



**ST. MARY'S UNIVERSITY  
SCHOOL OF GRADUATE STUDIES**

**EFFECTS OF ADOPTION OF INTERNATIONAL FINANCIAL  
REPORTING STANDARDS (IFRS) ON AUDIT FEES IN SELECTED  
INSURANCE COMPANIES.**

**BY: EDEN ADANE**

**A THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING  
AND FINANCE IN PARTIAL FULFILLMENT FOR THE  
REQUIREMENTS OF A DEGREE IN MASTERS OF BUSINESS  
ADMINISTRATION, ST. MARY'S UNIVERSITY COLLEGE**

**ADVISOR: MOHAMMED SEID (ASST. PROF.)**

**DECEMBER, 2022  
ADDIS ABABA, ETHIOPIA**

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## **DECLARATION**

I, Eden Adane, declare that this thesis is a result of my research work on the topic entitled “EFFECTS OF ADOPTION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) ON AUDIT FEES IN SELECTED ETHIOPIAN INSURANCE COMPANIES.”, prepared under the guidance of (Mohammed Sied (Asst. Prof.)) in partial fulfillment of the requirements for the Degree of Masters of Business Administration in Accounting and Finance at St. Mary’s University, School of Graduate Studies. All the sources of materials used for the thesis and references are also duly acknowledged. This thesis work has not been submitted for a degree of any kind to any other university or institution.

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**December, 2022**

**DATE**

## **ENDORSEMENT**

This is to certify that Eden Adane has carried out this research work on the topic entitled “EFFECTS OF ADOPTION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) ON AUDIT FEES IN SELECTED ETHIOPIAN INSURANCE COMPANIES.” under my supervision. This thesis has been submitted to St. Mary’s University, School of Graduate Studies for examination with my approval as a university advisor, for partial fulfillment of the requirements for the award of the degree of Masters of Business Administration.

<hr/>	<hr/>	<u><b>December, 2022</b></u>
<b>ADVISOR NAME</b>	<b>SIGNATURE</b>	<b>DATE</b>

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## **Acronyms/ Abbreviations**

AABE	Accounting and Auditing Board of Ethiopia
ACCA	Association of Chartered Certified Accountants
CAR	Capital Adequacy Ratio
CIR	Cost to Income Ratio
CLRM	Classical Linear Regression Model
EU	European Union
FASB	Financial Accounting Standards Board
FDI	Foreign Direct Investment
FIFO	First In First Out
GAAP	Generally Accepted Accounting Principles
GLS	Generalized Least Squares
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
ISA	International Standards on Auditing
LIFO	Last In First Out
PAO	Professional Accounting Organizations
ROA	Return On Assets
SEC	Securities and Exchanges Commission
SMEs	Small and Micro Enterprises
VIF	Variance Inflation Factor

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## Abstract

The purpose of this study is to evaluate the effects of the adoption of International Financial Reporting Standards (IFRS) on audit fees in a sample of Ethiopian insurance companies. Both quantitative and qualitative methods were used in the study, and the study employed an explanatory research design, as well as a panel-data research approach. A non-probabilistic, purposive sampling technique was employed to gather the data for this investigation, where 9 (nine) of the 18 (eighteen) insurers were included. Both primary and secondary data were used in this study, where financial data was collected and interviews were conducted with selected representatives of the organizations. Descriptive statistics (frequency, mean, and standard deviations) were employed. And Pearson's correlation and multiple linear regressions were also utilized. The findings showed that, in the two models employed in this study, company size and the IFRS dummy variable are the two variables that have a statistically significant result and effect on Audit fees. Meanwhile, several independent variables a negative association with the dependent variable. In conclusion, IFRS implementation has coincided with the increase in Audit fees. Hence, it was recommended that when setting out the price for the audit work, both the insurance companies and auditors should consider factors such effects of IFRS and the company size, which were seen to have a positive and significant relationship with Audit fees. Moreover, future researches should take into account the succeeding years since the study period used in this study, to demonstrate whether the impact will continue or diminish.

**Keywords:** *Audit Fees, International Financial Reporting Standards (IFRS), Ethiopian Insurance Companies*

# **Chapter One**

## **Introduction**

### **1.1 Introduction**

Any economy needs reliable financial records to function. To increase the accuracy and accountability of any organization's financial statements, high quality, effective, and comprehensive reporting requirements adhered to by qualified and certified independent auditors are essential. Confidence in the financial statements and reports can be attained in part by having a strong and enhanced framework of accounting standards and reporting, good audits, and trustworthy audit opinions on financial reports. In this aspect, International Financial Reporting Standards (IFRS) has been embraced by numerous nations and organizations worldwide as the standard for financial reporting. (Thompson 2016).

International financial reporting standards (IFRS) are thought to enhance the accuracy, consistency, and transparency of financial reports and statements, as well as provide greater financial data comparability with other businesses (Ball, 2006). Many organizations around the world are embracing IFRS as the national standard for accounting processes after realizing these benefits and abandoning their country-specific accounting standards. It is believed to have advantages in these nations that have implemented IFRS, including benefits for increasing the accountability and openness of organizations that apply IFRS procedures and fostering greater public trust in these organizations. (Dodzi, 2015).

In terms of Ethiopia, the Proclamation No. 847/2014 that was released by the Ethiopian government declared that Ethiopian businesses must adopt and adhere to IFRS principles in their financial statements and reports. This marked the official adoption of IFRS standards as the country's norms (Federal Negarit Gazeta, 2014). When IFRS were adopted, it was thought to contribute to standardizing the nationwide application of a strong and reliable accounting principle in all organizations, as opposed to the Pre-IFRS implementation period, where the accounting methods for organizations to disclose their financial information were left to the discretion of the organizations themselves (Fantahun, 2012). Additionally, Teshome's studies from 2017 show that

the use of IFRS aids in the production of thorough, trustworthy, agreeable, and comparable financial information from firms operating in Ethiopia.

The adoption of IFRS, on the other hand, is thought by some to increase expenses for businesses that have authorized its implementation and incorporated its standards into their accounting framework. Regarding this, some studies found that the adoption of IFRS standards coincided with a rise in audit fees. (De George et al., 2013). Auditors and accountants tasked with implementing these IFRS standards in each financial statement and report are seen to expend a greater amount of time and effort than other accounting standards because the IFRS standards require laborious, meticulous, and clean accounting work while taking into account the complexity associated with implementing a proper IFRS standard within the organization. As a result, it was seen that these enhanced efforts frequently translated into higher audit fees levied against the organizations being audited (Mulley et al., 2010). Additionally, it was noted that the implementation of IFRS and its complicated standards contributed to a rise in audit fees.

Therefore, it is considered that the adoption of IFRS has had an impact on the audit fees charged by Certified external auditors to the firms operating in Ethiopia. This is because Ethiopia is similar to the many other nations that have embraced IFRS (Amanuel Tsegaye, 2019). The adoption of IFRS is thought to have a significant impact on the audit fees of several important businesses, including Ethiopian financial institutions, which form the foundation of the Ethiopian economy. Organizations in the Ethiopian financial sector are thought to be among the most difficult to accurately and reliably audit since they conduct a significant volume of transactions each year and are large in terms of value and income. Auditors who work for these institutions were observed to have substantial audit fees to balance the time they spend on the tiresome task and the risk they assume to generate accurate and transparent financial reports and statements, which was added to this complexity by the implementation of IFRS.

In this regard, considering the delicate situation where proper compensation should be provided to auditors so they can perform their duties in a professional manner by utilizing IFRS standards, it is essential to investigate the nature of the association between the IFRS implementation and the ensuing change in audit fees in these organizations. As a result, the purpose of this study is to evaluate the effects of the adoption of International Financial Reporting Standards (IFRS) on audit

fees in a sample of Ethiopian insurance companies by using both auditor and auditee related variables. It also aims to evaluate the opportunities and potential difficulties presented by these changes in audit fees.

## **1.2 Statement of the problem**

The benchmarks for improving the comparison and contrast capabilities of financial standing between organizations doing business in different places or countries are all-inclusive, dependable financial accounting and reporting standards, which are already the benchmarks and are quickly becoming more important in international trade and business. The IFRS standards, which have been and are still being accepted by governments and organizations around the world, serve as the current benchmarks for the comparability of financial reports (Madawaki, 2012).

Regarding this, the Financial Reporting Proclamation, passed by the Ethiopian government in 2014, changed the country's accounting norms and principles. Similar to the rest of the world, Ethiopia saw benefits from the adoption of IFRS, including an increase in investor confidence, better quality and integrity of financial information, and global comparability. However, it also came at a large expense. An important component of these costs is a rise in auditing expenses (Tsegaye, 2019).

The cost-related effects of adopting IFRS have caught the attention of several stakeholders who are connected to professional accounting practices, according to Kim et al. (2012). These parties have carried out various studies to examine the various effects of IFRS. They stated that there has been an increase in audit fees charged by auditors, which is attributable to the time and risk invested by these auditors in adopting the various complicated IFRS components to produce the necessary financial statements and reports (Kim et al., 2012).

According to Thompson, there is an uneven emphasis on the benefits of IFRS adoption for Ethiopia and Africa as a whole, as opposed to the unfavorable elements connected with its implementation (2016). This study has brought attention to the necessity for a comprehensive, in-depth investigation to evaluate potential unintended consequences of the implementation of IFRS, particularly in the Sub-Saharan Africa region, where many developing nations are situated.



There were therefore few studies that looked at how the implementation of IFRS affected audit fees in the Ethiopian setting, with the exception of a few that attempted to draw attention to this problem. The issue involving Ethiopian commercial banks has been partially clarified by studies like Tsegaye (2019), but a more consensus-building study that evaluates all parts of the Auditor and Auditee associated variables is not yet accessible. Furthermore, there aren't many research on this subject in terms of insurance businesses providing services in Ethiopia. Therefore, this study attempted to evaluate the impact of the adoption of IFRS on audit fee in the Ethiopian context, more specifically in the Ethiopian insurance businesses, in order to address this issue and to offer required information on both Auditee and Auditor related IFRS based aspects.

### **1.3 Objective of the study**

#### **1.3.1 General Objectives**

- The main objective of this study was to assess the effects of adoption of International Financial Reporting Standards (IFRS) on the audit fees in Ethiopian Insurance Companies.

#### **1.3.2 Specific Objectives**

- To analyze the effects of adoption of IFRS on the audit fee charged by audit companies to insurance companies for audit services.
- To identify the various auditee and auditor related factors that have affected audit fees after adoption of IFRS.
- To compare and contrast the audit fee variances before and after IFRS adoption and across the organizations.
- To analyze any factors not directly related to both the insurance companies and auditors that may affect audit fees after IFRS adoption.

### **1.4 Research Questions**

- Does adoption of IFRS have an effect on the audit fee charged by audit companies to insurance companies for audit services?
- What are the various auditee and auditor related factors that have affected audit fees after adoption of IFRS?

- What is the difference in the audit fee variances before and after IFRS adoption and across the organizations?
- What are factors not directly related to both the insurance companies and auditors that may affect audit fees after IFRS adoption?

## **1.5 Significance of the study**

This study will play a significant role in informing various insurance industry stakeholders, including the national bank of Ethiopia, which oversees the regulation of Ethiopian insurance companies, about the effects of the adoption of International Financial Reporting Standards (IFRS) on the audit fees in Ethiopian insurance companies.

## **1.6 Delimitation/ Scope of the study**

The conceptual focus of this study is restricted to evaluating how International Financial Reporting Standards (IFRS) adoption may affect audit costs in Ethiopian insurance companies. Within this framework, the study aims to evaluate the impact of IFRS adoption on audit fees while identifying numerous auditee and auditor-related factors connected to IFRS adoption. Additionally, the scope is restricted to insurance businesses in Ethiopia that were established and operating before IFRS rules for the financial services industry were implemented. Moreover, the study will be conducted on the head offices of the selected insurance companies located in Addis Ababa, Ethiopia. Hence, the geographical scope of the study is limited to the respective offices located in Addis Ababa, Ethiopia.

The study's methodological scope is restricted to evaluating how International Financial Reporting Standards (IFRS) implementation has affected audit costs in Ethiopian insurance companies utilizing an explanatory research design and combining qualitative and quantitative research techniques. The data collection methods used in this study include interviewing participants for primary data and gathering the relevant financial information for secondary data.

## **1.7 Organization of the study report**

This study paper was be organized into five main chapters. Chapter 1 describes the topic background and problem statement, objectives, research questions, scope, and limitations. Chapter

2, literature review, raised theoretical, empirical and conceptual aspects that were retrieved from reliable and updated sources about the topic area. Chapter 3 introduced the research methodology and methods used for this study. Chapter 4 presented the results and the interpretation and discussion of the analyzed data, while Chapter 5 encompassed the findings of the study, conclusions and recommendations.

## **Chapter Two**

### **Literature Review**

#### **2.1 Introduction**

The previous chapter explained the topic to be examined along with the research objectives and research questions. To understand the problem to be studied better, and to assess the topic using the current literature available, this part of the study will present the theoretical review, empirical review, literature gap, and the conceptual framework of the study, which is trying to assess the Effect of adoption of IFRS on Audit fees of Ethiopian Insurance Companies.

#### **2.2 Theoretical Review**

##### **2.2.1 Introduction**

The effect of IFRS on audit fees charged to insurance companies has been the subject of much debate in recent years. Some argue that IFRS has increased audit fees, while others argue that IFRS has actually decreased audit fees. However, the truth is that the effect of IFRS on audit fees charged to insurance companies depends on a number of factors, including the specific IFRS requirements that are relevant to the insurance industry, the extent to which insurance companies have adopted IFRS

In the past twenty years, numerous companies and other organizations have expanded their operations and emphasis to a worldwide scale. The accounting field has changed as well (ACCA 2008). Accounting is a tool and an object of globalization, but its effects and manifestations differ in established and developing nations. Additionally, the growth of the accounting profession in emerging countries faces competition from developed global accounting firms (Hopper et al. 2017). Professional accountants now frequently work in environments where knowledge of the business climate and norms across many nations is necessary. (ACCA 2008).

For people who work in and around the accounting profession, continued globalization will bring both possibilities and difficulties. Professional accountants will need to foresee and account for changing corporate practices, geographic disparities, roles, duties, and legal requirements.

In this sense, accounting is crucial to the growth of the economy. In order to increase openness, encourage domestic and foreign investment, create a healthy investment climate, and boost investor trust, which all contribute to financial stability, high-quality corporate reporting is essential (ACCA 2012). Professional accounting organizations (PAOs) have the capacity to support the production of high-quality financial information, promoting the development of the public and private sectors, economic growth, and the goal of aid effectiveness when they operate effectively (IFAC 2013). Economic planning, capital formation, and taxes are the three main areas of economic development where accounting information is crucial in a developing nation (Taufu'i 1996).

Professional accountants play a crucial role in firms, supporting the creation and maintenance of value and growth. For them to remain relevant, they must be able to carry out their functions despite ongoing environmental changes. Professional accountants are the leaders in business when it comes to maintaining the standard of financial reporting and giving the general public access to trustworthy financial data (Jui and Wong 2013).

Regarding the aforementioned topic, both emerging and established professional accounting associations must pay attention to their members' professional needs and give them the assistance they require to be successful in their positions. Their opinions must also be heard. Success on each of these fronts will encourage society to continue to value professional accountants in business. This affects how successful the accounting industry remains as a whole (Jui and Wong 2013).

### **2.2.2 Generally Accepted Accounting Principles (GAAP)**

The phrase "Generally Accepted Accounting Principles" (GAAP) designates a group of standards, conventions, and practices that the accounting industry employs to create and uniformly format financial reports that are delivered to parties outside of a company. The benchmarks simplify business comparison for creditors and investors. It ensures that a company's financial statements are at least somewhat consistent, making it easier for investors to review and extract useful information. GAAP facilitates cross-comparison of financial data among different companies. For the purpose of gathering and disclosing accounting data, GAAP is made up of decisive standards and widely accepted practices. GAAP improves the clarity of financial information delivery.

This accounting principle was the accepted practice in Ethiopian accounting prior to the implementation of IFRS. Now, especially in the finance industry, IFRS is the predominant accounting standard being employed.

### **2.2.3 International Financial Reporting Standards (IFRS)**

According to a study by Alemi (2016), IFRS is a system for reporting financial statements that are in accordance with a set of standards, accounting laws, and principles. With the purpose of making business entities understandable (or accessible) to the market, IFRS aligns them with widely accepted financial norms and frameworks. In order to comply with generally accepted frameworks for reporting financial statements, financial transactions and events must follow IFRS, a form of international standard (Simegn, 2015). In relation to this, Amanamah (2017) outlined how the International Accounting Standards Board (IASB) played a major role in the development of IFRS as a mechanism of accounting harmonization among various countries that implement IFRS, with regard to financial accounting systems and the process of preparing financial statements. Therefore, IASB was in charge of creating the numerous accounting standards and the interpretations that go along with them, generally known as International Financial Reporting Standards (IFRS) (Adeuja, 2015).

### **2.2.4 Historical background of IFRS**

The favorable impact of making accounting statements identifiable by the international standard bodies has been attested to by countries that have adopted accounting standards. Countries have also demonstrated the advantages of using an internationally recognized reporting system for their corporate organizations.

In connection with this, after 2005, the year that the EU and its member countries began implementing IFRS, the benefits of doing so began to be overshadowed. The required adoption and implementation of IFRS by EU member countries in the year 2005 was regarded as a historical turning point in the adoption of IFRS, according to Costa Lourenco & De Almeida Delgado Castelo Branco (2015). Following then, innumerable testimonials have emerged in the history of IFRS adoption, with 2010–2012 being acknowledged as a key period for its global adoption. In

particular, the mandatory adoption of IFRS in 2010 by Brazil, 2011 by Canada, and 2012 by Mexico is regarded as a significant turning point and success story for the global adoption of IFRS.

Africa has benefited from having a standardized financial reporting system with the implementation of IFRS. According to Stainbank's (2014) analysis, IFRS adoption has had a variety of difficulties in the past. According to the author, by 2010, 11 African nations required IFRS for all domestic publicly traded firms, nine nations forbade IFRS for publicly traded companies, four nations permitted IFRS, four nations lacked stock exchanges, and three nations required or permitted IFRS. In one jurisdiction, IFRS became mandatory as of 2012, and in another, listed firms could choose between IFRS and national GAAP. According to the Deloitte report from 2007, there was no information on 17 African countries.

Recent research on the adoption of IFRS in Africa also revealed that 38 of the nations that were studied had established various legislation and jurisdictions, and that 95 percent of those countries had mandated the use of IFRS for their domestic publicly responsible commercial units (Tawiah & Boolaky, 2019). Since December 2014, Ethiopia has benefited from IFRS adoption and implementation thanks to the Proclamation no. 847/2014. Companies in Ethiopia have started to implement the system voluntarily and to start preparing the financial statements in accordance since the announcement of adopting IFRS to provide standardized financial reporting (Alemi, 2016).

As in other countries, auditing professionals and financial reporting practitioners in Ethiopia have paid close attention to the practice of applying IFRS. In this regard, the recently enacted proclamation established the rules for the establishment of Ethiopia's accounting and auditing board, or (AABE). Specifically, pursuant to Proclamation Article 4(2), the Accounting and Auditing Board of Ethiopia (AABE) was granted authority and responsibilities to set financial reporting and auditing norms and directives, make sure of their implementation. According to the proclamation in article 5, AABE has taken on a significant role in promoting standardized financial reporting systems used by commercial entities in the country. In general, including Ethiopia, the implementation of IFRS has extended throughout the world, with more than 160 nations adopting it (Tran et al., 2019). According to the study, the benefits of implementing IFRS have been broadly acknowledged, and it is now an obligatory method of reporting financial accounts. It is also a

method of standardizing and archiving accounting terms worldwide. Furthermore, businesses in countries that have adopted IFRS have profited from a standardized accounting system in the eyes of the global market. In a similar vein, Ethiopia has adopted laws to impose the use of IFRS on certain commercial companies after realizing the importance of international accounting systems and the advantages of adopting them.

### **2.2.5 GAAP vs. IFRS**

GAAP is only a collection of guidelines. These guidelines aim to increase financial statement openness, but they do not ensure that a company's financial reports are devoid of mistakes or omissions that are meant to deceive investors. Under GAAP, there is enough potential for dishonest accountants to manipulate data. Therefore, even if a corporation follows GAAP, you should still carefully review its financial statements.

GAAP focuses on the procedures employed by American businesses. GAAP is produced by the Financial Accounting Standards Board (FASB). The International Financial Reporting Standards (IFRS) are the global replacement for GAAP (IASB, 2009). Since 2002, the IASB and FASB have been collaborating on the convergence of IFRS and GAAP.

The extent of the particular distinctions between IFRS and GAAP has been decreasing as a result of the ongoing convergence efforts between the IASB and the FASB. However, depending on the industry a company operates in, as well as unique facts and situations, there are still substantial distinctions. A financial ratio's calculation is impacted by the variances between IFRS and generally accepted accounting principles (GAAP) in other nations. For instance, IFRS are less restrictive in how revenue is defined and let corporations to disclose revenue sooner, therefore a balance sheet prepared under this system may depict a larger stream of revenue. IFRS also have distinct standards for costs; for instance, if a business is investing money in future growth or development, it doesn't always have to be reported as an expense.

The definition of how inventory is accounted for is another distinction between IFRS and GAAP. First in first out (FIFO) and last in first out (LIFO) are two methods for keeping track of this (LIFO). While LIFO indicates that the most current inventory is sold first, FIFO means that older



inventory is sold first before the most recent inventory is sold. While American standards and others let participants to freely employ either, IFRS forbids LIFO.

According to the IFRS principles outlined above, IFRS differs from generally accepted accounting principles (GAAP) in the following ways:

- (i) The items that should be classified as assets, liabilities, revenue, and expenses;
- (ii) How to calculate these items;
- (iii) How to present them in a set of financial statements; and
- (iv) Applicable disclosures about those items.

Pacter's (2015) study reveals these differences.

### **2.2.6 Concept of IFRS**

Most of the world's regions demand financial accounting information to be provided in accordance with generally recognized accounting standards and norms, which facilitate comparison and contrast between various firms within a given sector or from various industries. By strengthening the compatibility of accounting procedures and putting restrictions on the variation of the accounting information being reported from these businesses, the adoption of a uniform and standardized accounting technique and practice may aid these variables even more (Abel, 2011).

In this context, the expansion of global financial markets and the expansion of foreign commercial operations necessitate increased comparability and openness in financial reporting. These benchmarks improve the effective use of resources by allowing comparisons of a company's financial performance across enterprises and nations (Nobes and Parker, 2008).

The International Accounting Standards Board (IASB) was established in 2001 in response to the markets' growing need for clear, comparable financial information (Aghator & Adeyemi, 2009). In order to aid participants in the various capital markets around the world and other users of the information in making economic decisions, the IASB is tasked with creating a single set of high quality, comprehensive, and enforceable global accounting standards (Armstrong et al, 2007; Nobes, 2006).

The International Accounting Standards Board published the International Financial Reporting Standards (IFRS) to assist financial statement preparers worldwide in producing and presenting high quality, transparent, and contrastable financial and fiscal data, according to Aghator & Adeyemi (2009).

Teferi and Pasricha (2016) claim that IFRS standards, which include International Financial Reporting Standards (IFRSs) and International Accounting Standards (IASs), are mandated statements. The International Accounting Standards Board (IASB), which is governed by the IFRS Foundation, creates IFRS (IFRS foundation, 2017). IFRSs typically include 17 basic principles and related application advice, both of which are required and given equal weight, according to the IFRS foundation (2017). The rationale for findings in each Standard and Interpretation shows why the IASB created the specific standards.

### **2.2.7 Importance of IFRS**

The financial markets across the world are open to anyone. Companies, even small businesses, look for cash wherever it is offered at the greatest rate. Wherever they can receive the highest returns while accepting the associated risks, investors look for investment possibilities. Investors and lenders want financial data that is current, dependable, and cross-border comparable in order to evaluate the risks and rewards of their different investment options (IFRS foundation, 2017). According to Usman (2013), the implementation of high-quality accounting standards will enhance accounting data, as well as ease trade and other investment possibilities. This will promote comparability, transparency, and eliminate information inconsistencies across nations.

With regard to this, the adoption of IFRSs would benefit Small and Micro Enterprises/Entities (SMEs) in a variety of ways, including by enhancing the comparability of financial information of SMEs (Small and Micro entities) at either national or international levels, making it simpler to implement international business, whether it be in the form of trade or investment, and launching proposed partnerships or cooperation agreements with other foreign companies, thereby assisting SMEs (Fikru, 2012).

Atu et al. (2016) state that adopting IFRS provides the following advantages for developing and less developing nations:

1. The use of reliable financial information to attract investment and financial assistance.
2. Improve communication with many stakeholders by offering trustworthy and credible financial information.
3. More foreign partners and foreign direct investments (FDIs) are attracted, which can assist local businesses in accessing international markets.
4. Uniformity in accounting terminology, facilitating comparison and contrast among various firms.

Last but not least, according to Yitayew (2016), some of the direct and indirect benefits of IFRS for investors and regulators in Ethiopia include providing more accurate and thorough financial statement information, improving financial reporting quality, reducing the processing of financial information, lowering risk for all investors, and improving the usefulness of financial statement information in the interactions between businesses and various stakeholders.

#### **2.2.8 Theories of IFRS**

The connection between IFRS and audit fees can be explained by a number of hypotheses. One of the several ideas used to explain IFRS and audit fees is the lending credibility argument. This notion is based on the idea that IFRS raises disclosure requirements, which make auditing more difficult and demanding. Higher costs are necessary to cover the amount of knowledge and experience needed to audit IFRS-compliant financial statements (Hayes et al, 2005).

The credibility of the financial accounts would also be increased by an auditor with such knowledge and experience, therefore they may charge for it. Due to their reputation and the legitimacy they give to audited financial accounts, the big auditing companies in Ethiopia have been seen to charge greater prices (Tsegaye, 2019).

Therefore, according to the lending credibility hypothesis, the primary purpose of an audit is to increase the reliability of financial reports and the quality of the services auditors provide to their customers (Hayes et al., 2005). The users gain from the audited financial report's increased credibility, and these advantages are automatically reflected in the caliber of investment decisions made on the basis of reliable data (Ahmadzadeh et al., 2013). By selecting top-notch auditors, a

company raises the caliber of its audit reports, which raises the trustworthiness of the information supplied in annual reports (Chen et al, 2011).

### **2.2.9 IFRS in Ethiopia**

Except for a few instructions and distinct proclamations issued by various regulatory agencies, there was no legal necessity for Ethiopia to adhere to any specific accounting or auditing standards prior to the implementation of IFRS. The nation's accounting and auditing procedures as a result were unorganized and non-standardized.

In light of this, the World Bank and the International Monetary Fund (IMF) worked together on Reports on the Observance of Standards and Codes (ROSC Ethiopia, 2007) after consulting with key stakeholders, such as governmental and non-governmental organizations. They studied the corresponding infrastructures and mechanisms in place within the accounting, auditing, and financial reporting professions as well as the varied practices used in these fields. It was discovered that there were no required accounting or auditing standards, and that individual firm executives were essentially responsible for meeting the financial accounting and reporting obligations (Tsegaye, 2019).

This evaluation offered several recommendations based on its results, one of which was to harmonize Ethiopia's accounting and auditing procedures. As a result, the Financial Reporting Proclamation was adopted and put into effect by the Federal Democratic Republic of Ethiopia's House of Representatives in 2014. Due to the passage of this bill, Ethiopia formally adopted and put into practice both IFRS and the International Standards on Auditing (ISA) (Federal Negarit Gazeta, 2014). Some of the largest companies in Ethiopia, Ethiopian insurance firms, have adopted and implemented these standards and practices (Tsegaye, 2019).

### **2.2.10 IFRS and Audit fees**

Any organization may benefit from audits in the public interest by enhancing accountability and boosting public confidence in financial reporting and information. All corporate entities in Ethiopia are required to conduct an annual audit, including the insurance businesses that will be the subject of this research.

While the insurance companies in Ethiopia offer a platform for numerous big audit firms operating in Ethiopia, the financial services industry plays key roles in Ethiopia in terms of employment creation and insurance of various development-related projects. Considering this, the audit market environment in Ethiopia differs in several ways from the audit systems of other nations. This is because private and publicly traded enterprises have a large market for private audit firms, but state-owned organizations are exclusively examined by state-owned auditors. In this regard, it is crucial to ensure there are no differences in the accounting, auditing, and reporting processes between these state-owned and private auditors, which is why implementing IFRS (Dilie, 2021).

The consequences and linkages between companies, more especially Ethiopian financial institutions and their auditors, have not, however, been extensively studied in accounting research. The examination of audit fees assessed by auditors to insurance firms and how IFRS has affected the amount of these audit fees also supports this. In this regard, the extremely few studies that were conducted in this area have explained that various changes have been observed in the financial services industry since the implementation of IFRS in Ethiopia, some of them being related to changes in the audit fees levied by the auditors toward the financial institutions in Ethiopia, such as insurance companies. 2019 (Tsegaye)

### **2.2.11 The audit fee Model**

The audit fee model is the main theoretical model used to assess variables that affect the price of audit services that are done externally.

theoretical framework for investigating factors affecting the price of external audits.

The influence of quantity or price discrepancies can be seen in cross-sectional variances in fees, according to Simunic's (1980) audit fee model. He considered the external audit to be a component of the whole financial reporting system of an auditee. As a result, the auditee views the audit service as a consumable economic good with choices and complements.

Simunic bases its analysis on the supposition that both the auditee and the auditor are risk-free and constantly seek to maximize their expected profits. Therefore, the auditee management works to maximize the projected profits of the financial reporting firm, as opposed to the auditor, who aims to maximize the expected profits of the audit company (Simunic, 1980).

Simunic's (1980) theory states that the whole cost of an audit may be broken down into two parts:

- (i) the cost of resources, which depends on how extensive the audit is; and
- (ii) the liability loss, which depends on how much the client's business risk is expected to cost.

He also believes that the potential legal exposure of an auditee and auditor to consumers of financial statements has an impact on the architecture of external financial reporting systems. He reasoned that liability avoidance is one of the benefits. .

His audit fee model states that the size of the auditee, the complexity of the auditee's operations, and the audit risk of the client all have an impact on the audit fees. His research provides hard evidence that the size of the auditee is a key factor in determining audit fees (Simunic, 1980).

The amount of audit fees may be influenced by additional general factors that are not immediately related to the engagement, such as the size of the audit company. For instance, in the UK, some big firms bill more than others for auditing companies that are the same size and in the same industry (Ling et al., 2014).

Other elements that could have a general impact on the amount of audit fees include the demand for audit services, the chance of receiving non-audit work like accounting, taxes, and management consulting services, the stability of the clientele, and the company's reputation (Simunic, 1980).

The transition to IFRS increases the complexity of clients' accounting and reporting needs, necessitating greater resources to produce financial reports. Although complexity and risk frequently result in price increases, it is unclear how the introduction of IFRS would affect audit fees (Griffin & Lont, 2007). Therefore, this study largely uses Simunic's (1980) audit fee model to compare the audit fee position before and after the implementation of IFRS.

## **2.2.12 Factors (Determinants) affecting audit fees before and after implementation of IFRS**

### **2.2.12.1 Insurer size**

According to the existing evidence, insurer size is the factor that explains the difference in audit fees the best. As the size of the customer base grows, external audit firms are anticipated to

undertake more audit work (leading to a greater number of hours invoiced) to ensure the performance of a sufficient level of compliance and substantive testing. Naturally, it is anticipated that this increase in audit effort would result in a rise in audit fees. Additionally, large companies have greater agency expenses, are more likely to be the focus of public attention, and pose a larger risk to the auditor. Because of this, larger businesses strive to reduce the agency cost by reassuring lenders and investors by hiring a respected audit company, which is more expensive. (Naser et al., 2007).

Contrarily, several research have shown that the connection is unlikely to be linear, meaning that as the client size grows audit fees will climb at a decreasing pace, as stated by Afesha (2014). This is true even though there is a positive association between client size and audit fee. This nonlinearity is thought to result from both an inherent nonlinearity that affects all labor inputs and the replacement of comparatively less expensive personnel as client sizes grow (audit staff vs. seniors and managers). Additionally, natural logarithm of total asset is typically used to calculate audit fees and is also utilized in this study as a proxy for audit client size.

#### **2.2.12.2 Insurer profitability**

Profitability of insurers often indicates how much risk an auditor could be exposed to in the event that a client (the insurance business) is not financially sound and ultimately collapses. Poor profitability and a high level of profit unpredictability may result in more risk and audit effort. Companies that have recently reported losses in their financial statements may have an impact on the auditor's assessment of risk. Such businesses are prone to engage in dubious actions, which might expose the auditor to more risk. The risk to the auditor increases with the firm's performance, which also increases the audit fee (Afesha, 2014).

The corresponding income and cost accounts are subject to a closer examination for businesses with a higher degree of profit, though. Because of the potential need for greater audit work or time on the side of the auditor, the auditor will charge a more profitable firm a higher audit fee. A company's profitability is determined by its rate of return on equity and assets as well as whether it has recently experienced a loss (ROI, ROE, ROA and loss in recent periods). In this study, ROA was utilized to evaluate the profitability of insurers and how it relates to audit fees (Afesha, 2014).

### **2.2.12.3 Liquidity risk**

It is the possibility that a bank won't be able to cover its financial commitments when their payment obligations are due or to replenish funds that have been taken. Failure to meet lending promises and responsibilities to pay back depositors might be the outcome. Large numbers of demand and saving deposit accounts complicate bank operations and raise operating costs through branch networks and the corresponding use of material and human resources. However, banks with a higher percentage of current and savings deposit accounts have more operational complexity. As a result, they could pay audit fees that are lower or higher (Field et al., 2004). The liquidity risk will be evaluated for the purposes of this study using the insurance firms' liquid assets divided by their total assets.

### **2.2.12.4 Operating risk**

Operating risk is the potential for significant operating expenses to deplete the bank's capital account. It will be difficult or impossible for banks with significant operating risk to turn a profit without accepting unacceptable risk. Reduced profitability brought on by higher ratios makes it harder for banks to raise equity (retained earnings) and regulatory capital. High (inverse) efficiency ratios frequently show non-interest costs brought on by numerous transaction accounts and branch systems spread out geographically (Fields et al. 2004; Ettredge et al. 2011).

Wui (2011) recommended A management deficit can invite fraud and operational and management mistakes, raising the audit risk. In addition, he argued that earnings ratios are one of the crucial indicators to take into account when evaluating a going concern; poor earnings performance is also seen as a motivation to distort reporting. Audit fees are therefore anticipated to have a favorable connection with operating risk based on the aforementioned justifications. The ratio of total operating expenses to total income is employed as a proxy for efficiency, similar to earlier studies in the literature on bank audits. For the purposes of this study, operating risk will be evaluated using the cost-to-income ratio, which displays the overheads or costs of running the insurance firm as a proportion of income.



#### **2.2.12.5 Capital risk**

Capital regulation, which demands that banks maintain a certain level of capital as safeguards against unforeseen losses or unfavorable shocks that might result in bank failure, continues to play a significant role in the supervision of banks. Regulatory environment, market discipline, economic conditions, and capital need are only a few of the firm-specific elements and behaviors that affect banks' choice of capital level and capital management (Francis and Osborne, 2009). According to Fields, et al. (2004), there might be a positive or negative link between audit fees and capital risk ratio. Riskier banks would see a positive association between audit fee and capital risk ratio because regulators demand them to uphold higher regulatory standards. Taking these points into account, for this study, risk-adjusted capital adequacy ratio will be used.

#### **2.2.12.6 Auditor tenure**

This element, auditor tenure, reveals how long an auditor has provided services to clients. With more years on the job, audits take less time, perhaps because the auditor is accustomed to the position and understands where to get the material he needs. A long tenure results in in-depth knowledge of the client, which strengthens the relationship between the auditor and the client, as well as familiarity with the client's financial statements (Coffie and Bedi, 2018). For this study, a dummy variable which denotes a value of 1 if the insurance companies retain the auditors for three years consecutively is used.

#### **2.2.12.7 Auditor size**

There is a fee premium for big auditors, according to studies looking at whether major audit companies charge more for their services than small auditors. According to those studies, the audit market, in which the large audit firms face little competition, compensation for audit quality, compensation for risk assumed by the large audit firms in assessing and identifying any discrepancies in the audit of clients, and the auditors' size are some factors that contribute to an increase in audit fees. The Big 4, which are the largest auditors in the world, are not comparable to Ethiopia's audit companies, which are classified by the relevant regulating authority for the accounting profession as Grades A, B, or C. The large audit companies are those that have been given Grade A rating for this research. (Afesha, 2014)

## **2.3 Empirical Literature Review**

An increasing level of empirical literature have investigated the effect of IFRS adoption on different aspects of accounting and audit related factors, and more specifically on audit fees.

Griffin et al. (2009), for instance, looked at how changes in local and international governance regulations affected the audit and non-audit fees charged by audit companies in New Zealand. Osiris database information for the years 2002 to 2007 was used to compile financial information for 653 company-year observations as well as yearly audit fee and non-audit fee information. Griffin et al. (2009) discovered, using a cross-sectional regression analysis, that the adoption of IFRS is linked to a significant rise in audit fees in the years leading up to, during, and following the adoption. Non-audit fees, on the other hand, did not show a similar connection with IFRS, according to the authors. Non-audit fees decreased within the study's time frame.

De George et al. (2013) examined the impact of IFRS adoption on audit fees for 907 publicly traded Australian firms during the years of 2002 and 2006. The adoption of IFRS has a strong positive correlation with rising audit fees, according to the authors. In the year of implementation, audit fees grew by an average of 23%. Additional research points to an unusual 8% rise in audit costs in the year of adoption over and beyond typical yearly fee increases. De George et al. (2013) also discovered that with the implementation of IFRS, audit fees increased disproportionately higher for smaller enterprises than for bigger ones.

For a sample of Spanish listed firms from 2003 to 2009, De Fuentes and Sierra-Grau (2015) gave further detail regarding the impact of IFRS adoption on audit and non-audit fees. The authors used ordinary least squares regression to show that audit fees increased from 2003 to 2009, and that both parent company accounts and group accounts were subject to high audit costs, which increased on average by 13 and 15%, respectively. The authors ascribed the data's erratic trend in non-audit fees to a local rule meant to guarantee auditor independence.

Cameran and Perotti (2014) looked at 136 listed and unlisted Italian banks to determine how the implementation of IFRS affected audit costs from 1999 to 2006. The authors specifically looked at the impact of the first and second years of IFRS implementation on audit fees. They also examined how trading in futures affected the connection to audit fees. The findings show that

higher audit fees are assessed during the first and second years of Italy's implementation of IFRS. Additionally, the results imply that the financial instrument is linked to a rise in audit fees.

In a Chinese context, Shan and Troshani (2016) looked at the similar relationship between IFRS and audit fees. They discover that the adoption of IFRS increases audit costs for all the firms under consideration by conducting a multivariate analysis on a sample of 1,798 firm-year observations of listed companies on the Shanghai Stock Exchange. Additionally, they discovered that although there was a significant correlation between all of the businesses, smaller businesses were more strongly affected than bigger ones.

In Jordan, Abu Rishah and Al-Saeed (2014) also looked at this subject. Over the years 1998 to 2011, they sampled 91 Jordanian industrial firms that were listed on the Amman Stock Exchange. According to their results, audit fees have grown since listed Jordanian firms started using IFRS. The study's findings also revealed that foreign accounting companies' members demand greater audit fees than do local Jordanian CPA firms. According to the study, audit fees were significantly impacted by the variables used as control variables, including accounts receivable, inventory, loss, firm size, and total assets.

More proof of the connection between IFRS adoption and audit fees in China was offered by Lin and Yen (2016). By employing 2000 listed firms in China, they specifically looked at how an auditor's and client's experiences with IFRS effect the auditor's pricing (i.e. fees) decisions in the early years of IFRS implementation. The annual reports of the corporations were used to gather information on audit fees and audit opinions. From 2005 to 2008, they looked at 4,129 sample observations of A-shares listed on the Shanghai and Shenzhen stock exchanges. Their findings demonstrate that during the early years of IFRS implementation, audit firms having IFRS-related experience prior to the adoption demand high rates. On the other side, in the early years of IFRS implementation, customers with relevant IFRS experience paid reduced audit rates. The authors also discovered that the link between the adoption of IFRS and audit fees is significantly influenced by the firm's financial reporting complexity. The authors looked deeper into the association between state ownership and auditor size. The findings show that audit costs have skyrocketed in the years after the implementation of IFRS, especially for businesses with limited state ownership and those audited by the Big Four organizations.

Utilizing an analytical audit fee model and a sample of 29,206 firm-years from 14 EU nations between the years 2004 and 2008, Kim et al. (2012) empirically investigated the effect of IFRS adoption on audit fees. They also looked at the potential impact of audit task difficulty on the relationship. Findings indicate that audit fees rise when mandated IFRS adoption occurs, and the complexity of the audit process only strengthens this association. The authors also find evidence that the adoption of IFRS improves the quality of financial reporting, which in turn lowers audit costs. This is due to the level of accounting discrepancies between IFRS and a country's native GAAP.

Additionally, Vieru and Schadewitz (2010) looked at how the implementation of IFRS affected audit fees for 73 companies listed on the Finnish stock exchange. 146 firm-years from the years 2004 and 2005 are the basis for the data collected on audit and non-audit fees. By calculating the size of IFRS adjustments based on an indicator of divergence between IFRS and local accounting standards, they were able to estimate the complexity of the IFRS transition. Findings point to a strong correlation between the adoption of IFRS and all fees paid to auditors, including non-audit fees. The authors also discovered that the correlation was stronger in 2004 than in 2005. When they looked at the fees independently, they discovered that for the years 2004 and 2005, there was no significant relationship between the size of IFRS adjustments and audit fees.

In a similar vein, Choi and Yoon (2014) discover that fees dramatically rose in South Korea following the implementation of IFRS and that the occurrence was more frequent for businesses audited by the Big Four audit firms.

However, Goncharov et al. (2012) presented evidence to the opposite about the connection between the adoption of IFRS and audit fees. Their sample comprises publicly traded real estate firms operating in the European Union from 2001 to 2008. They also looked at how such a connection might be affected by the fair value and cost models of recording investments. Their preliminary findings suggest that audit fees and IFRS are not strongly related. They discover that firms that switch from reporting depreciated cost under domestic standards to reporting depreciated cost under IFRS have higher audit costs than firms that utilize fair value with regard to the impact of the technique used to record investment assets on the association.

Chen et al. (2014) carried out another investigation. He specifically looked at the same goal for a sample of 24,112 firm-year data from 17 different European nations for the years 2000 to 2009. He also looked at how the skill of the auditors in IFRS affected the link between the adoption of IFRS and audit fees. The conclusions showed that following the implementation of IFRS, audit fees rose. He also discovered that compared to auditors with strong IFRS experience, those with weaker IFRS expertise demand higher audit rates.

Looking at the relevance of IFRS adoption in Africa, The impacts of IFRS adoption on foreign direct investment in 34 African nations over a 20-year period are examined by Nnadi and Soobaroyen (2015). Their findings indicate a conflict between the implementation of IFRS and foreign direct investment in Africa.

Additionally, a research conducted in Ghana by Coffie and Bedi (2018) attempted to evaluate the impact of business size and the implementation of international financial reporting standards (IFRS) on the calculation of auditors' fees in the Ghanaian financial sector. 52 public and unlisted firms' annual reports were evaluated in the study between 2003 and 2014. The researchers employed robust fixed effects panel regression to assess the hypotheses presented in the study. The study's findings revealed a positive correlation between the adoption of IFRS and audit fees, which means that adopting IFRS will result in banks and insurance companies paying more for audits. The study also revealed a strong and positive relationship between firm size and audit fees. This demonstrated that a key factor in determining audit fees is the size of the company being audited.

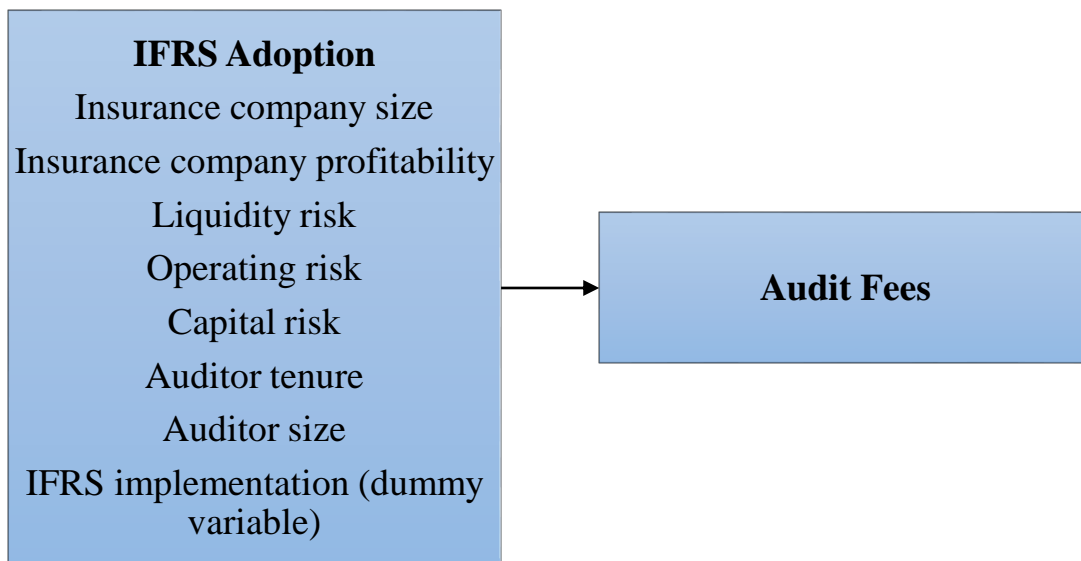
When it comes to Ethiopia, Amanuel Tsegaye's (2019) study attempted to evaluate the effects of IFRS adoption requirements on the audit fees charged by Commercial Banks in Ethiopia. The study employed a correlational research approach, and data from the banks' yearly financial audit reports from 2014 to 2018 were analyzed. The study's findings demonstrated a strong positive correlation between IFRS and audit fees in Ethiopian commercial banks. The study's findings also indicated that banks audited by non-Grade A audit companies had a larger increase in audit fees during the post-IFRS era than banks audited by Grade A audit firms.

## 2.4 Summary of Literature and Identified Gaps

As seen in the literature review, most of the studies conducted in this area are from developed countries, and there is only a handful of studies conducted into this topic in the developing world, specifically sub-Saharan Africa. Moreover, those studies that were conducted in the developing countries context tend to focus on aspects of the Auditee (the organizations being audited), while not shedding much light to auditor related factors, such as the expertise of the Auditor and its tenure, with regards to assessing the changes in Audit fees charged by Auditors prior to and after implementation of IFRS. In addition, the literature review shows a literature gap in showing the effect IFRS has on the audit fees that insurance companies pay for the audit services they acquire. This means that there is lack of studies conducted in the insurance sector with regards to assessing effect of IFRS on Audit fees, particularly in the East-African Context, including Ethiopia. Hence, to address these issues, this study will try to assess the effects of IFRS implementation on Audit fees in the context of Ethiopian insurance companies, which are some of the major financial institutions that are essential to the Economy of Ethiopia.

## 2.5 Conceptual Framework

Figure 1: Conceptual Framework of the Study



Source: Author (2020)

## **Chapter Three**

### **Research Methodology**

The methodology portion of this chapter of the study will explicitly outline the research designs and methods used for data collecting and analysis since the primary goal of the study is to ascertain the impact of IFRS adoption on Audit Fees in the instance of Ethiopian insurance companies.

#### **3.1 Research Approach**

Both quantitative and qualitative methods will be used in the study. Through the use of a variety of statistical and graphical methods, numerically measurable variables are studied to examine correlations between them in quantitative research (Creswell, 2014). Additionally, a qualitative research approach was utilized to interview employees and managers in order to understand their perspectives on the implementation of IFRS and audit fees as well as their experiences. Utilizing both qualitative and quantitative research techniques at the same time allows for a more thorough grasp of the topic being studied and counteracts any potential limitations that can result from utilizing either method separately (Dawadi et al., 2021).

#### **3.2 Research Design**

This study will employ an explanatory research design as its methodology. Explanatory research is appropriate when the research problem is already well-documented because it primarily explains the cause-and-effect correlations among variables (Zikmund et. al. 2003). The causality of the relationship between the dependent and independent variables will be examined using the explanatory research design. The explanatory form of study, according to Kothari (2004), aims to explain the causal relationship between the independent and dependent variables while describing occurrences. Additionally, the study used a panel-data research approach that combined cross-sectional and time series analysis.

### **3.3 Sampling methods**

#### **3.3.1 Target Population**

The study specifically targets the financial services sector of Ethiopian financial institutions. Therefore, all commercial and public insurance businesses operating in Ethiopia are the study's target audience. Therefore, the insurance companies to be selected were those that were already in existence before the period of IFRS adoption in the Ethiopian financial services industry. This analysis and examination of this study was focused on showing the effects of IFRS adoption on the audit fees of the insurance companies selected exploring the time before and after IFRS was mandated to be implemented in the financial institutions of Ethiopia, with which they complied after. The year by which IFRS was largely started to be implemented in Ethiopian financial institutions was 2016, as per the Accounting and Auditing Board of Ethiopia (AABE).

#### **3.3.2 Sampling Technique and sample population**

With the above sections in point, a non-probabilistic, purposive sampling technique was employed to gather the data for this investigation. As previously noted, all insurance businesses that were in operation before the Ethiopian financial services sector adopted IFRS and those that had published audited financial statements for the period in this study (meaning those which had published audit reports starting from 2010/2011) were included. Therefore, nine (9) of the eighteen (18) insurers active in the nation that meet this condition were chosen. To examine the status of audit fees of Ethiopian insurance companies before and after the implementation of IFRS in the institutions, the data to be gathered from each Insurance company included in this study was for the study period of the last 10 years (2011-2020).

### **3.4 Source and Instruments of Data Collection**

The process of acquiring and measuring information on relevant variables in a predetermined, methodical way that enables one to respond to the stated research questions, test hypotheses, and assess results is known as data collection. Through the use of an interview with open-ended questions, primary data will be gathered. Additionally, secondary data will be gathered from books, websites, journals, and annual reports of the organizations to support the study's major contribution to the field in terms of academic and organizational learning.



### **3.5 Procedure of Data Collection**

Interviews with representatives from the chosen Ethiopian insurance companies will be used to gather primary data. The interview will be given to respondents who are carefully selected, and which are located at the headquarters of these insurance companies, and it will be conducted in person after a brief explanation of the study's goals.

Additionally, the published yearly reports of the insurance firms will provide the secondary data needed to assess the various independent and dependent variables. The data for the past ten years (2011–2020) regarding the study's variables will be used for this purpose and will be taken from the annual reports and financial statements. Clarification will be requested from the insurance firms themselves in any situation where there are differences within the annual reports or the financial accounts.

### **3.6 Variable Description**

#### **3.6.1 Independent Variables**

- Insurer size, natural logarithm of the total asset of the insurance company
- Insurer profitability, insurance companies net income divided by average assets;
- Liquidity risk, liquid asset divided by total assets of insurance companies
- Capital risk, risk-adjusted capital adequacy ratio;
- Operational risk, cost to income ratio;
- Auditor tenure, Dummy variable given the value of 1 if a typical auditor serves its client more than 3 consecutive years and 0 if it serves less than 3 year
- Auditor size, dummy variable 1 if the insurance company is audited by Grade A auditor, 0 otherwise;
- IFRS, dummy variable given the value of 1 if IFRS has been implemented on a specific year, and 0 otherwise;

#### **3.6.2 Dependent Variables**

- Audit fees, natural logarithm of the audit fee

### 3.7 Method of Data Analysis

This study will employ STATA version 14.2 statistical analysis software for data analysis. Descriptive statistics (frequency, mean, and standard deviations) are employed in the statistical analysis to characterize the facts that are known about the variables of IFRS adoption and audit fees. Inferential statistics will also be utilized to examine the effects of IFRS adoption in Ethiopian insurance businesses on audit fees, by using Pearson's correlation and multiple linear regressions (Creswell, 2014). Regarding regression, all diagnostic tests for the assumptions of the Classic Linear Regression Model will be used to determine whether the models to be used in this study satisfy the assumptions. Analysis and comparison of the relationship between the independent variables (factors influencing or determinants of audit fees) and the dependent variable (audit fees) before and after the implementation of IFRS will be done by regression analysis (2016 E.C).

#### 3.7.1 Regression Model Specification

To analyze the effects of IFRS adoption on audit fees in Ethiopian insurance companies, regression analysis will be employed.

The following regression model was developed to examine the relationship between the dependent and independent variables of the study in two separate regression models, which reflect the period before implementation of IFRS and the period after the implementation of IFRS.

Model 1 (For the years 2011- 2015, before the government mandated the implementation of IFRS in the financial industry):

$$LNAUDFEE_{it} = \alpha_i + \beta_1 LNASSET_{it} + \beta_2 ROA_{it} + \beta_3 LIQ_{it} + \beta_4 CAR_{it} + \beta_5 CIR_{it} + \beta_6 AUDITSIZE_{it} + \beta_7 TENURE_{it} + \hat{\epsilon}$$

Model 2 (For the years 2016 – 2020, after the year for which the proclamation was given out by the government.):

$$LNAUDFEE_{it} = \alpha_i + \beta_1 LNASSET_{it} + \beta_2 ROA_{it} + \beta_3 LIQ_{it} + \beta_4 CAR_{it} + \beta_5 CIR_{it} + \beta_6 AUDITSIZE_{it} + \beta_7 TENURE_{it} + \beta_8 IFRS_{it} + \hat{\epsilon}$$

Where:

- LNAUDFEE- is the dependent variable in natural logarithm of the audit fee;
- LNASET- is the natural logarithm of total assets;
- LIQ- liquid asset divided by current liabilities of insurance companies;
- ROA: insurance companies net income divided by average assets;
- CAR: risk-adjusted capital adequacy ratio;
- CIR: Cost to income ratio;
- AUDIITSIZE: A dummy variable 1 if the insurance company is audited by Grade A auditor, 0 otherwise;
- TENURE: A dummy variable with value of 1 if the auditor has been retained for three years consecutively and 0 if otherwise.
- IFRS: A dummy variable with value of 1 if IFRS has been implemented in that specific year and 0 otherwise;
- i and t represent individual cross-sectional unit and time respectively;
- $\hat{\epsilon}$ : error term.

### 3.7.2 Classical Linear Regression Model Assumptions To be Assessed

To ensure all the assumptions of the classical linear regression model are met, the following diagnostic tests will be conducted before the regression analysis will proceed:

- **Assumption 1: Homoscedasticity (Variance of the Errors is Constant)**

Homoscedasticity assumes that error term ( $\epsilon$ ) of the model has the same variance given any value of independent variables. If this condition is not met, meaning there is a different variance of error term, it leads to heteroscedasticity problem, which in turn means the estimators of the regression are inefficient and there will be underestimation of the variances and standard errors (Brooks, 2008). Hence, to test for assumption of homoscedasticity of CLRM, White's test is the test that will be used in this study. With this regards, the null hypothesis that will be used for the white test is:

H0: There is no Heteroscedasticity problem in the model.

With this regard, if the p-value of the test is greater than significance level, the null hypothesis will

be rejected and heteroscedasticity will be assumed.

- **Assumption 2: Covariance Between the Error Terms over Time is Zero**

When it comes to auto-correlation test, it is conducted to test whether the errors are linearly independent of one another or uncorrelated with one another. If the errors are correlated with one another, it would be stated that they are auto correlated (serially correlated). Therefore, to conduct test of this assumption, the Durbin-Watson (D-W) test is used (Wooldridge, 2009). Here if the results of the D-W statistic were seen to be in the acceptable no correlation zones, the regression is said to have no problem of autocorrelation.

- **Assumption 3: Normality Test (Errors are Normally Distributed)**

When it comes to normality assumption, error terms of the population are assumed to be normally distributed in the population. With this regard, if the error terms are not normally distributed, it means that identification and determination of significant explanatory variables will be difficult (Wooldridge, 2009) Hence, in this study, to check for normality, three diagnostic tests were employed. The first test is visualizations of histogram of residuals where the pattern resembles the normal bell-curve will be checked. Second, the values of skewness and kurtosis will be checked and contrasted against the perfect normal values of skewness and kurtosis are 0 and 3 respectively. Finally, the skewness/kurtosis test is conducted and the p-value will be assessed to check for acceptance/rejection of the null hypothesis of the error distribution being normal.

- **Assumption 4: Multicollinearity Test**

When it comes to multicollinearity, the collinearity problem is said to exist between independent variables when they have got correlation between them. When the independent variables of a study are close to perfectly correlated, it is said to have a multicollinearity problem in the data set (Wooldridge, 2009). As the models used in this study have multiple variables, testing for multicollinearity is a must. Hence, the diagnostic tests that were used to detect the multicollinearity problems were variance inflation factor (VIF) tests and correlation analysis between the independent variables. When it comes to the correlation analysis between the independent variables, a strong correlation generally leads to multicollinearity problem. Hence, based on Wooldridge (2013) study, a correlation value of more than 0.7 between independent variables is

considered as creating a multicollinearity problem. Moreover, when it comes to the VIF tests, the generally accepted rule of VIF value has to be less than 10 for each explanatory variable is applied here to reject the multicollinearity problem.

- **Fixed Effect Vs Random Effects**

As this study uses panel data, fixed effect and random effect GLS model are the two prominent models applied for the regression analysis of the data (Gujarati 2003). Hence, to test for the appropriate fit of fixed effects versus the random effect for the data set used in this study, the HAUSMAN specification tests is used. Here, by using STATA software package, the regression for both fixed effects and GLS-random effects is conducted and the results of the regressions are stored. Then, the Hausman specification test is run to identify which model is appropriate using p values to accept or reject the null hypotheses.

## **Chapter Four**

### **Results and Interpretation**

In the previous chapter detail insight was given concerning the research methodology followed in this study, this chapter presents the results of documentary reviews and the different tests made to ascertain the fulfilment of classical linear regression model assumptions.

#### **4.1 Descriptive statistics**

This section presents the outcomes of the descriptive statistics for main variables involved in the regression model. Key figures, including mean, median, standard deviation, minimum and maximum value were reported. This was generated to give overall description about data used in the model and served as data screening tool to spot unreasonable figure.

When it comes to the descriptive statistics analysis, the data that was collected for the period of 2011-2015 and 2016-2020 respectively so as to include assessment of the IFRS implementation since 2016 (which was the year IFRS was universally implemented in the financial companies of Ethiopia), as a variable in its own, as it could not be used as a variable before 2016 as it wasn't implemented yet.

As it is shown table below, Audit Fee of insurance companies in Ethiopia measured in terms of Natural Logarithm of Audit Fee (LNAUDFEE) for the total 90 observations divided by two study periods (2011-2015) and (2016-2020), with a maximum value of Br 421,000 and a minimum of Br 34,500. This variation is a reflection of the size and complexity of the audited insurance institutions. Moreover, there is a big difference among insurance companies with respect to asset owned by them, as seen in the tables below.

Table 1: Descriptive statistics of the variables for the period of 2011-2015

Variable	Obs	Mean	Std. Dev.	Min	Max
LNAUDFEE	45	11.21293	.5552281	10.44871	12.85448
LNASSET	45	19.87741	.8296843	17.9954	21.86849
ROA	45	.1250027	.1192954	.0029	.84544
LIQ	45	1.006566	.2202662	.3646	1.63196
CAR	45	.3795083	.0894536	.2394454	.5563557
CIR	45	.9443885	.7234698	.149097	4.105917
AUDITSIZE	45	.8444444	.3665289	0	1
TENURE	45	.6222222	.4903101	0	1

Source: Author's computation (2022)

Table 2: Descriptive statistics of the variables for the period of 2016-2020

Variable	Obs	Mean	Std. Dev.	Min	Max
LNAUDFEE	45	11.85233	.7087024	10.79958	13.11594
LNASSET	45	20.93182	.8739133	19.30913	23.23805
ROA	45	.0835025	.0346353	-.0113907	.1690084
LIQ	45	.9399092	.2283583	.12444	1.4691
CAR	45	.3863224	.0925227	.1872406	.6461637
CIR	45	1.04083	.4973417	.421198	2.570691
AUDITSIZE	45	.9777778	.1490712	0	1
TENURE	45	.7555556	.4346135	0	1
IFRS	45	.8222222	.3866458	0	1

Source: Author's computation (2022)

Size of client's business (SIZE) is measured by natural log of total assets and varies between the different insurance companies. The mean value of the natural logarithm of insurance companies' size is 19.87741 during 2011-2015 and 20.93182 during 2016-2020. This shows a slight increase after the implementation of IFRS during 2016. Moreover, Liquidity ratio (LIQ) shows the short average term liquidity position of a company and it has an average value of 1.006566 before the implementation of IFRS and a ratio of 0.939909 after the implementation of IFRS, which shows

a slight decrease. In addition, when it comes to profitability the mean values were seen to be 0.125003 and 0.083503 for the period of 2011-2015 and 2016-2020 respectively.

CAR shows the company's credit risk at hand. It shows that, the maximum and minimum values of 0.556356 and 0.239445 respectively before implementation of IFRS, and a max and min values of 0.646164 and 0.187241 respectively after implementation of IFRS, respectively. The average amount of operational risk (CIR) is 7.54 with a standard deviation of 0.944388 for 2011-2015 and 1.040830 for 2016-2020 with a standard deviation of 0.723470.

Tenure measures the years by which the companies have kept the same auditor meaning it's a dummy variable with a value of 1 given when they have kept the same auditor for 3 consecutive years. It has average values of 0.62 and 0.75 for the periods before and after implementation of IFRS respectively.

In addition, another dummy variable, is used to represent the years on which the insurance companies rendered services of Grade 'A' assigned auditors, where by a value of 1 was given and 0 if the auditors were not Grade 'A' assigned. Hence, the results show that the mean values were 0.84 and 0.97 for the periods of 2011-2015 and 2016-2020 respectively.

Moreover, for on the second study period chosen for this study, a dummy variable representing IFRS implementation was assigned. Here a value of 1 was given on the years where IFRS had been implemented in the insurance companies. Hence, the results show that the mean value was 0.8222 with a standard deviation of 0.386646.

## **4.2 Correlation Results**

When it comes to the correlation analysis conducted in the study, the data that was collected for the period of 2011-2015 and 2016-2020 respectively was analyzed. The independent variable of IFRS dummy variable was added to the second study period, which was 2016-2020 as opposed to it being excluded from the first period. The major reason for doing this was to include assessment of the IFRS implementation since 2016, which was the year IFRS was universally implemented in the financial companies of Ethiopia through the use of a dummy variable that represents it.

The correlation results for the two models used in this study is given below and described in detail.



Table 3: Correlation results for the variables included in model1 of the study (for the period of 2011-2015)

	LNAUDFEE	LNASSET	ROA	LIQ	CAR	CIR	AUDITSIZE	TENURE
LNAUDFEE	1.0000							
LNASSET	0.7112*	1.0000						
	0.0000							
ROA	0.2079	0.1780	1.0000					
	0.1705	0.2422						
LIQ	0.0016	-0.2490	0.0381	1.0000				
	0.9914	0.0990	0.8039					
CAR	-0.5434*	-0.2224	0.0937	0.0771	1.0000			
	0.0001	0.1420	0.5405	0.6147				
CIR	-0.3140*	-0.4105*	-0.2398	-0.1063	0.0671	1.0000		
	0.0357	0.0051	0.1126	0.4873	0.6614			
AUDITSIZE	0.3045*	0.2429	0.1555	-0.0677	-0.3565*	0.0235	1.0000	
	0.0420	0.1080	0.3077	0.6587	0.0162	0.8782		
TENURE	0.2549	0.2179	0.2009	-0.1294	-0.1046	-0.0061	0.2979*	1.000
	0.0910	0.1505	0.1857	0.3970	0.4940	0.9680	0.0469	

Source: Author's computation (2022)

Here using data collected for the period of 2011-2015 for this correlation analysis, the results of the correlation analysis showed that Insurer's size had a positive and statistically significant correlation with audit fees, while Capital risk and Operational risk had a negative and statistically significant correlation with audit fees (Pearson coefficient values of -0.543414 and -0.313954 respectively, and p-values of 0.0001 and 0.0357 respectively). In addition, the size of the auditors of the insurance companies had a positive and statistically significant correlation with audit fees (Pearson coefficient of 0.304529 and p-value of 0.0420).

Meanwhile profitability (0.20745), liquidity risk (0.001648) and auditor's tenure (0.254943) had positive and statistically insignificant correlations with audit fees (p-values of 0.1705, 0.9914, and 0.0910 respectively).

Table 4: Correlation results for the variables included in model2 of the study (for the period of 2016-2020)

	LNAUDFEE	LNASSET	ROA	LIQ	CAR	CIR	AUDITSIZE	TENURE	IFRS
LNAUDFEE	1.0000								
LNASSET	0.6039*	1.0000							
	0.0000								
ROA	0.1724	0.0374	1.0000						
	0.2574	0.8075							
LIQ	0.2478	-0.0697	0.5725*	1.0000					
	0.1008	0.6490	0.0000						
CAR	-0.4541*	-0.3301*	0.0822	0.0620	1.0000				
	0.0017	0.0268	0.5915	0.6857					
CIR	0.0297	-0.3097*	-0.2249	0.2527	- 0.0479	1.0000			
	0.8465	0.0384	0.1374	0.0940	0.7547				
AUDITSIZE	0.2265	0.2831	-0.2922	- 0.3533*	- 0.0964	0.1537	1.0000		
	0.1347	0.0595	0.0515	0.0173	0.5288	0.3135			
TENURE	0.2816	0.2076	0.1655	0.3356*	- 0.0082	-0.0625	-0.0857	1.0000	
	0.0609	0.1711	0.2774	0.0242	0.9571	0.6832	0.5754	0.1413	1.0000
IFRS	0.2926	0.1105	0.0706	0.1363	- 0.1453	- 0.4251*	-0.0701	0.3547	
	0.0512	0.4699	0.6450	0.3719	0.3411	0.0036	0.6473		

Source: Author's computation (2022)

When it comes to the second set of data collected, which was for the period of 2016-2020, the results of the correlation analysis showed that, Insurance companies' size had a positive (Pearson

coefficient of 0.6024808) and statistically significant (p-value of 0.00) correlation with audit fees, as well as the dummy variable of IFRS implementation (IFRS) which had a positive (0.2926) but statistically insignificant correlation with the audit fees (p-value of 0.0512).

In addition, capital risk had a negative and statistically significant correlation with audit fees (Pearson coefficient of -0.4541 and p-value of 0.0017). Meanwhile, Profitability (0.1724), Liquidity risk (0.2478), and Operational risk (0.0297) had a positive and statistically insignificant correlation with audit fees (p-values of 0.2574, 0.1008 and 0.8465 respectively). Furthermore, Auditor characteristics such as Auditors' size (0.2265) and auditors' tenure (0.2816) had a similar positive and statistically insignificant correlations with Audit fees (p-values of 0.1347 and 0.0512 respectively).

### **4.3 Regression Analysis**

When it comes to the regression analysis conducted in the study, as similarly with the above correlation analysis, two different models were used. The two models represent the data that was collected for the period of 2011-2015 and 2016-2020 respectively. This is because, 2016 was taken as the year that the IFRS was universally implemented in the insurance companies included in this study. Hence, the additional independent variable of IFRS dummy variable was added to the second regression model as opposed to it being excluded from the first model. Hence, the major reason for dividing the study period into two time periods and two regression models is to include assessment of the IFRS implementation since 2016 through the use of a dummy variable that represents it.

#### **4.3.1 Test results for the classical linear regression model assumptions**

As it is mentioned in methodology part, diagnostic tests were carried out to confirm that the data fits the basic assumptions of classical linear regression model. Hence, the results for model misspecification tests are presented as follows:

##### **4.3.1.1 Test for Heteroscedasticity**

One of the CLRM assumptions says that the variance of the errors is constant. This is known as the assumption of homoscedasticity. If the errors do not have a constant variance, they are said to

be heteroscedastic (Brooks, 2008, p 132). In this study as shown in the table below, white's heteroscedasticity test was used, where by the null hypothesis which states the data set is homoscedastic was tested. Hence after running the test for both model 1 and model 2, the results showed that the p values were 0.3023 and 0.8603 for model 1 and model 2 variables respectively. Here the results explain that the p-values are well above the significance level of 0.05, which means the null hypothesis of homoscedasticity is not rejected for both models. Hence, it can be said the data set for both models is homoscedastic.

Table 5: White's heteroscedasticity test results for model 1

```
White's test for Ho: homoskedasticity
      against Ha: unrestricted heteroskedasticity

      chi2(33)      =      36.67
      Prob > chi2    =      0.3023
```

Cameron & Trivedi's decomposition of IM-test

Source	chi2	df	p
Heteroskedasticity	36.67	33	0.3023
Skewness	6.40	7	0.4934
Kurtosis	1.17	1	0.2789
Total	44.25	41	0.3361

Source: Author's computation (2022)

Table 6: White's heteroscedasticity test results for model 2

White's test for  $H_0$ : homoskedasticity  
against  $H_a$ : unrestricted heteroskedasticity

chi2(34) = 25.28  
Prob > chi2 = 0.8603

Cameron & Trivedi's decomposition of IM-test

Source	chi2	df	p
Heteroskedasticity	25.28	34	0.8603
Skewness	5.64	8	0.6879
Kurtosis	1.00	1	0.3165
Total	31.92	43	0.8930

Source: Author's computation (2022)

#### 4.3.1.2 Test for Autocorrelation

The researcher tested the autocorrelation assumptions that imply zero covariance or error terms. That means errors associated with one observation are uncorrelated with the errors of any other observation. As noted in Brooks (2008), the best well-known test for detecting serial correlation is the Durbin Watson test. Accordingly, the acceptable lower bound (DL) and upper bound (DU) values for the Durbin Watson test statistic for 45 observations and 7 repressors were seen to be 1.019 and 1.704 respectively. Hence with this regard, the Durbin Watson values for this study was seen to be 0.99 for model and 2.14 for model 2. Although it can be said that there is no conclusive evidence for the presence of autocorrelation for model 2, there was seen to be some issue of autocorrelation with regards to model 1. To remedy this problem, a GLS regression is conducted for this model instead of a normal OLS regression.

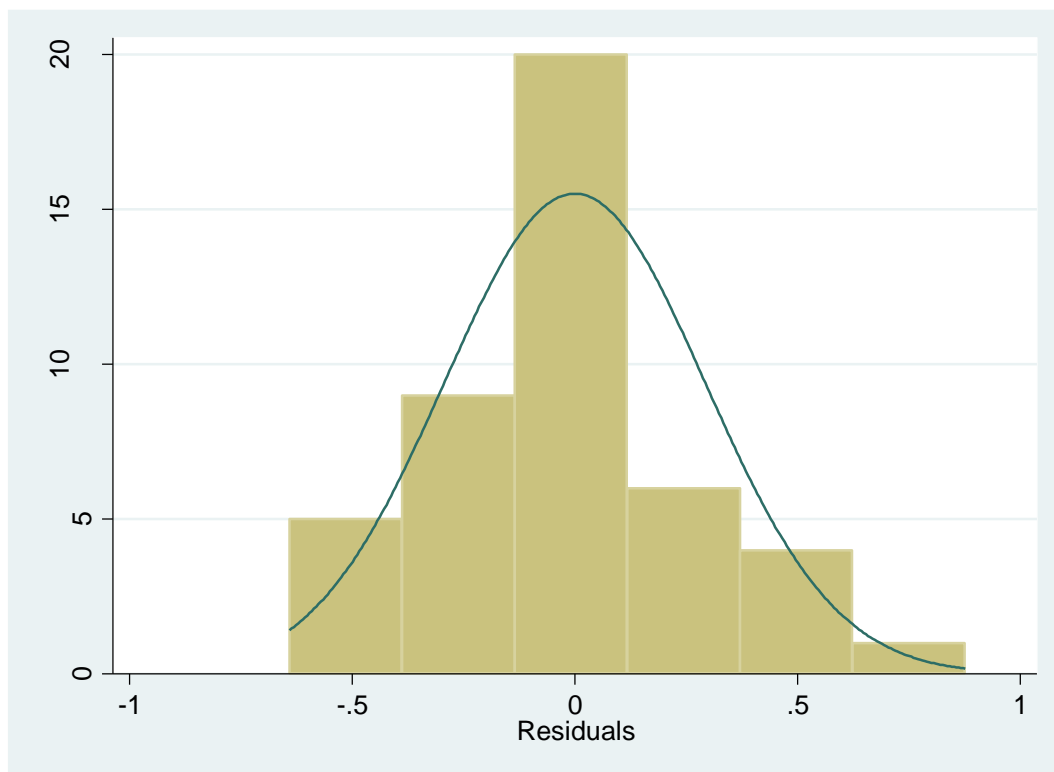
Model 1: Durbin-Watson d-statistic (8, 45) = .9916257

Model 2: Durbin-Watson d-statistic (9, 45) = 2.143592

#### 4.3.1.3 Test for normality

With regards to normality test, for this study, three diagnostic tests were used to check for normality of the error terms of the variables used. First, the error terms of the dependent variables for both models were predicted, and then the histogram plot of the error terms for the variables was visually inspected on whether the histogram meets the expected bell-curve criteria. Second, the values of the skewness and kurtosis for the error terms was computed. Finally, the skewness and kurtosis tests for normality was conducted and the p-value was analyzed to either accept or reject the null hypothesis of error terms being normally distributed.

Figure 2: Normality test results for model 1



Source: Author's computation (2022)

Hence, as can be seen in the above tables and figure, for model 1, the histogram of the distribution of the residuals for the dependent variable of the study showed that it had normal bell-curve distribution, which signals normality.

Table 7: skewness and kurtosis values for model 1

Residuals				
	Percentiles	Smallest		
1%	-.6414326	-.6414326		
5%	-.4782338	-.5053273		
10%	-.4250672	-.4782338	Obs	45
25%	-.176117	-.4552358	Sum of Wgt.	45
50%	-.0121966		Mean	9.11e-10
		Largest	Std. Dev.	.2929604
75%	.103731	.3978848		
90%	.3919319	.5300491	Variance	.0858258
95%	.5300491	.5893713	Skewness	.4135946
99%	.8775092	.8775092	Kurtosis	3.907426

Source: Author's computation (2022)

In addition, checking for the values of skewness and kurtosis of the error terms (residuals), their values are near to the perfect normal distribution values of 0 and 3 respectively, which again shows normal distribution of the error terms.

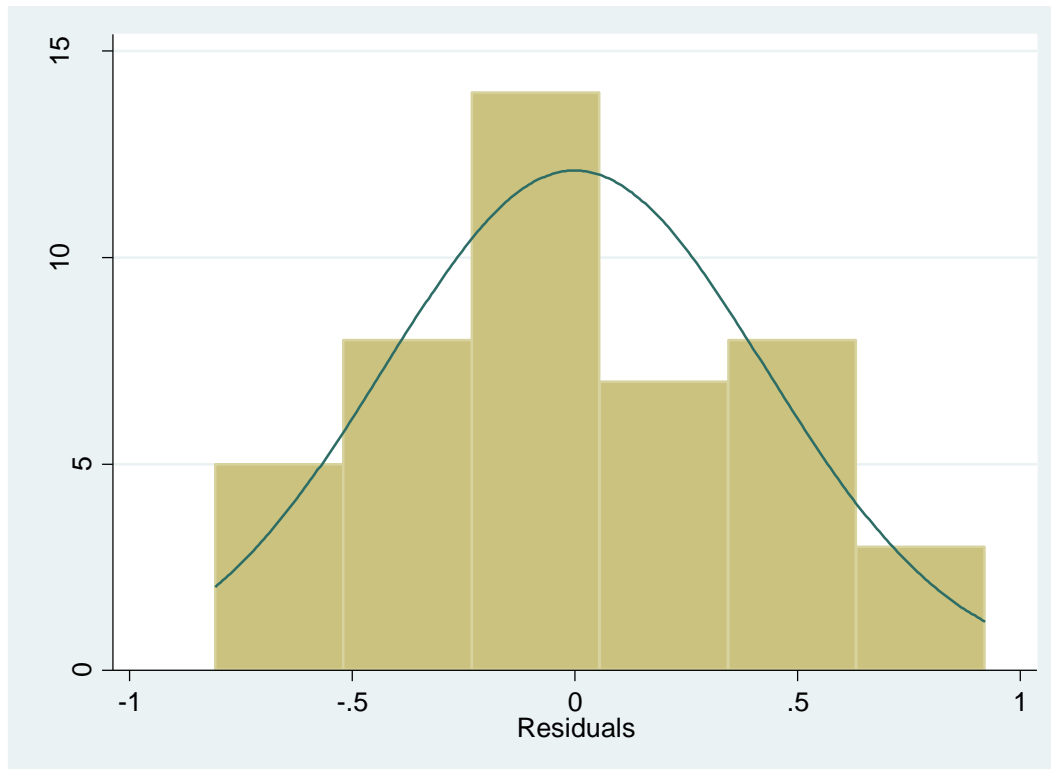
Table 8: Skewness/Kurtosis tests for Normality for model 1

Skewness/Kurtosis tests for Normality					
Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
AUDITFEEre~d	45	0.2144	0.1242	4.08	0.1299

Source: Author's computation (2022)

And with regards to the skewness and kurtosis tests of the error terms of the dependent variable, the results showed that the null hypothesis of error terms being normally distributed is not rejected as the p-value of 0.1299 was seen to be larger than the significance level of 0.05, which would have warranted the rejection of the null hypothesis. Hence, it can be concluded that the error terms of the dependent variable for model 1 of this study are normally distributed.

Figure 3: Normality test results for model 2



Source: Author's computation (2022)

For model 2 of the study, similar technique was used where the residuals of the dependent variable were predicted and a histogram of the disturbance was plotted. Hence, as can be seen in the above figure, the error terms look to be normally distributed as the expected bell-curve is present.



Table 9: Skewness and Kurtosis values for model 2

Residuals				
	Percentiles	Smallest		
1%	-.8081718	-.8081718		
5%	-.6606593	-.6714646		
10%	-.5239835	-.6606593	Obs	45
25%	-.2844657	-.6220992	Sum of Wgt.	45
50%	-.0191874		Mean	-3.83e-10
		Largest	Std. Dev.	.4272204
75%	.3062982	.6185537		
90%	.5831431	.8369197	Variance	.1825173
95%	.8369197	.8925949	Skewness	.3096649
99%	.9209725	.9209725	Kurtosis	2.531829

Source: Author's computation (2022)

When it comes to the skewness and kurtosis results, the results are similar to the previous model, where by the results were near the perfect normal distribution values; hence, normality of the error terms was assumed.

Table 10: Skewness/Kurtosis tests for Normality for model 2

Skewness/Kurtosis tests for Normality					
Variable	Obs	Pr (Skewness)	Pr (Kurtosis)	adj chi2 (2)	joint Prob>chi2
LNAUDFEere~1	45	0.3472	0.6489	1.14	0.5650

Source: Author's computation (2022)

Finally, when assessing for the skewness/kurtosis tests, the results showed that the null hypothesis of error terms being normally distributed is not rejected as the p-value for the test was greater than the significance level of 0.05. Hence, it can be concluded that the error terms for the dependent variable of the second model were normally distributed.

#### 4.3.1.4 Test for Multi-collinearity

When employing regression techniques, it is implicitly assumed that the independent variables are unrelated to one another. The independent variables are said to be orthogonal to one another if there is no relationship between them. Adding or subtracting a variable from a regression equation would not impact the values of the coefficients on the other explanatory variables, if the explanatory variables were orthogonal to one another (Brooks, 2008).

According to Gujarati, (2004) multicollinearity could only be a problem if the VIF factor analyzed is greater than 10 as cited in Birhanu, (2020). Hence, as the results for both models show, the variables of the study had lower than 10 VIF values, which shows there is not a problem of multicollinearity.

Moreover, a correlation analysis matrix of the independent variables for both models is presented below, which shows that there was no strong correlation between the independent variables used in the study.

Table 11: Multi-collinearity test results for model 1

Variable	VIF	1/VIF
LNASSET	1.50	0.665762
CIR	1.36	0.734539
AUDITSIZE	1.32	0.757409
CAR	1.22	0.820077
ROA	1.17	0.855437
TENURE	1.17	0.857800
LIQ	1.14	0.878233
Mean VIF	1.27	

Source: Author's computation (2022)

Here, as can be seen from the above table, the Variance Inflation Factor (VIF) values for the independent variables used for model 1 of the study are well below the threshold value of 10. As the values of the VIF are near to 1, it shows that the problem of multicollinearity is highly unlikely to exist in model 1.

Table 12: Correlation Matrix for the independent variables of model 1

	LNASSET	ROA	LIQ	CAR	CIR	AUDITS~E	TENURE
LNASSET	1.0000						
ROA	0.1780	1.0000					
LIQ	-0.2490	0.0381	1.0000				
CAR	-0.2224	0.0937	0.0771	1.0000			
CIR	-0.4105	-0.2398	-0.1063	0.0671	1.0000		
AUDITSIZE	0.2429	0.1555	-0.0677	-0.3565	0.0235	1.0000	
TENURE	0.2179	0.2009	-0.1294	-0.1046	-0.0061	0.2979	1.0000

Source: Author's computation (2022)

In addition, when checking the correlation diagram for the independent variables of model 1, the results show that there is no perfect or strong correlation between the independent variables of the model 1. Hence taking VIF values and the above correlation results into consideration, it can be stated that there isn't a presence of multi-collinearity in the model.

Table 13: Multi-collinearity test results for model 2

Variable	VIF	1/VIF
LIQ	3.10	0.322840
CIR	2.74	0.365358
ROA	2.15	0.465215
LNASSET	1.64	0.610372
IFRS	1.61	0.619616
AUDITSIZE	1.52	0.656394
CAR	1.27	0.789727
TENURE	1.23	0.813605
Mean VIF	1.91	

Source: Author's computation (2022)

When assessing the VIF results for model 2 of the study, the results show that all of the independent variables used for model 2 had VIF values that were lower than the generally accepted threshold value of 10, which shows that the problem of multicollinearity was highly unlikely to occur.

Table 14: Correlation Matrix for independent variables of model 2

	LNASSET	ROA	LIQ	CAR	CIR	AUDITS~E	TENURE	IFRS
LNASSET	1.0000							
ROA	0.0374	1.0000						
LIQ	-0.0697	0.5725	1.0000					
CAR	-0.3301	0.0822	0.0620	1.0000				
CIR	-0.3097	-0.2249	0.2527	-0.0479	1.0000			
AUDITSIZE	0.2831	-0.2922	-0.3533	-0.0964	0.1537	1.0000		
TENURE	0.2076	0.1655	0.3356	-0.0082	-0.0625	-0.0857	1.0000	
IFRS	0.1105	0.0706	0.1363	-0.1453	-0.4251	-0.0701	0.1413	1.0000

Source: Author's computation (2022)

In addition, the results of the correlation analysis done on the independent variables for model 2 of the study showed that, there is not strong correlation between the independent variables included in model 2. Hence, taking these two tests into consideration, it can be said, there isn't a problem of multicollinearity.

#### 4.3.1.5 Model selection (Random effect versus fixed effect models)

Econometrics model used to examine the dependent and independent insurance companies in Ethiopia was panel data regression model which is either fixed-effect or random-effect model. Here, it was separated for the two models, where we were trying to assess the effects of IFRS on the audit fees via its determinants, separated by the year IFRS was implemented in Ethiopia. The method used to decide whether fixed effect or random effect model is appropriate was Hausman Specification Test.

Under the null hypothesis that unobservable individual effects ( $u_i$ ) are uncorrelated with one or more explanatory variables, the Hausman Specification Test determines whether a fixed-effect or random-effect model is most appropriate. Using the null hypothesis that states the unobservable individual effects are not correlated with the independent variables, a fixed effect model will be

accepted when null hypothesis is rejected, while random effect model is applied when null hypothesis is not rejected Gujarati (2004).

Hence, to test the null hypothesis stated above, Hausman test was run on both models used in this study. Here, as the P-value suggests, for the First model (From 2011-2015), random effects model is suitable as the null hypothesis is not rejected, while for the second model (From 2016-2020), fixed effects model is recommended as the p-value is less than 0.05 and the null hypothesis is rejected.

Table 15: Hausman test results for model 1

	—— Coefficients ——		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fe	(B) re		
LNASSET	.5246584	.4489461	.0757123	.1564502
ROA	.6489547	.6253208	.0236339	.1090942
LIQ	.1010595	.3717938	-.2707344	.2602658
CAR	-2.900408	-2.598989	-.301419	2.788838
CIR	.0432806	.0447564	-.0014759	.032513
AUDITSIZE	.0162571	.014884	.0013731	.1162542
TENURE	-.0376066	.0059177	-.0435242	.0441343

b = consistent under Ho and Ha; obtained from xtreg  
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(7) = (b-B)'[(V\_b-V\_B)^(-1)](b-B)  
= 10.38  
Prob>chi2 = 0.1679

Source: Author's computation (2022)

Table 16: Hausman test results for model 2

	—— Coefficients ——			
	(b) fe	(B) re	(b-B) Difference	$\sqrt{\text{diag}(V_b - V_B)}$ S.E.
LNASSET	.7623234	.4456396	.3166838	.4021018
ROA	2.570295	4.337537	-1.767241	2.525457
LIQ	-1.34135	.156167	-1.497517	.8643161
CAR	1.144569	-1.675524	2.820093	2.620004
CIR	.3592682	.4994825	-.1402143	.2613514
AUDITSIZE	-.3973497	.5072029	-.9045527	.3458759
TENURE	-.2366088	.1622984	-.3989073	.1089174
IFRS	.7334483	.5877386	.1457097	.1526254

b = consistent under  $H_0$  and  $H_a$ ; obtained from xtreg  
 B = inconsistent under  $H_a$ , efficient under  $H_0$ ; obtained from xtreg

Test:  $H_0$ : difference in coefficients not systematic

$\chi^2(8) = (b-B)'[(V_b - V_B)^{-1}](b-B)$   
 = 24.34  
 Prob> $\chi^2$  = 0.0020

Source: Author's computation (2022)

### 4.3.2 ANOVA test results

The table below displays the Stata result for the one-way ANOVA for the years 2011 through 2015, indicating if there is a statistically significant difference between the means of our groups. As we can see, the level of significance is 0.0000 ( $p = .000$ ), which is less than 0.05. There is, thus, a statistically significant variation in the mean productivity between the nine various categories of the insurance service businesses examined in this study. However, as we are unsure which particular groups were different, we attempted to determine this in the Pairwise comparisons of means with equal variances output, which includes the outcomes of our post hoc tests.

Table 17: ANOVA results for data collected from 2011-2015

COMPANY_ID	Summary of LNAUDFEE		
	Mean	Std. Dev.	Freq.
1	10.951376	.25673661	5
2	11.354369	.55156241	5
3	11.317358	.17009136	5
4	11.298662	.3260924	5
5	10.96108	.25251458	5
6	10.623151	.15647743	5
7	10.903633	.09408023	5
8	11.092017	.18957881	5
9	12.41472	.40245113	5
Total	11.21293	.55522806	45

Source	Analysis of Variance			F	Prob > F
	SS	df	MS		
Between groups	10.3626047	8	1.29532559	14.56	0.0000
Within groups	3.20163609	36	.088934336		
Total	13.5642408	44	.3082782		

Bartlett's test for equal variances:  $\chi^2(8) = 15.5609$  Prob> $\chi^2 = 0.049$

Source: Author's computation (2022)

We can infer from the data thus far that at least one of the group means differs from the others. Then, to identify which groups varied from one another, we may utilize the Stata output below, headed Pairwise comparisons of means with equal variances. There is a statistically significant difference in productivity between some of the insurance businesses included in this study, as shown by the p-value (i.e., the  $P>|t|$  row under the Tukey column) (p values which encompass of 0.000 values and 0.011 values). The means of the other insurance companies included in the analysis, however, were the same (p values greater than 0.05).

Table 18: Post-hoc test results for the data collected for the period of 2011-2015

Pairwise comparisons of means with equal variances

over : COMPANY\_ID

	Number of Comparisons
COMPANY_ID	36

LNAUDFEE	Contrast	Std. Err.	Tukey		Tukey	
			t	P> t	[95% Conf. Interval]	
COMPANY_ID						
2 vs 1	.4029936	.18861	2.14	0.466	-.2188706	1.024858
3 vs 1	.3659824	.18861	1.94	0.592	-.2558818	.9878465
4 vs 1	.3472862	.18861	1.84	0.656	-.2745779	.9691504
5 vs 1	.0097046	.18861	0.05	1.000	-.6121596	.6315688
6 vs 1	-.3282245	.18861	-1.74	0.719	-.9500887	.2936396
7 vs 1	-.0477426	.18861	-0.25	1.000	-.6696068	.5741215
8 vs 1	.1406417	.18861	0.75	0.998	-.4812225	.7625058
9 vs 1	1.463344	.18861	7.76	0.000	.8414797	2.085208
3 vs 2	-.0370112	.18861	-0.20	1.000	-.6588754	.5848529
4 vs 2	-.0557074	.18861	-0.30	1.000	-.6775715	.5661568
5 vs 2	-.393289	.18861	-2.09	0.498	-1.015153	.2285752
6 vs 2	-.7312182	.18861	-3.88	0.011	-1.353082	-.109354
7 vs 2	-.4507362	.18861	-2.39	0.320	-1.0726	.1711279
8 vs 2	-.2623519	.18861	-1.39	0.894	-.8842161	.3595122
9 vs 2	1.06035	.18861	5.62	0.000	.4384861	1.682214
4 vs 3	-.0186961	.18861	-0.10	1.000	-.6405603	.603168
5 vs 3	-.3562778	.18861	-1.89	0.625	-.9781419	.2655864
6 vs 3	-.6942069	.18861	-3.68	0.019	-1.316071	-.0723427
7 vs 3	-.413725	.18861	-2.19	0.431	-1.035589	.2081392
8 vs 3	-.2253407	.18861	-1.19	0.952	-.8472049	.3965235
9 vs 3	1.097362	.18861	5.82	0.000	.4754974	1.719226
5 vs 4	-.3375816	.18861	-1.79	0.688	-.9594458	.2842825
6 vs 4	-.6755108	.18861	-3.58	0.025	-1.297375	-.0536466
7 vs 4	-.3950289	.18861	-2.09	0.493	-1.016893	.2268353
8 vs 4	-.2066446	.18861	-1.10	0.971	-.8285087	.4152196
9 vs 4	1.116058	.18861	5.92	0.000	.4941935	1.737922
6 vs 5	-.3379291	.18861	-1.79	0.687	-.9597933	.283935
7 vs 5	-.0574472	.18861	-0.30	1.000	-.6793114	.5644169
8 vs 5	.1309371	.18861	0.69	0.999	-.4909271	.7528012
9 vs 5	1.453639	.18861	7.71	0.000	.8317751	2.075503
7 vs 6	.2804819	.18861	1.49	0.854	-.3413822	.9023461
8 vs 6	.4688662	.18861	2.49	0.272	-.152998	1.09073
9 vs 6	1.791568	.18861	9.50	0.000	1.169704	2.413433
8 vs 7	.1883843	.18861	1.00	0.984	-.4334799	.8102484
9 vs 7	1.511087	.18861	8.01	0.000	.8892224	2.132951
9 vs 8	1.322702	.18861	7.01	0.000	.7008381	1.944566

Source: Author's computation (2022)



The table below displays the Stata result for the one-way ANOVA for the years 2016 through 2020, indicating if there is a statistically significant difference between the means of our groups. As we can see, the level of significance is 0.0000 ( $p = .000$ ), which is less than 0.05. There is, thus, a statistically significant variation in the mean productivity between the nine various categories of the insurance service businesses examined in this study. However, as we are unsure which particular groups were different, we attempted to determine this in the Pairwise comparisons of means with equal variances output, which includes the outcomes of our post hoc tests.

Table 19: ANOVA results for data collected from 2016-2020

COMPANY_ID	Summary of LNAUDFEE		
	Mean	Std. Dev.	Freq.
1	11.839109	.37672997	5
2	12.197339	.48374465	5
3	12.710575	.60585501	5
4	11.28362	.16183829	5
5	11.581906	.44574511	5
6	11.098553	.3559912	5
7	11.784846	.70791511	5
8	11.324164	.20921698	5
9	12.850876	.09438965	5
Total	11.852332	.70870244	45

Source	Analysis of Variance				
	SS	df	MS	F	Prob > F
Between groups	15.5056839	8	1.93821049	10.58	0.0000
Within groups	6.59371868	36	.183158852		
Total	22.0994026	44	.50225915		

Bartlett's test for equal variances:  $\chi^2(8) = 18.2859$  Prob> $\chi^2 = 0.019$

Source: Author's computation (2022)

We can infer from the data thus far that at least one of the group means differs from the others. Then, to identify which groups varied from one another, we may utilize the Stata output below, headed Pairwise comparisons of means with equal variances. There is a statistically significant difference in productivity between some of the insurance businesses included in this study, as

shown by the p-value (i.e., the  $P>|t|$  row under the Tukey column) (p values which encompass of 0.000 values and 0.011 values). The means of the other insurance companies included in the analysis, however, were the same (p values greater than 0.05).

Table 20: Post-hoc test results for the data collected for the period of 2016-2020

Pairwise comparisons of means with equal variances

over : COMPANY\_ID

	Number of Comparisons
COMPANY_ID	36

LNAUDFEE	Contrast	Std. Err.	Tukey		Tukey	
			t	P> t	[95% Conf. Interval]	
COMPANY_ID						
2 vs 1	.3582301	.2706724	1.32	0.918	-.5342011	1.250661
3 vs 1	.8714659	.2706724	3.22	0.060	-.0209653	1.763897
4 vs 1	-.5554884	.2706724	-2.05	0.519	-1.44792	.3369428
5 vs 1	-.2572023	.2706724	-0.95	0.988	-1.149633	.6352289
6 vs 1	-.7405562	.2706724	-2.74	0.171	-1.632987	.1518751
7 vs 1	-.0542627	.2706724	-0.20	1.000	-.946694	.8381685
8 vs 1	-.5149449	.2706724	-1.90	0.616	-1.407376	.3774863
9 vs 1	1.011767	.2706724	3.74	0.016	.1193357	1.904198
3 vs 2	.5132358	.2706724	1.90	0.621	-.3791954	1.405667
4 vs 2	-.9137185	.2706724	-3.38	0.041	-1.80615	-.0212873
5 vs 2	-.6154323	.2706724	-2.27	0.384	-1.507864	.2769989
6 vs 2	-1.098786	.2706724	-4.06	0.007	-1.991217	-.206355
7 vs 2	-.4124928	.2706724	-1.52	0.837	-1.304924	.4799384
8 vs 2	-.873175	.2706724	-3.23	0.059	-1.765606	.0192562
9 vs 2	.6535368	.2706724	2.41	0.307	-.2388944	1.545968
4 vs 3	-1.426954	.2706724	-5.27	0.000	-2.319386	-.5345231
5 vs 3	-1.128668	.2706724	-4.17	0.005	-2.021099	-.236237
6 vs 3	-1.612022	.2706724	-5.96	0.000	-2.504453	-.7195909
7 vs 3	-.9257287	.2706724	-3.42	0.037	-1.81816	-.0332974
8 vs 3	-1.386411	.2706724	-5.12	0.000	-2.278842	-.4939796
9 vs 3	.140301	.2706724	0.52	1.000	-.7521302	1.032732
5 vs 4	.2982862	.2706724	1.10	0.970	-.594145	1.190717
6 vs 4	-.1850677	.2706724	-0.68	0.999	-1.077499	.7073635
7 vs 4	.5012257	.2706724	1.85	0.649	-.3912055	1.393657
8 vs 4	.0405435	.2706724	0.15	1.000	-.8518877	.9329747
9 vs 4	1.567255	.2706724	5.79	0.000	.6748241	2.459687
6 vs 5	-.4833539	.2706724	-1.79	0.691	-1.375785	.4090773
7 vs 5	.2029395	.2706724	0.75	0.998	-.6894917	1.095371
8 vs 5	-.2577427	.2706724	-0.95	0.988	-1.150174	.6346885
9 vs 5	1.268969	.2706724	4.69	0.001	.376538	2.1614
7 vs 6	.6862934	.2706724	2.54	0.249	-.2061378	1.578725
8 vs 6	.2256112	.2706724	0.83	0.995	-.66682	1.118042
9 vs 6	1.752323	.2706724	6.47	0.000	.8598919	2.644754
8 vs 7	-.4606822	.2706724	-1.70	0.741	-1.353113	.431749
9 vs 7	1.06603	.2706724	3.94	0.010	.1735985	1.958461
9 vs 8	1.526712	.2706724	5.64	0.000	.6342806	2.419143

Source: Author's computation (2022)

### **4.3.3 Regression results**

In this section, the regression result of the two models that were used to assess the effect that determinants of audit fees had on the amount of Audit Fees charged to Insurance Companies in Ethiopia is presented.

With this regard, Stata 14.2 software package was used to do the regression analysis. And as explained above, GLS random effects was the appropriate model that was used for model 1 regression, while fixed effects model was seen to be appropriate for model 2. Hence, using these models, the following results were obtained.

Table 21: Regression analysis results for model 1

```

Random-effects GLS regression           Number of obs   =           45
Group variable: COMPANY_ID             Number of groups =           9

R-sq:                                  Obs per group:
    within = 0.4234                      min =           5
    between = 0.8019                     avg =          5.0
    overall = 0.7123                     max =           5

corr(u_i, X) = 0 (assumed)              Wald chi2(7)     =          60.96
                                           Prob > chi2      =          0.0000

```

LNAUDFEE	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
LNASSET	.4489461	.0817109	5.49	0.000	.2887956	.6090966
ROA	.6253208	.3820543	1.64	0.102	-.1234918	1.374133
LIQ	.3717938	.2539182	1.46	0.143	-.1258768	.8694644
CAR	-2.598989	.765383	-3.40	0.001	-4.099113	-1.098866
CIR	.0447564	.0698702	0.64	0.522	-.0921867	.1816996
AUDITSIZE	.014884	.1340671	0.11	0.912	-.2478826	.2776506
TENURE	.0059177	.0908509	0.07	0.948	-.1721469	.1839823
_cons	2.764462	1.745765	1.58	0.113	-.657174	6.186098
sigma_u	.15299368					
sigma_e	.24745158					
rho	.27655062	(fraction of variance due to u_i)				

Source: Author's computation (2022)

For the first model (for the period from 2011-2015), based on the regression result, the overall R-squared result of 0.7123 implies that 71.2% of fitness can be observed in the sample regression line. This can be further explained as, 71.2% of the total variation in Audit Fee is explained by the independent variables (Size, ROA, Liquidity risk, Capital risk, operating risk, auditor size and Auditor tenure) jointly. The remaining 28.8% of change is explained by other factors which are not included in the model. The Prob (F-statistic) value is 0.000 which indicates strong statistical significance, which enhanced the reliability and validity of the model.

With this regard, insurance company size (LNASSET) and capital risk (CAR) had a statistically significant result for this model. While the rest of the independent variables were seen to have statistically insignificant results.

All in all, the equation for this particular model after the regression analysis looks like:

$$\text{LNAUDFEE} = 2.764462 + 0.4489461 \cdot \text{LNASSET} + 0.6253208 \cdot \text{ROA} + 0.3717938 \cdot \text{LQ} - 2.598989 \cdot \text{CAR} + 0.0447564 \cdot \text{CIR} + 0.014884 \cdot \text{AUDITSIZE} + 0.059177 \cdot \text{TENURE} + \hat{\epsilon}$$

Table 22: Regression analysis results for model 2

Fixed-effects (within) regression	Number of obs	=	45
Group variable: COMPANY_ID	Number of groups	=	9
R-sq:	Obs per group:		
within = 0.6056	min =		5
between = 0.1793	avg =		5.0
overall = 0.2583	max =		5
	F(8,28)	=	5.37
corr(u_i, Xb) = -0.4819	Prob > F	=	0.0004

LNAUDFEE	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
LNASSET	.7623234	.2680404	2.84	0.008	.2132675	1.311379
ROA	2.570295	2.537286	1.01	0.320	-2.6271	7.76769
LIQ	-1.34135	.6606142	-2.03	0.052	-2.694557	.0118566
CAR	1.144569	1.780511	0.64	0.526	-2.502642	4.791781
CIR	.3592682	.2275874	1.58	0.126	-.1069236	.8254599
AUDITSIZE	-.3973497	.441044	-0.90	0.375	-1.300787	.5060879
TENURE	-.2366088	.1366543	-1.73	0.094	-.5165325	.0433148
IFRS	.7334483	.1802407	4.07	0.000	.3642421	1.102655
_cons	-3.910242	5.845701	-0.67	0.509	-15.88462	8.064134
sigma_u	.67012415					
sigma_e	.30475785					
rho	.82862179	(fraction of variance due to u_i)				

F test that all u\_i=0: F(8, 28) = 7.31 Prob > F = 0.0000

Source: Author's computation (2022)

For the second model (for the period of 2016-2020), the results of the study show that the R-squared result of the study was 0.2583 implies that only 25.8% of fitness can be observed in the sample regression line. This is further explained as, 25.8% of the total variation in Audit Fee is explained by the independent variables (Size, ROA, Liquidity risk, Capital risk, operational risk,

auditor size and Auditor tenure, and IFRS implementation). The remaining change is explained by other factors which are not included in the model, while The Prob (F-statistic) value is 0.0004 which indicates strong statistical significance.

The results also show that company size and the IFRS dummy variable are the two variables that have a statistically significant result, while the rest of the variable had statistically insignificant results.

The final model equation after regression analysis have been conducted looks like:

$$\text{LNAUDFEE} = -3.910242 + 0.7623234*\text{LNASSET} + 2.570295*\text{ROA} - 1.34135*\text{LIQ} + 1.144569*\text{CAR} + 0.3592682*\text{CIR} - 0.3973497*\text{AUDITSIZE} - 0.2366088*\text{TENURE} + 0.7334483*\text{IFRS} + \hat{\epsilon}$$

In addition, through the conducting of the interview with selected respondents (Specifically, the representatives from the audit and inspection departments of the companies.) for identifying their opinions regarding the topic of this study, they were asked about their opinions regarding the different factors that affect Audit fees before and after the implementation of IFRS. Moreover, they were also asked if they could explain any other factors that may not be directly related to the auditors and the auditees, the respondents gave different answers.

One factor mentioned by the respondents of the study is the characteristics of the board. As the board is tasked with overseeing the major aspects of the insurance companies, one of these activities required is ensuring the audit conducted by the external organizations is state of the art and efficient. With this regard, a stringier board with less cohesion in making decisions concerning quality might attract auditors, which charge less audit fees, while on the other side, a board which seeks to attain quality with willingness to pay the required amount of money, might hire audit firms that may charge higher costs for the services they may provide.

Related with this, the other factor that may affect audit fees is the characteristics is the audit committee assigned by the board. As the audit committee is tasked with assessing the financial data of the organization continuously and ensuring the effectiveness and quality of the internal accounting processes, it is an essential factor towards the remuneration levied towards the insurance firms by the different auditors. With this regard, the powers the audit committees have

concerning the recommendation of assigning or removing the external auditors, maybe a factor in assigning external auditors with higher or lower audit fees, as per the respondents of the study.

Another factor mentioned by the respondents of the study was the audit risk associated with the audit process. As auditors want to remove any questions regarding their work, and want to protect themselves against any litigation that may come their way because of their work, they might charge higher fees in situations where they feel they might encounter more risks related with their jobs. Moreover, as IFRS implementation has brought about standardization with regards to the external audit work conducted by the auditors, they would want to eliminate any risk associated with conducting their work in the standardized manner.

Another factor related with the above point is the complexity of the audit work. With this regard, insurance companies that have complexity in their activities and their accounting and internal auditing processes, might see external auditors charge higher fees towards them. As there is risk associated with auditing the complex processes involved in the insurance companies, as well as requiring more time and effort to conduct the audit process, higher audit fees are seen with companies that have more complex business processes and entities.

Last but not least, another factor raised in a common manner by the respondents involved in the study was the audit quality. Those audit firms with higher efficiency and effectiveness in their audit work, tend to charge higher audit fees. With IFRS being the standard financial reporting method, external auditors strive to meet the required level of quality in their work. And those with higher experience with regards to preparing financial statements with IFRS standards tend to have higher efficiency, which in turn leads to higher audit fees charged by these auditors.

#### **4.3.4 Discussion of the regression results**

The detailed results for each variable is given below.

##### **4.3.4.1 Size**

The coefficient of the company size is positive (0.44) and it is statistically significant in the period before the implementation of IFRS, which means results of study show that size of client's business has positive and significant relationship with audit fee.



Similarly, after the implementation of the IFRS, (for the period of 2016-2020), the results show that company size has a positive (0.7623234) statistically significant relationship with audit fees. Showing that after the implementation of IFRS, the fact that the insurance companies' size still had a positive relationship with audit fees.

According to the study's findings, there is a significant and positive correlation between audit fee and client size both before and after the implementation of IFRS. This finding is consistent with earlier research which showed that company size is one of the major factors that influence audit fees. (Simunic, 1980, Tamrat, 2014)

#### **4.3.4.2 Profitability**

In this study, Profitability is measured in terms of Return on Asset (ROA). With this regards for the first model, before the implementation of IFRS, the results show that, ROA had a positive (0.6253208) and statistically insignificant at relationship with audit fees ( $p=0.102$ ).

Similarly, after the implementation of IFRS, this result was seen as profitability having a positive (2.570295) and statistically insignificant (0.320) relationship with audit fees.

The positive result is consistent with other researchers' findings that highly successful businesses often incur higher expenses since higher revenues may call for harsher audit testing, which calls for more audit time. Additionally, the bulk of earlier studies demonstrate that the client company's profitability has a significant impact on the amount of audit fees (Joshi & Al-Bastaki, 2000). Therefore, profitable companies would pay high audit fees.

#### **4.3.4.3 Liquidity Risk**

The results of the study showed that, during 2011-2015, before the implementation of IFRS, liquidity ratio had a positive (0.371794) and statistically insignificant (0.143) relationship with audit fees. After the implementation of IFRS, the results showed that liquidity had negative (-1.34135) and statistically insignificant (0.052) relationship with audit fees. This implies that, after the implementation of IFRS, the company's audit remuneration for the auditors was negatively impacted by liquidity risks.

The results of the liquidity risk assessment reported in the external auditor fee demonstrated that liquidity risk is determined using the liquidity ratio. The results are in opposition to past studies that showed a positive link between liquidity risk and audit fees (Felix et al., 2001).

#### **4.3.4.4 Credit Risk**

Before the implementation of IFRS, CAR had a negative (-2.598989) and statistically significant relationship (0.001) with audit fees. However, after the implementation of IFRS, the result was seen to be positive (1.144569) and statistically insignificant (0.526). This shows that IFRS accounting practices might not have an effect on credit risk accounting of the insurance companies.

#### **4.3.4.5 Operational Risk**

With regards to operational risk, it was seen that it had a positive and statistically insignificant relationship with audit fees, while it was a similar result after the implementation of IFRS in 2016. The results for the regression results showed that it had a regression coefficient of 0.044756, and a p-value of 0.522 in the first model, while it had a regression coefficient of 0.3592682 and a p-value of 0.126 for the second model.

#### **4.3.4.6 Auditor Size**

Concerning the relationship between auditor size and audit fees, the results showed that both in model 1 for the period before the implementation of IFRS, and model 2 (for the period after the implementation of IFRS) auditor size had a statistically insignificant relationship with auditors' fees. In model one auditor size had a positive (0.014884) and statistically insignificant relationship with audit fees (0.912), while in model 2 it had a negative (-0.3973497) and statistically insignificant relationship with audit fees (0.375).

Similar to Rusmanto and Waworuntu's (2015) study, which found no correlation between the audit fee and the size of the Big 4 audit companies, this inconsequential conclusion is analogous to that study's findings. However, in other cases, the audit fee is positively connected with the size of the auditor, indicating that the cost of the audit is higher for large audit firms and lower for small ones. The study's conclusions conflict with those of numerous other research, which is especially evident in developed countries where the top 4 audit firms are most active and charge greater costs.

#### **4.3.4.7 Auditor Tenure**

The results of the study showed that during both the period before and after IFRS adoption, Auditor tenure had a statistically insignificant relationship with audit fees. The results showed that Auditor tenure had a positive (0.0059177) and statistically insignificant relationship with Audit fees before the implementation of IFRS, while it had a negative (-0.2366088) and statistically insignificant (0.094) relationship with Audit fees after the implementation of IFRS.

The study's findings indicate that there is a conflicting association between audit tenure and performance for the two distinct eras; whilst this relationship was favorable prior to the implementation of IFRS, it turned adverse following that date. The results of a study by Alharasis et al. (2022), which examined the relationship between the tenure of auditors and audit fees, are in opposition to this one. Their results demonstrate a strong correlation between audit tenure and audit fees.

#### **4.3.4.8 IFRS implementation (Dummy variable)**

Here this variable was applied to the second model only, meaning for the period from which IFRS was mandated to be implemented in Ethiopian finance industry. Hence, the results showed that IFRS implementation had a positive (0.7334483) and statistically significant (0.000) relationship with audit fees. This shows that IFRS implementation has an effect on the Audit fees paid to the external auditors assigned by the selected insurance companies of Ethiopia.

Overall, concerning interview questions directed towards IFRS implementation and its effects on Ethiopian insurance companies, questions were directed to the representatives from the insurance companies selected for this study. Hence, when asked what the current situation of IFRS is in their company and the industry as a whole, the respondents replied that there was commitment from the Government and all stakeholders towards IFRS standards being strictly used in the entire financial system of the respective organizations. Furthermore, they stated that IFRS has helped the whole auditing system of the organization with the basis for a legal backing in the case of any problems that may arise. Furthermore, they also stated that, as it is the common standard, its comparability and uniformity across organizations has eased the financial analysis and audit aspects of the

auditors, while removing some problems that were an occurrence during the previous accounting standards such as GAAP.

Concerning some of the challenges observed by the respondents in the study concerning IFRS in the organizations, and the auditor firms, they said that at the start there was a resistance to accepting the new IFRS standards as opposed to keeping the previous GAAP standards. Furthermore, they stated that there was a problem of qualified professionals when IFRS was implemented as well as a visible knowledge gap, but this problem is currently not a large issue, and almost all has been resolved. Moreover, during the implementation stage of IFRS, there was seen to be problems of shortage of qualified institutions giving dedicated IFRS programs/courses to facilitate the implementation and bridge the knowledge gap. However, at current times, there are organizations that give these courses and programs and it seems to have put the problem of knowledge gap concerning IFRS a non-issue at current times.

The other issue raised by the respondents of the study was that they believed IFRS is associated with higher costs due to its implementation. They believe auditors are charging higher audit fees since the implementation of IFRS. However, they also stated that the increase in price may not be solely due to the onset of IFRS, but other factors such as the economic situation of the country maybe be factoring into it as well. The other problem they raised about the issue of IFRS was that at the start of implementation of IFRS was the high rate of employee turnovers that were well acquainted and familiar with IFRS standards, there was a competition among the different financial organizations to attain the services of these professionals.

## **Chapter Five**

### **Conclusions and Recommendations**

#### **5.1 Summary of findings**

Data was collected regarding the variables used in this study from the nine banks selected for this study for the study period of 2011-2020. In addition, interviews were conducted with representatives of each insurance company included in this study, to gather additional qualitative information. With this regard, the study was conducted using two models for regression analysis, where the data was separated into two different time period, each showing the period before and after the year with which IFRS was implemented in the financial sector in Ethiopia (2016). These two periods are from 2011-2015 and 2016-2020.

When it comes to descriptive statistics, the dependent variable, Audit Fee, showed a variation between with a maximum value of Br 421,000 and a minimum of Br 34,500 across the two time-periods. This is similar to their assets, which have variation. Moreover, Liquidity ratio (LIQ) shows a slight decrease after the implementation of IFRS, while Return on Assets (ROA) also showed a slight decrease after the implementation of IFRS. Other variables such as Capital Adequacy Ratio (CAR) (a measure of capital risk), and operational risk, as measured by Cost to income ratio (CIR), showed variations across the different organizations across the two study periods. In addition, Auditors Tenure had average values of 0.62 and 0.75 for the periods before and after implementation of IFRS respectively, and Auditors' size showed the companies predominantly employed Grade 'A' auditors, especially after the implementation of IFRS. Moreover, the dummy variable IFRS, implemented in the second model only had an average value of 0.8222.

Regarding correlation results, for the data collected for the period of 2011-2015 the results showed that Insurer's size and Auditors' size had a positive and statistically significant correlation with audit fees, while Capital risk and Operational risk had a negative and statistically significant correlation with audit fees. Meanwhile profitability, liquidity risk and auditor's tenure had positive and statistically insignificant correlations with audit fees.

When it comes to the data collected for the period of 2016-2020, the results of the correlation analysis showed that, Insurance companies' size had a positive and statistically significant correlation, and capital risk had a negative and statistically significant correlation with audit fees. Meanwhile, the dummy variable of IFRS implementation (IFRS) had a positive but statistically insignificant correlation with the audit fees, while Profitability, Liquidity risk, and Operational risk also had a positive and statistically insignificant correlation with audit fees. Auditors' size and auditors' tenure also had a similar positive and statistically insignificant correlation with Audit fees.

When it comes to the regression analysis, for the first model (for the period from 2011-2015), based on the regression result, the overall R-squared result was found to be 0.7123, which implies that 71.2% of the total variation in Audit Fee is explained by the independent variables. The Prob (F-statistic) value is 0.000, which indicates strong statistical significance, which enhanced the reliability and validity of the model. In addition, insurance company size (LNASSET) and capital risk (CAR) had a statistically significant result for this model, while the rest of the independent variables were seen to have statistically insignificant results. For the second model (for the period of 2016-2020), the results of the study show that the R-squared result of the study was 0.2583. The remaining change is explained by other factors, which are not included in the model, while The Prob (F-statistic) value is 0.0004, which indicates strong statistical significance. The results also show that company size and the IFRS dummy variable are the two variables that have a statistically significant result, while the rest of the variable had statistically insignificant results.

When it comes to the interview responses, the participants of the study explained their belief that when it comes to audit fees, factors such as characteristics of the board, characteristics of the audit committee assigned by the board, audit risk, complexity of the audit work and audit quality had an effect on audit fees, before and after implementation of IFRS.

## **5.2 Conclusions**

The main objective of this study was to examine or investigate the effects of IFRS implementation on audit fees paid by insurance companies in Ethiopia. This was done by assessing the different determinants of audit fees for the years before the year where IFRS was mandated to be implemented in Ethiopia financial sector by the government, and the years after. With this regard,

the study aimed at to analyze the various auditee and auditor related factors that have affected audit fees after adoption of IFRS, and to compare and contrast the audit fee variances before and after IFRS adoption and across the organizations. The study also aimed to assess any factors not directly related to both the insurance companies and auditors that may affect audit fees after IFRS adoption.

With these objectives in mind, to evaluate the changes in the audit fees before and after the adoption of IFRS, and to identify which specific elements that affect audit fees more both before and after implementation of IFRS, the researcher adapted the determinants of audit fees as part of the assortment of independent variables together with dummy variable representing the IFRS adoption. Moreover, the two models of the study's regression analysis proved that the independent variables that were used in the models accounted for varied percentages of the change in the dependent variable.

Concerning this, the results that were found by the study showed that the dummy variable reflecting IFRS implementation and insurance company size (in both models) had a positive and statistically significant relationship with audit fees, which shows Company size in particular had a significant effect in determining Audit fee remuneration. The dummy variable representing IFRS implementation also had a similar positive statistically significant relationship with audit fees, meaning a change in the Audit fees was explained in part by the IFRS implementation.

Meanwhile, it was seen that company profitability had statistically insignificant effect on audit fees both before and after the implementation of IFRS; while in the two models employed in this study, it was discovered that several of the independent variables included in this study had a negative association with the dependent variable.

All in all, the results of the study showed that the amount paid by insurance companies towards the audit companies has significantly increased since the implementation of IFRS (although it can be said, as evidenced in the data collected in this study. The range of the audit fees paid by the organizations throughout the study period ranged from as low as 34,500 birr to as high as 410,000. Companies such as Ethiopian Insurance Corporation are some of the highest audit-fee paying companies, while companies such as Nice insurance have reversed trends and decreased the amount they pay for audit fees in the most recent years.

In conclusion, the results that were attained by this study showed that IFRS implementation has coincided with the increase in Audit fees. While it can be observed that different audit risks associated with IFRS implementation, the complexity of IFRS audits as opposed to the previous GAAP and other audit methods, as well as the efficiency and audit quality required from the audit companies maybe some of the reasons for the significant increase in Audit fees since the implementation of IFRS.

### **5.3 Recommendations**

The study results showed that in addition to IFRS implementation, factors such as the size of the Audit companies had a significant and positive association with audit fees. Hence, when setting out the price for the audit work, both the insurance companies and auditors should consider these factors.

As the main outcome of the study was that it showed that IFRS adoption had a positive relationship with Audit fees in the financial sector companies in Ethiopia; it provides a basis on which companies in other sectors (which have implemented IFRS based internal accounting and audit systems) can analyze the effects IFRS implementation has on the audit fees they are charged by the external Audit firms.

When it comes to avenues for further studies, although this study analyzed the effects of IFRS implementation on Audit fees, the short time period which was studied may not exactly show the long-term effects of IFRS on the audit fees, whose influence may or may not continue to rise over the next years. Hence, future researches should take into account the succeeding years, to demonstrate whether the impact will continue or whether it will diminish.

Moreover, as this study is only restricted to the financial sector, future studies should assess the effects IFRS has on audit fees in other non-financial sectors, to assess the impact in a countrywide encompassing manner. In addition, other studies can look further into other aspects of IFRS implementation that have not been studied in an extensive manner in Ethiopia, such as the effects IFRS implementation may have on quality of the external audits.



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## **Appendices**

### **Interview Questions**

The purpose of this interview is to collect data regarding the study titled “EFFECTS OF ADOPTION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) ON AUDIT FEES IN SELECTED ETHIOPIAN INSURANCE COMPANIES” as a requirement for the Master’s degree in Business and Administration (MBA) in accounting and Finance.

The consent of the Respondents of the study is required for the conduction of this interview, and hence, it is asked from them before the interview is conducted. Moreover, the respondents can rescind their consent at any moment during the study and ask to have their participation removed from the study at any moment, which will be honored.

Interview questions forwarded towards the interviewees of the study:

- What is the current situation of IFRS in your organization?
- What is the current situation of IFRS in Ethiopia as a whole?
- What are the challenges you observe concerning IFRS in your organization?
- In your opinion, what are the different factors that affect audit fees before and after the implementation of IFRS?
- What are some of the factors that you believe affect audit fees since the implementation of IFRS from the auditors’ side?
- Are there any external non-auditor, or insurance company related factors that may influence audit fees charged by the auditors?