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COLLEGE OF BUSINESS AND ECONOMICS DEPARTMENT OF ACCOUNTING
AND FINANCE POST GRADUATE PROGRAM

ANALYSIS OF FINANCIAL RISK MANAGEMENT PRACTICES AT ETHIOPIAN
AIRLINES: FUEL PRICE, CURRENCY, AND INTEREST RATE RISKS

PREPARED BY: TEMESGEN BIREDA

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SUBMITTED TO: ABEBE YITAYEW (PHD)

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Addis Ababa University
College of Business and Economics
Department of Accounting and Finance
Master of Science in Accounting and Finance

INVESTIGATE FINANCIAL RISK MANAGEMENT
PRACTICE IN ETHIOPIAN AIRLINES.

BY

TEMESGEN BIREDA ID GSE/5168/14




18-JUL-2025


APPROVED BY BOARD OF EXAMINERS

Examiner Committee:

Advisor----------Signature----------Date-----14-07-2025

Examiner-----Signature-----Date-----

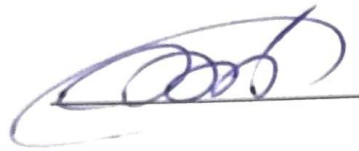
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Examiner----------Signature----------Date-----June 24, 2025

Confirmation

I confirm that this thesis has been advised by me and submitted for examination with my approval.

Abebe Yitayew (PHD)

A handwritten signature in blue ink, consisting of several loops and a long horizontal stroke at the end.

Advisor Signature

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Abebe Yitayew (PHD). All sources of materials used for this thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institutions for the purpose of any degree.

Temesgen Ferede


18-07-2025

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ACRONYMS

EAL	Ethiopian Airlines
FRM	Financial Risk Management
ORM	Operational Risk Management
CRM	Credit Risk Management
LRM	Liquidity Risk Management
MR	Market Risk
ERM	Enterprise Risk Management
NBE	National Bank of Ethiopia
VaR	Value at Risk
RAROC	Risk-Adjusted Return on Capital
ALCO	Asset and Liability Committee
FX	Foreign Exchange
ROI	Return on Investment
IMF	International Monetary Fund
KRI	Key Risk Indicator
PMBOK	Project Management Body of Knowledge
MFI	Microfinance Institutions

Abstract

This study Analyze the financial risk management practices of Ethiopian Airlines, focusing on liquidity, operational, credit, and market risks. The research employs mixed method approach with 140 employees' surveys and documentary. Findings reveal that Ethiopian Airlines has robust risk management frameworks in place, with effective strategies for liquidity and operational risks, stringent credit evaluations, and proactive market risk mitigation through hedging. Summary of the top findings, vulnerabilities during economic downturns and over-reliance on certain international partners suggest areas for improvement. Recommendations include adopting advanced forecasting tools, diversifying funding sources, enhancing training programs, and refining hedging strategies. The study underscores the importance of continuous adaptation to global economic challenges to sustain the airline's competitive edge and financial resilience.

Keywords: *Financial risk management, Ethiopian Airlines, liquidity risk, operational risk, credit risk, market risk.*

CHAPTER ONE INTRODUCTION

1.1 Backgrounds of the study

Risk according to Sparta (2022) is anything that can make achieving certain goals more difficult. A positive or negative deviation from the anticipated results may result from the influence on corporate objectives. While a negative variation makes it challenging to reach the established business goals, a positive variance aids the firm in reaching its anticipated business goals.

Financial institutions occasionally find themselves unable to make the required payments on their debt obligations; this has an impact on their long-term sustainability and financial viability. Unfavorable business judgments or the incorrect execution of those decisions, ineffective governance and oversight, or leadership deficiencies, as well as obvious dangers, such as changes in the market or business environment, Intentional Misrepresentation by a client or employee that results in a loss of earnings or capital, Unexpected losses resulting from faulty technology, malfunctioning information systems, insufficient human resources, or integrity violations, such as fraud (Anwar, 2017).

The major specific financial risks that airline companies normally emphasize in relation to daily operations are interest rates, foreign exchange rates and fuel prices, which may be hedged with an appropriate instrument (Horcher, 2005). The issue of financial risk and its management deserves special attention because of its volatility and the high values involved in it. Fuel price, for instance, accounts for 17% of the total expenditures of the airlines globally (and 32% when it comes to Ethiopian Airlines) (IATA 2017).

The airline industry is an industry where high levels of risk exist. This is an industry with traditionally low levels of profit and high overhead costs along with volatile input costs. This combined with the many influences on demand such as security concerns and fashions, currency exchange rate fluctuations along with the low profit rates increase risk (Abbey, 2007). The international nature of airline operations also invites issues of foreign currency and problem in repatriating the money that the airlines accumulated in local currency. On the other hand, airlines Aggressively borrow money to finance their commitments means they are exposed to interest

rate volatility. Given the seriousness of the financial exposures on the continuing existence of the company, it is expected that the airline should take practical measures to manage them and this paper explores whether such practical measures are taken in the case of Ethiopian Airlines

History of the Organization

Beginning humbly, Ethiopian Airlines (Ethiopian) has come along 78 years of successful journey. Over the decades, the airline has established itself as the leader in all facets of the aviation business: technology, leadership, network expansion and aviation mentoring. Ethiopian is now the leading Aviation Group in Africa.

Ethiopian started its operation with five C-47 aircraft operating its debut flight to Cairo via Asmara on April 8, 1946. Ever since, it has been growing in leaps and bounds and continued to introduce cutting-edge aviation technology and systems. As aviation technology leader, Ethiopian is a pioneer in ushering new aviation technology into Africa including the first jet airplane as well as the first B767, B777-200LR, B787 Dreamliner, and 787-9 in the continent. Ethiopian also led the way in operating Africa's first Airbus Airplanes, the Airbus A350-900 XWB and the A350-1000. Currently, the airline has a fleet of more than 150 modern aircraft with an average fleet age of less than seven years; it has also more than 100 ultramodern aircraft on order.

Living its motto of Bringing Africa Together and Beyond, Ethiopian has created Africa-wide and transcontinental air connectivity networks linking its main hub, Addis Ababa to the rest of the world. The airline serves 142 international passenger and cargo destinations, including 70 African cities, with daily and multiple flights with a minimum layover in Addis. As a veteran carrier serving a vast intra-African network, Ethiopian flies to more destinations in the continent than any other airline.

In December 2011, Ethiopian took a giant leap forward in its successful journey by joining Star Alliance, the world's largest airline alliance. Over the years, the multi-award-winning airline has received countless coveted accolades and recognitions for its excellence including Skytrax's Four-Star Airline ranking, 2025 APEX Passenger Choice Awards 'Best Overall in Africa', and 'US President's Lifetime Achievement Award' to mention but a few.

Building on its continuous success, Ethiopian has achieved more than threefold growth in the past decade. Having met its 15-year strategic plan, Vision 2025, ahead of time, Ethiopian has charted out a more ambitious strategic roadmap called Vision 2035 to further bolster its continuous growth.

1.2 Statement of the Problem

Efficient financial risk management is required in any organization as return and risk are directly related to each other meaning that increase in one will subsequently increase the other and vice versa. Past studies on the theme of the current study have established research gaps that further informed the current study. Shafiq and Nasr (2010) concentrated on identifying the risk management procedures utilized. There are gaps in our understanding of both the context and the notion because this study was carried out in a foreign nation and focused on a different idea. In order to assess the effect of financial risk management measures on the financial outcomes of marketing enterprises, Muigai (2014) performed a study. The study's conclusions showed that there is a substantial relationship between a firm's financial success and its strategies for managing financial risk. A gap in contextual knowledge exists here. Studies by Muriithi and Waweru (2017); Roinei (2013); Syomiti (2016), this is a contextual knowledge gap. Similarly, the studies focused on only one variable considered in the current further establishing conceptual knowledge gap. Further studies Mbai (2006); Namasake (2016) and Kahihu et al. (2021) focused on different concepts.

The airline industry is not immune from most of the financial risks affecting industries in general. According to Horcher (2006), the aviation industry has three financial exposures or risks: Fuel Cost, Currency and Interest Rate. Given that such risks, if not properly addressed or managed, are fatal to the very existence of the airline, special consideration should be made to closely follow-up the trend of each risk. Thus, the issue of financial risk management is a big deal for Ethiopian Airlines. This is because the airline incurs huge costs for commodities including fuel. It is also transacting in many currencies due to its international operation. Also it is financing acquisition of its multimillion dollar Aircraft through loan agreement with interest rates (Ethiopian Airlines, 2016). The issue of financial risk management in relation to the airline industry is not studied and yet to be addressed in Ethiopia. There are various researches abroad conducted on financial risk management. All of the airlines selected have clear risk management policy and practices. However, it does not cover the financial risk management practices of an

African based Airline. On the other hand, Misiura (2015) examined organizational structures and practices of airline risk management systems and their technical and institutional drivers. In particular, this study focuses on the phenomenon of Enterprise Risk Management and its alignment to the requirements of airline business contexts. The study demonstrates that the adoption of enterprise risk management in airlines drives development of new institutions, rules, and routines for comprehensive management of risks. Consistent with the tenets of contingency theory, this study also conveyed lack of a universally appropriate design of an airline enterprise risk management system.

In the context of Ethiopian Airlines, there is a research undertaken on explaining why Ethiopian Airlines has succeeded and what lessons that other public enterprise or other private companies learn from this success story (Selamawit, 2012). In contrast from Selamawit (2012), the current paper pays emphasis on the three financial risks of the airline, and how the airline is mobilizing its resources towards managing those risks. risk management guideline (2010), although underdeveloped, the Airlines system in Ethiopia has observed a significant expansion over the past few years based on increase in terms of in number of plans, financial products they are offering to the clients & etc. The regulatory body believes that such growth should be matched with strong risk management practices. However, the previous literature on risk management practices of banks in Ethiopia is very limited. The exception to this argument is that the available few studies gave focused to assess particular types of risks. Financial risk business involves several different activity for instance, underwriting securities, trading, providing brokerage services, providing fiduciary services, advising on a range of corporate finance issues, offering mutual funds, providing services to hedge funds, Overall different activities create many unique risks, these risks are related to a financial credits, liquidity, trading, revenues and costs, earnings and solvency issues (Tursoy, 2018).

According to Adarkwa (2011), a significant part of many successful companies share price is not made up of tangible asset such as property and reserves but from the goodwill element. In a paper by the Economist Intelligent Unit (EIU) 2005 reputation risk is seen as becoming one of the emerging and increasingly important classes of risk on the priority list of most managers. To this end, as per the researcher's knowledge previous studies gave more emphasis to four types of risk (credit, liquidity, market, operational). The operational risk is non-financial risk defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from

external events. As a risk is uncertain, it cannot be totally and absolutely controlled, but it can be minimized using different methods. From those minimized using different methods. From those minimizing methods risk management practice is the main alternative, risk management process involves sequential key steps regard less of types of risk. Those steps are identifying all significant risks, evaluate the potential frequency severity of losses, Develop and select methods for managing risk. Implement the risk management methods chosen and monitor the performance and suitability of the risk management. Methods and strategies ongoing basis (Niehaus, 2004), those steps are key ways for casting and managing the risk of the organization. But the problem is mostly occurring in risk management practice and system.

There for, the study tries investigating financial risk management practice in Ethiopian airlines.

1.3 Research questions

1. *To what extent are liquidity risk practices effective?*
2. *To what extent are operational risk practices effective?*
3. *To what extent are credit risk practices effective?*
4. *To what extent are market risk practices effective?*

1.4 Objectives of the study

1.4.1 General objective

The General objective of this study is to investigate financial risk management practice in Ethiopian airlines.

1.4.2 Specific Objectives

Measure effectiveness via compliance, cost savings, risk mitigation:

- Liquidity Risk Management
- Operational Risk Management
- Credit Risk Management
- Market Risk Management

1.5 Significance of the study

Conducting financial risk management practice in Ethiopian airlines has both theoretical and

practical significance. Theoretically: Unlike the availability of several literatures on project risk management, the available literature and previous studies which provide detailed information regarding risk management practice in Ethiopian airlines. Hence, undertaking this study is expected to contribute to the advancement of the existing theoretical coverage on project risk management practice in Ethiopian airlines also, the finding and conclusion of this study can lead to the initiation of further study by anyone who might be interested in the topic. Practically: the study has the potential to have significant value for many companies especially for those who want to engage in airline industry. Therefore, the findings of this assessment can provide the opportunity, for airline industry, to understand the essence of the modern risk management practice and its effect on its performance. In this study the researchers get knowledge about the study and experience for conducting other research. This research is important in that it shows the exposure level of the financial risks to Ethiopian Airlines and the possible precautionary measures to contain such risks. Because the aviation industry is operating in a very competitive environment, the airline is expected to prepare itself in every dimension and a reasoned analysis of the financial risks and managements would help the airline to see areas that it is good at and areas that it has to improve. Accordingly, the research has a practical importance to the airline and to any other party faced with comparable financial risks (be it fuel, interest rate, or currency) on the nature and extent of the risks and the required management mechanisms that have to be established. Furthermore, the study contributes to the available literature by serving as a reference to future researchers on related topic. Finally, after completing the study and analyzing the results, proper recommendations will be reported to the concerned bodies of Ethiopian airline.

1.6 Scope of the Study

Researchers on the study will constraint at Ethiopian airline for the purpose of doing research easily for academically year 2017/2025. Researchers will also delimiting to study investigate Financial risk management practice only for simplicity doing our research to achieve the research objective, conceptually, the researcher assessed the investigate financial risk management practice Ethiopian airline. Methodologically, the study delaminated to descriptive study research design; qualitative and quantitative research approach will be used for data collection and analysis. For this study Simple random sampling will use for group homogeneity. Geographically, financial risk management practice Ethiopian airline will take as

an area for this study because of its convenience for the researcher to collect data easily. Regarding the time scope, the study was conducted for academically for the year 2017/2025.

1.7 Organization of the study

Broadly, a component of the Organization of the Study is to provide a map that may guide readers through the reading and understanding of the dissertation. In this activity, you will provide readers with a roadmap to your dissertation that illustrates what they should expect: (a) in how the study was organized and conducted; and (b) in how the chapters ahead have been sequenced/ organized. This research paper will be included five Chapters. Chapter one tells about background of the study that included Introduction, statement of the problem, objectives, research question, scope and limitation of the study, significance of the study. Chapter two includes literature review of the paper. Chapter three tells about background of the study area, methodology, sampling method and techniques will be included in this chapter. Chapter four deals about data presentation and analysis were as the last chapter talks about conclusion and recommendation.

Chapter Two

Literature Review

2.1 Introduction

The previous chapter presents the background of the study, statement of problem and research questioned. In this chapter a review of related literature about investigates financial risk management practice in Ethiopian airline.

2.2 Theoretical Literature Review

2.2.1 The concepts of risk

There is no single definition of risk, economics, behavioral scientist, risk theorists, tacticians, and actuaries each have their own concept of risk. There for the researchers try to give different authors view and definition for the word risk. According to Williams Jr (1998) Risk is a potential variation in outcomes and the exposure to a potential loss, it can also be defined as uncertainty about economic losses due to occurrence of an event, and economic losses are caused by perils such as crimes, fire and accidents. It is the possibility of an adverse deviation from a desired outcome that is expected. risk can be defined as uncertainty concerning losses. The risk surrounding a potential loss creates significant economic burdens for business. Government and individuals Billions of Dollars are spent each year on strategies for financing potential losses. But when loses are not planned for in advance, they may cost even more. Business as well as individuals may try either to avoid risk as much as possible or to reduce risk, the opportunity cost activities forgone due to risk considerations, expenses of strategies to finance potential losses and the cost of a reimbursed losses (Willies et al, 1998) (Trieschman (2004).

Risk is a condition in which there is a possibility of an adverse deviation from a desired outcome that is expected or hopes for. The individual hopes that adversity will not occur, and it is the possibility that this hope would not be met that constitutes risk, risk is potential variation in outcomes. It is when there is uncertainty about the occurrence of a loss that risk becomes an important problem. Risks may be defined as uncertainties resulting in an adverse outcome, adverse planned objectives, or expectations (Kumar, Chatterjee, Chandrasekhar & Patwardhan, 2005). Risk refers to a condition where there is a possibility of undesirable occurrence of a particular result, which is known or best quantifiable and therefore insurable," (Periasamy, 2008). The risk may mean that there is a possibility of loss or damage, which, may or may not happen. The risk may be defined as the possibility of loss in the simplest words. It may be a

financial loss or loss to the reputation/ image (Sharma, 2003). A risk can be defined as an unplanned event with financial consequences resulting in loss or reduced earnings (Vasavada, Kumar, Rao & Pai, 2005). An activity, which may give profits or result in loss, may be called a risky proposition due to uncertainty or unpredictability of the activity of the trade-in future. In other words, it can be defined as the uncertainty of the outcome.

Although the terms risk and uncertainty are often used synonymously, there is a difference between the two (Sharma, 2003). Uncertainty is the case when the decision-maker knows all the possible outcomes of a particular act but does not have an idea of the probabilities of the outcomes. On the contrary, the risk is related to a situation in which the decision-maker knows the probabilities of the various outcomes. In short, the risk is a quantifiable uncertainty.

In general, the risk is all about uncertainty. That is the inability to precisely determine what will occur in the future, as the future is full of uncertainty. About what is a risk Osborne (2012) has claimed that what we all are talking about is a future problem- or, indeed, opportunity or the potential future effect of a decision or an action that we take now. And every decision we make or action we take contains some element of risk. Furthermore, Osborne (2012) has indicated that, "Risks can arise as a result of our business's activities or as a result of external factors such as legislation, market forces, interest or exchange rate fluctuations, the activities of others, or even the weather. They can be a product of the business environment, the natural environment, and the political or economic climate or of human inadequacies, failures, or errors. The bottom line is that risk may impact on our ability to meet our business objectives or even threaten the business itself."

The types and the degree of effect of risk defers among business organizations, even within industry level as they might differ in their size, complexity of the task, types of service or product being offered, or organizational structure. Thus, risks that business organizations face are inherent to their operations or endeavors. As to the classification of risk Jorion and Khoury's (1996) argument cited by Khan and Ahmed (2001) discusses that there are different ways in which risks are classified. One way is to distinguish between business risks and financial risks. Business risk arises from the nature of a firm's business. It relates to factors affecting the product market. Financial risk arises from possible losses in financial markets due to movements in financial variables (Jorion and Khoury 1996). It is usually associated with leverage with the risk that obligations and liabilities cannot be met with current assets (Gleason 2000). Another way of

decomposing risk is between systematic and unsystematic components. While systematic risk is associated with the overall market or the economy, unsystematic risk is linked to a specific asset or firm. While the asset-specific unsystematic risk can be mitigated in a large diversified portfolio, the systematic risk is non-diversifiable. Parts of systematic risk, however, can be reduced through risk mitigation and transferring techniques.

2.2.2 Classifications of Risk

Pure and speculative risks, Fundamental and particular risks and Static and subjective risk

2.2.2.1 Pure and Speculative Risk

Pure risk is a type of risk exists when there is chance of loss but no chance of gain. For instance, the suffer the owner of a car faces risk of collusion loss, if collusion occurs, he will suffer a financial loss, if there is no collusion he will not be benefited. But speculative risk is a type of risk exists when there is a chance of gain as well as a chance of loss, pure risks are always distasteful but speculative risks possess some alternative features. It exists when their uncertainty about an event that could produce either a profit or loss. An Ina situation involving speculative risk the society may be benefited even through the individual is hurtled (Triecheman et al,1998).

2.2.2.2 Fundamental and Particular Risks

Fundamental risk may or may not be insurable. Particular risk, in contrast to fundamental risk, refers to risks that affect an individual, such as a fire that destroys a family home, theft of a car or robbery. Particular risk can be insured. A fundamental risk is risk that affects the entire economy or large number of persons or groups within economy. It involves on losses that are impersonal in origin and consequence and they are group risks mostly caused by economic, social and political phenomena, on the other hand particular risk is a risk that affects only individuals and not the entire community. It involves loss that arises out of individual events and is felt by a single individual rather than by the entire group (Vaughan et at 1986).

2.2.2.3 Static and Dynamic risks

Static risks are those risks, which would occur even if there were no changes in the economy. These risks include losses caused by the regulation of the force of nature or human errors. On the other hand, dynamic risks are those risks resulting from changes in the economy. Changes in the price level, consumer tastes, income and out puts, and technology may cause financial losses to member of the economy. These are risks related with changes in human wants. Although these dynamic risks may affect a large numbers of individuals, they are generally considered loss

predictable than static risks, since they do not occur with any precise degree of regularity (Sandra et al 1998). Static risk factors are features of the offenders' histories that predict recidivism but are not amenable to deliberate intervention, such as prior offences. In contrast, dynamic risk factors are potentially changeable factors, such as substance abuse and negative peer associations.

2.2.2.4 Objective and Subjective Risk

Subjective risk refers to the mental state of an individual who experiences, uncertainty doubt or worry as to the outcome of a given event. It is essentially the psychological uncertainty that arises from an individual's state of mind. On the other hand, objective risks are defined as the relative variation of actual from expected losses. It is mainly applicable to group of objectives exposed to losses, refers to the variation that occurs when actual loss differs from expected losses. Objective risk can be statistically measure by so measure of dispersion as the standard deviation or efficient of variation. It is an extremely use full concept for an insurer or corporate risk manager. Objective risk can be statically measure by some measure by some measure of dispersion as the standard deviation efficient of variation. It is an extremely useful concept for an insurer or corporate types of risks manager

2.2.2.5 Financial risks

Financial risks, which this study specifically deals with, in the comprise two types of risks. Pure 5risk including liquidity, credit and solvency risks-can result in loss for a bank if they are not properly managed. Speculative risks based on financial arbitrage, can result in a profit, if the arbitrage is correct or a loss if it is in correct. Financial risks are subject to complex interdependencies that may significantly increase a bank's overall risk profile. For example, bank engaged additionally to liquidity and interest rate risks if the bank carries open positions (Greuning et al, 2000). The main categories of speculative risk are interest rate. Currency and market price rate.

Liquidity Risk: - Liquidity risk is a condition of an individual or business where in a high percentage of the assets can be quickly converted in to cash without involving any considerable loss by accepted sacrifice prices. Liquidity implies a high degree of current ness and solvency in the equity sense, the ability of current assets will be able to meet current liabilities as they mature. Liquidity risk can also be defined as uncertain future out comes that either improve or worsen the present liquidity position of the company. It may mean that holding idle cash on one

hand or failure to meet financial commitments when they are due on the other holding idle cash is costly to say the least whereas failure to meet the financial commitment may imply demise the worst case scenarios.

Therefore, the purpose of liquidity risk management is to help the bank project to the worst scenarios meet its financial commitment at a minimum cost (Greuning et al, 2003)

Fund mobilization, fund application, quality service, branch and application of new technology are the critical issues that can be emphasizes by management in minimizing liquidity risk fund raising is not limited to deposit mobilization, borrowing and equity contribution are other sources of fund raising These are dependable sources of fundraising, which are attainable even in times of adverse circumstance to insure dependable risk weight asset ratio.

Branch network expansion is another critical issue that contributes to the broadening of customer base because it helps to attain the desired level of growth and to avoid the excessive dependence on particular sources. Thus, monitoring both funding mix and the concentration of depositors help to control and mitigate unnecessary exposure to liquidity arises and avoid the vulnerability associated with such satiation. The current problem in Wegagen Bank is excess liquidity due to the prevailing poor credit appetite and the very limited investment opportunity in the economy. Periodic and continuous assessment of liquidity position of the bank can be a solution for these problems.

In general, the crucial strategic issues within which liquidity risk management is un imaginable are fund mobilization, credit allocation (fund application), expansion of branch networks and the prevision of quality services through application of new and appropriate technology. (Ibid)

Credit Risk:- Credit risk is defined the chance that debtor will not be able to pay interest or repay the principal according to the terms specified in a credit agreement, credit risk means that payment may be delayed or ultimately not paid at all which can intern cause cash flow problems and affect a banks liquidity. It exists in both banks on balance sheet accounts. (Greuning et al 2003)

2.2.2.6 Credit Risk

Credit risk, which that is the risk that the borrowed will default, can occur in different forms are: Direct lending risk, the risk that actual customer's obligations will not be repaid on time, which exists for the entire life of the transaction. Contingent lending risk: the risk that a potential customer's obligation will become actual obligation and will not be paid on time. It occurs in

products ranging from letter of credit and guarantees, which exists still for the entire life of the transaction. Documentation risk: the risk that documentary evidence which depend on to enforce our rights under conducts, may not be complete, correct or inferable for loan to be repaid..

2.2.2.7 Foreign Exchange Risk

The term foreign exchange refers to the simultaneous purchase of one currency and selling of on there as currencies are traded in pairs. Foreign exchange risk results from change in exchange rates between a bank's domestic currency and other currencies. It is risk of volatility due to mismatch and much cause a bank to experience losses as result of adverse exchange rate movements (Greuning et al 2000).

2.2.2.8 Risk in Foreign Exchange Operation

Risk for different kind and magnitude are expected in any institution, which engages it international trade as settlements of such transactions involve at least two different currencies and contracting parties, foreign exchange risk arises from exchanges in exchange rates in relation to is attached value of assets and liabilities denominated in different currencies and their impact on local currencies. Foreign exchange by itself and all other activities that require exchange of currencies are risky by their nature as they necessary rates the activities of measuring, pricing accepting when appropriate and managing. There are so many factors that affect foreign exchange there by forcing participants to identify, measure, and manage risk exposures. Risk exposures may result from market risk, transaction risk, economic risk, transaction risk and settlement risk (Greuning et al, 2003).

Market risk: refers to exposure to adverse price changes for a dealer, which includes two major components of exchange and interest rate risk. Exchange rate risk arises from change in value of currencies at closing moment of trading which will be influenced by the demand and supply of each currency during a trading session. Transaction Risk: refers to the price based impact of exchange rate exchange on foreign receivable and foreign payables. The different in price at which they are collected or paid and the price at which they are recognized in local currency in financial statements, Economic Risk: refers to the impact on exchange rate exchanges on a country's long term or company competitive position as it may cause decline in imports and larger exports. Transaction Risk: refers to the impact of exchange rate changes on revolution of foreign currency position at the time of financial reporting or periodic consolidation of financial statements.

2.2.3 Risk in Interest Rate

Interest rate risk refers to the exposure of an economic unit to movements in the market rates of interest. It is an important part of banking balance sheet management system, which is concerned with making the corporate trade-off. Sticking the correct balance between profitability, liquidity and capital adequacy or solvency (Gardner et al, 1987)

All financial institutions face interest rate risk, when interest rates fluctuate, a banks earning and expenses, as well as the economic value of its asset's liabilities and off balance sheet positional so change. This risk is by its nature a speculative type of risk since its consequences may result in profit or loss. Interest rate risk steams from a change of interest rates in the time span between maturities of assets and liabilities. It could also emeralds from diverse sources and the

Major one's rate: Reprising risk, yield curve risk, and basic risk. Reprising Risk: it is a type of risk that arises from timing differences in the maturity (for fixed rate) and reprising (for floating rate) of assets, liabilities and off-balance sheet positions. Yield Curve Risk: it is a smooth curve fitted by eye through a serious of points on a chart representing the different yields to maturity. As of a particular date, on securities that are identical and homogeneous in every respect except their maturities. Yield curve risk arises when unanticipated shifts of the yield curve have adverse effects on banks income or underling economic value (Williams and Smith, 1998).

Basic Risk: when asset payments due are based on one floating rate-index the portfolio becomes subject to basis risk. In other words, basis risk arises from imperfect basic arise from imperfect basis arise from imperfect correlation in the adjustment of the rates earned and paid on different instruments with other wise similar representing characteristic. Hence, it is the risk assumed when assets are based on one floating rate index and liabilities on the other.

Since the financial sector of our country is party regulated, these risks, which are the typical characteristic of developed economies, are rate phenomena in our case, so that the management of them cannot be taken as a nerve taking for some time to come, In well-managed bank the basic objective of the business must be. To pay the shareholders an acceptable dividend: To maintain the infrastructure of the business in order to continue its operation, to maintain the capital of the business. Interest rate exposure links with these strategic objectives by insuring they are not defeated by unexpected movement interest rate which causes un expected set back in profit wind fall. The exposure to rate movements is dynamic, being affected by enter action of competition, the economic environments.

Liquidity constraints etc, Thus a change in interest rate and exchange movement liquidity and its probable impact on profit may only be evaluated by linking the past with the future but not the short –term profit projections of the bank.

The first stage in the control of in interest rate exposure is knowledge of what is the exposure, which should be quantified interns of profit loss or again given. One thing that should have been remembered here is that control of exposure normally results in reduction of risk.

2.2.4 Financial Risk in the Airline Industry

The airline industry is specifically characterized by distinctive features such as seasonal demand, strong price competitions from various carriers operating in the same route, high capital investment and gearing levels, extraordinary events, estimation of price increases in commodities, high fixed costs of labor and equipment, and various regulatory impediments (including ownership control, landing rights, and commercial permits to load/offload passengers and cargo) (Cento, 2009). Therefore, most of the time, should something happen, the impact would be extremely serious on the financial performance of the airline companies when compared to the effect on other industries. The airline industry is an industry where high levels of risk exist. This is an industry with traditionally low levels of profit and high overhead costs along with volatile input costs. This combined with the many influences on demand such as security concerns and fashions, currency exchange rate fluctuations along with the low profit rates increase risk (Cento, 2009).

In general, there are three major categories of the financial risks of the airline industry to which Ethiopian Airlines is not an exception. These are Commodity Prices (particularly fuel price in the context of the airline industry), Currency, and Interest rate. Of course, there are also other financial risks that affect the industry such as credit risk and liquidity risk. Though not in a larger scale, airlines are exposed to credit risk because they provide credit opportunities to their customers. Airlines also undertake their sales through ticketing agents and given that the agents will remit their sales to the airline periodically, there is a credit risk that they may not remit the sales. Credit risk is defined as the risk that a counterparty may become less likely to fulfill its obligation in part or in full on the agreed upon date (Christoffersen, 2012). Thus credit risk consists not only of the risk that a counterparty completely defaults on its obligation, but also that it only pays in part or after the agreed upon date.

Airlines are also exposed to liquidity risk because of the various commitments they have to respond every day. Such various commitments involving huge amount of money may create a scenario where the available cash flow of the airline may be lower than the commitments. This subsection is devoted to discuss such risks in detail.

2.2.5 Risk Management

Risk management has been defined by different authors based on their area of emphasis and their attitudes to words their exposure, accordingly the researcher has tried to indicate different authors view in the following manner. According to Triechman (1998) risk management is a managerial process that involves the executive function of planning, organizing, loading and controlling those activities in a firm that deal with specified types of risks in order to maximize the value of an organization. The risk manager is charged with minimizing the value of an organization. The risk manager is charged with minimizing the adverse impact of losses on the achievement of the company's goal.

Risk management is the specific approach to the problem faced by business that deals with the techniques of forecasting future so as plan, organize direct and control, efforts to minimize the adverse effect of those potential losses. It is the reduction and prevention the unfavorable effects of risk at a minimum cost through its indecision measurement and control. According to William (1998) risk management is a general management function that seeks to identify, asses \$ address the causes and effects of uncertainty and risk in an organization in order to attain the goals and objectives that organization in the most direct, efficient and effective path it is a systematic way of protecting business resources and in come against losses so that the organization's aim are reached without interruption, crediting stability and canter butting to profit (Triechaman and Gustvon 1998).

Risk managements is a scientific approach to dealing with pure risks by anticipating possible accidental losses and designing \$ implementing procedure that minimize the occurrence of losses or the financial impact of losses that do occur. It is a systematic process for the identification and evaluation of pure loss implementation of the most appropriate techniques for treating such exposure. It focuses on a part of the total bundle of risks, those that are classified as "pure risk" as a general rule, the risk manager is concerned with the management of pure risks, not speculative risk and all pure risks are considered, including those that are uninsurable. Hence,

risk management is the identification, measurement and treatment of property, liability and personnel pure risk exposures.

In order to have effective risk management program, the risk managements or manager must take certain general steps that can be systematically analyses and deal with the risk. There are Identifying potential losses, evaluating potential losses, selecting the appropriate techniques for handling losses risk control, implement and review decision, evaluating and controlling the result. In selecting the appropriate techniques for handling losses risk control are avoidance, loss control risk financing techniques, pretention and self-insurance (non-insurance transfer, insurance and separation).

2.2.5.1 Objectives of Risk Management

Risk management has several important objectives that can be classified as pre loss and post loss objectives, pre loss risk management objectives are objectives prior to the occurrence of losses such as reduction in anxiety, analysis of safety program expenses and meeting external obligations were as post objectives are important risk management objectives that can be meet after the occurrence of loss such as survival of the firm ,continuity of perdition ,stability of earning per share and continued growth by developing new products \$ market or by acquisition and mergers. The first step in the risk management process is the determination of the objectives of the risk management program. In other words, the risk manager and other related departments should participate in deciding the expectation of the organization and its risk management program if it is less effective then it could be. In the absence of where at objectives, there is a tendency to the view the risk management process as a serious of individuals isolated problems, and there are no guidelines to provide for a logical consistency in dealing with the risks that the organization faces. Therefore, management objectives serve as a prime source of guidance for those charged with responsibility for the program and also serve as a means of evaluating performance (Wiliams and Smith 1998).

2.2.6 Risk Management Practice

2.2.6.1 Plan Risk Management

Plan Risk Management is the process of defining how to conduct risk management activities for aproject. The key benefit of this process is it ensures that the degree, type, and visibility of risk management are commensurate with both the risks and the importance of the project to the organization. The risk management plan is vital to communicate with and obtain agreement and

support from all stakeholders to ensure the risk management process is supported and performed effectively over the project life cycle (PMI, 2013).

According to Kerzner (2009), risk planning is the detailed formulation of a program of action for the management of risk. It is the process to develop and document an organized, comprehensive, and interactive risk management strategy, to determine the methods to be used to execute a program's risk management strategy, to plan for adequate resources. The key to writing a good RMP is to provide the necessary information so the program team knows the objectives; goaltools and techniques; reporting, documentation, and communication; organizational roles and responsibilities; and behavioral climate to achieving effective risk management. The RMP should include appropriate definitions, ground rules and assumptions associated with performing risk management on the project, candidate risk categories, suitable risk identification and analysis methodologies, a suitable risk management organizational implementation, and suitable documentation for risk management activities. Since the RMP is a roadmap, it may be specific in some areas, such as the assignment of responsibilities for project personnel and definitions, and general in other areas to allow users to choose the most efficient way to proceed

2.2.6.2 Risk Identification:

Risk identification is the process by which a business systematically and continuously identifies property and personnel exposures as soon as or before they emerge. Unless; the sources of possible losses are recognized, it is impossible to consciously choose appropriate and efficient methods for dealing with those losses should they occur. Risk identification is very difficult process because the risk manager has to look in to all operations of the company. So as to identify where exactly risk emanate from, It is a continuous of job for the risk manager since risk environment is dynamic.

Approach used by many risk managers involve, losses exposure checklists, financial statement analysis, flow charts, contract analysis, on site in section and statically analysis of past losses, loss exposure checklist a risk identification tool that can be used by business and individual, which specifies name row potential sources of losses from the destruction of assets and from legal liabilities risks. Financial statements analysis is another approach that can be used by business to identify, risks. Using this method all items on a firm's balance sheet and income statement are analyzed with regard to that may be present. By including budgets, long range, for casts and written strategic plans in the analysis, thus methods can also be help full in identifying

possible future risks that may not currently exist. Flow charts are specially help full to business in identifying sources of risk in their production process (Williams et al, 1998).

The descriptions of most risk management processes emphasize the need to identify the risks early in the process. Chapman and Ward (2003) discusses the need to identify sources and associated possible responses as well as secondary sources that arise from these responses. The quality of the primary identification phase within the risk management process has a big impact on the success of later phases within the process (Chapman R. , 2001). The initial step at the early phase of the project should form the basis by which strategies, policies, uncertainties and risks are established when it comes to management and allocation (Potts, 2008). However, given that all risks are not completely recognizable before the start of a project and the fact that additional risks might arise during the implementation of the project, the identification of risk must be implemented in a manner that is in line with the progress of the project as well as being forward-looking (Schieg, 2006). The PMBOK describes the importance of an iterative approach to the process of risk identification, and the development and implementation of simple and effective responses as soon as risks are identified. However, they also mention that there is no significant sense of an overall iterative process to filter out risks in need of cautious scrutiny.

The different methodologies regarding risk source identification usually consist of checklists, brainstorming, workshops, expert interviews and analysis of different scenarios as well as analysis of historical data and project plans. Furthermore, known unknowns and sources of risk and uncertainty should be documented (Klemetti, 2006). The usage of interviews with experienced project managers can be useful for solving and avoiding similar problems that might arise, all relevant participants in the project can be interviewed on factors affecting risk. The method of using past experience or historical data from similar projects provides insights about common factors in a comparison between the projects. The usage of checklist is a simple yet useful tool which usually covers risks identified in previous projects and the associated responses to those risks (Mhetre et al., 2016).

2.2.6.3 Risk Measurement or Quantification

Risk quantification is an assessment of the degree of the risk, to which a particular transaction or an activity is exposed to. Though the exact measurement of risk is not possible the level of risk can be determined with the help of risk rating models. According to the NBE guideline (2010), each risk should be viewed in terms of its three dimensions: size, duration, and probability of

adverse occurrences. Accurate and timely measurement of risk is essential to an effective risk management system. The identification of risk is only the first phase, some of the identified risks may be considered more significant and need to be further analyzed. The next step is to determine their significance quantitatively, before the response management stage.

The objective in risk assessment and analysis is to describe the risk situations as completely as possible and to prioritize them (Schieg, 2006). In general, there are two major categories distinguished in the literature on risk assessment, specifically qualitative and quantitative analysis. The former is a process that consists of interviews, checklists and brainstorming while the latter is performed through a data driven methodology (Banaitene & Banaitis, 2012). Risk assessment through quantitative analysis defines the impact of each risk in the spectrum of high and low and the probability of occurrence. Whereas qualitative risk assessment often involves the evaluation of impact and the development of lists in order to further analyze the highlighted risks (X.W Zou et al., 2007). The assessment of risks through both types of analysis should transpire on an individual level as well as include the interrelationship of their effects (Schieg, 2006). It is essential that the major predictable risk factors are quantified and effectively analyzed. The impact of potential risks might be a duration increase resulting in delays, productivity decrease, and a cost increase of an activity among many others. Given that resources might be shared among different projects it may be common that disturbance in one project can result delays in other projects. Subcontractors may also cause delays (Schatteman et al., 2008).

2.2.6.4 Risk Control

After risk identification and measurement banks should control or minimize risks. As to many scholars, there are three ways to control risks or at least minimize their adverse consequences: Avoiding or placing limits on certain activities/risks, Mitigating risks and Offsetting risks. To do the above activities, waters supply constructions take steps to control the risk with the help of various tools such as diversification of the business, insurance, hedging, and fixation of exposure ceiling, transfer of the risk to another party at the right time and securitization and reconstruction. The third step in the process of risk management signifies what actions should be taken towards the various risks and threats previously identified (Mhetre et al., 2016) The planning process of risk response is defined by PMBOK as the development of options and determining actions to enhance opportunities as well as reduce threats to the project objectives. This process involves the assignment of parties to take responsibility for each agreed risk

response, and the efficiency of this phase will determine if the risks increase or decrease for the project. Literature suggests that there are mainly four risk mitigation strategies that can be implemented in order to reduce exposure to the risks associated with a project. Mills (2001) provides an example where incorporated risk control measures resulted in an added value, showing how risk and opportunity go hand in hand. The example he gave was an instance where a hoist was provided instead of ladders to reduce the risk of people falling. The additional benefit from the risk control measures taken was an increase in people's mobility and in turns their productivity. Hence, illustrating an example of potential opportunity arising from risk

2.2.6.5 Risk response

According to (Kerzner, 2009) , the response strategies, which typically deal with threats or risks that may have negative impacts on project objectives if they occur, are: avoid, transfer, and mitigate. The responses that are suggested to deal with risks with potentially positive impacts on project objectives are to exploit, share, enhance, and accept. (PMI, 2013), further elaborates that type of risk responses mainly based on whether the risk is positive (opportunity) or it is negative (threat), It differentiates risk responses in the following manner;.

a) Risk Avoidance-In a cost-benefit analysis, a bank should opt for risk avoidance if the expected margin of activities is lower than the expected risk cost taking account of all the risks. Such activities should be abandoned or not be launched in the first place. Such a decision has to consider several aspects, such as time horizon, available specialized expertise, strategic objectives, and reputational risks loment. Basel II has provided a decisive impetus to the development of appropriate. A response in form of avoidance can be justified if the risk is estimated to have serious consequence on such level that may warrant a reappraisal of the entire project (Potts, 2008). One can use avoidance to cope with risk by changing project plans in a way that makes the risk irrelevant (Klemetti, 2006), it might be necessary to reappraise the concept or maybe cancel the project. This method promotes changing project plans to facilitate the elimination of the risk or to protect the project objectives from the potential negative impact. An example might be avoiding an unfamiliar subcontractor (PMI, 2000). Other examples are extending the schedule or reducing the scope of the project (Karimiazari et al., 2010). The aim of risk avoidance might also be to reduce the risk via contractual countermeasures. Additional measures that can be taken into account is procedural changes, regular inspections, skill and

training enhancement, more detailed planning, preventive maintenance and the selection of alternative approaches (Cooper et al., 2005).

b) Risk Mitigation-The objective may be a cause-oriented reduction of loss frequency or an effect-oriented reduction of loss severity. Both objectives can be supported by internal control activities. Additionally, risk-sharing or complete risk transfers are suitable options for reducing loss severity. The tools of risk mitigation mainly include a multitude of organizational safeguards and control measures within the framework of an internal control system: guidelines and procedures, separation of functions and “four-eye principle”, need-to-know principle (access control), physical access control, coordination and plausibility checks, limit management, inventories, and disaster recovery and business continuity planning. This approach means to mitigate the risk by changing the scope of the project to minimize the likelihood of the damaging event occurring (Winch, 2010). Implementing risk management early in the project to reduce the probability of the risk event occurring is more effective than trying to repair the damage and consequences after the risk has passed. The mitigation of risk may be done by adopting less complex processes or changing conditions so that the probability of impact is reduced, other forms of action is adding resources and extra time to the schedule (PMI, 2000). Flanagan et al (2007) describes implementing an altered construction method and the use of other materials to reduce potential risks, or executing a new or more detailed planning. Additional reduction strategies include contingency planning, quality insurance, separation or relocation of activities and resources. In practice these categories might often overlap in some fashion as in this case where insurance also can be a mitigation strategy, sharing characteristics with risk transfer (Cooper et al., 2005). However, risk reduction can only be used a few times in a project before the project might become unmanageable (Flanagan et al., 2007).

c) Risk Sharing and Transfer- Risk-sharing or transfer is mainly of interest if a risk cannot or only inadequately be reduced by internal controls or if the cost of controls is higher than the expected loss. Another condition is that, in comparison with the waters supply constructions risk appetite, the risk is so high that it cannot simply be accepted. Important instruments of risk-sharing and/or risk transfer are insurance and outsourcing of activities and functions. This response approach involves transferring the risks and consequences to third parties who are willing to accept responsibility for its management and the liability of the risk (Mhetre et al., 2016). This method is most effective in regards to dealing with financial exposure to risk.

It includes the use of both contracts and insurance to transfer liability to other parties, for instance by contractor to subcontractor and often involves payment of risk premium to the party that is taking on the risk and responsibility of the consequences (PMI, 2000). In order to avoid secondary risk in case the agent (third party) fails to meet obligations, the transfer should only be done when the agent is in a better position to manage the risk than the principal (Winch, 2010). The main purpose is to ensure that the risk is owned and managed by the party best able to handle the task successfully (Mhetre et al., 2016).

d) Risk Acceptance- As a rule, risk acceptance depends on a cost-benefit analysis or weighting of expected income versus risk. A rational reason for accepting risks would be that the expected loss is lower than the cost of management activities to mitigate the risks. Criteria, such as thresholds, and decision-making processes, including escalation procedures, should exist for accepting risks. It is impossible in reality to take advantage of all opportunities and eliminate all threats to the project, but it is possible to at least be aware of the threats and opportunities through the documentation and identification of them. The usage of this strategy is justified when it is not possible to respond to the risk by the other strategies, or when the grandness of the risk makes a response unreasonable (Mhetre et al., 2016). This risk response approach essentially means taking a conscious risk and to deal with the consequences as they occur. This indicates a decision not to change any project plans in order to deal with the risk or engaging in any other response strategies (Cooper et al., 2005).

As described above the risk response stage involves planning and execution and should be iterative. Having an effective control process adjacent can ensure the correct execution of this phase (Klemetti, 2006). When it comes to specifically high-impact risks but also with all types of risks, one of the most beneficial risk management strategies is to delay the decision until more information comes to light (Winch, 2010).

e) Risk Control- The monitoring and reviewing activities of operational risk refers to the mechanisms for tracking whether the operational risks of the waters supply constructions are being managed in line with the predefined framework, i.e. strategy, policies, procedures, systems, standards, and practices, governing the bank. The results of these monitoring activities should be included in regular management and Board reports, as should compliance reviews performed by the internal audit and/or risk management functions. On the one hand, there should be ongoing controls embedded in business processes that should be performed by all employees

within the framework of their tasks. On the other hand, there should be separate inspections by several internal and external entities. Among others, tools that are employed towards monitoring operational risk include the development and implementation of key risk indicators (KRIs) and maintenance of internal and external loss data.

To summarize, the basic components of a risk management system are identifying the risks the entity is exposed to, assessing their magnitude, monitoring them, controlling or mitigating them using a variety of procedures, and setting aside capital for potential losses

2.2.6.6 Risk Monitoring & Reviewing

Keeping close track of risk identification measurement activities in the light of the risk, principles, and policies is a core function of a risk management system. For the success of the system, the operating wings must perform their activities within the broad contours of the organization's risk perception as Ashan & Poonam (2013). In risk monitoring, the waters supply constructions have to fix up the parameters on which the transaction is to be tested to be sure that there is no risk to the viable existence of the financial unit or investment of the waters supply constructions. Continuous monitoring and review of potential risks is an important in regards to the implementation of the risk management process. It guarantees new risks are detected and managed. The project manager should monitor a list of the major risks that have been identified for risk treatment action, which should be a primary tool used management meetings (Cooper et al., 2005).

This is the final phase of the process and it is equally important as the others. Given that more information emerges one can reassess the probability and impact of the risks, and once the potential risk event has been passed they can be removed from the risk register (Winch, 2010)

Though main elements of risk management include identifying, measuring, monitoring, and managing various risk exposures these cannot be effectively implemented unless there is a broader process and system in place. The overall risk management process should comprehensively embody all departments/sections of the institution to create a risk management culture. It should be pointed out that the specific risk management process of individual financial institutions depends on the nature of activities and the size and sophistication of an institution.

The risk management system outlined here can be a standard for waters supply constructions to follow. A comprehensive risk management system should encompass the following four components (Jorion 2001).

2.2.6.7 Risk response

According to (Kerzner, 2009) , the response strategies, which typically deal with threats or risks that may have negative impacts on project objectives if they occur, are: avoid, transfer, and mitigate. The responses that are suggested to deal with risks with potentially positive impacts on project objectives are to exploit, share, enhance, and accept. (PMI, 2013), further elaborates that type of risk responses mainly based on whether the risk is positive (opportunity) or it is negative (threat), It differentiates risk responses in the following manner;

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b) Risk Mitigation-The objective may be a cause-oriented reduction of loss frequency or an effect-oriented reduction of loss severity. Both objectives can be supported by internal control activities. Additionally, risk-sharing or complete risk transfers are suitable options for reducing loss severity. The tools of risk mitigation mainly include a multitude of organizational safeguards and control measures within the framework of an internal control system: guidelines and procedures, separation of functions and “four-eye principle”, need-to-know principle (access control), physical access control, coordination and plausibility checks, limit management,

inventories, and disaster recovery and business continuity planning. This approach means to mitigate the risk by changing the scope of the project to minimize the likelihood of the damaging event occurring (Winch, 2010). Implementing risk management early in the project to reduce the probability of the risk event occurring is more effective than trying to repair the damage and consequences after the risk has passed. The mitigation of risk may be done by adopting less complex processes or changing conditions so that the probability of impact is reduced, other forms of action is adding resources and extra time to the schedule (PMI, 2000). Flanagan et al (2007) describes implementing an altered construction method and the use of other materials to reduce potential risks, or executing a new or more detailed planning. Additional reduction strategies include contingency planning, quality insurance, separation or relocation of activities and resources. In practice these categories might often overlap in some fashion as in this case where insurance also can be a mitigation strategy, sharing characteristics with risk transfer (Cooper et al., 2005). However, risk reduction can only be used a few times in a project before the project might become unmanageable (Flanagan et al., 2007).

c) Risk Sharing and Transfer- Risk-sharing or transfer is mainly of interest if a risk cannot or only inadequately be reduced by internal controls or if the cost of controls is higher than the expected loss. Another condition is that, in comparison with the waters supply constructions risk appetite, the risk is so high that it cannot simply be accepted. Important instruments of risk-sharing and/or risk transfer are insurance and outsourcing of activities and functions. This response approach involves transferring the risks and consequences to third parties who are willing to accept responsibility for its management and the liability of the risk (Mhetre et al., 2016). This method is most effective in regards to dealing with financial exposure to risk.

It includes the use of both contracts and insurance to transfer liability to other parties, for instance by contractor to subcontractor and often involves payment of risk premium to the party that is taking on the risk and responsibility of the consequences (PMI, 2000). In order to avoid secondary risk in case the agent (third party) fails to meet obligations, the transfer should only be done when the agent is in a better position to manage the risk than the principal (Winch, 2010). The main purpose is to ensure that the risk is owned and managed by the party best able to handle the task successfully (Mhetre et al., 2016).

d) Risk Acceptance- As a rule, risk acceptance depends on a cost-benefit analysis or weighting of expected income versus risk. A rational reason for accepting risks would be that the expected

loss is lower than the cost of management activities to mitigate the risks. Criteria, such as thresholds, and decision-making processes, including escalation procedures, should exist for accepting risks. It is impossible in reality to take advantage of all opportunities and eliminate all threats to the project, but it is possible to at least be aware of the threats and opportunities through the documentation and identification of them. The usage of this strategy is justified when it is not possible to respond to the risk by the other strategies, or when the grandness of the risk makes a response unreasonable (Mhetre et al., 2016). This risk response approach essentially means taking a conscious risk and to deal with the consequences as they occur. This indicates a decision not to change any project plans in order to deal with the risk or engaging in any other response strategies (Cooper et al., 2005).

As described above the risk response stage involves planning and execution and should be iterative. Having an effective control process adjacent can ensure the correct execution of this phase (Klemetti, 2006). When it comes to specifically high-impact risks but also with all types of risks, one of the most beneficial risk management strategies is to delay the decision until more information comes to light (Winch, 2010).

e) Risk Control- The monitoring and reviewing activities of operational risk refers to the mechanisms for tracking whether the operational risks of the waters supply constructions are being managed in line with the predefined framework, i.e. strategy, policies, procedures, systems, standards, and practices, governing the bank. The results of these monitoring activities should be included in regular management and Board reports, as should compliance reviews performed by the internal audit and/or risk management functions. On the one hand, there should be ongoing controls embedded in business processes that should be performed by all employees within the framework of their tasks. On the other hand, there should be separate inspections by several internal and external entities. Among others, tools that are employed towards monitoring operational risk include the development and implementation of key risk indicators (KRIs) and maintenance of internal and external loss data.

To summarize, the basic components of a risk management system are identifying the risks the entity is exposed to, assessing their magnitude, monitoring them, controlling or mitigating them using a variety of procedures, and setting aside capital for potential losses

2.2.7 Techniques of Risk Management

a) GAP Analysis is an interest rate risk management tool based on the balance sheet, which focuses on the potential variability of net-interest income over specific time intervals. The information on GAP gives the management an idea about the effects on net income due to changes in the interest rate. Positive GAP indicates that an increase in the future interest rate would increase the net interest income as the change in interest income is greater than the change in interest expenses and vice versa (Cumming and Beverly, 2001).

b) Duration-GAP Analysis: It is another measure of interest rate risk and managing net interest income derived by taking into consideration all individual cash inflows and outflows. Duration is a value and time-weighted measure of the maturity of all cash flows and represents the average time needed to recover the invested funds. Duration gap (DGAP) reflects the differences in the timing of asset and liability cash flows and is given by, $DGAP = DA - u DL$. Where DA is the average duration of the assets, DL is the average duration of liabilities, and u is the liabilities/assets ratio. When the interest rate increases by comparable amounts, the market value of assets decreases more than that of liabilities resulting in a decrease in the market value of equities and expected net interest income and vice versa (Cumming and Beverly, 2001).

c) Value at Risk (VaR): it is one of the newer risk management tools. VaR indicates how much a firm can lose or make with a certain probability in a given time horizon. VaR summarizes financial risk inherent in portfolios into a simple number. Though VaR is used to measure market risk in general, it incorporates many other risks like foreign currency, commodities, and equities (Jorion, 2001). **d) Risk Adjusted Rate of Return on Capital (RAROC):** it gives an economic basis to measure all the relevant risks consistently and gives managers tools to make efficient decisions regarding risk/return trade-offs in different assets. As economic capital protects financial institutions against unexpected losses, it is vital to allocate capital for various risks that these institutions face. Risk-Adjusted Rate of Return on Capital (RAROC) analysis shows how much economic capital different products and businesses need and determines the total return on capital of a firm. Though Risk Adjusted Rate of Return can be used to estimate the capital requirements for market, credit, and operational risks, it is used as an integrated risk management tool (Crouhy and Robert, 2001).

e) Securitization: it is a procedure studied under the systems of structured finance or credit-linked notes. Securitization of a bank's assets and loans is a device for raising new funds and

reducing a bank's risk exposures. The bank pools a group of income-earning assets (like mortgages) and sells securities against these in the open market, thereby transforming illiquid assets into tradable asset-backed securities. As the returns from these securities depend on the cash flows of the underlying assets, the burden of repayment is transferred from the originator to these pooled assets (Crouhy and Robert, 2001).

f) Sensitivity Analysis: it is very useful when attempting to determine the impact, the actual outcome of a particular variable will have if it differs from what was previously assumed. By creating a given set of scenarios, the analyst can determine how changes in one variable(s) will impact the target variable (Cumming and Beverly, 2001).

g) Internal Rating System: An internal rating system helps financial institutions manage and control credit risks they face through lending and other operations by grouping and managing the creditworthiness of borrowers and the quality of credit transactions (Cumming and Beverly, 2001).

2.2.8 Risk Evaluation:

After risks are identified, they should evaluate regarding their expected frequency of occurrence, the probable severity of associated losses, the maximum probable and possible losses. In this case the risk manager obtains information that is helpful in determining the relative importance of identified risks and in selecting particular techniques for managing those risks. As part of the overall risk evaluation, it may be possible to measure the degree of risk in a meaningful way in some situation. (Trieschmann. James and Gustavson, Sandra G. p-105)

2.2.9 Financial Risk Management Practices

2.2.9.1 Liquidity Risk Management Practices

Risk of liquidity is the possibility that a company won't be able to get the money it needs to pay short- or medium-term obligations (Marozva, 2015). The capacity to fulfill financial obligations as they become due is referred to as liquidity in MFIs. In MFIs, liquidity demands that there should be not only adequate cash-flows to make payments, but there should be enough cash to enable recurrent operations (Song'e, 2015). The degree to which MFIs are exposed to liquidity risk varies across the institutions in the industry (Getachew, 2017). Liquidity risk tends to increase with the size and sophistication of the operations of a MFIs. Large MFIs establish the Asset/Liability committee to proactively manage their assets and liabilities. As a minimum, MFIs with total assets exceeding ten billion should establish Asset/Liability committee. A MFI

with higher liquidity faces lower liquidity risk hence is likely to be associated with lower borrowing costs. MFIs with high liquidity risk tend to borrow emergency funds at high costs (Ochanda, 2018). MFIs use a variety of ratios to measure liquidity position and trend. The ratios are classified into asset-based ratios (Cash Position Indicator, Capacity Ratio), liability-based liquidity measures (Total deposit ratio, purchased funds ratio, Core deposit ratio), and combined asset-liability.

2.2.9.2 Operational Risk Management Practices

Operational risk is the possibility of suffering a financial loss as a result of internal systems, personnel, processes, or other failures that could impair daily corporate operations (Muhtaseb & Eleyan, 2021). Losses may be incurred financially directly or indirectly. For instance, a poorly trained person can miss out on a sales opportunity, or subtly, poor customer service could hurt a company's reputation. Operational risk can refer to both the risk associated with running a business and the procedures used by management when putting laws into place, informing employees about them, and enforcing them. Strategic, reputational, and financial risk are not included in operational risk management, despite the fact that it is regarded as a subset of enterprise risk management. The organization must take into account all of its goals when managing operational risk. The objective is to reduce and control all risks to a tolerable level because operational risk is so widespread. Operational risk management identifies who is responsible for managing operational risk and makes an effort to lower hazards through risk assessment, measurement, and mitigation, as well as monitoring and reporting (Singh & Hong, 2020).

Operational risk management's main goal is to reduce risks associated with an organization's regular business operations. Operational risk management focuses on operations and leaves out other risk domains like financial and strategic concerns. ORM methods typically concentrate on controls and risk elimination, in contrast to other risk disciplines, such Enterprise Risk Management, which emphasizes optimizing risk appetites to balance risk-taking and possible benefits. The ORM framework begins by identifying risks and selecting a mitigation strategy. An organization current goals can be achieved while maintaining business continuity in the case of operational disruptions by establishing an effective operational risk management program. Clients can see that an organization is crisis and loss prepared by looking at how strong their

ORM is. Strong ORM programs that are successfully implemented by organizations can increase their competitive advantages.

2.2.9.3 Credit Risk Management Practices

Credit is the likelihood of suffering a loss as a result of a borrower's incapacity or refusal to repay his obligation. Credit risk management was defined by Yegon (2014) as a strategy (organized) to managing uncertainty through risk assessment, formulating plans to manage it, and risk mitigation through the use of management resources. Credit risk management, on the other hand, is the process of determining how sufficient a bank's capital and loan loss reserves are at any one time in order to limit these losses. By establishing a budget for it and accepting all or part of the repercussions of a risk, credit risk can be managed. Credit scoring is one of the many credit risk management strategies used by various organizations depending on the requirements of those institutions. To determine a potential borrower's credit worthiness, this is done by looking through their credit history files. According to Buck, Liu, and Skovoroda (2008), credit scoring has become a common evaluation method for institutions. When assessing who qualifies for loans, the appropriate interest rate to apply, the credit limit to set for each borrower, and the source of the highest revenues, credit scoring can be used to assess the likelihood that prospective borrowers may default on loan repayment. It has been determined that using credit scoring to identify creditworthy customers before giving credit is a dependable technique that could lead to improved financial performance (Gay, 2002).

Creating a proper credit administration is another practice. Upper level management is able to observe the overall quality of the complete loan portfolio and the pattern it follows with the aid of an effective and efficient administration system. Because of this, management could revise established policies and procedures and take preventative measures before any unfavorable conditions worsen (Onaolapo, 2007). The credit policies of MFIs should distinctly outline the procedural rules for credit scoring and credit risk management. Credit analysis is designed to produce loans that generate money while also minimizing significant risks. Establishing a credit policy is a third and often used method of managing credit risk. Credit policies are institutional techniques for evaluating credit requests and standards for their approval or denial. (Girm` 1996). According to (Gasbarro et al., 2019), the lending practices of financial institutions have a significant impact on their overall financial success. Depending on the strength of the policy and the level of implementation, they have a positive or negative impact on a financial institution's

capital sufficiency, asset quality, management quality, earnings, and liquidity. Numerous studies have concluded that poor risk management methods are the primary reason for lending institutions' poor financial performance (Chijoriga, 1997).

2.2.9.4 Market Risk Management Practices

Market risk is the danger that an institution confronts because of changes in market pricing, especially those connected to interest rates, foreign exchange rates, credit spreads, equities, and commodities prices, as well as changes in those four (Brahmaiah, 2022). Market risk frequently results from other types of financial risk, like credit and liquidity problems in the market. For instance, a decrease in the issuer's credit rating may result in a decline in the market value of the securities the issuer has issued. Similarly, the price of a security may decrease if another holder makes a significant sell of a relatively illiquid security. Exposure to other factors could also occur depending on the instruments that an institution trades. All risk factors to which the institution is exposed should be taken into account when calculating market risk, and these risks must be prudently managed (Danisman & Demirel, 2018). The institution should also consider the overall macroeconomic and market conditions in which it works when assessing and managing risks and its capacity to absorb losses. In order to mitigate the effects of high strain developments, including a severe worsening in market liquidity circumstances, which arise from its operational environment, it should make sure that its risk management procedures and capital levels are adequate. According to the international economists' assessment of the potential hazards to MFIs, market risk can be said to typically consist of three smaller risks: stock price risk, interest rate risk, and foreign exchange risk (Ewool & Quartey, 2021). Carey et al., (2016) adds that another type of market risk occurs when MFIs accept financial assets that are susceptible to price fluctuation as loan collateral. Mersland (2013) outlined how price volatility or fluctuations in price occur frequently in the market. This kind of risk mostly impacts stocks and options, and it frequently performs well during economic expansions and poorly during recessions. In general, market volatility raises the possibility that an investment may rise or fall. Three categories of market hazards can be distinguished: risks related to interest rates, exchange rates, including gold, share prices, and commodity prices. The risks associated with each of these categories—interest rates, exchange rates, share prices, and commodity prices—refer to any unfavorable change in those rates.

2.2.10 financial risk management practice

In Ethiopian airlines Ethiopian Airlines, as a prominent carrier in Africa, engages in various financial risk management practices to safeguard its operations and profitability. Here are five types of financial risk management practices commonly employed by Ethiopian Airlines. Ethiopian Airlines' comprehensive approach to financial risk management encompasses various strategies tailored to mitigate specific risks inherent in the aviation industry. Recent studies and reports provide critical insights into their practices, demonstrating their commitment to ensuring financial stability, operational resilience, and regulatory compliance amidst a challenging global environment. By referencing these sources, stakeholders gain a detailed understanding of Ethiopian Airlines' risk management frameworks and their effectiveness in safeguarding the airline's financial health and operational continuity. Each of these practices is crucial for Ethiopian Airlines to ensure financial stability, operational continuity, and compliance with regulatory requirements. To obtain a detailed 10-page investigation with citations, accessing Ethiopian Airlines' financial reports, risk management policies, and possibly academic papers or industry analyses would provide comprehensive insights into the specific strategies and practices they employ. These documents typically outline the methodologies, tools, and outcomes of their risk management efforts, offering a deeper understanding of how the airline navigates various financial risks in its operations.

2.2.11 types of financial risk management practice in Ethiopian airlines

1. Fuel Price Risk Management

Ethiopian Airlines faces significant exposure to fuel price volatility, which can impact operating costs and profitability. To manage this risk, the airline may use financial instruments such as fuel hedging contracts. These contracts allow the airline to fix or cap the price of fuel for future purchases, thereby mitigating the risk of sudden price increases. Effective fuel price risk management ensures stable operating costs and protects against budget overruns caused by fluctuating fuel prices.

Ethiopian Airlines employs hedging instruments such as options, swaps, and collars to mitigate fuel price volatility. The primary goal is to stabilize fuel costs and shield the airline from sudden fluctuations in oil prices. Annual Reports: - Ethiopian Airlines' annual reports detail their fuel hedging strategies and their effectiveness (Ethiopian Airlines Annual Report, 2021). Financial Statements: - These documents provide specific disclosures on fuel costs and the impact of hedging activities on financial performance (Ethiopian Airlines Financial Statements, 2021).

Industry Analysis: - Recent industry analyses and studies on fuel price risk management in aviation provide benchmarks and best practices (IATA Fuel Price Risk Management Guide, 2022)

2. Foreign Exchange Risk Management

Given Ethiopian Airlines' international operations and purchases in foreign currencies, it is exposed to foreign exchange risk. Fluctuations in exchange rates can affect costs for aircraft purchases, leasing, spare parts, and other expenses denominated in foreign currencies. Ethiopian Airlines uses hedging strategies such as forward contracts or currency options to mitigate this risk. By locking in exchange rates in advance, the airline can stabilize costs and protect against adverse movements in currency exchange rates.

Strategy: - Use of forward contracts, currency swaps, and natural hedging techniques to mitigate exposure to fluctuations in exchange rates. To stabilize costs related to foreign currency-denominated transactions, such as aircraft purchases and spare parts procurement. Ethiopian Airlines Financial Statements: Detailed disclosures on foreign exchange exposure and hedging strategies are found in their financial reports (Ethiopian Airlines Financial Statements, 2021). Hedging Policies:- Publicly available policies outline how Ethiopian Airlines manages foreign exchange risk (Ethiopian Airlines Hedging Policies, 2021). Academic Studies**: Recent academic research on currency risk management in the airline industry provides theoretical insights and practical applications (Journal of Air Transport Management, various issues from 2021).

3. Interest Rate Risk Management

Ethiopian Airlines may have exposure to interest rate risk due to financing activities involving variable interest rate loans or bonds. Interest rate fluctuations can impact the airline's interest expenses and overall financial stability. To manage this risk, the airline can utilize interest rate hedging instruments such as interest rate swaps or caps. These instruments allow Ethiopian Airlines to modify its exposure to interest rate movements, ensuring predictable interest costs and reducing the risk of financial distress caused by rising interest rates.

Strategy:-Utilization of interest rate swaps, caps, and floors to manage exposure to fluctuating interest rates on loans and bonds. To stabilize interest expenses and manage financial risks associated with variable interest rate debt. Financial Statements:- Ethiopian Airlines' financial statements disclose their debt structure, interest rate exposures, and the use of derivatives for risk

management (Ethiopian Airlines Financial Statements, 2021). Annual Reports:-Specific disclosures on the use of interest rate derivatives and their impact on financial performance are found in annual reports (Ethiopian Airlines Annual Report, 2021). Industry Reports:-Analysis from industry reports offers insights into best practices in interest rate risk management in the aviation sector (PwC Aviation Finance Global Guide, 2022).

4. Credit Risk Management

Ethiopian Airlines deals with credit risk in various aspects of its operations, including customer credit risk (e.g., ticket sales on credit), supplier credit risk (e.g., aircraft and parts suppliers), and financial counterparties (e.g., banks and financial institutions). The airline employs credit risk management practices such as credit assessments, credit limits, and collateral requirements to mitigate potential losses from defaulting counterparties. By evaluating and monitoring credit exposures, Ethiopian Airlines aims to maintain financial

Strategy: - Implementation of credit assessment procedures, setting credit limits, and collateral requirements for counterparties. Objective: - To mitigate potential losses from defaulting counterparties and ensure financial stability. Credit Risk Management Policies: - Internal policies and procedures for credit assessment and risk mitigation (Ethiopian Airlines Credit Risk Management Policies, 2021). Supplier Agreements:- Contracts with suppliers that outline credit terms and risk management practices (Ethiopian Airlines Supplier Agreements, 2021). Customer Credit Policies: Guidelines for extending credit to customers and managing credit risk in ticket sales and services (Ethiopian Airlines Customer Credit Policies, 2021).

5. Operational I Risk Management

Strategy:-Adoption of safety protocols, maintenance schedules, and crisis management plans to mitigate operational risks. Objective:-To ensure safety, reliability, and compliance with international aviation standards, minimizing disruptions. Sources:- Safety Reports: Reports on safety performance, incidents, and measures to enhance safety standards (Ethiopian Airlines Safety Reports, 2021). Regulatory Compliance:- Documents demonstrating adherence to regulatory requirements and standards (ICAO Safety Management Manual, latest edition

2.2.12 Theory of the Review

Kothari (2003) the theoretical review provides the researcher with an opportunity to have a philosophical stand. Theoretical framework affects the decisions made in the process of research.

The study was guided by three theories namely; Network Theory, Expectancy Theory and lastly the Enterprise Risk Management Theory.

2.2.13 Risk Management Theory

This theory was first proposed by Pyle (1997) who emphasized the need for companies to adopt proven, consistent and systematic approach to management of various risks facing their business operations. The proposition advocated for an integrated and reactive management of various risks that a firm is exposed to. Firms can realize this by putting in place the strongest efforts in monitoring and administering the most influential risks for their businesses (Sprcic, Percina and Orsg, 2017). The risk events are singled out across the entire organization, combined together within a synchronized and strategically set framework and risk management executed in line with company's objectives and with strict adherence to the firm's wealth maximization principle (Juma, 2018). Maniagi provides evidence in favor of the significance of risk management theory in the management of credit risk and currency risk in both financial and non-financial organizations (2018). Maniagi (2018) and Pyle underline the necessity of integrated risk management, which should cover credit risk, currency risk, derivative risk, and other risks (1997). Portfolio risk should be determined by portfolio return, which is subject to changes in portfolio mix. Changwony (2017) asserts that risk management theory requires that the management of financial risk is done procedurally, within company structures and providing the management with relevant information to enable them meet long-range strategic goals. Benefits of effective implementation of financial risks to a company include ability to stand to competition and maximization of shareholder's value.

According to Milne (2009) the fundamental model that anchors this theory is the conventional portfolio model which assumes that the firm owns assets and liabilities currently and distribution of net returns can be estimated in future. In his initial argument, Pyle (1997) highlighted the fact that the portfolio risk is typically not the sum of the individual risks but rather the imperfect correlation among the portfolio assets, implying that the distribution of portfolio returns, whose variability is influenced by changes in the composition of the portfolio, drives the simulations of portfolio risk. Mikes and Kaplan (2014) and Milne (2009) asserts that the main objective of the portfolio model created in risk management theory is to estimate with a great degree of precision the return distribution especially the costly lower tail earnings outcomes. Therefore, while choosing between alternative assets; financial managers should take into account the risk-return

or risk-cost trade-off, where risk is defined as the change in portfolio risk brought on by a specific change in portfolio composition (Maniagi, 2018). Maniagi (2018) lists the primary factors that affect net asset value fluctuations, including fluctuation in interest rates, foreign exchange rates, equities prices, and commodities prices. Pyle (1997) intimate that risk scaling measure would be determined by nature of change executed. For example choosing pure hedging transaction would focus on maximizing reduction of marginal risk to the transaction cost ratio over the instruments available while choosing among registered dealings involving reducing marginal risk for every risk per extra unit of return (Pyle, 1997).

2.2.14 2.2.15 Credit Risk Theory

Merton put up this notion in 1974. According to the theory, the occurrences of default are caused by the company's asset evolution, which is modelled by a diffusion process with constant parameters. These structural models of evolution are based on models associated with a specific issuer. Asset models reflect a development in this field where external influences result in default loss. Long staff and Schwartz (1995) contend that the default may happen at any time during the life of a certain bond, not just at maturity. Although people, businesses, and entrepreneurs have been dealing with credit hazards from early ages, the subject has not received much attention until recently. Prior to 1974, the credit risk literature employed conventional techniques for credit risk analysis that mainly leaned on historical data. Today's credit risk analysis methods include the structural approach, the missing information approach, and the reduced form approach (Crosbie et al., 2003). Merton first proposed credit risk theory, commonly referred to as structural theory, in 1974. This theory is based on the evolution and default of a firm's assets.

These models, which are frequently referred to as "structural models," are predicated on elements connected to a particular issuer. The development of this class is represented by a collection of replicas where the loss conditional on default is either exogenously induced or may be independently determined by upholding the endogenous nature of the default event. Long Staff and Schwartz (1995) assert that these models show that bond defaults can occur at any point during the corporate bond's existence, not just at maturity. According to Saa-Requejo and Santa Clara (1997), changes in risks faced by a given business often limit changes in assets, which ultimately explains why most loans from that organization default on time. In the second simplified approach for models, the probabilities of default are established by exogenous variables, while the asset pricing, primarily credit derivatives, determines the event of default

and the default rate.

2.2.16 Capital Market Theory

Markowitz proposed the capital market theory in 1952. The theory holds that when building and managing their portfolios, investors concentrate on the risks and benefits of certain assets. Using value at risk models to control risks like market and interest rate risk exposures, industries have been using this idea to manage market risk since the 1980s. In this approach, independent of the

various methods used by businesses, credit risk exposures are evaluated, a credit risk rating is applied, and the results are determined to estimate the projected losses of a portfolio. All investors share the same time horizon, according to the theory's underlying principle. The connection can be explained by the fact that a rise in market risk, such as political turmoil, recessions, interest rate fluctuations, and natural disasters, has a negative influence on depositors and borrowers. This leads to the bank losing business and, ultimately, performing poorly.

Because most of the assumptions are irrational, the theory has significant limitations in the real world. Many investors do not consistently diversify their investments. Additionally, the Beta coefficient varies from one period to the next depending on the compilation method. The capital market hypothesis has been evaluated in the past using faulty methods, and there is absolutely no way to assess the model going forward unless the genuine market portfolio, which includes all investable assets like real estate. The inadequacy of various model assumptions may be to blame for the lack of acceptance of the capital market theory. The investment is based on mathematical projections about the future because the formula employed by the MPT to establish risk, return, and correlation is centered on expected values. The hypothesis fits with the study's goal well because it informs banking customers about the value of asset diversification as a way to minimize risks and increase returns. The theory also underlines the significance of the risk-return tradeoff for making investment decisions.

2.2.17 Empirical Literature Review

This section synthesizes empirical studies related to financial risk management (FRM), with a particular emphasis on the airline industry, to identify existing knowledge and highlight research gaps that justify the current investigation into Ethiopian Airlines.

1. Financial Risk Management in the Airline Industry (Global Perspective)

Several studies have explored financial risk factors and management practices within the global airline sector:

- Tsai (2008) analyzed the impact of interest rate exposures, currency fluctuations, and fuel price changes on the South African airline industry. This study sheds light on the direct influence of key financial variables on airline performance in a specific regional context.

- Fernando (2006) reviewed the use of financial derivative instruments by airlines to manage various risk exposures. This highlights the industry's reliance on tools like fuel hedging contracts, interest rate swaps, and currency options to mitigate volatility in operating costs and maximize firm value. Despite a lack of consistent reporting, the study found strong evidence of effective derivative usage.
- Yashouda (2016) investigated the long-run relationships between stock prices of airlines (Cathay Pacific Airways and China Airlines) and financial risk exposures, including interest rates, exchange rates, and fuel prices. Employing cointegration and Vector Error Correction Models, the findings indicated a substantial impact of exchange rate movements on stock prices, suggesting foreign vulnerability as a critical concern for airlines.
- Misiura (2015) delved into the organizational structures and practices of airline risk management systems, focusing on Enterprise Risk Management (ERM). The study found that the adoption of ERM in airlines is driven by both coercive/normative pressures and expectations of improved effectiveness, leading to the development of new internal rules and routines. Importantly, Misiura (2015) concluded that there is no universally appropriate design for an airline ERM system, consistent with contingency theory. This study primarily focused on the systems and drivers of ERM rather than the specific financial risk mitigation techniques.

These studies collectively underscore the inherent financial volatilities faced by the airline industry globally, particularly from fuel prices, currency exchange rates, and interest rates, and the strategies (e.g., derivatives, ERM frameworks) employed to manage them. However, they also reveal a scattered nature of research, often tackling different dimensions of risk management in isolation, and a need for a more comprehensive, integrated understanding of FRM in this complex sector (Misiura, 2015).

2. Financial Risk Management in Ethiopian Context (Other Industries)

While there is a clear absence of empirical research on financial risk management specifically within the airline industry in Ethiopia, relevant studies exist for other financial sectors:

- Eneyew (2013) examined the impact of financial risks on the profitability of eight commercial banks in Ethiopia from 2000-2011. The study found a negative and statistically significant relationship between credit risk and liquidity risk with bank profitability. However, interest rate

risk and foreign exchange rate risk were found to be statistically insignificant. The research recommended focusing on credit risk management and maintaining optimal liquidity levels.

- Daniel (2017) empirically investigated the effect of financial risk on the performance of insurance companies in Ethiopia, using panel data from eight companies (2000-2015). This study identified that credit risk, liquidity risk, solvency risk, underwriting risk, and technical provisions risk all had a negative and significant effect on the performance of insurance companies. Reinsurance risk, however, showed an insignificant effect. The study concluded that financial risk significantly impacts the performance of Ethiopian insurance companies, urging due attention to these risks to enhance performance.

These local studies provide insights into FRM challenges and practices within the Ethiopian financial landscape (banking and insurance sectors). They highlight the significance of managing specific financial risks like credit and liquidity, which are also relevant to the airline industry. However, their findings cannot be directly generalized to airlines due to the unique operational and financial characteristics of the aviation sector.

3. Identified Research Gaps

The empirical literature review reveals several critical gaps that this study on Ethiopian Airlines aims to address:

- **Contextual Gap:** There is a pronounced absence of empirical research on financial risk management practices specifically within African-based airlines, including Ethiopian Airlines. While global studies exist, their findings may not fully capture the unique challenges and operational realities of airlines in developing economies.
- **Conceptual Integration Gap:** Existing studies often analyze different aspects of risk management in an isolated manner. There is a need for research that provides a comprehensive and integrated understanding of how various financial risk management practices (liquidity, operational, credit, and market) function collectively within an airline to achieve overall financial stability.
- **Empirical Specificity:** While studies on Ethiopian Airlines exist (e.g., Selamawit, 2012), they tend to focus on broader success factors rather than a detailed investigation of its financial risk management strategies and their effectiveness. This study aims to fill this specific empirical void.

In conclusion, while the broader literature provides foundational understanding of financial risks and general risk management principles, and local studies offer insights from other financial sectors, a clear and comprehensive investigation into the specific financial risk management practices of a prominent African airline like Ethiopian Airlines remains unexplored. This research is thus critical to bridge these identified theoretical and empirical gaps.

CHAPTER THREE RESEARCH METHODOLOGY

3.1 Introduction

This chapter comprises the research design, population, sample and sampling technique, data collection methods, research procedures, data analysis methods, and in conclusion, the chapter summary.

3.2 Research Design

A research design is outline or plan that used to generate answers to research problems by collecting and analyzing the required data according to (Cooper and Schindler (2008), and Churchill (2002). Descriptive, exploratory and causal research designs are three type of research design. Since descriptive studies are concerned with specific predictions, narrations of facts and characteristics concerning individuals, groups or situations this study adhere to descriptive quantitative study. Quantitative data that will be collect in order to acquire advance statistical analysis of the study. This study will utilize multiple methodologies to achieve an optimum representative sample. This study approach used to investigate financial risk management practice in Ethiopian airlines.

3.3 Data Collection Methods

The study used both primary and secondary data collection procedures. Primary data will be directly collected from the field through interviews and questionnaires .On the other hand, secondary data will be collected through reading different research, journals and staff records from organization performance. This research will use questionnaire survey which is the most common method.

3.3 Primary Data

3.4.1 Questionnaires

Primary data for the study will gather by using questionnaires which were managed to the targeted respondents. The choice of using questionnaires as method of data collection considering the fact that investigates financial risk management practice in Ethiopian airlines. Somewhat to give for employees since busy working place and employees may have a limited time. Therefore, questionnaires will distribute among the respondents who found their own time to fill them.

Interview

The interview method will additionally use in the study in order to enhance the quality of the

information gathered. A person interview will be a two way communication initiated by an interviewer to obtain information from a participant. This method will use because it is the most effective means of obtaining information. Thus it is going to use as complimentary of questionnaires as a way to tap on information that will not be possible to get through asking question on a piece of paper. The method will use for obtaining information from heads of departments and other specific personnel.

3.4.2 Secondary Sources

3.4.2.1 Documentary Review

Documentary review is a technique to obtain various information from various literature including books, journals, research papers and other documentary source relating to a certain field of study. Normally, it helps to gather both quantitative and qualitative and measure the consistency of information obtained through other techniques (Kothari, 2004). Termination letters of employees, financial reports, and human resource inventory files, department reports and any other documents that have relevant information to the study will consulted.

3.5 Population and Sampling Design

3.5.1 Population

According to Cooper and Schindler (2008), population is defined as the total collection of elements under study whereby references have to be made. The total population of this study will be employees of Ethiopian airlines under Chief finance officer (CFO). A total employee under CFO in Ethiopian airlines is 248.

3.5.2 Sampling Design

Selecting respondents for a representative of the whole population is what sampling mean. (Mugenda & Mugenda 2003), Sampling is vital since it is impossible to take the entire population because of time, financial factors and errors which can discourage the researcher. In this research multiple methodologies has utilized to achieve an optimum representative sample. For this study simple random sampling will used.

3.5.2.1 Sampling Frame

Sampling frame is an objective list of the population from which the researcher can make a selection according to Cox and Hassard (2005). The sampling frame was obtained from selected employees. The sample frame consists of the valid full time employees currently working at Ethiopian airlines.

3.5.2.2 Sampling Technique

The sampling method used in drawing samples from a population was driven by the objectives of the research activity. The sampling process was to be guided by the parameters in the population in line with specific objectives of the study (Cooper and Schindler, 2011). The study adopted simple random sampling to ensure that every one had an equal chance of being sampled, and also to ensure that different age groups were represented. Semi-structured questionnaires were then administered to obtain the necessary data.

3.5.2.3 Sample Size

According to Cooper and Schindler (2008), sample size is described as a smaller set of elements from the larger population. Mugenda (2003) argued that the choice of sample size is governed by the confidence you need to have in your data, level of certainty, and the accuracy. The sample computation will be as follows. Using all population for data collection is difficult for one researcher. So it is difficult to use all population, and the researcher using formula developed by (Yamane, 1967).

$$n = \frac{N}{1 + N(e)^2} \quad \text{Where } N = \text{number of total population}$$

n = sample

$$n = \frac{248}{1 + 248(0.05)^2} = 153.086 \sim 154$$

3.6 Methods of data analysis

Both qualitative and quantitative data analysis methods were used to analyze the acquired data. Frequencies and percentages are employed in descriptive analysis to portray quantitative data in the form of tables and graphs. For analysis, the data was coded and entered into a computer using the statistical software for social science (SPSS Version 22). Each independent and dependent variable's means, standard deviations and frequency distribution are provided. In this study, the mean and standard deviation are the most descriptive statistics utilized to describe the data.

The Statistical Package for Social Sciences (SPSS) version 22 was getting to be used to analyze both qualitative and quantitative collected data. The descriptive statistics (frequencies distribution) is applied to assess the extent of investigate financial risk management practice in Ethiopian airlines.

is getting to be analyzed by using SPSS. Data analysis that was conducted involved reducing the collected data to a manageable size, by developing summaries, through the utilization of data analysis techniques (Cooper and Schindler, 2008). The quantitative data was analyzed using both descriptive statistics. Descriptive statistics was utilized for measures of central tendencies (Mean, Median and Mode), and measures of dispersion (Variance, Standard deviation, Standard Error, and Percentiles).

3.7 Validity and Reliability

Validity Test: since validity of a research study is a conceptual and scientific soundness, the test focused on eliminating or minimizing the effect of extraneous influences, variables and explanations that might detract the accuracy of the ultimate findings. After the researcher has constructed the questionnaire, pre-testing was done with persons who have knowledge of the area by allowing them to read it. This is done to ensure that the questionnaire is clear to respondents and can be completed in useful way (Adam et al., 2007), then, the instrument was evaluated by academic advisor prior to the data collection so as to Maintain its validity and to increase the accuracy and usefulness of the findings in which it allows greater confidences of the study.

Reliability test refers to the stability of the measure used to study the relationships between variables Ghauri, & Gronhaug. (2010), the questions in the questionnaire were designed taking into consideration the issues related to the problem and goals of the study and theories on the subject. Reliability refers to the consistent of measurements throughout the entire finding of the study and it is a determination of obtaining the same results with in the sample respondents. A comprehensive measurement must fulfill the tests of validity and reliability; validity is the most critical criterion that indicates the degree to which an instrument measures what it is supposed to measure (Kothari, 1984). Concerning the reliability, as Zikmund, et.al, (2009), the measure of internal consistency; a pilot test was conducted distributing questionnaires to the selected sample employees and analyzed using SPSS version 20

3.8 Ethical Considerations

This study has observed all ethical considerations. It dually acknowledged all cited information in both the body and the reference section. In other words, no review/accessed document is used without acknowledging the sources. Concerning the questioner respondents': their consent was requested to ascertain their voluntary participation. Full description of the study, the purpose/intention, confidentiality and privacy protection is highlighted with a brief cover letter beforehand. In addition to this, the survey is kept anonymous/ nameless

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

The data is presented, analyzed, and interpreted in this chapter. The data acquired by the questionnaire is analyzed in this chapter four. The data was analyzed using descriptive and inferential statistical approaches, depending on the type of data collected. The general characteristics of the respondents, such as gender, educational qualification, and work experience in the company and job type, were analyzed using frequency and percentage. Mean, standard deviation, Pearson correlation coefficient, and multiple linear regressions were also calculated. This study used to investigate financial risk management practice in Ethiopian airlines

4.2 Response Rate

According to Bacon (2014), response rate is defined as the extent to which the final set of questionnaires collected from respondents is calculated against the number of questionnaires received back from respondents interviewed in the study. For this study, sample size was 154 respondents. From this sample size 140 fully filled questionnaires were received back from respondents representing a response rate of 91%.

4.3 Respondents Profile

The demographic characteristics of the respondents were described here. To achieve it, questions were asked to capture these responses. Frequencies and percentage distribution table were employed to summarize the demographic characteristics of the respondents.

Table 4.1: response Rate

No.	Respondents category	Frequency	Percentage
1	Responded	140	91%
2	Did not responded	14	9%
Total		154	100%

(Source: SPSS output researcher survey data, 2024)

4.4 General Information of the Respondents

This section profiles the respondents in respect to gender, age, marital states, level of education and year of experience the respondents. The items in the research instruments used in the study informed profiling of the respondents.

4.4.1 Gender of respondents

Figure 4.2 genders of the respondent

genders of the respondent		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	77	55.0	55.0	55.0
	female	63	45.0	45.0	100.0
	Total	140	100.0	100.0	

Source: - Survey SPSS output 2024

The data sought on whether respondents were males or females. The study found it important to analyze gender distribution of the respondent so as to compare the level of participation in managers and employees of financial risk management practice in Ethiopian airlines. The study did consider any of the gender in the selection of respondents. Respondents asked to indicate their gender. From the finding of the study males made the majority of the respondents at 77 (55.0 %) and the females at 63 (45 %) as shown in the above table. This indicates the majority of the respondents are males.

4.4.2 Age of the respondent

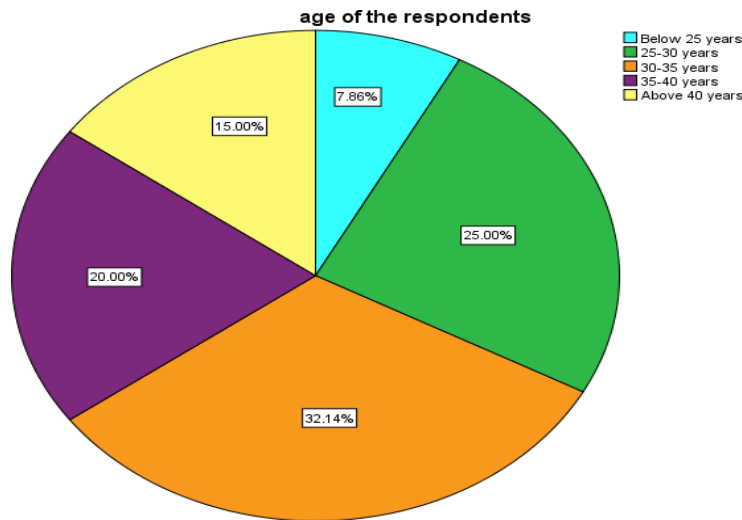


Figure 1 age of the respondents

Source: - Survey SPSS output 2024

From the given figure above Respondent asked to indicate their age group in years. This done to understand the age distribution of the respondents since an individual's age was consideration in the selection of respondents in this study. Age groups classified into five categories: - Regarding

to respondent Age category in year majority 45 (32.1%) of respondents are participated at age of 30-35 years old, similarly the second highest number 35 (25 %) of respondents are at the age of 25-30 year-olds. In other hand the list participated respondents are 35-40 years old are 28(20%), Above 40 year's olds are 21(15%) and finally the remaining respondents are Below 25 years which is 11(7.9%). This confirms that 45 (32.1%) of respondents were youths between the age of 26-35 years. About the age, distribution of the respondent majority of them found at young and youth age.

4.4.3 Education level of respondents

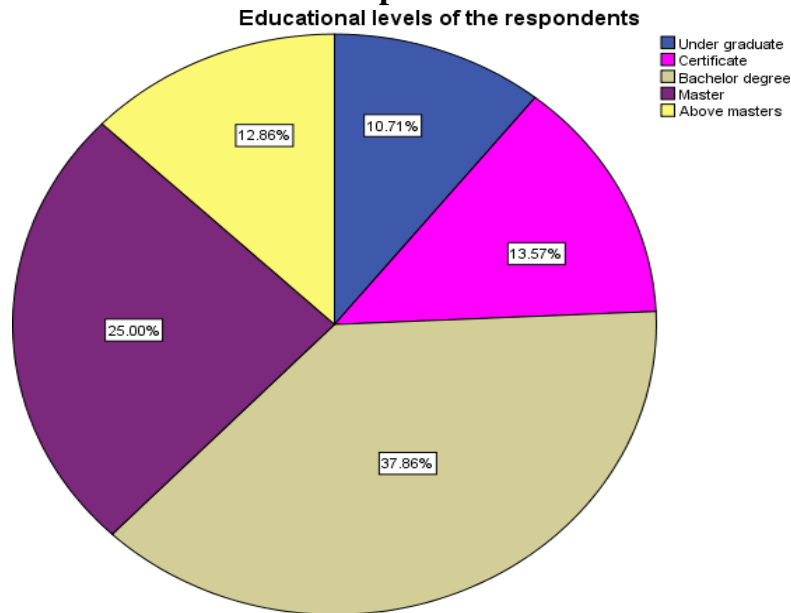


Figure 2. Educational levels of the respondents

Source: -Survey SPSS output 2024

From the figure above the respondents asked to indicate their highest level of education. Respondent's level of education considered important in this study in respect to responding to the research instruments as well understanding financial risk management practice in Ethiopian airlines. The study sought to establish the educational level of respondents from the findings of the respondents 53 (37.9%) are Bachelor degree followed by masters 35(25%) whereas certificate holders are 19 (13.6%) as shown in the table above. Finally 15 (10.7%) of the

respondents are under graduate and 18 or 12.9 % are above masters. From this majority of the respondents were educated and have knowledge of financial risk management practice in Ethiopian airlines.

4.4.4 Martial states of respondents

Table 4.3 Martial states of respondents

Martial states of the respondents					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	single	50	35.7	35.7	35.7
	married	70	50.0	50.0	85.7
	Divorce	20	14.3	14.3	100.0
	Total	140	100.0	100.0	

Source: -Survey SPSS output 2024

From the given figure above Respondent were asked to indicate their Martial states. This done to understand the Martial states of the respondents since an individual’s Martial states was consideration in the selectionof respondents in this study. From the total respondents conceded 50% of the respondents are married where as 35.7% of the given respondents are single and finally the remaining 14.3% of the respondents were divorce.

In general from the information given majority of the respondents are married as result the will highly contributed to financial risk management practice in Ethiopian airlines

4.4.5 Work Experience of respondents

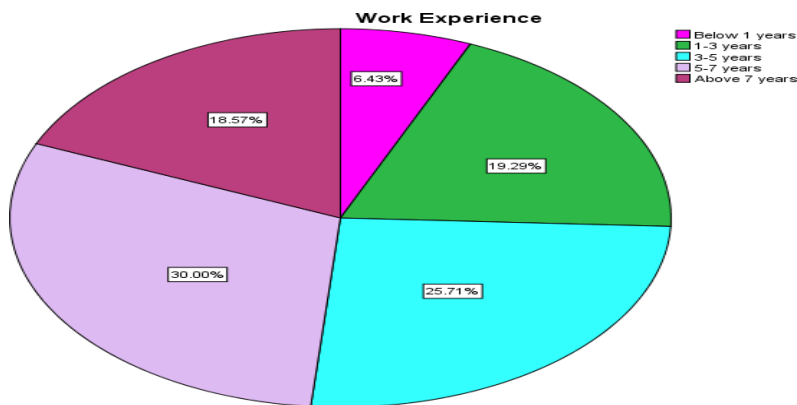


Figure 3. Work Experience of respondents

Source: -Survey SPSS output 2024

From the given table above the study sought to establish that the work experience of respondents from the findings of the respondents below 1 year are 9 (6.4%) and those respondents who are 1-3 years of work experience are 27(19.3%) followed by those 3-5 years of experience of 36(25.7 %). From the given table above respondents with 5-7 years of work experience were 42(30 %) and above 7 years 26 (18.6 %) as shown the above table. So the from the work exercise of respondents we can concluded that 30% of the major respondents have 5-7 years of work experience and have basic knowledge on financial risk management practice in Ethiopian airlines

4.5 Descriptive statics of financial risk management practice

4.5.1 Liquidity Risk management practice

This section presents the analysis of Liquidity Risk management practice obtained from the results. Interpretation of the data and findings in the following discussion produced the mean score and standard deviation of the responses of respondents on financial risk management practice in Ethiopian airlines. Please show the extent of your perception on the inancial risk management practice. Please indicate in the Rating or Liker items measuring technique using strongly agree (SA), agree (A), Neutral (N), disagree(DA) and strongly disagree (SD) to rate the exhibited Liquidity Risk management practice. The analysis of the Liquidity Risk management practice was investigated by using means and standard deviations from the results. The results of the means were interpreted based on: 1-1.49 = Very Low; 1.5-2.49 = Low; 2.5-3.49 = Moderate; 3.5-4.49 = High; 4.5-5.0 = Very high.

Table 4.4 Descriptive Statistics of Liquidity Risk management practice

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Ethiopian Airlines has a well-defined liquidity risk management strategy	140	1.00	5.00	3.9143	.98540
The airline regularly monitors its cash flow to identify liquidity risks	140	1.00	5.00	3.7571	.98821
The liquidity risk management practices of Ethiopian Airlines are effective in maintaining financial stability	140	1.00	5.00	4.1714	1.00318

The airline has adequate contingency plans in place to address liquidity crises	140	1.00	5.00	3.8500	.95905
The airline regularly updates its liquidity risk management policies and procedures	140	1.00	5.00	4.0786	1.00408
The liquidity risk management framework at Ethiopian Airlines is transparent and well-documented	140	1.00	5.00	3.4000	1.16792
Valid N (listwise)	140				
Aggregate mean and STD				3.8619	.990187

Source: - SPSS output survey data 2024

The results presented in Table 4.4 indicate that the sample mean for individual responses ranged between 3.400 and 4.1714. These values of sample mean generally tends to 3.8619 on the Likert scale used in this study and thus translates to agreement amongst respondent in respect to the activities implied by the statements. Similarly, the sample standard deviation for the different responses ranged between .95905 and 1.16792 demonstrating that the responses were fairly close together around the sample mean as the variability was narrow. Furthermore, the aggregate scores for sample mean and sample standard deviation for Liquidity Risk management practice were 3.8619 and .990187 respectively.

According to the given table above majority of the respondents stated that The liquidity risk management practices of Ethiopian Airlines are effective in maintaining financial stability having a highest means of and 4.1714 and STD of 1.00318, The airline regularly updates its liquidity risk management policies and procedures having a highest means of 4.0786 and STD of 1.00408 and Ethiopian Airlines has a well-defined liquidity risk management strategy having a highest means of and 3.9143 and STD of .98540 respectively

On the other hand respondents stated that The airline has adequate contingency plans in place to address liquidity crises having a means of and 3.8500 and STD of .95905, The airline regularly monitors its cash flow to identify liquidity risks having means of 3.7571 and STD of .98821 and The liquidity risk management framework at Ethiopian Airlines is transparent and well-documented having means of 3.400 and STD of 1.16792 respectively.

In general Liquidity Risk management practice of the respondents were highly financial risk management practice in Ethiopian airlines having aggregate scores for sample mean and sample standard deviation of 3.8619 and .990187 respectively

4.5.1.1 Operational Risk management practice

This section presents the analysis of Operational Risk management practice obtained from the results. Interpretation of the data and findings in the following discussion produced the mean score and standard deviation of the responses of respondents on financial risk management practice in Ethiopian airlines. Please show the extent of your perception on the financial risk management practice in Ethiopian airlines. Please indicate in the Rating or Likert items measuring technique using strongly agree (SA), agree (A), Neutral (N), disagree(DA) and strongly disagree (SD) to rate the exhibited Operational Risk management practice. The analysis of the Operational Risk management practice was investigated by using means and standard deviations from the results. The results of the means were interpreted based on: 1-1.49 = Very Low; 1.5-2.49 = Low; 2.5-3.49 = Moderate; 3.5-4.49 = High; 4.5-5.0 = Very high.

Table 4.5 Descriptive Statistics of Operational Risk management practice

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Ethiopian Airlines has a comprehensive operational risk management plan	140	1.00	5.00	3.3857	1.16660
The airline conducts regular risk assessments to identify potential operational risks	140	1.00	5.00	3.9929	.94066
Operational risks are effectively mitigated in Ethiopian Airlines' day-to-day operations	140	1.00	5.00	3.8786	1.01406
The airline's operational risk management practices are aligned with industry standards	140	1.00	5.00	3.8786	1.13460
Operational risk assessments are regularly updated at Ethiopian Airlines	140	1.00	5.00	3.8643	.96119

Operational risk management is integrated into the airline's daily decision-making processes	140	1.00	5.00	3.8429	.91566
Valid N (listwise)	140				
Aggregate mean and STD				3.8074	0.989638

Source: - SPSS output survey data 2024

According to the results presented in Table 4.5 indicate that the sample mean for individual responses ranged between 3.3857 and 3.9929. These values of sample mean generally tends to 3.8074 on the Likert scale used in this study and thus translates to agreement amongst respondent in respect to the activities implied by the statements. Similarly, the sample standard deviation for the different responses ranged between .91566 and 1.16660 demonstrating that the responses were fairly close together around the sample mean as the variability was narrow. Furthermore, the aggregate scores for sample mean and sample standard deviation for Operational Risk management practice were 3.8074 and 0.989638 respectively.

According to the given table above majority of the respondents stated that The airline conducts regular risk assessments to identify potential operational risks having a highest means of 3.9929 and STD of .94066, The airline's operational risk management practices are aligned with industry standards having a highest means of 3.8786 and STD of 1.13460 and Operational risks are effectively mitigated in Ethiopian Airlines' day-to-day operations having a highest means of and 3.8786 and STD of 1.01406 respectively

On the other hand respondents stated that Operational risk assessments are regularly updated at Ethiopian Airlines having a means of 3.8643 and STD .96119, Operational risk management is integrated into the airline's daily decision-making processes having a means of 3.8429 and STD .91566 and Ethiopian Airlines has a comprehensive operational risk management plan having means of 3.3857 and STD of 1.16660 respectively.

In general operational Risk management of the respondents were highly financial risk management practice in Ethiopian airlines having aggregate scores for sample mean and sample standard deviation of 3.8074 and 0.989638 respectively

4.5.2 Credit Risk management practice

This section presents the analysis of Credit Risk management practice obtained from the results. Interpretation of the data and findings in the following discussion produced the mean score and

standard deviation of the responses of respondents on financial risk management practice in Ethiopian airlines. Please show the extent of your perception on the financial risk management practice in Ethiopian airlines. Please indicate in the Rating or Likert items measuring technique using strongly agree (SA), agree (A), Neutral (N), disagree(DA) and strongly disagree (SD) to rate the exhibited Credit Risk management practice. The analysis of the Credit Risk management practice was investigated by using means and standard deviations from the results. The results of the means were interpreted based on: 1-1.49 = Very Low; 1.5-2.49 = Low; 2.5-3.49 = Moderate; 3.5-4.49 = High; 4.5-5.0 = Very high.

Table 4.6 Descriptive Statistics of Credit Risk management practice

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Ethiopian Airlines has a formal policy for managing credit risk	140	1.00	5.00	3.2143	1.26824
Ethiopian Airlines has established credit limits for its major customers	140	1.00	5.00	3.8143	1.07680
Ethiopian Airlines conducts credit risk assessments for its business partners	140	1.00	5.00	4.1071	.99420
The airline has a proactive approach to managing and mitigating credit risks	140	1.00	5.00	3.9429	1.00911
Credit risk management is integrated into the airline's overall financial strategy	140	1.00	5.00	3.8214	1.04756
Ethiopian Airlines uses legal and contractual measures to safeguard against credit risk	140	1.00	5.00	4.1929	.95131
Valid N (listwise)	140				
Aggregate mean and STD				3.84882	0.9861327

Source: - SPSS output survey data 2024

According to the results presented in Table 4.6 indicate that the sample mean for individual responses ranged between 3.2143 and 4.1929. These values of sample mean generally tends to 3.84882 on the Likert scale used in this study and thus translates to agreement amongst

respondent in respect to the activities implied by the statements. Similarly, the sample standard deviation for the different responses ranged between .95131 and 1.26824 demonstrating that the responses were fairly close together around the sample mean as the variability was narrow. Furthermore, the aggregate scores for sample mean and sample standard deviation for Credit Risk management practice were 3.84882 and 0.9861327 respectively.

According to the given table above majority of the respondents stated that Ethiopian Airlines uses legal and contractual measures to safeguard against credit risk having a highest means of 4.1929 and STD of .95131, Ethiopian Airlines conducts credit risk assessments for its business partners having a highest means of 4.1071 and STD of .99420 and The airline has a proactive approach to managing and mitigating credit risks having a highest means of and 3.9429 and STD of 1.00911 respectively

On the other hand respondents stated that Credit risk management is integrated into the airline's overall financial strategy having a means of 3.8214 and STD 1.04756, Ethiopian Airlines has established credit limits for its major customers having a means of 3.8143 and STD 1.07680, Ethiopian Airlines has a formal policy for managing credit risk means of 3.2143 and STD of 1.26824 respectively.

In general Credit Risk management practice of the respondents were highly financial risk management practice in Ethiopian airlines having aggregate scores for sample mean and sample standard deviation of 3.84882 and 0.9861327 respectively

4.5.3 Marketing Risk management practice

This section presents the analysis of Marketing Risk management practice obtained from the results. Interpretation of the data and findings in the following discussion produced the mean score and standard deviation of the responses of respondents on financial risk management practice in Ethiopian airlines. Please show the extent of your perception on the financial risk management practice in Ethiopian airlines. Please indicate in the Rating or Liker items measuring technique using strongly agree (SA), agree (A), Neutral (N), disagree(DA) and strongly disagree (SD) to rate the exhibited Marketing Risk management practice. The analysis of the Marketing Risk management practice was investigated by using means and standard deviations from the results. The results of the means were interpreted based on: 1-1.49 = Very Low; 1.5-2.49 = Low; 2.5-3.49 = Moderate; 3.5-4.49 = High; 4.5-5.0 = Very high.

Table 4.7 Descriptive Statistics of Marketing Risk management practice

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Ethiopian Airlines has a comprehensive market risk management strategy	140	1.00	5.00	3.5500	.86769
The airline actively monitors fluctuations in fuel prices and their impact on financial performance	140	1.00	5.00	4.0286	1.00318
The airline regularly assesses the impact of foreign exchange rate fluctuations on its operations	140	1.00	5.00	3.9071	1.09870
Ethiopian Airlines effectively forecasts and mitigates risks associated with market volatility	140	1.00	5.00	3.8786	.91720
Ethiopian Airlines has a team dedicated to analyzing market risks and trends	140	1.00	5.00	3.6286	1.05492
Ethiopian Airlines has clear policies on managing the risks of global economic fluctuations	140	1.00	5.00	3.8429	.88368
Valid N (listwise)	140				
Aggregate mean and STD				3.80358	.983761

Source: - SPSS output survey data 2024

According to the results presented in Table 4.6 indicate that the sample mean for individual responses ranged between 3.5500 and 4.0286. These values of sample mean generally tends to 3.80358 on the Likert scale used in this study and thus translates to agreement amongst respondent in respect to the activities implied by the statements. Similarly, the sample standard deviation for the different responses ranged between .86769 and 1.109870 demonstrating that the responses were fairly close together around the sample mean as the variability was narrow. Furthermore, the aggregate scores for sample mean and sample standard deviation for Marketing Risk management practice were 3.80358 and .983761 respectively

According to the given table above majority of the respondents stated that The airline actively monitors fluctuations in fuel prices and their impact on financial performance having a highest means of 4.0286 and STD of 1.00318, The airline regularly assesses the impact of foreign exchange rate fluctuations on its operations having a highest means of 3.9071 and STD of 1.09870 and Ethiopian Airlines effectively forecasts and mitigates risks associated with market volatility having a highest means of and 3.8786 and STD of .91720 respectively

On the other hand respondents stated that Ethiopian Airlines has clear policies on managing the risks of global economic fluctuations having a means of and 3.8429 and STD .88368, and Ethiopian Airlines has a team dedicated to analyzing market risks and trends, having means of 3.6286 and STD of 1.05492, Ethiopian Airlines has a comprehensive market risk management strategy having means of 3.5500 and STD of 0.86769 respectively.

In general Marketing Risk management practice of the respondents were highly financial risk management practice in Ethiopian airlines having aggregate scores for sample mean and sample standard deviation of 3.80358 and.983761 respectively

4.5.4 Financial risk management

This section presents the analysis of financial risk management obtained from the results. Interpretation of the data and findings in the following discussion produced the mean score and standard deviation of the responses of respondents on financial risk management practice in Ethiopian airlines. Please show the extent of your perception on the D financial risk management practice in Ethiopian airlines. Please indicate in the Rating or Likert items measuring technique using strongly agree (SA), agree (A), Neutral (N), disagree(DA) and strongly disagree (SD) to rate the exhibited Financial risk management. The analysis of the Financial risk management was investigated by using means and standard deviations from the results. The results of the means were interpreted based on: 1-1.49 = Very Low; 1.5-2.49 = Low; 2.5-3.49 = Moderate; 3.5-4.49 = High; 4.5-5.0 = Very high.

Table 4.8 Descriptive Statistics of Financial and Financial risk management

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
The airline has a comprehensive financial risk management framework	140	1.00	5.00	3.8929	1.03671

The airline has clear policies for identifying and managing financial risks	140	1.00	5.00	3.8857	1.18191
The airline regularly reviews its financial risk exposure and takes corrective actions	140	1.00	5.00	3.8571	1.05647
The airline regularly conducts financial audits to assess risk management practices	140	1.00	5.00	3.6143	.97881
The airline's financial risk management practices comply with international standards	140	1.00	5.00	3.9000	.85914
Ethiopian Airlines evaluates and manages its risk exposure in relation to its financial goals	140	1.00	5.00	3.7571	.98091
Valid N (listwise)	140				
Aggregate mean and STD				3.81785	.991065

Source: - SPSS output survey data 2024

According to the results presented in Table 4.7 indicate that the sample mean for individual responses ranged between 3.6143 and 3.9000. These values of sample mean generally tends to 3.81785 on the Likert scale used in this study and thus translates to agreement amongst respondent in respect to the activities implied by the statements. Similarly, the sample standard deviation for the different responses ranged between .85914 and 1.18191 demonstrating that the responses were fairly close together around the sample mean as the variability was narrow. Furthermore, the aggregate scores for sample mean and sample standard deviation for financial risk management were 3.81785 and .991065 respectively.

According to the given table above majority of the respondents stated that The airline's financial risk management practices comply with international standards having a highest means of 3.900 and STD of .85914, The airline has a comprehensive financial risk management framework having a highest means of 3.8929 and STD of 1.03671 and The airline has clear policies for identifying and managing financial risks having a highest means of and 3.8857 and STD of 1.18191 respectively

On the other hand respondents stated that The airline regularly reviews its financial risk exposure and takes corrective actions having a means of 3.8571 and STD 1.05647, Ethiopian

Airlines evaluates and manages its risk exposure in relation to its financial goals having a means of 3.7571 and STD .98091 and The airline regularly conducts financial audits to assess risk management practices having means of 3.6143 and STD of .97881 respectively.

In general Financial risk management of the respondents were highly financial risk management practice in Ethiopian airlines having aggregate scores for sample mean and sample standard deviation of 3.81785 and .991065 respectively

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter presents a summary of the findings, conclusions and recommendations as per the research objective.

5.2 Summary of Findings

The general objective was to analyze financial risk management practice in Ethiopian airlines. The respondents comprised of employees of which formed a population of 154 respondents. The summary of the findings are presented as follows:

- The sample size of 154 questionnaires was distributed and 140 responses have correctly filled and returned which accounted 91% of response rate.
- Majority of the respondents 55% are males and the majority of this respondents 45(32.1%) were in the age range of 30-35 years.
- On the other hand the majority of respondents 53(37.9%) were bachelor's degree holders and 30% of them have well experienced for 5-7 years
- Liquidity Risk management practice of the respondents were highly financial risk management practice in Ethiopian airlines having aggregate scores for sample mean and sample standard deviation of 3.8619 and .990187 and operational Risk management of the respondents were highly financial risk management practice in Ethiopian airlines having aggregate scores for sample mean and sample standard deviation of 3.8074 and 0.989638 respectively
- Credit Risk management practice of the respondents were highly financial risk management practice in Ethiopian airlines having aggregate scores for sample mean and sample standard deviation of 3.84882 and 0.9861327 and Marketing Risk management practice of the respondents were highly financial risk management practice in Ethiopian airlines having aggregate scores for sample mean and sample standard deviation of 3.80358 and .983761 respectively

- Regarding to financial risk management practice in Ethiopian airlines and Operational Risk Management, $r=.865^{**}$ which shows a strong relationship between the two variables, and the p-value indicates that the relationship is significant. When Coming to the relationship of financial risk management practice in Ethiopian airlines with Credit Risk Management, the $r=.857^{**}$ showed a strong relationship between the two variables, also p-value shows that the relationship is significant
- The value of $r=.835^{**}$ for financial risk management practice in Ethiopian airlines and Market Risk Management shows a strong relationship, and the p-value indicates a significant relationship between them. The result of correlation analysis shows that all study variables have positive and significant relationship with financial risk management practice in Ethiopian airlines in the study area.
- For every one-unit increment on Liquidity Risk Management, the percentage of financial risk management practice in Ethiopian airlines increased by 11.5% in the study area. For every one-unit increment on Operational Risk Management, the percentage of financial risk management practice in Ethiopian airlines increases by 21.5%. For every one-unit increment on Credit Risk Management, the percentage of financial risk management practice in Ethiopian airlines increases by 17.2%.
- For every one-unit increment on Market Risk Management, the percentage of financial risk management practice in Ethiopian airlines increases by 21.5%. As it can be seen from the regression result, out of four independent variables, the effect of Market Risk Management and Operational Risk Management is the most significant, followed by Credit Risk Management and then Liquidity Risk Management
- Operational risk, including risks related to system failures, human errors, and safety incidents, is effectively managed through Ethiopian Airlines' emphasis on training, technology investment, and contingency planning. The study highlighted that the airline's

adoption of advanced digital systems and safety protocols has reduced operational disruptions. Nonetheless, gaps in risk assessment during unexpected operational failures were noted, suggesting room for improvement in proactive risk management (Mengistu & Belay, 2022).

- Ethiopian Airlines utilizes a stringent credit risk management framework to assess and manage exposure to its customers and suppliers. The research showed that the airline frequently evaluates creditworthiness before entering into agreements and maintains a diversified portfolio of partners to mitigate the risk of defaults. However, an over-reliance on certain international partners has exposed the airline to geopolitical and financial instability risks, suggesting a need for further diversification (Fikre & Kassahun, 2023).
- The research findings on market risk management revealed that Ethiopian Airlines employs hedging strategies to mitigate risks from volatile fuel prices and foreign exchange fluctuations. The airline has demonstrated a strategic approach in balancing cost efficiency with risk mitigation, but the study highlighted the need for enhanced forecasting models and adaptive market strategies to address external market volatility (Alemu, 2024).
- Ethiopian Airlines has made considerable strides in managing financial risks, the research emphasizes the need for continuous improvements in risk forecasting, diversification of partnerships, and proactive liquidity strategies to strengthen its resilience in the face of evolving global challenges.

5.2 Conclusion

The General objective of this study is to analyze financial risk management practice in Ethiopian airlines. Specifically this study aims to establish the effectiveness of liquidity risk management practices in Ethiopian airlines, to determine the effect of operational risk management practices in Ethiopian airlines, to establish the effect of credit risk management practices in Ethiopian airlines and to determine the effect of market risk management practices in Ethiopian airlines. The Analyses into financial risk management practices at Ethiopian Airlines has illuminated several critical aspects of how the airline navigates its financial landscape amidst various risks. This study aimed to assess the effects of liquidity risk management, operational risk management, credit risk management, and market risk management practices within the organization. The findings reveal that Ethiopian Airlines has

established a robust framework for managing these risks, which is essential for maintaining its competitive edge in the aviation industry.

The analysis of liquidity risk management practices indicated that Ethiopian Airlines employs a proactive approach to ensure sufficient cash flow to meet its short-term obligations. The airline has implemented strategies such as cash flow forecasting and maintaining adequate reserves, which align with industry best practices. According to Kauffman and Yoon (2021), effective liquidity management is vital for airlines, particularly in volatile economic conditions, as it allows them to respond swiftly to unforeseen challenges. The study found that Ethiopian Airlines' commitment to liquidity management significantly mitigates the risks associated with cash shortages, thereby enhancing operational stability.

Operational risk management emerged as a critical component of Ethiopian Airlines' overall risk strategy. The airline has invested in comprehensive training programs and technology upgrades to minimize operational disruptions. As highlighted by Wang and Li (2022), operational risks in the aviation sector can lead to significant financial losses and reputational damage. The findings of this study suggest that Ethiopian Airlines' focus on continuous improvement and adherence to safety protocols has effectively reduced the incidence of operational failures, thereby safeguarding its financial interests.

The assessment of credit risk management practices revealed that Ethiopian Airlines employs stringent credit evaluation processes when dealing with customers and suppliers. This practice is crucial in the airline industry, where payment defaults can severely impact cash flow and profitability. Recent literature emphasizes the importance of robust credit risk management frameworks in mitigating potential losses (Cheng Zhang, 2023). The findings indicate that Ethiopian Airlines' diligent monitoring of credit exposures and proactive debt recovery strategies have contributed to maintaining a healthy balance sheet and ensuring financial resilience.

Lastly, the investigation into market risk management practices demonstrated that Ethiopian Airlines actively monitors external factors such as fuel prices, foreign exchange rates, and geopolitical events that could impact its financial performance. The airline employs hedging strategies to offset potential losses from fluctuations in these variables. As noted by Smith et al. (2024), effective market risk management is essential for airlines to navigate the complexities of global markets. The study found that Ethiopian Airlines' strategic approach to market risk not

only protects its revenue streams but also enhances its capacity for long-term planning and investment.

The research indicates that Ethiopian Airlines has developed a comprehensive financial risk management framework that addresses liquidity, operational, credit, and market risks effectively. This multi-faceted approach not only enhances the airline's financial stability but also positions it favorably against competitors in the aviation sector. However, it is recommended that Ethiopian Airlines continue to refine its risk management practices by incorporating advanced analytics and technology-driven solutions to predict and respond to emerging risks more effectively. Furthermore, ongoing training and development initiatives for staff involved in risk management will be essential to adapt to the dynamic nature of the aviation industry. By fostering a culture of risk awareness and resilience, Ethiopian Airlines can further strengthen its financial foundation and ensure sustainable growth in an increasingly competitive marketplace. In summary, this research underscores the importance of robust financial risk management practices in safeguarding the interests of Ethiopian Airlines while promoting operational efficiency and long-term profitability.

In conclusion, this research has provided an in-depth Analyze into the financial risk management practices employed by Ethiopian Airlines, focusing on four key areas: liquidity, operational, credit, and market risks. The findings reveal that Ethiopian Airlines has developed a robust framework for managing liquidity risk, which is crucial for ensuring the airline's financial stability amidst the volatile nature of the aviation industry. Liquidity management practices, particularly the maintenance of sufficient cash reserves and efficient working capital management, have been instrumental in safeguarding the airline's day-to-day operations against financial shocks (Owino & Okello, 2020). Moreover, the research highlights the airline's proactive approach to managing operational risks. With its extensive network of routes and complex operational environment, Ethiopian Airlines has implemented stringent safety measures and effective contingency planning to mitigate operational disruptions (Mulugeta, 2021). This approach not only ensures continuity of services but also minimizes the potential costs of unforeseen events that could threaten the airline's operations.

In terms of credit risk management, Ethiopian Airlines has employed comprehensive strategies, including careful screening of customers, diversified revenue streams, and close monitoring of its receivables. These strategies have proven effective in managing the inherent risks of credit

exposure, particularly in an environment marked by fluctuating demand and competitive pressure (Tewodros & Geda, 2023). The ability to manage credit risk effectively has positioned Ethiopian Airlines to maintain profitability and minimize losses stemming from customer defaults. Finally, when examining market risk management, the study found that Ethiopian Airlines utilizes hedging mechanisms and market forecasting tools to protect itself from volatile fluctuations in fuel prices, exchange rates, and interest rates. The airline's ability to adapt to changing market conditions while maintaining a competitive edge in a globalized market demonstrates its resilience and strategic foresight (Abebe & Tesfaye, 2022). Overall, the study confirms that Ethiopian Airlines has a comprehensive and effective financial risk management strategy in place, which plays a vital role in maintaining its leadership in the East African aviation sector. However, continuous adaptation and refinement of these strategies are necessary to address the evolving financial challenges posed by the global economy and the dynamic nature of the airline industry.

5.4 Recommendations

Based on the findings and objectives of the research titled "Analyze Financial Risk Management Practices in Ethiopian Airlines," the following recommendations are proposed to enhance the airline's financial risk management strategies across liquidity, operational, credit, and market risks:

- ▶ Ethiopian Airlines should invest in advanced cash flow forecasting tools that incorporate real-time data analytics. This will enable more accurate predictions of cash flow needs and help the airline to manage liquidity more effectively.
- ▶ Forming a dedicated committee focused on liquidity risk management can facilitate ongoing assessments and strategic planning. This committee should meet regularly to review liquidity positions, evaluate stress scenarios, and recommend actions to maintain optimal liquidity levels.
- ▶ The airline should explore various funding sources, including equity financing, debt instruments, and partnerships with financial institutions. Diversifying funding sources can provide greater financial flexibility and reduce dependency on any single source of capital
- ▶ To mitigate operational risks, Ethiopian Airlines should develop and implement extensive training programs for employees at all levels. These programs should focus on risk

awareness, safety protocols, and crisis management to ensure that staff are well-prepared to handle potential disruptions.

- ▶ Investing in state-of-the-art technology for operations management can significantly reduce operational risks. Implementing systems for real-time monitoring of flight operations, maintenance schedules, and safety checks can enhance operational efficiency and safety.
- ▶ Ethiopian Airlines should establish a routine schedule for conducting comprehensive risk assessments of its operational processes. This will help identify potential vulnerabilities and enable the airline to implement corrective measures proactively.
- ▶ The airline should refine its credit evaluation processes for customers and suppliers by integrating data analytics and machine learning tools. This will allow for more precise assessments of creditworthiness and help minimize default risks.
- ▶ Establishing a real-time monitoring system for credit risk can provide insights into changing credit exposures. This system should include regular reviews of customer payment behaviors and market conditions to facilitate timely interventions.
- ▶ Ethiopian Airlines should implement more aggressive debt recovery strategies by employing specialized teams focused on collections. Additionally, establishing clear communication channels with customers regarding payment terms can improve recovery rates.
- ▶ To mitigate market risks associated with fuel price volatility and foreign exchange fluctuations, Ethiopian Airlines should develop a comprehensive hedging strategy. This could include entering into derivative contracts to lock in prices or using financial instruments to offset potential losses.
- ▶ Regularly conducting scenario analyses and stress tests can help Ethiopian Airlines understand the potential impacts of adverse market conditions on its financial performance. This proactive approach will enable the airline to devise contingency plans for various market scenarios.
- ▶ The airline should establish a dedicated team responsible for continuous market research to monitor trends, competitor activities, and economic indicators affecting the aviation industry. This information will be valuable in making informed strategic decisions and adapting to market changes promptly.
- ▶ Ethiopian Airlines can significantly enhance its financial risk management practices across all identified areas. These improvements will not only strengthen the airline's financial resilience but also position it for sustained growth in an increasingly competitive aviation landscape. Continuous evaluation and adaptation of these practices will be crucial to navigate future challenges effectively.

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APPENDICES
ADDIS ABABA UNIVERSITY

DEPARTMENT OF ACCOUNTING AND FINANCE

QUESTIONARY TO BE FILLED BY RESPONDENT

Dear respondent

I am carrying out a research & in this regard, I need your truthful & valuable opinion through this questionnaire. My research interest is in the (Financial risk management practice in Ethiopian airlines.) you can help me on current research project by completing the attached questionnaire. I request 10 to 15 minutes of your time to fill these questioners. It is being distributed to you purely for academic purpose and all the responses will be secret. Your neutral choices will be highly appreciated and make this valuable research. Please read the instructions carefully and answer all the questions.

Yours faithfully

By:

Mobile:

Advisor:

Directions for filling the questionnaire

There is no right and wrong answer of the options provided. Therefore, you are kindly requested to fill your real opinion regarding each question. Your response is utilized only for the purpose of this survey.

► Please put a “v” mark on your choice in the space provided

► No need of writing your name

Part (1):-Demographic factor related questions

1. Gender.

a) Female

b) Male

2. Age group

a) 18-25 years old c) 36 -45 years old

b) 26 - 35 years old

e) Above 45 years old

3. Educational Qualification

a) certificate and below e) above masters

- b) College diploma
- c) Bachelor degree
- d) Master
- 4. Work experience
 - a) Below 1 years
 - b) 1-3 years
 - c) 3-6 years
 - d) 6-12 years
 - e) Above 12 years
- 5. Marital Status
 - a) Single
 - b) Married
 - c) Divorce

Part II

Below are lists of questioners relating to investigate financial risk management practice in Ethiopian airlines, please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from “strongly agree” to “strongly disagree?”

Keys:-SA=strongly agree A=Agree N= Neutral SD= Strongly Disagree D= Disagree

Tick the symbol (√) from the following choices

1. Liquidity Risk Management Practices

Please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from “strongly agree” to “strongly disagree?”

Keys:-SA=strongly agree A=Agree N= Neutral SD= Strongly Disagree D= Disagree

No	Liquidity Risk Management Practices	Strongly disagree (1)	Disagree (2)	Neutr al (3)	Agre e (4)	Strongly Agree (5)
1	Ethiopian Airlines has a well-defined liquidity risk management strategy					
2	The airline regularly monitors its cash flow to identify liquidity risks					
3	The liquidity risk management practices of					

	Ethiopian Airlines are effective in maintaining financial stability					
4	The airline has adequate contingency plans in place to address liquidity crises					
5	The airline regularly updates its liquidity risk management policies and procedures					
6	The liquidity risk management framework at Ethiopian Airlines is transparent and well-documented					

2. Operational Risk Management Practices

Please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from “strongly agree” to “strongly disagree”

Keys:-SA=strongly agree A=Agree N= Neutral SD= Strongly Disagree D= Disagree

No.	Operational Risk Management Practices	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	Ethiopian Airlines has a comprehensive operational risk management plan					
2	The airline conducts regular risk assessments to identify potential operational risks					
3	Operational risks are effectively mitigated in Ethiopian Airlines' day-to-day operations					
4	The airline's operational risk management practices are aligned with industry standards					
5	Operational risk assessments are regularly updated at Ethiopian Airlines					
6	Operational risk management is integrated into the airline’s daily decision-making processes					

3. Credit Risk Management Practices

Please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from “strongly agree” to “strongly disagree”

Keys:-SA=strongly agree A=Agree N= Neutral SD= Strongly Disagree D= Disagree

No	Credit Risk Management Practices	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	Ethiopian Airlines has a formal policy for managing credit risk					
2	Ethiopian Airlines has established credit limits for its major customers					
3	Ethiopian Airlines conducts credit risk assessments for its business partners					
4	The airline has a proactive approach to managing and mitigating credit risks					
5	Credit risk management is integrated into the airline's overall financial strategy					
6	Ethiopian Airlines uses legal and contractual measures to safeguard against credit risk					

4. Market Risk Management Practices

Please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from “strongly agree” to “strongly disagree”

Keys:-SA=strongly agree A=Agree N= Neutral SD= Strongly Disagree D= Disagree

No	Market Risk Management Practices	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	Ethiopian Airlines has a comprehensive market risk management strategy					
2	The airline actively monitors fluctuations in fuel prices and their impact on financial performance					

3	The airline regularly assesses the impact of foreign exchange rate fluctuations on its operations					
4	Ethiopian Airlines effectively forecasts and mitigates risks associated with market volatility					
5	Ethiopian Airlines has a team dedicated to analyzing market risks and trends					
6	Ethiopian Airlines has clear policies on managing the risks of global economic fluctuations					

5. Financial Risk Management Practices

Please indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from “strongly agree” to “strongly disagree?”

Keys:-SA=strongly agree A=Agree N= Neutral SD= Strongly Disagree D= Disagree

No	Financial Risk Management Practices	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	The airline has a comprehensive financial risk management framework					
2	The airline has clear policies for identifying and managing financial risks					
3	The airline regularly reviews its financial risk exposure and takes corrective actions					
4	The airline regularly conducts financial audits to assess risk management practices					
5	The airline's financial risk management practices comply with international standards					
6	Ethiopian Airlines evaluates and manages					

	its risk exposure in relation to its financial goals					
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