DETERMINATS OF INTERNAL AUDIT EFFECTIVENESS: A STUDY WITH REFERENCE TO WOLAITA ZONE

A Thesis Submitted to the Department of Accounting and Finance in Partial Fulfillment of the Requirements for the Degree of Master of Science (Msc) in Accounting and Finance

BY: OMOSHE GIBORE



WOLKITE UNIVERSITY

COLLEGE OF BUSINESS & ECONOMICS

MASTER OF SCIENCE IN ACCOUNTING AND FINANCE

May/2022
Wolkite, Ethiopia

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and

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STUDENT'S DECLARATION

I undersigned here, declare that this work entitled *"Determinants of Internal Audit Effectiveness: A Study with reference to Wolaita Zone"* is my own original work and has not been submitted to/presented for award of any other degree or diploma to any university or other institute of higher education. And all the materials used as reference in this case this study have been duly acknowledged.

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This is to certify that the Research Paper prepared by OMOSHE GIBORE GIDEBO, entitled as *"Determinants of Internal Audit Effectiveness: A Study with reference to Wolaita Zone"*is submitted in partial fulfillment of the requirements for the degree of Master of Science(Msc) in Accounting and Finance and it complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Approval of Board of Examiners

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Internal Examiner Signature & Date

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External Examiner Signature & Date

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Department Head or Coordinator of School of Graduate studies

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Acronyms

- IIA; - Institute of Internal Auditors
- IA: - internal audit
- IIARF: - International internal audit research foundation
- OAG: - Office of Auditor General
- CAE: -Chief Audit Executive
- CBOK: - Common Body of Knowledge projects
- MoFED:-ministry of finance and economic development
- OLS: -ordinary least square
- SPSS: -Statistical Package for Social Sciences

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Abstract

The main purpose of this study was investigating determinants of internal audit effectiveness with reference to wolaita zone, SNNPRS. To conduct the study, the researcher used deductive type of research approach and explanatory type of research design as it was conducted to investigate cause and effect relationship between dependent and independent variables. As a result, the study primarily focused on 11 purposively selected governmental sectors with good potential and well organized manpower and internal auditing activities. To select respondents that enable collect reliable data, purposive sampling was also applied in each and every purposively selected woreda and sector. In other words, only respondents that can provide reliable data out of employees of purposively selected sector in purposively selected woreda or city administration were chosen to distribute Amharic version of questionnaire. Thus, two types of questionnaires were prepared and distributed (one type to top management team members & the other type of questionnaire to internal audit officers) so that the required primary data could be collected. Internal audit independence, management support, adequate and competent internal audit staff, sufficiency of budget, level of objectivity and approved IA charter were hypothesized determinants that have been tested using collected primary data in the study area and all of these six determinants were proposed to have positive and statistically significant impact on IAE. Out of these determinants, internal audit independence and sufficiency of budget were investigated by the study to have positive and statistically significant contribution to IAE. However, determinants like adequate and competent internal audit staff, level of objectivity and approved IA charter were investigated to have insignificant positive contribution to IAE. Beta sign to management support showed that the variable has negative and insignificant contribution to IAE. According to results of regression analysis, 60.5% of the study is explained by the model and it showed that all of the variables collectively could play crucial role to sustain effectiveness of internal audit functions in governmental sectors in the study area. Finally, analysis results revealed that all concerned bodies should give special attention to increase independence of internal audit work process and to assign sufficient budget to IA work process.

Key Words: *Internal audit effectiveness, Internal Audit functions; Governmental sectors***;**

CHAPTER ONE

1. Introduction

1.1. Back ground of the study

To run their day-to-day activities and to provide different public services, public or government sectors are using government budgeted finance (MoFED, 2004). As it is being recommended by different previous studies, all financial management related transactions should properly be authorized, executed and recorded; and funds should be expended for legitimate purposes in appropriate way. Governments in different countries have been involving in collecting and spending billions of public moneys through various governmental programs and activities. This revenue collection and expenditure mainly is used to motivate economic growth of countries. Taking in account of this huge money being involved, governments need efficient and effective financial management system together with accountability and transparency(Zulkifli et. al., 2014; Shewamene Hailemariam, 2014).

Sound financial management control should be in place which includes allocation of the fund according to sated objectives, clear rules of responsibilities, ensuring the expenditure according to the set budget and procedures. Government is aware that high quality of financial management will lead to the success of government programs and activities(Kirima N. Njoroge, 2016). However, irregularities and violation of laws are common in spending public money and these have been highlighted by the Auditor General (AG) in Malaysia annual report, as it is expressed by Amrin Buang (2008, cited in Zulkifli et. al., 2014). And Some of these highlighted weaknesses and irregularities involve serious violation of established financial management guidelines and procedures such as poor planning of procurement, equipment's supplied, work done and services rendered not in accordance with the original specification, cost overrun due to delays in project completion, improper payment made for equipment not supplied, work not done and services not rendered, equipment and good procured at a much higher cost than market value, procurement not done according to established regulations.

To ensure the well-functioning of public financial management system, governments in different countries have been establishing the Internal Audit (IA) Units/departments. It is because

circulation of this public money requires the establishment of IA unit/department and governing the tasks and responsibilities of internal auditing in the public sector and as an internal control mechanism to look into the financial management integrity (ZulkifliZulkifli et. al., 2014, Kirima, 2016).Thus, the role of IA unit, as the researchers say, is to determine whether internal control is in place by reviewing policies and practices in the organization in order to avoid loss of financial resources, to check noncompliance and also to provide reasonable assurance that public money has been spent in an efficient and effective manner or not. It is stated by Greaves Mupeta (2017)thattherole of internal auditing could be identified as involving three elements that are referred to as the three pillars of internal auditing and these are the evaluation and improvement of risk management, control and guidance processes.

Internal auditors in different organizations play the role of undertaking an independent examination and giving assurance on various operations of institutions aimed at enhancing organizational performance every day (Institute of Internal Auditors (IIA), 2009). According to Okafor and Ibadin (2009, cited in Zulkifli et. al., 2014), the IA activities are critical role players in improving governance of IA systems in organizations. Mupeta (2017) also explained in his study that IA department is responsible for the management and control of government resources to ensure adequate, effective prudential measures and controls are in place to process and utilizing the resources. An effective internal auditing is very important and participatory in improving control systems, analyzing risks and providing objective assurance and consulting services (Burnaby, Hass, & Abdolmohammadi, 2006, Saren and I. De Beelde, 2006, cited in Zulkifli et.al., 2014).

Moreover, Shewamene(2014), tried to show the importance of internal auditing citing other researchers work as *"internal auditors have the right and ability to access all information in every part of the organization and their function lies at every activities of the corporate governance system. Because internal auditors can act as a consultant in monitoring risk, identifies weakness in internal control system, and facilitates the implementation of risk management as well as IA contribute to the appropriateness of procedures and operations of the audited body (Cohen and Sayag, 2010; Arena and Azzone, 2009; Dittenhofer, 2001)*.,,

The term IA effectiveness is defined by different individuals and organizations in different ways. The Institute of Internal Auditors IIA (2010) defined IA effectiveness ‘’as the degree (including quality) to which established objectives are achieved’’. Internal audit effectiveness, as it is defined by Arena and Azzone (2009), is “the capacity to obtain results that are consistent with targets objective.’’ Mizrahi and Ness-Weisman (2007) defined internal audit effectiveness as the number and scope of deficiencies corrected following the audit process.

Since a number of complaints as a result of increased ineffectiveness of government in detecting and preventing the misappropriation of public funds are being raised in day to day activities, external and internal auditors are being used to significantly enhance controls to promote transparency and accountability. However, even after declaring different powerful laws and approved charters governing internal audit processes, there is still a rise in cases of inefficiency and ineffectiveness in public resources management and many report cases of frauds and corrupted practices are being heard (Mihret et. al., 2007, cited in NJOROGE, 2016). The Auditor General of Kenya reported that out of 101 financial reports for the fiscal year ended 30 June 2014, 26 had an unqualified opinion, 50 had a qualified opinion, 16 had an adverse opinion while 9 had a disclaimer of opinion (Auditor General, 2015, cited in NJOROGE, 2016). NJOROGE says it is good indicator that management of financial resources in the public sector is still not efficient and effective.

This study, therefore, was conducted to investigate determinants of internal audit effectiveness taking wolaita zone as case study area and using six different supposed determinants that may affect effectiveness of internal audit activities.

1.2. Statement of the problem

Recent days, whether it is in developed, developing or underdeveloped countries, ensuring sustainable development through wise use of scarce resources being budgeted by government is a challenging practice. In other words, governments in underdeveloped countries, are facing the challenge of unwise use of scarce resources. As a means of minimizing tool for improper public resource management problems, governments had been practicing internal audit system for decades. It is clearly stated by Bethlehem Fekadu (2009) that IA function has existed for a long

period of time in Ethiopia. Thus, the current status of internal auditing in Ethiopia came from a document issued in 1987(Proclamation No. 13/1987) and the document not only re-emphasized the importance of the IA function in different public enterprises, it also provided the power to office of Auditor General (OAG) to control proper accounting records, and reliability, to adequately safe guard the assets of the ministries and enterprises. Moreover, Financial Administration Regulations No. 17/1997 was issued on July 1 to transfer the responsibility of IA function from the office of the Auditor General to the Minister of Finance to develop and maintain appropriate standards of work (Bethlehem, 2009).

To minimize level of inappropriate use of these scarce resources, internal auditing system should be effective and efficient. According to Nasibah et al. (2010), the necessity of effectiveness of internal audit function has become a subject of interest in the internal auditing researches and literatures. According to Mihret et. al. (2007), internal audit function is effective when it is able to achieve the objectives or goals that are sated by an organization. And even level of effectiveness should be progressive from time to time. But when we see performance experience of internal audit activity from different existing literatures and research works, it is not as it should have been. Institute of Internal Audit (2013), defined internal audit effectiveness as the degree including quality to which established objectives are achieved. Mihret et. al. (2007) stated that internal auditing effectiveness should be viewed as a dynamic process that is continuously shaped by the interaction of different factors that affect effectiveness.

A number of research findings assured that effectiveness of the internal audit practice highly contributes to effective management and internal control of an organization. According to Okafor and Ibadin (2009, cited in Zulkifli et. al., 2014), the internal audit activities are critical role players in improving governance systems in organizations. An Effective internal auditing is very important and participatory in improving control systems, analyzing risks and providing objective assurance and consulting services (Burnaby, Hass, & Abdolmohammadi, 2006, Saren and I. De Beelde, 2006, cited in Zulkifli et.al., 2014).

Even though there is commonly recognized ineffectiveness of internal auditing inpublic sectors in contrast to its critical importance, it is not sufficient to get related literatures and studies conducted by Ethiopians to see the reason why the internal audit department is not functioning

its activities in efficient way though number of conducted studies increasing from time to time. However, there are a few research works available and these existing literatures authenticated that there are a number of determinants that affect internal audit effectiveness in public sector.

When we see different previous research works (Ethiopian perspective or others), most of the studies had tried to cover investigation of only three or four factors on average as determinants of IA effectiveness. For example, internal audit quality, management support, organizational setting and auditee attributes are factors tested by Mihret et. al. in 2007 in Ethiopia taking Addis Ababa university as sample size, and they found that only audit quality and management support significantly influence IA effectiveness. But their findings are not consistent with Shewamene's findings; he conducted taking 15 corporations in Addis Ababa as sample size, in terms of tested variables and covered study area. Because Shewamene's (2014) research paper covered management support, organizational independence, competent IA staff, approved IA charter and management's perception of IA's value as determinants of IA effectiveness which is consistent with research work by Mupeta (2017) in Zambia and found that management support, competent IA staff, and approved IA charter contribute for the IA effectiveness in the public sectors significantly and positively.

Additionally, there is a study that was conducted by Alemzewed Ayele(2019)with the objective of identify determinants of internal audit effectiveness in Ethiopian budgetary public sectors which are located in Addis Ababa. The study used purposive sampling method to cover selected budgetary public sectors. Moreover, the researcher used both quantitative and qualitative research method and used 85 self-administered questionnaires to collect primary data. Conducting analysis for collected primary data, the researcher identified that internal audit work quality & management supports have positive and statistically significant effect on effectiveness of internal audit activities. Independence of internal audit & competence of internal audit team were variables identified to have statistically insignificant relation with the effectiveness of internal audit functions.

As part of governmental sectors in Ethiopia, different governmental sectors in Wolaita zone are providing public services using government budgeted resource. Additionally, it is commonly heard in this study area that the sectors are not using this government budgeted resource

effectively and efficiently. However, much is not done to identify the determinants resulted in inefficient use of resources. Thus, studies should be conducted to investigate determinants of internal audit effectiveness in this study area so that concerned bodies take corrective measurements. As a result, investigating different determinants that are affecting effectiveness of internal auditing in selected case study area(wolaita zone) is the main research gap that energized the researcher to conduct this study proposing more number of variables and taking a case study area where no related research is conducted before so that it could be possible to contribute for existing literature gap in case study area in particular and in Ethiopia in general.

To contribute for existing literature gap for Ethiopian perspective in general and for this case study area in particular, this study was conducted by the researcher to investigate determinants of internal audit effectiveness taking Wolaita zone as case study area and using six different supposed determinants like internal audit independence, management support, approved IA charter, level of objectivity, adequate and competent internal audit staff and sufficiency of budget that were supposed to determine internal audit effectiveness.

Research questions

- Could internal audit independence affect internal audit effectiveness?
- Could management support affect effectiveness of internal audit?
- Could adequate and competent internal audit staff affect internal audit effectiveness?
- Could sufficient budget/funding affect effectiveness of internal audit?
- Does approved internal audit charter matter with internal audit effectiveness?
- Could objectivity level of internal audit staff contribute for effectiveness of internal audit?

1.3. Objectives of the study

1.3.1. General objective

Investigating Determinants of internal audit effectiveness in wolaita zone

1.3.2. Specific objectives

The paper included the following specific objectives: -

- To identify influence of internal audit independence on internal audit effectiveness.

- To examine the impact of management support on effectiveness of internal audit.
- To examine influence of adequate and competent internal audit staff on internal audit effectiveness.
- To identify influence of sufficient budget/funding on effectiveness of internal audit.
- To examine effect of approved internal audit charter on internal audit effectiveness.
- To examine impact of objectivity of internal audit staff on effectiveness of internal audit.

1.4. Significance of the study

Since internal audit activities are essential to a government as control mechanism that ensures minimizing unnecessary and unwise use of scarce resources, this study could be used by concerned governmental bodies as it tried to investigate determinants of internal audit effectiveness. In other words, concerned government leaders at all levels, policy makers, academicians and researchers can use findings of the study as benchmark to take corrective actions, to development policy instruments, to development training modules and to conduct further investigation on the topic. Furthermore, concerned public sectors' management bodies could use findings of the study to identify crucial drivers of IAE and take corrective measurements wherever necessary.

Additionally, the study also can contribute to minimize literature gap around the topic. As a researcher, there is possibility of getting additional knowledge from the study. Thus, findings of this research paper will play great role to increase knowledge of the researcher and to be used as benchmark for further investigations.

1.5. Scope of the study

Logically, it may not be possible to a researcher to cover total population of a selected study area. Additionally, the rules and regulations being applied by all governmental sectors in Ethiopia in general and in Southern region in particular to implement day to day activities of internal audit activities are almost the same and if we take some case study area to conduct a research, we can conclude from specific to general assuming that selected sectors can present other non-included sectors. Thus, taking un account of this homogeneous behavior of public sectors, the study area was limited only to wolaita zone government budgeted sectors that have

internal audit work process. As a result, the researcher selected eleven potentially known, well experienced and woredas that have internal audit activity experiences for more than a decade.

1.6. Limitations of the study

The study generally is finalized analyzing primary data that had been collected using two types of questionnaires that had developed by the researcher. The primary data had been provided by the respondents depending on their perception and understanding about each and every idea raised in the questionnaires. Thus, quality of findings of the study depends on quality of collected data because personal attitude of the respondents may limit quality of data which in turn affects research quality.

Even though internal audit activities related manuals, rules, regulations and directives be nearly similar to all regions in Ethiopia, it might be difficult to provide generalized conclusion with full confidence about internal audit effectiveness and determinant of IAE in Ethiopia taking account of findings of the study as the study used only eleven woredas and city administrations from a single zone in SNNPRS, Ethiopia.

1.7. Organization of the paper

The thesis consisted five different chapters in addition to the preliminary pages. Next to the first chapter, the second chapter provides information about review of related literatures specifically definition of IA, definition of IAE, empirical reviews about independent variables which are supposed to affect IAE. The third chapter consisted information about methods and techniques that are used to conduct the study. Results and interpretation is presented in chapterfour and conclusions and recommendations of the study are included in chapter five of the paper. Finally references and appendixes are added as parts of the research paper.

CHAPTER TWO

2. Related Literature Review

2.1. Introduction

In this chapter, the researcher tried to present review of different previous literatures and survey reports to show how the proposal is prepared using different related research papers, existing literatures, journal articles so on.

Thus, chapter consistsof definition of internal auditing, definition of the term internal audit effectiveness, types of internal audit activities, proposed factors that are expected to affect internal audit effectiveness such as internal audit independence, management support, adequate and competent internal audit staff, approved IA charter, sufficiency of budget and level of objectivity that are selected organized reviewing different existing literatures.

2.2. Theoretical frame work

Contingency theory: according to Badara and Saidin (2014, cited in Mustika, 2015) contingency theory is able to enable researchers explain about one phenomenon systematically. This theory could explain the relationship between two or more variables. In this research, thus, internal audit effectiveness is something that will be tested using descriptive analysis to evaluate level of effectiveness. To achieve the internal audit effectiveness, concerned bodies should pay attention to the determinants that might affect it. Internal audit effectiveness depended on contingency variables as internal audit independence, management support, approved IA charter, level of objectivity, adequate and competent internal audit staff and sufficiency of budget.

Internal audit productivity assessment standards: Omar Ali (2018) stated with full confidence that the substantial measure of definitions that are given by numerous scientists portrays the considerable significance of internal auditing. Particularly, the Institute of Internal Auditors, (Tomic¸et al., 2017, cited in Ali, 2018), characterized internal auditing as "*an autonomous examination work, set up inside an organization to analyze and assess its exercises as a support of the organization"*. By estimating and assessing the effectiveness of hierarchical controls, inside examining, itself, turns into a critical administrative control gadget, which is specifically connected to the authoritative structure and the general standards of the business (Ferramosca, et

al., 2017; Ali, 2018). According to Kabuye, et al. (2017), there is a Committee of Sponsoring Organization's show which is created by the American Institute of Certified Public Accountants, the American Accounting Organization, the Financial Executives Institute, the Institute of Internal Auditors, and the Institute of Management Accountants has been embraced as the most part acknowledged structure for internal control and is generally perceived as the complete standard to evaluate the viability of inside control framework. Moreover, the U.S. Government Accountability Office noticed that internal auditing is "a vital part of an organization's administration that gives sensible confirmation that the accompanying targets are being accomplished: effectiveness and proficiency of activities, dependability of money related detailing, and consistence with appropriate laws and controls" (Lenz & Hahn, 2015, cited in Ali, 2018).

As it is stated by Alzeban& Gwilliam (2014), IA possesses a novel position in the internal affirmation administrations given by people in general and administrative bodies pushed by the present organizations outrages and worldwide money related emergency. Ali (2018) also has narrated that issues identified and related with auditing and monetary prevision and announcing have been unfurled since budgetary markets emergency. To assess organizations, administration needs to assess the two representatives' genuineness and work's proficiency. These obligations have been designated to the built up formal internal audit work (George & Konstantinos, 2015).Rapidly, internal audit scope has been reached out to incorporate a large portion of monetary exchanges' confirmation, and step by step moved from evaluating for administration to auditing of administration approach(Abbott, et al.,2016). Internal auditing could help organizations in better achieve their targets by getting adeliberate and restrained way to deal with enhance and assess the control, chance administration, and the administration forms effectiveness (Psomas & Antony,2015). The internal auditors must be described with the most noteworthy expert objectivity levels of imparting aptitudes including gathering and assessing data identified with the analyzed exercises or procedures (D'Onza, etal.,2015). While administration's expanded consideration regarding IA suggestions urged internal evaluators to give their earnest attempts, the absence of administration consideration gives the audit a terrible thought in regards to the significance of internal auditing which thusly antagonistically influence the aud it attributions (Kafetzopoulos & Gotzamani, 2014). Inside control as part of IA is

comprehensively involve ordered projects and procedures initiated by administration of an organization which encourages the organization to accomplish its objectives and destinations; and additionally conforming to laws and directions (Ali, 2018).

2.2.1. Definition of internal Audit

Definitions given by different writers about IA revolving around the same concept, still it might be possible to see slight differences among these definitions. IIA (1999)defined IA as itis "*An independent appraisal function established within an organization to examine and evaluate its activities as a service to the organization*. Later on, the new Institute of Internal Audit (IIA, 2001) defined internal audit as: "*An independent, objective assurance and consulting activity designed to add and improve in organization's operations. It helps an organization to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.* Moreover, IA was defined by Mupeta (2017) as "*Internal auditing is a profession and activity involved in advising organizations regarding how better to achieve their objectives through managing risks and improving internal control. Internal auditing involves the utilization of systematic methodology for analyzing business processes or organization problems and recommending solutions.* „

Thus, definitions of IA show that internal auditors mainly have limited scope to make assurance in any governmental or non-governmental organization and to provide consultancy service to the overall management of an organization.

2.2.2. Importance of Internal audit

As different previously conducted studies indicate, recognition is being provided to the importance of IA. Internal auditing plays crucial role acting as a conduit between business and financial reporting in businesses and not-for-profit providers. Therefore, internal audit activities are vital for any firm as it serves a monitoring role in overseeing the risk profile of the firm and in investigating the weaknesses and their resolution for enhanced risk management (Reynolds, 2000; Rae, Subramaniam, & Sands, 2008, cited in Seif Obeid ALshbiel, 2017). Business risks which are caused by Technological, political, regulatory, and economic changes during the last consecutive decades have significantly affecting day to day operations of companies. It is in turn

resulting in economic instability and increased financial fraudulent. Thus, the demand for IA activities is increasing for companies (Bekiaris et al., 2013; Vinary and Skaerbaek; 2014; Tsipouridou and Spathis, 2014; Gbadago, 2015; George et. al., 2015).

Additionally, importance of internal auditing was emphasized by Shewamene (2014) citing from other studies as*" internal auditors have the right and ability to access all information in every part of the organization and their function lies at every activity of the corporate governance system. All the stakeholders will therefore benefit from having a strong Internal Audit Function (IAF) which will provide value to the other cornerstones of corporate governance (Smet and Mention, 2011). Because internal auditors can make line managers aware of their responsibility; can act as a consultant in monitoring risk, identifies weakness in internal control system, and facilitates the implementation of risk management as well as IA contributes to the appropriateness of procedures and operations of the audited body (Cohen and Sayag, 2010; Arena and Azzone, 2009; Dittenhofer, 2001). ,,*

2.2.3. Internal Audit Activities

Shewamene (2014) stated in his research paper that there are various core audit activities which are common in the internal audit work department and these are: -

2.1.1.1. Operations Audits: Audits examine the use of resources to determine whether resources are used in the most effective and efficient manner to fulfill the organization's mission and objectives or not.

2.1.1.2. Financial Audits: Auditors review accounting and financial transactions to determine whether commitments, authorizations, and receipt and disbursement of funds are properly and accurately recorded and reported. It is a type of audit used to determine whether there are sufficient controls over cash and other assets and that adequate process controls exist over the acquisition and use of existing resources or not.

2.1.1.3. Compliance Audits: Auditors determine in their day-to-day activities to check whether entities are complying with applicable laws, regulations, policies and procedures or not. Examples include federal and state laws, and Trustee policies and regulations.

2.1.1.4. Information Systems Audits: These are kinds of audits used to review the internal control environment of automated information processing systems and how people use these

systems. The audit procedures and activities usually evaluate system input, output; processing controls; backup and recovery plans; system security; and computer facilities.

2.1.1.5. Internal Control Reviews: These types of audits mainly focus on the components of major business activities, such as payroll and benefits, cash handling, inventory and equipment, physical security, grants and contracts, and financial reporting

2.2.4. Internal Audit Effectiveness

Mihretet.al. (2007) stated in their study that audit findings and recommendations highly need management commitment to implement recommended activities which finally result in audit effectiveness. Adams (1994, cited in Mihret et.al., 2007) used agency theory to emphasize how management has great role to maintain a strong IA department. Furthermore, providing proper feedback to audit findings and recommendations as it is highly relevant to audit effectiveness and the management body of an organization is viewed as the customer receiving IA services. Therefore, managers or management bodies' commitment to use audit recommendations and its support in strengthening IA is vital to audit effectiveness. In other words, the effectiveness of IA contributes to the effectiveness of each auditee in particular and the organization at large (Dittenhofer, 2001; Sawyer, 1995; Van Gansberghe, 2005).

According to Endaya and Hanefah(2013, cited in George et.al., 2015), there is no a generally accepted consensus about the most appropriate framework for IA effectiveness. Thus, as they had said, effectiveness of IA is a dynamic process and a matter of considerable debate. However, recent day's Economic crisis, corporate failures, malpractices and growth in different reported fraud cases are emphasizing the importance of effective internal audit activities. Generally, an effective internal auditing is very important role player in improving control systems, analyzing risks and providing objective assurance and consulting services (Halimah et. al., 2010). IA is effective if an internal auditor is able to achieve established objectives within an organization. The Institute of Internal Auditors IIA (2010) defined internal audit effectiveness as "*the degree (including quality) to which established objectives are achieved'' This means internal audit effectiveness is the ability of achieving established objectives within an organization"*.

As it was presented by Mihretet.al. (2007),it is possible to see what effective internal audit department should be. According to them, Effective Internal Audit (IA):

a/Makes management realize contribution of internal audit to the achievement of organizational goals, b/Needs committed management role to implement recommendations and to improve the operation of the auditee, c/Needs the management to retain the authority to improve the organizational setting and influence the auditee towards a positive effect on audit effectiveness, d/Needs capable internal audit department to provide useful findings and recommendations which is central to audit effectiveness, e/Provides useful recommendations for improvements as necessary as possible and f/Management support is a natural quid pro quo for effective internal audit.Finally, definition of IA effectiveness stated byMupeta(2017) collecting from different researchers as"…..*Arena and Azzone (2009) defined effectiveness ''as the capacity to obtain results that are consistent with target objectives.'' Effectiveness, as defined by Dittenhorfer M (2001), is the ability toward the achievement of objectives and goals. Mizrahi and Ness-Weisman (2007) defined internal audit effectiveness as the number and scope of deficiencies corrected following the audit process.*

2.3. Empirical Reviews

This study was conducted to investigate determinants of internal audit effectiveness selecting government budgeted sectors in wolaita zone.There were proposed determinants organized by the researcher depending on previous studies conducted by Ethiopians and foreigners and these are management support, internal audit independence, competent internal audit staff, approved internal audit charter and sufficiency of budget.

2.3.1. Internal Audit Independence

Independence of internal audit means the extent of internal audit officers' freedom to implement their day-to-day audit activities. Independence has no single meaning and interpretation across the people; hence the concept is subject to ambiguity and uncertainty (Wines, 2012, cited in shewamene, 2014). However, in this case study independent internal auditor from internal audit work process point of view is to mean that the one who perform his or her activity without any managerial or any kind of unnecessary interference that can affect the audit process or quality. In other words, if an internal auditor/audit department is practically independent, then it will be possible to generate and conclude viable audit findings and recommendations. The IIA (1999, cited in Jenny Stewart*and*Nava Subramaniam, 2009) definition of internal auditing showed that there is a clear demarcation between independence and objectivity as: *"Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an*

*organization's operations. Ithelps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes."*As the definition shows, independence and objectivity of internal auditing with respect to both assurance services and consulting should clearly be recognized. Even though both Independence and objectivity seem closely related with each other, The IIA (2001) stated also that the terms have been used interchangeably with a lack of clarity. Thus, the Glossary to the IIA Standards distinguished between the two concepts as: "Independence: *–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*."

"Objectivity: *–An unbiased mental attitude that allows internal auditors to perform engagements in such a manner that they have an honest belief in their work product and that no significant quality compromises are made. Objectivity requires internal auditors not to subordinate their judgment onaudit matters to that of others*." Hence, the IIA distinction between the two terms appears to be that objectivity is a state of mind while independence is the state of affairs that permits an internal auditor to operate with an objective attitude.

It is stated clearly in International Standards for the Professional Practice of Internal Auditing (IIA, 2004) that importance of the attitude of independence and objectivity in the practice of internal auditing is emphasizedas: "*The internal audit function should be independent, and internal auditors must be objective in carrying out their work*." The independence refers to organizational status of the internal audit function, while the objectivity of the auditor refers to the mental attitude individually.

Independence is fundamental to the reliability of auditor's reports. Those reports would not be credible, and investors and creditors would have little confidence in them, if auditors are not independent both in fact and appearance. The assurance services provided by auditors derive their value and credibility from the fundamental assumptions of independence of mind and independence in appearance (Wines, 2012; Stewart and Subramanian, 2010, cited in shewamene, 2014). George et.al.(2015) revealed in their study that independence of internal audit is the foundation of internal audit effectiveness as it was the most crucial factor in their model

specification. Moreover, Shewamene (2014) presented in his paper that independence in fact exists when auditors are able to act with objectivity, integrity, impartiality, transparency and free from any conflict of interest. As he says, the concept of independence in appearance is visible when an auditor is perceived positively as independent auditor by others (the public or other third party). Conflict of interest could exist when a reasonable person, with full knowledge of all relevant facts and circumstances, would conclude that the auditor, or a professional member of the audit team, is not exercising objectively and impartial judgment in relation to the audit conducted.

Many auditors, as different previous studies stated, have been arguing that organizational independence is very important to achieve audit objectives. For example, the independence of internal audit department and the level of authority to which the internal audit staff report are the important criteria that influence the objectivity of its work. Zhang et al. (2007, cited in Seif Obeid, 2017) depicted that internal audit independence is a determinant of internal audit effectiveness. Alzeban and Gwilliam (2014) argued depending on their findings that internal audit independence together with other determinants has positive linkage with internal audit effectiveness. Therefore, depending on review of related literatures, findings about internal audit independence, hypothesis one is developed as:

Ho_1: *Internal audit independence has positive and significant influence on Internal Audit Effectiveness (IAE)*

2.3.2. Management support

Shewamene (2014) and other different researchers indicated properly that management support for internal audit effectiveness can be expressed in different forms. For instance, management team of an organization should be interested in supervising, providing sufficient budget, empowering the work process or department with competent staff and other resources and implementing internal audit findings and recommendations. Additionally, implementation of audit recommendations, which is the component of management support, is highly relevant to internal audit effectiveness (Sarens and Beelde 2006, Van Gasberghe 2005, cited in shewamene, 2014). Mihretet.al.(2007) clearly explained in their study that Management support is the most important factor, among others, that influence internal audit effectiveness and response to audit

finding and the commitment to strength internal audit (which has significance influence on IA effectiveness) are components of management support.

Findings of a study conducted by Cohen & Sayag (2010) indicated that the effect of top management support on internal audit effectiveness is strong and consistent whether the organization be private or public sector. Management support, they also said, is crucial to the operation and internal audit as all other determinants of IA effectiveness are derived from the support of top management. It is because to hire proficient IA staff and provide organizational independence for IA work, top management decisions and support is very important.

Citing others work, Oyewumi et.al. (2016) emphasized the importance of management support for internal audit effectiveness as *"…..many kinds of literature (Christopher, 2014; Ebaid, 2011; Cohen & Sayage, 2010) consider management support as one of the vital factors that cannot be underestimated when internal audit task is being examined. Without the backing and encouragement of the management, internal audit is bound to fail, and worse still, money and time wasted (Baharud-din, Shokiyah& Ibrahim, 2014; Alzeban and Sawan, 2013). It is the foundation of internal audit task performance, and without it, internal audit will not be sufficiently independent and will have a limited scope of work and resources (Alzeban & Gwilliam, 2014).,,*

Hypothesis two, therefore, is developed depending on what is reviewed here about management support as:

Ho_2: *The correlation between management support and internal audit effectiveness in the sector is positive and significant.*

2.3.3. Adequate and competent internal audit staff

It is not possible to authenticate IA effectiveness without availability of professionally competent manpower and necessary resources. MoFED (2004) revealed clearly that adequate staffing is essential for a system to its full capability. Cohen & Sayag(2010) indicated in their study that appropriate staffing and good management of the staff in internal audit department are keys to the effective operation of internal audit. They also found that professional efficiency of internal auditors is integral for the effectiveness of internal auditing. Audit activity by nature requires a professional staff that collectively holds professional qualifications like the necessary education

level, training, experience and conduct the full range of audits required by its mandate (Al-Twaijry, Brierley and Gwillian 2003, cited in Cohen & Sayag, 2010). According to Zulkifli et. al.(2014), competency can be related to the ability of an internal audit officer or other professional to perform his/her job or task based on required professional experience and the effort of the staff members to show continuous professional development. The researchers concluded also that internal audit effectiveness is highly dependent on auditors' competency and management support.

Moreover, Seif Obeid (2017) indicated the role of auditors' professional competency for IA effectiveness citing others findings as: -

"*Internal audit team is also deemed as a significant factor for internal audit effectiveness (George, Theofanis, & Konstantinos, 2015). Aligned with ISPPIA, Mousa (2005) deemed proficiency and due professional care in the form of competence as significant factors of IA. Similarly, Turley and Zaman (2007) investigated the factors influencing IA teams' effectiveness and contended that members communication positively influence the audit results. This was also supported by Arena and Azzone (2009) who considered members' communication as a factor that influences internal audit effectiveness. Also, Cohen and Sayag (2010), found that professional efficiency of internal auditors is integral for the effectiveness of internal auditing. Finally, increased internal audit effectiveness appeared to have association with higher internal audit competence (Alzeban & Gwilliam, 2014).,,*

Additionally, an auditor must have certain qualifications as fulfillment of competency to understand the criteria used and to be competent enough, in order to determine the type and amount of evidence that must be collected to reach the proper conclusion after the evidence is complete audit tested (Musa Yosehp, 2016).As a result, hypothesis three is presented here as part of empirical review about adequate and competent internal audit staff as:

Ho_3: *Availability of adequate and competent internal audit staff in the sector has positive and significant impact on internal audit effectiveness.*

2.3.4. Approved IA charter

Approved internal audit charter, as it is assured by previous studies, is a tool that play essential role when internal auditors perform audit activities to clearly know their responsibility, to gate safeguarded and to exert pressure in order that concerned bodies take corrective action

depending on findings and recommendations. According to IIARF (2014) survey report, thepowerof audit activity and duties should be established by the public sector's constitution, charter, or other basic legal document. Among other topics, as the report says, this document (charter) would address procedures and requirements of reporting and the obligation of the audited entity to collaborate with the auditor.IIA defined internal audit charter as "a formal written document that defines the activity's purpose, authority and responsibility. The charter should (a) establish the internal audit activity's position within the organization; (b) authorize access to records, personnel and physical properties relevant to the performance of managements; and (c) define the scope of internal audit activities" (IIA, 2001, cited in shewamene, 2014).

Furthermore, there are also different empirical evidences that show the role of formal charter to ensure internal audit effectiveness. O. Regan (2002, cited in shewamene, 2014) concluded that a well-organized charter is a crucial tool and ingredient for the IA effectiveness. It helps to direct the efforts of audit staff and defines what the board can expect on the assurance it required on internal control from an internal audit. Van Peursem (2005, cited in shewamene, 2014) indicated in his study that availability of strong charter enables an official get respected and have the power or authority to the position of internal audit in an organization. Van Peursem also added that the existence of audit charter in an organization influences senior management to follow findings and recommendations provided by internal auditors as it affects internal audit effectiveness. Thus, hypothesis four is developed depending on reviewed evidences about AIAC as:

Ho_4:*The availability of approved* internal audit *charter in a sector has positive and significant impact on internal audit effectiveness*

2.3.5. Sufficiency of budget/funding

It could not be denied that sufficient amount of budget is the most important resource that should be provided by top management/an organization to internal audit work process for two core reasons:

i. The work process or department could fulfill all the necessary materials to perform day to day audit activities,

ii. It is possible to safeguard the audit officers not to be dependent on auditees negative impact. In other words, it is not possible to minimize risks and increase quality of audit reports unless the organization provides all the necessary fees to internal audit officers to make them free from influence of self-interest.

According to IIARF (2014), the audit activity must have sufficient budget or fund relative to the size of its audit responsibilities. The report also explained thatit is a crucial component special attention not to be left under the control of the organization being audited as the budget impacts the auditors' ability to perform their responsibilities. If insufficient budget is provided, it would create a significant barrier to fulfill the roles and responsibilities of the IA activities in the public sector. Thus, concerned bodies should provide sufficient budget relative to the size of audit activities and responsibilities and funding should be free from the organization being audited.,, Hypothesis five, therefore, is following review of relate literature as:

Ho_5: *Assigning Sufficient Budget to internal audit work process has positive and significant influence on internal audit effectiveness in the finance &development office*

2.3.6. Objectivity of internal audit staff

Studies like zulkiyahet.al. (2014) used objectivity and internal audit independence interchangeably. In this study, however, the researcher will test both of the determinants separately. Ideas following according to definition of internal auditing by IIA(1999),objectivity: is an unbiased mental attitude that allows internal auditors perform engagements in such a manner that they have an honest belief in their work product and that no significant quality compromises are made. Objectivity requires internal auditors not to subordinate their judgment on audit matters to that of others. Additionally, Stewart and Subramaniam (2009) explained that objectivity is a state of mind while independence is the state of affairs that permits an internal auditor to operate with an objective attitude. As it is stated by IIARF (2014), both objectivity and internal audit independence are two separately known determinants affecting internal audit effectiveness and audit staff must have impartial attitude and avoid any conflict of interest. This research report corroborated also that 96% of the CAE respondents when the research was

conducted, agreed or strongly agreed that objectivity is a key factor for internal audit activity to add value.

According to International Standards for the Professional Practice of Internal Auditing (IIA, 2004), internal auditors must be objective in carrying out their work. Objectivity is to express the auditor's mental attitude individually. So, hypothesis six is developed taking in account of what is reviewed here about objectivity of IA staff as:

Ho_6: *Level of objectivity of internal auditors and IAE are positively and significantly correlated in the sector.*

2.4. Identified Literature Gap

As it is shown in empirical review part (Ethiopian and other countries), there are a number of variables tested to investigate determinants of internal audit effectiveness. However, there is no a commonly known determinant to be considered as a standard variable to determine internal audit effectiveness in governmental sectors though a number of studies emphasized that internal audit activity is a crucial practice to maximize effective and efficient use of public money in governmental sectors. Moreover, it is being perceived and heard commonly that there is unwise use of budgeted resources in governmental sectors in Africa in general and in Ethiopia in particular wherever we go. To minimize level of exploitation of resources, effectiveness of internal audit activities should get prior attention of all policy makers, higher government officials and all other concerned bodies. However, when we see what is being done and the role what internal auditors are playing in governmental sectors to achieve set goals, much is left to done and studies should be conducted to identify why internal audit activity is being ineffective in public sectors.

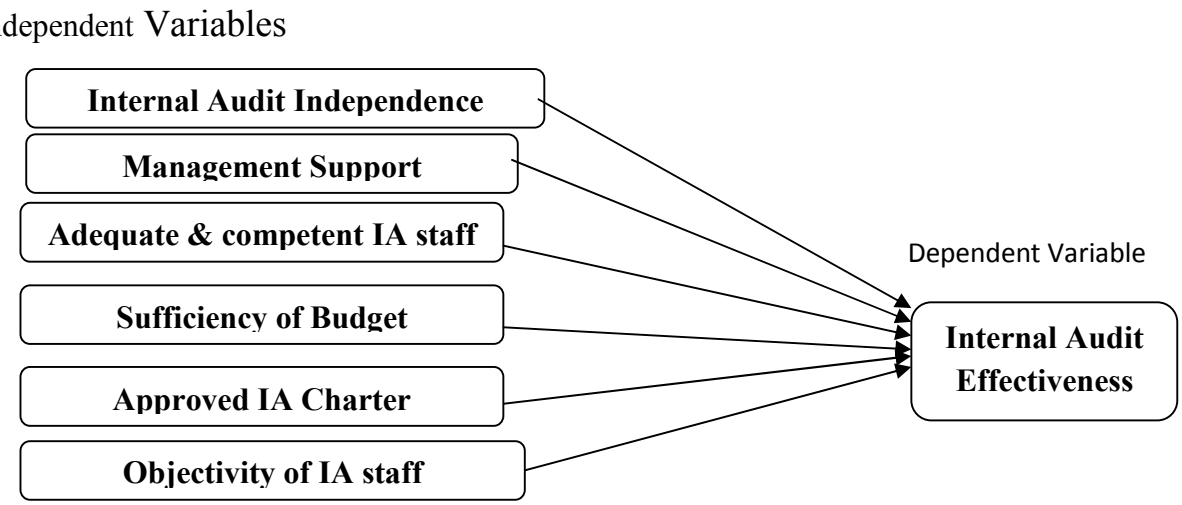
As a result, searching for the answer for the question "*why internal audit activities are being ineffective in Ethiopian public sectors in general and in wolaita zone in particular*?" was the main target of the researcher as research gap to be contributed for. Thus, investigating different proposed determinants to affect effectiveness of internal auditing in selected case study area(wolaita zone) as core part of identified research gap energized the researcher to conduct this study proposing more number of variables and taking a case study area where no related research

is conducted before so that it could be possible to contribute for existing literature gap in this case study area in particular and in Ethiopia in general.

2.5. Conceptual frame work

The framework in developed referring different studies like (Mustika, 2018; Baharud-din et.al., 2014; Shamki & Alhajri, 2014).

Figure 1 conceptual framework



Source: Seif Obeid ALshbiel2017; Alemzewed Ayele, 2019

CHAPTER THREE

3. Research Methodology and Design

3.1. Introduction

If researchers select proper research design, sample size, total population, data collection, and analysis methods, then it helps them finalize their research work with proper findings, conclusions and recommendations. Thus, the researcher has chosen case-study method because this method enables to conduct a detailed analysis using multiple sources of data (Mihret et.al., 2007). As most governmental sectors in Ethiopia use the same internal audit manual and there are common behaviors in policies, procedures and organizational contexts, (Ministry of Finance and Economic Development, 2004, cited in Mihret et.al., 2007), case study method is more preferable for this research.

3.2. Research Approach

Hawa (2016) stated that there are two types of research approaches as deduction and the induction approach. This case study used deduction approach because the conceptual framework is built based on the previous studies. A deduction approach adopts current theories and concepts to justify research relationships. Deductive approach is also helpful to identify the causal relationships among determinants collecting data in most cases using a quantitative method. It also helps in generalizing from the chosen sample to the whole population.

3.3. Research Design

According to Kothari (2004), "*research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. As such the design includes an outline of what the researcher will do from writing the hypothesis and its operational implications to the final analysis of data."* Moreover, appropriate research design is a known tool that supports a researcher so that he or she could answer research question properly. In other words, it is the most essential part of a research work and, thus, we are expected to identify and evaluate proper research design before starting to conduct a research (Alemzewed Ayele, 2019). Since there are different types of research designs like descriptive, explanatory and exploratory, explanatory research design is preferable to studies conducted to investigate cause effect

relationship between variable. It is because explanatory studies capture the causal relationship between variables (Saunders, et al., 2009, cited in Alemzewed Ayele, 2019). Additionally Alemzewed explained that in explanatory studies there is a situation or problem that leads to the explanation of the relationship between variables.

Furthermore, any research that use explanatory research design uses already existed facts and information; make well organized evaluation conducting analysis of provided data(Aderajew, 2017). As this study was conducted to reveal cause and effect relationship between dependent and independent variables investigating determinants that are supposed to affect effectiveness of internal audit in Wolaita zone, explanatory research design was preferred and used by the researcher.

3.4. Population size

A researcher has to have a specific population as his/her research population target upon which he/she uses to make all his inferences regarding validity of what he/she is investigating on Kothari (2004). Uma sekaran(2003) also stated that population refers to the entire group of people, events that a researcher needs to investigate. A population frame is a comprehensive itemized list of all subjects, which comprise the study population from which a sample is to be drawn. In wolaita zone there are twenty-three different sectors (woredas, city administrations and zonal sectors)that have direct budget relationship with zonal government. Out of these twenty-three woredas and city administration, there are sixteen woredas, six city administrations and one zonal sector that have internal audit work process and are required to be considered as total population. Moreover, there are 236 internal audit officers and 162 top management members (total of 398) from all woredas and city administrations of wolaita zone that are considered as total population size. Out of this total population, only woredas and city administrations that have well organized man power and known internal audit experience were purposively selected by the researcher to be used as target population. Additionally, all internal audit officers, accountants and top management members working in purposively selected sectors were also considered as target population. However, other sectors like colleges or universities that have not direct budget relationship with wolaita zone government were not selected to be used as part of total population.

3.5. Sample size

Since sampling error is the random variation in the sample estimates around the true population parameters, it should be decreased by increasing size of the sample to, and it is of a smaller magnitude in case of homogeneous population and precision could be improved. But the effective way to increase precision is selecting a better sampling design that could result in a smaller sampling error for a given sample size at a given cost. In other words, while selecting a sampling procedure, a researcher must ensure that the procedure causes a relatively small sampling error and helps to control the systematic bias in a better way *(Kothari, 2004)*.

Preliminary assessment information revealed that there are sixteen woredas, six city administrations and one zonal sector (wolaita zone finance and economic development office) that have main or supportive internal audit work process and have direct budget relationship with zonal government. Thus, in addition to wolaita zone finance and economic development office, eight woredas (Damot Gale, Sodo zuria, Damot Woyide, Boloso Sore, Kindo koyishe, Humbo, Ofa Gasuba and Boloso bombe) and two city administrations(Sodo City Administration and Boditi city Administration) were selected purposively as sample size of the study taking in account of their organized man power, long period experience and potential and experience of internal audit activities. However, other woredas and city administrations that are recently established and have no well experienced man power were not taken as part of sample size. As a result, 80(eighty) top management members and 116(one hundred sixteen)internal auditors from purposively selected woredas and city administrations were used to distribute prepared questionnaire. Thus, Amharic version of prepared questionnaire was distributed to the respondents to collect primary data.

3.6. Data collection methods

Primary data was collected from top management members, internal audit officers and accountants via questionnaires and review of related documents like articles, different existing literatures, previous research papers and working papers as effectively as possible. A purposive sampling method was applied on selection of respondents (internal audit officers, Accountants and top management members). Amharic version of questionnaires was distributed to targeted bodies. The questionnaires for managers and Accountants focused on the effectiveness of

auditors in their duties in the sector in testing compliance levels. The questionnaireswere prepared using a five level Likert- type scale where the highest level shows a strong agreement and the lowest level shows a strongly disagreed attitude. Likert-type scale was preferred Since it is relatively easier to be constructed and performed without a panel of judges, it is more reliable when respondents answer each statement included in the questionnaire and it also provides more information and data than does other scale methods like Thurstone-type scale. Moreover, each statement included in the Likert-type scale is given an empirical test for discriminating ability unlike other scale, and it also permits the use of statements that are not manifestly related to the attitude being studied (A.L. Edwards and K.C. Kenney, 1946, cited in Kothari, 2004).

3.7. Variables used in the Research

3.7.1. Dependent Variable

In this research paper, Internal Audit Effectiveness was applied as dependent variable. According to Arena and Azzone (2009), there is no generally accepted common tool to measure internal audit effectiveness though a number of researchers emphasized that it should be measured. The researcher in this study tried to organize six different determinants that can help measure IA effectiveness referring different previous research papers. As a result, IA effectiveness was measured in terms of internal auditors' ability to identify non-compliance activities, improved performance of IA department and organizational productivity, implemented internal audit recommendations, evaluate and improve risk management and internal control system(Alzeban and Gwilliam, 2014; Bota-Avram and Palfi, 2009; Seif Obeid ALshbiel, 2017; Shewamene, 2014).

There are five different dimensions to measure IA effectiveness against the perception of top management team members in governmental offices. To get accurate evidence about the level of team members' perception of IA effectiveness, a 5-scale Likert-type different item questionnaire was developed by the researcher. And these questionnaires were distributed to the respondents (top management team members and Accountants).

3.7.2. Independent Variables

This case study focused on six independent variables that are proposed to have impact on the IA effectiveness in the Wolaita zone. These supposed variables that were tested in this research are: internal audit independence, management support, adequate and competent internal audit staff, approved IA charter, sufficiency of budget and level of objectivity. Primary data for analysis of independent variables was collected from the internal audit officers of the sectors. Therefore, the independent variables tried to represent the perceptions of the internal auditors regarding these variables. To measure the relationship of IA Effectiveness (dependent variable) with all of the independent variables, the researcher developed a five-point Likert-scale questionnaire that could include all the necessary information.

3.8. Data Analysis Method

Data analysis was conducted through a descriptive statistic to provide details regarding the demographic questions and independent variables supposed to affect IA effectiveness in the sector. To determine the relationship among the variables and to test the research hypothesis or to evaluate the effects of determinants on effectiveness of IA activities, the correlation analysis and multiple linear regression analysis method were applied by testing the ordinary least square (OLS) assumptions of the linear regression. Additionally, internal audit effectiveness was tested using descriptive analysis to evaluate level of effectiveness in Wolaita zone in general and selected sectors or woredas in particular. And also, the Statistical Package for Social Sciences (SPSS) version 20 was used for the data analysis purpose. To test overall significance of the model and reliability and consistency of constructed questionnaires, F-statistics and Cronbach's Alpha (α) were applied respectively.

3.9. Model Specification

The following model was proposed to this research in order to test the research hypothesis set earlier. To specify or propose suitable model and to select the independent variables included in the model, the researcher tried to refer different previous research papers, survey reports, existing literatures like (IIARF, 2014; Mihret et.al., 2007; Shewamene, 2014; Kirima N. Njoroge, 2016). So, the reliability and validity of the model was also tested in parallel with analyzing data and interpreting the results in the study.

$IAE = \alpha + \beta_1 IAIN + \beta_2 MS + \beta_3 ACIAS + \beta_4 AIAC + \beta_5 SUBJ + \beta_6 OBIAS + e_i$

where: -

IAE→ the effectiveness of internal auditors' in identifying non-compliance activities and the added contributions of IA to the governmental sectors,

IAIN→ The Internal Audit Independence,

MS → The Managements Support,

ACIAS→ The adequate and competent internal audit staff,

AIAC→ The existence of approved internal audit charter.

SUBJ→sufficiency of budget/fund

OBIAS→objectivity of internal audit staff

α→ is a constant term, represents IA effectiveness when all independent variables are zero.

β_1- β_6→ are the coefficients, in which every marginal change in variables on internal auditor's effectiveness affects correspondingly.

*e*i→ the error term

CHAPTER FOUR

4. Results and Discussion

4.1. Introduction

Investigating determinants of internal audit effectiveness in governmental sectors in wolaita Zone was the main objective of this study. As a result, this chapter presented the analysis result and interpretation of findings obtained from the analysis of data. The discussion begins with the questionnaires' response rate followed by the descriptive statistics of the respondents related questions; like the gender, age, field of study, work experience and level of education. The results of the reliability analysis and the regression assumption test also reported and finally the results of hypothesis testing are presented as follows.

4.2. Descriptive Statistics

4.2.1. Response Rate

Amharic version of two types of questionnaires (80 to top management members and accountants; and88 to internal audit officers) were distributed in different selected governmental sectors in Wolaita zone. Out of these distributed 168 questionnaires, 143questionnaires (73 questionnaires from management members group and 70 questionnaires from auditors group) were collected back achieving response rate of 85.12%. Out of 143 questionnaires, 13 questionnaires were returned back with improper responses and 130(65 from each group) with proper responses were used for analysis purpose and this shows good response rate both for managers and internal audit officers.

4.2.2. Respondents Background

As it is shown in the table-4.1 below, analysis of data about respondents' age, sex, field of study and level of education is shown in detail. Out of the total respondents from top management members, 55(84.6%) were males and 10(15.4%) were females. As the analysis result revealed, majority of the respondents from top management were males. When we see analysis result about age, 9(13.8%) of management members were from age group between 20-29, 30(46.2%) of them were from age group between 30-39, 18(27.7%) of them were from age group between 40-49 and the remaining 8(12.3%) of them were from age category of 50-59. The result showed

also that majority (46.2%) of management member respondents are age group 30-39 and the smallest percentage (8, 12.3%) is from elders group.

Analysis of data about the field what top management members studied shown that 18(27.7%) of them were accounting graduates, 33(50.8%) of them were graduates of management department, 10(15.4%) of the respondents were graduates of economics department and the remaining 3(4.6%) of them were graduates of different departments though there isone respondent who did not provide information about his or her field of study.

Additionally, analysis of data regarding to qualification of respondents showed that 1(1.5%) were TEVT diploma holders, 57(87.7%) of these management members were first degree holders and the remaining 7(10.8%) of them were master's degree graduates. As the result showed, almost all (57, 87.7%) of the respondents were first degree holders.

Table 4. 1 General profile of Top management members

Demographic information		*Response from Top management members*	
		Frequency	*Percentage*
Gender	*Male*	55	84.6
	Female	10	15.4
	Total	65	100.0
Age	*20-29*	9	13.8
	30-39	30	46.2
	40-49	18	27.7
	50-59	8	12.3
	Missed data	0	0
	Total	65	100.0
Field of study	*Accounting*	18	27.7
	Management	33	50.8
	Economics	10	15.4
	Others	3	4.6
	Missed data	1	1.5
	Total	65	100.0
Qualification	*TEVT Diploma*	1	1.5
	Degree holder	57	87.7
	Master Holder	7	10.8
	Missed data	0	0
	Total	65	100.0

Source: personally Surveyed data &SPSS-20/2022

Table 4. 2 General profile of Internal Auditors

Demographic information		Response from Internal Auditors	
		Frequency	Percentage
Gender	Male	42	64.6
	Female	23	35.4
	Total	65	100.0
Age	20-29	13	20.0
	30-39	36	55.4
	40-49	12	18.5
	50-59	4	6.2
	Total	65	100.0
Field of study	Accounting	39	60.0
	Management	16	24.6
	Economics	6	9.2
	Cooperative Accounting	4	6.2
	Others	0	0
	Total	65	100.0
Qualification	TEVT Diploma	0	0
	Degree holder	63	96.9
	Master holder	2	3.1
	Total	65	100.0
work experience	Less than 1 year work experience	4	6.2
	1-2 years of work experience	34	52.3
	3-5 years of work experience	21	32.3
	6-10 years of work experience	6	9.2
	More than 10 years of work experience	0	0
	Missed data	0	0
	Total	65	100.0

Source: personally Surveyed data & SPSS-20/2022

Detailed analysis about age, sex, field of study, qualification and work experience of internal auditors' is presented in the above table-4.2. As a result, the analysis showed that 42(64.6%) of the respondents were male and 23(35.4%) of them were female internal audit officers. Out of these total respondents, 9(13.8%), 30(46.2%), 18(27.7%) and 8(12.3%) of them were from age group between 20-29, 30-39, 40-49 and 50-59 respectively. Here the analysis showed that majority is from 30-49 age group of IA officers.

Analysis of data showed also that 39(60%), 16(24.6%), 6(9.2%), 4(36.2%) and 4(6.9%) of the respondents from IA officers were from field of study of accounting, management, economics and cooperative accounting respectively. If analyzed about their academic qualification is considered, 63(96%) of them were degree holders and the remaining 2(3.1%) of these contacted internal auditors were Masters degree holders.

Out of total auditors contacted for data collection purpose, 4(6.2%) of them have work experience of less than one year, 34(52.3%) of the respondents have 1-2 years of directly related work experience, 21(32.3%) of them have 3-5 years of directly related work experience, 6(9.2%) of them have 6-10 years of directly related work experience. As the analysis showed majority of the IA in this study area have 1-5 years of directly related work experience

4.3. Reliability Analysis

Reliability analysis is important to measure the consistency of a five Likert-scale type questionnaire developed by a researcher in reflecting the overall reliability. Cronbach's Alpha (α) is the most commonly used tool to carry out reliability analysis; and a value greater than 0.700 is very acceptable (Cohen and Sayag, 2010; Alzeban and Gwilliam, 2014). According to Lee Joseph Cronbach(1951), a reliability value (α) greater than 0.600 also is acceptable. As a result, Cronbach's Alpha (α) of 0.947 for questionnaire one and aggregated Cronbach's Alpha (α) of 0.889 for IA officers questionnaire were achieved by measurement analysis. Computed value for each and independent variable also assured the same level of reliability result.

Table 4. 3 Reliability Statistics

Cronbach's Alpha for Questionnaire 1		Cronbach's Alpha for Questionnaire 2	
Cronbach's Alpha	No. of Items	Cronbach's Alpha	No. of items
.947	17	0.889	41
Computation of Cronbach's Alpha to each and Every Independent Variable			
Name of Variable independent		**Cronbach's Alpha**	**No. items**
internal audit independence		0.797	8
Management support		0.900	9
The adequate and competent internal audit staff		0.892	7
Availability of approved internal audit charter		0.812	5
Sufficiency of Budget		0.879	5
Level of objectivity		0.708	7

Source: personal Survey data &SPSS-20/2022

4.4.Descriptive Analysis of Internal Audit Effectiveness (IAE)

Table 4. 4 Descriptive Analysis of Internal Audit Effectiveness (IAE)

Ro.No.	Effectiveness of internal audit was supposed to be achieved by being able to identify non-compliance activities, improved performance of IA department and organizational productivity, implemented internal audit recommendations, evaluate and improve risk management and internal control system	N	SDA	DA	NEU	AG	SAG	Mean	Median	Std. Deviation
1.1	Internal audit Work process develops appropriate annual audit plans	65	4.6	1.5	4.6	52.3	36.9	4.15	4.0	.93926
1.2	Each and every activity of IA work process is in accordance with its annual plan	65	1.5	4.6	4.6	56.9	32.3	4.14	4.0	.82683
1.3	Internal auditors can effectively identify and report any noncompliance activities with respect to your office's/sector's established policies, procedures, laws and regulations.	65	3.1	3.1	10.8	55.4	27.7	4.02	4.0	.89254
1.4	Internal Auditors are able to provide constructive recommendations and criticisms on non-compliance activities or control systems of your office/sector.	65	1.5	1.5	7.7	66.2	23.1	4.08	4.0	.71387
1.5	The non-compliance activities identified by internal auditors are reliable and significant to your sector.	65	1.5	1.5	12.3	64.6	20.0	4.00	4.0	.72887
1.6	The internal auditors are capable of determining the nature and frequency of noncompliance activities and issuing audit reports with full confidence.	65	4.6	6.2	6.2	58.5	24.6	3.92	4.0	.98912
1.7	Timely action is being taken to implement the recommendations of the IA reports	65	4.6	18.5	21.5	36.9	18.5	3.46	4.0	1.13298
1.8	Internal audit provides adequate follow-up to ensure that appropriate corrective action is being taken or not	65	4.6	23.1	12.3	43.1	16.9	3.45	4.0	1.15962
1.9	Internal audit is able to ensure whether resources utilization is economic, effective and efficient or not in your office/sector.	65	3.1	16.9	15.4	44.6	20.0	3.62	4.0	1.08530
1.1	Internal auditors have the experience and expertise to address risk management problems within your sector.	65	6.2	20.0	10.8	33.8	29.2	3.60	4.0	1.27230
1.11	IA work process is playing sufficient role to address the very purpose for which it is established	65	3.1	20.0	12.3	44.6	20.0	3.58	4.0	1.11653
1.12	Internal auditors in your sector are capable of carrying out internal control function under current governmental rules & regulations	65	1.5	7.7	10.8	58.5	21.5	3.91	4.0	.87897
1.13	The internal audit reports have high value for decision making and internal controls by the management.	65	1.5	6.2	15.4	58.5	18.5	3.86	4.0	.84552

1.14	The IA activities are able to evaluate risk exposures relating to the sector's governance and operation system.	65	6.2	7.7	56.9	29.2		4.09	4.0	.78508
1.15	The internal audit activities are able to evaluate risk exposures related to the sector's Accounting information system	65	1.5	12.3	13.8	56.9	15.4	3.72	4.0	.92715
1.16	The IA activities could evaluate risk exposures about the reliability and integrity of financial and operational system	65	3.1	7.7	16.9	47.7	24.6	3.83	4.0	.99325
1.17	The IA activities could evaluate effectiveness of the sectors risk management system	65	3.1	13.8	13.8	41.5	27.7	3.77	4.0	1.1007 0

Source: personally computed Survey data & SPSS-20/2022

As it is indicated in the literature and appendices part of the study, there are different seventeen items or questions adopted from other studies and used by the researcher to develop questionnaire to managers and to measure IAE. It is authenticated by different previous studies that we cannot get a generally accepted or set standard to measure IAE. However, the researcher tried to use descriptive analysis to measure central tendency of detailed items through examination of mean score of collected data and this technique is consistent with the method used by other researchers like (Alzeban & Gwilliam, 2014; Amanuddin et. al., 2015). From analysis result, we may obtain different level of mean values for each and every item included among items/question used to measure internal audit effectiveness in group. The higher the mean score indicates that most of the respondents responded as they agreed or strongly agreed about effectiveness of IA functions and vice-versa. While, standard deviation is used to measure the variability or dispersion. The higher the standard deviation indicates that more scores spread out.

Table 4.4 above revealed what top management members perceive about internal audit effectiveness in each and every finance and economic development office a woreda that was purposively selected for data collection.Seventeen items containing questionnaire was prepared and distributed to these management members and collected data was used to measure IAE independently. Therefore, descriptive analysis result of collected data is presented as follows:

Analysis result showed that mean score for items number 1,2,3,4, 5, 6, 12, 13, 14 and 16 was obtained to be around four. This result showed that most of top management members have responded 'agree' or 'strongly agree' about the ideas/items that has been included to measure effectiveness of internal audit activities in the study area.

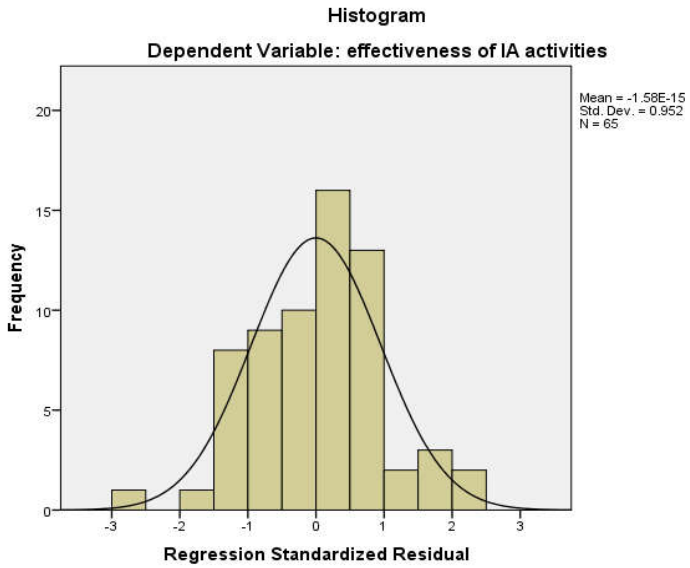
If we try to compare the highest (4.15) mean score with standard deviation .93926 and the lowest (3.45) mean score with standard deviation 1.15962, there is some visible gap between these scores though majority of mean scores are revolving around four or near to four. Analysis result for the highest mean score (4.15) for item no.1 showed that 52.3% and 36.9% of management members agreed and strongly agreed respectively that "*Internal audit Work process develops appropriate annual audit plans*,,. However, when we see the lowest mean score (3.45)for item no. 8, analysis result showed that 43.1% of management members agreed and 16.9% of them strongly agreed that "*IA work process is playing sufficient role to address the very purpose for which it is established*,, though 23.1% of them disagreed that IA work process is playing the role for which it is established. Generally, analysis of data conducted to measure IAE using top management members' perception showed that it is not possible to conclude with full confidence that IA function in this case study area is effective though the response fromundeniable proportion of top management members revealed that IA function is being implemented effectively in the study area.

4.5. Assumptions of Classical Linear Regression Model

4.5.1. Test for Normality

It is possible to measure normality test using the histogram as follow and the graph showed that sample data was approximately normally distributed throughout the target population.

Figure 2 normality test using the histogram



4.5.2. Testing for Heteroscedasticity

To get Breusch-Pagan/Cook-Weisberg test for Heteroscedasticity, regression of the model was conducted using stata 13 software. As the output showed ($p > 0.05$), in table 4.5 below (p-value = 0.6034) for the model which was greater than 0.05, the critical value, ensured homogeneity of variance across the model.

Table 4. 5 Test of Heteroskedasticity

Hettest
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of IAE
chi2(1) = 0.27
Prob > chi2 = 0.6034

Source: personal Survey data &stata-13 /2022

4.5.3. Multi-co-linearity Test

Tolerance and VIF measurement tools used to detect whether there is existence of multi-collinearity problem or not and it is a statistics used to indicate the variability of the specified independent variable that is not explained by the other independent variables in the model. According to Field (2009) and Pallant (2007), we could detect existence of Multi-co-linearity when variables correlate strongly each other; there is r value that is greater than 0.80, tolerance value below 0.10 and Variance Inflation Factor (VIF) that is greater than 10 in the correlation matrix.

Table 4. 6 Co-linearity Statistics

Variables	Co linearity Statistics	
	Tolerance	VIF
Internal Audit Independence	.700	1.429
Management Support	.491	2.037
Adequate and competent staff	.677	1.477
sufficiency of budget	.712	1.405
Availability of Approved IA charter	.697	1.435
level of objectivity	.725	1.379

Source: Survey data & SPSS-version 20 output /2022

It was authenticated from the Co-linearity statistics (table-4.6) above that the tolerance values for all of the variables are greater than 0.10 and all of the values for the VIF are less than 10. The Pearson correlation matrix which is presented below in table-4.7 also showed that there is no multi-co-linearity problem. It is because the correlation coefficients between explanatory variables are less than 0.80. As a result, there is no need of computing or transforming data and the findings indicated acceptable level of r value, tolerance and variance inflation factor (VIF) values.

Table 4. 7 Pearson Correlation Matrix

	Correlations						
	IAE	InAIn	MS	ACIAS	SUBJ	AIAC	OBIAS
IAE	1						
InAIn	.653**	1					
MS	.460**	.505**	1				
ACIAS	.372**	.204	.426**	1			
SUBJ	.550**	.318**	.294**	.407**	1		
AIAC	.246*	.167	.511**	.271*	.006	1	
OBIAS	.456**	.281*	.380**	.420**	.389**	.205	1

**. Correlation is significant at the 0.01 level (1-tailed). *. Correlation is significant at the 0.05 level (1-tailed).

Source: personal Survey data & SPSS-20 output /2022

Pearson correlation analysis result indicted in Table-4.7 above that the correlation among the independent variables and the correlation between the dependent variable and independent variablesis at acceptable level. As the analysis result indicated, most of findings about correlation between the variables are statistically significant at 1% level of significance.

4.5.4. Testing for Autocorrelation

To identify the existence of autocorrelation problem, Durbin-Watson test is used and the Durbin-Watson test is conducted for serial correlation between errors and the value closer to 2 are acceptable (Field, 2009). It is shown on table-4.8 below that the Durbin-Watson statistics value (1.942)is closer to 2 ensuring that there is no severe autocorrelation problem among error terms.

4.6. The Regression Analysis Results

Taking IAE as dependent variable and different selected variables as independent variables, OLS regression analysis was conducted using SPSS version 20. As a result, output of the regression

analysis is presented here in table-4.8 below and hypothesis testing was implemented using obtained findings and proposed hypothesis of the model.

Table 4. 8 Regression result of the analysis

R = .778	R^2 = .605	Adj. R^2= .564				
F = 14.816	P = .000	Durbin-Watson (d) = 1.942				
Std. Error of the Estimate = . .4868404						
	Unstandardized Coefficients		Standardized Coefficients	t-value	Sign.	Co-linearity Statistics	
Variables	B	Std. Error	Beta			Tolerance	VIF
Constant	-.361	.477		-.758	.452		
InAIn	.493	.099	.490	4.972	.000**	.700	1.429
MS	-.033	.121	-.032	-.273	.786	.491	2.037
ACIAS	.063	.116	.054	.539	.592	.677	1.477
SUBJ	.281	.086	.320	3.272	.002**	.712	1.405
AIAC	.126	.094	.132	1.338	.186	.697	1.435
OBIAS	.180	.112	.156	1.611	.113	.725	1.379

** P< 0.05, 95% level of Confidence, N = 65

It is assured by different previous studies that the larger the value of R square, the better is the model to be accepted. Regression analysis output indicated here that 60.5 (R^2 = .605) of the deviation of dependent variable from its mean is explained by the model (the set of all of the predictors). And the remaining 39.5% is left to either variables that were not included in this model or sample woredas that should have been included.

The value of F-statistics (F = 14.816) and p-value (P =.000) in the model summary assured that the overall significance of the model and it also implied that there was strong relationship between the predictors and the outcomes of the regression variables. The output also revealed that the model best fitted to predict the effectiveness of internal audit functions in governmental sectors in the case study area. The beta (β) sign to all of the variables (except for the second independent variable) showed that there is positive relationship between the independent variables and dependent variable regardless of their significances. Findings of the analysis was investigated to be consistent with different previous studies like (Cohen, & Sayag, 2010; Van Peursem, 2005, shewamene, 2014)..

When we come to the statistical significances of the independent variables over the dependent variable at 5% level of significance, only two independent variables from positively related variables (IAIn and SUBJ) were investigated to have statistically significant contribution for the IAE at (P<0.05) level of confidence interval. In other words, it is possible to conclude depending on regression analysis output that only IAIN and SUBJ are the two important variables or determinants that have statistically significant effect on IAE in the governmental sectors in this case study area. However, MS, ACIAS, OBIAS and AIAC are variables that were investigated to have statistically insignificant contribution for IAE though the variables are identified to have positive relationship with predicted dependent variable (IAE) because the analysis result showed that the variables have a sig. value of greater than 5%(sig. > 0.05).

4.7. Hypothesis Test

In table-4.8 above and Appendix-E, the regression analysis result of the data is presented; and the result is used here to examine the hypothesizes set earlier. The hypotheses tried to test whether influence of internal audit independence (InAIn), management support (MS), availability of adequate and competent IA staff (ACIAS), sufficiency of budget(SUBJ), the existence of approved internal audit charter (AIAC) and objectivity level of IA (OBIAS)on the internal audit effectiveness is significant or not. Internal audit effectiveness was also measured in terms of internal auditors ability to identify non-compliance activities, improved performance of IA department and organizational productivity, implemented internal audit recommendations, evaluate and improve risk management and internal control system

It was assured from analysis on table-4.8 above that the p value for the InAIn and SUBJ were identified to be statistically significant at five percent significant level ($p< 0.05$) which ensured strong support for hypothesis one and four. On the other hand, theremaining hypothesis (hypothesis two, three, five and six) MS, ACIAS, OBIAS and AIAC were not supported because the p-values ($p>0.05$) for these variables were not statistically significant. As a result, each and every hypothesis is tested as follows:

Ho_1: *Internal audit independence has positive and significant influence on Internal Audit Effectiveness*

As the first hypothesis, internal audit independence was hypothesized as IA effectiveness is directly related with internal audit independence. The result revealed that there is strong correlation between IAE and internal audit independence. The positive beta sign and a statistically significant result of internal audit independence related with the internal audit effectiveness (β = .493, t = 4.972, P<0.05)supported the previously proposed hypothesis should be accepted. Analysis result assured that as the internal audit work process is made independent from interference of any concerned bodies; the more will be effectiveness of IA activities/functions.

Moreover, the result was identified to be consistent with previous like(Amanuddin et. al., 2015; Ali, 2018; IIARF, 2014; Cohen, & Sayag, 2010; Alzeban and Gwilliam, 2014). In other words, as the level of IA independence to internal audit work process and internal auditors increase, the more will be the role to be played in assurance of internal audit effectiveness acting freely and generating consistent audit reports, audit findings and recommendations. Therefore, depending on this investigation it is possible to conclude and recommend that independence of IA works process and IA officers has great role for effectiveness of IA activities and thus fertile ground should be created to ensure the independence and the effectiveness what the first proposed hypothesis(H_1) Strongly supports.

Ho_2: *The correlation between management support and internal audit effectiveness in governmental sectors in wolaita zone is positive and significant.*

Management support was proposed as the second hypothesis in this studyand it has positive significant influence on IA effectiveness. Analysis result showed above in table-4.8, management support has coefficient of (β =-.033, t=-.273) and has negative relationship with IA effectiveness of IA. But, the statistical result (P>0.05) showed that this negative relationship is not statistically significant. In other words, in this study area management support has no significant role to affect internal audit activities which is in contrast to what was proposed earlier. Moreover, it is inconsistent with the previous studies conducted by (Gadasandula, 2021; Mihret and Yismaw, 2007; Cohen and Sayag, 2010) they found that management support is critical determinant of IAE. In audit finding and the commitment to strength internal audit through hiring proficient internal audit staff, developing career channels for internal audit staff,

and providing internal audit work independence. This may be attributed to inefficient management support to the IA effectiveness in this case study area. Top management team may have attitudinal problem not to support internal audit work process. Because the more effective be IA work process, the stronger will be financial and other resources control system of the work process. Additionally, the result may be resulted from lack of conceptual understanding that to what extent management support should be to increase IA effectiveness.

Ho_3: *Availability of adequate and competent IA staff in governmental sectors in wolaita zone has positive and significant impact on internal audit effectiveness.*

The researcher hypothesized third hypothesis as availability of adequate and competent IA staff in governmental sectors has positive and significant impact on internal audit effectiveness. However, output of regression analysis showed in table-4.8 above that ACIAS (coefficient of β = .063, t=.539) the variable does not have significant effect though it ispositively related with the effectiveness of IA. Additionally, the variable was identified to be one of those that have a result inconsistent with others findings like (Cohsen and Sayag, 2010; Arena and Azzone, 2009; Hailemariam, 2014) they argued presenting their investigation that the existence of adequate and competent IA staff in the public sector office results in positive relationship with IAE and having high contribution for the IAE by performing their activities on time, cover the planed scope of auditing activities by using the computerized data tools and specific IA software.

In the South African public sector, Schyf (2000) identified that lack of qualified staff is one of the core factors and problems limiting effectiveness of internal audit function affecting internal audit performance. Various results obtained from investigations of different studies like (Gwilliam & El-Nafabi, 2002; Mihret & Yismaw, 2007; Mulugeta, 2008; Wolderupheal, 1998) in different developing countries suggested that internal audit staffs lacked adequate educational qualifications and are getting insufficient professional training which was important to enable them upgrade their skills. Al-Twaijry et al. (2003) argued that staffs should have the required education capacity to conduct the full range of audits.

Ho_4: Assigning Sufficient Budget to internal audit work process has positive and statistically significant influence on internal audit effectiveness in governmental sectors in Wolaita zone

Among different hypothesizes set earlier, sufficiency of budget was the fourth hypothesis in this research paper. It was hypothesized that IA effectiveness has direct and significant relationship with availability of sufficient budget to IA work process. Showing strong correlation between the IAE and Sufficiency of Budget, the positive beta sign and a statistically significant result of sufficiency of budget related with the internal audit effectiveness (β =.281, t = 3.272, P<0.05) supported that the proposed hypothesis is acceptable. The result assured that assigning sufficient budget to IA work process contribute highly and positively to effectiveness of IA activities. Moreover, the result was investigated to be consistent with findings of (IIARF, 2014, pp.21). In the report(*Global Internal Audit Common Body of Knowledge (CBOK) Project and The IIA's Supplemental Guidance),* it was clearly presented emphasizing as one of the nine vital elements to affect effectiveness of IA that:-

> "*…this important element should not be left under the control of the organization being audited, because the budget impacts the audit activity's capacity to perform its responsibilities. Insufficient funding would create a significant barrier to fulfilling the roles and responsibilities of the internal audit activity in the public sector. Therefore, CAEs should request sufficient funding relative to the size of their audit responsibilities, and decisions relating to such funding should be independent of the organization being audited*.,,.

Making auditorsfree from contradiction of self-interest, assigning sufficient budget to work process so that internal auditors be free from unnecessary communication with audittee organization is really a crucial role playing factor to maximize effectiveness of IA activities and it supported the fourth proposed hypothesis strongly.

Ho_5: *The availability of approved IA charter in governmental sectors in wolaita zone has positive and significant impact on internal audit effectiveness*

The fifth hypothesis was proposed assuming that approved internal audit charter and internal audit effectiveness have direct relationship in governmental sectors in the case study area. As the analysis result showed above in table-4.8, AIAC (coefficient of β =.126, t= 1.338) is positively

related with the effectiveness of IA though the relation is not statistically significant because of the statistical result (P>0.05) and the result does not support the sixth hypothesis. And also the result was identified to be inconsistent with some previous studies like (Hailemariam, 2014; Peursem, 2005; O'Regan, 2002) and it was found that a well-organized IA charter facilitates fertile ground to internal auditing function to be performed well. The charter is used as the direction to access different information necessary to accomplish the auditing and generate conclusions and recommendations based on their findings. This may be occurred due to lack of awareness to understand the role of availability of approved IA charter to ensure effective IA activities. Top management of any organization should facilitate conditions in which IA officers could get training about each and every article of IA charter could interpret it practically.

Ho_6: *Level of objectivity of internal auditor and IAE are positively and significantly related in governmental sectors in wolaita zone.*

Level of objectivity of internal auditor was the six hypothesis and it was proposed as one of determinants of IA effectiveness that OBIAS and IAE are directly related. As it is shown in table-4.8 above (coefficient of β =.180, t= 1.611) objectivity level of IA is positively related with the effectiveness of IA. But, it is not statistically significant because the result showed (P>0.05). The result is also inconsistent with the previous studies conducted by (IIARF, 2014; Supriyono, 2018). They found that, the more internal auditors act objectively, the more effective will be IA activities. Supriyono (2018) explained in his study that Objectivity requires auditor not to differ their audit judgments toward their clients. Punishment regarding auditors' objectivity must be carried out at the whole level; individual, assignment, functional position and organization. Hence, objectivity is an important aspect in determining whether or not the audit task can succeed. But the insignificant result may be attributed to the organizations support to the IA effectiveness and accordingly, the level of auditors objectivity may not be taken in to account. Unless proper care is taken to create fertile ground to those internal auditors so that they could act objectively, unnecessary relationship may occur with audittee organization and IAE may also be below what it should have been.

CHAPTER FIVE

5. Conclusions and Recommendations

5.1. Summary of Findings

As regression result of this case study indicated, almost all of the explanatory variables showed positive relationship with dependent variable(IAE) (except the second variable) ensuring that most of these variables could play vital role to increase effectiveness of internal audit functions in Governmental sectors in Wolaita Zone, SNNPRS. Therefore, concerned bodies should give attention to these factors especially to those factors that have showed statistically significant positive relationship. Thus, investigated crucial factors that could influence the IA functions in this study area are internal audit independence and sufficiency of budget.

Among independent variables that were identified to have positive and statistically significant (at 5% significant level) relationship with IAE, the contribution of internal audit independence was identified to be more important ($\beta = .493$, $t = 4.972$, $P<0.05$) than others. Objectivity level of IA officers, availability of approved charter and availability of adequate and competent IA staff were identified to have insignificant positive relationship with internal audit effectiveness (IAE). However, Management support showed unexpected negative beta sign. This negative sign may be attributed to lack of proper management support in governmental sectors in this study area. Regression output of the analysis indicated also that 60.5 ($R^2 = .605$) of the deviation of dependent variable from its mean is explained by the model (the set of all of the predictors.

5.2. Conclusion

Having well organized IA department or work process in governmental/public sectors means creating fertile ground to stand against the unwise use of scarce resources. In other words, it was assured from findings of different previous studies that the role of strong IA department/work process to protect scarce resources of public sectors is inevitable. The main objective of this case study was investigating determinants of internal audit effectiveness in governmental sectors in wolaita zone.

Taking in account of this role of IA functions, survey data was collected and analyzed to identify determinants of IAE in the study area. As a result, it was ensured that internal audit independence and sufficiency of budget were variables investigated to have statistically significant (at 5% significant level) contribution to internal audit effectiveness (IAE) in governmental sectors in wolaita zone. Analysis result also showed that internal audit independence is the main and the most important driver of IAE in this study area. Thus, this case study was able to add knowledge to existing literatures and previous studies. And also proposed hypotheses were tested and results of hypothesis testing were concluded as follows

- ✓ As internal audit work process and auditors be more independent (being free from unnecessary interference), the more effective will be internal audit functions/activities.
- ✓ Assigning sufficient budget to IA work process means increasing effectiveness of IA activities. It is because the finding of the analysis showed that sufficiency of budget is the second crucial factor to contribute for IAE significantly and positively.
- ✓ Though the second proposed variable showed negative sign, the remaining five variables showed that they have positive relationship with IAE. Out of these five factors, four of them (availability of adequate and competent IA staff, objectivity level of IA officers and availability of approved charter) were identified to have positive insignificant relationship with IAE. Since these factors/predictors collectively explained 60.5% of the analysis, the contribution of these positive beta sign variables is undeniable.

5.3. Recommendations

The main objective of the study was identifying determinants of internal audit effectiveness in governmental sectors in wolaita zone, SNNPRS. As the role of Internal Audit functions is unrecoverable to save the public resource from getting used in inappropriate way, all the concerned bodies (Zonal government, SNNPRS Regional government, higher educational centers like Universities and many others) should give special attention to recommended points to ensure sustainability of effective internal audit activities in the study area. Thus, taking in account of the main objectives and depending on what has been investigated, the researcher needs to list down some recommended points as follow.

- Since findings of this research paper assured that internal audit independence and sufficiency of budget were determinants that have statistically significant (at 5% significant level) contribution to internal audit effectiveness (IAE), all concerned bodies should have collaborative attention **a/** to increase independence of internal audit work process and auditors in accomplishment of their day to day work; **b/** to assign sufficient budget to IA work process. Thus, the public sectors should support more for the internal audit functions by facilitating the IA works, should recruited 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 office policies and guidelines.
- The internal auditors in governmental sector in this case study area should be recommended to maintain and improve their effective contribution for the IAE in their office, by improving their professional certification in line with the institute of internal audit standards and organizational guidelines and by introducing themselves with modern technologies that improve their IA function for their office.
- The internal audit staffs in governmental sectors also recommended to work in accordance with the available internal audit charters, it helps the internal auditors to provide the appropriate reports and to know the extent of their relationships with the managements, briefly describes their rights and duties IA and the employers.
- Further research on IA effectiveness should also be encouraged to look into determinants that showed insignificant positive relationship with IAE in this case study area.

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Appendices

Appendix A: Questionnaires

WOLKITE UNIVERSITY
College of Business and Economics
School of Graduate Studies
Department of Accounting and Finance

Dear Participant:

The aim of this questionnaire is gathering information about determinants that enable to measure IA effectiveness in conducting Research Paper for the partial fulfillment of the requirements for Masters of Science Degree in Accounting and Finance at WOLKITE UNIVERSITY. Duplicated questionnaires will be distributed to the governmental sectors that will be selected as part of sample size and found in wolaita zone. Results of this questionnaire analysis are expected to identify determinants of internal audit effectiveness and Conclusions and recommendations of the study will be drawn without any reference to specific sector or individual respondent. As a respondent, be sure that the information you provide will be treated confidentially and will be used only for this academic research purpose. So, your honest response and committed participation has irrecoverable value for successful completion of the paper. I would like to express my heartfelt thanks in advance for your cooperation and participation.

Omoshe Gibore, Mobile: +251- 912-04-59-13 Email: a----------@gmail.com

- Questionnaire to be filled by top management members:-

Internal audit effectiveness is highly important tool to top management of any organization to monitor day to day activities of the organization effectively and efficiently. Objective of this questionnaire is to gather data related with supposed factors that enable to measure whether IA is effective or not if it is viewed from management members' point of view. Therefore, internal auditors' ability to identify non-compliance activities, improved performance of IA department and organizational productivity, implemented internal audit recommendations, evaluate and improve risk management and internal control system are factors supposed to measure IA effectiveness in this research paper.

As a result, you are kindly requested to give your independent response to each statement related with these selected factors in the table below.

A. The personal profiles: Please indicate your choice by putting "√" mark in the bracket.

1.Sex/Gender/: Male (____) Female (____)

2. Age (in year): 20 - 29(__), 30-39(__), 40 -49(___), 50 - 59(___), above 60 (___)
3. Your field of study: Accounting (__), Management (__), Economics (__) cooperative Accounting (__) if Other specify_____
4. Level of education: TVET certificate (____), Diploma (____), Bachelor's Degree (_____), Masters Degree (____) or others specify_____
5. Current position in your office/sector_____
6. Number of internal auditors in your office/sector_____

B. *The questionnaire items (questions)*

The questionnaire is prepared in five points Likert-scale type. I ask you to tick (√) or circle the appropriate scale (point) that indicates your opinion in table below. Scale values are 1= strongly disagree, 2 = Disagree, 3 = Neutral, 4=, Agree and 5= strongly agree

No.	1.Effectiveness of internal audit might be achieved by being able to identify non-compliance activities, improved performance of IA department and organizational productivity, implemented internal audit recommendations, evaluate and improve risk management and internal control system	The scales				
		1	2	3	4	5
1.1	Internal audit Work process develops appropriate annual audit plans					
1.2	Each and every activity of IA work process is in accordance with its annual plan					
1.3	Internal auditors can effectively identify and report any noncompliance activities with respect to your office's/sector's established policies, procedures, laws and regulations.					
1.4	Internal Auditors are able to provide constructive recommendations and criticisms on non-compliance activities or control systems of your office/sector.					
1.5	The non-compliance activities identified by internal auditors are reliable and significant to your sector.					
1.6	The internal auditors are capable of determining the nature and frequency of noncompliance activities and issuing audit reports with full confidence.					
1.7	Timely action is being taken to implement the recommendations of the IA reports					
1.8	Internal audit provides adequate follow-up to ensure that appropriate corrective action is being taken or not					

1.9	Internal audit is able to ensure whether resources utilization is economic, effective and efficient or not in your office/sector.					
1.10	Internal auditors have the experience and expertise to address risk management problems within your sector.					
1.11	IA work process is playing sufficient role to address the very purpose for which it is established					
1.12	Internal auditors in your sector are capable of carrying out internal control function under current governmental rules & regulations					
1.13	The internal audit reports have high value for decision making and internal controls by the management.					
1.14	The IA activities are able to evaluate risk exposures relating to the sector's governance and operation system.					
1.15	The internal audit activities are able to evaluate risk exposures related to the sector's Accounting information system					
1.16	The IA activities could evaluate risk exposures about the reliability and integrity of financial and operational system					
1.17	The IA activities could evaluate effectiveness of the sectors risk management system					

WOLKITE UNIVERSITY
College of Business and Economics
School of Graduate Studies
Department of Accounting and Finance

Dear Participant:

The aim of this questionnaire is gathering information about determinants that enable to measure IA effectiveness in conducting Research Paper for the partial fulfillment of the requirements for Masters of Science Degree in Accounting and Finance at WOLKITE UNIVERSITY. Duplicated questionnaires will be distributed to the governmental sectors that will be selected as part of sample size and found in wolaita zone. Results of this questionnaire analysis are expected to identify determinants of internal audit effectiveness and Conclusions and recommendations of the study will be drawn without any reference to specific sector or individual respondent. As a respondent, be sure that the information you provide will be treated confidentially and will be used only for this academic research purpose. So, your honest response and committed participation has irrecoverable value for successful completion of the paper. I would like to express my heartfelt thanks in advance for your cooperation and participation.

Omoshe Gibore, Mobile: +251- 912-04-59-13 Email: a----------@gmail.com

- Questionnaire to be filled by Internal Audit officers

Effective internal audit function is an important management tool to monitor and direct the internal operations of an organization effectively and appropriately. Therefore, the purpose of this research is to assess and identify factors that affect the effectiveness of IA function in different governmental sectors. In line with this, organizational independence, management support, the adequate and competent internal audit staff, availability of approved internal audit charter, level of objectivity, unrestricted access to information and professionally competent team leader are factors that are supposed to affect internal audit effectiveness.

As a result, you are kindly requested to give your independent response to your personal profile and each statement related with these selected factors in the table below.

- Personal profiles: General Instruction: Please indicate your choice by putting "√" mark in the bracket.

1. Sex/Gender/: Male (_____) Female (_____)

2. Age (in year): 20 -29 (____), 30 - 39 (____), 40 -49 (___), 50 -59 (__), above 60 (___)

3. Your field of study: Accounting (__), Management (_), Economics (__), cooperative Accounting (__), if other specify_____

4. Level of education: 10/12/complete (__), TVET certificate (__), Diploma (___), Bachelor's Degree (__), Masters Degree (_____) or others specify_____

5. Professional certification (if any): Certified Internal Auditor (CIA) (__), Certified Public Accountant (CPA) (__) Certified Management Accountant (CMA) (__), other (specify) _____

6. Number of years of experience you work as an internal auditor: _____

7. What are the activities carried out by IA in your office/sector? You can select more than one. A. Compliance audit B. Financial audit C. Operational/performance audit E. Internal control system evaluation D. Risk assessment (analysis) audit

- The questionnaire items (questions):- The Questionnaire is prepared in Likert-scale form with five (5) point scales. Please use this (√) symbol to tick or circle the appropriate scale (point) that indicates your opinion in table below. Scale values are 1= strongly disagree , 2= Disagree, 3= Neutral, 4= Agree, 5= strongly agree

No.	1. Internal audit independence	The scales				
		1	2	3	4	5
1	I perform the auditing activities without any interference from anybody and without any influence from the top management of the sector.					
2	I freely decide the scope, time and extent of auditing procedures based on auditing standards and the sector's rules and regulations					
3	I freely present my audit report to concerned body including all the findings					
4	IA staff can freely contact to all departments and employees in the sector					
5	The internal audit work process has direct contact with senior management/sector head other than the finance director					
6	Top management of the sector independently approves the appointment and replacement of team leader of internal audit work process					
7	Internal audit work process's position in your sector is at a sufficiently high management level and sufficiently detached from functional areas to					

	guarantee its independence					
8	The IA team leader report to a level within the organization that allows the internal audit fulfills its responsibilities.					
	2. Management support					
1	I can get the necessary resources (facilities) that help me perform day to day activities					
2	The sector supports me providing training in order to improve my skill and expertise capacity					
3	The office/sector supports me introduce myself with new technology, manuals, policy or procedures when it is necessary					
4	The sector supports IA staffs by budgeting funds for certification to have relevant education in auditing that allows them audit all of the sector's operation systems					
5	Top management provides to IA work process sufficient, reliable and relevant feedback about the work they perform and recommendations previously made					
6	The response to internal audit reports by the senior management is reasonable					
7	Internal audit work process is large enough to successfully carry out its duties and responsibilities					
8	Your sector management has commitment to add value to the IA work process					
9	We IA are encouraged to report conducting our activities in accordance with the Standards for the Professional Practice of internal auditing					
	3. The adequate and competent internal audit staff					
1	My sector has sufficient number of skilled internal auditors.					
2	We are able to audit and review each activity on time, and cover the planned scope of auditing activities					
3	We IAs are able to complete audit procedures and evidence collections on time as you are skilled and enough in number					
4	Modern technology and computerized data tools and specific IA software are being used to work internal audit activities					
5	We IAs are able to Disclose Non-compliance activities (if any) with respect to the Standards When we identify these non-compliances					
6	We are able to perform internal audit services in accordance with the International Standards for the Professional Practice of Internal Auditing..					
7	We continually improve your proficiency and the effectiveness and quality of services					
	4. Availability of approved internal audit charter					
1	Internal audit charter is maintained (available) in my sector.					

2	The responsibility, purpose and authority of internal audit is clearly defined in the charter.					
3	The purpose and authority of internal audit charter is in line with "Standards for the Professional Practice" formulated by the Institute of Internal Auditors					
4	The charter clearly specifies the internal audit activity's position within the office; authorized access to any information and physical properties relevant to the performance of engagements					
5	The charter clearly specifies the internal audit activity's position within the office; define scope of IA activities.					
	5. Sufficiency of Budget					
1	My sector supports IA work process by budgeting sufficient budget so that it could operate day to day activities effectively and efficiently					
2	My sector is committed to allow additional budget if unexpected and un planned activities happen then after					
3	It is not common to see the condition when budget is bottleneck for day to day IA activities					
4	The sector fulfilled all the necessary office materials that enable the IA work process perform effectively					
5	My sector provides additional income to encourage performance of IA work process officers.					
	6. Level of objectivity					
1	I objectively examine auditing issues only meeting on reliable audit evidence and no management or any auditee's interest is concerned for adjustment beyond auditing standards & values.					
2	Conflict of interest is rare in performing our internal audit activities					
3	Internal audit work process is sufficiently resourced to provide objective assurance on risk and control system					
4	As Internal auditor, I always try to refrain from assessing specific operations for which I was previously responsible for.					
5	I have an impartial, unbiased attitude and always avoid conflicts of interest.					
6	I commonly disclose all material facts known to me that, if not disclosed, may distort my reporting of activities under review.					
7	We IA usually possess highest level of professional objectivity to gather, evaluate, and communicate information about the activity or process being examined.					

Appendix B: Reliability Analysis

Cronbach's Alpha for Questionnaire 1		Cronbach's Alpha for Questionnaire 2	
Cronbach's Alpha	No. of Items	Cronbach's Alpha	No. of items
.947	17	0.889	41
Computation of Cronbach's Alpha to each and Every Independent Variable			
Name of Variable independent		**Cronbach's Alpha**	**No. items**
internal audit independence		0.797	8
Management support		0.900	9
The adequate and competent internal audit staff		0.892	7
Availability of approved internal audit charter		0.812	5
Sufficiency of Budget		0.879	5
Level of objectivity		0.708	7

Appendix C : Descriptive analysis of Internal Audit Effectiveness

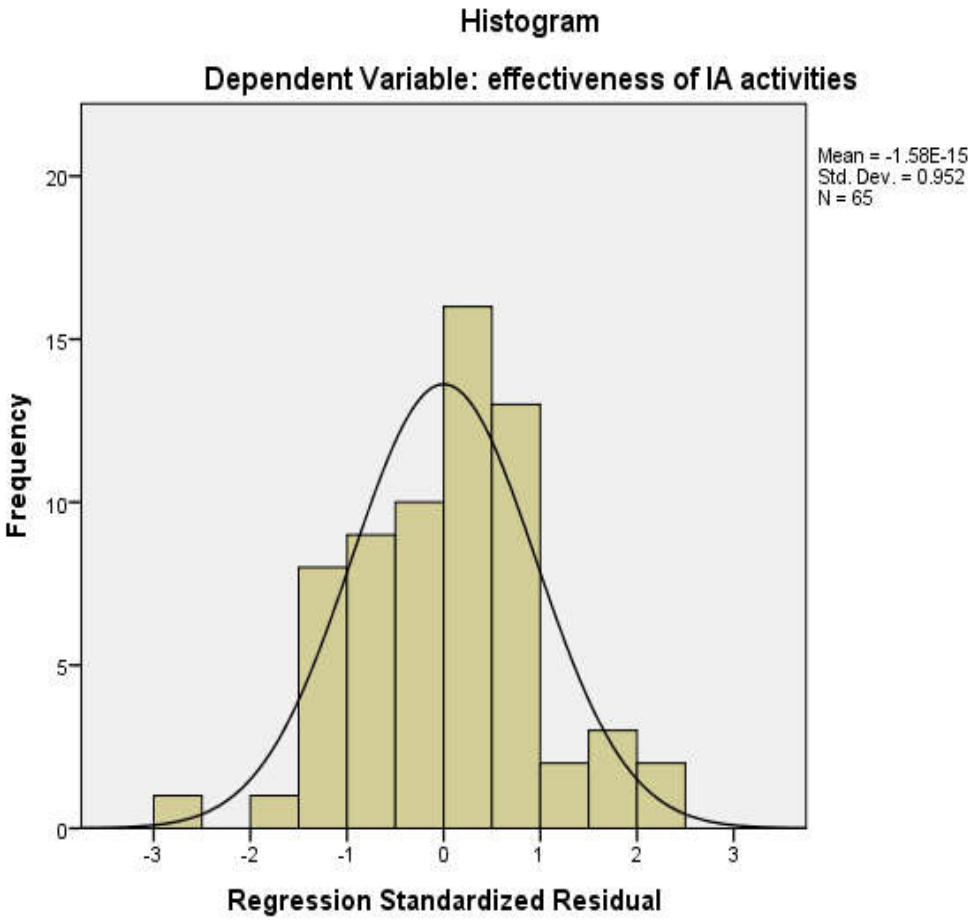
Ro.No.	Effectiveness of internal audit was supposed to be achieved by being able to identify non-compliance activities, improved performance of IA department and organizational productivity, implemented internal audit recommendations, evaluate and improve risk management and internal control system	N	SDA	DA	NEU	AG	SAG	Mean	Median	Std. Deviation
1.1	Internal audit Work process develops appropriate annual audit plans	65	4.6	1.5	4.6	52.3	36.9	4.15	4.0	.93926
1.2	Each and every activity of IA work process is in accordance with its annual plan	65	1.5	4.6	4.6	56.9	32.3	4.14	4.0	.82683
1.3	Internal auditors can effectively identify and report any noncompliance activities with respect to your office's/sector's established policies, procedures, laws and regulations.	65	3.1	3.1	10.8	55.4	27.7	4.02	4.0	.89254
1.4	Internal Auditors are able to provide constructive recommendations and criticisms on non-compliance activities or control systems of your office/sector.	65	1.5	1.5	7.7	66.2	23.1	4.08	4.0	.71387
1.5	The non-compliance activities identified by internal auditors are reliable and significant to your sector.	65	1.5	1.5	12.3	64.6	20.0	4.00	4.0	.72887
1.6	The internal auditors are capable of determining the nature and frequency of noncompliance activities and issuing audit reports with full confidence.	65	4.6	6.2	6.2	58.5	24.6	3.92	4.0	.98912
1.7	Timely action is being taken to implement the recommendations of the IA reports	65	4.6	18.5	21.5	36.9	18.5	3.46	4.0	1.13298
1.8	Internal audit provides adequate follow-up to ensure that appropriate corrective action is being taken or not	65	4.6	23.1	12.3	43.1	16.9	3.45	4.0	1.15962
1.9	Internal audit is able to ensure whether resources utilization is economic, effective and efficient or not in your office/sector.	65	3.1	16.9	15.4	44.6	20.0	3.62	4.0	1.08530
1.1	Internal auditors have the experience and expertise to address risk management problems within your sector.	65	6.2	20.0	10.8	33.8	29.2	3.60	4.0	1.27230
1.11	IA work process is playing sufficient role to address the very purpose for which it is established	65	3.1	20.0	12.3	44.6	20.0	3.58	4.0	1.11653
1.12	Internal auditors in your sector are capable of carrying out internal control function under current governmental rules & regulations	65	1.5	7.7	10.8	58.5	21.5	3.91	4.0	.87897
1.13	The internal audit reports have high value for decision making and internal controls by the management.	65	1.5	6.2	15.4	58.5	18.5	3.86	4.0	.84552
1.14	The IA activities are able to evaluate risk exposures relating to the sector's governance and operation system.	65	6.2	7.7	56.9	29.2		4.09	4.0	.78508

1.15	The internal audit activities are able to evaluate risk exposures related to the sector's Accounting information system	65	1.5	12.3	13.8	56.9	15.4	3.72	4.0	.92715
1.16	The IA activities could evaluate risk exposures about the reliability and integrity of financial and operational system	65	3.1	7.7	16.9	47.7	24.6	3.83	4.0	.99325
1.17	The IA activities could evaluate effectiveness of the sectors risk management system	65	3.1	13.8	13.8	41.5	27.7	3.77	4.0	1.10070

Appendix D: Assumptions of Classical Linear Regression Model

i. Tests of Normality

b. Lilliefors Significance Correction *. This is a lower bound of the true significance.



ii. Test of Heteroskedasticity

Hettest
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of IAE
chi2(1) = 0.27
Prob > chi2 = 0.6034

iii. Tests for Multicollinearity

Pearson Correlations

Correlations								
		IAE	InAIn	MS	ACIAS	SUBJ	AIAC	OBIAS
IAE	Pearson Correlation	1	.653**	.460**	.372**	.550**	.246*	.456**
	Sig. (1-tailed)		.000	.000	.001	.000	.024	.000
	N	65	65	65	65	65	65	65
InAIn	Pearson Correlation	.653**	1	.505**	.204	.318**	.167	.281*
	Sig. (1-tailed)	.000		.000	.052	.005	.092	.012
	N	65	65	65	65	65	65	65
MS	Pearson Correlation	.460**	.505**	1	.426**	.294**	.511**	.380**
	Sig. (1-tailed)	.000	.000		.000	.009	.000	.001
	N	65	65	65	65	65	65	65
ACIAS	Pearson Correlation	.372**	.204	.426**	1	.407**	.271*	.420**
	Sig. (1-tailed)	.001	.052	.000		.000	.014	.000
	N	65	65	65	65	65	65	65
SUBJ	Pearson Correlation	.550**	.318**	.294**	.407**	1	.006	.389**
	Sig. (1-tailed)	.000	.005	.009	.000		.481	.001
	N	65	65	65	65	65	65	65
AIAC	Pearson Correlation	.246*	.167	.511**	.271*	.006	1	.205
	Sig. (1-tailed)	.024	.092	.000	.014	.481		.050
	N	65	65	65	65	65	65	65
OBIAS	Pearson Correlation	.456**	.281*	.380**	.420**	.389**	.205	1
	Sig. (1-tailed)	.000	.012	.001	.000	.001	.050	
	N	65	65	65	65	65	65	65
**. Correlation is significant at the 0.01 level (1-tailed).								
*. Correlation is significant at the 0.05 level (1-tailed).								

Appendix E: output of Regression Analysis

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.778[a]	.605	.564	.4868404	1.942

a. Predictors: (Constant), objectivity of IA staff , approved IA charter , internal audit independence, sufficient budget, adequate and competent internal audit staff , management support

b. Dependent Variable: effectiveness of IA activities

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	21.069	6	3.512	14.816	.000[b]
	Residual	13.747	58	.237		
	Total	34.816	64			

a. Dependent Variable: effectiveness of IA activities

b. Predictors: (Constant), objectivity of IA staff , approved IA charter , internal audit independence, sufficient budget, adequate and competent internal audit staff , management support

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	-.361	.477		-.758	.452	-1.316	.593		
internal audit independence	.493	.099	.490	4.972	.000**	.294	.691	.700	1.429
management support	-.033	.121	-.032	-.273	.786	-.276	.210	.491	2.037
adequate and competent internal audit staff	.063	.116	.054	.539	.592	-.170	.295	.677	1.477
sufficient budget	.281	.086	.320	3.272	.002**	.109	.452	.712	1.405
approved IA charter	.126	.094	.132	1.338	.186	-.062	.314	.697	1.435
objectivity of IA staff	.180	.112	.156	1.611	.113	-.044	.404	.725	1.379

Dependent Variable: Internal Audit Effectiveness