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**COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF ACCOUNTING AND FINANCE**

**INVESTIGATING THE ROLE OF ACCOUNTING
INFORMATION SYSTEMS IN ENHANCING FINANCIAL
PERFORMANCE: THE CASE OF THE ETHIOPIAN
INSURANCE INDUSTRY**

**BY
MEHARI TEFERA**

JUNE, 2024

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OF THE ETHIOPIAN INSURANCE INDUSTRY**

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**A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE MSc DEGREE IN
ACCOUNTING AND FINANCE**

DECLARATION

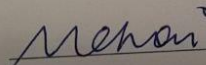
DECLARATION

I, Mehari Tefera, solemnly declare that this thesis is my original work, prepared under the guidance of Temesgen Worku (PhD). All sources of materials used for this thesis have been duly acknowledged as per the guidelines of Addis Ababa University. I further confirm that the thesis proposal has not been submitted either in part or in full to any other higher learning institution to earn any degree.

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Signature

June 2024

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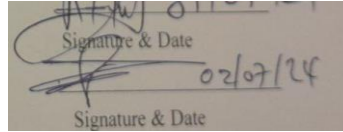
ENDORSEMENT

This thesis has been submitted to Addis Ababa University, College of Business and Economics, Department of Accounting and Finance for examination with my approval as a university advisor.

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A photograph of a document showing two lines for 'Signature & Date'. The top line has a handwritten signature and the date '02/07/24'. The bottom line is empty.

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ACKNOWLEDGEMENT

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(King David's Psalm)

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ACRONYMS/ABBREVIATIONS

AIS	Accounting Information System
D&M	DeLone and McLean Information System Success Model
IS	Information System
PMT	Profit Maximization Theory
RBV	Resource Based View of Firm Theory
TAM	Technology Acceptance Model
TOE	Technology-Organization-Environment

Abstract

The Ethiopian insurance industry has made notable growth since the mid of '90s, highlighting the need for sound financial performance. This thesis investigated the role of accounting information systems (AIS) in enhancing these practices within the industry. Besides this, this research explored the current state of AIS adoption. It also examined existing challenges, and evaluates the perceived impact of AIS on general financial management areas. The study combined quantitative data analysis with qualitative insights gathered through interviews and survey questionnaire with 68 executive level insurance professionals by employing a mixed-method approach. Literature has it that effective AIS implementation can lead to improved accuracy, efficiency, and transparency in financial data. This improvements guarantees better financial performance. However, challenges such as system integration, user skill gaps, and inadequate data security could hamper full adoption of the information system. This thesis employs Resource Based View of Firm Theory, DeLone and McLean Information System Success Model, Technology-Organization-Environment, Technology Acceptance Model, and Profit Maximization Theory as a theoretical framework. The findings of the study rejected the alternative hypothesis while upholding the null hypothesis which states: there is no significant relationship between Accounting Information System and Financial management performance within the context of the Ethiopian Insurance Industry, at 0.05 significance level.

Keywords: Financial Performance, Resource Based View of Firm Theory, DeLone and McLean Information System Success Model, Technology-Organization-Environment, Technology Acceptance Model, Profit Maximization Theory

CHAPTER ONE

INTRODUCTION

1.1 Introduction

An information system is a process for collecting and processing the data into information, and then distributing that information to users. As noted by Kahn (2017) , the purpose of an accounting information system (AIS) is to collect, store, and process financial and accounting data and produce reports for internal (Financial Managers) or external (other interested people) users. The processed meaningful information, could be used to make a sound financial management (business) decisions. Although an AIS can be a manual system, now-a-days most accounting information systems are computer-based (Kahn, 2017).

It follows that the financial management decisions made by any firms is a function of the quality of Accounting Information Systems for Internal users: that is for top level management who is responsible for making Financial Management decisions and practices. Despite the fact that the integral importance of accounting information systems is an irreplaceable input for a robust financial performance , hardly no studies , to the best of my (the researcher's) knowledge, have been made within the context of the Ethiopian insurance industry, except some handful studies that are made on company specific level. This creates a gap of knowledge of which this study aims to fill.

This chapter begins by outlining the background of the study followed by organizational background. The Problem statement and research questions follows shortly. Next to these, the study's objectives are enumerated and hypothesis is postulated. The "Why" of this study is explained in the Significance of the study's section. The boundaries of this research is declared in the scope of the study's section. Finally, to help future researchers advance the topic further, the weaknesses of the study are outlined in Limitations of the study section.

1.2 Background of the study

As per the words of Khan (2017) , Information, simply put, is symbols like data, text, images, voices, etc. that convey meaning through their relative ordering, timing, shape, context, etc. Information is the meaning that a human expresses by, or extracts from, representations of facts and ideas, by means of the known conventions of the representations used.

However, information by itself is nothing unless there is a “System”. System, according to Britannica, (*System Definition & Meaning | Britannica Dictionary*, n.d.), is “a group of related parts that move or work together . . . a way of managing, controlling, organizing, or doing something that follows a set of rules or a plan “. Thus, Information System is, a way of managing, controlling, organizing, and/or doing information in predetermined set of rules or a plan. Accounting Information System is a sub division of Information System which focuses on accounting and financial data. An Information System that combines financial and non-financial data as an input for decision makers is Management Information System (Alikhani et al., n.d.) .

The renowned economist, Milton Friedman (1970), argues that the primary purpose of a business organization is to maximize shareholder wealth. According to Friedman (1970), the interests of the legal owners of the company should be prioritized. He states that all business decisions should ultimately serve the owner’s financial well-being. In essence, it means profit maximization and generating returns for shareholders become the cornerstone of a business activity. Shareholders are treated as the primary stakeholders, with their interests superseding those of employees, customers, and communities (Jensen & Meckling, 1976). Every business decision should ultimately aim to increase shareholder wealth, primarily through higher dividends and increasing stock prices (Friedman, 1970). According to Milton Friedman (1970), it is plausible to conclude that the Ethiopian insurance industry is no exception in that its main *raison d’être* is to maximize profits for its owners.

On the other hand, Jensen and Meckling (1976), postulate that there exist an inevitable conflicts of interest that arise within firms. They i.e. Jensen and Meckling, state that a principal (owner) delegates tasks to an agent (manager), but it speculates that their goals may not always be perfectly aligned (Fama & Jensen, 1983). This contradictions can lead to agency problems, where the agent

prioritizes their own interests (e.g., salary, job security) over the principal's objectives that is, and profit maximization. According to Jensen and Meckling (1976), this is agency problem.

The shareholders (owners) tries to avoid this agency problems: either through Monitoring: The principal actively oversees the agent's actions through audits, performance reviews, and financial reporting (Jensen & Meckling, 1976); or Providing Incentives: Performance-based compensation aligns that agent's interests with the principal's, motivating them to work towards maximizing shareholder value (Fama & Jensen, 1983).

The traditional view of financial management, as championed by Friedman (1970), asserts that the primary objective is to maximize shareholder wealth. This principle elevates shareholders, as they are the legal owners of a company, to the pinnacle of corporate priority, dictating that all financial decisions should ultimately serve their financial well-being. Consequently, profit maximization and generating returns for shareholders become the driving forces behind financial performance (Jensen & Meckling, 1976).

A sound accounting information system is necessary to boost a firm's financial performance, which leads to better financial performance metrics, in order to maximize profits for the owners and solve the agency problem via monitoring and by supplying timely and relevant information for decision makers. Without an effective accounting information system put in place, firms may struggle to maintain accurate financial records and provide the necessary information for informed timely decision making. This can lead to inefficiencies and missed opportunities for maximizing profits. However, with a well-designed accounting information system, as noted by Jones (2020), firms can ensure that their financial data is reliable and readily available for decision makers to use in driving the success of the business.

This study aims to explore the role of an Accounting Information System (AIS) in boosting the financial performance of the insurance industry within the context of Ethiopia. The primary objective is to explore how the AIS maximize shareholders' wealth in such a way by enhancing financial performance of the insurance industry and address the agency problem that arises

between management and owners by supplying accurate and timely information for decision makers. By examining the impact of an effective AIS on the insurance industry's financial management, this study tries to provide insight into how the implementation of such systems can improve decision-making processes and ultimately contribute to the achievement of broader financial objectives within the industry.

1.3 Organizational background

The insurance sector is an important economic sector in the world. The system of any given economy in the world depends on the safety of its financial system, especially the insurance sector because it provides economic protection for the human and material resources of the society. (Fares & Nour, n.d.)

As compared to other countries, the Ethiopian insurance industry has an astonishing yet relatively young history showing the country's own evolving economic and social landscape in the twentieth century. Although its modern form emerged in the 20th century, the roots of risk-mitigation practices can be traced back to antiquity when traditional mutual aid societies, began fostering communal support in face of adversity (Berhane et al., 2014).

Traditional insurance practices in Ethiopia are forms of informal risk-sharing arrangements that help people cope with financial difficulties or unexpected events. Some examples of these practices are: *Edir*: A voluntary association of people who contribute money or other resources to a common fund, which is used to cover funeral expenses or other emergencies of its members (Berhane et al., 2014), (Guta, n.d.). *Ekub*: A rotating savings and credit association, where members contribute a fixed amount of money to a pool and take turns receiving the lump sum where each has an equal chance of draw (Guta, n.d.).

As noted by Berhane et al., (2014), these traditional practices have some similarities with modern insurance, such as pooling resources, spreading risks to members, and providing benefits and

compensation in the event of adversity such as death. However, they also have some limitations, such as being vulnerable to covariate shocks, having low coverage, and lacking formal regulation, according to Berhane et al., (2014).

To understand today's state of the insurance sector it is important to see its historical journey. According to Abate (2023), the historical journey of Ethiopian Insurance Industry has three phases:

Phase I: The Laying of the Modern Foundation (1905-1975)

Ethiopian insurance in its modern form first began in 1905 when the then Bank of Abyssinia, which was owned by the Bank of Egypt, began to transact insurance as an agent of a foreign insurance company which would underwrite fire and marine insurance policies in Ethiopia. ("History of Ethiopian Insurance Companies," n.d.)

This laid the foundation for the establishment of the first local insurance company in 1951. According to Alemayehu & Teklemedhn (2009) and Zeleke (2007) cited in Abate (2023), the first indigenous insurer named Imperial Insurance Company of Ethiopia Ltd was founded in 1951 as per Ethiopian law. The company was founded with a paid-up share capital of Eth.\$ 1,000,000 and the shares were Ethiopian ordinary shares that had a par value of Eth.\$ 100 each. The State Bank of Ethiopia (20%), Emperor Haile Selassie (10%), some enlightened Ethiopian nationals of that era (10%), foreign individuals (30%), and the remaining 30% belonged to British group companies. All of them contributed to the first share capital. This was followed by the coming into business of several other (though mostly non-indigenous) insurers. By around 1972, according to Zeleke as cited in Abate (2023), the industry counted 13 independent companies while two other insurers were banned.

Phase II: Nationalization by the Provisional Military Administrative Council (Dergue)

However, nationalization proclamations in 1975 made these entities consolidated into one state-owned corporation, the Ethiopian Insurance Corporation (EIC) (EIC, 2023). This period marked

the era where the insurance businesses was made a state monopoly. This period was characterized by centralized control and limited private sector participation, according to Abate (2023).

Phase III: Market Liberalization: (1991-Present)

The political landscape of Ethiopia was changed by the coming to power of the Ethiopian People's Revolutionary Democratic Front (EPRDF) in 1991. Market oriented liberalization was proclaimed in 1992. Consequently, the financial institutions were reformed to work on a Market-oriented policy framework Addison and Geda (2001) cited in Abate (2023).

Following the political and economic reforms of the early 1990s, the insurance industry entered a new era, heralding a dawn of hope. The EIC was re-established as a public enterprise in 1994. This paved the way for private players to re-enter the market (Abate, 2023).

This reform resulted in the re-establishment of EIC, the decree of new market-oriented insurance law, and the re-emergence of private sector insurers. Due to the change of the country's economic policy to a market-led economy, the sole state owned monopoly insurer had to be restructured to shape its role within the framework of the new market-oriented economic system. To this effect, EIC was re-structured as a state-owned enterprise in 1994 to engage in the business of rendering insurance services and any other associated activities helpful to the attainment of its purpose (Abate, 2023).

Today, according to Tsegaye (2023), the Ethiopian insurance industry stands at a crossroad. With a beginner yet rapidly evolving market and a population of more than 100 million, it holds immense potential for growth, social, and economic impact. Adopting technological innovation, addressing skill gaps, and expanding outreach to rural communities will be crucial for its continued success. Understanding the historical and contemporary context of the insurance industry is important for its future.

Ethiopia's private insurance sector is facing stiff competition as the insurance companies not only compete with each other, but also compete with the risk retention groups, government owned Insurance Corporation, and self-insurance. The companies generally compete mainly based on two factors including the quality of the services and price that they provide. Every insurer is offering a throat cutting price for competition. Many large organizations self-insure for most of their employee benefits like health coverage that lowers market scope for insurance companies. (Tsegaye, 2023) (ltd, n.d.)

Despite the fact that it has undergone a relatively good progress, the insurance sector has challenges. According to Tsegaye (2023), these includes limited insurance penetration rates, low awareness and utility among rural populations, and a shortage of skilled professionals especially those trained in actuarial sciences. Utilization of technological advancements, such as Accounting Information Systems (AIS) and application of cutting edge actuarial science would offer promising opportunities for improved efficiency, better insurance coverage with universally affordable premium and risk management; the researcher (writer of this proposal) believes.

On the other hand, despite the challenges, the Ethiopian insurance sector has its own important market drivers. Economic growth, rising government spending, a hundred million plus population, technological innovations and increased consumer awareness about insurance products are amongst key market drivers in Ethiopia. The government's policy of insuring the uninsured has progressively pushed the insurance penetration in Ethiopia in the health sector. (ltd, n.d.)

Table 1 List of Ethiopian Insurers as of June, 2024

S/n	Name of Insurer	Established Date
1	Zemen Insurance S.C	17/01/2020
2	Bunna Insurance S.C	21/05/2023
3	Lucy Insurance S.C	01/10/2012
4	Tsehay Insurance S.C	28/03/2012
5	Berhan Insurance S.C	24/05/2011

6	Abay Insurance S.C	28/07/2010
7	Oromia Insurance S,C	28/01/2009
8	Ethio Life & General Insurance S.C	23/10/2008
9	Lion Insurance S.C	01/07/2007
10	Nib Insurance S.C	01/05/2002
11	United Insurance S.C	21/04/1997
12	Global Insurance S.C	11/01/1997
13	Nile Insurance S.C	11/04/1995
14	Nyala Insurance S.C	06/01/1995
15	Africa Insurance S.C	01/12/1994
16	National Insurance Company of Ethiopia S.C	23/09/1994
17	Awash Insurance S.C	01/10/1994
18	Ethiopian Insurance Corporation	01/01/1975

Source NBE (2024)

1.4 Problem Statement

Leedy and Ormrod (2016) maintains that a clearly defined problem statement sets the stage for the entire research journey. The problem statement for the thesis is two way: first for the academia and second industry wise. Extant research has shown the crucial role of accounting information systems (AIS) in bolstering sound financial performance within various industries. However, within the context of the Ethiopian insurance industry, there is a dearth of detailed studies exploring the specific impact and utilization of AIS for enhancing financial performance. In the words of Abera & Abebe (2019)

despite some studies are conducted on the insurance sectors, literatures showed that most of the studies were conducted on the banking sectors. Also in Ethiopia, to the best of the researcher knowledge, there are few studies which examined of determinants of financial performance of insurance companies.

In the words of Tsegaye (2023),

the insurance penetration rate is less than 0.5Pct, and the sector's contribution to the GDP is less than one per cent. This figure sharply contrasts the world's average insurance penetration, above 6.1Pct, and the African average, above 3.5Pct. This figure goes above 16Pct in South Africa, and in our neighboring Kenya, it ranges between 2-3Pc.

The gap in literature and the lagging of the Ethiopian Insurance Industry presents a critical need for research to examine the current state of AIS implementation and its efficacy in the Ethiopian insurance sector. Understanding the unique challenges, benefits, and opportunities associated with AIS in this particular industry is imperative to develop tailored strategies. This can improve financial performance and general operational efficiency in the sector.

Therefore, this study aims to fill this knowledge gap by investigating the role of AIS in enhancing financial performance within the Ethiopian insurance industry, thereby contributing to a better understanding of AIS's impact for the academia. And, hopefully, this study may provide actionable insights for industry practitioners and government policymakers.

1.5 Research questions

1. How does the Ethiopian Insurance Industry utilize Accounting Information Systems to enhance its Financial Performance currently?
2. How can specific AIS features improve key financial metrics?
3. What are the perceived and practical barriers to adopting AIS?
4. How can AIS utilization be optimized in the Ethiopian insurance industry?
5. What factors, aside from AIS, influence financial management performance in the Ethiopian insurance industry?

1.6 Objectives of the Study

The objectives of this study are categorized into two:

1.6.1 General Objective

Given the lack of a research regarding the Role of AIS in enhancing financial performance, this study's general objective would be to explore the Role of AIS in enhancing the practices of financial management within the context of the Ethiopian insurance industry.

1.6.2 Specific Objectives

The specific objectives of the study are to:

1. Analyze the current state of financial performance.
2. Evaluate the potential benefits of AIS implementation.
3. Investigate the challenges and opportunities to AIS adoption.
4. Identify the optimal use of AIS.
5. Beyond the role of AIS, examine additional factors that determine the effectiveness of financial management within the Ethiopian insurance industry.

1.7 General Hypothesis

Alternative Hypothesis H_a

The greater the degree of accounting information system (AIS) utilization within the Ethiopian insurance industry, the more significant the enhancement of financial performance, which leads to greater wealth maximization for the shareholders and stakeholders alike.

Null Hypothesis H_o

There is no significant relationship between the degree of accounting information system (AIS) utilization within the Ethiopian insurance industry and the enhancement of financial performance.

1.8 Significance of the study

The significance of this research lies in its potential to contribute to academia, the industry, and the government. This was achieved by investigating and offering valuable insights into the role of accounting information systems (AIS) in enhancing financial performance within the Ethiopian insurance sector. Academically, this study could enrich the existing literature by providing a

focused analysis of AIS utilization within a specific industry and geographical context, thereby deepening the understanding of AIS impact in emerging economies.

As noted by Tsegaye (2023), by observing significant insurance growth indices, one can see that Ethiopia's insurance market is undeveloped and in its infancy. This research helps bridge the gap helping make the industry contribute more than one percent to the national GDP and a fraction of penetration rate.

Additionally, industry practitioners could benefit from the practical implications of this research. It helps them gain a clearer understanding of how to leverage AIS for improved financial management performance. By identifying challenges and opportunities, the study can offer actionable recommendations to enhance operational efficiency and decision-making within insurance companies. Lastly, the government can benefit from the policy implications of this research. It could aid in the development of regulatory frameworks that align with the optimal utilization of AIS. This helps by increasing transparency and accountability within the insurance sector.

Generally speaking, this thesis has the potential to bridge the gap between theory and practice. It offers valuable insights which can inform strategic decision-making and policy development. This in turn contributes to the advancement of the academic discourse and the efficiency of the Ethiopian insurance industry's financial performance.

1.9 Scope of the study

The scope of this study covers Ethiopian insurance companies established since 1991, with the exception of the Ethiopian Insurance Corporation, which was established in January 1975.

The study covers those insurers whose headquarters are located in Addis Ababa, Ethiopia.

The focus is on understanding the role of accounting information systems (AIS) in enhancing financial performance within this specific subset of the Ethiopian insurance industry.

The study aims to provide a detailed analysis of AIS utilization, challenges, and opportunities within the Ethiopian insurance sector.

1.10 Definition of Key Terms

1.10.1 Accounting Information System

AIS is a subdivision of Information System with the main purpose of collecting, storing, and processing financial and accounting data. The processed data becomes informational reports that managers (internal users) or other interested parties (external users) can use to make business decisions (“Accounting Information System,” 2023).

Now-a-days, most AIS are computer-based. However, an AIS can also be a manual system. (Accounting Information Systems, n.d.). As noted by Jain (2024), the components of AIS include: the person, data, established procedures, software, information system hardware, and internal controls.

1.10.2 Financial Performance

Financial Management is a process of planning, organizing, monitoring, and controlling the finances of individuals and businesses. The main goal of Financial Management is to efficiently utilize and achieve the desired financial objectives. The primary objective of financial management is wealth maximization. Among others, resource utilization, risk management, compliance consideration, and cash flow management are also its objectives. The elements of Financial Management include budgeting, risk management, cash flow management. (The Knowledge Academy, n.d.)

Financial performance is a measure of how well a firm can use assets from its primary mode of business and generate revenues (Kenton, 2023).

1.10.3 Information System

An information system is a process for collecting data, processing the collected data into information, and distributing that information to concerned users. It is a collection of software,

hardware, and telecommunication networks to collect, process, and distribute useful data, especially in an organization (Mukherjee, 2022).

1.10.4 Insurance

Insurance is an accommodation of protection agreement from financial loss in such a way, in exchange for a fee, one party agrees to compensate another party in the event of a certain loss, damage, or injury. It is a form of risk management. It is mainly used to protect against the risk of a contingent or uncertain probable loss (Insurance, 2024).

An organization that provides insurance is known as an insurer, insurance company, insurance carrier, or underwriter. A person or legal entity who buys insurance is known as a policyholder, while a person or entity covered under the policy is called an insured (“Insurance,” 2024).

1.11 Limitations of the study

One of the limitations of this research include the narrow scope. As the study focuses on the role of accounting information systems (AIS) in enhancing financial performance within Ethiopian insurance companies established since 1991, without entering into the intricate relationships between unspecified variables, except those six variables that are discussed in chapter two.

This study employs ratio data for the dependent variable and ordinal data gathered through Likert Scale questionnaire for the independent variables. One of the basic assumption of regression is that there exist a linear relationship between the independent and dependent variables. Ordinal data, however, does not have equal intervals between categories, which could violate this assumption of linearity and may lead to inaccurate and misleading results.

Additionally, the qualitative aspect of the mixed methodology employed in this study may introduce subjectivity, potentially affecting the interpretation of results.

Resource limitations, such as financial constraints, time constraints, and the researcher's limited postgraduate research experience, may impact the depth and breadth of the study.

On top of this, the generalizability of the findings to broader contexts beyond the Ethiopian insurance industry may be limited due to the specific focus of the research.

1.12 Organization of the study

In Chapter One: The context of the study has been introduced. The research Objectives and Questions have been identified and the significance of the research has been discussed. The major hypothesis with its sub-hypotheses was postulated and the limitations enumerated. In Chapter Two: Existing literatures are reviewed. Empirical review was discussed. The conceptual framework formulated. In Chapter Three: The theoretical framework of the Chapter is presented methodically. The adoption of a mixed research is also presented. The adoption of a mixed deductive approach is justified. And then the explanatory research design is discussed. In Chapter Four: results of the study are outlined and presented appropriately. In Chapter Five: Discussions of Results of the research are interpreted with much depth and breadth. On top of this Summary of findings are presented followed by conclusion of the research. Finally, recommendations are suggested.

Chapter Two

Literature Review

2.1 Introduction

The primary objective of this thesis is to explore role of AIS in enhancing the practices of financial management within the context of the Ethiopian insurance industry. The purpose of this literature review is to discuss the theoretical foundations that answer the four research questions outlined in the introduction chapter. This chapter begins by the theoretical reviews. The five theoretical frameworks namely; the Resource Based View of the Firm Theory, DeLone & McLean Information System Success Model, Technology-Organization-Environment Model, Technology Acceptance Model, and Theory Maximization Theory are discussed. Then review of the current empirical literature is presented. Finally justification of the research and the conceptual framework are outlined at the end of the chapter.

2.2 Theoretical Review

Despite the fact that there is lack of research which specifically focused on AIS implementation in insurance industries, general Information Technology (IT) and Information System (IS) adoption studies have been researched thoroughly. However, Accounting Information System (AIS) is a sub-set of the general Information System (admin, 2020) (Premkumar & Robert, 1999).

Therefore, this study applied the findings of Information System literature; adopting to make it suitable for the current study at hand. In this study, the Resource Based View of the Firm Theory, DeLone & McLean Information System Success Model, Technology-Organization-Environment Model, Technology Acceptance Model, and Profit Maximization Theory are used as a theoretical framework.

2.2.1 Resource-Based View (RBV) of the Firm Theory

The Resource-Based View (RBV) of the Firm theory was first authored by Wernerfelt (Miller, 2019) in 1984 and developed by Jay Barney in early 1990s. Jay Barney is credited with popularizing and advancing the theory through his works in strategic management literature.

According to Barney (1991), The Resource-Based View (RBV) of the Firm is a theoretical framework that emphasizes the internal resources and capabilities of a firm as the primary sources of sustainable competitive advantage. The theory suggests that firms can achieve superior performance by leveraging and effectively managing their unique bundles of resources and capabilities. The resource based view (RBV) argues that a firm's sustained competitive advantage is based on its valuable, rare, inimitable, and no substitutable resources (Barney, 1991).

According to Daft (1983) cited in Barney (1991), resources are every asset owned by the firm including Capabilities, Information, Organizational Processes, attributes and knowledge. The RBV approach helps understand how firms achieve and sustain competitive advantage through resource building as well as leveraging the existing resources (Barney, 1991; Penrose, 1959; Peteraf, 1993) cited in Yang & Morgan (2011).

According to the resource based view of the firm theory, firms possess resources, a subset of which resources enables them to achieve competitive advantage. And again from this subset of resources, another further subset enables them to have superior long-term performance (Barney, 1991).

This theory states that an organization has a competitive advantage when it has a value creating strategy not implemented by its competitors. Sustained competitive advantage is achieved when the competitors are unable to duplicate its value creating strategy, according to the RBV theory, A literature review by Wade and Hulland (2004) used RBV to explore information system. This review argues that RBV is useful for information system research by providing valuable way for IS researchers to think about how information system relate to firm strategy and performance. Another study by Gupta et al. (2018) also used RBV framework for sustainable and transient competitive advantage of information systems.

By applying the Resource-Based View (RBV) framework to this research, it is possible to gain insights how accounting information systems are utilized by the Ethiopian insurance industry to

enhance financial management performance and achieve competitive advantage through effective leveraging of internal resources and capabilities. Therefore, this study employs the Resource Based View of the Firm Theory to explore the current utilization of Accounting Information System in the Ethiopian Insurance Industry.

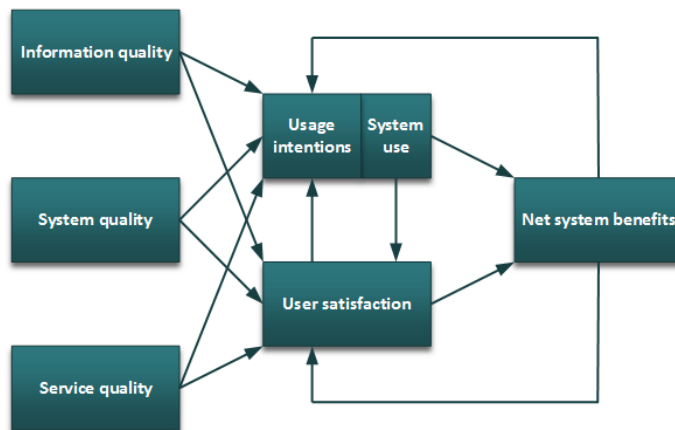
2.2.2 DeLone & McLean Information System Success Model

Regarding the perspective that Information System Success (ISS) is of significant importance as the dependent variable of interest, DeLone and McLean (1992) cited in (Jeyaraj, 2020) synthesized the prior measures of success and proposed the ISS model with six constructs.

Information System Success Model consists of six interrelated dimensions; according to (DeLone & McLean, 1992). These include:

1. System Quality: This dimension refers to the technical quality of the AIS, including factors like reliability, usability, flexibility, and accuracy.
2. Information Quality: This dimension focuses on the quality of the information provided by the AIS, including factors like relevance, completeness, timeliness, and accuracy.
3. Service Quality: This dimension relates to the quality of support and service provided by the AIS, including factors like responsiveness, reliability, and competence of support personnel.
4. Intention to Use: This dimension examines users' attitudes and intentions towards using the AIS, including factors like perceived usefulness, ease of use, and user satisfaction.
5. User Satisfaction: This dimension evaluates users' overall satisfaction with the AIS, which is influenced by factors like system quality, information quality, and service quality.
6. Net Benefits: This dimension measures the tangible and intangible benefits that organizations derive from using the AIS, including improvements in productivity, decision-making, and financial performance. DeLone and McLean (1992)

Figure 1 DeLone and McLean Information System Success Model



Source: DeLone and McLean (1992)

A study by Al-Okaily et al. (2020) applied the DeLone and McLean (D&M) Model to measure the success of Accounting Information System. Another study by Jeyaraj (2020) used D&M Model of Information System Success for critical meta-review and research directions. Lutfi (2023) has also used the model in studying the factors affecting the success of AIS.

By applying the DeLone & McLean Information System Success Model to the second research question, it is possible to systematically assess the effectiveness of Accounting Information Systems in improving key financial metrics in the Ethiopian insurance industry and provide valuable insights. Hence, in this thesis, the DeLone and McLean Information System success model was employed to investigate role of accounting Information System in improving key financial metrics in the Ethiopian insurance industry.

2.2.3 Technology-Organization-Environment (TOE) framework.

Louis G. Tornatzky and Mitchell Fleischer published the Technology Organization Environment model in 1990 (“Technology–Organization–Environment Framework,” 2024).

The Technology-Organization-Environment (TOE) framework is a theoretical framework that was developed in the field of information systems to explain how the adoption and use of new technologies are influenced by various factors (eBusiness@Newcastle, n.d.).

These factors include the characteristics of the technology itself, the organizational context in which it is used, and the external environment in which the organization operates. (Tornatzky & Fleischer, 1990)

According to (eBusiness@Newcastle, n.d.), the TOE framework is a widely recognized theoretical model that helps in understanding the adoption and implementation of technological innovations within organizations.

A study by (Wan Ismail & Mokhtar, 2016) used TOE framework for a conceptual model for examining the factors that influence Computer Accounting System adoption. Another article by (Awa et al., 2016) applied TOE theoretical framework to study the adoption of ERP solution. (Jere & Ngidi, 2020) used TOE framework for the analysis of information and communication technology adoption by small and medium enterprises in Pietermaritzburg

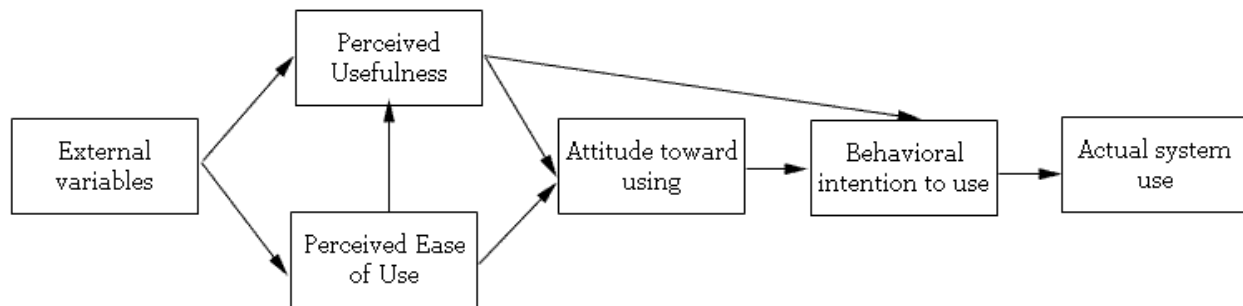
By applying the TOE framework, this thesis can systematically analyze the challenges and opportunities associated with implementing AIS within the Ethiopian insurance industry and understand how these factors influence financial performance. Additionally, the TOE framework provides a lens through which to examine the interplay between technology, organizational dynamics, and the external environment in driving or inhibiting successful AIS implementation and its impact on financial management. Therefore, this study employs TOE framework to answer Research Question #3.

2.2.4 Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) was developed by Fred Davis and Richard Bagozzi. According to (Davis & Davis, 1989) a given information technology's acceptance depends on two factors that determine whether a computer system will be accepted by its potential users. These are: (1) perceived usefulness, and (2) perceived ease of use. This led to the formulation of Technology Acceptance model.

This model posits that one does not use or adopt a new technology unless he/she believes it gets benefit from using it. Secondly, the new technology should be easier to use or adopt, according to TAM.

Figure 2 Technology Acceptance Model (TAM)



Source (Davis, Bagozzi & Warshaw, 1989.)

A study by (Rizki et al., 2023) used Technology Acceptance Model to measure how Accounting Information Systems affects new startups applying perceived used of usefulness and ease of use. Another study by (Souza et al., 2017) also employed Technology Acceptance Model to investigate the adoption of Information Technology by the accounting area. This thesis uses Technology Acceptance Model to identify for the optimal utilization of Accounting Information Systems in the Ethiopian Insurance Industry based on its perceived ease of use and usefulness.

2.3.5 Profit Maximization Theory

From microeconomics, we have a theory which is popularly known as Profit Maximization theory. This theory posits that the primary goal of a firm is to maximize its profits, which are the difference between its total revenues and total expenses. The profit maximization theory states that a firm's performance, in terms of profitability, is directly related to how effectively it can increase its revenues and control or reduce its expenses. Revenue is the total income generated from selling goods or services. Expense is the total costs incurred by the firm in the process of producing and selling its goods or services. These include fixed costs (e.g., rent, salaries) and variable costs (e.g., raw materials, labor). By focusing on maximizing the difference between revenues and expenses, firms can improve their financial performance, ensuring sustainability and growth in a competitive market, according to Profit Maximization theory. As a business firm an insurance firm is no different in that its goal is profit maximization. For an ideal insurer, its Revenue is the Net Earned Premium while its Expense is the Claim it is liable to pay for its policy holder/customer, *ceteris*

paribus. Adapting the profit maximization model: Net Underwriting Revenue (NUWR) = Net Earned Premium – Claims Expense. This thesis used Profit Maximization Theory to answer research question #5.

2.4 Empirical Literature review

2.4.1 Empirical Literature review on Resource Based View of the Firm Theory

A literature review and conceptual analysis of the Resource-Based View theory in the context of Information Systems Research by (Wade & Hulland, 2004), discusses the RBV theory in the context of Information Systems Research. It highlights the importance of capabilities in driving firm performance and categorizes IS resources into inside-out [Internal Resources], outside-in [External Resources], and capabilities. It emphasized the greater impact of outside-in and spanning IS resources on long-term competitive position compared to inside-out resources. It also stressed on the need for comparative assessment of firm performance relative to competitors and the importance of tracking performance over time for a more complete understanding of competitive advantage.

The findings showed that the RBV theory provides a framework for specifying IS resources, comparing IS resources with non-IS resources, and linking resources to Sustainable Competitive Advantage (SCA). It concluded suggesting that IS resources, although not directly leading to sustained competitive advantage, play a critical role in a given firm's long-term competitiveness, especially in rapidly changing environments.

Another study by (Gupta et al., 2018), discusses the Resource-Based View (RBV) theory in the field of information systems and its impact on sustainable and transient competitive advantage perspectives. It declares Information Systems as an internal firm resource because the acquisition, integration, and usage of its interrelated components are owned and controlled by firms, be it in the form of access (e.g. lease, subscription), progressive ownership (e.g. hire purchase), or total ownership. The methodology used is based on a literature review and conceptual analysis of the Resource-Based View (RBV) of Information Systems.

The RBV theory suggests that firms possess heterogeneous resources that can be used to conceive, choose, and implement firm strategies, which contribute to differences in firm performance. The contemporary RBV of information systems emphasizes the need for firms to establish transient competitive advantages through the development of information systems that excel in timeliness, completeness, accuracy, and consistency. Firms can leverage information systems as a driver of firm performance and a source of competitive advantage by investing in innovative technologies, Aligning Business and Information System Strategies, Emphasizing on Timeliness, Completeness, Accuracy, and Consistency in their information systems, and building a dynamic portfolio of competitive advantages.

(Bowman & Toms, 2010) The RBV states that a firm's competitive advantage is derived from its unique bundle of resources that are valuable, rare, inimitable, and non-substitutable. These resources can include tangible assets like machinery and technology, as well as intangible assets like knowledge, reputation, and organizational culture. Accounting plays a crucial role in identifying, measuring, and managing these resources to create and sustain competitive advantage. By applying accounting concepts, firms can assess the value and performance of their resources, understand how these resources contribute to competitive advantage, and make informed decisions on resource allocation and strategy formulation. In line with this literature review; the following sub-hypothesis is postulated:

H₁: Accounting Information System is a firm's internal resource. And this Resource is positively related to its Financial Performance.

2.4.2 Empirical Literature review on DeLone & McLean Information System Success Model

Seddon and Kiew (1994) cited in (DeLone & McLean, 2003) surveyed 104 users of a recently implemented, university accounting system and found significant relationships between "system quality" with "user satisfaction" and "individual impact," between "information quality" with "user satisfaction" and "individual impact," and between "user satisfaction" and "individual impact."

Delone and McLean (2003) recommend that organizations can apply the insights from the study to improve their accounting information systems focusing on System Quality, Enhance Information Quality, Improve Service Quality, Measure Organizational Impact, Consider Longitudinal Studies, Expand Research Approaches, and Include Training Quality.

Al-Okaily et al. (2020) The DeLone and McLean model provides a framework for measuring the success of accounting information systems (AIS) by considering multiple dimensions including: Comprehensive Evaluation, Empirical Validation, and Relevance to Organizational Level, Association of Success Dimensions, Validated Measures, and Applicability to Specific IS. By leveraging the Information System Success (D &M) model to their advantage, organizations can systematically assess the success of their accounting information systems, identify areas for improvement, and make informed decisions to enhance the effectiveness of their AIS, according to Al-Okaily et al. (2020).

As noted by Petter et al. (2008), the D&M (DeLone and McLean) model of IS success is a widely recognized framework for understanding and evaluating the success of information systems. This model posits that the success of an information system is determined by the interplay of six key constructs namely: system quality, information quality, service quality, use, user satisfaction, and net benefits.

The relationships between these dimensions is as follows:

1. System Quality: High system quality leads to improved information quality, as a well-designed and reliable system enhances the accuracy and relevance of the information it provides.
2. Information Quality: Information quality influences user satisfaction, as users are more likely to be satisfied when they have access to accurate, timely, and relevant information.
3. Service Quality: Service quality impacts user satisfaction and use, as users are more likely to be satisfied and utilize the system effectively when they receive good support and service.
4. Use: System use is influenced by system quality, information quality, and service quality. A user-friendly system with high-quality information and good support is more likely to be used extensively.

5. User Satisfaction: User satisfaction is a key driver of net benefits, as satisfied users are more likely to derive value from the system and contribute to positive outcomes.

6. Net Benefits: Net benefits are the ultimate measure of IS success and are influenced by all other dimensions. When the system is of high quality, provides accurate information, offers good service, is used effectively, and satisfies users, it is more likely to generate positive outcomes and benefits for individuals and organizations.

As Petter et al. (2008) pointed, considering these interrelationships among the six dimensions, the D&M model provides a comprehensive framework for assessing and improving the success of information systems.

A study by Lutfi (2023), applied a quantitative methodology approach using a survey questionnaire to collect data from 111 respondents familiar with AIS use. The study utilized the Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the collected data and test the hypotheses. This approach helped the researchers to assess the relationships between IS quality constructs (system quality, service quality, information quality, and internal control quality) and their impact on AIS use and user satisfaction, ultimately contributing to the success of accounting information systems.

The three different IS quality constructs investigated in this research are system quality, service quality, and information quality. Internal control quality plays a crucial role in the success of accounting information systems by influencing AIS usage, user satisfaction, and overall AIS success. High internal control quality can positively affect AIS utilization and user satisfaction, leading to improved system experience and performance. An efficient internal control system helps in mitigating financial irregularities, increasing the possibility of AIS usage, and protecting company assets. It also ensures data relevance and integrity, which are essential for making informed decisions and maintaining operational efficiency. By focusing on internal control quality, organizations can enhance the reliability, accuracy, and timeliness of financial data, optimize their operations, and improve overall business performance. Based on these empirical review a sub-hypothesis is postulated:

H₂: The Success of Accounting Information Resource is positively related to The Financial Performance.

2.4.3 Empirical Literature review on Technology-Organization-Environment Model

A paper by Awa et al. (2016) investigated Information System adoption by analyzing how factors within the technology-organization-environment (T-O-E) framework explain SMEs' adoption of enterprise resource planning (ERP) software. Survey data were collected from executives of SMEs from six service enterprises which have strong dependable operations in Port Harcourt, Nigeria. The methodology adopted was purposive and snow ball sampling. And the proposed framework was tested by the logistic regression. The researchers, Awa et al., (2016), concluded that some factors do not pose much threat to ERP adopters but to non-adopters. Therefore, the paper concluded that adoption of ERP by SMEs is well-explained by T-O-E framework even though it is more driven by technological factors than by organizational and environmental factors. This means that the proposed model will be useful to IS vendors in making investment decisions and crafting marketing programs that appeal to non-adopters since they have more adoption challenges than adopters and to cause adopters to progress in the loyalty ladder.

An article by Wan Ismail and Mokhtar (2016) applied TOE framework to investigate the factors affecting the pre and post adoption of Computerized Accounting Information Systems (CAIS) in Malaysian SMEs. The article stressed that there are many factors in determining the failure of the Malaysian SMEs, one of which is accounting records. Accounting reports are the main source of information for the management of SMEs. Therefore, the importance of the accounting system for SMEs cannot be disregarded. Today, with efficient computer operations such as CAIS, an adequate accounting system could be achieved more easily than through traditional methods. Moreover, with the introduction of lower cost and more user-friendly accounting softwares in the market, there appears to be fewer obstacles to improved record keeping practices, according to Wan Ismail and Mokhtar (2016).

Another study by Jere and Ngidi (2020), aimed to investigate the factors which affect the intention to adopt ICT by SMEs in developing countries using Pietermaritzburg of South Africa as an example to understand. The study employed of quantitative research methods approach. The survey was completed using a close-ended questionnaire. The TOE model was used as a framework to understand the study. A structural equation modelling (SEM) approach was applied to analyze the data from respondents. The study found that the technology context is the most influential factor with and that both technology and organization are significant factors that affect the intention to adopt ICT amongst SMEs in developing countries. This study concluded that SMEs need to pay attention to ICTs that are relevant to them, including the characteristics and resources of the organization to successfully adopt these technologies. Based on this empirical literature review, the following sub hypothesis is postulated:

H₃: The adoption of Accounting Information Technology is positively related to better financial performance.

2.4.4 Empirical Literature review on Technology Acceptance Model

Olushola and Abiola (n.d.) reviewed more than 25 literatures in the area of information adoption. The review covered 30 years identifying the strength and weaknesses of every theory applied. The authors, Olushola and Abiola, found out that Technology Acceptance Model is by far the most used theoretical framework to underpin research work in the area of information technology adoption research. A field research by Souza et al. (2017) used the Technology Acceptance Model (TAM) to assess the level of ICT adoption. The study consolidated that the information and communication technologies (ICT) in the accounting area play a relevant role. ICT helps advance the accounting profession. With the objective of analyzing the technological acceptance in the accounting environment, the field research used a questionnaire with 16 closed questions structured as a Likert type scale with 7 points. Now-a-days, ICT is one of the fundamental tools for facilitating the processing of accounting data. ICT helps accounting to have more agility in accounting records. It also provides agility for the management of business activities. The results of the study revealed that the TAM conceptual model is appropriate to clarify the intention and the

current use of the system. A research by Rizki et al. (2023) applied Technology Acceptance Model. The study was carried out in a quantitative approach to measure how the adoption of accounting information systems affects startups. The researchers used perceived usefulness, perceived ease of use and added perfected strategic value factors to the technology acceptance model, whether these factors could predict related intentions to adopt technology in the context of the startup company. Accordingly; the following sub-hypothesis is postulated:

H₄: Perceived ease of use and usefulness of Accounting Information System is positively related to its financial performance.

2.4.5 Empirical Literature Review on Profit Maximization Theory

A study made by (Camino Mogro & Bermudez, 2019) to identify the main determinants of insurance profitability on life and non-life on Ecuadorian insurances found out that Net premiums, technical reserves, capital ratio and score efficiency are micro determinants in the life insurance sector. On the other hand, in the non-life segment, the micro determinants include claim level and liquidity ratio. Besides these, the authors found that HHI [Herfindahl-Hirschman Index] is a determinant of profitability that is only for the life insurance. The authors also found out that the interest rate is a determinant both for life and non-life insurance. Accordingly; the following sub-hypothesis is postulated:

H₅: Aside the AIS, the Ethiopian Insurance Industry's financial performance is related to its Net Underwriting Revenues.

2.4.6 Extant related Ethiopian Literature

Related Ethiopian literature on AIS and insurance are, to the best of the writer's knowledge, very few. A study by Muzeyen & Molla (n.d.) indicated that Accounting Information practices play a significant role in the accounting and audit report quality as well as effective decision-making mechanism and controlling activities of the company [Awash Insurance Company].

Yihun (2021) found that the internal control component of risk assessment is not practiced in the Ethiopian Insurance Corporation (EIC). While monitoring is better in the EIC, there is in the company adequate control environment, control activities and insufficient flow of information and communication. Another study by Abera and Abebe (2019) concluded that financial performance is mainly driven by firm specific factors. Thus, the study suggests, attention should be given to firm specific variables to have a sound financial performance.

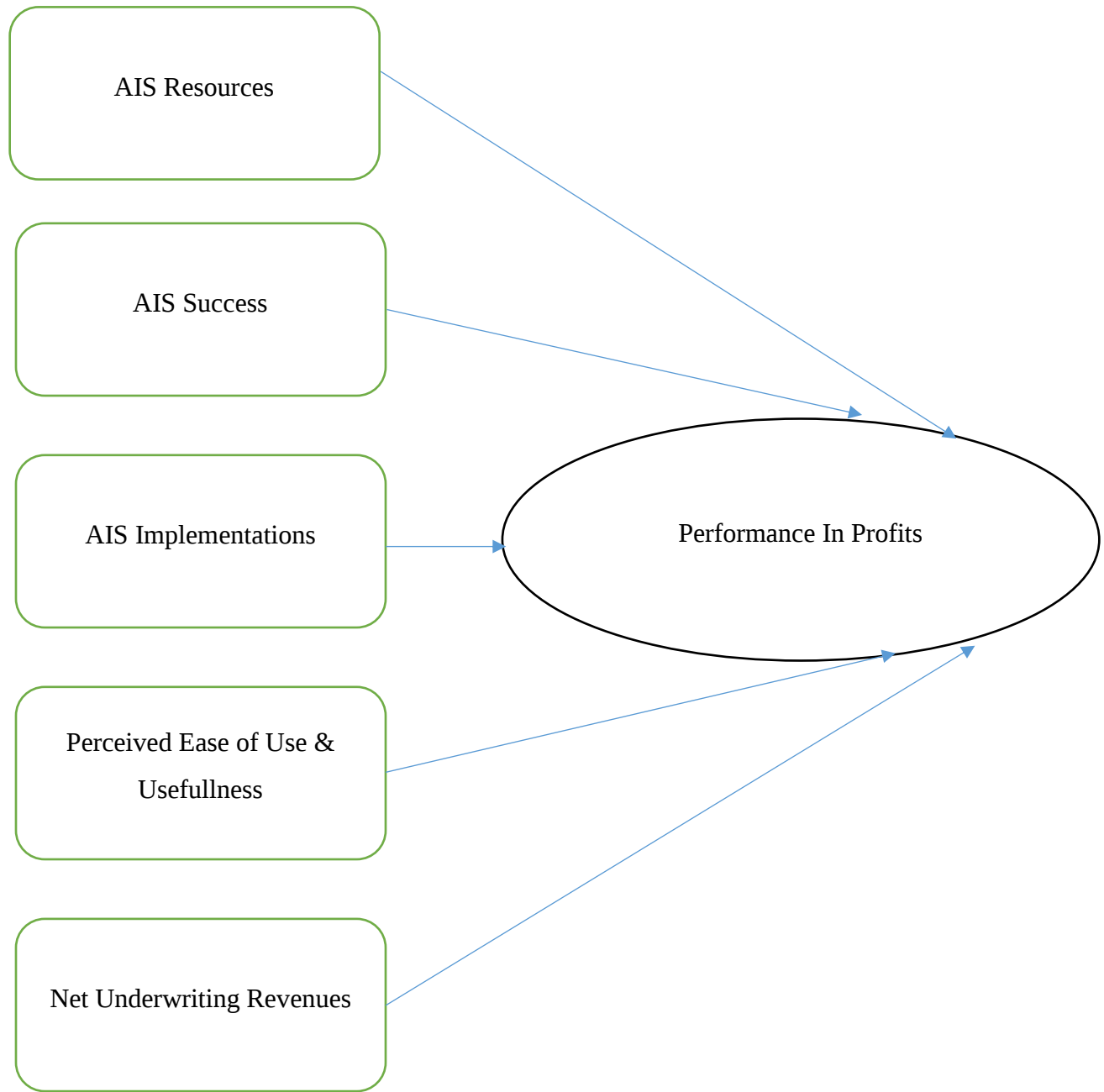
2.5 Justification of the Research

From the above empirical literature review, it can be seen that the handful studies made on the insurance sector are mainly company specific. The dearth of comprehensive study approach on the Industry Specific level In terms of AIS as a function of betterment of Financial Performance calls for the justification of this study.

2.6 Conceptual Framework

Synthesizing and combining to Technology Acceptance Model (TAM) of (Davis & Davis, 1989), Louis G. Tornatzky and Mitchell Fleischer's Technology Organization Environment (T-O-E) model ("Technology–Organization–Environment Framework," 2024), Information System Success framework of (DeLone & McLean, 1992), Barney's (1991) The Resource-Based View (RBV) of the Firm theory, and The Profit Maximization Theory from Microeconomics; the following conceptual framework is postulated:

The perceived ease of use and the perceived usefulness of an AIS appeals organizations (in this case insurance companies) to use it. This leads to the implementation of AIS. The implementation of the accounting information system is a function of; first the technology itself, second the organization in which it is implemented, and thirdly the environment where the organization is suited. Implementation is not the ultimate goal for the system; the adopted AIS system should deliver certain predetermined expectations. This leads to the success of the system. Success of the system is measured beginning from the quality of the system itself to the quality of its output deliverables. Successful AIS becomes valuable resource of the organization. This helps the organization to have a competitive advantage against its competitors. The more valuable, inimitable, and rare the AIS resource becomes, the more the organization enjoys competitive advantage -which is specifically termed to have sustained competitive advantage, according to the theory of TAM, T-O-E, D&M, and RBV, respectively. The more the higher is its Net Earned Premium and the less its Claims expense paid to its policy holders, results in the more Net Underwriting Revenues which leads to better financial performance expressed in Net Profits, according Profit Maximization Theory.



Predictor Variables

Dependent Variable

Conceptual Framework using RBV, D&M, TOE, TAM , and PMT

CHAPTER THREE

RESEARCH METHODOLOGY AND DESIGN

3.1 Introduction

This is a thesis investigating the role Accounting Information System has on enhancing the financial performance in the Ethiopian insurance sector. This chapter discusses the methodology employed in investigating the role of AIS. The chapter begins by justifying why mixed approach is employed in this study followed by why the explanatory research design is used. Next to this, the research methods of survey, interview, data source, sampling technique are discussed briefly. The reliability test result of the survey questionnaire, which is performed on the small number of 14 respondents, is presented. Finally, the ethical considerations are enumerated at the end of the chapter.

3.2 Research Approach

Mixed methods research is an approach to research that combines qualitative research with quantitative in a given study or research project (Hassan, 2024). It involves the collection and analysis of both numerical (quantitative) and narrative (qualitative) data to gain a deeper broader understanding of a research problem. This approach helps for a more holistic understanding by triangulating results, addressing the depths of the research questions, and also giving a deeper exploration of the phenomenon (Creswell & Creswell, 2017).

In this thesis on the Ethiopian insurance industry a mixed method approach was applied. A mixed-methods design enables the researcher to gather qualitative insights by interviews and survey questionnaire while also obtaining quantitative data on AIS utilization and its impact on financial performance.

3.3 Research Design

Explanatory research design is used to clarify and understand the underlying causes and effects of a particular phenomenon. This type of research aims to establish cause-and-effect relationships by exploring why and how certain events occur. It often involves hypothesis testing, where researchers seek to confirm or disprove a specific theory or assumption.

Explanatory research is more structured compared to exploratory research and uses both qualitative and quantitative methods to gather and analyze data (Saunders, Lewis, & Thornhill, 2019). The explanatory research design is highly suitable for this thesis.

3.3.1 Research philosophy

It is true that positivist and interpretivist approaches are mutually exclusive. However, Pragmatism can combine positivist and interpretivist positions within a single study. Pragmatism is an approach that suggests there are different ways of interpreting the world and conducting research to investigate reality.

According to Saunders, Lewis, and Thornhill (2012) the combination of different approaches may provide a better understanding of the phenomenon being studied. Pragmatism involves research designs that incorporate operational decisions based on ‘what will work best’ for finding answers for the questions under investigation. This enables pragmatic researchers to conduct research in innovative and dynamic ways to find solutions to research problems. (*Understanding Pragmatic Research*, n.d.) Therefore, it follows that for the chosen explanatory research design, this research employs pragmatist research philosophy.

3.4 Research Method

The specific procedures for collecting and analyzing data are called Research methods. According to (Leedy & Ormrod, 2016), research methods are the systematic procedures and techniques employed by researchers to collect, analyze, and interpret data, facilitating the exploration of research questions and the testing of hypotheses.

3.4.1 Surveys and Questionnaires

According to Dillman, Smyth, and Christian (2014), surveys provide a cost-effective means of obtaining a large sample size, enabling a statistically significant analysis of trends and patterns within the industry

In this study, a Likert Scale questionnaires was used in capturing a broad overview of the perceptions, opinions, and practices related to the implementation of Accounting Information Systems (AIS) as a predictor variable for the financial management performance within the context

of the Ethiopian insurance industry. The survey questionnaire has two parts: The first covers the demographic profile of the respondents while the second part includes plain and easy statements under the four predictor variables; namely Perceived Ease of Use and Usefulness of AIS (PEUUAIS), Implementation of AIS (IMPAIS), Success of AIS (SUCAIS), AIS Resource (AISRES) . Each of the variables had 10 items. The survey questionnaire is prepared on a Five-Point Likert scale. The assigned values starts at 1 for “Strongly Disagree”, 2 for “Disagree”, 3 for “Neutral/Indifferent”, 4 for “Agree”, and finally 5 “Strongly Agree” . Through the distribution this survey questionnaire to industry professionals, such as financial managers, internal auditors, accountants, and Information System Chiefs, the systematic collection of relevant quantitative data on the extent of AIS utilization, perceived benefits, and challenges faced in financial performance were maintained.

3.4.2 Interviews

According to Rubin and Rubin (2012), a qualitative Interview is a research approach where more personal interaction is required and detailed in depth information is gathered from the participant. Qualitative interviews usually involve follow-up questions and are conducted in a conversation or discussion format.

Interviews offer a qualitative element for this research by making use of in-depth exploration of the experiences, perceptions, and challenges faced by key stakeholders involved in the implementation of AIS in Ethiopian insurance companies. Semi-structured interviews with financial managers, IT professionals, and decision-makers coupled with follow up questions were conducted to get contextual insights into the intricacies of AIS integration and its impact on financial management.

3.4.1 Data Source

3.4.1.1 Primary Data Source

Primary data for this thesis was gathered through interviews, surveys questionnaires conducted with executives of the insurance companies and key stakeholders in the insurance sector. Interviews were be conducted with industry experts, managers, and employees with specific

expertise on AIS utilization to get qualitative insights into their experiences with accounting information systems (AIS) and its perceived impact on financial performance.

3.4.1.2 Secondary Data Source

This research has also made use of secondary data sources to provide a broader insight on the topic of AIS. Financial reports from Ethiopian insurance companies, industry publications, and regulatory documents from the National Bank of Ethiopia were used. Secondary data, in this context, serves to provide historical trends, industry benchmarks, and regulatory frameworks within the sector. Additionally, academic articles and global market reports were examined to understand international best practices in AIS utilization in the insurance industry.

3.4.2 Sampling

3.4.2.1 Target Population

The target population for this study is the top level management executives at the headquarters of the insurance firms whose role directly and/or indirectly related to Accounting Information System utilization, adoption, and implementation. These specifically includes Financial Managers, Accountants, Internal Auditors, and Information System chiefs of the entire licensed Insurance companies which are currently operational. According to NBE (Insurers, 2024), the regulator of insurance and banks, there are 18 insurance firms. Since it is presumed those working at headquarters to have a longer career experience and better academic status to branch employees, executives at headquarters are chosen for the population of this research. The selected respondents are presumed to be fairly free from respondent bias. Hence, selecting four top level executives from each insurance companies gives a population of 72 people (i.e. 4 times 18=72).

3.4.2.2 Sample

Sampling is done when it is economically unfeasible to include the entire population. However, in this case the target population is only 72 persons who are in the executive positions from the entire 18 (Eighteen) insurance firms. This number is small and it is easier to conduct a census survey to the entire population.

Therefore, this thesis employs census survey making the sample and the population one and the same.

Table 2 Population Sample Distribution

Description	Population	Percentage %	Sample
Financial Managers	18	25	18
Internal Auditors	18	25	18
Accountants	18	25	18
Information System Chiefs	18	25	18
Total	72	100	72

Source: Own Survey (2024)

3.4.3 Data Analysis Method

The gathered data was analyzed using STATA Version 15.0. The processed data was presented in appropriate tables, graphs, and charts whenever necessary. Descriptive and Inferential Statistics was also employed in this study.

3.4.4 Model Specifications

From the conceptual framework section discussed in Chapter Two, five variables have been identified. The financial management performance/practice is the dependent variable i.e Financial Performance in Profits (FPinP). The independent (predictor) variables are namely Perceived ease of use and Usefulness of AIS (AIS_peuu), Implementation of AIS (AIS_imp), AIS Success (AIS_succ), AIS resource (AIS_res), and Net Underwriting Revenues (NUWR). Putting these in a linear mathematical model:

$$\text{FPinP} = \beta_0 + \beta_1 \text{NUWR} + \beta_2 \text{AIS_res} + \beta_3 \text{AIS_succ} + \beta_4 \text{AIS_imp} + \beta_5 \text{AIS_peuu} + \varepsilon \dots \dots \dots 3.1$$

Where : FPinP Is Financial Performance in profits

AIS_peuu= Perceived Ease of Use and Usefulness of AIS

AIS_imp=Implementation of AIS

AIS_succ=Success of AIS

AIS_res=AIS Resources

NUWR=Net Underwriting Revenues

β_0 is the constant, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$, are coefficients of the predictor variables

ϵ is the error (residual term term)

3.4.5 Reliability of the Test

Reliability is the consistency with which a method measures a variable. The measurement is considered reliable if the actual value can be attained by applying the same techniques every time under the same consideration. (*Reliability and Validity ~ Definition, Use & Types*, n.d.)

Cronbach's Alpha is the coefficient of reliability used to test the reliability of the test that measures between 0 and 1. A value of 0.6-0.8 is considered to have good internal consistency.

In this thesis, Cronbach's Alpha is used to determine the reliability and internal consistency of the questionnaire. The survey questionnaire is tested in small number of group with 14 respondents, which is 20% percent of the target population. The Cronbach's Alpha of the four variables (i.e. Perceived Ease of Use and Usefulness of AIS (PEUU_AIS), Implementation of AIS (IMP_AIS), Success of AIS (SUC_AIS), AIS Resource (AIS_RES)) from the test is presented in the table below.

Table 3 Reliability test of the survey questionnaire

S/n	Variable	Average Interitem Covariance	Number of Items In the Scale	Scale of Reliability Coefficient (Cronbach's Alpha)
1	AIS Resource (AIS_RES)	0.297	10	0.876
2	Success of AIS (SUC_AIS)	0.267	10	0.872
3	Implementation of AIS (IMP_AIS)	0.503	10	0.934
4	Perceived Ease of Use and Usefulness of AIS (PEUU_AIS)	0.250	10	0.844
5	Total (The questionnaire as a whole)	0.304	40	0.966

Own Survey,2024

3.4.6 Validity of The Test

(Middleton, 2019) validity is the degree to which the results really measure what they are supposed to measure. Generally, validity is measured by checking how well the results correspond to established theories and other measures of the same concept. The questionnaire's validity was checked by the insurance industry's professional and the assigned advisor.

3.5 Ethical Considerations

In this exploratory research, due attention was given to ethical considerations carefully. The study involves the examination of real-world financial practices and systems within the population of insurance companies. The rationale for the protection of sensitive and proprietary information is well understood. For this reason, strict confidentiality protocols were maintained throughout the data collection process. Informed consent was sought from participants beforehand. This ensures their voluntary participation and understanding of the research objectives. Besides this, the research adhered to the principles of integrity and honesty. This was carried on by providing a transparent representation of findings without any manipulation or misrepresentation of data. Ethical guidelines outlined in the American Psychological Association's (APA) Code of Ethics was followed diligently throughout the research process (APA, 2021).

3.5.1 Permission

As stated by (Hosely, 2021), a given research should place a great emphasis on respecting the rights and privacy of the respondents involved in the study. Prior to their participation, in this research informed consent was explicitly asked from all participants. By participating in this research, the respondents were briefed detailing the purpose, procedures, and positive contribution of their involvement for the academia and industry. The participants were assured that their contributions are voluntary, and they have the right to withdraw at any stage without facing any repercussions and consequences. This study's research design and data collection methods were aligned with standard ethical guidelines

3.5.2 Confidentiality and Privacy

According to National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1979), the commitment to confidentiality builds trust with participants,

encouraging open and honest responses while upholding the ethical principles outlined in the Belmont Report.

In this research the importance of keeping the confidentiality and privacy of all participating respondents is well understood. Measures were implemented to ensure that the information provided by respondents remains strictly confidential. Every collected data was anonymized and aggregated. No personally identifiable details were disclosed in this proposal or in the final publication of this thesis. The researcher securely stored and managed the data to prevent unauthorized access. On top of this, any potential identifiers, such as the names of specific companies or individuals, were never asked.

3.5.3 Voluntary Participation and Informed Consent

As noted by Appelbaum et al. (2016), respecting the rights of participants is integral to the ethical framework of every research. Just before their engagement, all potential participants were provided with clear and brief information about the study's objectives, procedures, and interpretations. Hopefully, this process ensures informed consent, allowing individuals to make voluntary and knowledgeable decisions in their participation. Participants were explicitly and clearly informed that their involvement is absolutely voluntary, and that they have the right to withdraw from the study at any point without facing any consequences (Appelbaum et al., 2016).

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter begins by presenting the respondents' sample demographic data to understand the composition and representativeness of the sample. Next to this, Accounting Information System (AIS) Resources, AIS resource Implementations, Implemented AIS Successes, and Perceived Ease and Use of this AIS resources, and Net Underwriting Profits were analyzed to assess each of its independent and combined effect on the Ethiopian Insurance Industry's Financial management Performance which is expressed in the Net Profits metrics. The results are also compared and contrasted within the context of previous studies (i.e. Literature Review Chapter)

4.2 Sample Demographics

The purpose of this sample demographics is to show how well the sample represents the population. The representativeness helps generalize the findings to the entire insurance industry's human resource population.

The plan was to conduct survey on each of 18 Accountants, Auditors (Internal) , Financial Managers, and Information System Chiefs (Specialists) making up the entire 72 respondents from the 18 licensed Ethiopian insurance firms. Due to work load and continuous administrative meetings 4 respondents were unable to fill the survey questionnaire on time. Out of 72, 68 respondents were able to fill and return the questionnaire: making the response rate 94.4% which is good enough to make a valid data processing, interpretation, conclusion, and recommendation.

4.2.1 Occupation by Department

Not disregarding the overlap of responsibilities and job description between an accountant and financial manager: That is to say financial managers typically have a broader scope of responsibilities and make high-level decisions, while accountants focus on detailed recording and

reporting. Besides this, accountants are concerned with the accuracy and compliance of financial records, while financial managers are concerned with maximizing financial performance and achieving business objectives.

However, the researcher was told that there is no clear difference between an accountant and financial manager in every of the 18 insurance firms. I was told, “The financial management and the accountancy, both are the jurisdiction and responsibilities of the Finance Department.” Therefore, the sample composition was modified to Financial Manager and Assistant Financial Manager (i.e. replacing the accountant)

Table 4 Department/Occupation Distribution,

S/n	Responder Department (Occupation)	Frequency	Percent	Cumulative Frequency
1	Auditor (Internal)	18	26.47	26.47
2	Finance Manager	16	23.53	50
3	Assistant Finance Manager	16	23.53	73.53
4	IT-Department Chief (Specialist)	18	26.47	100
	Total	68	100	

Source: Own survey, 2024.

Internal Auditors are 18 (26.47%) whereas Finance managers, Assistant finance managers, and IT department chiefs (specialists account for 16 (23.53%) , 16 (23.53%) , and 18 (26.47%) respectively.

4.2.2 Gender distribution.

Table 5 Responders’ Gender Distribution,

S/n	Gender of Respondent	Frequency	Percent	Cumulative Frequency
1	Male	57	83.82	83.82
2	Female	11	16.18	100
	Total	68	100	

Source: Own survey, 2024.

With respect gender, the workforce distribution is too skewed towards Males 57 (83.82%) while Females are only 11(16.18%). This survey shows significant gender gap in the Ethiopian insurance industry workforce at the headquarters. Women are underrepresented compared to men. A workforce with limited gender diversity might lack some sort of gender specific perspectives and experiences, potentially hindering innovation and problem-solving. To the least, there could be potential clients/customers (policy holders) who would like to be served by women. However, the fact that this gender imbalance exists in the survey has no plausible contextual influence on the objective of this research; *ceteris paribus*.

4.2.3 Age group distribution

Table 6 Responders' Age Group Distribution

S/n	Responders' Age Group	Frequency	Percent	Cumulative Frequency
1	21-30 Years	12	17.65	17.65
2	31-40 Years	36	52.94	70.59
3	41-50 Years	14	20.59	91.18
4	51-65 Years	6	8.82	100
	Total	68	100	

Source: Own survey, 2024.

The respondent's age group distribution shows that most of, which is 36 (52.94%), the Ethiopian insurance industry's workforce are in their prime age between 31 and 40 years old. Next to this age group, a 41 and 50 years old group takes the second position with count of 14 (20.59%). The third place goes to the youngest workforce of 12 (17.65%). Out of the surveyed respondents at the headquarters of the Ethiopian Insurance industry, only 6 (8.82%) are between the age group of 51-65. Relatively speaking, it is possible to say that the workforce of the Ethiopian insurance industry at the head office is younger on average (52.94 %).

4.2.4 Martial status distribution.

Table 7 Responders' Marital Status Distribution

S/n	Responders' Marital Status	Frequency	Percent	Cumulative Frequency
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1	Single	25	36.76	36.76
2	Married	43	63.24	100
	Total	68	100	

Own survey, 2024.

Regarding Respondent's marital status, 25 (36.76%) are single whereas 43 (63.24 %) are married. Traditionally, married people are considered to have greater stability and commitment, which leads to longer tenures within the workforce. This could be beneficial for employer insurers seeking long-term employees. Generally, the survey suggests that a majority of the respondents in the Ethiopian insurance workforce are married. However, the effect of marital status on productivity and better performance is not causal, the researcher believes.

4.2.5 Educational Background Distribution.

Table 8 Responders' Educational Background Distribution

S/n	Responders' Education	Frequency	Percent	Cumulative Frequency
1	Bachelor Degree	38	55.88	55.88
2	Master's Degree	30	44.12	100
	Total	68	100	

Own survey, 2024.

Regarding the Educational background of respondents, 38 (55.88 %) have Bachelor's Degree whereas 30 (44.12%) have Master's Degree. A higher level of education, particularly a Master's Degree, may indicate stronger analytical and problem-solving skills, which are valuable assets in areas like risk assessment, underwriting, and product development.

4.2.6 Insurance Certification

Table 9 Responders' Insurance Certification Distribution

S/n	Insurance Certification	Frequency	Percent	Cumulative Frequency
1	None	62	91.18	91.18
2	Yes	6	8.82	100
	Total	68	100	

Source: Own survey, 2024.

Out of the 68 respondents, only 6(8.82%) affirmed to have an Insurance certification. The high percentage of respondents without insurance certification 62 (91.18%) could indicate a lack of required expertise or qualifications in the insurance field. This might have implications for the quality of service provided or the level of risk assessment for insurance products. National Bank of Ethiopia, the insurers' Regulatory, has issued a directive for members of board board of directors to have a diploma in in insurance certification (T. Girma, Personal Communication, March 15, 2024). This could be beneficial if it is made applicable for the insurance industry's work force as well. Because even if having insurance certification doesn't guarantee competence, but it can serve as an indicator of required relevant knowledge and skills.

4.2.7 Work experience.

Table 10 Responders' Work Experience Distribution

S/n	Responders' Experience	Frequency	Percent	Cumulative Frequency
1	5-10 Years	24	35.29	35.29
2	11-15 Years	25	36.76	72.06
3	16- 20 Years	11	16.18	88.24
4	21-25 Years	5	7.35	95.59
5	More Than 25 Years	3	4.41	100
	Total	68	100	

Source: Own survey, 2024.

As the proverb says, "Experience is the best teacher."; work experience is significantly important. The majority of responders 25 (36.76%) and 24 (35.29) are in the groups of 11-15 Years and 5-10 years work experience respectively. 11 (16.18%) respondents said they have 16-20 years, and 5 (7.35%) respondents said they have worked in the insurance industry for some 21-25 years. Only 3 respondents (4.41%) have worked more than for a quarter of century i.e. 25 years. These are the most senior and experienced respondents.

4.3 Descriptive Statistics From Primary Data

4.3.1 Descriptive Statistics from Survey Questionnaire

In this thesis, the four Accounting Information System (AIS) functionalities, namely the AIS Resources, the AIS Implementations, the AIS Successes, and the Perceived ease of use and usefulness of AIS are hypothesized to have a direct effect of enhancement on the Ethiopian insurance industries' financial performance; specifically performance measured in profits metrics.

The descriptive Statistics analysis of these four variables is performed using mean and standard deviation. The mean provides an image how well the central tendency of the values of a variable whereas Standard deviation gives the image regarding the dispersion of the values of a variable from its mean value.

Under each of the Accounting Information System functionalities, the respondents were given a five-point Likert Scaled questionnaire having a rate of scale from 1 [Strongly Disagree] to 5 [Strongly Agree]. Between these extreme ends there is also a scale 2 for [Disagree], 3 for [Neutral], and 4 for [Agree].

4.3.1.1 AIS Resources

Table 11 Descriptive Statistics of AIS Resources

Description	Values				
I. AIS_RES (AIS Resource)	Observation	Mean	Std. Dev	Min.	Max
1. The accounting information system in our company effectively captures and processes accounting and financial data.	68	3.985	0.837	2	5
2. Our company utilizes accounting information system tools and soft wares to analyze financial performance satisfactorily.	68	3.941	0.808	2	5

3. Our accounting information system provides timely and accurate financial reports for decision-making.	68	3.721	0.928	2	5
4. Using our accounting information system resources helped us enhance our company's ability to assess risks and opportunities in the insurance market.	68	3.618	0.962	2	5
5. Our company's effective utilization of accounting information system resources gives us a competitive edge over other insurance companies in Ethiopia.	68	3.382	1.037	1	5
6. Accounting information system resources enable us to better understand customer needs and tailor our insurance products accordingly	68	3.574	1.041	1	5
7. Our company's financial performance has improved as a result of leveraging accounting information system resources.	68	3.632	0.862	2	5
8. The competitive advantage gained from our accounting information system resources positively impacts our market share in the Ethiopian insurance industry	68	3.544	1.043	1	5
9. Our company's investment in enhancing accounting information system capabilities has been justified by improved financial performance	68	3.5	0.970	1	5
10. The use of accounting information system resources contributes significantly to our company's competitive advantage and financial success in the Ethiopian insurance market.	68	3.853	0.996	2	5
AIS Resources	68	3.675	0.742	2	4.9

Source: Own Survey, 2024

The high mean score (3.985) for “...High Effectiveness in Data Capture and Processing...” indicates that participants strongly agree that the AIS effectively captures and processes accounting and financial data. And also high mean scores, “...Positive Impact on Financial Analysis and Reporting...”, for the utilization of AIS tools and software (3.941) and the provision of timely and accurate financial reports (3.721) suggest that participants find the AIS beneficial for financial analysis and decision-making. On the other hand statements, “...Enhanced Risk Assessment and Competitive Advantage...”, related to risk and opportunity assessment (3.618) and competitive edge (3.382) show that participants believe AIS resources are crucial for maintaining a competitive position in the market. With respect to , “...Improved Financial Performance...”, participants agree that the AIS has led to improved financial performance (3.632) and has justified the investment in AIS capabilities (3.5). Regarding, “...Customer Understanding and Market Share...” AIS resources help in understanding customer needs (3.574) and positively impact market share (3.544), indicating a strategic advantage in customer relationship management. The aggregated mean score of 3.675 reflects a general agreement that AIS resources are effective and beneficial for the company's competitive positioning and financial success.

The results of the survey in this table imply that the Accounting Information System (AIS) resources in the surveyed organization are highly effective in capturing and processing financial data, enhancing financial reporting, and contributing to the company's competitive advantage. The positive perceptions regarding the impact of AIS on financial performance, risk assessment, and customer understanding highlight the strategic importance of AIS resources. While there is a slight variation in satisfaction levels regarding competitive edge and justification of investment, the general perception is positive, indicating that AIS resources play a crucial role in supporting the organization's financial and competitive objectives.

4.3.1.2 Success of AIS

Table 12 Descriptive Statistics of AIS Success

SUC_AIS (Success of AIS)	Observation	Mean	Std. Dev.	Min	Max
11. The accounting information system in our company effectively meets the information needs of different stakeholders (For example, management, regulators, shareholders)	68	3.574	0.967	2	5
12. The accounting information system in our company is user-friendly and easy to operate.	68	3.647	0.927	1	5
13. The accounting information system provides accurate and reliable financial data for decision-making processes.	68	3.853	0.966	1	5
14. The accounting information system contributes to the efficiency of financial operations within our company.	68	3.868	0.896	1	5
15. The accounting information system facilitates timely reporting of financial information.	68	3.897	1.039	1	5
16. Our company has experienced improved decision-making outcomes as a result of using the accounting information system.	68	3.603	0.933	1	5

17. The accounting information system enhances the general performance of our financial reporting processes.	68	3.824	0.961	2	5
18. Employees in our company are satisfied with the effectiveness of the accounting information system in supporting their tasks.	68	3.485	0.985	1	5
19. The success of our accounting information system positively impacts our company's financial performance	68	3.926	0.886	2	5
20. The accounting information system has been instrumental in improving our company's financial performance.	68	3.765	0.948	1	5
AIS_succ (Success of AIS)	68	3.744	0.754	1.5	5

Source: Own Survey, 2024

The survey results for this table indicate a generally positive perception of the success of the AIS within the organization. Statements related to “...High Effectiveness and Reliability...” namely: the accuracy, reliability, and efficiency of the AIS (mean scores from 3.853 to 3.897) indicate strong agreement that the AIS is effective in providing reliable data and enhancing financial operations. The high mean scores for statements related to “...Positive Impact on Financial Performance...” regarding the AIS's impact on financial performance (3.926 and 3.765) suggest that participants believe the AIS significantly contributes to the company's financial success.

While the mean scores for “...User Satisfaction and Ease of Use...” user satisfaction and ease of use (3.485 to 3.647) are slightly lower, they still reflect a generally positive sentiment towards the usability of the AIS. The statement about, “...Improved Decision-Making and Reporting...”. AIS is perceived as improving decision-making outcomes and the general performance of financial reporting processes, with mean scores around 3.6 to 3.8. The standard deviations for all statements are relatively low (around 0.75 to 1.0), indicating that responses are clustered closely around the mean, suggesting a consensus among respondents. The aggregated mean score of 3.744 reflects a general agreement that the AIS is successful in meeting its intended goals within the organization.

The survey results suggest that the Accounting Information System (AIS) in the surveyed 18 insurance organizations is viewed as successful in various aspects. It is effective in meeting the information needs of stakeholders, enhancing financial operations, providing reliable data, and positively impacting the company's financial performance. Although there is a slightly lower satisfaction level among employees regarding ease of use, the general perception of the AIS is positive, indicating its success in supporting the organization's financial processes and decision-making.

4.3.1.3 Implementation of AIS

Table 13 Descriptive Statistics of AIS Implementations

IMP_AIS Implementation of AIS	Observation	Mean	Std. Dev.	Min.	Max.
21. Our organization regularly updates its accounting information technology systems to keep pace with technological advancements.	68	3.176	1.105	1	5
22. The accounting information technology used in our organization is user-friendly and easy.	68	3.559	0.998	1	5

23. Our organization provides adequate training and support to employees for utilizing accounting information technology effectively.	68	3.25	1.098	1	5
24. The adoption of accounting information technology has streamlined our financial processes and reduced manual errors.	68	3.765	1.009	1	5
25. Our organization actively seeks feedback from employees regarding the usability and effectiveness of accounting information technology systems.	68	3.162	1.045	1	5
26. The adoption of accounting information technology has enhanced collaboration and communication among different departments within our organization.	68	3.559	1.111	1	5
27. Our organization considers industry-specific technological trends and standards when implementing accounting information technology solutions.	68	3.456	1.043	1	5
28. The accounting information technology used in our organization effectively integrates with other systems and software applications.	68	3	1.106	1	5

29. Our organization perceives the adoption of accounting information technology as crucial for maintaining competitiveness within our sector.	68	3.691	1.040	1	5
30. The adoption of accounting information technology has positively contributed to our organization's financial performance.	68	3.794	1.073	1	5
AIS_imp (Implementation of AIS)	68	3.441	0.863	1	5

Own Survey. 2024

The moderate agreement on “...Technological Updates and User-Friendliness...”, regular updates and the user-friendliness of the systems indicates that while organizations are keeping up with technological changes, there is still room for improvement in ensuring these updates are consistent and systems are optimized for user experience. For “...Training and Support...”, adequate training and support are provided, but with a mean score closer to the middle of the scale, there may be opportunities to enhance these programs to ensure all employees can utilize the systems effectively. The relatively high scores for “...Process Improvement and Error Reduction...” , improving processes and reducing errors highlight one of the significant benefits of adopting AIS, reinforcing its value in operational efficiency. Moderate agreement on “...Employee Feedback and Collaboration...” , seeking feedback and enhanced collaboration suggests a positive but improvable scenario where employee inputs could be better leveraged, and inter-departmental communication could be further enhanced. High scores in this “...Competitiveness and Financial Performance...” statement shows the strategic importance of AIS in maintaining competitive advantage and contributing positively to financial performance, reflecting the critical role of technology in modern financial management.

The summarized mean score for all observations is 3.441, with a standard deviation of 0.863, indicating a general positive perception towards the implementation of AIS within organizations. Hence, the survey questionnaire shows that participants generally agree on the positive impacts of implementing AIS, with means ranging from 3.00 to 3.79 across different aspects. The highest agreement is found in the statements regarding the streamlining of financial processes and the positive contribution to financial performance, while the lowest agreement is in the system integration effectiveness. Generally, the responses indicate a favorable view towards the adoption and impact of accounting information systems within their organizations.

Generally, while the implementation of AIS is viewed positively, particularly in improving processes and competitive positioning, there are areas such as training, feedback mechanisms, and system integration where further enhancements could maximize the benefits of these systems.

4.3.1.4 Perceived Ease of Usefulness of AIS

Table 14 Descriptive Statistics of Perceived Ease of Use and Usefulness of AIS

Perceived Ease of Use and Usefulness of AIS	Observation	Mean	Std. Dev.	Min.	Max.
31. Using our company's Accounting Information System is easy for me.	68	3.912	0.926	1	5
32. Learning to operate our Accounting Information System (AIS) is straightforward.	68	3.779	0.826	1	5
33. The Accounting Information System (AIS) in our organization requires minimal effort to use.	68	3.588	0.950	1	5
34. I find it easy to get the Accounting Information I need from our AIS.	68	3.721	0.902	1	5

35. The Accounting Information System (AIS) in our organization enhances my productivity.	68	3.809	0.902	1	5
36. Using the Accounting Information System (AIS) improves the quality of my work.	68	3.941	0.929	1	5
37. The Accounting Information System (AIS) provides relevant information that helps me perform my job effectively.	68	3.882	0.970	1	5
38. I believe that using the Accounting Information System (AIS) contributes to achieving our organization's financial goals.	68	3.956	0.969	1	5
39. The Accounting Information System (AIS) helps me make better financial decisions for our organization.	68	3.868	0.929	1	5
40. I perceive the Accounting Information System (AIS) in our organization to be both easy to use and highly beneficial for improving financial performance.	68	3.956	0.953	1	5
Perceived Ease of Use and Usefulness of AIS	68	3.841	0.821	1	5

Source: Own Survey,2024

Statements regarding “...High Perceived Ease of Use...” (e.g., ease of operation, minimal effort required) have high mean scores (3.588 to 3.912), indicating that users find the AIS user-friendly

and easy to learn. And also statements regarding “...High Perceived Usefulness...” (e.g., enhanced productivity, improved work quality, better financial decisions) also have high mean scores (3.809 to 3.956), suggesting that users find the AIS beneficial for their work and for the organization's financial goals. The standard deviations for all statements are relatively low (around 0.8 to 1.0). This shows that most respondents have similar perceptions and there is a consensus on the ease of use and usefulness of the AIS. The respondents' average mean score of 3.841 reflects an agreement that the AIS is both easy to use and useful.

The results of the survey suggest that the Accounting Information System (AIS) in the surveyed organization is well-received by its users. It is perceived as easy to use and beneficial for improving productivity, work quality, and financial decision-making. These positive perceptions are consistent across the respondents, highlighting the effectiveness of the AIS in supporting their job functions and contributing to the organization's financial goals.

4.3.2 Interview Results

Due to personal issue (hearing impairment) of the researcher of this thesis, the interview was conducted in writing. To prevent the respondents from what is termed as “interview fatigue” and save them their precious working time (i.e. the interview was conducted at the headquarters of the 18 insurers which has never ending a great deal of workload around the clock), only five open ended questions were prepared and administered. After receiving the responses, follow up questions were asked. Summary of the interview Findings are presented as follows.

The most commonly used AIS software in the Ethiopian Insurance Industry includes Peachtree, Accpac, and Premia. Some insurer companies use industry-specific systems like GIIS and integrated systems like ERP and AGRESSO.

Approximately half of the companies (8 out of 18) believe that their AIS provides them with a competitive advantage. Companies that do not perceive to have a competitive advantage often

cited reasons such as the software being common in the industry or the company being in the process of acquiring new software.

A minority of companies report that their AIS software is unique or that expertise in their AIS is rare in the industry. Most insurance companies acknowledge that the expertise required for their AIS is not rare and is shared with other insurer companies.

Few companies have a dedicated AIS department similar to MIS (Management Information Systems). The majority of the interviewees said that AIS management is typically under the broader IT department or does not have a distinct organizational unit. [However, even if the few companies claimed to have a separate AIS department (like Management Information System department) , the researcher checked their organizational structure to no avail. None of the few had a separate AIS department.]

Regarding Challenges and Opportunities, the often repeatedly cited challenges include : Lack of “IT infrastructure and expertise”, “ Competitors' unethical practices”, “Resistance to change and user adaptation issues”, “High costs and inflation impacting IT implementation” , “Customer handling and information exchange” , “Lack of locally developed systems”, “High cost of acquisition.”, and “Regulatory environment and market competition”.

Whereas, on the other hand, the interviewees cited : “Potential for growth and technological advancement”, “Increased user awareness and training opportunities” , “Flexibility and advancements in technology”, “Untapped market with 120 million population”. “Importance of insurance policy skills”, “Unique insurance accounting system.”, “Growth potential, partnerships, digitalization.” as an opportunity.

The interview showed that a diverse range of AIS software being used across the insurance companies, with varying levels of perceived competitive advantage and challenges. While some companies find their AIS to be a source of competitive advantage, others struggle with implementation challenges and the high cost of acquisition. Opportunities for improvement include better IT infrastructure, training, and leveraging advancements in technology, according to the interviewees.

4.4 Results From Secondary Data

Cross-sectional data is collected by observing many subjects (such as individuals, firms, countries, or regions) at a single point in time or without regard to differences in time. A cross-sectional data of the 18 registered operational insurers was collected from each of its respective Annual Report 2022/23 (for the year ended Sene 30, 2023).

Table 15 Cross-sectional Financial Metrics for 2022/23

S/n	Name of Insurer	Net Earned Premium In ETB	Claims Expense In ETB	Net Underwriting Revenues ^a In ETB	Net Profits In ETB
1	Abbay Insurance	348,653,000.00	170,875,000.00	177,778,000.00	160,634,000.00
2	Africa Insurance	604,549,749.00	477,552,679.00	126,997,070.00	44,170,302.00
3	Awash Insurance	1,338,284,000.00	863,070,000.00	475,214,000.00	509,124,000.00
4	Berehan Insurance	229,097,000.00	130,891,000.00	98,206,000.00	71,978,000.00
5	Bunna Insurance	503,515,000.00	339,807,000.00	163,708,000.00	57,455,000.00
6	Ethiopian Insurance Corporation	2,047,502,107.00	1,170,347,267.00	877,154,840.00	1,155,658,288.00
7	Ethio Life & General Insurance	332,947,000.00	206,122,000.00	126,825,000.00	49,301,000.00
8	Global Insurance	195,586,000.00	165,574,000.00	30,012,000.00	67,103,000.00

9	Lion Insurance	459,387,000.00	292,829,000.00	166,558,000.00	70,609,000.00
10	Lucy Insurance	169,433,000.00	106,751,000.00	62,682,000.00	45,857,000.00
11	Nib Insurance	761,424,000.00	472,745,000.00	288,679,000.00	245,824,000.00
12	NICE Insurance	387,752,813.00	252,078,284.00	135,674,529.00	93,690,867.00
13	Nile Insurance	723,295,000.00	379,169,000.00	344,126,000.00	298,331,000.00
14	Nyala Insurance	725,763,326.00	370,811,467.00	354,951,859.00	273,311,378.00
15	Oromiya Insurance	837,649,000.00	425,662,000.00	411,987,000.00	333,946,000.00
16	Tsehay Insurance	534,574,000.00	517,763,000.00	16,811,000.00	92,440,000.00
17	United Insurance	875,218,000.00	541,930,000.00	333,288,000.00	327,024,000.00
18	Zemen Insurance	126,029,937.00	80,789,122.00	45,240,815.00	45,905,090.00

^a Net Underwriting Revenues= Net Earned Premium - Claims Expense

Source: Insurers' Annual Report, 2022/23

4.5 Inferential Statistics

This section of inferential statistics in this thesis includes Diagnostic test for the Ordinary Least Square (OLS) assumption, Correlation test, and the regression analysis.

4.5.1 Correlation

Table 16 Summary of Correlation Matrix

S/n	Variable	NUWR	AIS_res	AIS_succ	AIS_imp	AIS_peuu
1	NUWR	1.000				
2	AIS_res	0.139	1.000			
3	AIS_succ	0.117	0.879	1.000		
4	AIS_imp	0.122	0.753	0.888	1.000	
5	AIS_peuu	0.109	0.790	0.843	0.824	1.000

Source Own Survey, 2024

The table above presents the pairwise correlation coefficients between the variables NUWR, AIS_Res, AIS_succ, AIS_imp, and AIS_peuu. Net Underwriting Revenue (NUWR) has very low

correlations with the other variables: with AIS_Res: 0.139, AIS_succ: 0.117, AIS_imp: 0.122, and with AIS_peuu: 0.109 . These low correlation values indicate that NUWR is relatively independent and does not have significant multicollinearity issues with the other variables.

On the other hand , as can be seen from its respective columns the four AIS variables [namely AIS_res, AIS_succ, AIS_imp, and AIS_peuu] has a strong relationship with each other with a correlation between the lowest value of 0.753 and the highest 0.888 indicating an issue of multicollinearity.

As the econometrics jargon goes, it is true that “correlation doesn’t necessarily imply causation”. However, as it has been said in the conceptual framework section (and repeated in the multicollinearity test) there is a logical relationship between the AIS functionality variables. It has been stated that: the Perceived Ease of Use and Usefulness of AIS [AIS_peuu] leads to AIS implementations [AIS_imp]. Next to this, the Success of the Implemented AIS [AIS_succ] paves the way to make it the insurers’ AIS Resources [AIS_res].

What the correlation value result has shown is that what has been hypothesized in the conceptual framework section. Therefore, it is allowable to accept the multicollinearity issue within the limits of this thesis. It is fairly acceptable.

4.5.2 Diagnostic Tests

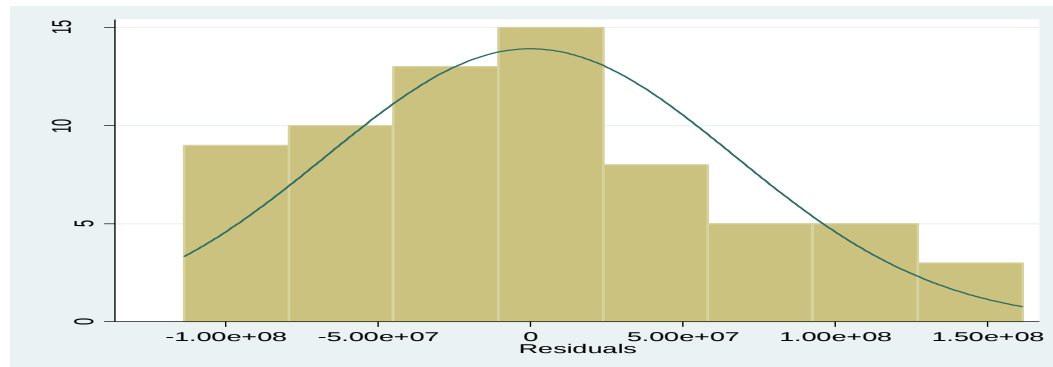
4.5.2.1 Normality

Normality is one of the assumptions of Ordinary Least Squares (OLS). Normality assumption states that the error terms or the residuals are normally distributed with a mean of zero having constant variance. The normality assumption is important while investigating the efficiency of the linear model. Gujarati (2008).

Graphic histogram, Skewness/Kurtosis tesr, and the Shapiro-Wilk test of normality are employed to test the normality of the errors (residuals) exhaustively and decisively.

Histogram

Figure 3 Histogram of residuals (Error terms)



Source: Own Survey, 2024

The histogram on the fig above displays the frequency distribution of residuals. Residuals are the differences between observed and predicted values by a model. They are commonly used in statistical regression models. The horizontal axis represents “Residuals,” ranging from approximately -1.00e+08 to 1.50e+08. The y-axis represents the frequency of the residuals, which is the number of times of a particular residual value occurring. As can be seen from the histogram, the frequency of these residuals ranges with values from 0 to 15.

In this histogram the shape of the curve in the plot shows the frequency distribution of the residuals. In this case, the curve appears to be symmetrical and bell-shaped. This suggests that the residuals are normally distributed with its peak value around zero. This indicates that the model is nearly fitting the data well.

On the other hand, there’s slight right-skewness. Positive residuals extend beyond the expected point of normal distribution. However, this slight skewness doesn’t necessarily violate the assumption of normality in the model.

Table 17 Detail Summary of residuals for 68 Observations

S/n	Percentiles %	Values	Smallest	Largest		
1	1	-1.14e ⁰⁸	-1.14e08			
2	5	-9.72e ⁰⁸	-1.01e+08			
3	10	-8.98e ⁰⁷	-9.77e+07		Observations	68

4	25	-4.72e ⁰⁷	-9.72e+07		Sum of Weight	68
5	50	-5840275			Mean	-0.4761029
6	75	3.43e ⁰⁷		1.27e+08	Std. Dev.	6.71e+07
7	90	1.16e ⁰⁸		1.32e+08	Variance	4.5e15
8	95	1.27e ⁰⁸		1.40e+08	Skewness	0.4598419
9	99	1.61e ⁰⁸		1.61e+08	Kurtosis	2.554135

Source: Own Survey. 2024

To determine if the residuals follow a normal distribution, the key aspects: the mean, skewness, and kurtosis are considered.

The mean of the residuals is approximately zero (-0.4761029). This is a good sign for normality as the residuals are centered around zero. The skewness is 0.4598419. For a normal distribution, skewness should be close to zero. Actually 0.4598419 is not exactly zero, it indicates only a mild skew to the right, which is generally acceptable within reasonable limits for this thesis.

The kurtosis is 2.554135. As per Gujarati (2008), for a normal distribution, the kurtosis should be 3. A kurtosis of 2.554135 suggests the residuals are slightly platykurtic (flatter than a normal distribution), but this deviation is relatively minor. A kurtosis of 2.554135 is only 0.5 shy to be 3.

Skewness/Kurtosis Tests

Table 18 Skewness/Kurtosis tests for normality

S/n	Variable	Observation	Pr(Skewness)	Pr (Kurtosis)	Joint	
					Adj chi2(2)	Prob>chi2
1	Resid	68	0.104	0.522	3.19	0.203

Source: Own survey, 2024

The Skewness/Kurtosis tests for normality, often referred to as the Jarque-Bera test, evaluate whether the residuals follow a normal distribution based on their skewness and kurtosis.

The p-value for skewness for the entire 68 observation is 0.104. This p-value indicates the probability that the skewness of the residuals is different from zero. A high p-value (typically

above 0.05) suggests that there is no significant skewness. The p-value implies that the skewness of the residuals is not significantly different from zero. This suggests the residuals do not exhibit significant skewness and are fairly symmetrical.

On the other hand, the p-value for kurtosis is found to be 0.5219. This p-value shows the probability that the kurtosis of the residuals is different from what is expected under normality. A high p-value (typically above 0.05) suggests that there is no significant kurtosis issue.

The Adjusted chi-square value is 3.19. This value is used in calculating the joint p-value for the test. The joint p-value for the test is 0.203. This p-value helps investigate the combined hypothesis that both skewness and kurtosis are as expected under normality. A p-value greater than 0.05 indicates that we fail to reject the null hypothesis of normality. This p-value indicates that the kurtosis of the residuals is not significantly different from what is expected under normality. This means the residuals do not exhibit significant deviations in their tails compared to a normal distribution. The joint p-value of 0.203 indicates that the residuals do not significantly deviate from normality when considering both skewness and kurtosis at the same time. Since this p-value is above the common threshold of 0.05, we do not reject the null hypothesis that the residuals are normally distributed.

Based on the Skewness/Kurtosis tests for normality, there is no evidence to suggest that the residuals deviate significantly from normality. This supports the assumption of normality for the residuals, which is one of the key assumptions for OLS regression. Therefore, it can be reasonably confident that the residuals fulfill the normality assumption.

The Shapiro-Wilk test

Table 19 Shapiro-Wilk test for normal Data

S/n	Variable	Observations	W	V	Z	Prob>Z
1	Residuals	68	0.965	2.109	1.620	0.053

Source: Own Survey,2024

The Shapiro-Wilk test, another statistical test used to assess the normality of data, is also employed. The variable `resid` (residuals) is tested in the Shapiro-Wilk test is for 68 number of observations as well. The Shapiro-Wilk W statistic was found to be 0.965. The W statistic ranges from 0 to 1. Values closer to 1 indicate that the data is more likely to be normally distributed. The value of 0.965 is approximately close to 1, suggesting that the residuals are likely to be normally distributed. Test statistic for the Shapiro-Wilk test is 2.109. Z-value corresponding to the test statistic is 1.620. The p-value is 0.053. This p-value indicates the probability that the residuals deviate from normality. A common threshold for normality is a p-value greater than 0.05. The p-value of 0.053 is slightly above 0.05, which is typically the threshold for determining statistical significance. Since the p-value is greater than 0.05, we fail to reject the null hypothesis that the residuals are normally distributed.

Based on the Shapiro-Wilk W test, there is no strong evidence to suggest that the residuals deviate significantly from normality. The p-value of 0.053 indicates that the residuals are likely to be normally distributed, although it is very close to the threshold of 0.05. Given this result along with the results from the Skewness/Kurtosis test for normality, it is reasonable to conclude that the residuals meet the normality assumption for OLS regression.

Both tests (Skewness/Kurtosis Test and Shapiro-Wilk Test) shown that the residuals do not significantly deviate from normality, supporting the normality assumption required for OLS regression.

4.5.2.2 Heteroscedasticity

Table 20 Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

S/n	Description	Value
1	Test Statistic chi2(1)	1.68
2	p-value (Prob > chi2)	0.195
3	Null hypothesis (Ho)	Constant variance
4	Variables	fitted values of PerformanceinProfits

Source: Own Survey, 2024

To test for heteroskedasticity the Breusch-Pagan / Cook-Weisberg statistical test is employed. This tests the presence of, if any, heteroscedasticity in a regression model. Heteroskedasticity is phenomenon which occurs when the variance of the errors (residuals) is not constant across observations. Its presence could potentially violate one of the key assumptions of ordinary least squares (OLS) regression which in return affects the reliability of the coefficient estimates.

To test the heteroscedasticity for the dependent variable of fitted values Performance in Profits it is found that the Test Statistic $\chi^2(1)$ is 1.68 and the p-value (Prob > χ^2) associated with the chi-squared test statistic is 0.195. Given the null hypothesis of constant variance of the residuals (homoscedasticity), the p-value [0.195] is greater than the threshold significance level of 0.05 (5%), the null hypothesis of constant variance of residuals is supported. The assumption of homoscedasticity is upheld. Thus, the model is free from heteroscedasticity issues.

4.5.2.3 Multicollinearity

Table 21 Summary of VIF values.

S/n	Variable	VIF	(1/VIF)
1	AIS_succ	9.41	0.106
2	AIS_imp	5.44	0.184
3	AIS_res	4.77	0.210
4	AIS_peuu	4.06	0.246
5	NUWR	1.02	0.978
	Mean VIF	4.94	

Source: Own Survey, 2024

The Variance Inflation Factor (VIF) is used to identify the issues of multicollinearity between the independent variables. The commonly accepted threshold value of VIF is 10. A VIF value between 5-10 indicates a significant multicollinearity problem.

From the table above of Summary of VIF values, it can be seen that the variables have a VIF value below the threshold of 10. AIS_succ and AIS_imp have VIF value of 9.41 and 5.44 respectively which is between the range of 5-10 indicating a moderate multicollinearity. AIS_imp (VIF=5.44) and AIS_Res (VIF=4.77) both have a VIF below 5; whereas NUWR has the lowest of all (VIF=1.02) with negligible multicollinearity issue. The mean VIF is somehow below 5, i.e. 4.94.

It has been noted that multicollinearity indicates the issue of relationship between the predictor variables. Since it reduces the predictive power of the model it is not desirable. The mean VIF value of 4.94 indicates a moderate multicollinearity in the model. However, in the conceptual framework section it has been clearly hypothesized that there exist an interdependence between the four variables of AIS functionalities. It has been stated that: the Perceived Ease of Use and Usefulness of AIS [AIS_peuu] leads to AIS implementations [AIS_imp]. Next to this, the Success of the Implemented AIS [AIS_succ] paves the way to make it the insurers' AIS Resources [AIS_res]. As can be seen, there is a logical relationship between the four variables of AIS as it is shown in the coming correlation matrix as well. Therefore, the moderate multicollinearity presented in the table above is acceptable within the limits of this thesis.

4.5.2.5 Multivariate Normality

Table 22 Test for Multivariate normality Source

Test Type	Chi2(2) Statistic	P value (Prob>chi2)
Doornik-Hansen	4.766	0.092

Own Survey: 2024

To assess multivariate normality, The Doornik-Hansen test is a statistical test is employed. This test is used for testing the normality of a set of variables simultaneously. The chi-square statistic is a measure of the difference between the observed data and what would be expected under a multivariate normal distribution. A larger chi-square value indicates a greater difference. The chi-square value is 4.766. The p-value indicates the probability of observing a chi-square statistic as extreme as, or more extreme than, the one calculated from the data, assuming the null hypothesis is true. In this case, the p-value is found to be 0.092. If the p-value is less than chosen significance level (at 0.05), we reject the null hypothesis. If it is greater, we fail to reject the null hypothesis. Since the p-value (0.092) is greater than the common significance level of 0.05, we fail to reject the null hypothesis. Therefore, based on this test, we do not have sufficient evidence to conclude that the set of variables deviates significantly from multivariate normality.

4.5.1.6 Linearity

To determine linearity, a scatterplot matrix (also known as a pair plot) is employed.

AIS_Res vs. Other Variables: The scatter plots for AIS_Res against other variables suggest possible linear trends with some variables, but the relationships do not appear to be strongly linear.

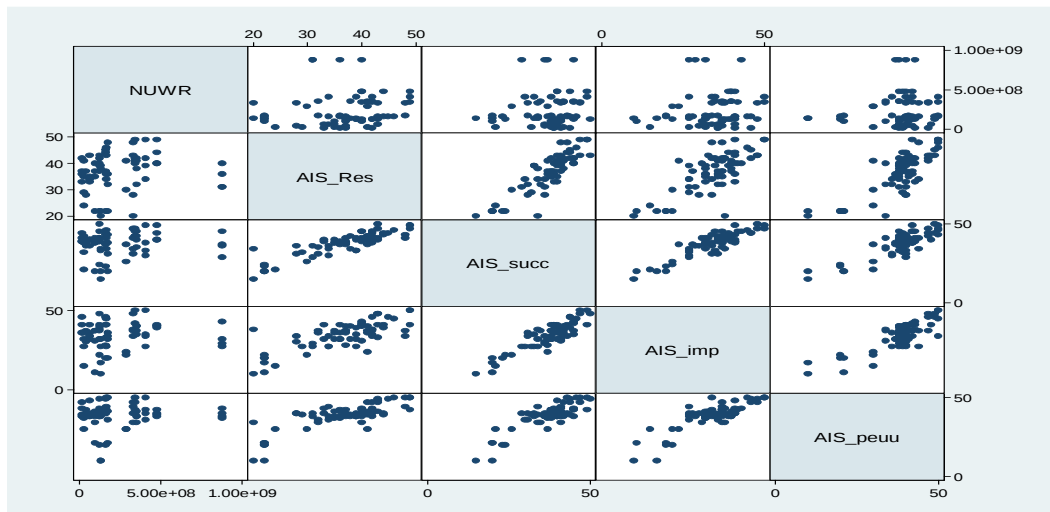
AIS_succ vs. Other Variables: There seems to be some linearity between AIS_succ and other variables, particularly with AIS_Res and AIS_peuu.

AIS_imp vs. Other Variables: The scatter plots for AIS_imp suggest some linear relationships, particularly with AIS_Res and AIS_succ.

AIS_peuu vs. Other Variables: There appear to be linear relationships between AIS_peuu and variables like AIS_succ and AIS_imp.

The scatter plots involving NUWR do not show a strong linear relationships with the other variables.

Figure 4 A scatter plot matrix for Five Predictor Variables



Source: Own survey, 2024

The scatterplot matrix shows that: Some variables exhibit linear relationships: Particularly, AIS_succ, AIS_imp, and AIS_peuu with other variables show linear trends. On the other hand, some variables do not exhibit clear linear relationships: NUWR and some other variables do not

show strong linearity. Even though it is not strong there seems to be somehow a linear relationship. Therefore it is possible to conclude that there is a linearity within acceptable limits of this thesis.

4.5.2 Multiple Linear Regression Analysis

Given the visual histogram and other statistical confirmation of normality, heteroscedasticity, multicollinearity, multivariate normality, linearity and correlation now it is allowable to proceed with analyses that assume normality of residuals, such as linear regression and other parametric tests, with greater reliable confidence. This ensures that the assumptions underlying these methods are met, leading to more reliable and valid inferences from the survey data.

To explore effects of Accounting Information System functionalities in enhancing financial performance a linear model was developed. The model has undergone multi-regression analysis to identify the relationship between the dependent (performance in profits) versus the independent (predictor) variables (AIS Resources, AIS Implementations, AIS Success, Perceived Ease Use of and Usefulness of AIS, and Net Underwriting Revenues) within the context of the Ethiopian insurance industry.

Table 23 Regression Model Summary

Model Variables	Coefficient	Std. Error	t	P> t	Model fit for 68 Obs.			
	t				F-statistic	Prob > F	R-squared	Adjusted R-squared
NUWR	1.255	.041	30.64	0.000				
AIS_res	-8128577	2506594	-3.24	0.002				
AIS_succ	6247096	3446405	1.81	0.075				
AIS_imp	-3929998	2300630	-1.71	0.093				
AIS_peuu	3987135	2089920	1.91	0.061				
Constant	-3.01e+07	4.58e+07	-0.66	0.512	189.70	0.0000	0.939	0.934

Source: Own survey, 2024

The high F-statistic (189.70) and the very low p-value (0.0000) indicate that the model is statistically significant. This shows that at least one of the predictors is significantly related to the dependent variable. The R-squared value of 0.939 means that approximately 93.9% of the variance in the dependent variable (Performance In Profits) could be explained by the independent variables in the model. The adjusted R-squared is found to be 0.934(93.4%). It adjusts for the number of predictors in the model. Even though it is slightly lower still indicates a very good fit.

The coefficient for NUWR is positive and highly significant ($t = 30.64$, $p < 0.0001$). This indicates that NUWR has a strong positive impact on Performance In Profits . Specifically, for each unit increase in NUWR, Performance increases by approximately 1.255 units, *ceteris paribus*.

The coefficient for AIS_res is negative and significant ($t = -3.24$, $p = 0.002$). This shows AIS_res has a significant negative impact on Performance In Profits. Specifically, for each unit increase in AIS_res, Performance decreases by approximately 8128577 units, *ceteris paribus*.

The coefficient for AIS_succ is positive but not statistically significant at the 5% level ($t = 1.81$, $p = 0.075$). However, it is marginally significant at the 10% level, indicating a potential positive impact on Performance in Profits. For each unit increase in AIS_succ, Performance increases by approximately 6247096 units, *ceteris paribus*.

The coefficient for AIS_imp is negative and marginally significant at the 10% level ($t = -1.71$, $p = 0.093$). This indicates a potential negative impact on Performance. For each unit increase in AIS_imp, Performance in profits decreases by approximately 3929998 units, *ceteris paribus*.

The coefficient for AIS_peuu is positive and marginally significant at the 10% level ($t = 1.91$, $p = 0.061$). This indicates a potential positive impact on Performance. For each unit increase in AIS_peuu, Performance increases by approximately 3987135 units, *ceteris paribus*.

The constant term is not statistically significant ($t = -0.66$, $p = 0.512$), indicating that the baseline level of Performance when all predictors are zero is not significantly different from zero.

The regression model has an R-squared of 0.939. This explains a substantial proportion (93.9%) of the variance in Performance in Profits for the Ethiopian Insurance Industry. The most influential variable is NUWR. NUWR has a highly significant and positive effect on Performance In Profits. AIS_Res has a significant negative effect, while the other variables (AIS_succ, AIS_imp, AIS_peuu) show potential effects that are only marginally significant. Generally speaking, the model is highly significant, as it is shown by the F-statistic and its p-value. This analysis suggests that while NUWR and AIS_res are strong predictors, the impacts of AIS_succ, AIS_imp, and AIS_peuu require further investigation due to their marginal significance.

4.6 Discussion

The primary objective of this study was to investigate the relationship between the role of Accounting Information System (AIS) and Financial Performance. The domain of the study was the Ethiopian Insurance Industry.

The research questions were such as that asks: How the Ethiopian Insurance Industry is utilizing Accounting Information Systems to enhance its performance, How AIS features improve key financial metrics, what perceived and practical barriers exist to adopt AIS, what recommendations can facilitate effective AIS adoption, and what other factors exist for the insurers' performance aside AIS.

4.6.1 The results, its Interpretation and Existing Research

AIS Resources (AIS_res)

A literature review and conceptual analysis of the Resource-Based View theory in the context of Information Systems Research by (Wade & Hulland, 2004) found out that IS [AIS] resources, although not directly leading to sustained competitive advantage, play a critical role in a given firm's long-term competitiveness, especially in rapidly changing environments. Another study by (Gupta et al., 2018), declares Information Systems as an internal firm resource and its impact on sustainable and transient competitive advantage. The results of the descriptive statistics of this research perfectly aligns with the cited empirical studies. However, the regression analysis contradicts the results of descriptive and empirical studies.

To reconcile the positive perceptions from the descriptive statistics with the negative relationship found in the regression analysis, the reasons behind the contradiction may include: the survey results reflect the subjective perceptions of the respondents, who believed that AIS resources are beneficial in general. On the other hand, the regression analysis provides an objective measure of the actual relationship between AIS resources and financial performance (net profits). The other reason (factor) could also be AIS resources involve significant initial investments and implementation challenges, which could negatively impact net profits in the short term, (Natnael, personal communications, May 13, 2024). AIS resources may provide non-financial benefits such as improved decision-making, better risk management, and enhanced customer understanding, which might not immediately translate into higher net profits but could be beneficial in the long run.

AIS Success (AIS_succ)

According to (Al-Okaily et al., 2020), by leveraging the Information System Success (D &M) model to their advantage, organizations can systematically assess the success of their accounting information systems, identify areas for improvement, and make informed decisions to enhance the effectiveness of their AIS. The results from descriptive statistics tell that the AIS is viewed as successful and positively impacting financial performance based on the respondents' perceptions. The Regression Analysis revealed that there is a positive trend in the relationship between AIS success and financial performance, but it is not statistically significant at the $p < 0.05$ level. The p-value of 0.075 indicates that there is a 7.5% chance that the observed positive relationship could be due to random variation rather than a true effect. While this is not statistically significant at the 5% level, it is close enough to suggest a trend or potential effect. This could trigger further investigation about AIS Success.

AIS Implementations (AIS_imp)

A study by (Jere & Ngidi, 2020), aimed to investigate the factors which affect the intention to adopt ICT by SMEs in developing countries using Pietermaritzburg of South Africa as an example to understand. This study concluded that SMEs need to pay attention to ICTs that are relevant to them, including the characteristics and resources of the organization to successfully adopt these

technologies. The descriptive statistics of this research found out that AIS implementation is viewed positively, particularly in improving processes and competitive positioning, despite some challenges in training and integration. The Regression Analysis indicated that there is a negative trend in the relationship between AIS implementation and financial performance, but it is not statistically significant. As said for the AIS Resources (AIS_res) variable, the descriptive statistics reflect the subjective perceptions of participants, who personally perceive AIS implementation positively, especially in improving processes and competitive positioning. However, the objective results of the regression analysis suggests a negative relationship between AIS implementation and financial performance, though this relationship is not statistically significant at the $p < 0.05$ level.

Perceived Ease of Use and Usefulness of AIS (AIS_peuu)

A field research by (Souza et al., 2017) used the Technology Acceptance Model (TAM) to assess the level of ICT adoption. The results of the study revealed that the TAM conceptual model is appropriate to clarify the intention and the current use of the system. In this research, the Descriptive Statistics showed the AIS is well-received, easy to use, and beneficial for productivity, work quality, and financial decision-making. The Regression Analysis results revealed that there is a positive trend in the relationship between perceived ease of use and usefulness of AIS and financial performance, but it is not statistically significant. In a similar fashion with other AIS variables, the issue of subjective versus objective reality exists here as well. The descriptive statistics reflect the subjective perceptions of users, who think the AIS as easy to use and beneficial in various ways, including productivity, work quality, and decision-making. The objective results from the regression analysis suggests a positive relationship between the perceived ease of use and usefulness of AIS and financial performance, though the relationship is not statistically significant at the $p < 0.05$ level. The p-value of 0.061 indicates that there is a 6.1% chance that the observed positive relationship could be due to random variation rather than a true effect. Although this is not statistically significant at the 5% level, it is close enough to suggest a potential positive trend between the two variables.

Net Underwriting Revenues (NUWR)

A study was made to identify the main determinants of insurance profitability on life and non-life on Ecuadorian insurances found out that: Net premiums, technical reserves, capital ratio and score efficiency are micro determinants in the life insurance sector. On the other hand, in the non-life segment, the micro determinants include claim level and liquidity ratio. The authors also found that Herfindahl-Hirschman Index (HHI) is a determinant of profitability that is only for the life insurance. The authors also found out that the interest rate is a determinant both for life and non-life insurance, according to (Camino Mogro & Bermudez, 2019).

Net Underwriting Revenue (NUWR) is the only variable fulfilling its alternative hypothesis. The fact that NUWR is the only variable fulfilling its alternative hypothesis indicates that it is reliable predictor of net profits for the Ethiopian insurers. This result suggests that insurers should prioritize and focus on improving their underwriting processes to enhance profitability.

4.7 Hypothesis Testing

In this section both the general (major) and sub-hypotheses testing is carried out. The decision to support the hypothesis is also justified.

4.7.1 Sub-hypotheses Testing

According to the findings, three of the five sub hypotheses were refuted. One is supported positively while another is supported with negative significance. The constant term was found to be insignificant as it is no different than zero (i.e. the constant term was found to be approximately equal to zero). The decision to support and refute was made at a commonly chosen significance level of 0.05 (5%).

Table 24 Summary of Hypothesis Testing

S/n	Sub Hypothesis Code	Hypothesis	Findings		Results
1	H ₁	Financial performance is a function of AIS Resources	$\beta=8128577$; $p<0.05$	Negatively Significant	Supported

2	H ₂	Financial performance is a function of AIS Success	$\beta=6247096$; $p>0.05$	Not significant	Refuted
3	H ₃	Financial performance is a function of AIS Implementations	$\beta=3929998$; $p>0.05$	Not Significant	Refuted
4	H ₄	Financial performance is a function of AIS Perceived Ease of Use & Usefulness	$\beta=3987135$; $p>0.05$	Not significant	Refuted
5	H ₅	Financial performance is a function of Net Underwriting Revenues	$\beta=1.255$; $p<0.05$	Positively Significant	Supported

Source: Own Survey, 2024

4.7.2 Major Hypothesis Testing

In order to answer the specific questions of this research five sub-hypotheses have been made. Out of these, four (4) were directly related to the role of AIS while the other one was to explore if there exist other variable in enhancing the Financial Performance within the context of the Ethiopian Insurance Industry.

The sub-hypotheses were a breakdown of this General Alternative hypothesis which is stated below:

Alternative Hypothesis H_a:

The greater the degree of accounting information system (AIS) utilization within the Ethiopian insurance industry, the more significant the enhancement of financial performance, which leads to greater wealth maximization for the shareholders and stakeholders alike.

As it has been shown in the sub-hypotheses testing section; H₂, H₃, and H₄ have all been refuted at a 0.05 (5%) significance level. On top of this, even if H₁ is found to be significant as its p-value is less than 0.05 (5%) level and “supported”, its negative coefficient’s interpretation is against the statement which reads as:

H₁: Accounting Information System is a firm’s internal resource. And this Resource is positively related to its Financial Performance.

Hence, H_1 is also refuted as well. This results in the rejection of the four sub-hypotheses related to the roles of AIS in enhancing financial performance within the context of the Ethiopian Insurance Industry.

Therefore this thesis fails to reject the Null hypothesis that reads:

Null Hypothesis H_0

There is no significant relationship between the degree of accounting information system (AIS) utilization within the Ethiopian insurance industry and the enhancement of financial performance.

At the chosen 0.05 (5%) significance level, the results has shown that the Null Hypothesis (H_0) is upheld.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This is the last chapter of this thesis. Summary of the major findings of the previous chapter (i.e. Results Chapter) is made in relation to the research objectives, research questions, and problem statement of this thesis (i.e. Introduction Chapter). Next to this conclusion is made regarding the findings. Finally, recommendation is forwarded both for the academia and the industry; as it has been asserted/promised under the significance of this thesis.

5.2 Summary of Findings

Specific Objective 1: Analyze the current state of financial performance.

Research Question 1: How does the Ethiopian Insurance Industry utilize Accounting Information Systems to enhance its Financial Performance currently?

To fulfil this specific objective and answer its corresponding question, Jay Barney's Resource-Based View (RBV) of the Firm Theory was postulated. As per this theory, internal resources and capabilities of a firm are the primary sources of sustainable competitive advantage. The theory suggests that firms can achieve superior performance by leveraging and effectively managing their unique bundles of resources and capabilities. The resource based view (RBV) argues that a firm's sustained competitive advantage is based on its valuable, rare, inimitable, and no substitutable resources (Barney, 1991).

An RBV theory based predictor variable, AIS Resources (AIS_res), was developed. The descriptive statistics section indicated that the 68 survey respondents perceive AIS (Accounting Information System) resources very positively. Among the key points include: AIS resources are seen as important in managing financial data, are perceived to enhance the quality and efficiency of financial reporting, there is a general consensus that AIS resources contribute to the company's competitive edge, respondents believe that AIS resources positively impact financial performance, AIS resources are considered strategically important for risk assessment and customer

understanding, while there are minor variations in satisfaction, particularly regarding competitive edge and investment justification, the general perception remains positive.

Contrary to the descriptive results, the regression analysis revealed that: AIS resources are significantly related to financial performance at the $p < 0.05$ level. However, the relationship between AIS resources and financial performance, specifically expressed in net profits, was found negative.

Specific objective 2: Evaluate the potential benefits of AIS implementation.

Research question 2: How can specific AIS features improve key financial metrics?

To meet specific objective 2 and its corresponding research question, DeLone & McLean's Information System Success Model (ISS) was employed. According to (DeLone & McLean, 1992), the success of an information system depends on System Quality, Information Quality, Service Quality, Intention to Use, User Satisfaction, and Net Benefits.

Based on this an AIS Success (AIS_succ) predictor variable determining financial performance of insurers was developed. The descriptive statistics section regarding AIS Success shown that despite slightly lower satisfaction regarding ease of use among employees, the general perception of the AIS is positive, indicating its success in supporting financial processes, decision-making, and impacting the company's financial performance.

In the regression analysis it is found out that the AIS Success (AIS_succ) variable has a positive coefficient, showing a positive relationship with financial performance expressed in net profits. However, the p-value was found to be 0.075, which is greater than the conventional threshold of 0.05 for statistical significance.

Specific Objective 3: Investigate the challenges and opportunities to AIS adoption.

Research Question 3: What are the perceived and practical barriers to adopting AIS?

To achieve specific objective 3, Louis G. Tornatzky and Mitchell Fleischer's Technology Organization Environment model (TOE) was employed. The TOE is a theoretical framework that was developed in the field of information systems to explain how the adoption and use of new

technologies are influenced by various factors. These factors include the characteristics of the technology itself, the organizational context in which it is used, and the external environment in which the organization operates. (Tornatzky & Fleischer, 1990)

Based on the TOE model an AIS Implementation (AIS_imp) predictor variable was developed. With respect to this AIS Implementations (AIS_imp), the descriptive statistics section provided results about participants' perceptions of AIS implementation: the summarized mean score for AIS implementation is 3.4411 with a standard deviation of 0.8633. This indicates a generally positive perception. Participants generally agreed on the positive impacts of AIS implementation, with mean scores ranging from 3.00 to 3.79 across different aspects. While the implementation is viewed positively, there are areas for enhancement such as training, feedback mechanisms, and system integration to maximize benefits. Generally, the responses indicate a favorable view towards the adoption and impact of AIS.

The regression analysis revealed results against the descriptive statistics. The AIS Implementation variable (AIS_imp) has a negative coefficient, telling a negative relationship with financial performance. The p-value which is 0.093, which is greater than the conventional threshold of 0.05 for statistical significance, was also found to be unfavorable.

Specific objective 4: Develop recommendations for effective AIS utilization.

Research question 4: What recommendations can facilitate effective AIS adoption?

To achieve specific objective 4 and its corresponding question, Fred Davis and Richard Bagozzi's Technology Acceptance Model (TAM) was employed. According to (Davis & Davis, 1989) a given information technology's acceptance depends on two factors that determine whether an information system will be accepted by its potential users. These are: (1) perceived usefulness, and (2) perceived ease of use.

Based on TAM, a predictor variable named Perceived Ease of Use and Usefulness of AIS (AIS_peuu) was developed. About this variable, Perceived Ease of Use and Usefulness of AIS (AIS_peuu) , the descriptive statistics section provided results in the eyes of the 68 respondents .

The Perceived Ease of Use and Usefulness of AIS (AIS_peuu) is perceived positively by its users. The users find the AIS easy to use. It is considered beneficial for improving productivity and the quality of work. The users believed that the AIS supports financial decision-making effectively. They think it is effective in supporting users' job functions and contributes to the organization's financial goals. The positive perceptions are consistent across respondents, indicating widespread approval.

The regression analysis shown that the variable Perceived Ease of Use and Usefulness of AIS (AIS_peuu) has a positive coefficient, suggesting a positive relationship with financial performance. The p-value was found to be 0.061, which is greater than the conventional threshold of 0.05 for statistical significance.

Specific objective 5: Aside the role of AIS, to investigate other variable/factor that determines the effectiveness of Financial Management performances within the context of the Ethiopian Insurance Industry.

Research Question 5: Aside the role of AIS, what other variable determines the Financial Performance of the Ethiopian Insurance industries?

By employing the famous microeconomics theory of Profit Maximization, the Net Underwriting Revenues (NUWR) variable was created by combining two financial metrics: the Net Earned Premium (NEP) and the Claims expense (CE) paid to the policy holders. It was hypothesized NEP is positively related to Performance (profits) while CE is related inversely (negatively). The higher the NEP and the lower the CE the higher the Net Underwriting Revenues (NUWR). NUWR is the difference of NEP and CE.

The regression results align with the hypothesis. The coefficient for NUWR is positive. The p-value is less than 0.05, indicating that the relationship is statistically significant. The positive coefficient for NUWR means that as the net underwriting revenues increase, the net profits of the insurers also increase. This suggests a direct, positive relationship between these two variables. The value of the coefficient (i.e. 1.255002) indicates the extent to which net profits are expected to increase for each unit increase in NUWR.

As it has been repeatedly said in this research, p-value less than 0.05 means that there is less than a 5% probability that the observed relationship is due to chance. This gives an evidence to reject the null hypothesis, which in this context would state that there is no relationship between NUWR and net profits. Since the relationship for NUWR is statistically significant ($P > |t| = 0.002$; $P < 0.05$), the alternative hypothesis is accepted, which suggests that NUWR has a significant positive effect on net profits.

5.3 Implication of the Results

For the predictor variables AIS Success (AIS_succ) and Perceived Ease of Use and Usefulness of AIS (AIS_peuu), the positive coefficient, even if not being statistically significant, aligns with the positive perceptions from the descriptive statistics. This suggests that while there could be a positive impact of AIS on financial performance, the current data does not provide strong enough evidence to confirm this with high confidence. The approximate near-significant p-value of both variables indicates that additional data or refined analysis might reveal a clearer/better relationship. It could be beneficial to collect more data by increasing the population size and/or investigate other variables that may influence the relationship.

Regarding AIS resources, the negative relationship in the regression analysis may reflect short-term financial impacts rather than long-term benefits. Perhaps, the positive effects of AIS resources on financial performance may need extra time to materialize.

Speaking of AIS Implementations, maybe the negative coefficient could reflect the initial costs associated with implementing AIS; such as purchasing software, training staff, and integrating systems. The negative relationship may have showed short-term financial impacts disregarding long-term benefits. As time goes, the positive impacts perceived by participants could become more evident in financial performance. Challenges especially in training, feedback mechanisms, and system integration, as revealed in the descriptive statistics, might be contributing to the negative relationship observed in the regression analysis.

The strategic implications for Net Underwriting Revenues (NUWR) is that insurers should invest in advanced underwriting tools, training for underwriters, and better risk assessment models to maximize NUWR. Regular monitoring and reporting of underwriting performance can help in identifying areas of improvement and making data-driven decisions.

The Almighty God is the only infallible one. Every other being and its work is not free of errors and limitations. So does this thesis. Every effort has been made to keep it to the acceptable standards. However, it still has limitations. To begin with, combining ordinal data from the likert scale questionnaires with the ratio data has its own issues. Besides this, the 7-point-Likert-Scale questionnaire could have revealed a better reliable results than the one employed in this research (i.e. 5-point-Likert-Scale). On top of this, the organization of information is also another issue. This research employed a cross-sectional data analysis for the fiscal year 2022/23 only. Time series data of many years could have helped reveal dependable results for the Ethiopian Insurance industries' financial practices/performances. Finally, the researcher's hardly no post-graduate research experience is another factor of limitations.

5.4 Conclusion

The findings of this research contribute to our understanding of AIS as one of a determinant factors related to the financial performance of the Ethiopian Insurance Industry. As noted in the problem statement, the Ethiopian Insurance industry contributes to less than one (1%) percent to the national GDP. Its penetration rate is way lower (i.e. less than 0.5 percent) than the continental African average which is above 3.5 percent. This research and its findings could initiate a consensus about AIS as how to use it in improving the industry's contribution to the national GDP and increase its penetration rate.

The fact that this study lays a good reliable foundation to future researchers to come within the realm of AIS is my humble opinion. Further studies could refine the results by taking care of this research's limitations.

In conclusion, this study provided important information about the relationship between Accounting Information System (AIS) and the Ethiopian Insurance Industry's financial performance expressed in terms of performance in net profits.

5.4 Recommendations

Recently, the Ethiopian Council of Ministers has made a policy decision allowing foreign giant banks to operate in the Banking industry. According to Abdulmenan (personal communications, May 21, 2024), the same is inevitable for the Insurance Industry. There seems to be doing business the old way doesn't guarantee survival let alone profitability. To this end, the eighteen (18) Ethiopian insurers need to explore using AIS to attain a better competitive edge first for the sake of its shareholders and next for the 120+ million Ethiopians.

Examining the 18 insurers' annual report for the year ended Sene 30, 2023 (i.e. 2022/23 Annual Report), the researcher has found only three insurers [United, Nile & Bunna Insurance] giving a couple of paragraphs related to Information System/Technology about past performance and future strategic plan. This shouldn't be repeated for the 2023/24 annual report. Every Insurer should allocate and invest in Information System/Technology especially in Accounting Information System. Information System [AIS] is a necessity, but not luxury.

The researcher has tried to see organizational structures of some of the insurers. Almost every insurer has a separate department for Management Information System, but none has Accounting Information System department. The researcher, recommends to establish a separate AIS department to properly reap the benefits of AIS.

From the results it has been revealed that Net Underwriting Revenues to be the stronghold of Ethiopian Insurers. It is recommended to use advanced data analytics and updated actuarial practices to enhance risk assessment and underwriting accuracy. The academic community is also recommended to refine the important findings of this research by taking into account its limitations.

Finally, recommendation about inclusiveness is important. While conducting the survey the researcher has observed the headquarter buildings of the 18 insurers. Except very few, those fancy buildings are of no use for the handicapped. The insurers, as a public share company (including the state owned Ethiopian Insurance Corporation), have a moral and legal responsibility for their policy holders' service inclusiveness. Speaking of inclusiveness again, more than half of the branch network of the Ethiopian insurers is scattered in Addis Ababa only. Ethiopia is not a nation of urbanites. 85 percent of the population depends on agriculture. The insurers should find a way to reach the vast farmers. Though late, the initiative to include the Muslims through *Takaful*, which is a *Shari'a* based insurance service, is appreciated. The researcher recommends to exploit the pastoralist populations of Afar, Somali, and East Hararghe who are predominantly Muslims.

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Annexes

Annex A: The Questionnaire



COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF ACCOUNTING AND FINANCE
SURVEY QUESTIONNAIRE

My name is Mehari Tefera. I am doing my MSc at Addis Ababa University, School of Graduate Studies, Department of Accounting and Finance. My thesis is titled “Exploring the Role of Accounting Information System in Enhancing Financial Management Practices: The Case of The Ethiopian Insurance Industry” as a partial fulfillment for my MSc degree. Your sincere response to this questionnaire will have an invaluable contribution for the success of this thesis.

The data gathered from this questionnaire will solely be used for academic purposes only. No data will be disclosed to third parties. Your responses confidentiality is absolutely guaranteed 100 percent. Your participation is voluntarily and there is no need to write your name.

Yours Sincerely,

Mehari Tefera

Tel: +251-954-95-38-59

Email: mehariye23@gmail.com

Part I: General Information

1. Gender Male _____ Female _____
2. Age 21-30 Years _____ 31-40 Years _____ 41-50 Years _____ 51-65 Years _____
3. Marital Status Single _____ Married _____

4. Experience 5-10 Years_____ 11-15 Years _____ 16-20 Years _____ 21-25 Years_____ More than 25 Years_____
5. Education Advanced Diploma _____ Bachelor Degree _____ Master's Degree _____ PhD _____
6. Insurance Certification _____

PART II Likert Scaled Questionnaire

Please read each statement carefully and show your level of agreement on the statements by putting “X” mark in the boxes using the following 5-scale Likert scales: Strongly agreed (SA)=5, Agreed (A)=4, Neutral (N)=3, Disagreed (DA)=2, and Strongly disagreed (SDA)=1

Description	Likert Scale				
II. Accounting Information System Resources	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
11. The accounting information system in our company effectively captures and processes accounting and financial data.					
12. Our company utilizes accounting information system tools and soft wares to analyze financial performance satisfactorily.					
13. Our accounting information system provides timely and accurate financial reports for decision-making.					
14. Using our accounting information system resources helped us increase our company's ability to assess risks and opportunities in the insurance market.					
15. Our company's effective utilization of accounting information system resources gives us a competitive edge over other insurance companies in Ethiopia.					

16. Accounting information system resources enable us to better understand customer needs and design our insurance products accordingly					
17. Our company's financial performance has improved as a result of leveraging accounting information system resources.					
18. The competitive advantage gained from our accounting information system resources positively impacts our market share in the Ethiopian insurance industry					
19. Our company's investment in enhancing accounting information system capabilities has been justified by improved financial performance					
20. The use of accounting information system resources contributes significantly to our company's competitive advantage and financial success in the Ethiopian insurance market.					
III. Success of Accounting Information System	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
11. The accounting information system in our company effectively meets the information needs of different stakeholders (For example, management, regulators, shareholders)					
12. The accounting information system in our company is user-friendly and easy to operate.					

13. The accounting information system provides accurate and reliable financial data for decision-making processes.					
14. The accounting information system contributes to the efficiency of financial operations within our company.					
15. The accounting information system facilitates timely reporting of financial information.					
16. Our company has experienced improved decision-making outcomes as a result of using the accounting information system.					
17. The accounting information system enhances the general performance of our financial reporting processes.					
18. Employees in our company are satisfied with the effectiveness of the accounting information system in supporting their tasks.					
19. The success of our accounting information system positively impacts our company's financial performance					
20. The accounting information system has been instrumental in improving our company's financial performance.					

IV. Implementation of Accounting Information System	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
21. Our organization regularly updates its accounting information technology systems to keep pace with technological advancements.					
22. The accounting information technology used in our organization is user-friendly and easy.					
23. Our organization provides adequate training and support to employees for utilizing accounting information technology effectively.					
24. The adoption of accounting information technology has streamlined our financial processes and reduced manual errors.					
25. Our organization actively seeks feedback from employees regarding the usability and effectiveness of accounting information technology systems.					
26. The adoption of accounting information technology has enhanced collaboration and communication among different departments within our organization.					

27. Our organization considers industry-specific technological trends and standards when implementing accounting information technology solutions.					
28. The accounting information technology used in our organization effectively integrates with other systems and software applications.					
29. Our organization perceives the adoption of accounting information technology as crucial for maintaining competitiveness within our sector.					
30. The adoption of accounting information technology has positively contributed to our organization's financial performance.					
V. Perceived Ease of Use and Usefulness of Accounting Information System	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
31. Using our company's Accounting Information System is easy for me.					
32. Learning to operate our Accounting Information System (AIS) is straightforward.					

33. The Accounting Information System (AIS) in our organization requires minimal effort to use.					
34. I find it easy to get the Accounting Information I need from our AIS.					
35. The Accounting Information System (AIS) in our organization enhances my productivity.					
36. Using the Accounting Information System (AIS) improves the quality of my work.					
37. The Accounting Information System (AIS) provides relevant information that helps me perform my job effectively.					
38. I believe that using the Accounting Information System (AIS) contributes to achieving our organization's financial goals.					
39. The Accounting Information System (AIS) helps me make better financial decisions for our organization.					
40. I perceive the Accounting Information System (AIS) in our organization to be both easy to use and highly beneficial for improving financial performance.					

PART III: Short Answered Interview

1. What Information System Software is being used to process Accounting and Financial information in your company? Please write its name

2. Do you believe the AIS Software, Procedures, the Information System experts at your organization helps your insurance company have advantage over other insurance companies?

3. Do you think your AIS or IS software to be rare, unique, and inimitable with respect to other insurance firms?

4. Do you have a separate department which is responsible for only Accounting Information System like Management Information System (MIS)?

5. Throughout your career in the Ethiopian Insurance Industry, what were the challenges and opportunities?

Thank You for your Invaluable Time

Annex B: Secondary Data Sources

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