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

**DETERMINANTS OF INTERNAL AUDIT QUALITY: EVIDENCE  
FROM SELECTED ETHIOPIAN COMMERCIAL BANKS**

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**THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING AND  
FINANCE, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR  
THE MASTER OF SCIENCE DEGREE IN ACCOUNTING AND FINANCE**

**ADVISOR: DEGEFE DURESSA (PhD)**

**JUNE, 2019**  
**ADDIS ABABA**

## **Statement of Declaration**

I undersigned declare that, this thesis prepared for the partial fulfillment of the requirements for Master of Science Degree in Accounting and Finance entitled “Determinants of Internal Audit quality: evidence from selected Ethiopian commercial banks” is the result of my independent work, under the guidance of my research advisor.

This study is an original work and has not been submitted for any degree or diploma program in this or any other institution, and that all references materials contained therein have been duly acknowledged.

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## **Statement of Certification**

This is to certify that Ato Getu Birru has carried out this research work on the topic entitled “Determinants of Internal Audit quality: evidence from selected Ethiopian commercial banks” under my supervision. This work is original in nature and it is sufficient for submission for the partial fulfillment for the award of Master of Science in Accounting and Finance.

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## ***Abstract***

*Internal audit is an important part of the corporate governance structure within an organization. The main objective of this study is to look at the factors that determine internal audit quality in selected Ethiopian commercial banks. The study used purposive sampling method and covered the head office internal auditors of selected Ethiopian commercial banks. Quantitative research method was adopted in the study. Data were collected by self-administered questionnaire to 128 internal audit department staff of the banks. These questionnaires were constructed in 5-point likert scale, distributed to internal auditors of selected Ethiopian commercial banks. Multiple Regression (OLS) has been employed to regress the data obtained via a questionnaire of a 5-point Likert scale. The result of this study show that adherence to code of ethics, quality assurance practice of IA and management cooperation and trust were strong and has statistically significant effect on internal audit quality. As the regression results shows audit follow-up practices of IA, independence of internal auditors and tight audit time have insignificance effect on internal audit quality. The study recommends that Ethiopian commercial banks must work to ensure the availability of the key factors to achieve the quality of internal audit function. The study also opens avenues for upcoming studies to delve into the similar topic for more in-depth information in Ethiopian commercial banks.*

***Key Words:*** *Internal audit quality, internal audit, Ethiopian commercial Banks, adherence to code of ethics, quality assurance practice, management cooperation, audit follow up, independence and tight audit time*

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## **List of Acronyms and Abbreviations**

ACE	Adherence to Code of Ethics
ACCA	Association of Chartered Certified Accountants
AFP	Audit Follow up
CEO	Chief Executive Officer
CIA	Certified Internal Auditor
CIMA	Chartered Institute of Management Accountants
CISA	Certified Information system Auditor
GAIN	Global Audit Information Network
IA	Internal Audit
IAASB	International Auditing and Assurance Standards Board
IAD	Internal Audit Department
IAF	Internal Audit Function
IAQ	Internal Audit Quality
ICAS	International Conference on Accounting Studies
IDA	Independence of Auditor
IFAC	International Federation of Accountants
IPPF	International Professional Practice Framework
ISPPIA	International Standards for the Professional Practice of Internal Auditing
IS	Information System
MGCT	Management Cooperation and Trust
QAP	Quality Assurance Practices
SPSS	Statistical Package for the Social Sciences

# CHAPTER ONE

## 1.1. Introduction

This chapter provides an imminent into the research background, research question and also sets the tone for basic ideas and arguments for the study. It explicitly covers the topics, research background, problem statement, research question, objectives, hypotheses, scope, significance, limitations and organization of the study.

## 1.2. Background of the Study

Audit quality is a very debatable topic in the area of auditing following the fall of giant companies in the West (Leilina, 2015). The failures have also increased the significance of internal auditing. Concerning this issue, Deribe and Regasa, (2014) argued that the bankruptcies, financial irregularities and fraudulent activities that occurred in Enron, WorldCom and other firms have increased the need for corporate monitoring and concluded that external audit failures related to these events increase the role of internal auditing in corporate monitoring. Organization's management is accountable for establishing and maintaining effective internal control systems which help the management of the organization that effectively diminish the risks to organization's attainment of objectives. Management is charged with this responsibility on behalf of the organization's stockholders and is held liable for this responsibility by an oversight body (e.g. board of directors, audit committee, elected representatives).

Cognizant to the above fact, Internal Audit (IA) which is an important part of the corporate governance structure within an organization has been the focus of researchers and practitioners alike as a significant contributor of organizational effectiveness. Specifically, Abu-Azza, (2012) contended that IA contributes to firm value through the provision of field services including operational audits and consulting management on various issues. Nevertheless, some studies in literature indicated that the quality of internal audit function may not always be constant Abu-Azza, (2015). This is particularly true in developing countries where firms may not be aware how much the IA concepts and practices are worth as acknowledged in the West (Awn Metlib AL-Shbail and A. Turki, 2017).

Despite the increasing importance of the IA function in organizations, the available literature in the domain has largely concentrated on external audit; other related authors indicated that IA function may not demonstrate constant quality, (Awn Metlib AL-Shbail and A. Turki, 2017). More importantly, although some scholars examined IA quality, as yet, there is no accepted universal guide to conduct such measurement (Arena and Azzone, 2009). Additionally, the literature reveals that no acknowledged approaches have been forwarded for the assessment of internal audit (Mihret, 2010) and as such, various approaches have been used in prior investigations of IA quality.

Taking into account what is stated herein above maintaining the quality of an internal audit function which is an integral component within corporate governance has tremendous value. Therefore, this study aims to provide evidence on the question of whether tight audit time, quality assurance practices of IA; audit follow up practice of IA, independence of internal auditors, management cooperation and trust on IA and adherence to code of ethics determine the internal audit quality by using selected commercial banks in Ethiopia.

Furthermore, carefully examining factors determining internal audit quality could fill the gap to the literature in general and in Ethiopian context particularly on commercial banks internal audit quality. Moreover, this study to the best of the researcher's knowledge, it is a least explored area that attempts to identify factors determining the internal audit quality in Ethiopian commercial banks. This fact reveals a great need to conduct this study.

Moreover, the study can be used by financial institutions particularly selected Ethiopian commercial banks to understand factors determining the internal audit quality. Individuals, internal auditors, acquaint them with information on determinants of internal audit quality using this study as a reference. The other members of corporate governance (Board of directors, Audit committee and External auditors) could also use these findings into account in their interactions to better equip internal audit functions for their role in corporate governance effectiveness (Deribe and Regasa, 2014). Last but not least, this study will contribute to the internal audit quality literature by providing evidence that increase the body of knowledge in understanding the factors that determine the quality of internal audit in general.

### **1.3. Statement of the Problem**

The internal audit function quality will add value to the organization by providing recommendations by making an independent assessment of the risk management process, control and governance, and make findings aimed at improving efficiency and hence economy. Given the value adding contribution of maintaining internal audit quality limited studies are done focusing on it in Ethiopia (Tsegaye, 2018) though there is research done on audit quality in other countries. Among a few studies conducted the researcher pinpointed some of them as follow from the most recent to the oldest.

Ashagre, (2018) examined the quality of internal audit of economy budgetary public sectors in Ethiopia using a variable experience of internal auditors, independence, training, and the size of audit in the organizations. The result shows that independence of IA, experience of IA, and training were strong and have statistically significant effect on the quality of IA whereas, the size of IA did not have a significant impact on the quality of IA.

The study by Nebiye, (2017) assessed the determinant of external audit quality in Ethiopian audit firms using a variable independence, audit experience, accountability, audit fee, firm size and regulation. The result revealed that independence, experience, accountability and regulation are statistically significant factors influencing the variation in audit quality in the Ethiopian external audit firms. Whereas audit fee and audit firm size are not significant.

Arebu, (2016) investigated the determinants of external audit quality proxied by discretionary (abnormal) accrual based on audit firm specific and company related attributes focusing on manufacturing share companies. The researcher used audit firm-specific and client-related factors. The results show that certified audit professionals' and joint provision of audit and non-audit services have statistically significant and positive relationship with manufacturing share companies' external audit quality. Whereas size of independent non-executive board members and duality of chief executive officers has a negative and statistically significant relationship with large manufacturing shares' external audit quality.

Kitata, (2016) identified the quality determinants of external audit work in Ethiopian banking institutions using the practice of earnings management as a proxy for audit quality. The study by Tsegaw, (2017) examined the perception of auditors on external audit quality in Ethiopia using survey as a strategy of inquiry. Leilina, (2015) investigated the determinants of external audit quality proxied by discretionary (abnormal) accrual based on audit firm specific attributes.

The study by Deribe and Regasa, (2014) investigated factors determining internal audit quality in Ethiopian commercial banks. The results indicate that internal auditors in the Ethiopian commercial banks believe the performance, competence and use of information technology by internal auditors as significant factors affecting internal audit quality.

As far as the research knowledge is concerned, out of a few studies reviewed, only two of them focused on the internal audit quality that can be clearly seen as stipulated herein above. The rest mostly concentrated on external audit quality on commercial banks and manufacturing companies. Therefore, this study tries to bridge the gap by not focusing on the external audit rather on the determinants of internal audit quality and different variables from that of Ashagre, (2018) and Deribe and Regasa,(2014) the focus of which is internal audit quality.

Moreover, this study uses recent data and increased number of variables in order to explore factors that determine the internal audit quality. It is also clear that financial institutions play a pivotal role in the growth of the Ethiopian economy (Deribe and Regasa, 2014),despite this fact; the studies conducted before were not that much enough, that triggered the researcher to study on the factors determining IAQ in selected Ethiopian commercial banks.

#### **1.4. Research question**

The main research question of this thesis is ‘**What are the Determinants of internal audit quality in commercial banks?**’ The objective of answering this question is to provide a comprehensive framework to improve our understanding of IAF quality in commercial banks, expand the conceptual base of the existing literature on IAF quality and provide a platform to build specific models of IAF quality to enable future research.

The specific research questions are:

1. How does the tight audit time affect internal audit quality?
2. What is the impact of quality assurance practices IA on internal audit quality?
3. How do audit follow-ups practices of IA contribute to internal audit quality?
4. How does the independence of internal auditors affect internal audit quality?
5. How does management cooperation and trust affect internal audit quality?
6. What is the importance of adherence to code of ethics on internal audit quality?

## **1.5. Objectives of the study**

### **1.5.1. General Objective**

The general objective of this study was to identify determinants of internal audit quality in selected Ethiopian commercial banks.

### **1.5.2. Specific Objectives**

This study tried to achieve the following specific objectives.

- To examine the effect of tight audit time on internal audit quality.
- To analyze whether quality assurance practices of IA has an impact on internal audit quality.
- To identify the effect of audit follow up of IA on internal audit quality.
- To assess independence of internal auditors determine internal audit quality.
- To analyze whether management cooperation and trust on IA has an impact on internal audit quality.
- To evaluate if adherence to code of ethics determine internal audit quality.

## **1.6. Hypothesis of the study**

Hypothesis is a formal statement that presents the expected relationship between an independent and dependent variable (Ashagre, 2018). Based on the gap in the existing literatures the researcher tried to fill it by developing the following guiding research hypotheses. They are formulated to achieve the objectives.

### **Tight Audit Time (TAT)**

Audit time is firm's budgeted time because of limited resources allocated to implement auditing. Audit time is measured with two reflective indicators,; (a) time budget, related to time budget to control the amount of time for an overall audit work; and (b) time limit, where related time limit to budget deadline to complete any audit work at date/time specified (Abdul Halim, 2014). Rigorous audit time arises from an imbalance between the task and time available that cause stress to affect auditor's professional ethics through attitude, intention, attention, and behavior of auditors (DeZoort, 1998 and Braun, 2000). Meanwhile, Smith, (1997) proved that a tight audit time often lead to unintended negative effect on audit quality. Therefore, this study hypothesis:

**H1:** There is a negative relationship between tight audit time for internal auditor and the quality of the internal audit.

### **Quality Assurance Practices of IA (QAP)**

Internal audit attribute standard 1300 suggests that "the chief audit executive must develop and maintain a quality assurance and improvement program that covers all aspects of the internal audit activity" (IIA, 2017). Moreover, the quality assurance program aims to assess the adherence of internal auditors with the International Standards for the Professional Practice of Internal Auditing (IIA, 2017). Furthermore, ongoing monitoring of the performance of the internal audit activity, periodic self-assessment and external independent assessments are highly recommended under IIA Standard 1300.

Prior empirical studies provide evidence of a positive relationship between the use of quality assurance techniques and financial reporting quality. Using 214 companies in the GAIN database, Lin, (2011) suggests that the extent to which the IAF incorporates quality assurance techniques into fieldwork helps prevent material deficiencies from occurring.

In a related vein, Sarens, (2012) found that the existence of a quality assurance and improvement program in place is positively associated with the IAF's role in corporate governance. In Malaysia, Juhl, (2013) reported that the use of quality assurance techniques reduces opportunistic earnings management. Pizzini, (2015) findings suggested that the use of quality assurance

practices is significantly associated with reductions in audit delay. Based on these arguments, the second hypothesis to be tested is:

**H2:** There is a positive relationship between quality assurance practices of internal audit department and the quality of the internal audit.

### **Audit Follow up practices (AFP)**

Internal audit performance standard 2500 requires the chief audit executive to establish a follow-up process to monitor the previously identified internal control deficiencies and to ensure that management actions have been effectively implemented or that top management has accepted the risk of not taking action (IIA, 2017).

Lin, (2011) used data from 214 US firms and found that firms with IAFs that follow up procedure on previously identified control problems reduce the likelihood that a material weakness exists at year-end. This result suggests that monitoring the remediation of previously identified control problems prompts management to correct them in a timely manner. Hence, IAF follow-up procedures can prompt management to remediate identified weaknesses in a timely manner. Based on this argument, the third hypothesis to be tested is:

**H3:** There is a positive relationship between audit follow-up of internal audit and the quality of internal audit.

### **Independence of Internal Auditors (IDA)**

Independence is defined as the freedom from any intervention in IA activities that might confound the nature of the audit work, such as restricting the scope of the audit. The independence of the IAF has para-mount importance. The ISPPA and IIA Practice Advisory indicated that this can be achieved by ensuring appropriate reporting mechanisms such that the internal audit department has direct access to the board and senior management, by giving it the authority to access any records it deems fit, by allowing full access to all employees and departments, by placing strict conditions on the appointment and removal of the head of internal audit.

The practicing auditor must be virtually and appearance independent when doing professional works, where that independence is considered the backbone of exercising auditing profession. The auditor must execute his duty with dignity, objectivity and full intellectual independence (Al-Tamimi, 2006). The auditing committee shall be responsible for assisting the auditor to maintain neutrality and independence from administration (Arens, 2003). According to the discussion the following is hypothesized:

**H4:** There is a positive relationship between independence of internal auditors and internal audit quality.

#### **Management cooperation and trust on Internal Audit (MGCT)**

Management support is the determinant of IA effectiveness (Mihret & Yismaw, 2007). Given the fact that IA activities are performed in dynamic and supportive environment; internal auditor expects cooperation from top management. Abu-Azza, (2012) explain management cooperation as a motivation provided by top management to internal auditors. These motivations were explained by Abu-Azza, (2012) as providing education and training programs to IA teams; adequate budget to IAD; bonuses and recompense to IA teams; and acceptance and implementation of IA recommendations.

Financial support can be expressed in terms of providing adequate budget to IAF and giving financial incentives (bonuses and recompense) to IA teams (Abu-Azza, 2012). According to Paape, (2007) adequate budget to IAF has a crucial role to have a competent IA team. In addition, such financial support has a positive influence on the independence of IA team (Mizrahi & Ness-Weisman, 2007). Gortiz, (2004) argued that financial incentives through bonuses and recompense enhance the quality of IA team in working area. Therefore, management cooperation has a significant relationship with quality of IA. Based on this understanding and to achieve the objective of this study, the following research hypothesis is formulated:

**H5:** There is a positive relationship between management cooperation and trust on internal audit and internal audit quality.

### **Adherence to code of ethics (ACE)**

In addition to technical and professional qualifications of the internal auditor, it is necessary to consider the ethical character of the internal auditors, ethical virtue requires focus on thoughts of the person and his actions, intentions and behaviors (Armstrong, 2003), though the good person is the one who displays a quantity of a certain feature at the appropriate time and place (Crisp, 2010).

In connection to this the Institute of Internal Auditors identifies the principles of code of ethics which include four components: integrity, objectivity, confidentiality and competency (IIA, 2009). The level and the importance of professional and moral commitment in companies, which will encourage adhering to principles and code of ethics, become an integral part of the institution's culture and its values, thus improving internal audit practices to suit with the required level of necessary professionalism and ethics to achieve more effectiveness in performing internal audit. Based on this understanding, the last hypothesis to be tested is:

**H6:** There is a positive relationship between adherence to code of ethics and internal audit quality.

## **1.7. Scope of the Study**

It is important to define the boundaries of the study. It may be cumbersome to incorporate the views of all stakeholders. Hence, the study is focused on views of staff members of internal audit department in selected Ethiopian commercial banks. The term auditor throughout this study refers to internal auditors only. Internal auditing; according to IIA definition, is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations.

The study further focuses on those staffs of the internal audit department who have the following roles: Assistance-IA Internal Auditor, Senior Auditor, Team Leader-IA, Audit Managers,

Directors and Chief Internal Auditor. The researcher believes the experience and qualification of the participant have an expert opinion on determinant factors on audit quality in Ethiopia commercial banks. The main issues addressed were whether tight audit time; quality assurance practice of IA; audit follow up practice of IA, independence of internal auditors, management cooperation and trust on IA and adherence to code of ethics determine internal audit quality.

### **1.8. Significance of the Study**

As a consequence of the rising number of accounting scandals of famous global players such as the highly publicized collapse of Enron debacle, the failure of Andersen and WorldCom's massive fraud make clear the significance of high quality internal auditing globally. In Ethiopia, internal auditors considered as a 'watch-dog' for the organization and also are taken to be verifiers and/or checkers of transactions (Deribe and Regasa, 2014). But very recently the importance of internal audit is being recognized and its contribution appreciated. Introduction of the compressive internal audit manual defining its role and approach in the public sector by the Ministry of Finance is one evidence, while specifically for the banking sector the National Bank of Ethiopia directive No. SBB 62/ 2015, annex III, clearly states importance of internal audit and the role of audit committee of the board in relation to internal audit. Thus, it is important to study about internal audit in general and its quality in particular to contribute to intended purpose.

### **1.9. Limitations of the study**

This study examines and attempts to evaluate the factors influencing the quality of internal audit in its entire effect focusing on selected commercial banks in Ethiopia. The target groups of the population are internal auditors. However, this study has methodological limitations. It is questionnaire-based, and a measure of the variables, both the dependent and independent variables, are established according to the perceptions of internal auditors. Perception and view of auditee, senior management and other stakeholder may differ from that of auditors. Further study may include these groups to consider their views.

### **1.10. Organization of the Study**

This study is organized in to five chapters. The first chapter consists of background of the study, statement of the problem, objective, hypotheses, significance, scope, limitation and organization of the study. The second chapter discusses the literature related to the study to provide a conceptual framework for the research. The third chapter deals with methodology of the study that contains research design, sampling technique, data type & source, method of data collection, analysis and interpretation. The fourth chapter deals with analysis of the data collected. The fifth chapter presents summary, conclusions, recommendations based on the findings in chapter four and suggestion for future study.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1. Introduction**

The first part gives introduction about the problem to be investigated in this study. Under this particular part the researcher presented related materials reviewed regarding to the research topic. This chapter has both theoretical perspective and empirical studies of internal audit quality and its determinant factors. The theoretical framework consists of a discussion and a presentation of audit historical perspective, and underpinning topics of internal audit since; they are related to research question and need further clarification. Next prior empirical studies of internal audit quality were discussed. Lastly the knowledge gaps from the overall review of related literatures were presented. Hence, chapter two serves as background for this study by describing concepts of internal auditing quality, definition, measure and importance of internal audit quality. As per the researcher's belief the material relevant to understand the concept of internal audit quality and its determinant factors are assessed as much as possible.

#### **2.2. Theoretical Literature Review**

##### **2.2.1. Definition and scope of Internal Audit**

In the International Professional Practices Framework (IPPF) internal auditing is defined as an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

IA throughout the years has extended from the evaluation and measurement of internal control effectiveness to the delivery of consultation linked to organizational operations and system developments (Dittenhofer, 2001). Added to this, the IA scope covers services associated with assurance and consulting.

Assurance services involve the internal auditor's objective assessment of evidence to provide an independent opinion or conclusions regarding an entity, operation, function, process, system, or other subject matter. The nature and scope of the assurance engagement are determined by the

internal auditor. There are generally three parties involved in assurance services: (1) the person or group directly involved with the entity, operation, function, process, system, or other subject matter - the process owner, (2) the person or group making the assessment - the internal auditor, and (3) the person or group using the assessment - the user (International Standards for the Professional Practice of Internal Auditing, 2015).

Consulting services are advisory in nature, and are generally performed at the specific request of an engagement client. The nature and scope of the consulting engagement are subject to agreement with the engagement client. Consulting services generally involve two parties: (1) the person or group offering the advice - the internal auditor, and (2) the person or group seeking and receiving the advice - the engagement client. When performing consulting services the internal auditor should maintain objectivity and not assume management responsibility (International Standards for the Professional Practice of Internal Auditing, 2015).

### **2.2.2. Internal Audit historical perspective**

The development and changes of the internal audit function is evident: the traditional oversight function is replaced by the value-adding business advisor, through prevention of problems and identification of potential risks (Ahlawat and Lowe, 2004). Within years the internal auditor's role has moved from being an inspector to a very beneficial occupation as the quality monitoring and, according to Abbott, (2010), the importance of the roles of both internal audit function and audit committee in monitoring control activities have grown in recent years. It is becoming a very different profession from what it was in the past and it requires new talents. The change was necessary because traditional internal audit activities were not able to meet evolving needs of organizations (Regoliosi and d'Eri, 2012).

There is now an increasing pressure for the internal auditor to add value (Peurseem, 2005). Christopher, (2009) also write about growing internal auditor's responsibilities: growing demand for greater accountability, independence and objectivity. Doubts about internal auditor's independence and objectivity have persisted after the Sarbanes – Oxley act (Norman, 2011). Even in the U.S. it took 60 years for the boards to start value the importance of internal auditors (Makara and Palubinskien, 2005).

Spencer, (2011) describes changes in the internal audit function's focus and its consequences through the changes in lines of defense. The first line of defense is risk taking. The second line of defense is risk monitoring and the third line of defense is risk assurance/controlling. According to Hjelm and Schöldström, (2012), the internal audit function is moving towards a pure third line of defense. Thus, the assurance gap appeared when the focus changed from "internal control testing" to "end-to-end process audits". Current demands for internal audit functions to close the assurance gap are: to provide reliable assurance, high efficiency and make an impact on the business, by focusing on root causes, proven methodology and tools and innovative ways to provide assurance for critical issues (Spencer, 2011).

Some of the audit technique underlying internal auditing is derived from management consulting and public accounting professions, the theory of internal auditing was conceived primarily by Lawrence Sawyer often referred to as "the father of modern internal auditing" and the current philosophy, theory and practice of modern internal auditing as defined by the International Professional Practices Framework (IPPF) of the Institute of Internal Auditors owes much to Sawyer's vision.

With the implementation in the United States of the Sarbanes-Oxley Act of 2002, the profession's exposure and value was enhanced, as many internal auditors possessed the skills required to help companies meet the requirements of the law. However, the focus by internal audit departments of publicly traded companies on SOX related financial policy and procedures derailed progress made by the profession in the late 20th century toward Larry Sawyer's vision for internal audit. Beginning in about 2010, the IIA once again began advocating for the broader role internal auditing should play in the corporate arena, in keeping with the IPPF's philosophy.

### **2.2.3. Internal audit in commercial banking sectors**

Every bank should have an internal audit department on which with regard to the volume and nature of its activities it can rely. The internal audit department in a banking institution must be independent from the activities that it controls and must likewise be independent from the day-to-day internal control processes. In this way, it is guaranteed that this department performs its activities objectively and impartially. Internal auditors may not have a conflict of interests with

the bank. Every bank should have formalized principles of internal audit providing for its position and powers in the framework of the bank. There should here be codified the scope of work of internal auditors, the position of the whole department in the bank's organizational structure, relations with other control departments, etc. Internal audit must be objective and impartial, meaning that it should perform its activity free of doubts and interference. Members of the internal audit team may not participate in the bank's operations or in the selection and implementation of internal control systems. The professional competence, as well as internal motivation and systematic professional development of each internal auditor are essential factors for the correct functioning of the whole internal audit department of the bank. The internal audit department manager should be responsible that the department performs its activities in accordance with the due principles of internal audit. Especial care should be taken that the audit plan is drawn up formally and procedures for all members of the team are in writing (Basel committee on Banking Supervision, 2012).

The professional competence of the department's employees must always be ensured, as must the irregular training. The internal audit department is responsible to the bank's management and its board of directors, possibly also to the audit committee, if the bank has one. These bodies of the bank should primarily be informed as to the progress of the audit plan and the attainment of the internal audit department's objectives (Basel committee on Banking Supervision, 2012).

#### **2.2.4. Internal Audit and Corporate Governance**

Corporate governance is the system by which companies are directed and controlled (involves a set of relationships between company's management, board, shareholders and other stakeholders) (Kristina, 2013). A vibrant and agile internal audit function can be an indispensable resource supporting sound corporate governance that is why became a very hot area with all the corporate scandals and failures happening (e.g., Enron, WorldCom, HQ Bank) that had a terrible effect on stakeholders. These scandals lead to a decrease of trust in accounting and auditing systems. Therefore, Sarbanes-Oxley act was passed by the U.S. Congress in 2002 to increase transparency, protect investors and prevent accounting fraud.

Cohen, (2004) model of corporate governance includes internal audit as one of five internal governance stakeholders along with the audit committee, management, external auditors and the board of directors. The model identifies that the IAF has direct relationships with the audit committee, senior management and external auditors, and only an indirect relationship with the board of directors. The interactions among the IAF and the other governance stakeholders are crucial to effective governance (Andrew, 2014).

Internal auditors are intermediates that join the board, external auditors and the management to a consistent corporate governance system. According to Spencer, (2011) the internal audit is likely to be the only function in the company that has a deep and close understanding of risk and control. Therefore, an internal auditor has two main responsibilities: to provide advice to the management and objective and independent assurance to the board about the effectiveness of internal controls and other risk management activities (Kristina, 2013).

#### **2.2.5. Types of Internal Audit**

As Geremew, (2018) mentioned, auditing function can undertake different types of audits aimed at improving accountability, company efficiency etc...According to Geremew the types of audit are:

##### **Financial Audit:**

This type of audit assesses the accuracy and fairness of accounting procedures and financial statements. It is conducted to determine whether the overall financial statements (the quantifiable information being verified) are stated in accordance with specified criteria. Normally, the criteria are the requirements of the applicable International Financial Reporting Standards (IFRSs). The financial statements most commonly comprises of the Balance Sheet, Income Statement, Statement of Changes in Equity, Cash Flow Statement, and Notes to the accounts (Geremew, 2018).

**Compliance Audit:**

The purpose of a compliance audit is to determine whether the entity is following specific procedures, rules, or regulations set down by some higher authority. A compliance audit for a private business could include determining whether accounting personnel are following the procedures prescribed by the company controller, reviewing wage rates for compliance with minimum wage laws, or examining contractual agreements with bankers and other lenders to be sure the company is complying with legal requirements. An example is the auditing of taxpayers for compliance with the federal tax laws, where the auditor is employed by the government to audit the taxpayers' tax returns. Results of compliance audits are typically reported to someone within the entity being audited rather than to a broad spectrum of users. Management, as opposed to outside users, is the primary group concerned with the extent of compliance with certain prescribed procedures and regulations (Geremew, 2018).

**Performance Audit:**

It is also known as "value for money" audits; analyzing cost effectiveness and operational efficiency. Sometimes these can extend to reviewing the general effectiveness of company in achieving their objectives and act as impact audits. At the completion of an operational audit, recommendations to management for improving operation are normally expected. An example of an operational audit is evaluating the efficiency, accuracy, and customer satisfaction in processing the distribution of letters and parcels by a courier company, evaluating the relevancy and sufficiency of the information used by management in making decisions to acquire new fixed assets, evaluating the efficiency of the paper flow in processing sales etc. In operational auditing, the reviews are not limited to accounting. They can include the evaluation of organization structure, computer operations, production methods, marketing, and any other area in which the auditor is qualified. Efficiency and effectiveness of operations are far more difficult to evaluate objectively than compliance or the presentation of financial statements in accordance with accounting conventions and principles; and establishing criteria for evaluating the quantifiable information in an operational audit is an extremely subjective matter. In this sense, operational auditing is more like "management consulting" than what is generally regarded as "auditing" (Geremew, 2018).

### **Other Audits:**

Specialized audits may be conducted (as part of one of the main audits listed above or separately in their own right) examining issues such as recruitment and management principles, ethics and integrity of the audited work force and others (Geremew, 2018).

### **2.2.6. The Concept of Audit Quality**

Without having enough understanding of the concept of audit quality, and the role of high quality audit, it is hardly possible to think about factors that determine audit quality. Consequently, the starting point of this part emphasizes on the concept of audit quality.

Audit Function quality consists of multiple dimensions including inputs, processes, outputs, outcomes, and contextual factors (Leilina, 2015). Regarding audit quality IAASB was developed capturing the relationships between: context, inputs, outputs, and interactions. Inputs are categorized into three groups: (a) the values, ethics and attitudes of individual auditors, (b) the knowledge and experience of auditors and the time allocated for them to perform the audit; and (c) the effectiveness of the audit process and quality control procedures. Outputs are often determined by the context, including legislative requirements and can be influenced by stakeholders; for some companies' stakeholders, the auditor's report is the primary output and this is relatively standardized. Interactions amongst key stakeholders include both formal and informal communications, which will be influenced by the context in which the audit is performed and allow a dynamic relationship to exist between inputs and outputs elements of the framework. The contextual factors include corporate government requirements and the applicable financial reporting framework as well as legislative and regulatory requirements, which also shape the interactions amongst key stakeholder Andrew, (2013).

With regard to the multiple audit quality dimensions consider a scenario by (Andrew, 2013) with two firms, Firm A and Firm B, which are of equal size and same characteristics. Based on the conceptualization of quality in IAF literature, an assessment of IAF quality would suggest the IAFs of Firm A and B are of equal quality. However, while Firm A and B might have the same inputs this does not mean that they adopt the same processes in conducting their internal audit. It is reasonable to expect there will be differences among internal auditor's judgments and decision

making. Similarly, the outputs of the IAF, such as their findings, are also likely to differ. While high quality input factors should correlate with higher quality processes and outputs, this does not automatically follow. The same inputs could be associated with different processes, auditor's judgments and decision making, and outputs; thereby, resulting in potentially different levels of IAF quality. This simple example demonstrates that quality measurement focusing solely on inputs potentially limits the ability to fully explain variability in IAF quality (Andrew, 2013).

According to Cohen and Sayag, (2010); Mihret and Yismaw, (2007) internal audit quality includes the level of compliance with IIA standards, the ability to audit plan, execute and communicate audit findings. In line with the previous statement on audit quality, Cohen, (2004) stated that the number of findings showed audit quality. Audit quality is increasing more because the presence of auditor's competency improvement that is obtained along with the longer assignment period of auditor.

### **2.2.7. Audit Quality Definition and Measurement**

There are vast body of literature relating to audit quality and its measurement. Despite the extent of that literature, no single generally accepted definition or generally accepted measure of audit quality has emerged. Different scholars define audit quality in different ways. As per the existing literature the absence of generally accepted definition of audit quality, is due to the presence of different parities. Perception of audit quality can depend very much on whose eyes one looks through. Auditee, auditors, regulators and other stakeholders may have very different views as to what constitutes audit quality, which influences the type of indicators one might use to assess audit quality. The auditee may believe that high audit quality means audit that add value to the organization. The auditor conducting the audit may define high audit quality as satisfactorily completing all tasks required by stakeholders. Regulators may view a high quality audit as one that is in compliance with professional standards.

Researchers have based IAF quality measures upon a prescriptive of three factors. External audit standards contend that for an external auditor to rely on internal audit work, the external auditor must exercise professional judgment in assessing IAF quality including internal auditor

competence, objectivity and that the nature and scope of the work performed by the IAF is relevant to financial reporting and financial statement audits. The conceptualization of IAF quality in recent research has predominantly focused on the ‘three factors’, with only a few studies including supplementary factors such as size in their measurement (Lin, 2011; Prawitt, 2012).

There are two potential reasons for the dependence on the three factors as the basis of IAF quality measurement in much of the prior research. Firstly, the cumulative nature of research means that established measures become entrenched. Secondly, theoretical underpinnings tend to dominate to the exclusion of alternative theoretical perspectives. As a prelude to improving our understanding of IAF quality these two drivers are explored hereunder.

The first driver is that the three factors are the generally accepted measure in the literature and have been the basis of IAF quality measurement since early measurement of this construct (Gramling, 2004 & Bame-Aldred, 2013). The pervasive adoption of the three factors from the external audit standards is not that surprising given that the majority of IAF quality research has focused on external auditors and their reliance on the IAF. A problem is that the core professional guidance for an IAF stakeholder to assess IAF quality is prescribed by the external audit standards.

The IIA provide some guidance on IAF quality; however, this guidance is largely designed for internal auditors to assess quality, and not that of other IAF stakeholders. The IIA suggest a quality internal audit is achieved through conformance to the International Standards for the Professional Practice of Internal Auditing, their code of ethics, and through meeting stakeholder expectations (IIA, 2010). The implication here is that any overt direction to assess quality is based on conformance to IIA standards and ethics. However, in practice, conformance to IIA standards is quite low. Bailey, (2011) reports that 46% of IAFs conform to IIA standards, and a study by Protiviti, (2011) finds only 31% of IAFs conform. Under IIA prescriptions of IAF quality, this would indicate that the majority of IAFs are not of high quality, but the more telling message is that within practice, if IAFs are not conforming to IIA standards, the standards are not a strong guidance to assess quality.

The second driver is the theoretical underpinning adopted. IAF quality research has explicitly, or implicitly, adopted one of two theoretical perspectives: agency theory or source reliability. The three factors have a theoretical basis consistent with propositions of agency theory under a corporate governance view and theory on source reliability under a social psychology view. Both of these views focus on attributes of the service provider. Under agency theory, implementing monitoring mechanisms attempts to align manager's interests with principals and reduce information asymmetry (Andrew, 2013). With the traditional perspective of the IAF as a monitoring mechanism providing assurance over financial controls and financial reporting, viewing the IAF via an agency perspective is warranted. Agency theory considers independence and expertise as the central attributes of a monitor (Cohen, 2008; Hermanson, 2012). Under a monitoring perspective of the IAF, the two factors, objectivity and competence, map very closely to these two attributes. The third factor, work performance, operationalized by the nature and scope of activities performed is also important to consider as an external auditor is only concerned with IAF work pertaining to the financial statement audit (Messier, 2011).

An alternative is to look at the three factors from a source reliability theoretical foundation. An external auditor is required to obtain an understanding of the reliability of sources of information (IFAC, 2009). In the external auditors' decision to use the work of the IAF, reliability of the information produced by the work of internal audit is a major concern (Andrew, 2013); inaccurate judgments of reliability may result in inappropriate decisions by the external auditor based on the work of the IAF (Andrew, 2013). When quality is difficult to assess the focus turns to input factors of the sources where the assessor evaluates information via its source credibility and trustworthiness (Andrew, 2013) rather than processes or outputs. The source reliability research noted above identifies two dimensions of source reliability: source expertise and source bias. Source expertise is the perceived ability of the source to provide information of an actual or true nature, and source bias refers to motivating influences on the source to misreport or distort information. The two dimensions of source reliability can be mapped to the 'three factors'; source expertise has been operationalized as competence and work performance, and source bias operationalized as objectivity (Andrew, 2013).

The problem is that the three factors employed in IAF quality measurement to date are inputs to the IAF. However, the concept of IAF quality is likely broader than solely the quality of inputs. There are two input types: internal auditor attributes (competence and objectivity) and structural elements of the function (nature of activities and investment) Lin, (2011) and Pizzini, (2012) expand beyond the three factors and include a fieldwork component in their respective measures. The problem with focusing solely on inputs to assess quality is that other critical factors that may affect quality are not considered.

### **2.2.8. Importance of Internal Audit Quality**

In order to achieve its role as a monitoring and advising mechanism as well as a valuable resource to other key governance parties, the IAF should possess an appropriate level of quality, for the IAF quality influences the relationship that the IAF has with each of the other key governance parties, and hence influences the quality of overall corporate governance (Like, André and Richard, 2014). For example, early experimental studies demonstrate that external auditors do consider various quality characteristics such as competence, objectivity, and work performance of the IAF when deciding whether or to what extent they rely on the IAF (Like, André and Richard, 2014). Studies investigating the consequences of such reliance find that better quality of the IAF results in more external auditor's reliance on the IAF, which in turn increases audit quality and reduces external audit costs (Like, André and Richard, 2014). In addition, high quality IAFs are more likely to have better communication with audit committee and management, and to provide them with more precise and reliable information, which in turn leads to the audit committee and management being more willing to improve the status of the IAF in the corporation as well as to allocate more resources to the IAF.

The enhanced role and quality of the IAF finally contributes to more effective internal control and better reporting quality. For example, (Lin, 2011) reveal that firms with a more competent IAF that performs high quality fieldwork are less prone to material weaknesses in internal control. Moreover, when such material weaknesses exist, firms with a high quality IAF are more likely to disclose them. Since a high quality IAF can increase the effectiveness of internal control quality is expected to be related to the IAF quality as well. Schneider and Wilner, (1990) indeed

find that the existence of an IAF is perceived by managers as a deterrent of aggressive financial reporting, and (Prawitt, 2009) report that a high quality IAF decreases earnings management.

### **2.3. Empirical Literature**

This section consist the outcomes of the researchers' work, that they can provide the overview of the determinants of internal audit quality in different areas. In Ethiopia, to the knowledge of the researcher, there appears to be very limited work on the assessment of the determinants of internal audit quality. These studies include studies of (Ashagre, 2018) and (Deribe and Regasa, 2014). Those studies examined determinants of internal audit quality in the economy budgetary public sector offices found in Ethiopia and factors determining internal audit quality in Ethiopian commercial banks respectively. Thus, this particular section provides a review of the two studies conducted in Ethiopia.

A study made by Ashagre, (2018) examined quality of internal audit in selected public sectors, focusing on experience of internal auditors, independence, training, and the size of audit in the organizations are mentioned as independent variables. It also attempted to examine whether the variables are identified as the most important mechanism to help decision makers to accomplish the general objective of an organization. The researcher analyzed the perceptions of internal auditors. Based on her paper, experience of internal auditors, independence of internal audit and training were strong and statistically significant effect on the quality of internal audit, but audit size had negative and insignificant effect on the quality of internal audit. She also suggested that organizations to consider the variables mentioned above to determine internal audit quality.

On the other hand, Deribe and Regasa, (2014) in their study inform the members of corporate governance (board of directors, audit committee, internal auditors and external auditors) to use the findings in to account in their interactions to better equip internal audit function for their role in corporate governance effectiveness. The researchers adopted quantitative research approach by employing survey research as a strategy of inquiry. Survey for the quantitative strategy has been used through distributing self-administered questionnaires. The results of the study indicate that internal auditors in Ethiopian commercial banks believe the performance, competence and use of information technology by internal auditors as significant factors affecting internal audit

quality. Furthermore, the study recommends that Ethiopian commercial banks must work to ensure the availability of the key factors to achieve the quality of internal audit function.

The researcher has got an opportunity to go through research paper made internationally on internal audit quality; among others, the research made by (Andrew, 2013); (Like, André, & Richard, 2014); (Hasan, Abed & Othman, 2014) and (Ahmed and Neila, 2018) included in this review. Those studies examined IAQ under the research title: internal audit quality: a multi-stakeholder analysis, determinants of internal audit function quality and the ethical rules of auditing, impact of compliance with the ethical rules on auditing quality and the impact of internal audit function characteristics on internal control quality respectively. Thus, this particular section provides birds I view review of the studies.

A research by Andrew, (2013) examined importance of the IAF to organizations, beyond the viewpoint of the external auditor or beyond the IAF's role of assuring financial reporting. The researcher also endeavored to examine what is IAF quality by considering the experiences of other corporate governance stakeholders. The researcher finds that different IAF stakeholder groups judge IAF quality differently and the IAF stakeholder groups use a select number of information cues in their judgment process. The results of the thesis also show that the main determinants of IAF quality considered by the participants are input factors, process factors, output factors and contextual factors.

On the other hand, Like, André, & Richard, (2014) investigated the relationships between the IAF quality and various firm and institutional characteristics. The results of the study purports that IAF quality is positively related to firms' operating complexity, growth opportunity, and the need for firm-specific knowledge, suggesting that firms develop the IAF quality as a response to their own contracting and information environments. Moreover, the study reveals that the IAF quality is positively associated with the intensity of board monitoring and negatively related to the CEO duality.

Furthermore, the study show that the IAF quality is higher for firms in countries having more developed financial markets and stricter investor protection regimes. It also shows that the IAF quality is significantly higher for firms in countries whose corporate governance codes specify stricter and more detailed requirements of the IAF.

The study by Hasan, Abed & Othman, (2014) identified the concept of ethical rules for the auditing profession and the concept of auditing quality and analyzing the impact of compliance with the rules on the quality of audit. Researchers found that there is the impact of a high degree of commitment to the auditors professional ethics on the quality of the audit, it turns out that the degree of influence of commitment to professional ethics on the quality of the audit was uneven, where it came from the independence of the auditor in the first place, the auditor's straightening and integrity in second place, and third place efficiency of the auditor, commitment to professional conduct in fourth place, then the auditor's commitment to the confidentiality of information. The researchers suggested the most important need for the supervisory authorities and the organization for the audit profession to hold training courses, workshops and seminars on auditing standards and rules of ethics of the audit profession.

The other study by Ahmed and Neila, (2018) investigated the association between internal audit function (IAF) characteristics and internal control quality. The findings of the study reveal that internal control quality is significantly and positively associated with IAF competence, internal audit quality control assurance level, follow-up process and audit committee's involvement in reviewing the internal audit program and results. The researchers pinpointed that findings of the study have significant implications for IAF wishing to enhance their effectiveness, by recognizing the impact of the IAF's characteristics on internal control quality and also have implications for regulatory bodies who are concerned with the internal control quality, managers and audit committees who determine IAF investment, oversight IAF activities and assess internal auditors' performance.

#### **2.4. Summary and research gap**

The basic role of internal auditing is to help management achieve company goals. It also provides assurance that management has implemented a satisfactory internal audit system to prevent risks. In addition, internal auditing should provide internal consulting services to all levels of the organization in terms of training, advices, facilitation and counsels. Nonetheless, to date, there has been scant research conducted on internal audit quality though a number of researches have been done focusing on external audit quality.

Among the financial institutions, the importance of bank is more pronounced in developing countries because financial institutions are underdeveloped and banks are typically the only source of finance for the majority of the firm (Misganaw, 2016). Especially in Ethiopia, bank play crucial role to the growth of the economy by means of mobilize capitals and create job opportunity, considering its contribution to the economy the work done on the of banks internal audit quality is not that much sufficient. The gaps, on the research done in Ethiopia that is included in this study, were highlighted below.

The study conducted by Ashagre, (2018) examined quality of internal audit taking the variable experience of internal auditors, independence, training, and the size of audit in the organizations. The study fails to incorporate most critical determinants/variables tight audit time, quality assurance practices of IA, audit follow up practices of IA, management cooperation & trust on IA and adherence to code of ethics. That means this study clearly fails to fill the knowledge gap that exists in the area as far as it ignore other related variables that determine internal audit quality.

The other study made by Deribe and Regasa, (2014) assessed factors determining the internal audit quality in Ethiopian commercial banks through quantitative research method. This study limits its scope only on investigating four variables that determine internal audit quality: performance, competence, use of information technology by internal auditors and objectivity. The study of (Deribe and Regasa, 2014) also fails to disclose the impact of some very important variables that determine quality on internal audit in Ethiopian commercial banks such as tight audit time, quality assurance practices of IA, audit follow up practice of IA, independence of internal auditor's management cooperation and trust on IA and adherence to code of ethics.

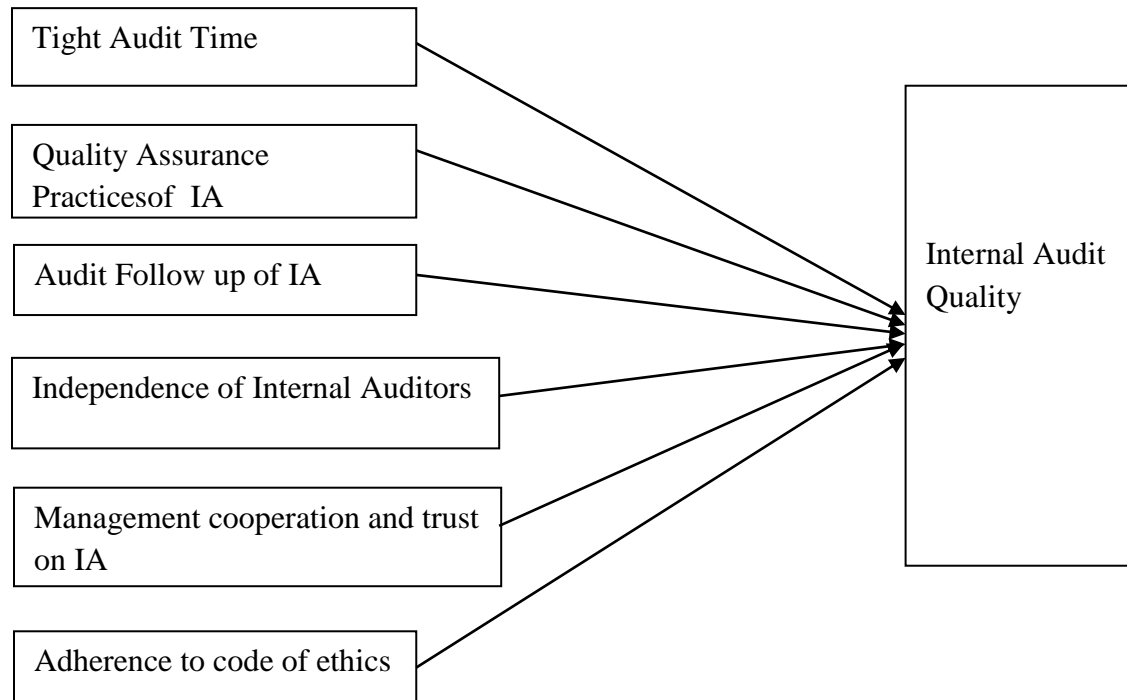
Therefore; it would be worthwhile to incorporate the mentioned variables and bring to the attention of selected Ethiopian commercial banks to consider determinant factors affecting internal audit quality. Besides, the relationship between quality assurance practices of IA, audit follow up practice of IA, adherence to code of ethics and internal audit quality has not been empirically researched in the context of selected the Ethiopian commercial banks. Thus, this paper aimed to investigate issues using selected Ethiopian commercial banks.

## 2.5. Conceptual Framework

According to International Conference on Accounting Studies (ICAS, 2015), developing the conceptual framework and arriving at hypothesis needed to guide to the result of the research. Therefore, the study tries to attempt its own conceptual framework on the determinants of internal audit quality. The followings are elements of variables (Dependent and Independent)

### Independent variables

### Dependent variable



Source: Own construction adapted from Tsegaw, (2017); ALshbiel, (2017) and Ashagre, (2018)

## **CHAPTER THREE**

### **METHODOLOGY OF THE STUDY**

#### **3.1. Introduction**

This chapter presents the various instruments and procedures which are used to collect and analyze data from selected Ethiopian commercial banks to reach to the research study objective. This chapter includes research design, data type & source, data collection, data analysis, data interpretation method and sampling technique.

To attain the objective of the study, the use of tools and methods as to how to go about studying is crucial. The following are of methodology of the study that is applied to conduct the study.

The researcher uses primary sources of data collection mechanism for this study. Thus, staff members of the internal audit department of Commercial Bank of Ethiopia, Abay, Abyssinia, Awash, Bunna, Lion, United and Wegagen Bank S.Co. were included in the study taken into account their convenience in terms getting cooperation for the research study. The key instrument used for the primary data are questionnaires.

#### **3.2. Research Design**

Research design is plan and structure that specifies appropriate methods and procedures for data collection and analysis. In order to address the research problem and meet the research objectives, the researcher used descriptive and explanatory research design type for the reason articulated hereunder.

Explanatory studies are studies that explain the relationship between variables (Ashagre, 2018). Explanatory studies are necessary in such a study situation or problem leads to the explanation of the relationship between variables. Explanatory is also used to determine how events occur and which ones may influence particular outcomes (Dawson, 2006). Therefore, studying the data in quantitative method through statistical tests such as correlation and regression in order to get the clearer view of the relationship. This implies that, problem of the study seeks to identify relationship between audit quality and its determinants.

A descriptive research primarily concerned with finding out "what is," and can be applied to investigate a kind of research question stipulate in this study since the problem that is going to be investigated is used as a basis for determining the research approach. Many earlier studies conducted in Ethiopia like (Tsegaw, 2017); (Geremew, 2018); (Misganaw, 2016); and (Ashagre, 2018) had employed descriptive technique and this study employs this technique as well. The reason for selecting descriptive research design is aimed on current issues or problems through a process of data collection that enables them to describe the situation more completely. Moreover, it is relatively better in describing what has happened. Therefore, based on the objectives of the research employing, descriptive method is appropriate.

Quantitative research allows the researcher to measure and analyze data. The relationship between an independent and dependent variables is studied in detail. This is advantageous because the researcher is more objective about the findings of the research (Ashagre, 2018). This study used a quantitative, descriptive research using a questionnaire. In this research, the researcher applied self-administered questionnaires. The questionnaire is related with the research hypotheses, objective of this study and tries to answer research questions.

### **3.3. Population and Sample size**

#### **3.3.1. Population**

Though all employees under internal audit department may help to get data concerning determinants of internal audit quality as population of the study, it is recognized that, all employee respondents of the selected banks that are experienced as an auditor for one or more years were part of the study. According to the human resource records held by the selected commercial banks, there are 200 internal audit department staffs within the study period that have the experience as an auditor for one or more years.

#### **3.3.2. Sample size**

Currently, there are seventeen commercial banks in Ethiopia. Because of the homogeneity nature commercial banks in Ethiopia, the study was focused on eight banks that are Commercial Bank of Ethiopia, Abay, Abyssinia, Awash, Bunna, Lion, United and Wegagen Bank S.Co which are selected by using convenience sampling. Purposive sampling method is used to select sample

respondents of the study; because, the use of purposive sampling method is linked to the nature of the study and recommended to the Ethiopian setting (Mihret, 2010). Most Ethiopian commercial banks do not have internal auditors at branch level instead checkers, makers and/or branch controllers in some banks. In such context of a study area, using other sampling methods like random sampling would mean including checkers, makers or branch controllers as auditors. The determination of sample size was resolved by means of Slovin's sampling formula with 95 percent confidence level. The sample is distributed among the eight banks proportionately based on the number of auditors therein.

The size of sample was determined with Slovin Formula, as follows:

$$n = \frac{N}{1+N(e)^2}$$

**Explanation:**

n = size of the sample

N =total number of internal auditors in selected Ethiopian commercial banks

e = sampling error on this research (5%)

$$n = \frac{N}{1+N(e)^2} = \frac{200}{1+200(0.05)^2} = 133$$

**3.4. Data Type and Source**

Primary data were used in the study. The primary data were collected from internal audit directors, managers and other internal audit performers of selected Ethiopian commercial banks through questionnaire.

**3.5. Methods of Data Collection**

In order to collect the necessary data, primary source were employed. The primary data were collected via questionnaire. With regard to using questionnaire as a tool, the questionnaires were distributed to all sample employees. The questionnaire was developed based on previous empirical literature and its consistency is tested using Cronbach's coefficient Alpha. The questionnaires also structured in such away by using likert scale of 5 points that respondents will be able to answer easily by choosing from 1 "strongly disagree" to 5 "strongly agree".

### 3.6. Data Analysis Methods

The data collected coded, processed and tabulated using Statistical Package for Social Scientists (SPSS 20); because, it is the most common user friendly package by social scientists in recent years (Dawson, 2002); (Singh, 2007). Descriptive statistics was used to describe the effect of tight audit time, quality assurance practices of IA, audit follow up practice of IA, independence of internal auditors, management cooperation and trust on IA and adherence to code of ethics on the internal audit quality. For computation of stated data, frequency and percentage has been used to summarize and describe the results of observation. And, multiple regression analysis was conducted to determine the effect of each variable on internal audit quality.

### 3.7. Model Specification

To examine factors determining the internal audit quality, the following **multiple regression model** has been developed:

$$IAQ = \beta_0 + \beta_1 TAT + \beta_2 QAP + \beta_3 AFP + \beta_4 IDA + \beta_5 MGCT + \beta_6 ACE + U_i$$

**Source: Own construction adapted from Misganaw, 2016 and Deribe and Regasa, 2014**

#### Where:

IAQ = Internal Audit Quality;

$B_0$  = Constant Term

$\beta_1$  to  $\beta_6$  = coefficients of independent factors that will be estimated and

TAT= Tight Audit Time

QAP= Quality Assurance Practice IA

AFP= Audit Follow up of IA

IDA = Independence of Internal Auditors

MGCT =Management cooperation and trust

ACE = Adherence to code of ethics

$U_i$  = error term,  $i = 1, 2, 3 \dots$

### **3.8. Methods of Data Interpretation**

According to Ravon Kotari, (2008) data interpretation refers to making inferences pertinent to the meaning and implications of the research investigation and the drawing of conclusions about the implications of the variables thereof. Hence, in this study, the data collected from the selected Ethiopian commercial banks are analyzed and interpreted in more logical and rational manner keeping the statistical figures of the analyzed data into consideration.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND INTERPRETATION**

#### **4.1. Introduction**

The research study attempted to identify the determinants of internal audit quality of selected Ethiopian commercial banks. In the preceding chapters, the review of relevant literature helped this study to understand the problem and design an appropriate research approach to deal with. The previous chapter also discussed the research design employed to achieve the objectives of the study and to test the research hypothesis there on. In this chapter, the study analyzes the collected data using various statistical tools and presents the results and discussion accordingly.

#### **4.2. Demographic Characteristics**

The demographical characteristics are described for the respondents and analyzed their opinions and responses on the questionnaire. The questioners were distributed to the internal auditors of selected commercial banks in Ethiopia. For these 133 questionnaires were distributed to the internal auditors from which 128 questionnaires were collected giving an aggregate response rate of 96.24%. The researcher able to get 100% response from the seven banks in the sample, however; five questionnaires was not able to be collected from respondents of commercial bank of Ethiopia.

It is noted from the descriptive statistics presented in table 1 that the majority of the sample was males, where their percentage reached 76.6 % compared to a small percentage of females that is 23.4%.The majority of the age of the respondents fall under the age categories of under 30 (15, 11.7%), 31 to 39 (64, 50.0%), under the categories of the age of 40 to 49 (37, 28.9%) 50 and above (12, 9.4%).Table 1 also indicates that the lower age percentage was 9.4 % for the age group 50 and above years and the largest percentage reached 50.0 % for the age group of 31 to 39 years for members of the sample, and this indicates that they are adult individuals in dealing with the study questionnaire.

Table 1 also shows that 95 respondents or 74.2 % hold a bachelor degree who hold were vast majority, 33 respondents or 22.9 % have a master degree, and 2 respondents or 1.6 % hold (CPA) and (ACCA), there is 1 respondent for each of the other professional certification that is

(CIA), and CIMA. In general, the academic qualifications of individuals enable them to answer the questionnaire. As far the area of study, the majority of the respondents (67 respondents) or 52.3 %specialized in accounting, and 34 respondents or 26.6 % specialized in management whereas 8 respondents or 6.3 % are economics and the remaining 19 respondents or 14.8 % take the others field of specialization (Banking & Finance, Project Management, Law and Information Technology) which means that 78.9% of the study sample were from disciplines that are very relevant and in the heart of the subject of the study and they are familiar with the paragraphs of the questionnaire and they are qualified to answer them.

It can also be seen from the table that 38 respondents or 29.7 % have experience as internal auditor between one to five years and also 48 and 42 respondents or 37.5 and 36.2 % have experience or served as internal auditor for 6-10 years and more than 10 years respectively. With regard to the job title, the majority of respondents were with the job title of internal auditors where their percentage reached 44.5%, the next were team leader internal audit which account for 32.0 % the rest take the other percentage as stipulated in the table herein under. In general, the table information indicates that internal auditors are qualified enough to answer the questionnaire and can be trusted in their abilities and information.

**Table 1: Demographic characteristic of respondents**

<b>Variable</b>	<b>Level</b>	<b>Repetition/ Frequency</b>	<b>Percentage</b>
<b>Gender</b>	Male	98	76.6
	Female	30	23.4
<b>Age</b>	under 30year	15	11.7
	31 to 39	64	50.0
	40 to 49 years	37	28.9
	50 years and above	12	9.4
<b>Specialization/ Field of study</b>	Accounting	67	52.3
	Management	34	26.6
	Economics	8	6.3
	Others	19	17.8
<b>Level of Education</b>	Bachelor's Degree	95	74.2
	Master's Degree	33	25.8
	Doctorate Degree	-	-
<b>Professional certification</b>	CIA	1	0.8
	CPA	2	1.6
	ACCA	2	1.6
	CIMA	1	0.8
	None	122	95.3

Variable	Level	Repetition/ Frequency	Percentage
Current position	Assistance IA	1	0.8
	Internal Auditor	57	44.5
	Senior IA	29	22.7
	Team Leader	41	32.0
	Audit Manager	10	7.8
	Director IA	8	6.25
	Chief Internal Auditor	1	0.8
Experience as an internal auditor in commercial banks	1 year	12	9.4
	2 to 5 years	26	20.3
	6 to 10years	48	37.5
	Above 10years	42	32.8

Source: SPSS output from survey data, 2019

### 4.3. Descriptive statistics

#### 4.3.1. Tight audit time

Table 2: Responses on Tight audit time

Tight Audit time Questionnaire	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%
Q1. Tight Audit time impair audit quality.	1	0.8	11	8.6	15	11.7	62	48.4	39	30.5
Q2. With there are Audit time pressure auditors uses more efficient audit techniques.	3	2.3	29	22.7	34	26.6	52	40.6	10	7.8
Q3. Tight Audit time is associated with questionable audit practices.	2	1.6	12	9.4	37	28.9	59	46.1	18	14.1
Q4. If audit time is too low auditors may omit parts of an audit program.	3	2.3	9	7.0	14	10.9	59	46.1	43	33.6
Q5. If audit time is too low auditors may rely on evidence of lower quality.	6	4.7	7	5.5	22	17.2	57	44.5	36	28.1

Source: SPSS output from survey data (June, 2019)

Table 2 present the response on the perceived value of the effect of tight audit time on audit quality. It shows that 39 out of 128 (30.5%) respondents strongly agree, while 62 out of 128 (48.4%) agree, 15 out of 128 (11.7%) neutral, 11 out of 128 (8.6%) disagree and 1 out of 128 (0.8%) strongly disagree that tight audit time impair audit quality.

52 (40.6%) of participants agreed with there are audit time pressure auditors uses more efficient audit techniques, whereas 10 (7.8%) strongly agree, 34 (26.6%) of them were neutral 29 (22.7%) and 3 (2.3%) disagree and strongly disagree respectively.

The descriptive statistics also show that 59 out of 128 (46.1%) of the respondents agree tight audit time is associated with questionable audit practices, while 18 out of 128 (14.1%) strongly agree, 37 out of 128 (28.9%) neutral, 12 out of 128 (9.4%) disagree and 2 out of 128 (1.6%) strongly disagrees. 59 out of 128 (46.1%) agree as far as the perceived value of “if audit time is too low auditors may omit parts of an audit program is concerned.” Besides 43(33.6%) of the respondents strongly agree, 14 (10.9%) neutral, and the rest 12 (9.3%), disagree or strongly disagree with regard to question that state when audit time is too low auditors may omit parts of an audit program. Aggregating the disagreeing respondents, a total of 13 out of 128 (10.2%) perceive that if audit time is too low auditors may rely on evidence of lower quality. While 22 (17.2), 57 (44.5) and 36 (28.1) respondents found to be neutral, to agree and strongly agree respectively.

#### 4.3.2. Quality assurance practices of IA

**Table 3: Responses on Quality assurance practices of IA**

Quality Assurance Practices of IA Questionnaire	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%
Q6.Audit engagement process encompasses the methodology, supervision, consultation, documentation, review and communication of audit results.	-	-	-	-	11	8.6	59	46.1	58	45.3
Q7.External inspections play a valuable role in helping guide enhancements in audit quality.	4	3.1	2	1.6	21	16.4	69	53.9	32	25.0
Q8.External inspections findings provide an independent perspective on important matters relating to the quality of audits.	2	1.6	1	0.8	18	14.1	75	58.6	32	25
Q9.A quality assurance and improvement program is in place.	2	1.6	10	7.8	45	35.2	57	44.5	14	10.9
Q10.Internal audit activities have been subject to a formal external quality	5	3.9	15	11.7	45	35.2	51	39.8	12	9.4

Quality Assurance Practices of IA Questionnaire	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%
assessment in the last five years.										
Q11.An Internal Audit Function/IAF/ is in compliance with the Standards.	1	0.8	5	3.9	19	14.8	81	63.3	22	17.2
Q12.The internal audit function undertakes activities that evaluate and contribute to the improvement of audit quality.	1	0.8	1	0.8	16	12.5	76	59.4	34	26.6
Q13.External auditors rely on the work of internal auditors to confirm the quality of an organization’s system of internal control.	3	2.3	14	10.9	31	24.2	62	48.4	18	14.1

Source: SPSS output from survey data (June, 2019)

Questions 7-13 of the questionnaire addresses the quality assurance practice of IA. 58 out of 128 (45.3%) agree, none of the respondents disagree and/or strongly disagree, 11 out of 128 (8.6%) were neutral and the majority of the respondents that is 59 (46.1) agreed to the idea of “audit engagement process encompasses the methodology, supervision, consultation, documentation, review and communication of audit results. Analysis of the agreeing respondents combined gives a total of 101 out of 128 (78.9%), 21 (16.4%) respondents neutral the disagreeing side has an aggregate value of 6 out of 128 (4.7%) respondents, who are responding on external inspections play a valuable role in helping guide enhancements in audit quality. 75 (58.6%) agree 32 (25%), 18 (14.1), 1 (0.8), 2 (1.6) neutral, disagree and strongly disagree respectively with the idea about “External inspections findings provide an independent perspective on important matters. Relating to “Internal audit activities have been subject to a formal external quality assessment in the last five years.” 51 (39.8%) agree, 45 (35.2) neutral others are on the categories of strongly agreed, disagree and strongly disagree, with the frequency (percentage) of 12(9.4), 15(11.7) and 5 (3.9) respectively.57 (44.5%) agreed 45 (35.2%), 10 (7.8%), 2 (0.8), 2 (1.6%) neutral, disagree and strongly disagree respectively with the idea about “A quality assurance and improvement program is in place.”

Eighty one (63.3%) of respondents agreed with the statement of “an internal audit function is in compliance with the standards.” while, 22 (17.2%) of them strongly agreed with this idea, and the rest disagree, neutral and strongly disagree which consists 5 (3.9%), 19 (14.8%) and 1 (0.8) respectively.

Question no. 12 is about the internal audit function undertakes activities that evaluate and contribute to the improvement of audit quality. 76(59.4%) of the respondents agree, and 34 (26.6%) strongly agree with this idea, followed by 16 (12.5%), 1 (0.8) and 1 (0.8%) neutral, disagree and strongly disagree respectively. The last item is about external auditors relying on the work of internal auditors to confirm the quality of an organization’s system of internal control.62 (48.4%) of the respondents agreed, and 18 (14.1%) strongly agree with this idea, followed by 3 (2.3%), 14 (10.9) and 31(24.2%) strongly disagree, disagree and neutral respectively.

### 4.3.3. Audit follow up

**Table 4: Responses on Audit follow up**

Audit Follow up Questionnaire	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%
Q14.The greater the level of follow up on audit recommendations audit quality will be enhanced.	-	-	3	2.3	12	9.4	61	47.7	52	40.6
Q15.If there is a risk focused follow up plan on recommendations Internal audit function will be of a good quality.	-	-	3	2.3	17	13.3	66	51.6	42	32.8
Q16.Follow-up on audit recommendation could be one of the auditor’s motivations in improving audit quality.	2	1.6	2	1.6	19	14.8	67	52.3	38	29.7
Q.17Following up auditor recommendations can strengthen the effectiveness of Internal Audit Function and help to increase audit quality.	1	0.8	4	3.1	15	11.7	55	43.0	53	41.4

Source: SPSS output from survey data (June, 2019)

As table 4 illustrated above, four questions were asked about audit follow up practices of IA and the analysis of responses were stated as follow:

Fifty two out of 128 (40.6%) of the respondents strongly agreed, 61 out of 128 (47.7%) also approving by simply agreeing, the remaining 3 out of 128 (2.3%) disagree and there was no respondent who was strongly disagree to the notion “the greater the level of follow up on audit recommendations audit quality will be enhanced.”

The combined respondents of 108 out of 128 (84.4%) either went for agree and/or strongly agree to the notion that “if there is a risk focused follow up plan on recommendations internal audit function will be of a good quality.” 17 out 128 (13.3%), 3 out 128 (2.3%) neutral and disagree with the idea. There is no respondent who went for strong disagreement with the notion.

Sixty seven (52.3%) of the respondents agree with “follow up on audit recommendation could be one of the auditor’s motivations in improving audit quality.” For this item 38 (29.7%) of the respondents strongly agree, and 19 (14.8%) neutral 4 respondents either disagree and/or strongly disagree with the idea which account for 3.2% in aggregate.

Out of the total respondents 55 (43.0%) agreed with the statement of following up auditor recommendations can strengthen the effectiveness of internal audit function and help to increase audit quality. While, 53 (41.4%) of them strongly agreed with this idea, 15 (11.7%), 4 (3.1) and 1 (0.8) neutral, disagree and strongly disagree with the idea respectively.

#### 4.3.4. Independence of Internal Auditors

**Table 5: Responses on Independence of internal auditors**

Independence of internal auditors Questionnaire	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%
Q18.Legal liability provides incentive for internal auditors to maintain independence.	3	2.3	9	7.0	34	26.5	70	54.7	12	9.4
Q19.The activity of audit is to conduct work without interference by the entity under audit.	2	1.6	7	5.5	17	13.3	70	54.7	32	25.0

Independence of internal auditors Questionnaire	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%
Q20.Organizational independence contributes to the accuracy of the auditors' work and the ability to rely on reported results.	-	-	4	3.1	17	13.3	61	47.7	46	35.9
Q.21Internal Audit Function reports directly to the audit committee.	3	2.3	7	5.5	24	18.8	58	45.3	36	28.1
Q22.The audit committee has authority over the Chief Audit Executive employment.	2	1.6	6	4.7	45	35.2	45	35.2	30	23.4
Q23.The audit committee has authority over the evaluation of the IAF performance.	2	1.6	6	4.7	32	25.0	59	46.1	29	22.7
Q24.The audit committee approves the budget and plan of Internal Audit Function.	1	0.8	5	3.9	36	28.1	55	43.0	31	24.2
Q25.Systems ensure a sufficient degree of organizational independence, which enables the internal auditor to not fear and to exercise his/her work freely and objectively.	2	1.6	7	5.5	27	21.1	74	57.8	18	14.1

Source: SPSS output from survey data (June, 2019)

The results in Table 5 above present the responses on the impact of internal auditor's independence on audit quality. With regard to the notion that "legal liability provides incentive for internal auditors to maintain independence." 70 out of 128 (54.07%) of the respondents agreed, 34 out of 128 (26.5%) neutral, 12 out of 128 (9.4%) strongly agreed, 9 out of 128 (7%) disagreed, 3 out of 128 (2.3%) were in a position to strongly disagree with the idea.

Taking the agreeing side in aggregate gives a total of 102 out of 128 (79.7%) of the participants at least agreeing on the activity of audit is to conduct work without interference by the entity under audit. 17 out 128 (13.3%) of them being neutral, 7 out 128 (5.5) disagreed and two merely strongly disagree.

The third statement is about “Organizational independence contributes to the accuracy of the auditors’ work and the ability to rely on reported results.” The answer given by the majority of the respondents that account for 61 (47.7%) agree, 46 (35.9%) strongly agree, 17 (13.3%) neutral. The rest disagree and no respondent chose to strongly disagree.

Fifty eight (45.3%) of the respondents agree for the idea of internal audit function reports directly to the audit committee. 36 (28.1%) strongly agree, frequency and percentage that is 24 (18.8%) took neutral position, 7 (5.5%) disagree, the last 3 (2.3%) is strongly disagree.

In the fifth statement, the same response percentage were exhibited for being neutral and agreeing that is 45 (35.2%) for each of them with the idea that the audit committee has authority over the Chief Audit Executive employment. 33 (27.5%) strongly agree with this idea. The next alternatives that is strongly agree, disagree and strongly disagree account for 30 (23.42%), 6 (4.7) and 2 (1.6%) respectively.

In the sixth statement, 59 (46.1%) of the respondents agree with the idea of the audit committee has authority over the evaluation of the IAF performance. 59 (46.1%) agree. 32 (25.0) neutral with this idea. The next, strongly agree, disagree and strongly disagree comprised 29(22.7%), 6 (4.7%) and 2 (1.6%) respectively.

The majority of the respondents 55(43.0%) agree with the idea of the audit committee approves the budget and plan of internal audit function. 36 (28.1%) of the respondents neutral with this idea. 31 (24.2%) strongly agree, 5 (3.9%) disagree and 1 (0.8) strongly disagree.

The last statement of this item was about systems ensure a sufficient degree of organizational independence, which enables the internal auditor to not fear and conduct his/her work freely and objectively. 74 (57.8%) of the respondents agree, 27 (21.1%) neutral, 18(14.1%) strongly agree, 7 (5.5%) disagree and 2 (1.6%) strongly disagree with the idea.

#### 4.3.5. Management Cooperation and Trust

**Table 6: Response on management cooperation and trust**

Management Cooperation and Trust Questionnaire	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%
Q26.Internal audit department is large enough in terms Human resource and financial budget to successfully carry out its duties and responsibilities.	4	3.1	17	13.3	39	30.5	55	43.0	13	10.2
Q27.Senior management is aware of internal audit needs.	3	2.3	12	9.4	34	26.6	67	52.3	12	9.4
Q28.Senior management supports internal audit to perform its duties and responsibilities.	3	2.3	12	9.4	40	31.3	64	50.0	9	7.0
Q29.Senior management forward relevant information's that enable the internal audit department to make a risk based audit plan.	5	3.9	13	10.2	46	35.9	52	40.6	12	9.4
Q30.The response to internal audit reports by the senior management is reasonable.	4	3.1	14	10.9	37	28.9	63	49.2	10	7.8
Q31.Senior management follows the implementation of internal audit recommendations and highlights the status of audit finding.	6	4.7	18	14.1	36	28.1	56	43.8	12	9.4

**Source: SPSS output from survey data (June, 2019)**

Table 6 above present the responses on how respondents perceive management cooperation and trust impacted the IAQ. The results of the idea “internal audit department is large enough in terms of human resource and financial budget to successfully carry out its duties and responsibilities” show that 55 out of 128 (43%) respondents agree, while 39 out of 128 (30.5%) neutral, 17 out of 128 (13.3%) disagree, 13 out of 128 (10.2%) strongly agree and 4 out of 128 (3.1%) respondents strongly disagree.

Taking the aggregate result of agreeing respondents, 79 out of 128 (61.7%) perceived senior management were aware of internal audit needs. 34 out of 128 (26.6%) of the respondents were neutral 12 out of 128 (9.4%) respondent disagree, 3 out of 128 (2.3%) strongly disagree with the idea.

The third item consists 64 (50%) of the respondents agree upon senior management supports internal audit to perform its duties and responsibilities. 40 (31.3%) neutral about the presented question, 12 (9.4%) disagree, 9 (7%) strongly agree and 3 (2.3%) went for strong disagreement.

Fifty two (40.6%) of participants agreed on senior management forward relevant information's that enable the internal audit department to make a risk based audit plan, 46 (35.9%) neutral 13 (10.2) disagree, 12 (9.4%) strongly agree and 5 (3.9%) of them strongly disagree.

Sixty three (49.2%) of the respondents agreed on the response to internal audit reports by the senior management is reasonable. 37 (28.9%) neutral, 14 (10.9%) disagree, 10 (7.8%) strongly agree, and the rest 4 (3.1%) strongly disagree.

Fifty six (43.8%) of the respondents agree with the statement of the last item about senior management follows the implementation of internal audit recommendations and highlights the status of audit finding. 36 (28.1%) neutral , 18 (14.1%) disagree, 12 (9.4%) strongly agree and the remaining 6 (4.7%) strongly disagree.

#### 4.3.6. Adherence to Code of Ethics

**Table 7: Responses on code of ethics**

Code of Ethics Questionnaire	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%
Q32.A professional code of conduct is available.	3	2.3	2	1.6	9	7.0	74	57.8	40	31.3
Q33.Integrity and impartiality values are emphasized.	2	1.6	3	2.3	21	16.4	68	53.1	34	26.6
Q34.There is a system that ensures accountability for non-compatibility cases with the principles and ethics of the profession.	2	1.6	8	6.3	48	37.5	55	43.0	15	11.7
Q35.Internal auditors observe relations and activities that they should avoid participating in.	-	-	7	5.5	36	28.1	68	53.1	17	13.3
Q36.Internal auditors disclose the material facts about the activities that they audit in their reports.	3	2.3	3	2.3	18	14.1	74	57.8	30	23.4

Code of Ethics Questionnaire	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%
Q37.The auditor has a professional freedom in choosing tools and methods.	2	1.6	14	10.9	35	27.3	58	45.3	19	14.8
Q38.Auditors taken into consideration using information carefully.	1	0.8	4	3.1	18	14.1	82	64.1	23	18.0
Q39.Finding a balance between confidentiality and transparency is being clarified by having a professional judgment.	1	0.8	6	4.7	19	14.8	79	61.7	23	18.0
Q40.The tasks assigned to the internal auditor fit with the nature of his qualifications.	1	0.8	17	13.3	29	22.7	62	48.4	19	14.8

**Source: SPSS output from survey data (June, 2019)**

Table 7 shows the responses on the effect of adherence to code of ethics on audit quality. The results reveal that 74 out of 128 (57.8%) agree, 40 out of 128 (31.3%) just strongly agree, 9 out of 128 (7%) neutral, 3 out of 128 (2.3%) strongly disagreed 2 out of 128 (1.6) disagree regarding the availability of a professional code of conduct in their bank.

The results with regard to integrity and impartiality values are emphasized 68 out of 128 (53.1%) agree, 34 out of 128 (26.6%) strongly agree, 21 out of 128 (16.4%) neutral, 3 out of 128 (2.3%) strongly disagree 2 out of 128 (1.6) disagree. These findings imply that a large proportion of the auditors in the sampled banks feel that their banks demonstrate impartiality and higher level of integrity.

Sixty seven (55.8%) of the respondents agree with the statement that there is a system that ensures accountability for non-compatibility cases with the principles and ethics of the profession. 55(43%) strongly agree and 48 (37.5%) neutral, 15 (11.7%) of the respondents strongly agree, 8 (6.3%) disagree and 2 (1.6%) strongly disagree.

Sixty eight (53.1%) agree, 36 (28.1%) neutral, 17 (13.3) strongly agree, 7 (5.5%) disagree whereas there was no respondent that strongly disagreed with the idea of “Internal auditors observe relations and activities that they should avoid participating in.”

Seventy four (57.8%) of the respondents agree with the idea of internal auditors disclose the material facts about the activities that they audit in their reports. 30 (23.4%) of them strongly agree, 18(14.1%) neutral, 3 (2.3%) tended to both the disagreement and strong disagreement.

Fifty eight (45.3%) of participants agreed on that the auditor has a professional freedom in choosing tools and methods, 35 (27.3%) neutral, 19 (14.8%) strongly agree, 14(10.9%) disagree, whereas 2 (1.6%) strongly disagree.

Eighty two (64.1%) of the participants agree on the idea of auditors taken into consideration using information carefully. 23 (18%), 18 (14.1%), 4 (3.1) and 1 (0.8%) strongly agree, neutral, disagree and strongly disagree respectively.

Seventy nine (61.7%) of participants agree on “finding a balance between confidentiality and transparency is being clarified by having a professional judgment.” 23 (18%), 19(14.8%), 6 (4.7%) and 1 (0.8%) strongly agree, neutral, disagree and strongly disagree respectively.

The last question asked whether “the tasks assigned to the internal auditor fit with the nature of his qualifications. 62(48.4%) respondents agree, 29 (22.7) neutral, 19 (14.8) strongly agree, 17 (13.3) disagree and 1(0.8%) strongly disagree.

#### 4.3.7. Internal Audit Quality

**Table 8: Response on Internal Audit Quality**

Internal Audit Quality Questionnaire	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%
Q41.The internal audit function built quality into policies, charters and procedures.	1	0.8	4	3.1	17	13.3	66	51.6	40	31.3
Q42.Internal audit ensures that it adds value to the organization.	2	1.6	3	2.3	7	5.5	63	49.2	53	41.4
Q43.Established internal audit objectives were accomplished.	1	0.8	4	3.1	25	19.5	69	53.9	29	22.7
Q44.The internal audit function of your organization prepares a risk based plan and performs audit activities based on this plan.	5	3.9	7	5.5	27	21.1	52	40.6	37	28.9

Source: SPSS output from survey data (June, 2019)

Table 8 show responses on internal audit quality. The data shows that 66 out of 128 (51.6%) of the respondents agree that the internal audit function built quality into policies, charters and procedures, with 40 out of 128 (31.3%) merely strongly agreeing, whereas 17 out of 128 (13.3%) are neutral, 4 out of 128 (3.1%) disagree and 1 out of 128 (0.8%) strongly disagree.

Summing up, the agreeing respondents gave 116 out of 128 (90.6%) to internal audit ensure that it adds value to the organization, The neutral side has 7 out 128 (5.5%), meaning they neither went for it nor reject it, 3 (2.3%), 2 (1.6) disagree and strongly disagree with the idea.

On aggregate 5 out of 128 (3.8%) responses differ and oppose the view that the established internal audit objectives were accomplished, whereas 25 (19.5%), 69 (53.9), and 29 (22.7) went for neutral, agreeing and strongly agreeing with the notion respectively.

The last statement of this item was about the internal audit function of their organization prepares a risk-based plan and performs audit activities based on this plan. 52 (40.6%) of the respondents agreed, 37 (28.9%) strongly agree, 27 (2.1%) neutral, 7 (5.5%) disagree and 5 (3.9%) strongly disagree with this idea.

#### **4.4. Reliability Test of Instrument**

Reliability means that a measure (or in this case, the questionnaire) should consistently reflect the construct that it is measuring. In a likert-scale questionnaire measuring, the consistency or reliability of the questionnaire is essential. Reliability analysis has been employed in prior IA researches those adopt likert-scale questionnaire Mihret, (2010); George, (2015). To measure such reliability, Cronbach's Alpha ( $\alpha$ ) is the most common measure. As George & Mallery, (2003) suggested that a reliability analysis value ( $\alpha$ ) 0.60 and above is considered acceptable. According to Field, (2009), a reliability analysis value ( $\alpha$ ) greater than 0.70, is very acceptable. Based on Table 9 the reliability analysis value for Cronbach's Alpha ( $\alpha$ ) of this study shows a value of 0.819 for all variables. Therefore, the responses generated from all variables in this study were reliable for data analysis.

**Table 9: Reliability Analysis**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
.819	.829	7

Source: SPSS output from survey data (June, 2019)

#### **4.5. Tests for the classical linear regression model (CLRM) assumptions**

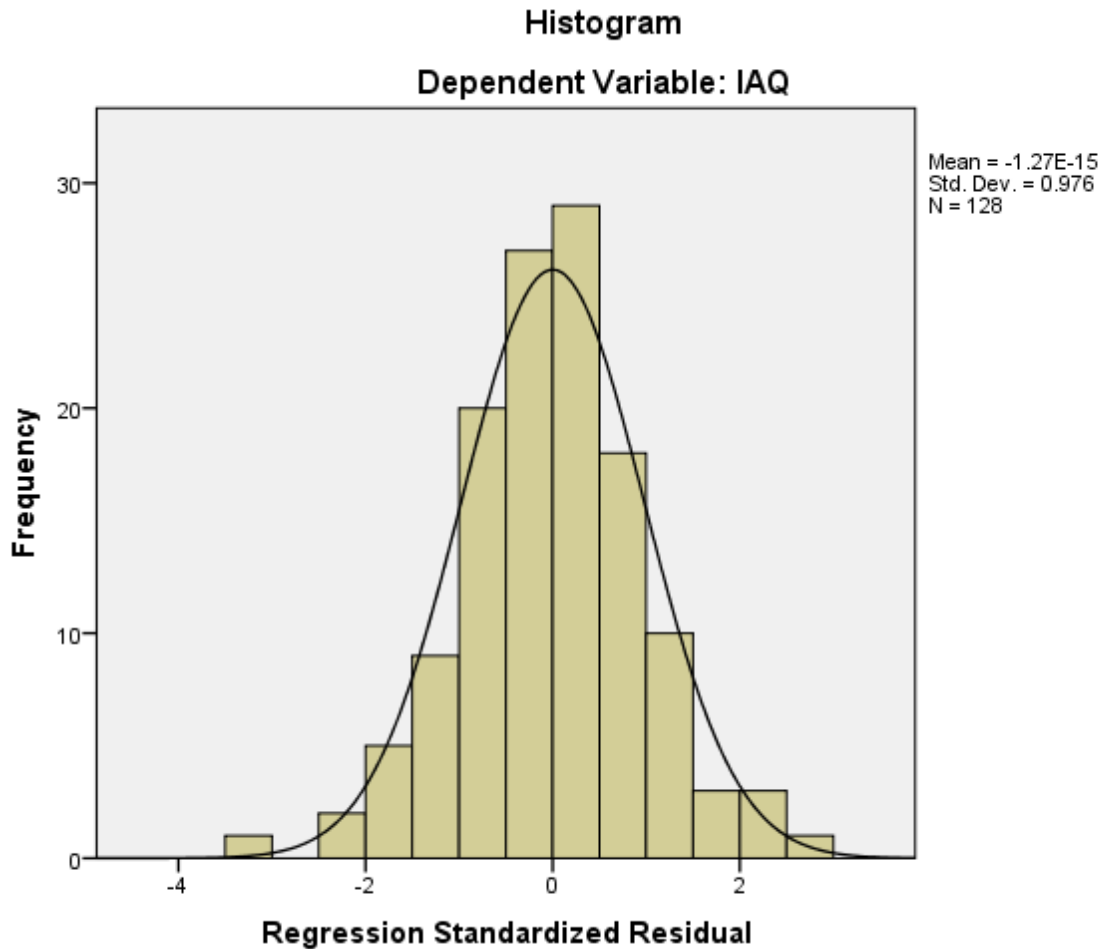
Different tests were run to make the data ready for analysis and to get reliable output from the research. These tests were intended to check whether the CLRM assumptions are fulfilled when the independent variables are regressed against the dependent variables. Accordingly, the following four tests of CLRM are presented.

##### **4.5.1. Assessment of Normality**

Normality test helps to determine whether the data used has a normal distribution for the residuals, and therefore, that this assumption is met in the data for statistical tests. The approaches can rely on visual inspection or statistical tests. Graphical interpretation has the advantage of allowing good judgment to assess normality in situations when numerical tests might be over or under sensitive, but graphical methods do lack objectivity. If one does not have great deal of experience to interpreting normality through graphically view, it is probably best to rely on the numerical methods.

When visualize the fit of the normal distribution, examine the probability plot and assess how closely the data points follow the fitted distribution line. Normal distribution tends to fall closely along the straight line. Skewed data form a curved line. As it can be confirmed by visual inspection of the histogram of survey result from SPSS 20 (Figure1), our residuals seem normally distributed which means the data meets the normality assumption.

**Figure: 1 Histogram with normal curve plotted for Internal Audit Quality**



Source: SPSS output from survey data (June, 2019)

#### **4.5.2. Assessment of Multicollinearity**

Multicollinearity is an assumption of a linear relationship between explanatory variables that creates biased regression model. This problem occurs when the explanatory variables are very highly correlated with each other (Brook, 2008). According to Hair, (2006) multicollinearity problem exists when the correlation coefficient among the variables are greater than 0.90. As it appears in the correlation matrix table 11, there were no such high correlation between the explanatory variables. However, Kennedy (2008) suggested that any correlation coefficient above 0.7 could cause a serious multicollinearity problem. So as to mitigate the above controversy among (Hair, 2006) and (Kennedy, 2008), variance inflation factor and tolerance value which is considered as standard statistical technique for testing data for multicollinearity

was run (Gujarati, 2004). According to this test, multicollinearity problem exists when tolerance value less than 0.10 and Variance Inflation Factor (VIF) greater than 10 in the correlation matrix (Field, 2009). The results in general show no Variance Inflation Factor (VIF) values that exceed 10 and tolerance value less than 0.1 indicating that multicollinearity among independent variables is not an issue. The regression analysis is therefore more reliable as indicated by low coefficient of correlation. It is therefore safe to conclude that there is no multicollinearity problem in this particular study.

**Table 10: SPSS output for collinearity test**

Variable	Collinearity Statistics	
	Tolerance	VIF
Tight Audit Time	0.826	1.211
Quality Assurance Practice	0.484	2.067
Audit Follow up Practice	0.534	1.874
Independence of Internal Auditors	0.532	1.880
Management Cooperation and Trust	0.586	1.708
Adherence to Code of Ethics	0.492	2.032

**Table 11: SPSS output for correlation matrix**

	IAQ	TAT	QAP	AFP	IDA	MGCT	ACE
IAQ	1						
TAT	0.142	1					
QAP	0.601	0.233	1				
AFP	0.338	0.413	0.516	1			
IDA	0.458	0.258	0.510	0.546	1		
MGCT	0.532	0.051	0.487	0.156	0.442	1	
ACE	0.685	0.161	0.611	0.332	0.524	0.581	1

#### 4.5.3. Assessment of Autocorrelation

This is an assumption that requires the error terms to be uncorrelated with one another or they are linearly independent (Brooks, 2008). If the errors are correlated with one another, it would be stated that they are ‘auto correlated’ or that they are serially correlated. The simplest and most popular test to detect the existence of autocorrelation is Durbin Watson (DW test). According to Richard, (2015) DW value of 1.5 to 2.5 is desirable in any model to say it is free from serial correlation. As can be seen in the table 12, DW- test static for the audit quality model is 2.188,

which is close to the range 1.5 to 2.5 indicating that there is no evidence of autocorrelation among the error terms in this study.

**Table 12: Durbin Watson Test model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.734 <sup>a</sup>	.539	.516	.48860	2.188

a. Predictors: (Constant), ACE, TAT, AFP, MGCT, IDA, QAP

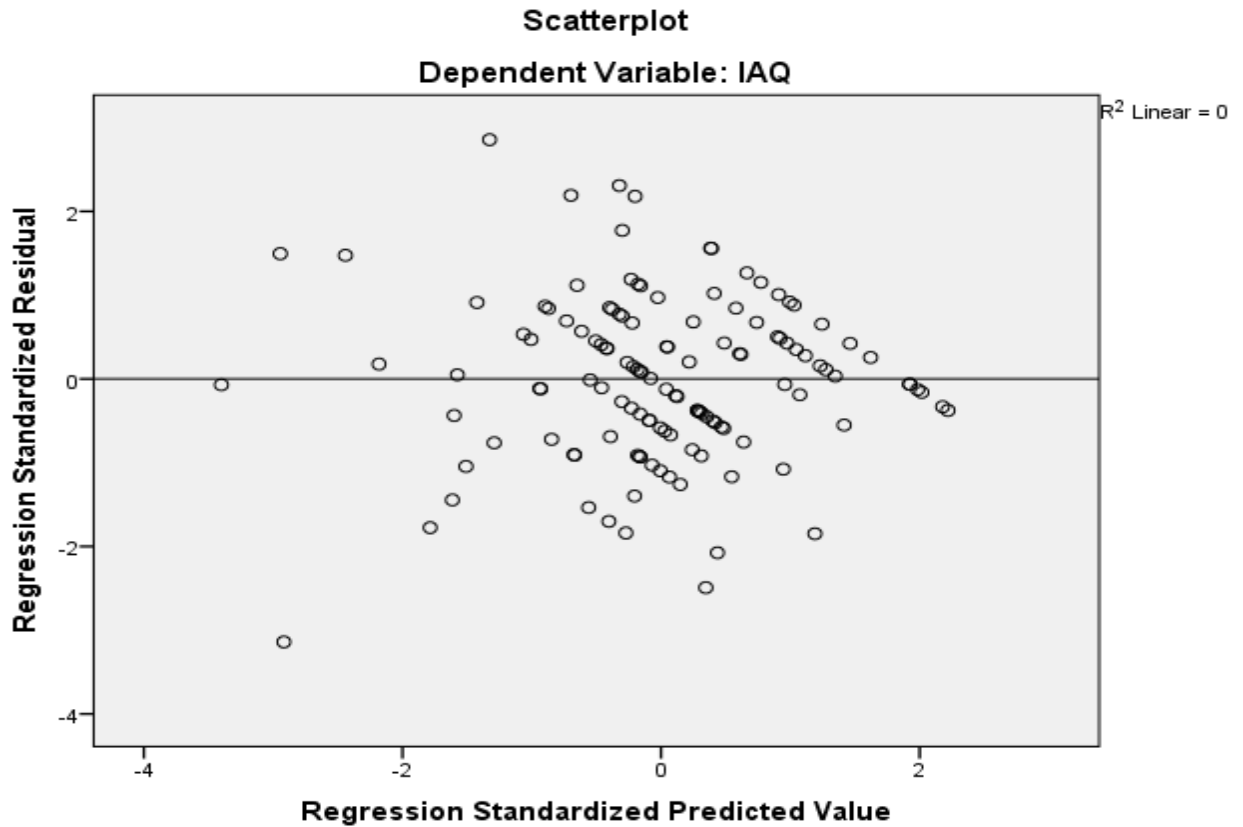
b. Dependent Variable: IAQ

**Source: SPSS output from survey data (June, 2019)**

#### **4.5.4. Assessment of Heteroscedasticity/presence of Homoscedasticity**

It has been assumed that the variance of the error term is constant and this is known as the assumption of homoscedasticity. If the error terms do not have a constant variance, they are said to be heteroscedastic (Brook, 2008). As it can be confirmed by visual inspection of the scatterplot of the survey result from SPSS 20 (Figure 2), there is no evidence of the presence for heteroscedasticity.

Figure 2 scatterplot for Internal Audit Quality



#### 4.6. Regression Results for IAQ

Regression analysis was done to establish the statistically significant relationship between the independent and dependent variables. The regression analysis results are presented using model summary, ANOVA and Beta coefficient tables. The analysis applied SPSS software and the results are presented as follows:

##### 4.6.1. Model Summary

It is desirable to have some measure of how well the regression model actually fits the data. In other words, it is desirable to have an answer to the question, “how well does the model containing the explanatory variables that was proposed actually explain variations in the dependent variable?” the most common goodness of fit statistic is known as  $R^2$ . One way to define  $R^2$  is to say that it is the square of the correlation between the values of the dependent variable and the corresponding fitted values from the model (Brook, 2008). In empirical study the

most important benefit of  $R^2$  is that it serves as a measure for the goodness of fit of the estimated model (Reisinger, 1997). The  $R^2$  value more than 25% can be acceptable and good to fit (Thompson, 2002).

Based on the table 13 a model had a coefficient of determination 0.539, which indicates that 53.9% of the variation in the quality of internal audit explained by the independent variables. It means that the overall contribution of tight audit time, quality assurance practices of IA, audit follow up practices of IA, independence of internal auditors, management cooperation and trust and adherence to code of ethics to quality of internal audit accounted for 53.9% of the variation on internal audit quality.

**Table 13: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.734 <sup>a</sup>	.539	.516	.48860	2.188

**Source: SPSS output from survey data (June, 2019)**

#### **4.6.2. Analysis of Variance (ANOVA)**

The study conducted analysis of variances to test the effect of the relationship between internal audit quality and determinants of internal audit such as tight audit time, quality assurance practices of IA, audit follow up practices of IA, independence of internal auditors, management cooperation and trust and adherence to code of ethics. Based on the table 14 below the ANOVA shows the significance of the model by the value of F statistics ( $P=.000$ ) and  $F= 23.592$  which indicates there were a strong relationship between the predictors and the outcomes of the regression variables. It is the best fit of the model to predict the impact of the independent variables on the quality of internal audit.

**Table 14: ANOVA results for the regression**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	33.793	6	5.632	23.592	.000 <sup>b</sup>
Residual	28.886	121	.239		
Total	62.680	127			

a. Dependent Variable: IAQ

b. Predictors: (Constant), ACE, TAT, AFP, MGCT, IDA, QAP

Source: SPSS output from survey data (June, 2019)

#### 4.6.3. Test of Coefficient

The beta ( $\beta$ ) sign includes a sign of positive (+) and negative (-). It shows the effect of independent variables over the dependent variable (Field, 2009). Based on Table 15 beta sign of five independent variables shows positive (+) including the insignificant variables. Thus, independent variables (quality assurance practices of IA, management cooperation and trust and adherence to code of ethics) had a positive effect on the predicting the dependent variable (quality of IA). Therefore, any increase in these independent variables lead to increase in the dependent variable.

Based on Table 15, the statistical significance of the independent variable over the dependent variable at 1%, 5% and 10% level of significance; three independent variables (adherence to code of ethics, quality assurance practice of IA and management cooperation and trust) significantly contributed for the dependent variable (quality of IA) with respective levels of significance. But the variables (tight audit time, follow up practice of IA and Independence of internal auditors) do not significantly affect the dependent variable (quality of IA).

**Table 15: Regression Results Coefficients<sup>a</sup>**

Model	variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.042	.408		.104	.917
	TAT	-.015	.076	-.013	-.198	.843
	QAP	.308	.117	.233	2.627	.010
	AFP	.045	.091	.042	.494	.622
	IDA	.037	.111	.028	.335	.738
	MGCT	.144	.077	.151	1.873	.063
	ACE	.530	.109	.428	4.869	.000

a. Dependent Variable: IAQ

Source: SPSS output from survey data (June, 2019)

#### 4.7. Regression Results, Interpretation and Hypothesis tests

This section presents the results of the quantitative data analysis. The hypothesis testing is used to test a significant influence of the independent variables on dependent variable (Field, 2009). In this study, the hypothesis testing used to test a significant influence of tight audit time, quality assurance practice of IA, audit follow up practice of IA, independence of internal auditors, management cooperation and trust and adherence to code of ethics on internal audit quality.

According to Table 15 the coefficients of the three independent variables: quality assurance practice, management cooperation and trust and adherence to code of ethics were statistically significant at ( $p < 0.05$ ), ( $p < 0.10$ ), ( $p < 0.01$ ) respectively which shows a strong support for hypothesis 2, 5, and 6. Whereas, the coefficients of tight audit time, audit follow up practices and independence of internal auditors were statistically insignificant even with ( $P < 0.10$ ) which lacks support for hypothesis 1, 3 and 4.

##### 4.7.1. Tight Audit time

This section discusses the views of the respondents regarding the tight audit time as a factor that may determine the internal audit quality. The study examined the tight audit time from the

perspective of impairing audit quality, associating it with questionable audit practice, omission of critical auditable areas and relying on evidence of lower quality by internal auditors.

**H1: There is a negative relationship between tight Audit time for internal auditor and the quality of the internal audit.**

The first hypothesis tested tight audit time has negative association with the quality of IA in selected Ethiopian commercial banks. Based on the regression output it has been found that there is a weak negative correlation which is not statistically significant between tight audit time and the internal audit quality in selected Ethiopian commercial banks ( $P=0.843$ ). The magnitude ( $\beta$ ) of the effect of this variable on the quality of IA was  $-0.015$  and the  $t$ -value of  $-0.198$ . Therefore, we reject the hypothesis of the study that there is a negative relationship between tight audit time of internal auditors and the internal audit quality. The result reveals that tight audit time does not have a material negative influence on internal audit quality. This means that internal auditors of selected Ethiopian commercial banks which have tight audit time will not that much influence their internal audit quality. A possible justification being the fact that internal auditors of selected Ethiopian commercial banks not facing a tight audit time there may be a practice of allocating time commensurate with the work pressure. Hence, tight audit time is not that much important element that could affect internal audit quality in selected Ethiopian commercial banks. This finding is not consistent with previous researches (Tsegaw, 2017; Abdul, 2014) in terms of level of significance which concluded that tight audit time is significantly determining internal audit quality.

#### **4.7.2. Quality assurance practice of IA**

Quality assurance practices are usually designed to provide reasonable assurance to the various stakeholders of the internal audit process, function that it performs activities maintaining quality to the expected level. This section evaluates the views of participants regarding the quality assurance practices of the internal audit function as a factor may determine an internal audit quality. To this regard, the study examined considering the audit engagement process encompasses quality assurance, impact of external inspection, existences of the practice in the

selected banks and level of compliance with the standards by the selected Ethiopian commercial banks.

**H2: There is a positive relationship between quality assurance practices of internal audit function and the quality of the internal audit.**

The second hypothesis tested quality assurance practices of internal audit departments' positive association with the quality of the internal audit. The result shows that quality assurance practices of internal audit function is positively associated with quality of the internal audit in selected Ethiopian commercial banks at a statistical significance level of ( $P < 0.05$ ). The magnitude ( $\beta$ ) of the effect of this variable on the quality of IA was 0.308 and the t-value of 2.627. The positive magnitude sign and t-value of more than 2 are indicating a strong relationship between the independent and dependent variable. Therefore, the researcher accepts the hypothesis of the study that there is a positive relationship between quality assurance practice of IA and the quality of the internal audit. The result reveals that quality assurance practice of IA plays a material positive influence on internal audit quality. This means that internal audit department of selected commercial banks which have quality assurance practice will enhance their internal audit quality. This finding is consistent with previous research of (Ahmed and Neila, 2018) that shows quality assurance practice play a critical role to internal audit quality.

#### **4.7.3. Audit follow up of IA**

Audit follow-up has the purpose of ensuring that management has implemented the action, and that it has addressed the issue. This section discusses the views of participants regarding an audit follow-up as a factor that determines IA quality. The relationship of audit follow-up and audit quality the result of which were examined in terms of level of follow-up on audit recommendation, focus of the follow-up process, motivational effect of implementation of audit recommendation via follow-up and the role of audit follow up on recommendations on internal audit quality is summarized herein below.

**H3: There is a positive relationship between audit follow-up of internal audit and the quality of internal audit.**

The third hypothesis tested audit follow-up's positive association with the quality of IA in selected Ethiopian commercial banks. In accordance with regression output it has been found that there is a statistically weak positive correlation which is not statistically significant between audit follow-up practice of IA and the internal audit quality in selected Ethiopian commercial banks ( $P=0.622$ ). The magnitude ( $\beta$ ) of the effect of this variable on the quality of IA was 0.045 and the t-value of 0.494. Therefore, we reject the hypothesis that there is a positive relationship between audit follow-up practice of IA and the internal audit quality. The result reveals that audit follow-up practice has not a material positive influence on internal audit quality. This means those internal audit departments of selected Ethiopian commercial banks which have a follow up practice will not that much influence their internal audit quality. A possible justification being the fact that the internal audit departments of the selected Ethiopian commercial banks consider implementing the audit recommendation is the responsibility of management and pressurizing on implementation of the recommendation may have a negative impact on the relationship. Hence, audit follow up practice is not an important element that could affect internal audit quality in the context of the selected Ethiopian commercial banks.

#### **4.7.4. Independence of internal auditors**

Independence of internal auditors can be achieved by ensuring appropriate reporting mechanisms such that the internal audit department has direct access to the board and the senior management, by giving it the authority to access any records it deems fit, by allowing full access to all employees and departments. To this regard, the study examined the independence of internal auditors from the perspective of interference by the entity under audit, reporting relationship, evaluation of performance, budget & plan approval and organizational independence.

**H4: There is a positive relationship between independence of internal auditors and internal audit quality.**

The fourth hypothesis tested independence of internal auditor's positive association with the quality of the internal audit. The regression output, unexpectedly, has been found that there is a weak positive correlation which is not statistically significant between independence of internal

auditors and the internal audit quality in selected Ethiopian commercial banks ( $P=0.738$ ). The magnitude ( $\beta$ ) of the effect of this variable on the quality of IA was 0.037 and the t-value of 0.335. Therefore we reject the hypothesis of the study that there is a positive relationship between independence of internal auditors and the internal audit quality. The result reveals that independence has not a material positive influence on internal audit quality. This means that internal auditors of selected Ethiopian commercial banks which have independence criteria will not that much influence their internal audit quality. A possible justification being the fact that internal auditors are seen as the employees of the organization, that they have a close relationship that influences their independence. Hence, independence is not an important element that could affect internal audit quality. This finding is not consistent with previous researches (Ashagre, 2018; Misganaw, 2016) in terms of level of significance which concluded that independence is significantly determining internal audit quality.

#### **4.7.5. Management cooperation and trust on IA**

Given the fact that IA activities are performed in dynamic and supportive environment; internal auditor expects a support from top management. According to SPPIA of 1110-organizational independence to perform their work effectively; internal auditors should get a support from top management, BOD, cooperation from auditees (IIA, 2011). In this study, the researcher focused on top management cooperation and trust on internal audit.

#### **H5: There is a positive relationship between management cooperation and trust on internal audit and internal audit quality.**

The fifth hypothesis tested management cooperation and trust on IA positive association with the quality of the internal audit. The result show management cooperation and trust on IA is positively associated with the quality of the internal audit in selected Ethiopian commercial banks at a statistical significance level of ( $P<0.1$ ). The magnitude ( $\beta$ ) of the effect of this variable on the quality of IA was 0.144 and the t-value of 1.873, which indicates that there is a positive significant relationship between the two variables. Therefore, the researcher accepts the hypothesis of the study that is management cooperation and trust on IA positively associated with the quality of IA in selected Ethiopian commercial banks. The results reveal that management cooperation and trust play a material positive role on internal audit quality. This

means that internal auditors of selected commercial banks which have management support will enhance internal audit quality. The result of this study is consistent with previous studies. The results obtained by (Mihret & Yismaw, 2007; Cohen & Sayag, 2010; Misganaw, 2016 and Gortiz, 2004) shows that management supports play a critical role to effectiveness of IA.

#### **4.7.6. Adherence to code of ethics**

The work of the internal auditors is characterized by its critical nature of being focused on the examination, analysis and evaluation the validity and the legitimacy of transactions, particularly with financial impact. Internal auditors try detecting the errors and incorrect practices that may exist during the execution of operations within the company, which put them on pressures, which can limit their professionalism, especially in conflict situations and conflicts of interest. This calls for resorting to the code of ethics that guide them to carry out their procedures with professionalism under pressures and the challenges facing them while maintaining their compliance to the moral and the effectiveness of their performance (Rahahle, 2017).

#### **H6: There is a positive relationship between adherence to code of ethics and internal audit quality**

The last hypothesis tested adherence to code of ethics positive association with the quality of the internal audit. The results show that adherence to code of ethics is positively associated with quality of the internal audit in selected Ethiopian commercial banks at a statistical significance level of ( $P < 0.01$ ). The magnitude ( $\beta$ ) of the effect of this variable on the quality of IA was 0.530 and the t-value of 4.869. The positive magnitude sign and t-value of more than 2 are indicating a statistically strong relationship between the independent and dependent variable. Therefore, the researcher accepts the hypothesis of the study that is adherence to code of ethics on IA is positively associated with the quality of IA in Ethiopian commercial banks. The result reveals that adherence to code of ethics plays a material positive influence on internal audit quality. This means that internal auditors' of selected Ethiopian commercial banks those adhere to the code of ethics will contribute to the enhancement of internal audit quality in their organizations. The result of this study is consistent with (Hasan, Abed & Othman, 2014) that show adherence to code of ethics play a critical role to internal audit quality.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1. Introduction

The basic intent of this chapter is to conclude the whole thesis and highlight future research directions. Accordingly, the first section summarizes findings; the second section presents conclusions, section three is devoted for recommendations based on the study results; the last section highlights future research directions.

#### 5.2. Summary of the results

The adherence to code of ethics plays the highest critical role in determining the quality of internal audit. As the respondents indicate, adherence to code of ethics improves audit quality and performs audit engagement with principles that are relevant to the profession and practice of internal auditing. This study found a strong positive relationship between adherence to code of ethics and internal audit quality ( $\beta=0.530$ ,  $t=4.869$ ,  $P<0.01$ ) as found by previous research of Hasan, Abed & Othman, (2014).

The results also suggest that, quality assurance practices of internal audit function plays important role on the quality of internal auditing in the selected Ethiopian commercial banks. This implies that the existence of quality assurance practices provides reasonable assurance to the various stakeholders of the internal audit function that it performs activities maintaining quality to the expected level. Quality assurance practices of the internal audit department was found to have a positive significant influence on internal audit quality ( $\beta=0.308$ ,  $t=2.627$ ,  $P<0.05$ ) as found by previous research of, Ahmed and Neila, (2018)

Management cooperation and trust are necessary for effective work performance and enhancing the internal audit team's competence and independence and hence quality of the audit. The results also highlight the role of management cooperation and trust for the internal audit function as a key driver of IAQ. This study also found a positive linkage between management cooperation and trust and IA quality ( $\beta=0.144$ ,  $t=1.873$ ,  $P<0.10$ ), as found by previous research (e.g. Mihret & Yismaw, 2007; Cohen & Sayag, 2010; Misganaw, 2016 and Gortiz, 2004).

Finally, this study reveals that audit follow-up and independence of internal auditors have a positive correlation which is not statistically significant to IAQ where as tight audit time has insignificance and negative correlation with the quality of internal audit.

### **5.3. Conclusions**

As clearly indicated in the analysis section, three variables from among six variables have significant and positive influence on internal audit quality. Respondents perceived that from the three variables that have significant positive influence, adherences to code of ethics ranked first as determinant of internal audit quality. Adherence to ethical code may be affected by moral sensibility and good example lessoned from experienced senior auditors and several other factors.

Auditor's response ranked quality assurance practice as a second. The ranking seem not only logical but indicate auditors perceive professional quality (ethics) as the first factor and control (quality assurance) as a second. The third significant factor is management cooperation and trust of audit work. Management cooperation and support helps auditor to access information, and freely exercise professional judgment. Trust by the top management again can enhance the effort of internal auditors to effectively discharge their responsibilities. It is generally true that cooperation and trust of the management sets good working environment to the auditors.

The author believes that this research is of great importance to the corporate governance structure within an organization, specifically to the Ethiopian commercial banks. This paper aspires to inform members of the corporate governance (or board of directors, audit committee, internal auditors and external auditors) to take the findings in to account in their interactions to better equip their internal audit department for their role in corporate governance effectiveness. Therefore, Ethiopian commercial banks can make use of this study to determine internal audit quality. Although the data for the analysis in this paper were collected from commercial banks, the author believes that the results regarding the determinants of audit quality can also be applicable to other related organizations in the financial sector, for e.g., to insurance and micro-finance institutions.

## 5.4. Recommendations

Based on the findings of the research the following recommendations are provided:

- The analyses indicated that the variables adherence to code of ethics, quality assurance practices of internal audit and management cooperation and trust were significant key drivers of internal audit quality in selected Ethiopian commercial banks. As a result, this is a clear signal to selected commercial banks in Ethiopia that they should consider these determinant factors while attempting to improve the functioning of their internal audit quality.
- Auditor's adherence to code of ethics will bring a higher audit quality. So the selected commercial banks in Ethiopia should focus on providing a continuous value adding trainings on code of ethics of internal audit profession and allowing auditor's to exercise and strictly abide with them. This can gradually have a great contribution in enhancing ethical culture of auditors which will positively impact internal audit quality.
- To improve the quality of internal audit work, quality assurance practices (both internal and external) have great importance. The researcher make a note that in the selected Ethiopian commercial banks, internal assessments were done in the form of ongoing and periodic review, but there are no external quality assessments by independent reviewers except an attempt were made by the central bank as per their schedule, if it worth that to be called an external assessment. Thus, performing external inspections play a valuable role in helping guide enhancements in internal audit quality and assuring that the work performed by internal auditors is in agreement with the company's objectives and international best practices. Therefore, internal audit work should be assessed externally at least every five years by an independent reviewer, as proposed by international standards, so that internal audit adds values to the business, and enhances departments' and organizational performance. Besides, selected Ethiopian commercial banks keep on excelling the internal assessment practices.
- Management cooperation in terms of availing the necessary resources, creating access to information and making the working environment conducive to auditors will have great importance to the effectiveness of internal audit and hence maintaining quality. Therefore, the management of the selected Ethiopian commercial banks shall create a supportive work environment for auditors.

### **5.5. Suggestion for Future Research**

The study concentrated only on the banking sector, internal auditors therein and few variables; hence, future studies could investigate internal audit quality by incorporating other important variables, other members of the bank that is senior management and or board audit committee members and financial institutions other than banks such as insurances, and micro-finances.

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## Appendix

### Questionnaire

Addis Ababa University College of Business and Economics

Department of Accounting and Finance

MSC in Accounting and Finance

Dear respondent this questionnaire is designed to collect data on the **Determinants of Internal Audit Quality evidence from selected Ethiopian commercial banks**. The data to be collected through questionnaire is highly valuable to meet the objectives of this study. Therefore you are hereby requested, with all due respect, to fill in and return the questionnaire.

The information you furnish would be used for academic purpose only and will be kept confidential. This questionnaire consists of two sections. The first section, meant to get response about your personal profile and the second section consists of questions about the Determinants of Internal Audit Quality in your organization.

Please allow me to cordially notify you once again that your honest and thoughtful response is invaluable.

**N.B.**

- This questionnaire has a total of 6 pages including this page.
- You need not write your name

**Thank you in advance.**

**Getu Birru**

#### **Section 1: Personal Profile**

1. Gender: Male ( ), Female ( )
2. Age (in year): Under 30 ( ), 31 to 39 ( ), 40 to 49 ( ), 50 and above ( )
3. Your field of study: Accounting ( ), Management ( ), Economics ( ), other field of study\_\_\_\_\_
4. Level of education: Bachelor's Degree ( ), Master's Degree ( ), PhD ( )
5. Professional certification (if any): Certified Internal Auditor (CIA) ( ), Certified Public Accountant (CPA) ( ), Association of chartered certified Accountants (ACCA) ( ), Chartered Institute of Management Accountants (CIMA) ( ), None ( )
6. Current Position: Assistance IA ( ), Internal Auditor ( ) Senior IA ( ), Team Leader ( ),

Audit Manager ( ) Audit Director ( ), Chief Internal Auditor ( ) other position\_\_\_\_\_

7. Number of years of experience you work as an internal auditor: 1 year ( ), 2-5 years ( ), 6-10 ( ) years, above 10 years ( )

## Section 2: Questions on the Determinants of Internal Audit Quality

In this section, the question is based on the Determinants of Internal Audit Quality. In the study, Likert scale question is chosen, which is used to measure respondents' agreement with a variety of statements. It consists (5) point scales. The respondents have requested to **tick** (√) the appropriate scale (point) that indicates your opinion in table below. The values of scales are: **5 = strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree and 1 = strongly Disagree**

### I. Tight Audit Time and Internal Audit Quality

Audit time is firm limited resources allocated to implement auditing. What is your opinion about the effect of tight Audit time on audit quality **inyour organization?** (Please tick; the appropriate box which matches your view).

S.No.	Statements	Points (Scales)				
		5	4	3	2	1
1.	Tight Audit time impair audit quality.					
2.	With there are Audit time pressure auditors uses more efficient audit techniques.					
3.	Tight Audit time is associated with questionable audit practices.					
4.	If audit time is too low auditors may omit parts of an audit progam.					
5.	If audit time is too low auditors may rely on evidence of lower quality.					

### II. Quality Assurance Practices and Internal Audit Quality

Quality assurance practices are designed to provide reasonable assurance to the various stakeholders of the Internal Audit Function that it performs activities maintaining quality to the expected level. What is your opinion about the effect of quality assurance practice on audit quality **in your organization?** (Please tick; the appropriate box which matches your view).

S.No.	Statements	Points (Scales)				
		5	4	3	2	1
6.	Audit engagement process encompasses the methodology, supervision, consultation, documentation, review and communication of audit results.					
7.	External inspections play a valuable role in helping guide enhancements in audit quality.					
8.	External inspections findings provide an independent perspective on important matters relating to the quality of audits.					
9.	A quality assurance and improvement program is in place.					
10.	Internal audit activities have been subject to a formal external quality assessment in the last five years.					
11.	An Internal Audit Function/IAF/ is in compliance with the Standards.					
12.	The internal audit function undertakes activities that evaluate and contribute to the improvement of audit quality.					
13.	External auditors rely on the work of internal auditors to confirm the quality of an organization's system of internal control.					

### III. Audit Follow up and Internal Audit Quality

Audit follow up has the purpose of ensuring that management has implemented the action, and that it has addressed the issue. In practice, this is often easier said than done! What is your opinion about the effect of Audit follow up on audit quality **in your organization**? (Please tick; the appropriate box which matches your view).

S.No.	Statements	Points (Scales)				
		5	4	3	2	1
14.	The greater the level of follow up on audit recommendations audit quality will be enhanced.					
15.	If there is a risk focused follow up plan on recommendations Internal audit function will be of a good quality.					
16.	Follow-up on audit recommendation could be one of the auditor's motivations in improving audit quality.					

S.No.	Statements	Points (Scales)				
		5	4	3	2	1
17.	Following up auditor recommendations can strengthen the effectiveness of Internal Audit Function and help to increase audit quality.					

#### IV. Independency of internal auditors and Internal Audit Quality

Independency of internal auditors can be achieved by ensuring appropriate reporting mechanisms such that the internal audit department has direct access to the board and senior management, by giving it the authority to access any records it deems fit, by allowing full access to all employees and departments. What is your opinion about the effect of Independency of internal auditors on audit quality in **your organization**? (Please tick; the appropriate box which matches your view).

S.No.	Statements	Points (Scales)				
		5	4	3	2	1
18.	Legal liability provides incentive for internal auditors to maintain independence.					
19.	The activity of audit is to conduct work without interference by the entity under audit.					
20.	Organizational independence contributes to the accuracy of the auditors' work and the ability to rely on reported results.					
21.	Internal Audit Function reports directly to the audit committee.					
22.	The audit committee has authority over the Chief Audit Executive employment.					
23.	The audit committee has authority over the evaluation of the IAF performance.					
24.	The audit committee approves the budget and plan of Internal Audit Function.					
25.	Systems ensure a sufficient degree of organizational independency, which enables the internal auditor to not fear and to exercise his/her work freely and objectively.					

#### V. Management Cooperation and Trust and Internal Audit Quality

Top management support is necessary for effective work performance and enhancing IA team competence and independence and hence quality of the audit. What is your opinion about the effect of Management cooperation and trust on audit quality in **your organization**? (Please tick; the appropriate box which matches your view).

S.No.	Statements	Points (Scales)				
		5	4	3	2	1
26.	Internal audit department is large enough in terms Human resource and financial budget to successfully carry out its duties and responsibilities.					
27.	Senior management is aware of internal audit needs.					
28.	Senior management supports internal audit to perform its duties and responsibilities.					
29.	Senior management forward relevant information's that enable the internal audit department to make a risk based audit plan.					
30.	The response to internal audit reports by the senior management is reasonable.					
31.	Senior management follows the implementation of internal audit recommendations and highlights the status of audit finding.					

## VI. Code of Ethics and Internal Audit Quality

The work of the internal auditors characterized by its critical nature of being focused on the examination, analysis and evaluation the validity and the legitimacy of transactions which calls for resorting to the code of ethics. What is your opinion about the effect of adherence to Code of ethics on audit quality **in your organization**? (Please tick; the appropriate box which matches your view).

S.No.	Statements	Points (Scales)				
		5	4	3	2	1
32.	A professional code of conduct is available.					
33.	Integrity and impartiality values are emphasized.					
34.	There is a system that ensures accountability for non-compatibility cases with the principles and ethics of the profession.					
35.	Internal auditors observe relations and activities that they should avoid participating in.					
36.	Internal auditors disclose the material facts about the activities that they audit in their reports.					
37.	The auditor has a professional freedom in choosing tools and methods.					

S.No.	Statements	Points (Scales)				
		5	4	3	2	1
38.	Auditors taken into consideration using information carefully.					
39.	Finding a balance between confidentiality and transparency is being clarified by having a professional judgment.					
40.	The tasks assigned to the internal auditor fit with the nature of his qualifications.					

## VII. Internal Audit Quality

What is your opinion about internal audit quality **in your organization**? (Please tick; the appropriate box which matches your view).

S.No.	Statements	Points (Scales)				
		5	4	3	2	1
41.	The internal audit function built quality into policies, charters and procedures.					
42.	Internal audit ensures that it adds value to the organization.					
43.	Established internal audit objectives were accomplished.					
44.	The internal audit function of your organization prepares a risk based plan and performs audit activities based on this plan.					

**Thank you in advance for your cooperation.**