongly Disagree	2	2.35	100.00
Total	85	100.00	

7. Internal audit provides reports to the Minister (or audit committee)

	Frequency	Percent	Cumulative Percent
Strongly Agree	31	36.47	36.47
Agree	24	28.24	64.71
Neutral	12	14.12	78.83
Disagree	13	15.29	94.12
Strongly Disagree	5	5.88	100.00
Total	85	100.00	

8. Internal auditors include in their reports any fault, fraud, wrongdoing, and mistake without influence from any one

	Frequency	Percent	Cumulative Percent
Strongly Agree	26	30.59	30.59
Agree	26	30.59	61.18
Neutral	15	17.65	78.83
Disagree	13	15.29	94.12
Strongly Disagree	5	5.88	100.00
Total	85	100.00	

9. Internal auditors have unrestricted access to all departments and employees in the sector

	Frequency	Percent	Cumulative Percent
Strongly Agree	18	21.18	21.18
Agree	33	38.82	60.00
Neutral	13	15.29	75.29
Disagree	16	18.82	94.12
Strongly Disagree	5	5.88	100.00
Total	85	100.00	

10. Internal audit participate in the development of the sector processes

	Frequency	Percent	Cumulative Percent
Strongly Agree	13	15.29	15.29
Agree	34	40.00	55.29
Neutral	18	21.18	76.47
Disagree	16	18.82	95.29
Strongly Disagree	4	4.71	100.00
Total	85	100.00	

11. Established internal audit objectives were accomplished.

	Frequency	Percent	Cumulative Percent
Strongly Agree	27	31.76	31.76
Agree	30	35.29	67.05
Neutral	18	21.18	88.24
Disagree	10	11.76	100.00
Total	85	100.00	

12. There is an effective communication between internal and external auditors.

	Frequency	Percent	Cumulative Percent
Strongly Agree	12	14.12	14.12
Agree	22	25.88	40.00
Neutral	32	37.65	77.65
Disagree	14	16.47	94.12
Strongly Disagree	5	5.88	100.00
Total	85	100.00	

13. Internal audit work was efficiently performed according to the audit plan.

	Frequency	Percent	Cumulative Percent
Strongly Agree	20	23.53	23.53
Agree	37	43.53	67.06
Neutral	9	10.59	77.65
Disagree	16	18.82	96.47
Strongly Disagree	3	3.53	100.00
Total	85	100.00	

14. Internal audit findings are correctly argued and justified.

	Frequency	Percent	Cumulative Percent
Strongly Agree	15	17.65	17.65
Agree	44	51.76	69.41
Neutral	14	16.47	85.88
Disagree	9	10.59	96.47
Strongly Disagree	3	3.53	100.00
Total	85	100.00	

15. Internal audit recommendations can be easily implemented.

	Frequency	Percent	Cumulative Percent
Strongly Agree	14	16.47	16.47
Agree	33	38.82	55.29
Neutral	23	27.06	82.35
Disagree	9	10.59	92.94
Strongly Disagree	6	7.06	100.00
Total	85	100.00	

16. Internal audit report is accurate (clear and logical)

	Frequency	Percent	Cumulative Percent
Strongly Agree	18	21.18	21.18
Agree	43	50.59	71.77
Neutral	10	11.76	83.53
Disagree	13	15.29	98.82
Strongly Disagree	1	1.18	100.00
Total	85	100.00	

17. Senior management supports internal audit personnel

	Frequency	Percent	Cumulative Percent
Strongly Agree	8	9.41	9.41
Agree	39	45.88	55.29
Neutral	20	23.53	78.82
Disagree	13	15.29	94.12
Strongly Disagree	5	5.88	100.00
Total	85	100.00	

18. Internal audit department is large enough to efficiently carry out its duties.

	Frequency	Percent	Cumulative Percent
Strongly Agree	11	12.94	12.94
Agree	32	37.65	50.59
Neutral	16	18.82	69.41
Disagree	20	23.53	92.94
Strongly Disagree	6	7.06	100.00
Total	85	100.00	

19. Senior management is aware of internal audit needs

	Frequency	Percent	Cumulative Percent
Strongly Agree	9	10.59	10.59
Agree	38	44.71	55.30
Neutral	19	22.35	77.65
Disagree	14	16.47	94.12
Strongly Disagree	5	5.88	100.00
Total	85	100.00	

20. Top management of public sectors demands implementation of corrective actions recommended by external auditors

	Frequency	Percent	Cumulative Percent
Strongly Agree	8	9.41	9.41
Agree	32	37.65	47.06
Neutral	26	30.59	77.65
Disagree	12	14.12	91.76
Strongly Disagree	7	8.24	100.00
Total	85	100.00	

21. Internal Audit function of your public sector is effective

	Frequency	Percent	Cumulative Percent
Strongly Agree	9	10.59	10.59
Agree	36	42.35	52.94
Neutral	23	27.06	80.00
Disagree	12	14.12	94.12
Strongly Disagree	5	5.88	100.00
Total	85	100.00	

Appendix 5: Descriptive Statistics for Questionnaire Survey of Inspection Department Staffs & External Auditors

Variable	Obs	Mean	Std. Dev.	Min	Max
Competency of Internal Auditors	13	2.677	.806	1.6	4
Independence of Internal Audit Team	13	2.923	.598	2	3.75
Quality of Internal Audit	13	2.321	.685	1.3	3.5
Management Support	13	2.173	.724	1	4
Effectiveness of Internal Audit	13	2.308	1.031	1	4