ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACCOUNTING AND FINANCE

A STUDY ON THE ROLE OF INTERNAL AUDIT IN PREVENTION AND DETECTION OF FRAUD IN THE CASE OF TWO ETHIOPIAN INTEREST FREE BANKS- ZAMZAM AND HIJRAH BANK

BY: BEREKA ABAS

Id GSE/7124/15

A THESIS SUBITTED TO ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS, DEPARTMENT OF ACCOUNTING AND FINANCE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR MASTERS DEGREE IN ACCOUNTING AND AUDITING

Advisor: Abebaw Kassie (PhD)

JANUARY 2026,

ADDIS ABABA, ETHIOPIA

Acknowledgement

This thesis would not have been possible without the cooperation and support of a number of people, who in one way or the other steered me towards my ultimate goal.

I would like to express my appreciation to them and especially to the following: - First, my gratitude to the Almighty Allah for giving me the opportunity, capacity and guidance throughout my life. without Him I would not have come this far. Secondly, I would also like to express my sincere gratitude to my advisor, Abebaw Kassie (PhD)., for his tireless guidance, selfless dedication and encouragement in making this project a reality. Thirdly, I am grateful to my family, who were always with me in all aspects throughout my research. Finally, I owe my gratitude my fellow colleagues at work for their support and encouragement and all the two Banks staff and employees who have taken their time to support and give answers for the questionnaires provided.

DECLARATION

I Bereka Abas declare that I am a student of Addis Ababa University, College of Business and Economics and this thesis is done for Master's research titled as "The Role of Internal Audit in Prevention and detection of Fraud in The Case of two Ethiopian Interest free Banks - Zamzam and Hijra Bank" is done by due diligence and the upmost dedication to show the findings of the study with all honesty, and this study was supervised by Abebaw Kassie (PhD)

Bereka Abas Advisor: Abebaw Kassie (PhD)

SIGNATURE_____ SIGNATURE_____

DATE_____

Contents

CHAPTER ONE: INTRODCUTION 1
1.1 Background of the Study 1
1.2 Statement of the Problem 4
1.3. Research Questions 6
1.4. Research Objectives 7
1.4.1. General Objective 7
1.4.2. Specific Objectives 7
1.5. Research Hypotheses 8
1.6 Significance of the Study 8
1.7 Scope of the Study 9
1.8 Limitation of the Study 9
1.9. Organization of the Study 10
CHAPTER TWO: LITERATURE REVIEW 11
2.1. Introduction 11
2.2. Types of Internal Audits 12
2.2.1. Compliance Audit 12
2.2.2. Internal Financial Audit 12
2.2.3. Environmental Audit 12
2.2.4. Technology/IT Audit 12
2.2.5. Performance Audit 13
2.2.6. Operational Audit 13
2.2.7. Special Investigations 13
2.3. Theoretical Literature Review 14
2.3.1. Fraud Theory 14
2.3.2. The policeman theory 17
2.3.3. The credibility theory 17
2.3.4. The theory of inspired confidence 18
2.3.5. The agency theory 18
2.4. Islamic banking 19
2.4.1. History of Islamic banking and finance. 20
2.5. Islamic auditing 21
2.6. Empirical literature review 23

2.6.1. Global Studies on the effectiveness of internal audit in banking 23
2.6.2. Global Studies on the effectiveness of internal audit in Islamic banking sector 26
2.6.3. Related Studies in Ethiopia 27
2.7. Summary of literature review and research gap 29
2.7.1. Summary of literature review 29
2.7.2. Research gap 30
2.8. Conceptual framework for the study 31
CHAPTER THREE: RESEARCH METHODOLOGY 33
3.1. Research Design 33
3.2. Research Approach 33
3.3. Population and Sampling Design 34
3.3.1. Population 34
3.3.2. Sampling Design 34
3.4. Data Type and Collection Instruments 35
3.5. Validity and reliability of research instruments 36
3.6. Data Analysis and Presentation 36
3.7. Data Analysis Tools and Models 37
3.7.1. Specific Tools of Analysis for Each Question 37
3.7.2. Final model specification 39
3.8. Ethical Considerations 40
CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS 42
4.1. Descriptive analysis of the research variables 42
4.1.1. Sample and response rate 42
4.1.2. Broad summary of respondent data 42
4.1.2. Descriptive analysis on internal auditor independence 47
4.1.3. Descriptive analysis on internal auditor competence 66
4.1.4. Descriptive analysis on management support 70
4.1.4. Descriptive analysis on fraud prevention and detection 81
4.1.5. Descriptive analysis on organizational set-up, structure, culture and ethics 86
4.1.6. Summary and conclusions on the descriptive analysis 93
4.2. Empirical analysis of the research variables 95
4.2.1. Model specification 95
4.2.2. Diagnostic tests 95
4.2.3. Presentation of findings and discussion 101
CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS 104

5.1 Conclusions 104
5.2 Recommendations.....105
References……109
Appendix ……..,113

Table of figures

Figure 1: Conceptual framework of the study 32
Figure 2: RVF Plot 96
Figure 3: Breusch pagan test 97
Figure 4: Variance inflation factor 98
Figure 5: Shapiro wilk test 100
Figure 6: Ramsey RESET test 100
Figure 7: Regression results 101

Abstract

This study examined the role of internal audit in prevention and detection of fraud within the emerging Ethiopian interestfree banking sector, with a specific focus on Zamzam Bank S.C. and Hijrah Bank S.C. The research investigates the influence of internal auditor independence, management support, organizational structure and ethical culture, auditor competence, and the size of the audit department on the banks' ability to combat fraud.

A quantitative research approach was employed, utilizing a structured questionnaire administered to 76 internal audit personnel across both banks. Data were analyzed using descriptive statistics and an Ordinary Least Squares (OLS) regression model. Diagnostic tests confirmed the validity of the regression assumptions.

The findings reveal that organizational structure, culture, and ethics exert the strongest statistically significant positive effect on fraud prevention and detection. Management support demonstrates a positive but only marginally significant relationship. Contrary to expectations established in broader auditing literature, internal auditor independence, competence, and the size of the audit department were not found to have statistically significant effects within this specific context.

The study concludes that the internal audit function in these pioneering Ethiopian Islamic banks contributes to fraud control primarily through its integration within a robust ethical and organizational framework, rather than through isolated attributes of the audit unit itself. The results underscore the critical importance of a strong, well-implemented ethical culture as the cornerstone of effective fraud mitigation. The research fills a notable gap in the literature regarding internal audit and fraud management within Ethiopia's nascent Islamic financial industry and offers practical recommendations for banks, management, and policymakers aimed at strengthening governance and compliance mechanisms.

CHAPTER ONE: INTRODCUTION

1.1 Background of the Study

All organizations face fraud risk- albeit to a varying degree. In the past few decades, we have witnessed several times how frauds led to the collapse of an entire organization. Examples include, Enron, WorldCom and Satyam in India. The exposure of more recent, high profile frauds like the Reebok and Citibank have reinforced the importance of a sound fraud risk management system. Global regulations like the US Foreign Corrupt Practices Act (FCPA), UK Bribery Act, and Sarbanes Oxley Act are putting massive responsibility on organizations' management to implement a sound fraud risk management system. In the wake of increasing incidents of frauds in the financial service sector of India, the Reserve Bank of India (RBI) introduced guidelines for comprehensive Fraud Risk Management (FRM) system for banks. (Deloitte, 2012).

Hence, we observe a situation in which detrimental effect of frauds has increased more than ever, and fraud prevention procedures are emphasized more than ever. The management and executives of organizations have never been more concerned about the exposure of their firms to frauds and whether there are proper preventive mechanisms in place. As fraud has a number of negative impacts on organizations – financial and reputational – it is important for the organizations to have a strong fraud prevention program. (Deloitte, 2012). Moreover, the same survey undertaken by Deloitte for fraud in Indian banks indicated that more than half the frauds were detected by internal audit reviews. Hence, one of the most important steps in ensuring a robust fraud risk management is considered to be the reinforcement of internal control mechanisms.

From Deloitte's work and others, it can be inferred that, without adopting sound internal control policies and mechanisms, it is impossible to fight against the risk of fraud in any impactful way. This is because internal auditors usually have the intimate knowledge of the organization's control systems needed to effectively prevent fraud risk.

However, it is the combined assurance approach that is key to recognize and act upon gaps in controls. It should be noted that organizations should not primarily entrust internal auditors to undertake fraud investigation. The role of the internal auditor is to support an organization's fraud prevention efforts through the provision of crucial undertaking, maintenance and supervision of internal controls designed to detect and prevent fraud. If circumstances require internal audit to take on an investigatory role, internal auditors should exercise due professional care (IIA).

The points made earlier reinforce the conviction of setting up a robust fraud prevention program that includes awareness, prevention and detection initiatives as well as a formal process of fraud risk assessment within the firm. They also reinforce that the fraud prevention process should mandatorily incorporate an internal audit process. Here, the role of internal auditors is an assisting role; the ultimate risk bearer of any fraud that may happen within a corporation is borne by senior management and the Board of Directors. The roles and responsibilities of internal auditors in relation to fraud prevention may include the following: Undertaking primary inspection or comprehensive investigations into potential fraud cases, doing root cause analysis, making recommendations so that control processes may be improved upon, monitoring reporting or whistle-blower lines of communication, and providing ethics training sessions. Internal auditors, who usually undertake these tasks, have the responsibility to be able to undertake their duties by acquiring key skills, education and know-how.

While all the above is well and good, it is now important to briefly emphasize the role of Islamic auditing and its unique characteristics in accordance with the core focus of our research paper. Shariah-based Islamic auditing is perhaps the most important aspect of the process in ensuring compliance with Islamic laws and jurisprudence that Islamic organizations, and especially the financial ones, have to comply with. While incorporating the regular auditing processes' focus on accuracy and compliance, Islamic auditing operates within a contextually wider framework. To be more precise, Sharia based auditing is a process of ensuring that the activities of the allegedly Islamic entity comply to the Sharia law. This certainly include a broad range of topics, such as whether interest (Riba), uncertainty (Gharar) are avoided or not, or transactions and investments made by the firm are ethical in the Islamic sense or not. It provides assurance to

stakeholders—including investors, customers, and Sharia boards that operations are conducted in a manner consistent with Islamic principles.

A relevant authority in the topic of Islamic auditing, Yasoa, Abdullah and Endut advance arguments and descriptions about the roles and responsibilities of Islamic auditors within the Sharia compliant banking industry in Malaysia on a thesis made in 2020 G.C. (Yasoa, Abdullah et al, 2020). They particularly focus on the period after the introduction of the Sharia Governance Framework in 2011. The researchers advance the proposition that the roles of Sharia auditors are still largely within the jurisdiction of the banks' internal audit units overall. What made them unique was the fact that they serve as a third line of defense by monitoring whether the business activities of the bank genuinely adhere to the principles of the Sharia law. The thesis put forward the proposition that auditors' approach towards auditing changed from compliance-based audit to risk-based audit following the implementation of the framework. The findings suggested the importance of structured guidelines regarding the roles and responsibilities of Islamic auditors.

Another publication made by Rayaan Baz (2017), summarized and investigated various research theses and theoretical perspectives on fraud control, internal auditing, and information processes. His findings lend to the conclusion that weakened internal controls and lagging technological adoption have led to the emergence of novel fraud risks for financial institutions. One of these is electronic/computerized banking fraud. According to the paper, the role of proper information flow between banks and government authorities with regards to dealing with electronic banking fraud can't be stated enough. Like the previous study, Baz emphasizes the crucial role of a good internal control processes in reducing the potentiality of fraud occurrence. Instead of full elimination of fraud risk, the study emphasizes the moderate and reductive elements of fraud prevention processes on fraud risk.

Despite having a substantial Muslim population, the establishment of Islamic banking in Ethiopia has been surprisingly recent. It was as late as 2011 that the NBE (National bank of Ethiopia) first permitted the provision of Interest free banking services, and at 2019 that it allowed the establishment of full-fledged Islamic banks. Though the establishment of the first full-fledged Islamic bank (Zamzam bank) in 2020 was a big step taken towards financial

inclusion and equity, the sector of Islamic banking is quite in its infancy, and is in its rapid growth and developmental phase. Furthermore, there haven't been an adequate number of researches made broadly on the sector of Islamic banking in Ethiopia, let alone the topic of Sharia auditing, which is but one area of Islamic banking. It should also be evident that the role of further research in filling gaps regarding the application of Islamic banking and finance in this unique Ethiopian context can never be stated enough.

These studies, as well as those we shall cover in our literature review section clearly demonstrate the critical need for Internal auditing processes and Sharia compliance in establishing unhindered information flow, ensuring compliance, and mitigating fraud risks. However, apart from the few studies we shall outline in our literature review section, there exists a clear gap in the literature conducted within Ethiopian borders. This contradicts with the fact that Ethiopia is home to a large Muslim population, and an emerging, rapidly expanding Islamic financial sector. Hence, the need to understand, adapt and ultimately and effectively implement Sharia based auditing in Ethiopia has become more important than it ever was.

This study tries to fill the aforementioned void by attempting to examine the role of internal audit in prevention and detection of fraud in the case of two Ethiopian interest free banks-zamzam and hijrah bank

1.2 Statement of the Problem

Put simply, internal auditing means a process of checking whether a firm is run properly, and whether the workflow is conducted in obedience to internal and external rules and regulations. According to the institute of internal auditors (2017), it should consider where fraud risk is present within the business and respond appropriately by auditing the controls of that area, evaluating the potential for the occurrence of fraud and how the organization manages fraud risk through risk assessment, and audit planning. (Standard 2120.A2). It is not internal audit's direct responsibility to prevent fraud happening within the business. This is the responsibility of management as the first line of defense. (IIA, 2017)

We can think of fraud as any attempt obtain or earn benefits or entitlements that one does not deserve legally or morally. As such, fraud universal yet, in a way diverse phenomenon. It occurs

in both public and private for-profit entities, NGOs (especially in developing countries), governmental organizations, and public service entities providing fundamental sustenance to the public such as water, electricity and health. In obedience to IIA's International Standards for the Professional Practice of Internal Auditing on proficiency (1210.A2), internal auditors must have sufficient knowledge to evaluate the risk of fraud and the manner in which it is managed by the organization. (IIA, 2017)

One of the sectors where both the quantitative risk and potentiality of fraud is larger in magnitude in comparison with the others is in a financial institution like the bank. As the bank gets larger, the frequency, volume and sheer number of transactions led to an increase for potentiality of fraud, which in turn calls for a stringent and robust internal audit system. For an organization like a bank, which relies on goodwill generated from trust and maintaining professional image, a fraud can be especially detrimental. According to the Indonesian Financial Services Authority (2020), the total loss of customers due to fraud at Indonesian banks reached a total of 4.62 trillion rupiah, with details in that first quarter of 2020 there was 1.8 trillion rupiah and in the second quarter of 2020 it was 2.82 trillion rupiah. Hence, a lot of customers lost their money due to fraud that occurred at their bank, and this in turn severely damaged the survivability and profitability of the bank as an organization. Needless to say, frauds occurring in institutions such as banks are extremely damaging to their customers financially and psychologically. While banks can no longer be trusted due to the occurrence of fraud, it is the customers or victims who must ultimately bear the losses caused by fraud that occurred within the bank (Amel-Zadeh & Barth, 2021). The stakes customers are placing by depositing their money in a bank can never be understated.

The author of this paper has examined various articles, papers and researches regarding The Role of Internal Audit in Prevention and detection of Fraud. However, almost all of the studies mentioned in this paper focus on the role of internal auditing in a general manner. They tended to overlook the fact that internal auditors are employees of the same organizations they are expected to monitor, and how this singular truth complicates the efforts and effects of fraud prevention and control mechanisms. Indeed, impossible to not raise questions about the supposed independence of internal auditors.

A core, broad subject area where a research gap exists is regarding the application of Islamic finance in Ethiopia in general. Even though there have been researches made on the topic of Islamic banking and finance with Ethiopian context, it suffices to say that they are not enough neither in amount nor in quality when weighed against the potential and even present scope of the sector. When we zoom into researches made on Islamic auditing as a subset of Islamic banking and finance, we observe that even fewer researches have been made.

In retrospective of these and other topics, it is important to state here that the overall objective of this thesis is to fill the present knowledge gap regarding internal control, Islamic auditing and the nuances and particularities involved in examining the role of internal Audit in Prevention and detection of Fraud in The Case of two Ethiopian Interest free Banks -Zamzam and Hijra Bank.

It was at the year 2019 G.C. that the National bank of Ethiopia (NBE) first gave permission for the establishment of full-fledged, Sharia compliant banks in Ethiopia. Soon after, Zamzam bank (which was long in the process of making) and Hijrah bank were established. They were followed by Rammis bank and Shabelle bank, and a number of microfinance institutions such as Bilal microfinance, Sahal microfinance and Amal microfinance, to mention few. Zamzam and Hijrah bank were selected due to their longevity in the business and their disproportionate capabilities in scale, profitability and trust among the other relatively new full-fledged Islamic financial institutions.

1.3. Research Questions

These are the major questions the research intends to answer:

1. What is the relationship between the degree of independence of the internal auditor in efforts of fraud prevention and detection?

2. To what extent was the corrective measures recommended by internal auditors supported by the management of the banks?

3. To what extent does the set-up of the organization support fraud prevention and detection?

4. To what extent does the competency of the internal auditor support fraud detection and prevention?

5. To what extent does the size or scope of the internal audit department aid fraud detection and prevention?

1.4. Research Objectives

1.4.1. General Objective

The general objective of this study is to assess the role of internal audit in prevention and detection of fraud in the case of two Ethiopian interest free banks- zamzam and hijrah bank. in supporting fraud detection and prevention systems upon consideration of the structural, managerial and personnel factors impacting it, such as the competence of auditors, the willingness of management to resolve inspected fraudulence, and the professional capability of internal auditors and their department to discharge of their duties..

1.4.2. Specific Objectives

The study has the following specific objectives

1. To identify, characterize and study the internal audit function in place within Zamzam Bank S.C. and Hijra Bank S.C, fundamentally in terms of internal auditor independence.

2. To determine the extent with which the corrective measures recommended by internal auditors was supported by the management of the banks.

3. To determine the extent with which the set-up of the organization support fraud prevention and detection.

4. To determine the extent with which the competency of the internal auditor support fraud detection and prevention.

1.5. Research Hypotheses

The study sought to address the following pertinent research hypotheses;

H1: Perceived independence of internal auditor has statistically significant effect on Fraud Prevention and detection in Zamzam Bank S.C. and Hijrah Bank S.C.

H2: Measures taken by management to support fraud prevention and detection have statistically significant effect on fraud prevention and detection in Zamzam Bank S.C and Hijrah Bank S.C.

H3: Perceived competence of internal auditors has statistically significant effect on fraud prevention and detection in Zamzam bank and Hijrah bank S.C.

H4: The organizational set-up, structure, culture and ethics in place has statistically significant effect on prevention and detection of fraud in Zamzam bank and Hijra bank S.C.

1.6 Significance of the Study

It is believed that this research has three key significances.

As discussed above, the appearance and development of the Ethiopian Islamic financial institutions, given the Islamic presence inside a country, has happened at a very late period of time. Hence, it should never be doubted that the academic lens should focus on this new yet rapidly developing sector of high potential even more than it is doing now. We have also discussed that the role of internal audit mechanisms in preventing fraud has been generally underexplored, and this can never be truer for this niche and emerging field. Hence, the primary importance of this thesis is to fill this gap- the investigation of whether internal audit systems are effectively combating fraud prevention and detection within the unique context of the emerging Ethiopian Islamic banking sector.

The study also adds to the body of knowledge concerning the application of internal audit in a Sharia compliant setting. It does so from the various unique perspectives which would proxy the general role of internal audit, such as auditors' independence, auditors' capability to discharge of their duties and structural factors. This knowledge will help to improve the internal auditing

practices in place in the organizations, namely the pioneering and largest Interest free banks of Zamzam bank and Hijrah bank, and help the fledgling Ethiopian Islamic banking sector in its attempts to expand and be competitive. In this regard, the paper would be useful to various stakeholders such as policymakers, management in Islamic banking institutions, customers and shareholders.

1.7 Scope of the Study

The study is undertaken within the context of the first two Islamic banks in Ethiopia: Zamzam bank and Hijrah bank S.C. The banks were selected because they were pioneers, and probably amount the few Islamic higher financial institutions that are operating at acceptably sufficient operational capability as captured by performance indicators i.e. in terms of income, deposit, or number of customers. Hence, the research is limited to examining the role of the internal audit systems in place within these two banks. The thesis does not extend to conventional banks or other microfinance institutions. Its scope, in terms of the time period covered, is limited to the post-Islamic banking inauguration, or the time period after which NBE permitted Islamic banking institutions to function within the nation. It focused on the most important employees and stakeholders of the bank in the context of this thesis- namely the internal audit department employees. Hence, the scope is limited to them, and it doesn't include other employees and stakeholders of the bank whose input may have influenced the results obtained by the researches in a meaningful manner.

1.8 Limitation of the Study

Like all academic research theses, this research faces certain key limitations. It only focuses on two Islamic banks within the country. The results found here may not be generalized to explain the Internal audit functioning and effectiveness in the Ethiopian banking sector in general, or to all Islamic banks in general i.e. outside of Ethiopia. Secondly, as internal audit functions and fraud cases are sensitive and confidential by nature, data access and the willingness of respondents to provide full disclosure may be constrained, potentially affecting the depth and

reliability of the findings. The study employs questionaries' and interviews as a primary data obtaining instruments. Though these techniques of data collection are commonly used and effective in a way, they are heavily subject to potential resource bias. Furthermore, as mentioned above the Ethiopian Islamic banking sector is at an early phase of its development. Therefore, the results found here may not reflect the true, underlying institutional reality within these firms. Usually, such realities reveal themselves as industries stabilize and mature. Instead, it should be mentioned here that any findings here may be skewed because of the various challenges all industries are plagued with at their inception and early stages.

1.9. Organization of the Study

This study is categorized in to five chapters. The first chapter deals with the introduction of the study, background of the organization, statement of the problem, basic research questions, objectives, significance, scope, and limitations of the study. The second chapter deals with the review of related literature which includes theoretical/conceptual and empirical reviews. The third chapter deals with research methodology that the researcher followed in the process of data collection, data analysis and interpretation. Chapter four includes data presentation, interpretation and discussions. Finally, under chapter five the overall findings of the research, conclusion and recommendations of the research are stated.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

As we have discussed in the last chapter, internal auditing is concerned with identifying threats to a firm's operational wellbeing, and helping it to mitigate them. Its main roles are checking for problems, monitoring of controls, advice, risk management, asset protection, supporting improvement so that operations are done better, and ensuring compliance. Most of this takes place in the core concern of fraud prevention with an organization. Internal audit should consider where fraud risk is present within the business and respond appropriately by auditing the controls of that area, evaluating the potential for the occurrence of fraud and how the organization manages fraud risk through risk assessment, and audit planning. (Standard 2120.A2). It is not internal audit's direct responsibility to prevent fraud happening within the business. This is the responsibility of management as the first line of defence. (IIA, 2017)

After huge collapse like the Enron and WorldCom, the SOX (Sarbanes-Oxley act of 2002) was introduced and widely adopted globally. It made the executive management or chief officers of the company directly accountable to any errors within the financial statements of the firm. It also required that a company's internal controls be documented and reviewed as part of its external audit. (Tuovila, 2024)

The role of internal audit should not be restricted to compliance alone; it should also help in reducing the probability of fraud occurrence and risk management. The results of internal audits provide management with suggestions for improvements to operational processes which the auditing has found dysfunctional or fraudulent.

The frequency and application of internal audit may differ from one organ to other. It may also differ in frequency (monthly, annually, semi-annually etc…). Hence, the application and nature of the auditing process shall be adjusted based on the contexts, circumstances and stakes involved. This calls for an investigation into the existing literature and conceptual dictionary

regarding the types, roles and nuances into theoretical and applied literature on the nature of the internal auditing process.

2.2. Types of Internal Audits

2.2.1. Compliance Audit

It is apparent that there are many regulations or guidelines a company needs to adhere to in order to function legally. These may include civil and corporate laws legislated by the government, regulations, restrictions and others. Hence, a company needs to adopt an internal audit function in order to review the state of such compliance and provide an overall opinion on the status of the compliance requirement.

2.2.2. Internal Financial Audit

It is apparent that public companies must undertake external auditing in order to be considered liable and accountable. This internal financial audit is made in order to further clarify the results of the initial audit and prepare for an external audit i.e. so that all potential auditing problem could be resolved as soon as possible. However, many of the tests between an internal or external auditor as usually similar unless the degree of independence afforded to auditors within the organization can vary.

2.2.3. Environmental Audit

In the 21st century of rapid climate change, it has become more important than ever to investigate the impact of firms' operations on the environment. Hence, companies need to audit their operations in order to learn how to mitigate the negative spillover effects their operations have on the environment.

2.2.4. Technology/IT Audit

An IT audit is all about inspecting and evaluating the technological and computerized side of the company's operation. An IT auditor may answer questions like- are the IT systems and modules

in an organization working as intended? Were there any mistakes or fraud (hacking), and how safe are the systems from such malfunctioning? An IT audit may also be undertaken in order to improve the functioning of existing systems.

2.2.5. Performance Audit

Performance auditing has a markedly distinguishable objective as compared to compliance audit since it doesn't focus on the rules, but the process itself i.e. how efficient it is. Instead of asking "Did you do what you did in the right way?", a performance audit asks "How well did you do what you did, even if you did it in the legal or righteous way?" In most cases, a performance audit is undertaken in a company in which performance is markedly important, or where how it is done matters even more than whether it is done right or not. Example scenarios include public foundations purchasing a machinery for a large price, banking staff underachieving in the bank or budget spending efficiency (cases of overspending and underspending).

2.2.6. Operational Audit

Similar in a way to performance auditing, operational audit is primarily concerned with the operational efficiency within an organization. Are resources used efficiently? Is the working area safe, efficient and can enable quick operations? Or are waste materials minimized and production processes optimized? These are some of the core concerns behind an operational audit. An operational audit is usually undertaken when important staff (usually management) leave, or when a new management takes over a firm. A new management is most likely to want to know how well operations were being run in the organization so that they may understand and improve them.

2.2.7. Special Investigations

Many of the audits above may be recurring and performed each year. However, in real world incidents rarely happen in an expected, scheduled, regular and controllable manner. It may be important to perform an audit in response to an occurrence of special incidents such as merger, the hiring of important personnel (like a change in CEO) or staff complaints, whistle blowing etc… It is such types of audit that we call special investigations.

2.3. Theoretical Literature Review

The major goal of any theory is to provide a framework for practical activity. Theories about auditing also set out laws that explain the whole aspect of the auditing process, such as the nature of relationship between different parts of the firm or the role of the audit department. Some of the audit theories which explain the relevance, importance and role of internal audit within an organization are the following:

2.3.1. Fraud Theory

Fraud theory is attributed to the work of Burgess and Akers (1966). Fraud is described as any act that intentionally deceives or misrepresents in some way to others (Zainudin and Hashim, 2016). Kassem, Rasha and Higson, Andrew (2012) indicated that fraudulent financial reporting is one of criminal act done by an accountant in a firm by intentionally misrepresentation, misstatement, or omission of the firm's financial statement to deceive owners/ stakeholders with false data about the firm's operating performance/profitability. Similarly, Harrison et al. (2011) postulate that fraud may also occur due to agency problems created whereby managers yearn to fulfil their self-interests first. In any corporate entity, fraud receives great attention from all stakeholders in a company, including shareholders, management and the broader public. Cressey, (1953) further adds that the dishonesty in some of the employees is likely to negatively influence those who were honest into emulating them.

The extensive academic literature on fraud indicate to us that there are three categories of fraud. These three are corruption, asset misappropriation and financial statement fraud.

2.3.1.1. CORRUPTION

Simply speaking, we call corruption an incident where someone who has the capacity to act i.e. has some power, or position uses his power, position or influence for gaining something (benefit,

access etc….) unfairly or dishonestly. A lot of fraud incidents in practical can be categorized as activities of corruption.

While this remains a general meaning of corruption, we can identify three variants of it. They are:

- Conflicts of interest,
- Bribery, and
- Extortion.

CONFLICT OF INTEREST FRAUD

This fraudster is caught between two worlds: their personal ambitions (money, power, influence, fame….) and their official duty, which the organization expected them to fulfil in favour of its own collective benefit. The fraudster exerts their influence to secure a gain at the expense of the organization and their official duty. Easy example; a manager approves extra expenses, formally meant so that an employee undertakes a certain non-ordinary duty, to a friend; yet the friend uses the so-called expense as additional pocket money.

BRIBERY

Bribery is the act of offering benefit for someone important so that the briber receives a certain benefit in a way that is opposed to the rules. This usually takes the form of payment.

EXTORTION

What makes extortion different from bribery is the following: coercion. Rather than appeasing or rewarding the important person to aid them in their dishonest way of benefitting, an extorter uses intimidation and violence to achieve the same goal.

2.3.1.2. ASSET MISAPPROPRIATION

As the name indicates, asset misappropriation is essentially about securing the assets of an organization for personal use by leveraging an official position or opportunity. Like corruption, asset misappropriation has several variants, which include:

- Cash theft: Securing a company's cash for oneself. This mostly takes the form of petty cash embezzlement.
- Fraudulent disbursements: This basically means when a company funds are released in a dishonest or inappropriate way- most commonly to make payments. Billing and payroll schemes are among the common types of fraudulent disbursements. Adding ghost employees i.e. employers that don't exist anymore (who had either died, left the organization, or have never existed) to the payroll chart. Or paying suppliers who didn't supply the organization anything, or didn't exist in the first place. All these could be examples.
- Inventory frauds: Using various methods to steal a company's inventory.

2.3.1.3. FINANCIAL STATEMENT FRAUD

Financial statement fraud is essentially tampering with an organization's official financial statements to benefit in a dishonest manner. Four methods in which this can be done include omission (omitting transactions in the statements), falsification (wrongly displaying the transactions), or misuse of financial regulations

According to SAS 99 (AU 316), three conditions must be met to identify and explain a financial statement fraud. These three conditions are called the fraud triangle. They are the following:

1. Incentives/Pressures: Management or other employees have incentives or pressures to commit fraud.

2. Opportunities: Circumstances provide opportunities for management or employees to commit fraud.

3. Attitudes/Rationalization: An attitude, character, or set of ethical values exists that allows management or employees to commit a dishonest act, or they are in an environment that imposes sufficient pressure that causes them to rationalize committing a dishonest act.

2.3.2. The policeman theory

The policeman theory, or the good, old, traditional yet timeless idea about the role of auditing, is the following: An auditor's primary task is to detect and prevent fraud in an organization, in the same away a policeman detects and prevents crime in the public. In more formal terms, the policeman theory asserts that the auditor is responsible for searching, discovering and preventing any fraudulent activity. This is the most traditional and established idea about an auditor's role. However, as we shall see below, this is a rather narrow view of an auditor's role in an organization. The auditor also has a duty of care to the end users of audit reports and should consider risks of material misstatements due to fraud when calculating audit risk. (https://www.mbaknol.com/business-finance/audit-theories-theories-of-demand-for-audit/).
Furthermore, according to ISA (2000), the auditor's role is giving an opinion on whether financial statements are free from material misstatement. This may include reducing information asymmetry between customers, owners and managers, lending overall credibility to financial statements, and increasing confidence and reliability in the operations of the organization in general. We shall see more theories that expand upon the policeman theory below.

2.3.3. The credibility theory

The credibility theory can be seen as an upgrade on the earlier policeman's theory. It basically tells us that the principal role of the auditor is to make financial statements more reliable i.e. credible. This is because, simply speaking, it is very hard for all stakeholders involved to trust any information that is released by an organization unless it is audited by an independent entity. Hence, the focus of auditors shifts from crime-detection towards enhancing overall credibility of a company's financial statements. The credibility gained by financial statements would affect decisions by stakeholders (e.g. Credit limits provided by suppliers) and also helps shareholders put trust in management; reducing the 'information asymmetry' between stakeholders and management. (https://www.mbaknol.com/business-finance/audit-theories-theories-of-demand-for-audit)

2.3.4. The theory of inspired confidence

The theory of inspired confidence adds upon the earlier idea about the role of auditors as postulated by the credibility theory as it suggests that the primary role of auditors as establishing and inspiring confidence in the workings of the organization. This is because all the activities of an auditor, whether it is policing i.e. fraud detection and prevention, or improving the report's overall credibility, it is ultimately weighed against, or is valued by the level of trust they instilled in the public about the company. In other words, this theory focuses on the social contract aspect of the auditing process, where a match between the demand for audit and the supply for audit leads to the establishment of a contract or an agreement. The society enables the auditors (both internal and external to work), and expects them to make an organization's financial statements trustworthy, reliable and legit. Anything that falls below the expectation of the society at a point in time renders the auditor futile. Hence, the inspired confidence theory implies both the credibility and policeman theory while providing for a more sound and general rationale as for what the role of auditing exactly is.

2.3.5. The agency theory

The readers of this paper might be familiar with the agency problem- a central problem in modern share companies. What the agency problem postulates is the following: in the modern share company, there is a fundamental mismatch between the goals of the shareholders i.e. the owners of an organization on one hand, and the goals of the executive management of the company i.e. the people who run the organization. The shareholders appoint the managers as agents, yet there is a clash of interest between the agents and the original owners of that company.

Here is the core idea- the auditor is an arbiter- an external, independent watchdog that lets the shareholders oversee whether the activity of the management is in line with the shareholders' goals and objectives. Without an auditor's oversight, there is every probability that the managers manipulate financial reports to inflate their managerial performance and advance their individual

career. The auditor essentially helps to reduce (but may not eliminate) the information gap that exists between the owner and their agent.

In other words, an audit is a monitoring mechanism for principals to gain an independent and reliable opinion on the financial statements provided by the agent, reinforcing accountability and maintaining confidence and trust in the organisation. Hence, agency theory is the final, most widespread type of audit theory. (https://www.mbaknol.com/business-finance/audit-theories-theories-of-demand-for-audit).

2.4. Islamic banking

Developed in the 20th century, Islamic banking is a form of financing that adheres to Islamic values as derived from the Shariah law. Due to the widespread use of activities prohibited in the Sharia law (the set of Quranic and Sunnah-based principles all Muslims adhere to) within the modern financial system, Islamic communities and nations had to find a way that accommodates the need to practice their religion with the inevitability of modernity, and more specifically the modern financial system.

The fundamental innovation of Islamic banking is the replacement of Riba (interest) with a form of risk-reward sharing system in order to run the bank. This risk-reward sharing is directly derived from the Shariah law. The Shariah law stresses solidarity or brotherhood, and sharing each other's burdens (African development bank, 2011).

A fundamental concern of Islamic banking thus becomes ensuring that customers share an equitable benefit for the resources they deposited in the bank. According to this arrangement, which is called Mudarabah, the customers grant the bank the right to use their resources in an activity that generates revenue for the venture that the bank and the customers established i.e. the bank. The bank would then finance the money the customers deposited so that it may be employed in a Shariah-acceptable, economically fruitful activity. Then it would share the customers both the risk and reward generated by the financing.

A key pillar of the Islamic financial sector is the avoidance of contractual uncertainty. (African development bank, 2011). This is because the Shariah dictates that all contracts have to be clear and precise, so that they may not lead to speculation (Gharar) and unfair exploitation of one party by the another. Various scholars in Islamic finance have innovated Shariah- acceptable contractual systems in order to develop the sector and make it compliant with the Shariah law.

2.4.1. History of Islamic banking and finance.

Even though Islamic jurisprudence has long regulated, established and formalized rules and regulations of commerce in an Islamic society, the emergence of modern Islamic banking and finance is a relatively recent phenomenon. At the dawn of modernity during the late 19th century and early 20th century, Islamic societies and nations found themselves inevitably absorbed, yet at the same time alienated by a financial system that wasn't not just alien, but contrary to the established and timeless values set by the Shariah.

The first interest free bank, which was not yet expressly designated as an Islamic bank, was introduced in 1963, when Egyptian PhD student Ahmad El Naggar founded in the village of Mit Ghamr in Egypt's Nile Delta (Reiff, 2016). Even though the experiment at Mit Ghamr is considered a failure, it paved the way for other similar type of Interest free banks. In the 1970s, new forms of Islamic banking were being developed in nations such as Egypt, Pakistan and Malaysia. Muslim theorists were actively working to develop a financial system that submits to Islamic principles instead of overriding them. More specifically, the industry made substantial progress over the last three decades after the establishment of the first Islamic bank (Dubai Islamic bank) in 1975. (Hassan and Lewis, 2007).

During the 1980s, the industry started to grow exponentially, and has already become a multi-billion-dollar market. Furthermore, these were the times conventional (standard) banks started to provide Interest-free banking services using the window model. This greatly aided the industry as a whole since the embrace of Interest free banking by established banks meant that this is a successful business model with a potential to generate profit for a regular financial institution.

According to Hassan and Lewis (2007), despite more than thirty years of steady progress, the industry can be still considered in its formative stage. It is often misunderstood not only by the

West and major global financial institutions, but by the target market of the industry itself i.e. Muslims. There is a lot of debate on the permissibility of certain financial products like the Murabaha, the criteria for financing, the nature of Islamic contracts as well as the administration of the institution as a whole.

Despite the presence of a substantial Muslim minority in Ethiopia, the development of Islamic banking and finance in Ethiopia is surprisingly recent. It was after a long period of informal requests, including a meeting between the Ethiopian prime minister and key figures of the Muslim community in 2007, that that the Ethiopia government took first steps to establish an interest free banking system (Hailu and Yatoo, 2021). A proclamation by the National bank of Ethiopia (NBE) in 2008, which stated that the NBE may approve the establishment of Interest free banking institutions in the country, the National bank directive of 2011 declared the permissibility of Interest free banking services in the form of a window model. However, it was as late as 2019 that the NBE approved the establishment of full-fledged interest banking financial institutions in the country.

Since then, four full-fledged interest free banks (Zamzam, Hijrah, Shabelle and Rammis) and several more Islamic microfinances have been operating within the full-fledged framework. Even though these institutions have been experiencing growth, they are fraught with several challenges. One of them may be the issue of auditing and compliance from an Islamic perspective. We shall discuss about auditing in Islamic financial institutions- theory, history and the special features that set it apart from regular auditing below.

2.5. Islamic auditing

Islamic auditing is a method, or a task of ensuring not only that an organization's operations comply with the pertinent laws and regulations, are credible and inspire trust, but also that they are subservient to the principles of Shari'ah. For instance, a regular auditor may consider of the operations of an alcohol manufacturing company as legal, credible and honest after a throughout review of the company's operations and relevant financial statements. However, an Islamic auditor will not consider it so- for the sole reason that the nature of the business is explicitly prohibited by the Shariah law.

The following can be considered as among the major differences between Islamic audit and regular auditing:

Scope: Most of the time, the auditing process limits itself to ensuring that the financial statements of an organization are credible, or the shareholders best interests are upheld by the management i.e. the agency theory. Most of the time, aspects of business operations that do not negatively impact the business entity directly in a legal or economic way are overlooked. However, Islamic auditing ensures that the activities of the company are in line with ethical, social and normative principles of justice in a way consistent with the Shariah.

Source of principles: The sources of principles for Islamic auditing is the Quran, Sunnah and the entire body of Islamic jurisprudence. For conventional auditing the source of principle may be pertinent rules, regulations, laws and directives.

Accountability: According to the agency theory, the auditor is accountable for the shareholders, and its main task is to be a watchdog of an organization's management, ensuring credibility and inspiring trust regarding the company for the public so that, ultimately, the benefit of the shareholders is maintained. However, Islamic auditors are also liable to the Muslim community as a whole, and above all to Allah (God) and the rules he told men to obey.

Focus areas: The major focus areas of Islamic financial auditing include, but are not limited to: Contractual clarity and compliance, fairness in trade and business, Zakat calculation, monitoring the fulfilment of social responsibility and Islamic ethical conduct by the organizations under focus.

Like other aspects of Islamic finance, Islamic auditing is fraught with several challenges and issues, and some issues are still unresolved as of now. One important aspect that needs to be resolved regards by whom Islamic audit should be undertaken. It is argued that Shariah audit is only to be conducted by Shariah professionals instead of accountants, while some others prefer the trained internal auditor to undertake the responsibility (Uddin, 2020). We shall entertain the novelty of IFB financing and shall also consider the global lack of trained professional that bridge the qualification and knowledge of auditing with a sufficient knowledge of Islamic

jurisprudence. Other setbacks are concerned with questions regarding the auditor's independence, competence and accountability.

2.6. Empirical literature review

2.6.1. Global Studies on the effectiveness of internal audit in banking

Lukman and Chariri (2023) investigated the role of internal auditors in fraud prevention and detection. Their objective was examining the function of internal auditors in fraud prevention and detection in the banking sector in general. Their findings of the study indicated the obvious: internal auditors had a significant effect on both fraud prevention and detection in the banking sector. The greater the roles and responsibilities of internal auditors were, the more fruitful fraud prevention and detection efforts became. Furthermore, fraud prevention and detection are critical for maintaining trust, financial integrity, and customer confidence in the banking sector. Fraud is a global problem- a global phenomenon. Hence, the study emphasizes the critical role of internal auditors in fraud detection and prevention. The authors finalize- the ultimate reward for enhancing the roles and responsibilities of internal auditors is stability, security, and reduced criminal activity within the sector.

Melinda, Susanti, Tarigan, Deliana and Napitupulu (2022) studied the role of internal audit in fraud prevention and disclosure. Their objective, as the title indicated, was to undergo a literature review that helps to study the role of auditing in fraud prevention and disclosure. They specifically picked ten literatures for the task. However, out of the ten studies included in their literature review, eight suggested that internal audit had a positive contribution on preventing and disclosing fraud. Surprisingly, two articles indicated that internal audit did not play the expected role in the organizations/industries studied.

Petraşcua and Tieanub (2014) similarly aimed to study the role of internal audit in fraud prevention and detection in their paper. They claimed to find out that, unlike the common depiction of internal auditors as adversarial towards management in their role of detecting and preventing potential fraud, there is ample possibility and evidence of management and auditors cooperating with one another for a common purpose. That is because internal Audit plays a

major role in ensuring the normal and efficient functioning of an entity's activities and thus enhances or improves company value.

Again, Oyinlola (2010) examined the role of internal auditors in fraud prevention and detection, this time in Nigeria, Africa. The study gathered data from 184 respondents in Nigeria, where the questionaries have been aiming to capture responses about the quality of financial statements produced in the country, as well as about what the roles and responsibilities of internal auditors are and how they are being employed in reality. Upon contrasting the obtained responses with the primary objectives of an audit as stated in ISA 200, the finding showed that the respondents expressed significant concern regarding whether fraud is appropriately prevented. However, the study eventually revealed that auditors play a significant role in fraud detection and prevention.

Nurlaela, Mappanyukk1 and Surjandari (2021) studied the role of internal audit in auditor professionalism and fraud detection. And, they observed that a robust internal audit function contributes significantly to fraud prevention in an organization. Auditor professionalism, which represents competence, independence and ethical conduct at once, plays a crucial role in detecting and preventing criminal activity. The authors emphasized that both aspects i.e. the role and the professionalism of internal auditor are equally crucial and interrelated, and it is when they are combined that they make a company's anti-fraud activities effective. Increasing the role of internal auditors and enhancing their capabilities is essential for operational health of an organization.

Bonrath and Eulerich (2023) made a study aiming to analyse the relationship between the internal audit function (IAF) and fraud. Their conclusion asserts the fact that a robust corporate governance environment is a cornerstone so that an increased involvement of the internal audit function in detecting and preventing criminal activity is realized. Simultaneously, increased involvement of the audit department is key for detecting and preventing fraudulence. Furthermore, the capability of internal audit to effectively combat fraud increases when the IAF integrates technology-based auditing techniques into its job.

Salleh (2019) examined the role of internal auditors from the standpoint of they being the first line of defence against fraud in the banking sector in South Sumatra, Indonesia. The author adjudged that the principal auditors in the area are not yet capable of discharging their duties

effectively. Hence, according to the researcher, internal auditors in banks within South Sumatra, Indonesia were not yet ready for the implementation of fraud auditing.

Sudirman, Sasmita, Djabir, Krisnanto and Muchsidin (2020) sought to evaluate the role of the Internal Audit Group in improving the internal control system for fraud prevention at PT Bank Sulselbar of Indonesia. They used a qualitative research method, in which data collection was done using an examination of documentation, interviewing, and distributing questionnaires directed at internal auditors, the anti-fraud department, and executive management of the company. Data analysis was performed through the employment of descriptive statistical techniques. The findings indicated the Internal Audit Group's role at PT Bank Sulselbar was found to be influential in strengthening the internal control system as well as detection and prevention of fraud. Moreover, the study identified three key elements to prevent and detect fraud. These were a culture of honesty, the management's responsibility to evaluate fraud risk through internal control, and supervision by the audit committee.

Cohen and Sayag (2010) studied the effectiveness of internal auditing in Israeli organizations. They adopted exploratory research method to understand the effectiveness of internal auditing. 108 Israeli organizations were selected for the study. Top management support and Organizational independence of internal auditors were found to be the most important determinants of effectiveness of internal audit. The authors recommend further research on the topic.

Musah, Gapketor and Anokye (2018) studied factors that determine internal audit effectiveness in Government owned enterprises in Ghana. The study responded to the prevalence of fraud in the nation as well as the lack of knowledge gap regarding the topic. A survey was conducted targeting key personnel of the organizations. It was found that management for the internal audit function is the most significant determinant of internal audit effectiveness, followed by size of the audit unit and competence of auditors.

Alleyne and Amaria (2013) similarly studied the effectiveness of corporate culture, auditor education and legistlation in identifying, preventing and eliminating fraud. The authors conducted a survey method to achieve the questionarrie. It was found out that corporate culture is more influential than auditor education (competence) in the battle against fraud.

Finally, Sepala, Herath, and Munasinghe (2022) assessed effect of Internal Audit on Fraud Management in the context of the Financial Service Sector in Sri Lanka. Data was collected from systemically important banks, including Bank of Ceylon, Commercial Bank of Ceylon, Hatton National Bank, People's Bank, Sampath Bank, and Seylan Bank (which together hold 78% of banking assets). Using a questionnaire, around 235 responses were obtained. The researchers identified internal auditor competency as a significant factor in the effort to combat against fraud prevention and detection in the aforementioned Sri Lankan banks. Competent internal auditors play a crucial role in detecting and preventing fraudulent activities within financial institutions.

2.6.2. Global Studies on the effectiveness of internal audit in Islamic banking sector

Baz (2017) looked to investigate whether or how much the effectiveness of internal control systems and information sharing matter in preventing and detecting fraudulent activities in the context of Islamic banks in Saudi Arabia. Baz indicated that the expansion and rapid advancement of technology has created new possibilities or opportunities for fraudsters. Information symmetry, transparency and information sharing was identified to be crucial in fraud prevention and detection efforts. Like the researches mentioned earlier, this study also underlines the importance of robust internal controls, and most importantly, in the face of the new technological possibilities criminal fraudsters obtained, information sharing in preventing fraud within interest free banks in Saudi Arabia.

Anugrah and Masruro (2022) also investigated The Role of Internal Audit in the Implementation of Good Governance in Islamic Banking, this time in Indonesia. These identified the endeavour to understand the role of internal audit in enhancing good governance, particularly in Islamic financial institutions inside the country as the loftiest goal of their thesis. They claimed to find out that Internal audit plays a crucial role in developing and maintaining effective internal control, risk management, and the realization of Good Corporate Governance (GCG).

Most importantly. according to the authors, the practice of GCG can improve the financial performance of Islamic banks, reduce potential risks, and boost investor confidence. It is this GCG that the authors believe that it can be boosted and strengthened through effective internal control practice.

Hamdani and Albar (2016) examined the role internal controls play, and most importantly the degree of that role, withing the context of an Islamic Bank. According to the researchers, the principal cause of fraudulence and financial crime has been identified as the lack of a robust internal control function, or the weakness of the internal control system. Simply speaking, poor internal control systems, such as employing the same individual to investigate multiple cases of fraud, would open room for more fraudulence. However, the study was limited to one company, namely an Islamic bank in Medan, Indonesia. Even though the topic is appropriately consistent with our study title, the specificness and singularity, as well as the temporal and spatial nuances limit its generalizability and relevance.

Kasim et al. (2009) attempted to examine the then- state of Shariah-based auditing in Malaysia by comparing it with the desired or ideal form of auditing as inferred from the Shariah law. The authors asserted that the Shariah audit function has not seriously taken an impact in IFI's in Malaysia despite its potential as a monitoring tool for Shariah compliance. At the same time, they also regard the gap as "unbridgeable" by their singular contribution to the emerging Shariah compliance literature.

Yazid and Suryanto (2016) tried to study the influence of various factors such as education, experience and audit period in Islamic auditing in Jakarta based on 49 companies listed in the Jakarta Islamic index. The authors found a statistically significant evidence supporting the assertion that increased education, audit time period and auditor's experience all positively impact the quality of Islamic auditing in place, leading the companies to an increased standing in the Jakarta Islamic index.

2.6.3. Related Studies in Ethiopia

Etana (2016) published a research paper titled "The role of internal audit in detecting and preventing fraud: The case of the Ethiopian budgetary sector". The author, like the authors above aimed to study the extent of the internal audit department's effectiveness, but within a distinctively local twist relevant in our case: the Ethiopian budgetary sector. The paper underlined the critical role of organizational independence for internal auditors in ensuring proper, relevant and robust auditing function. According to the findings of the research, the internal audit department within these institutions are adjudged to be lacking of sufficient

independence. Many respondents disagreed that auditors can report fraud freely to senior management and argue that ensuring independence is crucial for auditors to objectively detect and address fraud. The finding also highlights that fraud risk assessments are not commonly conducted within Ethiopian public sectors.

Hailu and Tekdogan (2023) tried to study how to effectively make Islamic financing Sharia compliant in Ethiopia. The study used a semi-structured interview involving 15 respondents, which are chosen based on their expertise and experience on the field. Based on the results of the interview, the researcher concluded that, behind the façade of Arabic-derived terminology, product, bank names and the like, that the state of Shariah compliance in Ethiopia is inadequate. The researcher recommended compliance with AAOIFI (Accounting and Auditing Organization for Islamic financial institutions) and the establishment of a central Shariah advisory committee which oversees and formalized Sharia compliance auditing of firms on the national level in lieu with the EIASC (Ethiopian Islamic Affairs Supreme Council).

Fikru (2022) tried to investigate the effectiveness of the internal control mechanisms in place in the context of Abay bank. A Likert scale data was obtained via structured questionaries distributed to 273 respondents, who were both managerial and non-managerial employees of the organization. Afterwards, the data was subjected to quantitative analysis. The researcher concluded that an increase in internal control system, as measured by the five components of internal audit, will lead to a better fraud detection and prevention. The researcher recommended that effective communication between the management of the bank and employees, identification of fraud opportunities, establishing both formal and informal channels of communication and continuous monitoring would lead to reduced fraud levels.

Sultan (2023) tried to study the practical challenges and opportunities for Islamic banking in Ethiopia within the context of Hijrah bank. Utilizing a mixed research model, the researcher employed semi-structured interviews and closed-ended questionaries to collect data from respondents, who were managers and supervisors in Hijrah bank. The results of the study indicated that there is an opportunity for Islamic banking to grow and expand its market share. However, there are also practical challenges that hamper the growth of the industry. According to the study, a major problem hampering the growth of Islamic banking is the lack of

institutional and legal support, or legal and administrative clarity fundamental to growth of any industry.

Ageyu (2020) tried to study the legal and institutional underpinnings behind Islamic banking in Ethiopia and how they may support its growth. The author identified that the legal and institutional basis for Islamic banking in Ethiopia is insufficient and weak. Furthermore, like Hailu and Tekdogan (2022), the author identified the lack of central institutional oversight dedicated for Islamic banking is hampering the business.

Mulugeta (2021) similarly studied the effectiveness of internal auditing function in discharging its duties in selected commercial banks in Ethiopia. The researcher gathered data from primary sources through the use of structured questionnaire. Then he tried to investigate whether there is a relationship between the five components of internal audit and fraud prevention and detection activities in the commercial banks. Three out of the five components were found to be statistically significantly influence the fraud detection and prevention activity, leading to the conclusion that increase in internal controls would lead to reduced fraud.

2.7. Summary of literature review and research gap

2.7.1. Summary of literature review

So far, we have tried to briefly consider and analyze various publications helping us to understand the current knowledge level regarding auditing, Islamic auditing and auditing within a bank from theoretical and empirical perspectives. The theoretical foundations we considered include the following:

We have studied the traditional imagery of the auditor as a policeman, a watchdog, or an enforcer of order in the policeman theory. According to this theory the auditor is a fraud prevention and detection specialist. Afterwards, we have also seen the credibility theory, where the auditor's role, enlarged in scope compared to the policeman theory, was seen as an overall guarantor of credibility for an organization's financial statements. Meanwhile, the theory of inspired trust is perhaps the most modern version of auditing theory in terms of understanding the auditor's general purpose. The auditor was largened all the way from a mere watchdog to

somebody who has the mandate to tell a society that the organization is conducting its operations in an acceptable and legal manner. Grounded in the broader "agency problem" theory, the agency theory has become more important than ever in the modern corporate-based organizational landscape.

As the study is concerned with Islamic auditing as done within an Islamic banking context, it was also necessary to include the conceptual underpinnings behind Islamic auditing. Islamic auditing is fundamentally different from standard auditing practice principally in its focus area and scope. While conventional auditors are bound to obey organizational and legal rules and regulations, accountability in Islamic banking extends to the Islamic populace (Ummah), the Sharia, and ultimately to God. Islamic auditors ensure that the business is obedient to the Sharia by monitoring the presence of Riba (interest), Gharar (uncertainty), unethical and unfair conduct, vague contractual agreements and also monitoring whether Zakat (both Zakat-ul-mal and Zakat-ul-Fitr) are appropriately paid or not.

Meanwhile, a lot of empirical studies were studied and reviewed in areas of the nature, status and applicability of Islamic auditing as well as the effectiveness of auditing in fraud prevention and detection in general. The studies reviewed were collected both from local (Ethiopian) and global settings. They generally conclude that robust and strong internal auditing processes and methods lead to a reduced incidence of fraud. Generally, internal audit functions significantly contribute to fraud prevention and detection, importantly when independence, competence, management support, and adequate resources are present.
Technology adoption and information sharing enhance fraud risk management capabilities. They also tell that Islamic auditing needs careful treatment and nuance compared to conventional auditing. The studies conducted at a national and international level both concluded that Islamic auditing is at its early stages, and needs further strengthening in clarity (who should do Islamic auditing, trained professionals or Islamic jurists), professional education, as well as legal and administrative support.

2.7.2. Research gap

The reviewed literature reveals a significant area of gap, which can be explained as follows. There is abundant literature regarding the role of internal audit globally. There is also adequate

literature regarding the same topic locally i.e. in Ethiopia. However, there is a noticeable inadequacy of literature regarding the role of internal audit in Islamic banking and. globally, and that inadequacy is very severe in Ethiopia specifically. This is perhaps because the novelty of the sector in Ethiopia (inaugurated as late as 2019), and the massive legal, institutional and psychological handicaps preventing its growth. Hence, knowledge gap in the area exists; and this paper attempts to contribute towards reducing it.

2.8. Conceptual framework for the study

The framework for the study is principally based upon the research objectives we set out on chapter one of this thesis. This initial concerned-ness established in chapter one was built upon through extensive theoretical and empirical literature review.

Specifically, the literature review helps one learn that successful fraud prevention and detection involves auditor independence, organizational robustness, supportive governance structures, and auditor's competence and appropriability for the job. In Islamic banking, these factors are further nuanced by Sharia compliance requirements, which expand the auditor's mandate beyond conventional fraud detection to include ethical and religious compliance auditing. With this increased mandate come increased skillset requirements i.e. having a sufficient knowledge of Islamic jurisprudence (Fiqh).

Upon considering these factors, the conceptual framework would look like the following:

Dependent Variable

1. Prevention and Detection of Fraud: This basically refers to the capacity of Zamzam Bank S.C. and Hijrah Bank S.C. to prevent and detect fraud.

Independent Variables

1. **Independence of Internal Auditor:** We hypothesize that an auditor's ability to provide credibility to financial statements necessarily depends upon the level of independence they are

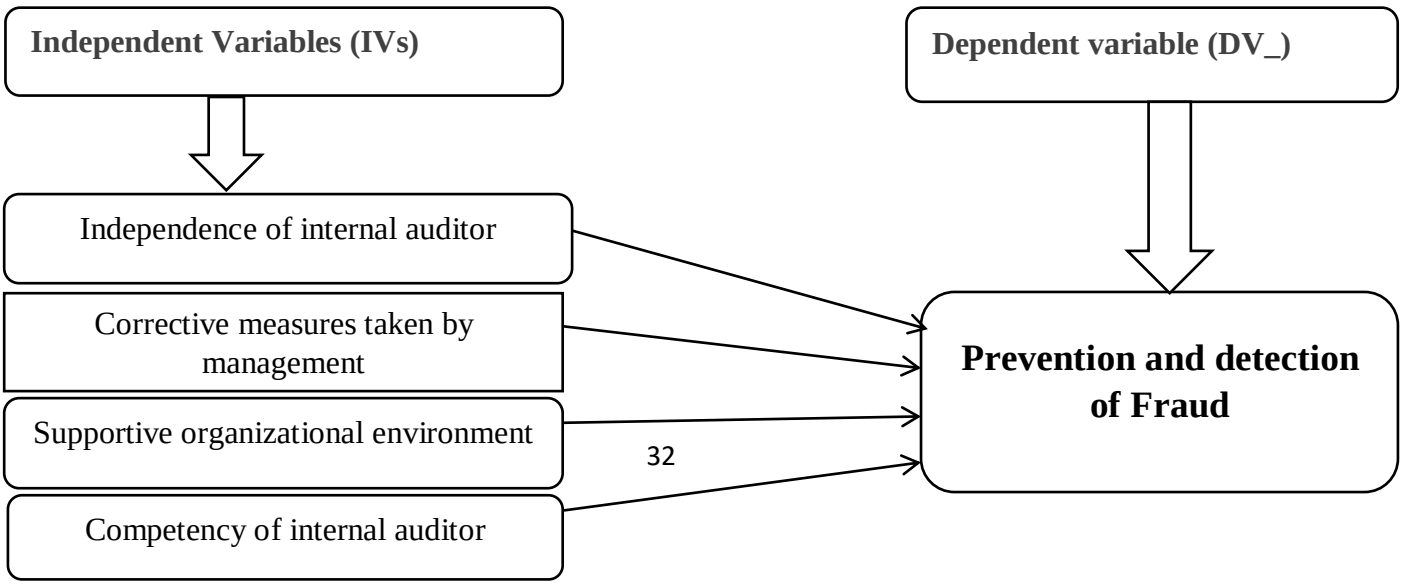
operating within the context of ZamZam and Hijrah bank. Greater independence ensures auditing is conducted without undue influence, which in turn improves the quality of auditing being performed.

2. **Management support on fraud prevention and detection:** It is also clear enough from the readings that an auditor's detection and identification of fraud means becomes vain unless the management, an organ with real executive and coercive powers acts upon the audit findings and supports the auditor work in general. This is what the variable aims to capture within the context of ZamZam and Hijrah.

3. Organizational Setting Supportive of Fraud Prevention: The literature reviewed also informs that successful internal audit largely depends upon a robust institutional and organizational support. If the organizational set-up and workplace culture is weak, or if there is room for arbitrary action, it is hard to imagine how internal audit would succeed. Clear communicative, reporting and even whistle-blowing networks, an audit department with real powers, and a strong fraud risk management framework serve as a supportive pillar for real audit.

4. Competency of Internal Auditor: Competency in Islamic auditing extends beyond the conventional auditing competencies. It also involves knowledge of Islamic jurisprudence (Fiqh), and this variable in the context of Zamzam and Hijra bank shall consider those nuances.

Below is the conceptual framework of the study in diagrammatical format.



CHAPTER THREE: RESEARCH METHODOLOGY

This chapter describes the research approach that was employed in this investigation. It included data collection, measurement, and analysis. The subsections are as follows: study design, research method, target population and sample, data collecting and analysis.

3.1. Research Design

A research design is the overall strategy for connecting the conceptual research challenge to relevant and feasible empirical research. In other words, the study design establishes a strategy or framework for collecting and analyzing data. To evaluate the association between Internal Audit and Fraud, the study employed an explanatory research methodology (a regression analysis). This the research does, since its goal is to model potential existence of cause and effect relationships.

3.2. Research Approach

In terms of research methodology, the study applied quantitative research strategy, with a survey questionnaire utilized to collect data from the sample respondents. According to Creswell (2009), the quantitative method includes inquiry tactics such as experiments and surveys, and data is collected on specified instruments that give numeric data that can be examined using statistical processes. The approach is useful since it uses a scientific methodology to assess the instrument's reliability and validity. It cannot, however, address concerns that cannot be measured.

3.3. Population and Sampling Design

3.3.1. Population

The research population consists of employees who are employed as auditors from two interest-free banks, Zamzam Bank and Hijra Bank S.C., both based in Addis Ababa, Ethiopia. The study consists of 94 designated who are permanent employees of their respective banks at branch and head office level. Hijra bank has designated auditors at trainee or delegation level on each of its 77 branches in Addis Ababa and 10 internal auditor staff at Head office level (Figure true as of June 30, 2024). Meanwhile, Zamzam bank does not have the auditor position at the branch level, but has 7 internal auditors at Head office level who conduct auditing work at branch and head office level. These employees are directly involved in audit-related tasks and are knowledgeable about their role in relation to fraud prevention and detection, forming the basis for the study's inferences (Mugenda and Mugenda, 2003).

3.3.2. Sampling Design

3.3.2.1. Sampling Frame

According to Creswell and Plano (2011), a sampling frame consists of a complete list of the study's population from which the researcher draws the sample. In this study, the sampling frame includes all designated auditor staff from Zamzam Bank and Hijra Bank based in Addis Ababa.

3.3.2.2. Sampling Technique

The study will use purposive sampling, a non-probability sampling method, to select respondents. This method is suitable because it ensures that only designated (both at permanent and acting duties) auditors who are directly involved in fraud prevention and detection, are selected. Purposive sampling ensures that the respondents are knowledgeable about the subject matter, as recommended by Denscombe (2014).

To calculate the sample size from the population, we resorted to use the Yamane formula. According to Oluigbo, Ngozi and Ohaegbu (2024), this formula is very popular among

researchers worldwide, and is desirable to enhance the accuracy level in determining the chunk of the population to sample at a reasonable error margin. Hence, we used it to sample the number of respondents from our total population.

Since N = 94, our sample size at the standard 0.05 degree of significance would be:

$94 / (1+94 \bullet (0.05)^2) \sim 76$ respondents. Based on our allocation earlier, we shall survey:

- Zamzam bank internal audit department staff= $7 \bullet (76/94) = 6$ staff
- Hijra bank internal audit department staff= $10 \bullet (76/94) = 8$ staff
- Hijra bank auditors at branch level = $77 \bullet (76/94) = 62$ staff.

3.4. Data Type and Collection Instruments

The primary data for this study was collected using a structured questionnaire. The questionnaires were compiled, based on the research model and research questions, from theses the researcher has included in literature review. The first source of our questionnaire is from Cohen and Sahag (2010). The questionnaires listed on the item let us test the auditor competence and auditor independence variables. The auditor competence title includes 11 questions, and the section has a Crombach alpha result of 0.638. Similarly, the auditor competence section (2 questionnaire items) has a variance of 0.602. The second research from which the researcher adapted questionnaire items from is from Musah, Gapketor and Anokye (2018). From this research the researcher has selected the management support questionnaire items, and they had a Crombach alpha result of 0.835. Six items were included under this heading. Finally, the reasercher also benchmarked Allevene and Amaria (2013) to adapt five questionnaire items helping to measure the variable organization culture and ethics. The items there had a Crombach alpha result of 0.836.

The researcher adjudged all sources to be a good source of questionnaire based on reputation, exact overlap in the nature and character of the variables intended to be measured, and a good Crombach alpha reliability indicator. Alongside reviewing the quantitative tests for reliability, the researcher has also checked that the authors used content and face validity measuring techniques carefully. Furthermore, the researcher also confirmed that the researches used are

attached with a journal number and an issue number. The researcher also checked that the result found by this research are statistically significant and the researches are an acceptable body of knowledge satisfying criteria.

The primary data obtained via questionaries were converted from an ordinal (qualitiative) to quantitative data via Likert scales, ranging from 1 (Strong disagreement) to 5 (Strong agreement). Afterwards the data was subjected to interpretive statistics in a manner we display in the analysis and model specification sections.

3.5. Validity and reliability of research instruments

The questions concerning the reliability and validity of the research have been already partially answered on the earlier section. To explicitly detail how, the reasercher can discuss what the various types of validity and reliability mean and how they would be handled in this thesis.

Content validity: Is mostly ascertained by obtaining expert approval from people who are experienced and knowledgeable on the field. Since we used a questionnaire already prepared by experts who made researches on the field, it was much easier to ascertain content validity.

Construct validity: Construct validity measures whether the research is actually measuring the topic it is intended to measure. In order to ascertain that, we have also carefully considered the overlap between the variables the researchers investigated using the questionnaire items and the study topic, area and the nature of the variables we intended to represent in quantitative format.

Reliability: The Crombach Alpha test is the most widely used measure of reliability. As detailed above in the earlier section, all the questionnaire items and sections have a Crombach alpha of between the acceptable standard of 0.6 and 0.9. This makes them well suited to be used for other researches as researchers would be confident of the reliability measurements conducted by the researchers.

3.6. Data Analysis and Presentation

The primary was analysed using descriptive and inferential statistics. Descriptive statistics, including numerical methods, measures of central tendencies (mean, median, mode), and

measures of variability (standard deviation), was employed to summarize the data. Additionally, inferential statistics such as regression analysis was used to determine the relationships between variables.

The data analysis was carried out using Statistical Package for Social Sciences (SPSS) software, which was aid in generating accurate results.

3.7. Data Analysis Tools and Models

To meet the objectives of the research, specific analytical tools and models was employed. These tools helped the researcher in drawing meaningful insights from the collected data, particularly around the role of internal audit in prevention and detection of fraud in the case of two Ethiopian Interest free banks - Zamzam and Hijra Bank.

Among descriptive statistical tools, tables, and Percentages and frequency were employed to give a condensed picture of the data. The extensive descriptive statistical analysis made upon the data was helped the researcher discern patterns revealed by the inferential statistical analysis later.

The model that was employed in the testing was the OLS (ordinary least squares) regression model. Hence, tests that were determine whether the standard OLS assumptions hold out, such as heteroskedasticity test, normality of residual test, multicollinearity were used to ascertain the veracity of the results obtained by the regression model.

3.7.1. Specific Tools of Analysis for Each Question

Question number one: What is the relationship between the degree of independence of the internal auditor in efforts of fraud prevention and detection?

- **Analysis Tool**: Descriptive statistics was used to clean, summarize and display the data before coding it appropriately to make it suitable for quantitative research and obtain preliminary insights before conducting inferential analysis to test the hypothesis, which is directly derived from the research question. Inferential

statistics was used to infer causation between degree of independence and fraud prevention and detection in the two Islamic banks of Ethiopia.

- **Rationale**: This was given a clear view of how the degree of independence of internal auditors and fraud prevention and detection are related.
- **Software**: SPSS (Statistical package for Social Sciences).

Question number two: To what extent was the corrective measures recommended by internal auditors implemented by the management of the banks?

- **Analysis Tool**: Descriptive statistics was used to clean, summarize and display the data before coding it appropriately to make it suitable for quantitative research and obtain preliminary insights before conducting inferential analysis to test our hypothesis, which is directly derived from the research question. Inferential statistics was used to infer causation between management support and fraud prevention and detection in the two Islamic banks of Ethiopia.
- **Rationale**: This was given a clear view of how the variable management support and fraud prevention and detection are related.
- **Software**: SPSS (Statistical package for Social Sciences).

Question number three: To what extent does the set-up of the organization support fraud prevention and detection?

- **Analysis Tool**: Descriptive statistics was used to clean, summarize and display the data before coding it appropriately to make it suitable for quantitative research and obtain preliminary insights before conducting inferential analysis to test our hypothesis, which is directly derived from the research question. Inferential statistics was used to infer causation between organizational set-up, culture and ethics and fraud prevention and detection in the two Islamic banks of Ethiopia.
- **Rationale**: This was given a clear view of how the variable organizational set-up and fraud prevention and detection are related.
- **Software**: SPSS (Statistical package for Social Sciences).

Question number four: To what extent does the competency of the internal auditor support fraud detection and prevention?

- **Analysis Tool**: Descriptive statistics was used to clean, summarize and display the data before coding it appropriately to make it suitable for quantitative research and obtain preliminary insights before conducting inferential analysis to test our hypothesis, which is directly derived from the research question. Inferential statistics was used to infer causation between competence and fraud prevention and detection in the two Islamic banks of Ethiopia.
- **Rationale**: This was given a clear view of how the variable internal auditor competence and fraud prevention and detection are related.
- **Software**: SPSS (Statistical package for Social Sciences).

Question number five: To what extent does the size or scope of the internal audit department aid fraud detection and prevention?

- **Analysis Tool**: Descriptive statistics was used to clean, summarize and display the data before coding it appropriately to make it suitable for quantitative research and obtain preliminary insights before conducting inferential analysis to test our hypothesis, which is directly derived from the research question. Inferential statistics was used to infer causation between size and scope and fraud prevention and detection in the two Islamic banks of Ethiopia.
- **Rationale**: This was given a clear view of how the variable size and scope of the department and fraud prevention and detection are related.
- **Software**: SPSS (Statistical package for Social Sciences).

3.7.2. Final model specification

As discussed, the final model has the form of an ordinary least squares (OLS) model. Following upon our research questions and research objectives, there were 5 independent variables in the study. The data for these five variables was discerned via the summary, coding and quantization of the questionnaire responses. These five variables are the following:

- Perceived degree of independence for internal auditors (IND)
- Management support (MI)
- Organizaitonal structure, culture and ethics and set-up (ORG)
- Competency of the internal auditor (COMP)
- Size and scope of the audit department (SAS)

Our dependent variable is:

- Fraud prevention and detection (FPD)

Following the convention of linear ordinary least squares (OLS) model, the final model would look like the following:

$$\text{FPD} = \text{B1(IND)} + \text{B2(MI)} + \text{B3(ORG)} + \text{B4(COMP)} + \text{B5(SAS)} + \text{error term}$$

The intercepts B1, B2, B3, B4 and B5 measure the effect of per unit change in IND, MI, ORG, COMP and SAS respectively on FPD i.e. fraud prevention and detection. Meanwhile, the error term would capture any variation in FPD unexplained by IND, MI, ORG, COMP and SAS.

With the model specified as such, we may rewrite our research hypothesis section in accordance with it. Our research alternate hypotheses would be:

- H1:B1, which is the responsiveness of fraud prevention and detection to perceived auditor independence, is different from zero.
- H2: B2, which is the responsiveness of fraud prevention and detection to management's supportive actions, is different from zero.
- H3: B3, which is the responsiveness of fraud prevention and detection to perceived auditor's competence, is different from zero.
- H4: B4, which is the responsiveness of fraud prevention and detection to size and scope of internal audit department, is different from zero.
- H5: B5, which is the responsiveness of fraud prevention and detection to organizational set up and structure and culture and ethics, is different from zero.

3.8. Ethical Considerations

The captures of information required were done using legally accepted ways. No respondent was coerced into giving out information either by force or by reward. The researcher first sorted the permission to conduct the research the target population. The respondents were assured of confidentiality and anonymity and that the information obtained was use specifically for research purposes and was not use in any manner detrimental to the well-being of the respondents.

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

4.1. Descriptive analysis of the research variables

4.1.1. Sample and response rate

The sample size for this research has been 76 employees, but, in order to avoid unforeseen contingencies like faulty responses, incomplete information and the like, 100 questionnaires have been distributed to the sample.

Only around 4 percent of the distributed 100 questionnaires have been found to contain issues (i.e. 4 questionnaire responses). All the wrong responses have been collected from Hijrah branch auditor respondents. Among the remaining 96 responses, we have dropped 20 of the responses randomly (while being careful to avoid dropping Head office auditor responses due to the small amount of sample size from HO) and finally collected around 76 correct questionnaire responses.

4.1.2. Broad summary of respondent data

The summary of the respondents based on their various characteristics looks like the following:

A. BY SEX/GENDER

Sex	Frequency
F	36
M	40

B. BY AGE

Age group	Frequency	Percent	Cumulative
25-30	23	30.26	30.26
30-35	22	28.95	59.21
35-40	15	19.74	78.95
40-45	11	14.47	93.42
45-50	4	5.26	98.68
Above 50	1	1.32	100

C. BY WORK EXPERIENCE

Work experience	Freq.	Percent	Cumulative
0	19	25	25
1	19	25	50
2	18	23.68	73.68
3	20	26.32	100
Total	76	100	

D. BY EDUCATION LEVEL

Education level	Freq.	Percent	Cum.
BA	45	59.21	59.21
MA	31	40.79	100
Total	76	100	

E. BY WORK AREA VERSUS SEX

Group \ Sex		FEMALE	MALE	Total
Hijrah Branch Auditor		30	32	62
Hijrah HO Auditor		4	4	8
Zamzam HO Auditor		2	4	6
	Total	36	40	76

F. BY WORK AREA VERSUS AGE

Age group							
Group	25-30	30-35	35-40	40-45	45-50	Over 50	Total
Hijrah Branch Auditor	20	16	14	9	2	1	62
Hijra HO Auditor	2	3	1	1	1	0	8
Zamzam HO Auditor	1	3	0	1	1	0	6
Total	23	22	15	11	4	1	76

G. BY WORK AREA VERSUS YEARS AT THE BANK

	Work experience	0 to 1	1 to 2	2 to 3	Above 3	Total
Group						
Hijra Branch auditor		15	15	14	18	62
Hijra HO auditor		2	2	2	2	8
Zamzam HO auditor		2	2	2	0	6
	Total	19	19	18	20	76

H. BY WORK AREA VERSUS EDUCATION LEVEL

	Education level			
Group		BA	MA	Total
Hijra Branch Auditor		40	22	62
Hijra HO Auditor		2	6	8
Zamzam HO Auditor		3	3	6
	Total	45	31	76

I. OVERALL SUMMARY

Overall, the data collected shows us that the respondents at branch level at Hijrah bank, at Head office level at Hijrah and in the Internal Audit department of Zamzam bank are generally young youthful and balanced in sex composition.

Out of the 76 respondents, 36 (47.37%) were female and 40 (52.63%) were male, demonstrating near-equal participation between the sexes. In terms of age distribution, the majority of respondents fell within the 25–35 year range, together accounting for more than 59% of the sample. This implied that the auditing role at both banks is being conducted by younger professionals who are still progressing in their careers. Furthermore, the fact that there is nobody who stayed for more than three years at the time of data collection shows the novelty of the banks and the overall Islamic banking sector in the country.

Regarding education level, the respondents are all well qualified. 59.21% of respondents hold a Bachelor's degree, while the rest 40.79% hold a Master's degree, which aligns with the expected knowledge requirements. Since it is Hijrah bank who employs auditors at delegate or active level, it has come to be that 62 out of 76 respondents for this study are employed by Hijrah. Active, permanent auditors from the internal audit department at Head Office levels from both banks constitute the remaining portion.

The educational and age profiles also vary slightly by work area, with auditors from the Internal audit department generally having higher qualifications and greater professional exposure than branch personnel.

Overall, the descriptive results showcase the youthful and expanding nature of the Islamic internal audit role within Ethiopian banks. The majority of auditors in our sample are young, mostly assigned across the various branches of Hijrah bank in Addis Ababa, possess suitable educational requirements, and can be described as beginners in the full-fledged Islamic auditing profession. These characteristics should be considered when interpreting the rest of the analysis section.

4.1.2. Descriptive analysis on internal auditor independence

A. REGULAR WORKING RELATIONSHIP WITH THE HEAD AUDITOR

IA	Freq.	Percent	Cum.
1	1	1.32	1.32
2	21	27.63	28.95
3	36	47.37	76.32
4	12	15.79	92.11
5	6	7.89	100
Total	76	100	

B. REGULAR WORKING RELATIONSHIP WITH THE HEAD AUDITOR BY WORK AREA

IA	Hijra branch	Hijra Head office	Zamzam Head office	Total
1	1	0	0	1
2	21	0	0	21
3	35	0	1	36
4	5	4	3	12
5	0	4	2	6
Total	62	8	6	76

At the surface level, it may seem that the respondent auditors have a weak to average relationship with the Head of their respective internal audit department. Majority of the

respondents (about half of them) considered the relationship moderate (3). Most others, about a quarter, report the relationship is weak (1). Only few report strong relationships.

It is when dissected by work area that the meaning of the results can be clearly discerned. It is the auditors who are working branch level who responded that their relationship with the Head audit is moderate or weak. It needs to be reminded here that about 62 of the total 76 respondents for this study are working at the various Hijrah bank branches. Meanwhile, the auditors stationed at both Head offices (Hijra and Zamzam) generally responded with a four or five. Since they are at the Headquarters of their respective banks, it is natural for one to suggest more frequent or closer interaction with the head auditor.

More than anything, the results indicate that regular contact with the Head office can naturally occur at Head office and not at branch level.

C. REGULAR WORKING RELATIONSHIP WITH THE TOP MANAGEMENT TEAM

IB	Freq.	Percent	Cum.
1	0	0	0
2	19	25	25
3	49	64.47	89.47
4	7	9.21	98.68
5	1	1.32	100
Total	76	100	

D. REGULAR WORKING RELATIONSHIP WITH THE TOP MANAGEMENT TEAM BY WORK AREA

IB	Hijra branch	Hijra Head office	Zamzam head office	Total
1	0	0	0	0
2	18	0	1	19
3	41	5	3	49
4	2	3	2	7
5	1	0	0	1
Total	62	8	6	76

Similar to the first question, at first impression, the responses may lend the impression that the working relationship with the top management team is generally average, leaning slightly toward the moderate side. Nearly two-thirds of the respondents described their contact with top management as moderate (3), while a quarter rated it as weak (2). Only a very small number indicated strong relationships (4 or 5), and none reported a complete absence of interaction. This distribution shows that, for most auditors, engagement with top management is present but neither intensive nor particularly close.

When examined by work area, the pattern reveals a familiar structural distinction. It is again the branch-level auditors—who constitute the overwhelming majority of the sample—who mainly report weak to moderate relationships with top management. This reflects their physical and functional distance from the centers of strategic decision-making. By contrast, auditors stationed at the head offices of Hijra and Zamzam show noticeably higher ratings, with several of them selecting four, indicating strong working contact. This is expected, as head office auditors are naturally situated closer to the executive environment in which regular communication and coordination with top management occurs.

Overall, the results reaffirm the simple organizational reality that meaningful or frequent interaction with top management tends to occur at the headquarters level rather than within the dispersed branch network.

E. *Terminating the work of internal auditors requires the approval of the internal audit committee, and the board of directors.*

IE	Freq.	Percent	Cum.
1	0	0	0
2	19	25	25
3	49	64.47	89.47
4	8	10.53	100
5	0	0	100
Total	76	100	

The responses here more of indicate that, even though there is awareness that, especially for those who work at branch level, the apparatus of a higher organ can impact or terminate their work, that special executive power has not been exercised enough as it is special and rare. That may be the case why majority of the respondents selected three (neutral) as their chosen response, and this should be indicative that this higher organ i.e. the internal audit committee or the board of directors, is perceived vaguely at most. The lack of strongly agree/disagree responses (1 and 5) as well as the sizable “agree” and “disagree” responses (4 and 2) further reinforce this intuition. Let us zoom into the location-specific results and see whether anything significant enough is revealed there.

F. Terminating the work of internal auditors requires the approval of the internal audit committee, and the board of directors by work area.

No	Hijra branch	Hijra HO	Zamzam HO	Total
1	0	0	0	0
2	19	0	0	19
3	43	3	3	49
4	0	5	3	8
5	0	0	0	0
Total	62	8	6	76

Segregating the responses by workplace shows a clear structural difference in the direction of the ambiguity we noted in the previous section. Most of the negative responses have been recorded by branch, which shows awareness that the power of the two executive organs is but lightly felt at the lowest level. Branch auditors, after all, are tasked with supervising daily, mundane branch activities such as auditing withdrawal voucher's correctness, the appropriateness of cheque payment, and the like. Even though these activities are recurrent, they are perceived to be structurally significant to the banking operation, and hence the negative responses could be explained as such. After all, how can a branch properly undergo its operations without checking the appropriateness of a deposit and withdrawal vouchers? Conversely there seems to be better awareness at the Head office level regarding the nature of internal auditing, and the mechanisms of it, meaning that Head office (professional, full-time auditors) realizing that their operations depend heavily upon the two organs. Head office auditors are closer to audit committees, boards, and formal governance processes, and therefore experience the termination approval requirement as more concrete and enforceable.

G. The internal auditor staff has free access to information and data about the organization.

ID	Freq.	Percent	Cum.
1	0	0	0
2	0	0	0
3	20	26.32	26.32
4	47	61.84	88.16
5	9	11.84	100
Total	76	100	

The responses here show that internal auditors generally have a better access to the information they require to undergo their regular operations, with no negative responses. The majority of the auditors replied with 4 (agreement), which shows that, at a minimum, the information and tools required to undertake their auditing duties is present, and at a maximum, that the banks as a whole ascribe to a transparent and clear operational structure. Like the previous responses we can further segregate the responses by location to figure out whether there are locational dynamics in place or not.

H. The internal auditor staff has free access to information and data about the organization by work area.

ID	Hijra branch	Hijra HO	Zamzam HO	Total
1	0	0	0	0
2	0	0	0	0
3	19	0	1	20
4	38	5	4	47
5	5	3	1	9
Total	62	8	6	76

The segregation by location, rather than diffusing the existing insight, further sharpens and clarifies it. The results clearly show that proximity to head office can only lead to increased operational transparency, as head office staff have a greater access to a rangy and sizable data required to undergo internal auditing operations at a bank level. The minor ambiguity (19), which may be due to lack of access to maximal data that goes up and beyond the operational scope of the branch auditor, largely disappears at head office level (only one ambiguous response from Zamzam bank).

I. All organizational data pools are accessible to the IA.

IE	Freq.	Percent	Cum.
1	6	7.89	7.89
2	28	36.84	44.74
3	29	38.16	82.89
4	8	10.53	93.42
5	5	6.58	100
Total	76	100	

This response reveals a sharp contrast to the response recorded in the earlier table. We have earlier intuited that, by access to information, the auditors may have been referring to access to information immediately relevant to their assigned duties. When we expand this to the entire dataset of the organization (as referred by the question here) the difference gets clear. Six respondents indicated that there is absolutely no way they can consider the entire dataset of the organization, while the majority responded by 2 and 3, which generally indicate disagreement and indifference. However, since as we have been noting earlier, the information requirements of branch and head office auditors generally vary as it is Head office auditors who are expected to be aware of the entirety of the operational activity in the organization. We expect that difference to be visible once we segregate this dataset by work area, and we shall do that in the immediately subsequent section.

J. All organizational data pools are accessible to the IA- by work area.

IE	Hijra branch	Hijra HO	Zamzam HO	Total
1	6	0	0	6
2	28	0	0	28
3	28	0	1	29
4	0	6	2	8
5	0	2	3	5
Total	62	8	6	76

Dissecting the response at a branch level fully resolves the ambiguity. We see that almost all the negative and ambiguous responses have been originating from branch auditors, who, as we have expected, can only have partial access to the organizational data pools. In contrast, all the Hijra and Zamzam head office auditors (except one) believe that they can use the organizational data pools upon demand. Like the previous responses these are more indicative of locational and functional asymmetry more than organizational issue.

K. All organizational data can be downloaded and examined by the IA.

IF	Freq.	Percent	Cum.
1	0	0	0
2	40	52.63	52.63
3	30	39.47	92.11
4	6	7.89	100
5	0	0	100
Total	76	100	

Eerily similar to the earlier response, we note here an atypical number of ambiguous and negative responses, which, at surface level, contrast with the normal organizational requirements that state that data should be transparent and readily available. However, like the earlier responses, we suspect that locational differences should play a major role in pattering the responses recorded here as well. Here again we shall try to uncover the underlying locational/functional influence by branch/head office level and try to justify the respondents line of reasoning.

L. All organizational data can be downloaded and examined by the IA- by work area.

ID	Hijra branch	Hijra Head office	Zamzam head office	Total
1	0	0	0	0
2	39	1	0	40
3	23	4	3	30
4	0	3	3	6
5	0	0	0	0
Total	62	8	6	76

As expected, the responses reveal where unconstrained download and examination of data can actually take place. There has been no branch Auditor who agreed that they have the mandate to download and examine the entire dataset of the bank. In contrast, in spite of the existence of ambiguous responses (which seem to indicate a directed scope, such as auditing one operation, branch or department at a time when necessary), Head office auditors note that the significant restrictions branch auditors face with regards to this activity generally don't exist. We speculate that the relatively higher number of ambiguous responses here may be due to imitations by scope, role and function. You can't expect a junior level auditor, even at Head office, to inspect and examine the data at will- there needs to be authorization and a relevant criteria (role and hierarchical boundaries).

M. Detailed budget proposals and information on staffing are included in the annual work plan of the IA.

IG	Freq.	Percent	Cum.
1	0	0	0
2	3	3.95	3.95
3	43	56.58	60.53
4	29	38.16	98.68
5	1	1.32	100
Total	76	100	

Here, we observe a familiar pattern resurfacing- a lot of ambiguous responses inspite of the presence of a significant amount of positive responses. We have seen before that- upon dissecting the above dataset by group, we observe that a lot of the ambiguous responses emerge from branch level auditors due to the nature of their restricted, specific role involving branch-level auditing. It seems that budget proposals and information on staffing is a highly centralized information which the banks seem to handle at the head office level operationally. We shall see if that is the case below:

N. Detailed budget proposals and information on staffing are included in the annual work plan of the IA- by work area.

IG	Hijra branch	Hijra HO	Zamzam HO	Total
1	0	0	0	0
2	3	0	0	3
3	42	1	0	43
4	17	6	6	29
5	0	1	0	1
Total	62	8	6	76

These set of responses fully confirm the assertion that the inclusion of budget proposals and information on staffing in the annual work plan are handled principally at the level of the internal audit department. Remarkably, we also observe that a sizable number branch staff is also aware of such information. Only one staff from Hijra bank's internal audit department maintained that they are ambiguous to the fact that such information is included in the annual budget plan.

O. The IA staff are rotated so that they all cover a variety of assignments.

IH	Freq.	Percent	Cum.
1	0	0	0
2	24	31.58	31.58
3	40	52.63	84.21
4	12	15.79	100
5	0	0	100
Total	76	100	

In order to maintain a sound, acceptable and transparent auditing system, auditor rotation is employed as one of the most common strategies. The existence of a significant number of ambiguous responses, followed by disapproval, can most likely be considered as internal auditor staff rotation is moderately infrequent in both banks. We shall see whether there are structural differences based on locational units (Head office and branch) in the next section.

P. The IA staff are rotated so that they all cover a variety of assignments- by work area

IH	Hijra branch	Hijra HO	Zamzam HO	Total
1	0	0	0	0
2	24	0	0	24
3	36	2	2	40
4	2	6	4	12
5	0	0	0	0
Total	62	8	6	76

The work area segmentation produces a clearer picture. We see that, in the branch areas, work responsibility becomes specific, predefined, often routine and branch-level. It is the audit department of the bank as a whole which tends to perform varied, case specific duties, and these duties often give a chance for the auditing staff to rotate.

Q. The IA also performs other activities even if they are not defined in its direct responsibilities.

II	Freq.	Percent	Cum.
1	2	2.63	2.63
2	23	30.26	32.89
3	25	32.89	65.79
4	25	32.89	98.68
5	1	1.32	100
Total	76	100	

At the surface level, responses are widely spread across categories 2, 3, and 4, with no clear dominant position. Roughly one-third of respondents (32.89%) rated the statement as moderate (3), an equal proportion (32.89%) rated it strongly (4), and nearly a third (30.26%) rated it weakly (2). Very few respondents selected the extreme categories, with only two indicating very weak agreement (1) and one indicating very strong agreement (5).

What this distribution is indicating is organizational ambivalence about the scope of internal audit work. For a substantial portion of auditors, performing activities outside formally defined responsibilities is a regular and accepted practice. For others, it occurs occasionally or reluctantly, while a smaller group reports that such role expansion is minimal.

We shall proceed towards the location-specific responses for the same question:

R. The IA also performs other activities even if they are not defined in its direct responsibilities - by work area.

ID	Hijra branch	Hijra Head office	Zamzam Head office	Total
1	0	1	1	2
2	13	5	5	23
3	23	2	0	25
4	25	0	0	25
5	1	0	0	1
Total	62	8	6	76

Here it is clearly displayed where the role segregation is blurred and where it is clear. It is in branch level that internal auditors may sometimes be required to perform additional tasks apart from the regular auditing function. This is understandable, since the number of staff at branches has been decreasing over time, and staff should be active and flexible to perform various duties such as auditing, authorization, and customer service and resource mobilization. Whereas, at the Head office level, roles and responsibilities tend to be delineated more clearly, and it is only at special circumstances that a department is requested to perform the duties normally undertaken by another.

S. *The IA sometimes takes part in designing systems in the organization and developing procedures for regulating their operations.*

IJ	Freq.	Percent	Cum.
1	0	0	0
2	47	61.84	61.84
3	25	32.89	94.74
4	4	5.26	100
5	0	0	100
Total	76	100	

At the surface level, a clear majority of respondents (61.84%) indicated weak agreement (2), suggesting that internal auditors generally do not take part in designing systems or developing operational procedures. A further 32.89% rated the practice as moderate (3), implying occasional or situational involvement. Only a very small fraction (5.26%) reported strong involvement (4), and none selected the extreme categories.

What this distribution indicates is that direct participation of internal auditors in system design is not the dominant or expected role within the organization. This is consistent with formal internal audit standards, which caution against deep involvement in operational design due to risks of self-review and impaired objectivity.

T. *The IA sometimes takes part in designing systems in the organization and developing procedures for regulating their operations-by work area*

IJ	Hijra branch	Hijra Head Office	Zamzam Head Office	Total
1	0	0	0	0
2	45	1	1	47
3	17	4	4	25
4	0	3	1	4
5	0	0	0	0
Total	62	8	6	76

Like the other datasets earlier, this dataset further cements the structural and functional differences between branch and Head office units.

As we have noted earlier, branch auditing tasks are specific, focused, concentrated and recurrent, and very rarely do they deal with other branches' tasks, let alone being involved in designing internal operations influential in the banks' scales. The responses garnered from the head office seem ambivalent as well, meaning that it is not often that the internal audit department participates in the designing of systems and authorship of procedures (though it is not entirely absent, as evidenced by the positive responses).

U. *The IA operates totally independently and can audit any issue it considers in need of auditing, and can access any necessary information even if it is classified.*

IK	Freq.	Percent	Cum.
1	0	0	0
2	1	1.32	1.32
3	35	46.05	47.37
4	39	51.32	98.68
5	1	1.32	100
Total	76	100	

At the surface level, most auditors perceive the internal audit function as operating with a high degree of independence. Over half of the respondents (51.32%) rated the statement strongly (4), while nearly as many (46.05%) rated it as moderate (3). Very few respondents expressed doubt, with only one auditor selecting weak agreement (2) and one selecting very strong agreement (5). No respondents indicated a complete lack of independence.

What this is indicating is an aggregate confidence in the formal mandate of internal audit. Auditors largely believe that, in principle, they are authorized to audit any issue deemed necessary and to access required information, including classified data.

However, read alongside earlier items, this result should be interpreted carefully. While respondents endorse the idea of independence at a general or normative level, the detailed findings reveal practical constraints—particularly at the branch level—related to data download rights, comprehensive data pool access, rotation, and role boundaries. The strong agreement here likely reflects confidence in formal authority and stated policy, rather than an unqualified assessment of everyday operational reality.

V. The IA operates totally independently and can audit any issue it considers in need of auditing, and can access any necessary information even if it is classified- by work area

IK	Hijra Branch	Hijra HO	Zamzam HO	Total
1	0	0	0	0
2	1	0	0	1
3	33	1	1	35
4	27	7	5	39
5	1	0	0	1
Total	62	8	6	76

At the branch level, most auditors cluster at categories 3 and 4, with thirty-three reporting moderate independence and twenty-seven reporting strong independence. Only one branch auditor expressed weak agreement, and one selected the highest category. This suggests that branch auditors generally accept the principle that internal audit is independent, even though their earlier responses revealed practical constraints on data access, rotation, and operational autonomy. Independence here appears to be understood more as mandated authority than as unrestricted day-to-day capability.

At the head office level, responses are more clearly skewed toward strong agreement. At Hijra and Zamzam head offices, the majority of auditors selected category 4, with the remainder selecting 3. None expressed weak agreement. This indicates that head office auditors experience the internal audit mandate as more tangible and enforceable, likely due to closer proximity to senior management, governance bodies, and centralized information systems.

4.1.3. Descriptive analysis on internal auditor competence

A. *The organization allows IA employees to participate in training and development programs in order to maintain their skills*

IIA	Freq.	Cum.	Percent
1		0	0
2		0	0
3	28	36.84	36.84
4	47	98.68	61.84
5	1	100	1.32
Total	76		100

Overall, the responses here indicate that there is a reasonably strong i.e. moderately strong commitment to enhance the capabilities of internal auditors. However, the participants here apparently did not consider this support to be outstanding (lack of extreme responses). Conversely no respondent went against the sentiment that the institutions invest in training and development programs and seek to make their employees more capable.

B. The organization allows IA employees to participate in training and development programs in order to maintain their skills- by work area

IIA Hijra	Hijra HO	Zamzam HO	Total	Hijra branch
1	0	0	0	0
2	0	0	0	0
3	0	1	28	27
4	7	5	47	35
5	1	0	1	0
Total	8	6	76	62

The work area distinction here is, unlike what the previous responses towards questions regarding auditor independence show, is subtle. Nonetheless it is important. Only one respondent from the head office level scored ambivalent (3), and the only exceptional response (5) is recorded at Head office level. This clearly shows that Head Office employees feel that the organization is more invested in enabling them than branch employees. This is sensible since the Head office, and especially the internal audit department is the central organ of the organizations while branches "branch off" from these main organs.

C. *IA employees have the appropriate and relevant education in auditing that allows them to audit all the organizational systems.*

IIB	Freq.	Percent	Cum.
1	0	0	0
2	4	5.26	5.26
3	12	15.79	21.05
4	56	73.68	94.74
5	4	5.26	100
Total	76	100	

When considered in a literal sense, it can be concluded that the internal auditors in both Hijrah and Zamzam bank in general feel they have the educational nous to discharge of their duties. Only four people considered themselves lacking appropriate educational background, while four others considered themselves to be exceptionally educated and well versed in the ways of auditing. Most of the employees (56) believed they have the knowledge, or at least the background. We can dissect this further by work area.

D. IA employees have the appropriate and relevant education in auditing that allows them to audit all the organizational systems- by work area

IIB Hijra	Branch Hijra	Hijra HO	Zamzam HO	Total
1	0	0	0	0
2	4	0	0	4
3	12	0	0	12
4	43	7	6	56
5	3	1	0	4
Total	62	8	6	76

Like the earlier result, these set of responses only provide minor accentuation rather than elaborating or contradicting our understanding earlier. Head office auditors at both Hijrah and Zamzam bank display even more confidence in their capability to discharge of their duties, compared to a minor number of dissidents at branch level i.e. the four people.

4.1.4. Descriptive analysis on management support

A. Senior management supports internal audit to perform its duties and responsibilities.

IIIA	Freq.	Percent	Cum.
1	0	0	0
2	3	3.95	3.95
3	31	40.79	44.74
4	41	53.95	98.68
5	1	1.32	100
Total	76	100	

Though weaker than many other items, it seems that we can conclude that the auditors feel senior management indeed supports the internal audit function, with the general scarcity of negative responses (3) being the fundamental basis behind the derivation of such a conclusion. However, the large number of ambivalent responses here (31) raise questions regarding the degree and extent of this support. It may be also helpful to dissect the responses further by work area.

B. Senior management supports internal audit to perform its duties and responsibilities- by work area.

IIIA	Branch Hijrah	Hijrah HO	Zamzam HO	Total
1	0	0	0	0
2	3	0	0	3
3	28	2	1	31
4	31	6	4	41
5	0	0	1	1
Total	62	8	6	76

The locational-functional dissection clearly identifies the source of ambivalence and distance that seemed structural in the result. It is reasonable to assume that branch auditors, with their narrow, specific, locational and limited assignments and their distance from the central organ of the bank, may have felt ambivalent about the support of senior management, or simply stated it isn't enough (3 people). Meanwhile employees from the central internal audit organ claimed that management support indeed exists, is "real" or felt at real time as it is easier for them to communicate with it. Hence, the recurrent motive of differences distance, role and attention resurface here and influenced the final result.

C. Senior management are involved in the internal audit plan.

IIIB	Freq.	Cum.	Percent
1	1	1.32	1.32
2	3	5.26	3.95
3	60	84.21	78.95
4	12	100	15.79
5	0	100	0
Total	76		100

The responses here are characterized by ambivalence, which may indicate that, if there is management involvement in the preparation of the audit plan indeed, it is not dominant or recognized overtly. It may also be, as we have been observing earlier, simply due to the specific-branch focused roles of branch auditors who are far away from central and comprehensive auditing organ. Nonetheless, the responses here cannot be used to back a claim that senior management is involved in the preparation of audit plans. Let us proceed towards the dissection:

D. Senior management are involved in the internal audit plan- by work area

IIIB	Hijra branch	Hijra HO	Zamzam HO	Total
1	1	0	0	1
2	2	1	0	3
3	56	3	1	60
4	3	4	5	12
5	0	0	0	0
Total	62	8	6	76

This dataset indeed confirms to our expectations. We see that the vast majority of ambivalent responses are from branch auditors, who themselves are not involved in the internal audit plan preparation well and do not have enough knowledge regarding the various intricacies involved. Hence, the vast majority of the affirmative responses originated from the audit department. Among the two, Hijra bank's internal audit department members displayed sizable ambivalence towards the case, while Zamzam's almost wholeheartedly agreed that senior management has a sizable contribution in the plan preparation process.

E. Internal audit provides senior management with sufficient, reliable and relevant reports about the work they perform and recommendations made

IIIC	Freq.	Percent	Cum.
1	0	0	0
2	4	5.26	5.26
3	29	38.16	43.42
4	41	53.95	97.37
5	2	2.63	100
Total	76	100	

The respondents now seem to generally agree that the internal audit is indeed helpful enough for senior management to rely upon. However, it should be noted here that the approval, like many others in this dataset, isn't wholehearted, and there is a sizable number of ambivalent and even negative (4 people's) responses. We shall dissect the above responses in locational-functional units to gain more insight.

F. Internal audit provides senior management with sufficient, reliable and relevant reports about the work they perform and recommendations made- by work area

IIIC Hijra	Branch Hijra	Hijra HO	Zamzam HO	Total
1	0	0	0	0
2	4	0	0	4
3	26	1	2	29
4	31	6	4	41
5	1	1	0	2
	62	8	6	76

The dissection by work area shows that the positive opinion regarding the importance of internal audit for senior management only increases intensity within the internal audit departments of the two banks. Even though the majority of the branch level internal auditors agree with the sentiment, a sizable expressed ambivalence or neutrality, and some even doubted (4 negative responses). It is within the internal audit department both the ambivalence and doubt fail to be traced.

G. The response to internal audit reports by the senior management is reasonable.

IIID	Percent	Cum.	Freq.
1	0	0	0
2	2.63	2.63	2
3	40.79	43.42	31
4	50	93.42	38
5	6.58	100	5
Total	100		76

The responses indicate, just like the earlier responses, a reasonable albeit unspectacular positivity. Most auditors agree that management responds favorably to internal audit findings. While the rest displayed ambivalence, it was only two people who objected to the claim. Hence, we can conclude that the internal auditors agree that senior management responds favorably to internal audit findings in general.

H. The response to internal audit reports by the senior management is reasonable- by work area

IIID Hijra	Hijra HO	Zamzam HO	Hijra branch	Total
1	0	0	0	0
2	0	0	2	2
3	0	0	31	31
4	6	4	28	38
5	2	2	1	5
Total	8	6	62	76

The findings here, like the other findings, reflect the stronger sense of approval felt by Head office staff regarding the sentiment. Even though many branch auditors feel that senior management provides a positive feedback towards the internal auditor's work, a sizable number expressed ambiguity, while the stances are much more lucid in both Head offices where respondents expressed unequivocal support for the statement. Like the previous examples, this one can only be used to demonstrate the fundamental locational and functional differences between Head office and branch auditors.

I. Internal audit department is large enough to successfully carry out its duties and responsibilities.

IIIE	Freq.	Cum.	Percent
1	0	0	0
2	1	1.32	1.32
3	49	65.79	64.47
4	24	97.37	31.58
5	2	100	2.63
Total	76		100

Here, we observe the ambiguity spike further, with extreme responses being even scarcer. Since this is a value question regarding department size, we have to ask whether what the real employees of the department say about the department size, as most of the ambiguous responses are, almost certainly, given by branch auditors. Below is the locational-functional dissection of the same set of responses.

J. Internal audit department is large enough to successfully carry out its duties and responsibilities- by work area

IIIE Hijra	Hijra HO	Zamzam HO	Branch Hijra	Total
1	0	0	0	0
2	0	0	1	1
3	2	1	46	49
4	4	5	15	24
5	2	0	0	2
Total	62	6	8	76

The work-area dissection of the responses show that the majority of the staff agrees that the size of the internal audit department is adequate to discharge of its roles and duties. At the same time, majority of those who work outside of the department, i.e. branch auditors, expressed ambivalence, followed by hesitant approval. Hence, it can be concluded that the size of the department in both banks is believed to be adequate, especially by those who work inside it.

K. Internal audit department has sufficient budget to successfully carry out its duties and responsibilities.

IIIF	Freq.	Cum.	Percent
1	0	0	0
2	5	6.58	6.58
3	47	68.42	61.84
4	22	97.37	28.95
5	2	100	2.63
Total	76		100

Like the previous response, the structure of these batch of responses is characterized by ambivalence mixed with moderate agreement. Like we have always been doing so far, we also have to figure out here where the approvals and the disagreements originate from. Like the earlier question, again, the question is directly aimed for those who have proximity and knowledge of the internal workings of the internal audit organ i.e. Head office auditors.

L. Internal audit department has sufficient budget to successfully carry out its duties and responsibilities-by work area

IIIF Hijra	Hijra branch	Hijra HO	Zamzam HO	Total
1	0	0	0	0
2	4	0	1	5
3	46	1	0	47
4	12	6	4	22
5	0	1	1	2
	62	8	6	76

The work-area dissection of the responses show that the majority of the staff agrees that the size of the internal audit department budget adequate to discharge of its roles and duties. At the same time, majority of those who work outside of the department, i.e. branch auditors, expressed ambivalence, followed by hesitant approval. Hence, it can be concluded that the budget of the department in both banks is believed to be adequate, especially by those who work inside it.

4.1.4. Descriptive analysis on fraud prevention and detection

A. Internal controller independence has had a positive role in fraud prevention and detection.

This item sought to investigate whether auditors at Hijrah and Zamzam banks believe auditor independence has a positive role in fraud prevention and detection. The answers are as follows:

IVA	Freq.	Percent	Cum.
1	0	0	0
2	0	0	0
3	8	10.53	10.53
4	59	77.63	88.16
5	9	11.84	100
	76	100	

The results show a very strong consensus among respondents that internal controller (internal audit) independence plays a positive role in fraud prevention and detection. A substantial majority (77.63%) agreed with the statement (category 4), while an additional 11.84% strongly agreed (category 5). Only 10.53% expressed a neutral position (category 3), and no respondents disagreed with the statement (categories 1 and 2).

Auditors at Hijrah and Zamzam banks overwhelmingly perceive auditor independence as a critical and effective mechanism for preventing and detecting fraud. The absence of disagreement indicates that independence is not viewed as a theoretical ideal but as a practically important condition that enhances audit credibility, objectivity, and effectiveness in safeguarding the organization against fraud.

B. Internal controller competence has had a positive role in fraud prevention and detection.

No	Freq.	Percent	Cum.
1	0	0	0
2	0	0	0
3	1	1.32	1.32
4	63	82.89	84.21
5	12	15.79	100

The findings indicate an overwhelmingly positive perception of the role of internal controller competence in fraud prevention and detection. A dominant majority of respondents (82.89%) agreed with the statement, while a further 15.79% strongly agreed. Only 1.32% of respondents remained neutral, and no respondents disagreed.

The results clearly demonstrate that internal controller competence is viewed as a key determinant of effective fraud prevention and detection within the organization. High levels of agreement suggest that respondents believe technical skills, professional knowledge, and experience of internal auditors significantly enhance their ability to identify risks, detect irregularities, and prevent fraudulent activities. Combined with auditor independence, competence is perceived as a foundational pillar of an effective internal control and anti-fraud framework.

C. Management support had a positive role in fraud prevention and detection.

IVC	Frequency	Percent	Cum.
1	0	0	0
2	0	0	0
3	8	10.53	10.53
4	59	77.63	88.16
5	9	11.84	100
	76	100	

The results show a strongly positive assessment of management support in relation to fraud prevention and detection. A clear majority of respondents (77.63%) agreed that management support plays a positive role, while an additional 11.84% strongly agreed. Only 10.53% of respondents expressed a neutral position, and no respondents disagreed with the statement.

In comparison with the earlier items under Section IV, the pattern is notably consistent. Similar to internal controller independence, and internal controller competence, management support is perceived as a critical enabling factor in preventing and detecting fraud. While competence recorded the highest level of strong endorsement, management support follows closely, reinforcing the view that even highly competent and independent internal controllers require active backing from management to be fully effective.

D. Size and scope of the audit department has a positive role in fraud prevention and detection.

IVD			
No	Frequency	Percent	Cum.
1	0	0	0
2	5	6.58	6.58
3	24	31.58	38.16
4	42	55.26	93.42
5	5	6.58	100
	76	100	

The findings indicate that respondents generally perceive the size and scope of the internal audit department as having a positive role in fraud prevention and detection. A majority of respondents (55.26%) agreed with the statement, while an additional 6.58% strongly agreed. This suggests that more than three-fifths of the auditors believe that having an adequately sized and properly scoped audit function enhances the organization's ability to prevent and detect fraud.

However, compared to the earlier items under Section IV, this perception is relatively less strong. A sizable proportion of respondents (31.58%) selected the neutral option, and 6.58% expressed disagreement. This contrasts with internal controller independence, competence, and management support (IVA, IVB, and IVC), where disagreement was virtually absent and agreement levels were higher. It is clear that this item is perceived to be less important than the earlier ones by the auditors.

E. Organizational structure, culture and ethics has a positive role in fraud prevention and detection.

IVE	Freq.	Percent	Cum.
1	0	0	0
2	2	2.63	2.63
3	7	9.21	11.84
4	49	64.47	76.32
5	18	23.68	100
	76	100	

The results here indicate a very strong consensus among respondents that Organizational structure, culture and ethics, culture and ethics plays a positive role in fraud prevention and detection. A clear majority (64.47%) agreed with the statement, while a substantial proportion (23.68%) strongly agreed. Only 9.21% of respondents were neutral, and disagreement was minimal (2.63%), with no strong disagreement recorded.

When compared to the earlier items under Section IV, Organizational structure, culture and ethics emerges as one of the most strongly endorsed factors. Its level of agreement is higher than that observed for audit department size and scope (IVD) and is comparable to, or even stronger than, perceptions regarding internal controller independence (IVA) and management support (IVC). This suggests that respondents view a clear, well-defined, and supportive Organizational structure, culture and ethics as a foundational condition that enables other fraud-control mechanisms to function effectively.

With that in mind, we can proceed to the descriptive analysis on the results on organizational set-up, structure, culture and ethics.

4.1.5. Descriptive analysis on organizational set-up, structure, culture and ethics

A. There is an ethics plan or program in place in the company.

VA			
No	Frequency	Percentage	Cumulative
1	0	0	0
2	0	0	0
3	1	1.32	1.32
4	56	73.68	75
5	19	25	100
	76	100	

The respondents seem to not doubt that, at the bare minimum formally or on paper, there indeed is an ethics program in place in the company. Which is entirely expected, since this falls among the category knowledge an auditor or any other employee of a bank should have as long as he or she is working for their organizations.

B. *The ethics plan is periodically discussed with the employees.*

VB	Freq.	Percent	Cum.
1	0	0	0
2	11	14.47	14.47
3	46	60.53	75
4	19	25	100
5	0	0	0
Total	76	100	

The response here clearly reveals the gap between the formal and the practical, lived reality in the banks. We observe that affirmative responses drastically drop, ambivalence dominates, and the number of disapproving responses get significant. This clearly means that the auditors in Zamzam and Hijrah banks believe that, if discussed, the ethics plan of their organizations is not discussed to a sufficient level. Just like we have been doing so far, it may be helpful to dissect this response further to reveal if any locational and functional clines can be observed.

C. *The ethics plan is periodically discussed with the employees- by work area*

VB	Hijrah branch	Hijra HO	Zamzam HO	Total
1	0	0	0	0
2	11	0	0	11
3	37	5	4	46
4	14	3	2	19
5	0	0	0	0
Total	62	8	6	76

.

The differences between branch and head office (permanent) auditors, unfamiliarly, have not been clean-cut unlike the previous observations. Auditors from both locations suggested they are ambivalent towards the stance on majority. Subtly, however, all disagreements came from Branch auditors, and head office auditors tended to be more approving of the statement (5 positive responses). This remains a subtle distinction because 14 branch auditors also believed that the ethics plan is periodically discussed with the employees. It is possible that closer proximity to policy formulation and management communication may have helped Head office auditors to express approval, but, just as we said earlier, that would be not an adequately substantiated claim to make due to the lack of clear, unequivocal approval towards the stance that the ethics plan is periodically discussed with the employees.

D. The ethics program call for violations.

VC	Percent	Cum.	Freq.
1	0	0	0
2	0	0	0
3	2.63	2.63	2
4	72.37	75	55
5	25	100	19
Total	100		76

The results here mirror the results we have observed in the first portion of the item. An ethical plan without a coercive structure designed so that violations against it are not left unfinished would be analogous with a runner who can't sprint, or a lion which has no teeth. Hence, all except two employees answered with an approval, showing that the ethics program in place in both banks has coercive mechanisms embedded into it.

E. Management emphasizes the ethics plan and its importance.

VD	Freq.	Percent	Cum.
1	0	0	0
2	18	23.68	23.68
3	24	31.58	55.26
4	33	43.42	98.68
5	1	1.32	100
	76	100	

Once again, it is questionnaire items that try to bridge the existence of principles with their implementation that generate differences. It should be noted that the disapproval, especially compared to the previous question regarding discussions about the ethical plan in place, becomes sharper, and neutrality less frequent. However, it is those who believe the management does indeed support the ethical plan which form the majority of the respondents. Overall, it can be said that the opinions regarding management support are more divided, with those who have positive opinion being a majority.

F. Management emphasizes the ethics plan and its importance-by work area.

VD	Hijrah branch	Hijrah HO	Zamzam HO	Total
1	0	0	0	0
2	16	1	1	18
3	22	2	0	24
4	24	5	4	33
5	0	0	1	1
	62	8	6	76

It should be noted that any dissident response originating from Head office auditors who, as we have been discussing so far, have tighter links with the management and are closer to the operational and existential cores of their companies, has to be viewed with scrutiny. Overall though the functional differentiation seems to reveal that there is more diversity and ambivalence of opinion on Hijra bank's branch auditors' part, whereas, in both internal audit departments, the responses tended to be positive. However, the existence of two dissident responses and ambivalence shows that the statement does not represent a reality unequivocally accepted by all relevant staff.

G. Ethical problems are promptly addressed.

VE	Freq.	Percent	Cum.
1	3	3.95	3.95
2	11	14.47	18.42
3	33	43.42	61.84
4	29	38.16	100
5	0	0	100
	76	100	

This result shows a mixed and a bit uneasy picture. Most people do not say things are bad, but they also do not say they are clearly good. The biggest group (43.42%) stays in the middle, which already tells a lot. Another 38.16% agree that ethical problems are addressed promptly, but none are fully confident about it. On the other side, almost 18% openly disagree, and even a small group strongly disagree.

What this is really saying is: yes, problems are handled — but not always, not fast, and not everywhere. When something ethical happens, it depends on the case, the people involved, maybe the level in the organization. Sometimes action is taken, sometimes it is delayed, and sometimes it is softened.

Like the earlier ethics items, this is a clearly weak and more uncertain batch of responses. Having an ethics plan is easy. Talking about it sometimes is also a step harder. Acting fast when a real ethical problem appears harder as well, and the answers here reflect that reality.

H. Ethical problems are promptly addressed- by work area

VE group	Hijra branch	Hijra HO	Zamzam HO	Total
1	2	0	1	3
2	10	1	0	11
3	29	4	0	33
4	21	3	5	29
5	0	0	0	0
	62	8	6	76

Looking at the work area split, one can see the real unevenness. The Hijra Branch dominates the middle categories: 29 in neutral (3) and 21 agree (4), but there's also 12 (2+1 in 1) showing some dissatisfaction. This tells us branch-level auditors may feel less informed, or that ethical problems there are solved

At Hijra Head Office, almost everyone falls in categories 3 or 4, with 4 neutral and 3 agree, showing that the HO reacts better, more predictable. At Zamzam, it's skewed slightly better with 5 agreeing and none neutral or negative except 1 who strongly disagrees, so ethical issues are handled more firmly there, but still small sample. Overall, though, the support for the statement is more significant at Head office level.

4.1.6. Summary and conclusions on the descriptive analysis

The descriptive analysis presented in the preceding sections provides an overall picture of the demographic characteristics of the respondents as well as their perceptions regarding the role of internal audit in prevention and detection of fraud in the case of two Ethiopian interest free banks- zamzam and hijrah bank . Taken together, the results reveal a set of recurring patterns that are both informative and instructive for the subsequent empirical analysis.

From a demographic perspective, the respondents are largely young, relatively well educated, and moderately experienced. The majorities fall within the 25–35 age group and possess at least a bachelor's degree, with a substantial proportion holding a master's qualification. This suggests that the internal audit function in both banks is staffed by individuals who are academically prepared and early to mid-stage in their professional careers. The relatively short tenure observed across respondents further reflects the novelty of full-fledged Islamic banking in Ethiopia and indicates that institutional systems, including internal audit frameworks, are still in the process of maturation.

With respect to auditor independence, the descriptive results indicate a generally positive perception among head office auditors. Most respondents from there agree that internal auditors possess formal independence and authority within the organizational structure. However, the presence of moderate and ambivalent responses—especially at the branch level—suggests that independence may be experienced more as a mandate to be exercised within a restricted form and scope rather than as unrestricted operational autonomy. Practical constraints related to access, distance from decision-making centers, and functional limitations appear to shape how independence is perceived in day-to-day audit activities. Moreover, these limitations seemed to be structural rather that the fault of the banks themselves.

The analysis of auditor competence reveals one of the stronger areas within the internal audit function. Most respondents agree that auditors possess the necessary educational background and are provided with training and development opportunities to maintain their professional skills. Nevertheless, the scarcity of extreme positive responses implies that while competence is generally adequate, it may not yet be perceived as exceptional or fully optimized across all organizational levels. Differences between head office and branch-level auditors further

reinforce the idea that capability development is more concentrated at the center than at peripheral units.

Findings related to management support present a more mixed and nuanced picture. While outright negative responses are relatively limited, a substantial proportion of respondents express neutral or ambivalent views regarding senior management's involvement in and support for internal audit activities. This ambivalence is particularly pronounced among branch auditors and appears to be linked to organizational distance and limited interaction with senior management. In contrast, head office auditors tend to report stronger and more tangible management support, highlighting structural asymmetries within the banks. However, the responses there also seemed to be uneven.

Similarly, the descriptive results concerning organizational culture, ethics, and ethical responsiveness indicate an area of relative weakness. Although most respondents do not perceive ethical practices as fundamentally deficient, the dominance of neutral responses and the absence of strong agreement suggest uncertainty regarding the consistency and promptness with which ethical issues are addressed. This implies that ethical frameworks may exist in principle but are not always perceived as effectively enforced in practice, particularly at lower operational levels.

Overall, the descriptive analysis suggests that internal audit systems in Hijrah Bank and Zamzam Bank are functional and moderately effective, particularly in terms of auditor competence and formal independence. However, noticeable gaps remain in the areas of management support, ethical enforcement, and the uniform application of audit authority across organizational levels. These variations and inconsistencies underscore the importance of moving beyond descriptive assessment to empirical investigation.

Accordingly, the insights derived from the descriptive statistics provide a strong justification for the use of inferential analysis in the next section. By examining the extent to which auditor independence, competence, management support, and organizational factors statistically influence fraud prevention and detection, the study seeks to determine which of these factors play a decisive role and which require further institutional strengthening.

4.2. Empirical analysis of the research variables

This section presents the empirical analysis undertaken to examine the effect of internal audit–related factors on fraud prevention and detection in Hijrah Bank and Zamzam Bank. Following the descriptive analysis presented in Section 4.1, an Ordinary Least Squares (OLS) regression model was employed to empirically test the study hypotheses.

4.2.1. Model specification

The application Stata 14.2 was used to analyze the model. The following specification was used:

$$\text{FPD} = \text{B1(IND)} + \text{B2(MI)} + \text{B3(ORG)} + \text{B4(COMP)} + \text{B5(SAS)} + \text{error term}$$

Where FPD is fraud prevention and detection, MI is management support, ORG is Organizational structure and setup, culture and ethics, COMP measures competence and SAS is a proxy measuring size and scope of the audit department of the bank.

Since the data we have is cross sectional in nature, the OLS regression method would be used. We shall check whether the assumptions of classical OLS hold or whether they require adjustments in the next section.

4.2.2. Diagnostic tests

We should recall here the assumptions of classical linear regression:

1. Linearity
2. Homoscedasticity
3. Independence of Errors (no autocorrelation)
4. Lack of Multicollinearity
5. Absence of Endogeneity
6. Normally distributed residuals
7. Number of observations greater than number of independent variables
8. Correct model specification

We shall discuss each below. The results are as follows:

A. Linearity

The linearity assumption in classical regression means that there exists a linear relationship between the dependent and independent variables, which, quite visibly, is reflected in the model we used- classical linear regression model. We used the scatterplot of residuals vs fitted plots to test for linearity before we proceed towards the more formal model specification test (which validates the choice of OLS and subsequently linearity). If the distribution of the scatterplot is random, linearity is said to hold- otherwise there is an indication that there is a non-linear relationship.

Here is what the scatterplot looks like:

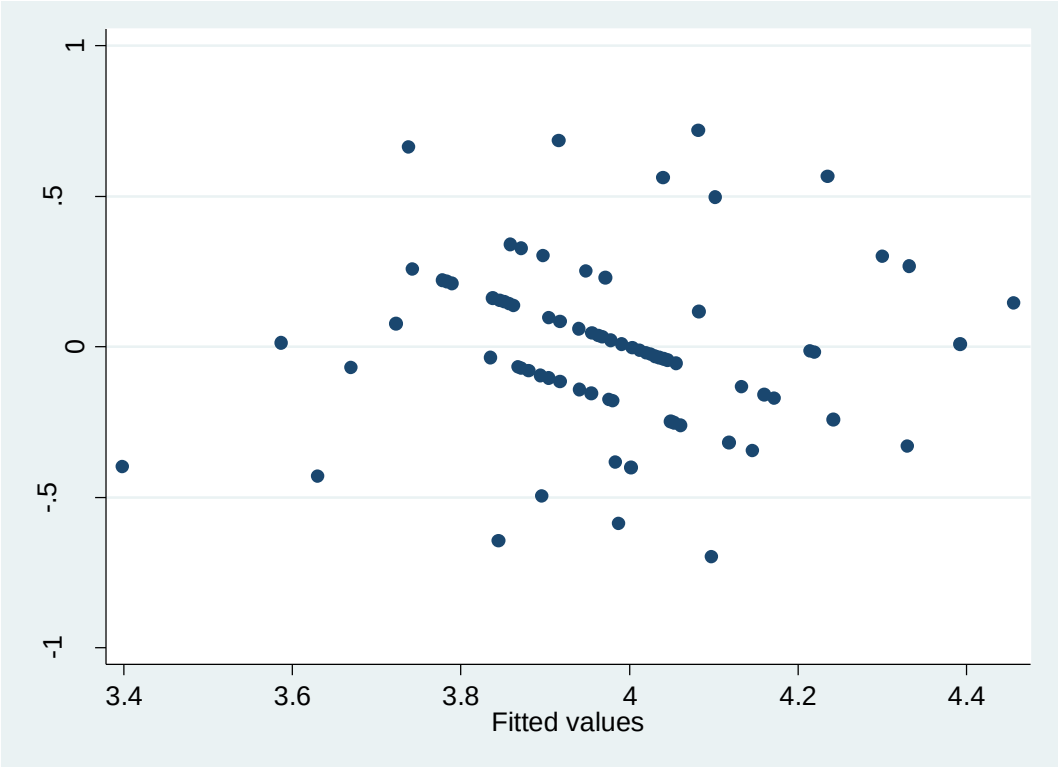


Figure 2: RVF Plot

It is clear that there is no visible depiction of a patterned (u or v) shaped scatter here, and almost all the data is visibly randomly distributed. Hence, one can say there is not enough graphic evidence showing nonlinearity.

B. Homoscedasticity

Homoscedasticity is a condition where all the error terms in a classical regression have constant variance. However, if they don't have the same variance, there is a presence of heteroscedasticity. With the presence of heteroscedasticity, the coefficients of the model (and their confidence interval range) lose relevance as the intervals will no longer be valid, and the model can't really be used for prediction.

Hence, one needs to check for heteroscedasticity. The standard procedure for checking heteroscedasticity is the Breusch-Pagan test. A high Chi square value, or a probability value of less than 0.05 would lead to the rejection of the null hypothesis that the model is homoscedastic, and lead to the alternate hypothesis. We have computed the statistic using Stata 14.2:

```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of FRAUD

         chi2(1)      =     0.02
         Prob > chi2  =   0.9001
```

Figure 3: Breusch pagan test

As we can see, the Chi2 is very low, and the probability is close to 0.90, meaning that the null hypothesis of constant variance is accepted. Hence there is no evidence of heteroscedasticity in the model.

C. Autocorrelation

Autocorrelation means the relationship between successive error terms. However, since this model is cross sectional in nature, it does not involve succession of error terms through time.

Hence autocorrelation testing becomes irrelevant and impossible. Autocorrelation checking is done only for time series and panel datasets.

D. Lack of Multicollinearity

Multicollinearity means causal relationship between two or more independent variables in a model. Now, in classical linear regression, some degree of interrelationship between the variables is expected. However, multicollinearity becomes an issue if the relationship between the two variables is too high, meaning that the independent variables are really explaining themselves instead of the model, leading to spurious regression and unreliable estimates. The standard test for multicollinearity is the variance inflated factor (VIF). Below is the VIF results for our study:

```
. vif
```

Variable	VIF	1/VIF
MANAG	1.61	0.620840
INDEP	1.48	0.677339
ORGAN	1.31	0.764381
SIZE	1.27	0.786747
COMPE	1.12	0.892789
Mean VIF	1.36	

Figure 4: Variance inflation factor

A VIF score below 5 is considered very well, and VIF of 5 up to 10 is considered high, and any VIF greater than 10 means the variable won't really be accepted in academic research. Hence, the results here are very good, and there is no enough evidence supporting the case of excessive multicollinearity.

E. Absence of endogeneity

Endogeneity is a situation where the error terms are casually associated with the independent variable. This happens, mostly, when the model is not correctly specified or there is a measurement error in the data. Endogeneity flaws the causation logic inherently built within OLS regression, making the results erroneous.

As with most cross-sectional survey-based studies, the possibility of endogeneity cannot be entirely ruled out in this study. In particular, unobserved organizational characteristics and potential reverse causality may influence the observed relationships.

However, the study relies on strong theoretical foundations that posit internal audit characteristics as antecedents of fraud prevention and detection. Furthermore, the use of composite indices, careful model specification, and extensive diagnostic testing helps mitigate, though not fully eliminate, endogeneity concerns.

Hence, at the end of the day, given the nature of the data and the absence of valid external instruments, formal endogeneity tests such as the Hausman test were not feasible. Instead we chose to rely on theoretical causality, robustness diagnostics, and transparent acknowledgment of limitations.

F. Normally distributed residuals

The single most important use of ensuring normality of residual distribution (mean zero, constant variance) is to ensure the validity of statistical inferences made from the regression model. In other words, the confidence intervals, the F, P and Z tests won't really be reliable if the error terms aren't normally distributed, and this will cause severe prediction problems. The regression line's accuracy won't be of benefit if the predictive power i.e. the whole point of doing a regression is compromised. Hence, it is necessary to do a normality test.

The formal test for normality is the Shapiro-Wilk test. If the error terms are normally distributed, the P-value of the test is greater than 0.05 and the Z-value is small. This is because there is no enough evidence to reject the null hypothesis that the distribution is normal. Otherwise, a probability value of less than 0.05 means there is enough evidence to accept the alternative hypothesis. Since the p-value in this case is 0.23, there is no enough evidence to back up the

claim that the distribution of the error terms is not normal, adjudging potential concerns about normality of error terms unsubstantiated.

```
. swilk resid
```

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
resid	76	0.97876	1.398	0.731	0.23225

Figure 5: Shapiro wilk test

G. Number of observations greater than number of independent variables

For OLS to be functional, this condition is an absolute necessary. However, it is not an issue in the case of this paper, since we have 76 observations and 4 independent variables.

H. Correct model specification

In statistics, a correctly specified model includes all the variables it has to include, and does not commit functional form errors (using a linear model for a quadratic or other relationship forms). If that is the case, then inferences about the population can be made from the sample easily. Ramsey's RESET test is the standard test on Stata 14.2 to check for model specification. Just like in the other tests, a high probability value (greater than 5 percent) and a low F-value would support the null hypothesis that the model is correctly specified. If this model does have such a characteristic, there is no evidence to back up the claim that the linear relationship assumed between the variables is faulty, or there is an omitted variable. Below is the result:

```
. estat ovtest

Ramsey RESET test using powers of the fitted values of FRAUD
       Ho:  model has no omitted variables
                  F(3, 67) =      1.80
                  Prob > F =      0.1550
```

Figure 6: Ramsey RESET test

4.2.3. Presentation of findings and discussion

The findings of the regression is as follows:

```
. reg FRAUD INDEP COMPE MANAG ORGAN SIZE
```

Source	SS	df	MS	Number of obs	=	76
				F(5, 70)	=	5.51
Model	2.46352706	5	.492705411	Prob > F	=	0.0002
Residual	6.25384085	70	.089340584	R-squared	=	0.2826
				Adj R-squared	=	0.2314
Total	8.71736791	75	.116231572	Root MSE	=	.2989

FRAUD	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
INDEP	.154694	.1095461	1.41	0.162	-.0637888	.3731768
COMPE	-.0586566	.0825977	-0.71	0.480	-.2233925	.1060793
MANAG	.1913521	.1063355	1.80	0.076	-.0207274	.4034315
ORGAN	.3230407	.113259	2.85	0.006	.0971527	.5489287
SIZE	.0563828	.0716736	0.79	0.434	-.0865656	.1993312
_cons	1.477762	.8574799	1.72	0.089	-.2324281	3.187951

Figure 7: Regression results

Several important points can be garnered from the above set of results:

The F-test shows that the model is jointly significant, as the p-value for the F-test is 0.0002. Hence, the model is useful in explaining variations in the dependent variable i.e. fraud prevention and detection.

The adjusted R-square, or the goodness of fit value, indicates that about 23.14% of the variation in fraud prevention and detection can be explained by the five variables. The rest of the 76.88% variation is not explained by the model, or is accounted by the residuals. According to Ozili (2023), a R-squared that is between 0.10 and 0.50 (or between 10 percent and 50 percent when expressed in percentage) is acceptable in social science research only when some or most of the

explanatory variables are statistically significant. That holds in this case (as we shall see below), and we are hence induced to accept the model.

When we came to the individual variables, we see that Auditor independence has a statistically insignificant relationship with fraud prevention and detection due to a p-value of 0.162 failing to reject the null hypothesis saying there is no link between auditor independence and fraud detection. This, based on our descriptive variables research, was to be expected since most of the auditor independence is restricted especially in branch level. We have observed how branch auditors, which form a majority of our sample, picked ambiguous and neutral responses simply because they are not involved in the items and issues the questions covered under that topic. However, this apparently did not prevent fraud prevention and detection efforts since the restrictions, confined and specific roles and duties assignment given to branch auditors is really a byproduct of the banks' structure to appropriately discharge duty i.e. fraud prevention and detection rather than hinder it. Hence, it needs to be said that the standard liberties given to internal auditors of firms do not explain fraud prevention and detection in this particular context.

Similarly, and rather surprisingly, auditor competence does not also have a significant on fraud prevention and detection. When thought through however, this result becomes more intuitively plausible. Auditor competence, as measured by our questionnaire items, which predominantly are concerned with educational preparation, is a bare minimum to be assigned to the role, and does not subsequently impact the quality of the work, or help solve the intricacies other variables capture. It merely is 'given'. An auditing job can be good or bad whether the auditor is educationally qualified for the role or not. Competence has a p-value of 0.480, far greater than the threshold value of 0.05.

Thirdly, management support has a weakly significant, yet not adequately significant positive relationship with fraud prevention and detection. As we have seen earlier, management support is also perceived differently in branch and head office (department level). However, this perception was less dominant, especially compared to independence (where context and the role of locational and functional was paramount to interpret the results), and, despite the reservations, it can be said that there is a nearly significant positive relationship between increased management support on fraud prevention and detection. The ambivalence and distance of branch auditors from management organs meant that the relationship isn't significant enough to be

academically acceptable and cross the 5% range. Management support has a p-value of 0.076, which is slightly above the threshold value of 0.05.

Fourth, Organizational structure, culture and ethics exhibit a positive and statistically significant effect on fraud prevention and detection at the 1 percent significance level. This variable demonstrates the strongest influence among all explanatory factors included in the model. The result suggests that appropriate implementation of the ethical plan in place within the company and the subsequent mitigation of fraud is the single most important variable required to mitigate the risk of fraud, regardless of location. This variables p-value, nearly 0.006, means it is statistically significant at 1% level.

This also makes it clear for the banks that the best and arguably easiest way to combat fraud at a bank, not just department level is not by giving excessive independence for auditors (because it overrides bank structure), not by giving more training and education (they are already competent), not by providing excessive management involvement in audit operations (management support), but by simply implementing the ethical codes of the organization in place.

Fifth, size and scope of the audit department (a control variable which is 8 for Hijrah bank respondents and 6 for Zamzam bank respondents) showed no significant statistical relationship with fraud prevention and detection. The p-value of 0.434 is miles above the acceptable value of 0.05. Hence there is no evidence that size of the audit department in these two banks plays a role in influencing combat against fraud, just like the competence of auditors.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

This study examined the role of internal audit in prevention and detection of fraud in the case of two Ethiopian interest free banks- zamzam and hijrah bank". The analysis was guided by clearly defined research objectives and hypotheses focusing on auditor independence, management support, organizational set-up, structure, ethics and culture, auditor competence, and the size and scope of the internal audit function. Based on the descriptive and inferential analyses presented in Chapter Four, the following conclusions are drawn.

The descriptive statistics revealed that respondents generally hold a moderate to favorable perception of the internal audit function in both banks. Internal auditors are viewed as playing an important supportive role in fraud prevention and detection, particularly through control review, monitoring, and advisory activities. However, the results also indicate that internal audit is not perceived as a fully autonomous or decisive mechanism in combating fraud. Rather, its effectiveness appears to depend heavily on the broader organizational and managerial environment within which it operates.

The regression results indicate that the organizational set-up, including structure, ethical culture, communication channels, and internal control environment, has a statistically significant and positive effect on fraud prevention and detection. This suggests that fraud prevention efforts are more effective when supported by a strong institutional framework that encourages ethical behavior. In environments where ethical implementation is weak or ambiguous, the contribution of internal audit is substantially constrained.

Management support was found to have a positive but only marginally significant relationship with fraud prevention and detection. This implies that while management responsiveness to audit findings as well as involvement matters, its influence is not uniformly strong across the sampled functional units, namely the head office and branches.

Independence of auditors did not exhibit a statistically significant effect on fraud prevention and detection. Although independence is widely emphasized in both theory and professional standards, the empirical evidence from this study suggests that formal or theoretical

independence indicated by the principles of auditing alone does not automatically translate into improved fraud outcomes. This may reflect the structural reality that internal auditors remain bound to structural and institutional realities, meaning that the ideal won't really be observed on the practical.

Similarly, the competency of internal auditors and the size or scope of the internal audit department were not found to have statistically significant effects on fraud prevention and detection. This does not imply that competence and resources are unimportant, but rather that, within the current institutional setting of Ethiopian Islamic banks, these factors may not be sufficient on their own to meaningfully influence fraud outcomes. They are simply given, and any impact they may have is necessarily conditional upon stronger ethical culture and clearer support schemes. In themselves, they mean nothing.

The overall explanatory power of the model is modest, indicating that a considerable proportion of variation in fraud prevention and detection remains unexplained by the variables included in the study. This underscores the complex and multifaceted nature of fraud, which is influenced not only by internal audit-related factors but also by technological, regulatory, and external oversight mechanisms that were beyond the scope of this research.

In conclusion, the study finds that internal audit contributes to fraud prevention and detection in Ethiopian Islamic banks primarily through its interaction with organizational and managerial structures rather than through isolated attributes such as independence or competence. Internal audit functions most effectively when embedded within a strong ethical culture, supported by management.

5.2 Recommendations

Based on the findings of the study, the following recommendations are proposed.

First, Islamic banks in Ethiopia should prioritize strengthening their ethical implementation. They should make sure that ethical rules and organizational culture geared towards reinforcing them should be safeguarded and strong.

Second, bank management should demonstrate strong involvement and commitment to support internal audit in various aspects. Management support should extend beyond formal endorsement

to include timely corrective action, monitoring of implementation, and periodic oversight in auditor's activities.

Third, although auditor independence was not found to be statistically significant, efforts should still be made to enhance functional independence in practice. This may include granting internal audit units' greater access to audit committees or boards, reducing undue managerial interference, and formalizing protections for auditors who report sensitive issues.

Fourth, continuous professional development of internal auditors should be encouraged, particularly in areas related to fraud risk management and Islamic finance principles. Training programs that integrate conventional auditing skills with Sharia-based compliance knowledge would strengthen the long-term capacity of internal audit units.

Fifth, regulators and policymakers should consider developing clearer guidelines for internal audit and Sharia compliance within Islamic banks. A more structured regulatory framework would help standardize practices and reinforce accountability across the sector.

Finally, future research should expand the scope of analysis to include additional Islamic financial institutions and incorporate qualitative approaches to capture contextual and institutional factors influencing fraud prevention. Longitudinal studies may also provide deeper insight into how internal audit role evolves as the Islamic banking sector in Ethiopia matures.

REFERENCES.

African Development Bank. (2011). [Title of document or report]. www.afdb.org

Alleyne, B., & Amaria, P. (2013). The effectiveness of corporate culture, auditor education and legislation in identifying, preventing and eliminating corporate fraud. International Journal of Business, Accounting and Finance, 7, 34–62.

American Institute of Certified Public Accountants (AICPA). (2002). Statement on Auditing Standards No. 99: Consideration of fraud in a financial statement audit. https://www.mbaknol.com/business-finance/audit-theories-theories-of-demand-for-audit/

Anugrah, Y., & Masruro, H. (2022). The role of internal audit in the implementation of good governance in Islamic banking. Muhassabutuna: Jurnal Akuntansi Syariah, 4(1), 61–67. https://doi.org/10.54417/muhasabutuna.v1i1.1697

Baz, R., Shamsudin, R. S., & Ahmad, A. C. (2017). The role of internal control and information sharing in preventing fraud in the Saudi banks. Journal of Accounting and Financial Management, 3(1).

Bonrath, A., & Eulerich, M. (2021). Internal auditing role in preventing and detecting fraud: An empirical analysis. International Journal of Auditing. https://dx.doi.org/10.2139/ssrn.3899753

Burgess, R. L., & Akers, R. L. (1966). A differential association-reinforcement theory of criminal behavior. Social Problems, 14(2), 128–147. https://doi.org/10.2307/798612

Cohen, A., & Sayag, G. (2010). The effectiveness of internal auditing: An empirical examination of its determinants in Israeli organizations. Australian Accounting Review, 20(3), 296–307. https://doi.org/10.1111/j.1835-2561.2010.00092.x

Cressey, D. R. (1953). Other people's money: A study in the social psychology of embezzlement. Free Press.

Creswell, J. W., & Plano Clark, V. L. (2011). Designing and conducting mixed methods research (2nd ed.). Sage Publications.

Deloitte. (2012). India banking fraud survey (4th ed.).

Denscombe, M. (2014). The good research guide: For small-scale social research projects (5th ed.). Open University Press.

Etana, A. (2016). The role of internal audit in detecting fraud: The case of Ethiopian budgetary public sectors [Master's thesis, Addis Ababa University].

Fikru, E. (2022). The effect of internal control on preventing and detecting fraud in banks: The case of Abay Bank S.C. Addis Ababa branches [Master's thesis, St. Mary's University].

George, R. (2016). Islamic banking: History, overview and future. Dubai Leadership Summit.

Hailu, S., & Tekdogan, O. (2023). Ensuring the compliance of Islamic finance applications with Shariah principles in Ethiopia: The way forward. Hitit Ilahiyat Dergisi, 22(1). https://doi.org/10.14395/hid.1247875

Hailu, S., & Yatoo, N. (2021). Islamic finance in Ethiopia: Current status, prospects and challenges. International Journal of Islamic Banking and Finance Research, 6(1).

Hamdani, R., & Albar, A. (2016). Internal controls in fraud prevention effort: A case study. Jurnal Akuntansi dan Auditing Indonesia, 20(2), 127–135. https://doi.org/10.20885/jaai.vol20.iss2.art5

Harrison, A., Dilla, W., & Mennecke, B. E. (2020). Journal of Information Systems, 34(1), 61–80. https://doi.org/10.2308/isys-52627

Hassan, M. K., & Lewis, M. K. (2007). Handbook of Islamic banking. Edward Elgar Publishing.

Institute of Internal Auditors (IIA). (2017). International Professional Practices Framework (IPPF).

Institute of Internal Auditors (IIA). (2020). International Professional Practices Framework (IPPF).

Indonesian Financial Services Authority (OJK). (2020). Indonesia banking booklet.

Kabir, N., & Sulaiman, M. (2009). Shariah auditing in Islamic financial institutions: Exploring the gap between the desired and the actual. Global Economy and Finance Journal, 2(2), 127–137.

Kaseem, R., & Andrew, H. (2012). The new fraud triangle model. Journal of Emerging Trends in Economics and Management Sciences, 3(3), 191–195.

Kedir, A. (2020). Treatment of Islamic banking in Ethiopia: Critical analysis of legal and institutional frameworks [Master's thesis, Haramaya University].

Lukman, R., & Chariri, A. (2023). The role of internal auditors in fraud prevention and detection: Empirical findings from general banking. Diponegoro Journal of Accounting, 12(1).
Mesafint, M. (2024). Assessment of internal audit practices in the case of Bank of Abyssinia [Master's thesis, Addis Ababa University].

Mugenda, O. M., & Mugenda, A. G. (2003). Research methods: Quantitative and qualitative approaches. ACTS Press.

Muna, S. (2023). Assessment on practical challenges and opportunities of Islamic banking in Ethiopia: The case of Hijrah Bank S.C. [Master's thesis, St. Mary's University].
Musah, A., Gapketor, E., & Anokye, F. (2019). Determinants of internal audit effectiveness in state-owned enterprises in Ghana. Journal of Accounting and Management, 8(1).

Nurlaela, E. L., Mappanyukki, R., & Surjandari, D. A. (2021). The effect of internal audit roles and auditor professionalism in fraud prevention. Journal of Studies in Media and Communication, 9(2).

Oluigbo, C. U., Ngozi, E. C., & Ohaegbo, P. M. N. I. (2024). Determination of sample sizes in research using Taro Yamane formula: An overview. [Journal Name, Volume(Issue), Pages].
Oyinlola, A. (2010). The role of auditors in fraud detection, prevention and reporting in Nigeria. Library Philosophy and Practice (e-journal), 17.

Petrascu, D., & Tuenau, A. (2014). The role of internal audit in fraud prevention and detection. Procedia Economics and Finance, 16, 489–497. https://doi.org/10.1016/S2212-5671(14)00829-6

Salleh, M. F. M., & Suryanto, T. (2019). Fraud detection in the banking industry in South Sumatra: A study on role of internal auditors. International Journal of Shariah and Corporate Governance Research, 2(2).

Sepala, P., Herath, H., & Munasinghe, A. (2022). Effect of internal audit on fraud management in the financial service sector of Sri Lanka. International Journal of Accountancy, 2(2), 88. https://doi.org/10.4038/IJA.V2i2.46

Stanford University Graduate School of Business. (2021). Auditors reporting to bank regulators: Effective regulation or regulatory overreach? Journal of Accounting and Economics, 72(2–3).

Sudirman, Sasmita, Djabir, & Krisnanto. (2020). Effectiveness of internal audit in supporting internal control and prevention of fraud. Bongaya Journal for Research in Accounting, 4(1), 8–15.

Susantil, M. K., Tarigan, A., Delianan, J. K., & Napitupulu, I. H. (2022). The role of internal audit in fraud prevention and disclosure: Literature review. Kajian Akuntansi, 23(1), 50–66. https://doi.org/10.23919/ka.v23i1.9400

Tuovila, A. (2024). The role of internal audit in risk monitoring and the evaluation of internal control systems. [Journal Name, Volume(Issue), Pages].

Uddin, I. (2020). Reformulation of Islamic matrimonial law: British Muslims, contemporary understandings and normative practices. Journal of Muslim Minority Affairs. https://doi.org/10.1080/13602004.2020.1737413

Yasoa, A., & Endut, W. A. (2020). A comparative analysis between Shariah audit and Shariah review in Islamic banks in Malaysia: Practitioners' perspective. Environment-Behaviour Proceedings Journal, 5(14). https://doi.org/10.21834/ebpj.v5i14.2312

Yazid, H., & Suryanto, T. (2016). An investigation of factors influencing audit quality according to Islamic audit: A study for the Jakarta Islamic index. International Journal of Economics and Business Administration, 4(1), 20–38.

Zainudin, F., & Hashim, A. (2016). Detecting fraudulent financial reporting using financial ratio. Journal of Financial Reporting and Accounting, 14(2), 266–278. https://doi.org/10.1108/JFRA-05-2015-0053

APPENDIX

A. Questionnaire used by the research

1. Independence of auditors

a. I have regular and direct working relation with the head of the internal audit committee.

b. I have regular and direct working relations with the top management team.

c. Terminating the work of internal auditors requires the approval of the internal audit committee, and the board of directors.

d. The internal auditor staff has free access to information and data about the organization.

e. All organizational data pools are accessible to the IA.

f. All organizational data can be downloaded and examined by the IA.

g. Detailed budget proposals and information on staffing are included in the annual work plan of the IA.

h. The IA staff are rotated so that they all cover a variety of assignments.

i. The IA also performs other activities even if they are not defined in its direct responsibilities.

j. The IA sometimes takes part in designing systems in the organization and developing procedures for regulating their operations.

k. The IA operates totally independently and can audit any issue it considers in need of auditing, and can access any necessary information even if it is classified.

2. Competence of auditors

a. The organization allows IA employees to participate in training and development programs in order to maintain their skills

b. IA employees have the appropriate and relevant education in auditing that allows them to audit all the organizational systems.

3. Management support

a. Senior management supports internal audit to perform its duties and responsibilities.

b. Senior management are involved in the internal audit plan.

c. Internal audit provides senior management with sufficient, reliable and relevant reports about the work they perform and recommendations made

d. The response to internal audit reports by the senior management is reasonable.

e. Internal audit department is large enough to successfully carry out its duties and responsibilities.

f. Internal audit department has sufficient budget to successfully carry out its duties and responsibilities.

4. Fraud prevention and detection

a. Internal controller independence has had a positive role in fraud prevention and detection.

b. Internal controller competence has had a positive role in fraud prevention and detection.

c. Management support has had a positive role in fraud prevention and detection.

d. Size and scope of the audit department has a positive role in fraud prevention and detection.

e. Organizational structure has a positive role in fraud prevention and detection.

5. Organizational structure, culture and Ethics

a. There is a structural and ethnical program in place in the company

b. The structural, ethical or organizational plan is periodically discussed with employees.

c. The structural, ethnical or organizational plan lists the consequences for violations.

d. The management emphasizes the ethics plan and its importance.

e. Any ethical or structural problems or deviations are promptly addressed.

6. Demographic information

1. Sex/Gender

Categories: Male, Female

2. Age group

Categories: 25-30, 30-35, 35-40, 40-45, 45-50, Above 50

3. Work experience

Categories: 0-1 years, 1-2 years, 2-3 years, above 3 years

4. Education level

Categories: BA (Bachelor's degree), MA (Master's degree)

5. Work area/Position

Categories: Hijra bank branch level auditor, Hijrah bank head office auditor, Zamzam bank head office auditor