



**WOLKITE UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

**RISK MANAGEMET PRACTICE IN COMMERCIAL BANK OF
ETHIOPIA WEST ADDIS ABABA DISTRICT**

**BY
SIMEMU LEMA DEWECHE**

**A THESIS SUBMITTED TO THE DEPARTMENT OF MANAGEMENT,
COLLEGE OF BUSINESS AND ECONOMICS, SCHOOL OF
GRADUATE STUDIES WOLKITE UNIVERSITY IN PARTIALS
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF BUSINESS ADMINISTRATION**

JANUARY, 2018

WOLKITE, ETHIOPIA

Statement of Declaration

I, simemu lema, have carried out independently a research work on Risk management practice in commercial banks of Ethiopia west Addis Ababa district is outcome of my own effort and study and that all sources of materials used for the study have been duly acknowledged.

To the best of my knowledge, this study has not been submitted for any degree in this University or any other University. It is offered for the partial fulfillment of the degree of Masters of Business Administration.

By:Simemu Lema

Signature_____

Date 24/12/2018

SCHOOL OF GRADUATE STUDIES
WOLKITE UNIVERSITY
ADVISORS' APPROVAL SHEET
(Submission Sheet-1)

This is to certify that the thesis entitled “Risk management practice in commercial bank of Ethiopia west Addis Ababa district” submitted in partial fulfillment of the requirements for the degree of Master's with specialization in business administration, the Graduate Program of the Department/School of management, and has been carried out by Simemu lema Id. No GSE059/2009, under my/our supervision. To the best of my knowledge, is an original work and not submitted earlier for any degree either at this University or any other University.

Therefore I/we recommend that the student has fulfilled the requirements and hence here by can submit the thesis to the department.

_____	_____	_____
Name of major advisor	Signature	Date

_____	_____	_____
Name of co-advisor	Signature	Date

SCHOOL OF GRADUATE STUDIES
Wolkite UNIVERSITY
EXAMINERS' APPROVAL
SHEET

We, the undersigned, members of the Board of Examiners of the final open defense by have read and evaluated his/her thesis entitled “Risk management practice in commercial bank of Ethiopia west Addis Ababa district”, and examined the candidate. This is, therefore, to certify that the thesis has been accepted in partial fulfillment of the requirements for the degree
Masters of business administration

_____	_____	_____
Name of the Chairperson	Signature	Date
_____	_____	_____
Name of Major Advisor	Signature	Date
_____	_____	_____
Name of Internal Examiner	Signature	Date
_____	_____	_____
Name of External examiner	Signature	Date
SGS Approval Signature	Date	

Final approval and upon the submission of the final copy of the thesis to the School of Graduate Studies (SGS) acceptance of the thesis is contingent through the Department/School Graduate Committee (DGC/SGC) of the candidate’s department.

Stamp of SGS

Date:23/12/2018

Abstract

The aim of this paper is analyzing the effective risk management practice of commercial bank of Ethiopia. In order to assess the risk management practice, the researcher develops survey questionnaire based on the conceptual models of the risk management practice found in the literature. Questioners distributed to 119 risk expert from a total population of 169 staffs of commercial bank of Ethiopia under west Addis Ababa district by using stratified random sampling technique. Quantitative data analysis was conducted to analyze the collected data. Both inferential and descriptive statics employed by using SPSS (Ver. 20) statistical package. In the data analysis, one-sample t-test, correlation and regression analysis were employed. Based on the finding it is concluded that all the four independent variables (understanding risk and its management, risk identification, risk monitoring, and risk analysis and assessment) have significant and direct impact on the risk management practice of the bank; with overall impact of 55.8%. The researcher recommended the bank to develop an encyclopedia in order to create common risk definitions among the staffs. The respondent suspect that technology risk, liquidity risk and foreign exchange risk will be the main risk for the bank in the future. Accordingly the researcher recommends the bank to improve its status with respect to risk management; and also examine other factors that would affect its risk management practice.

Key words:-commercial bank of Ethiopia, risk management and risk management practice

ACKNOWLEDGMENTS

First and foremost, praises and thanks to God, the Almighty, for his showers of blessing throughout my research work to complete the research successfully.

I would like to express my deep and sincere gratitude to my research supervisor Dr. Zerihun for giving me the opportunity to do research and providing invaluable guidance throughout this research. His dynamism, vision, sincerity and motivation have deeply inspired me. He has taught me the methodology to carry out the research and to present the research works as clearly as possible. I am extremely grateful for what he has offered me. I would also like to thank him for his friendship, empathy and great sense of humor.

I am extremely grateful to my parents for their love, prayers, caring and sacrifices for educating and preparing me for my future. I am very much thankful to my wife, my cute baby, to all my family and my friends that makes my future bright.

Finally, my thanks go to all the people who have supported me to complete the research work directly and indirectly.

Acronyms

CBE-commercial bank of Ethiopia

WAAD-west Addis Ababa district

NBE-National bank of Ethiopia

BOD-board of director

URRM-understanding risk and risk management

RMP-risk management practice

RI-risk identification

RM-risk monitoring

RAA-risk assessment and analysis

TABLE OF CONTENT

<i>Abstract</i>	i
<i>ACKNOWLEDGMENTS</i>	vi
<i>Acronyms</i>	vii
CHAPTER ONE	1
1.1 Introduction	1
1.2 Background of the study	1
1.3 Statement of the problem.....	3
1.4 Objective of the study	4
1.4.1 General Objective.....	4
1.4.2 Specific Objectives.....	5
1.5 Research questions.....	5
1.6 Significance of the Study	5
1.7 Scope of the study.....	6
1.8 Organization of the Paper	6
CHAPTER TWO - REVIEW OF RELATED LITERATURE.....	7
2.2 Types of Risk in Banking Sector	7
2.2.1 Credit Risk.....	8
2.2.2 Liquidity Risk.....	9
2.2.3 Market Risk.....	11
2.2.4 Operational Risk	14
2.3 Risk Management in Banking	16
2.4 Categories of Risk Management	18
2.5 Risk Management Process and System	18
2.5.1 Risk Identification	20
2.5.2 Risk Measurement or Quantification	21

2.5.3 Risk Control	21
2.5.4 Risk Monitoring & Reviewing	21
2. 6 Techniques of Risk Management	22
2.7 Review of Empirical Literature	23
2.8 Conceptual Model of the Study.....	26
2.8.1 Understanding Risk And Risk Management	27
2.8.2 Risk Identification	27
2.8.3 Risk Analysis And Assessment	28
2.8.4 Risk Monitoring	29
CHAPTER THREE- RESEARCH METHODOLOGY	30
3.1 Introduction.....	30
3.2 Research Approach.....	30
3.3 Target Population.....	30
3.4 Sample Size.....	30
3.5 Sampling Technique	32
3.6 Data Collection Instruments.....	32
3.7 Data Analysis Tools.....	33
CHAPTER FOUR -DATA PRESENTATION, ANALYSIS AND INTERPRETATION.....	34
4.1 INTRODUCTION	34
4.2 The General Background of the Respondents.....	34
4.2 Risk Management Practices and Risk Management Aspects	36
4.2.1 Reliability Test	36
4.2.2 Risk Management Practice	37
4.2.3 Analysis of Understanding Risk and Risk Management	40
4.2.4 Analysis of Risk Identification.....	42

4.2.5 Analysis of Risk Assessment and Analysis	44
4.2.6 Analysis of Risk Monitoring	45
4.2.7 Relationship Between Dependent and Independent Variables	47
CHAPTER FIVE- FINDINGS, CONCLUSION AND RECOMMENDATION	52
5.1 INTRODUCTION.....	52
5.2.....	52
5.3 Conclusion	54
5.4 Recommendation	55
Reference.....	56
Appendix	59

List of tables

Sample size table-----28

Background of the respondents-----30

Reliability test -----33

Risk management practice -----35

Understanding risk and risk management -----37

Risk identification -----39

Risk assessment and analysis-----41

Risk monitoring-----42

Correlation table-----44

Regression table-----46

List of figures	pages
Types of risk in banking sector.....	9
Risk management process.....	22
Conceptual frame work.....	28

CHAPTER ONE

1.1 Introduction

This chapter deals with the back ground of the study, statement of the problem, objectives of the study, significance of the study, hypothesis of the study, limitation of the study and organization of the research paper.

1.2 Background of the study

Risk is a possibility of loss or damage, which, may or may not happen. Risks may be defined as uncertainties resulting in adverse outcome, adverse in relation to planned objective or expectations Kumar, Chatterjee, and Chandrasekhar and Patwardhan (2005).

Although the term risk and uncertainty are often used synonymously, there is 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, risk is related to a situation in which the decision-maker knows the probabilities of the various outcomes. In short, risk is a quantifiable uncertainty.

In general risk is all about uncertainty. That is inability to precisely determine what will occur in the future, as future is full of uncertain. With regard to 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, and interest or exchange rate fluctuations, the activities of others or even the weather. They can be a product of business environment, the natural environment, and the political or economic climate or of human inadequacies, failing or errors. The bottom line is that risk may impact on our ability to meet our business objectives or even threaten the business itself.”

Thus, risks that business organizations face are inherent to their operations or endeavors. As to the classification of risk Jorion and Khoury (1996) argument has cited by Khan and Ahmed (2001) discusses that, there are different ways in which risks are classified. One way is to

distinguish between business risk 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 the risk mitigation and transferring techniques.

Osborne (2012) has stated that, in businesses we need to strike the correct balance between risk and potential reward; to maximize our upside risk and minimize our downside risk. To succeed we need to manage risk appropriately, not to try eliminating or avoiding it, as, in any case, that simply is not possible. That is, therefore, essential that we understand the major risks of our business operation so that we manage them to our advantage.

As risk is directly proportionate to return, the more risk a bank takes, it can expect to make more money. However, greater risk also increases the danger that the bank may incur huge losses and be forced out of business. In fact, today, a bank must run its operations with two goals in mind – to generate profit and to stay in business (Marrison, 2005). Banks, therefore, try to ensure that their risk taking is informed and prudent. Thus, maintaining a trade-off between risk and return is the business of risk management. Moreover, risk management in the banking sector is a key issue linked to financial system stability.

This revised document, consistent with international standards and best practices, expected to Provide minimum risk management practice (understanding risk and risk managements, risk identification, risk monitoring and risk assessment and analysis.) standards for commercial bank of Ethiopia. It identifies risk management practices that have more impact on to manage risk at bank. The guidelines are those expected to assist risk-based supervision and contribute towards safety and soundness of the banking system.

1.3 Statement of the problem

Effective risk management is essential to the long-term success of any banking Organization (Rekha,2003). Since it protect the shareholders money and prevents most financial institutions from going on bankruptcy. If not properly managed, it may lead to the collapsing of the credit market and most companies. According to (Rekha,2003) risk is the fundamental element that drives financial behavior. Without risk, the financial system would be vastly simplified. However, is omnipresent in the real world. Financial Institutions, therefore, should manage the risk efficiently to survive in this highly uncertain world. The future of banking will undoubtedly rest on risk management dynamics. Only those banks that have efficient risk management system will survive in the market in the long run. The effective management of credit risk is a critical component of comprehensive risk management essential for long-term success of a banking institution.

Banks today operate in an environment marked by rising customer expectations, increasing regulatory requirements, technological innovation and mounting competition. In Ethiopia, the competition within the banking industry has generated a greater concern to manage the entire activities of banks in order to avert any possible risks that may occur (Charle,Peter,and Thorsten).

According to NBE risk management guideline (2010), although underdeveloped, the banking system in Ethiopia has observed a significant expansion over the past few years based on increase in terms of in number of banks, financial products they are offering to the clients & etc(www.nbebank.com).

The risk to the industry has to shoulder and laws and regulations it has to comply with are increasing. As information about the present compliance expectations of the reveals, operational and compliance risks have become more complex, increasing failed processes that cause customer confusion and compliance control breakdowns. Besides the economic and technological developments that have demand strict compliance issues, global crimes use financial institutions as the major channel to plan and execute criminal acts(www.combank.et).

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. For instance, Christie -Veitch(2005) has investigated the status operational risk management Trinidad, Barbados and Jamica. The study reveals a number of findings: the framework necessary to identify, assess, monitor and control operational risk is still not evident, the management of operational risk is basically limited to implementing and testing internal controls, operational profile is not currently reviewed and adjusted based on specific strategies. Fasika Firew (2012) analyzes the operational risk management practices of selected Ethiopian Commercial banks . The results of the study reveal that the management should pay attention to those contributory operational risks .(Tsion.2015) has investigated on risk management practice in some selected Ethiopian commercial banks . The study reveals that that banks should give emphasis on staff training in the area of risk management and they must make risk visible, measurable and manageable and ensure a meaningful risk culture throughout all processes and activities.

To the best knowledge of the researcher, no known study has been done on risk management practice in commercial bank of Ethiopia. Specifically, risk management is more important in the financial sector than in other business areas because the financial industry is facing a large number of risks in a volatile environment (Carey, 2001).

1.4 Objective of the study

Depending on the problem that is discussed in the above, the study has both general and specific objectives

1.4.1 General Objective

The general objective of the study is analyzing the risk management practice of commercial bank of Ethiopia.

1.4.2 Specific Objectives

Specifically, the study has the following objectives:

- To identify the relationship between understanding risk and risk management practice.
- To identify the relationship between risk identification and risk management practice.
- To identify the relationship between risks monitoring and risk management practice.
- To identify the relationship between risk assessment and analysis with risk management practice.

1.5 Research questions

The aim of this research paper is to answer the following questions:-

What is the relationship between understanding risk and risk management practice?

What is the relationship between risk identification and risk management practice?

What is the relationship between risk analysis and assessment and risk management practice?

What is the relationship between risk monitoring and risk management practice?

1.6 Significance of the Study

The findings and recommendations of the current study could serve as an ingredient and be informative to the banks under examination. It also gives a general insight to the academic & professional society regarding risk management aspects. Additionally, the study has the following significances:-

- It serves as a reference material for anyone who will undertake a further study on the same or related topic
- It widens the researcher knowledge in the areas of risk.
- To know how commercial bank of Ethiopia manage its own risk

This study analyzed the risk management practice of commercial bank of Ethiopia. In addition, the study investigates the most common and interrelated risks namely, credit, liquidity, market and operational risks faced by commercial bank of Ethiopia.

1.7 Scope of the study

First .the research focus on the four aspects of risk management practices this means the research not include the whole aspect of risk management practice. Second. The research conducted on commercial bank of Ethiopia west Addis Ababa district this shows that the research may not represent the bank wide.

1.8 Organization of the Paper

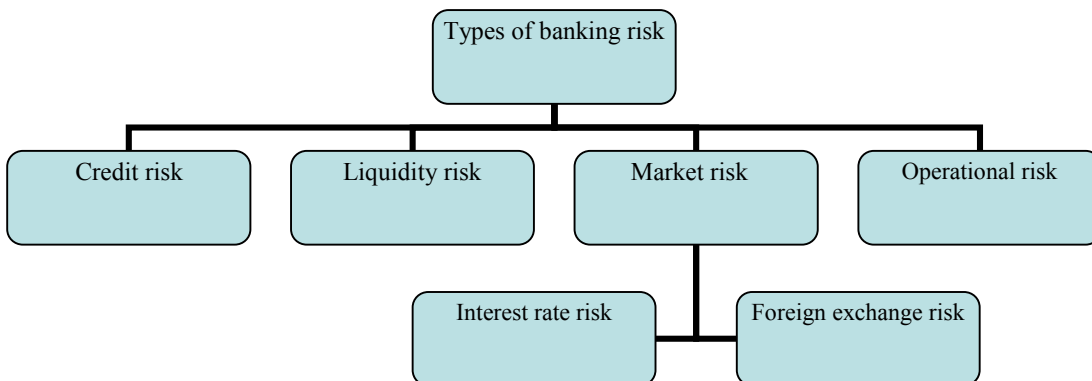
This study divided into five chapters. Chapter one contains introduction part, background of the study, statement of the problem, objectives of the study, research questions, significance of the study, limitation of the study and organization of the research paper. Chapter two presents a review of the literature, with a focus on the theoretical & empirical literature. Chapter three introduces the research methodology, which in turn includes the research methodology, sample size, sampling technique, data collection instruments, target population, method of data analysis and so forth. Whereas, chapter four presents a review of data analysis and chapter five presents the researcher recommendations and conclusions.

CHAPTER TWO - REVIEW OF RELATED LITERATURE

In this chapter different theoretical aspects of risk like its definition, types, management and others as well as empirical issues and works as to the risk management practice in the banking industry discussed.

2.2 Types of Risk in Banking Sector

Banking is the intermediation between financial savers on one hand and the funds seeking business entrepreneurs on the other hand. As such, in the process of providing financial services, banks assume various kinds of risk both financial and non-financial. Moreover this risk inherent in the provision of their services differs from one product or service to the other (Adarkwa,2011). Various writers have grouped these risks in different ways to develop the frameworks for their analyses. According to Besis (2002), the three main types of risk are credit risk, interest rate risk and market risk. However, banks are also exposed to liquidity risk, operational risk, foreign exchange risk, country/sovereign risk, technology risk; off-balance sheet risk and insolvency risk.



Source:-Besis(2002)

Figure1:-types of risk in banking sector

2.2.1 Credit Risk

According to Yang W. (2013) credit risk in the context of banks refers to a risk that a borrower will default on a loan obligation to the bank or that the issuer of a security held by the bank will default on its obligation. Default means a total or partial loss of any amount lent to the borrower. Large losses generated by default of borrowers or issuers of securities can lead to the insolvency and possibly even to the bankruptcy of a bank or to the banking/financial crises.

Hempel and Simonson (1999) have defined credit risk as the possibility of losses associated with decrease in the credit quality of the borrower or the counter parties. In the bank's portfolio, losses stem from outside default due to inability or unwillingness of the customer or the counter party to meet the commitments, losses may also result from reduction in the portfolio value arising from actual or perceived a country will not repay principal and other investment-related cash flows according to the terms specified in a credit agreement.

Greuning and Bratanovic (2009) define credit risk as the chance that a debtor or issuer of a financial instrument whether an individual, a company, or inherent to banking, credit risk means that payments may be delayed or not made at all, which can cause cash flow problems and affect a banks liquidity.

Credit risk can be “firm-specific” or “systematic”. The former is the risk of default of the borrowing firm associated with the specific type of projects entered into by the bank. On the other hand systematic credit risk relates to default associated with general economic or macroeconomic factors affecting all borrowers [Saunders and Cornett (2006)]. Credit risk is a major challenge for banks during recessionary times when customers are unable to adequately service their loans.

The objective of credit risk management is to maximize a bank risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. According to many literatures more than half percent of a bank balance sheet generally relates to credit risk and hence considered as the principal cause of potential losses and bank failures. Time and again, lack of diversification of credit risk has been the primary cause for bank failures. The dilemma is that banks have a comparative advantage in making loans to entities with which they have an ongoing relationship, thereby creating excessive concentrations in geographic and industrial sectors.

In the market universe, a deterioration of credit standing of a borrower does materialize into a loss because it generates an upward move of the required market yield to compensate the higher risk and triggers a value decline Bessis(2010). Normally the financial conditions of the borrower as well as the current value of any underlying collateral are of considerable interest to banks when evaluating the credit risks of obligors or counterparties Santomero(1997).

According to Greuning and Bratanovic (2009), formal policies lay down by the board of directors of a bank and implemented by management plays a vital part in credit risk management. As a matter of fact, a bank uses a credit or lending policy to outline the scope and allocation of a bank's credit facilities and the manner in which a credit portfolio is managed that is, how investment and financing assets are originated, appraised, supervised, and collected.

There are also minimum standards set by regulators for managing credit risk. These cover: the identification of existing and potential risks, the definition of policies that express the banks risk management philosophy, and the setting of parameters within which credit risk will be controlled.

There are typically three kinds of policies related to credit risk management. The first set aims to limit or reduce credit risk which include policies on concentration and large exposures, diversification, lending to connected parties, and over exposure. The second set aims at classifying assets by mandating periodic evaluation of the collect ability of the portfolio of credit instruments.

The third set of policies aims to make provision for loss or make allowances at a level adequate to absorb anticipated loss (Larman,2004).

2.2.2 Liquidity Risk

Gup and Kolari (2005) define liquidity risk as the risk to earnings or capital related to a bank's ability to meet its obligations to depositors and the needs of borrowers by turning assets into cash quickly with minimal loss, being able to borrow funds when needed, and having funds available to execute profitable securities trading activities. Liquidity risk is a major risk for the bank portfolio, in that, in extreme cases it could result in bankruptcy. The Basel Committee on Bank Supervision, in its June 2008 consultative paper, defined liquidity as the ability of a bank

to fund increases in assets and meet obligations as they become due, without incurring unacceptable losses. Bessis (2010) however considers liquidity risk from three distinct situations.

The first angle is where the bank has difficulties in raising funds at a reasonable cost due to conditions relating to transaction volumes, level of interest rates and their fluctuations and the difficulties in funding counter party.

The second angle looks at liquidity as a safety cushion, which helps to gain time under difficult situations. In this case, liquidity risk is defined as a situation where short-term asset values are not sufficient to match short-term liabilities or unexpected outflows.

The final angle from where liquidity risk is considered as the extreme situation. Such a situation can arise from instances of large losses, which creates liquidity issues and doubts on the future of the bank. Such doubts can result in massive withdrawal of funds or closing of credit lines by other institutions that try to protect themselves against a possible default. Both can generate a brutal liquidity crisis, which possibly ends in bankruptcy. There are many factors that affect banks own liquidity and in turn affect the amount of liquidity they can create. These factors have a varying degree of influence on the balance between liquidity risk and liquidity creation, or a bank's liquidity management. A bank's assets and liabilities play a central role in their balancing of liquidity risk and creation. Bank's liabilities include all the banks sources of funds. Banks have three main sources of funds: deposit accounts, borrowed funds, and long-term funds. The amounts and sources of funds clearly affect how much liquidity risk a bank has and how much liquidity it can create. The easier a bank can access funds the less risk it has and the higher amount of funds it holds the more liquidity it can create.

Liquidity is necessary for banks to compensate for expected and unexpected balance sheet fluctuations and to provide funds for growth Greuning and Bratanovic(2009). Santomero (1995) however, suggests that while some would include the need to plan for growth and unexpected expansion of credit, the risk here should be seen more correctly as the potential for funding crisis. Such a situation would inevitably be associated with an unexpected event, such as a large charge off, loss of confidence, or a crisis of national proportion such as a currency crisis. Effective liquidity risk management therefore helps ensure a bank's ability to meet cash

flow obligations, which are uncertain as they are affected by external events and other agents' behavior.

2.2.3 Market Risk

Saunders and Cornett (2006) define market risk as the possibility of loss to bank caused by the changes in the market variables. It is the risk that movements in equity and interest rate markets, currency exchange rates and commodity prices will adversely affect the value of on-/off-balance sheet positions. Market risk is the risk to the banks. Earnings and capital due to changes in the market level of interest rates or prices of securities, foreign exchange and equities, as well as the volatilities, of those prices. Market risk management provides a comprehensive framework for measuring, monitoring and managing interest rate, foreign exchange and equity as well as commodity price risk of a bank that needs to be closely integrated with the bank's business strategy. The following are types of market risks; interest rate risk and foreign exchange risk.

I) Interest Rate Risk

Interest rate risk is the potential negative impact on the net interest income and it refers to the vulnerability of an institutions financial condition to the movement in interest rates. Changes in interest rate affect earnings, value of assets, liability off-balance sheet items and cash flow.

Earnings perspective involves analyzing the impact of changes in interest rates on accrual or reported earnings in the near term. This is measured by measuring the changes in the Net Interest Income (NII) equivalent to the difference between total interest income and total interest expense as Gleason (2000).

Though interest rate risk is obvious for borrowers and lenders with variable rates, those engaged in fixed rate transactions are not exempt from interest rate risks because of the opportunity cost that arises from market movements (Bessis, 2010). According to Greuning and Bratanovic(2009), the combination of a volatile interest rate environment, deregulation, and a growing array of on and off-balance-sheet products have made the management of interest rate risk a growing challenge.

At the same time, informed use of interest rate derivatives such as financial futures and interest rate swaps can help banks manage and reduce the interest rate exposure that is inherent in their business. Bank regulators and supervisors therefore place great emphasis on the evaluation of

bank interest rate risk management, particularly since the Basel Committee recommends the implementation of market risk based capital charges. Greuning and Bratanovic (2009) imagine that banks encounter interest rate risk from four main sources namely re-pricing risk, yield curve risk, basis risk, and optionality.

The primary and most often discussed source of interest rate risk stems from timing differences in the maturity of fixed rates and the re-pricing of the floating rates of bank assets, liabilities, and off-balance sheet positions. The basic tool used for measuring re-pricing risk is duration, which assumes a parallel shift in the yield curve. Also, re-pricing mismatches expose a bank to risk deriving from changes in the slope and shape of the yield curve (nonparallel shifts). Yield curve risk materializes when yield curve shifts adversely affect a bank's income or underlying economic value. Another important source of interest rate risk is basis risk, which arises from imperfect correlation in the adjustment of the rates earned and paid on different instruments with otherwise similar re-pricing characteristics. When interest rates change, these differences can give rise to unexpected changes in the cash flows and earnings spread among assets, liabilities, and off-balance-sheet instruments of similar maturities or re-pricing frequencies (Wright and Houpt, 1996).

According to Adarkwa (2011) interest rate risk management comprises various policies, actions and techniques that a bank uses to reduce the risk of diminution of its net equity as a result of adverse changes in interest rates from any of the sources mentioned above.

Risk factors related to interest rate risk are estimated in each currency in which a bank has interest-rate-sensitive on and off-balance sheet positions. Since interest rate risk can have adverse effects on both a bank's earning and its economic value, an approach which focuses on the impact of interest rate changes on a bank's net interest income is combined with another which takes a more comprehensive view of the potential long-term effects of such interest rates changes on its economic value is used to assess the interest risk exposure (Adarkwa, 2011).

II) Foreign Exchange Risk:

Raghavan (2003) defines foreign exchange risk as the risk that a bank may suffer loss because of adverse exchange rate movement during a period in which it has an open position, either spot or forward or both in same foreign currency. Even in case where spot or forward positions in individual currencies are balanced the maturity pattern of forward transactions may produce mismatches. There is also a settlement risk arising out of default of the counter party and out of time lag in settlement of one currency in one center and the settlement of another currency in another time zone. Banks are also exposed to interest rate risk, which arises from the maturity mismatch of foreign currency position as Saunders and Cornett (2006).

In principle, the fluctuations in the value of domestic currency that create currency risk result from long-term macroeconomic factors such as changes in foreign and domestic interest rates and the volume and direction of a country's trade and capital flows. Short-term factors, such as expected or unexpected political events, changed expectations on the part of market participants, or speculation based currency trading may also give rise to foreign exchange changes. All these factors can affect the supply and demand for a currency and therefore the day-to-day movements of the exchange rate in currency markets (Greuning and Bratanovic, 2009). Foreign exchange risk is generally considered to comprise of transaction risk, economic risk and revaluation risk.

Transaction risk is the price-based impact of exchange rate changes on foreign receivables and foreign payables, that is, the difference in price at which they are collected or paid and the price at which they are recognized in local currency in the financial statements of a bank or corporate entity.

Alternatively known as business risk, economic risk relates to the impact of exchange rate changes on a country's long-term or a company's competitive position. With increasing globalization, capital moves quickly to take advantage of changes in exchange rates and therefore devaluations of foreign currencies can lead to increased competition in both overseas and domestic markets. This phenomenon makes this component of foreign exchange risk very critical for its management.

The third component, revaluation or translation risk arises when a bank's foreign currency positions are revalued in domestic currency, and when a parent institution conducts financial reporting or periodic consolidation of financial statements. Banks conducting foreign exchange operations are also exposed to foreign exchange risk in forms of credit risks such as the default of the counterparty to a foreign exchange contract and time-zone-related settlement risk.

2.2.4 Operational Risk

The New Basel Accord defines operational risk as “the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events.” It is the potential financial loss as a result of breakdown in day-to-day operational processes. It can arise from failure to comply with policies, laws and regulations, from fraud or forgery (Njogo,2012). These include direct and indirect laws resulting from inadequate of fail internal processes, people and systems or from external event. In order to mitigate this, internal control and internal audit systems are used as the primary means.

Malfunction of the information systems, reporting systems, internal monitoring rules and internal procedures designed to take timely corrective actions, or the compliance with the internal risk policy rules result in operational risks (Bessis, 2010). Operational risks, therefore, appear at different levels, such as human errors, processes, and technical and information technology.

Because operational risk is an event risk, in the absence of an efficient tracking and reporting of risks, some important risks will be ignored, there will be no trigger for corrective action and this can result in disastrous consequences. Developments in modern banking environment, such as increased reliance on sophisticated technology, expanding retail operations, growing e-commerce, outsourcing of functions and activities, and greater use of structured finance(derivative) techniques that claim to reduce credit and market risk have contributed to higher levels of operational risk in banks (Greuning and Bratanovic, 2009).

The recognition of the above-mentioned contributory factor in operational risk has led to increased attention on the development of sound operational risk management systems by banks with the initiative being taken by the Basel Committee on Banking Supervision. The Committee addressed operational risk in its Core Principles for Effective Banking Supervision

(1997) by requiring supervisors to ensure that banks have risk management policies and processes to identify, assess, monitor, and control or mitigate operational risk. In its 2003 document, *Sound Practices for the Management and Supervision of Operational Risk*, the Committee further provided guidance to banks for managing operational risk, in anticipation of the implementation of the Basel II Accord, which requires a capital allocation for operational risks. Despite all these efforts by the regulators at addressing operational risk, practical challenges exist when it comes to its management.

In the first place, it is difficult to establish universally applicable causes or risk factors that can be used to develop standard tools and systems of its management since the events are largely internal to individual banks. Moreover, the magnitude of potential losses from specific risk factors is often not easy to project.

Lastly, it is difficult designing an effective mechanism for systematic reporting of trends in a bank's operational risks because very large operational losses are rare or isolated. Because of the data and methodological challenges raised by operational risk, the first stage of developing an effective framework to manage it is to set up a common classification of loss events that should serve as a receptacle for data gathering process on event frequency and costs. The data gathered is then analyzed (risk mapping) with various statistical techniques such as graphical representation of the probability and severity of risks. This helps to find the links between various operational risks. The process then ends with some estimates of worst-case losses due to events risks. Modeling of loss distributions due to operational risks will enable the right capital charges to be made for operational risk as required by current regulations (Bessis, 2010).

In order for the objectives of setting up an operational risk management framework to be accomplished, it may require a change in the behavior and culture of the firm. Management must also not only ensure compliance with the operational risk policies established by the board, but also report regularly to senior executives. A certain amount of self-assessment of the controls in place to manage and mitigate operational risk will be helpful.

2.3 Risk Management in Banking

In the process of doing business, it is certain that organization faced with unexpected and very often unpleasant surprises that threaten to weaken or, even worse, to destroy the business. That is the essence of risk and how a company or an individual respond to it will determine whether it will survive and succeed or not.

According to many authors Philip, Andres, Daniel and Hmid (2012) risk management progressed from a strictly banking activity, related to the quality of loans, to a very complex set of procedures and instruments in the modern financial environment. It underscores the fact that the survival of an organization depends heavily on its capabilities to anticipate and prepare for the change rather than just waiting for the change and react to it. Risk is associated with uncertainty and reflected by way of charge on the fundamental /basic in other words in the case of business it is the capital, which is the cushion that protects the liability holders of an institution. These risks are interdependent and events affecting one area can have ramification and penetrations for a range of other categories of risk.

Therefore, the need to understand the risks run by banks and to ensure that the risks are properly confronted effectively controlled and rightly managed. Each transaction that a bank undertakes however changes the risk profile of the bank thereby making it a near impossibility to provide real time risk update and profile of the institution Adarkwa(2011).

Risk Management is described as the performance of activities designed to minimize the negative impact (cost) of uncertainty (risk) regarding possible losses (Schmidt and Roth, 1990).Redja (1998) also defines risk management as a systematic process for identify, evaluation of pure loss exposure faced by an organization or an individual, and for the selection and implementation of the most appropriate techniques for treating such exposures. The process involves: identification, measurement, and management of the risks. Risk management can be regarded as an active, strategic, and integrated process that encompasses both the measurement and the mitigation of risk, with the ultimate goal of maximizing the value of a bank, while minimizing the risk of bankruptcy (Schroeck, 2002).

Bessis (2010) also adds that in addition to it being a process, risk management also involves a set of tools and models for measuring and controlling risk. The objectives of risk management include the minimization of foreign exchange losses, reduction of the volatility of cash flows,

protection of earnings fluctuations, and increment in profitability and assurance of survival of the firm Fatemi and Glaum,(2000).

Another group of researchers stated that risk management is about ensuring that risks are taken consciously with full knowledge, clear purpose and understanding so that it can be measured and mitigated to prevent a firm from suffering unacceptable loss causing it to fail or materially

Damage its competitive position. To ensure that banks operate in a sound risk management environment with reduced impact of uncertainty and potential losses, managers need reliable risk measures to direct capital to activities with the best risk/reward ratios. Management needs estimates of the size of potential losses to stay within limits set through careful internal considerations and by regulators. They also need mechanisms to monitor positions and create incentives for prudent risk taking by divisions and individuals. According to Pyle (1997), risk management is the process, by which managers satisfy these needs by identifying key risks, obtaining consistent, understandable, operational risk measures, choosing which risks reducing, which to increase and by what means, and establishing procedures monitor resulting risk positions.

Bessis (2010) indicates that the goal of risk management is to measure risks in order to monitor and control them, and also enable it to serve other important functions in a bank in addition to its direct financial function. These include assisting in the implementation of the bank's ultimate strategy by providing it with a better view of the future and therefore defining appropriate business policy and assisting in developing competitive advantages through the calculation of appropriate pricing and the formulation of other differentiation strategies based on customers "risk profiles.

According to Santomero (1995), the management of the banking firm relies on a sequence of steps to implement a risk management system. These normally contain four parts, which are standards and reports, position limits or rules, investment guidelines or strategies and incentive contracts and compensation. These tools are generally established to measure exposure, define procedures to manage these exposures, limit individual positions to acceptable levels, and encourage decision makers to manage risk in a manner that is consistent with the firm's goals and objectives.

2.4 Categories of Risk Management

As noted by Merton (1989), a key feature of the financial institutions (including banks) is the bundling and unbundling of risks. However, not all risks inherent in their business should be borne directly by them; some can be traded or transferred while others can be eliminated altogether. It is therefore useful to defragment the risks inherent in their activities and assets into three distinctive subgroups in accordance with their nature so that the appropriate strategies can be adapted to mitigate them.

Oldfield and Santomero (1995) argue therefore that risk facing financial institutions can be segmented into three distinguishable categories from a management outlook. These are risks that can be eliminated or avoided by simple business practices, risks that can be transferred to other participants and risk that must be actively managed at the firm level. Avoiding risk altogether by business practices has the goal of ridding the bank of risks that are not essential to the services provided or absorbing on the optimal quantity of a particular kind of risk. This is done by engaging in actions such as underwriting standards, diversification, hedging, reinsurance and due diligence investigation to reduce the chances of particular losses by eliminating risks that are unnecessary to the bank's business purpose.

After this is done, what will be left is some portion of systematic and operational risks, which should be minimized to the greatest extent possible, and their level and costs communicated to stakeholders. This is because an attempt to aggressively avoid these risks will constrain all procedures to manage these exposures, limit individual positions to acceptable levels, and encourage decision makers to manage risk in a manner that is consistent with the firm's goals and objectives.

2.5 Risk Management Process and System

To overcome the risk and to make banking function well, there is a need to manage all kinds of risks associated with the banking. Risk management becomes one of the main functions of any banking services and consists of identifying the risk and controlling them, means keeping the risk at acceptable level. These levels differ from institution to institution and country to country.

The basic objective of risk management is to stakeholders; value by maximizing the profit and optimizing the capital funds for ensuring long term solvency of the banking organization. The risk management system outlined here can be a standard for banks to follow. There is no single management system that would fit for all banks. Therefore, NBE requires each bank to develop its own comprehensive risk management system fitted to its need and circumstances. Moreover, the state bank of Pakistan (2003) in its risk management guideline for commercial bank has claimed that, the risk management activities takes place at different hierarchical levels. Hence, it has indicated the following hierarchical levels of risk management activities in every financial institution.

Strategic level: It encompasses risk management functions performed by senior management and BOD. For instance definition of risks, ascertaining institutions risk appetite, formulating strategy and policies for managing risks and establish adequate systems and controls to ensure that overall risk remain within acceptable level and the reward compensate for the risk taken.

Macro Level: It encompasses risk management within a business area or across business lines. Generally the risk management activities performed by middle management or units devoted to risk reviews fall into this category.

Micro Level: It involves “On-the-line” risk management where risks are actually created. This is the risk management activities performed by individuals who take risk on organization’s behalf such as front office and loan origination functions. The risk management in those areas is confined to following operational procedures and guidelines set by management.

The following diagram shows the risk management process adopted from NBE guideline 2010(www.nbebank.com).

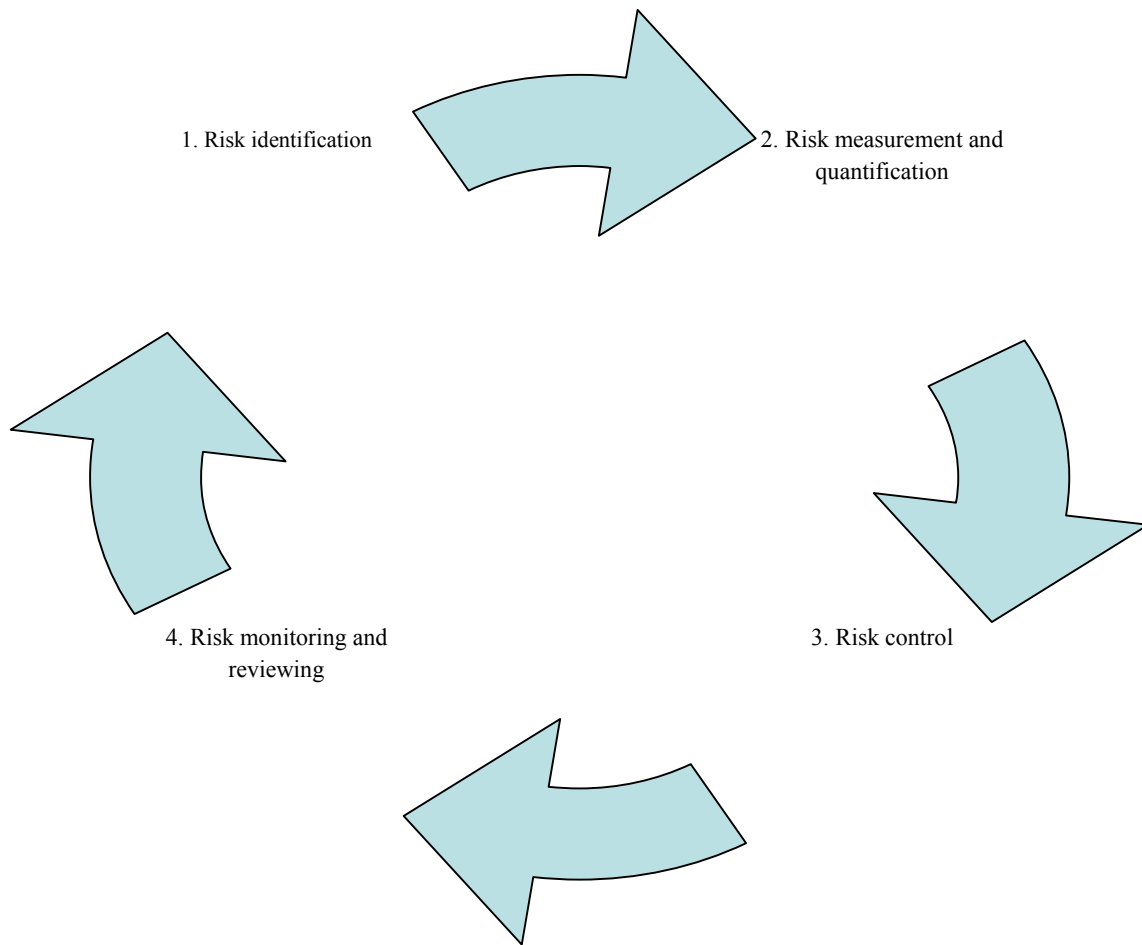


Figure2: risk management process
Source:-www.nbebank.com(2010)

2.5.1 Risk Identification

Before taking any meaningful action to address our risk, risks must first be identified. Almost every product and service offered by banks has a unique risk profile composed of multiple risks. For example, at least credit risk, interest rate risk, liquidity risk and operational risk are usually present in most loans. So risk identification process should be understood at both the transaction and portfolio levels. In short, risk identification involves:- Understanding the nature of various kinds of risks, circumstances which lead a situation to become a risk situation and due to which the risk can arise.

2.5.2 Risk Measurement or Quantification

Risk quantification is an assessment of the degree of the risk, which a particular transaction or an activity is exposed to. Though the exact measurement of risk is not possible but the level of risk can be determined with the help of risk rating models. According to 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 effective risk management system

2.5.3 Risk Control

After risk identification and measurement banks should control or minimizing risks. As of 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

In order to do the above activities the bank or institutions take steps to control the risk with the help of various tools such as diversification of the business, insurance and hedging, fixation of exposure ceiling, transfer the risk to another party at right time and securitization and reconstruction.

2.5.4 Risk Monitoring & Reviewing

Keeping close track of risk identification measurement activities in the light of the risk, principles and policies is a core function in a risk management system. For the success of the system, it is essential that the operating wings perform their activities within the broad contours of the organization's risk perception as Ashan & Poonam (2013). In risk monitoring the bankers have to fix up the parameters on which the transaction is to be tested to be sure that there is no risk to viable existence of the financial unit or investment of the banks. 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 be comprehensive embodying all departments/sections of the institution so as 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 banks to follow. A comprehensive risk management system should encompass the following four components (Jorion 2001). Active board and senior management oversight, establishing appropriate risk management environment and sound policies and Procedures, maintaining an appropriate risk measurement, mitigating, and monitoring process and adequate internal controls.

2.6 Techniques of Risk Management

GAP Analysis it 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 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).

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 value and time weighted measure of 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 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 interest rate increases by comparable amounts, the market value of assets decrease more than that of liabilities resulting in the decrease in the market value of equities and expected net interest income and vice versa (Cumming and Beverly, 2001).

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). **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 the efficient decisions regarding risk/return tradeoff 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).

2.7 Review of Empirical Literature

This section provides a summary of some of the published work on the management of risks by banks in developed and developing economies. Khalid and Amjad (2012) conducted a research on the risk management in Islamic banking in Pakistan. The authors use the same model suggested by Al-Tamimi and Al-Mazrooei (2007) of risk management practices. The results indicate that Islamic banks are somewhat reasonably efficient in managing risk where understanding risk and risk management, risk monitoring and credit risk analysis, are the most influencing variables in risk management practices.

Shafiq and Nasr (2009) examine the risk management practices followed by commercial banks in Pakistan. The results reveal the following: the greatest exposures banks face are credit risk, liquidity risk, interest rate risk, foreign exchange risk and operating risk; significant differences exist in the application of risk management practices among public sector and local private commercial banks and commercial banks“ staff basically understands risk management but additional training is required to enhance their expertise in the area.

Hassan, (2010) the researcher conducts this research with the title of a comparative study of Handelsbanken and Swanbank; how risk has been managed during the last decade. In this thesis the authors strive to investigate the risk management phenomena in the banking sector by conducting a longitudinal comparative study in two different banks. In a broader perspective to understand the phenomena the authors depart from theoretical framework that recognizes the social and cultural elements of risk. However, to be more specific the thesis narrows down its analysis to three main variables that come under the realm of this discussion which are; how banks organizing for risk, how they measure, analyze, asses, and monitor it.

This study contributes to the banking sector by providing a road map of how successful banks manage risk. It highlights that the risk question should be addressed strategically and deemed to be a continuous phenomenon. Hassan (2009) seeks to identify the risks posing the greatest

exposure for Islamic banks in Burundi Darussalam and to examine the effectiveness of risk management techniques utilized in these banks. The results of the study reveal that the three major risks affecting the banks are foreign-exchange risk, credit risk and operational risk.

Also, Islamic banks are reasonably efficient in managing risk; and risk identification, and risk assessment and analysis are the most influencing variables in risk management practices.

Rekha (2004) Risk management in commercial banks (A case study of public and private sector banks) Banks is in the business of managing risk, not avoiding it. To the researcher, Risk is the fundamental element that drives financial behavior. Without risk, the financial system would be vastly simplified. However, risk is omnipresent in the real world. Financial Institutions, therefore, should manage the risk efficiently to survive in this highly uncertain world. The future of banking will undoubtedly rest on risk management dynamics.

Only those banks that have efficient risk management system will survive in the market in the long run. The effective management of credit risk is a critical component of comprehensive risk management essential for long-term success of a banking institution. The researcher understood that Credit risk is the oldest and biggest risk that bank, by virtue of its very nature of business, inherits. This has however, acquired a greater significance in the recent past for various reasons.

Foremost among them is the wind of economic liberalization that is blowing across the globe. India is no exception to this swing towards market driven economy.

Better credit portfolio diversification enhances the prospects of the reduced concentration credit risk as empirically evidenced by direct relationship between concentration credit risk profile and NPAs of public sector banks. They conclude their paper by proverb that is, a bank's success lies in its ability to assume and aggregate risk within tolerable and manageable limits.

Wood (1994) reviews the lending behavior and examines credit risk management practices of banks in Barbados. The results of the study are as follows: (i) banks utilized published and internally-generated information in the process of screening applicants; banks do not use interest rates alone to allocate credit but resort to other means like varying the maturity structure of loans, requesting collateral, and utilizing debt covenants and compensating balances in order to offset credit risk; the role of monitoring by banks is essential given the

absence of credit rating agencies and lack of an active acquisitions market; monitoring activities of banks are characterized by regular (formal and informal) visiting (and telephone contact) between banks and clients and by periodic reviews of clients' accounts; credit rationing in Barbados can be usefully explained by the Stieglitz-Weiss "equilibrium-rationing model which emphasizes the influence of imperfect or asymmetric information on bank behavior.

Christie-Veitch (2005) examines the status of operational risk management in Trinidad, Barbados and Jamaica; assesses its importance relative to the other risks and reviews the practices for managing operational risk by the financial institutions. The findings are analyzed based on the assessment of compliance with regard to Basel Core Principles for the management of operational risk. The study reveals a number of findings: the framework necessary to identify, assess, monitor and control operational risk is still not evident, the management of operational risk is basically limited to implementing and testing internal controls, operational profile is not currently reviewed and adjusted based on specific strategies. The plans to handle business disruption are somewhat in place but are not subject to testing or scenario analysis, best practices with regard to operational risk are not finalized or circulated and operational risk management methodologies are not being disclosed by banks.

Fasika Firew (2012) analyzes the operational risk management practices of selected Ethiopian Commercial banks by taking in to account the operational risk factors (Loss events) and their effect on entire banks performance. The results of the study reveal that the management should pay attention to those contributory operational risks so as to manage the operational risk effectively and efficiently, particularly, to operational risk management tools as the extracted factors has shown. Also the importance of awareness creation and accurate on time capturing of Internal loss data are in consistent with factor analysis findings of management supervision and follow-up and capturing of internal loss data as both are among the extracted factors.

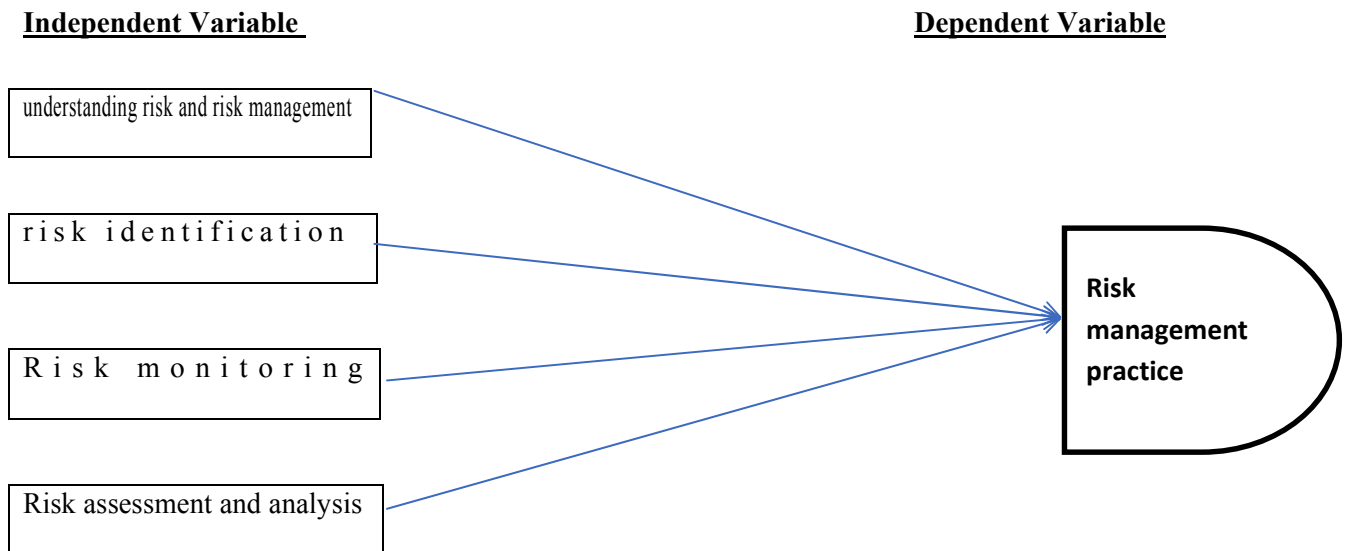
In summary, from the reviewed studies the following point's emerge. The major risks affecting banks are credit risk, interest rate risk, operational risk and foreign exchange risk. Banks are basically efficient in managing risk; however, additional training is still necessary.

Operational risk is a major risk but is also quite complex in its measurement, the sophistication of the risk management technique used varies according to the size of the bank, which usually venture into non-interest income activities experience higher risk than banks, which are basically in the loans market, non-national firms have significant foreign exchange risk exposure; however, through the use of hedging techniques they are able to significantly reduce its impact.

2.8 Conceptual Model of the Study

The conceptual framework indicates the crucial process, which is useful to show the direction of the study.

After the careful study of literature review, the following conceptual model is formulated to illustrate the relationship between selected risk management aspect and. The model shows understanding risk and risk management, risk monitoring, risk identification and risk assessment and analysis as independent variables and risk management practice as dependent variable



Source: Al-Tamimi and Al-Mazrooei(2007)

Fig.1: conceptual frame work

The conceptual framework suggests there is a positive relationship between risk management practices and the aspect of risk management process. Secondly, it suggests the category of risk management processes that influence most of the practice of risk management to be examined. Regression analysis is used to assess the factors that influence risk management practices as follows:

$$\text{RMP} = \alpha + \beta_1 \text{URM} + \beta_2 \text{RI} + \beta_3 \text{RAA} + \beta_4 \text{RM} + e$$

2.8.1 Understanding Risk And Risk Management

It is important for staff of banking institutions to understand the aspect of risk in the banking operations and the risks that are inherent and exposed in their business operations. Better understanding of risk management is also necessary especially in the financial intermediation activities where managing risk is one of the important activities. A study conducted by Boston Consulting Group (2001) found that the sole determining success factors is not the technical development but the ability to understand risk strategically and also the ability to handle and control risk organizationally. Secondly, in order to realize a risk based management philosophy, the attitude and mindset of the employees need to be changed whereby they must be brought to understand that managing risk is crucial for success. This implies that there must be intensive training, clearly defined structures and responsibilities, as well as commitment to change. In addition, it was identified that banks in North America and Australia concentrate on risk management primarily to enhance their competitive positions. Meanwhile in Europe, Asia and particularly in South America, risk management is considered primary from the perspective of regulatory requirements.

2.8.2 Risk Identification

Risk identification is the first stage of risk management and a very important step in risk management Al-Tamimi and Al-Mazrooei (2007). The first task of the risk management is to classify the corporate risks according to their different types. The first step in organizing the implementation of the risk management function is to establish the crucial observation areas inside and outside the corporation. Then, the departments and the employees must be assigned with responsibilities to identify specific risks. For instance, interest rate risks or foreign

exchange risks are the main domain of the financial department. It is important to ensure that the risk management function is established throughout the whole corporation; i.e. apart from parent company, the subsidiaries too have to identify risks, analyze risks and so on.

Pausenberger and Nassauer (2000) also state that it is advisable for most corporations to implement early warning systems. An early warning system is a special information system enabling the management board to identify risks in time by observing the development of defined indicators (Luck, 1998). Other instruments that could be used to identify risks are checklists of possible disturbances or breakdowns, risk workshops, examination of corporate processes, internal inspections and interviews, loss balance, etc. It is advisable to make use of the knowledge and skill of external experts, for instance, forecasts of banks about the development of interest rates or foreign exchange rates. There are many other approaches for risk identification, for instance, scenario analysis or risk mapping. An organization can identify the frequency and severity of the risks through risk mapping which could assist the organization to stay away from high frequency and low severity risks and instead focus more on the low frequency and high severity risk. Risk identification process includes risk-ranking Components where these ranking are usually based on impact, severity or dollar effects Barton et al. (2002). According to him, the analysis helps to sort risk according to their importance and assists the management to develop risk management strategy to allocate resources efficiently.

2.8.3 Risk Analysis And Assessment

There are many conceptual studies made on risk analysis and assessment by reference to measurement and mitigation of risk. According to Al-Tamimi and Al-Mazrooei (2007) the dimension of the potential loss has to be quantified. Here, the amount of the potential loss for the corporation and the corresponding probability of occurrence of this risk have to be determined. However, only a few risks can be exactly measured. In most cases, it is necessary to estimate the possible loss of a risky business or a risky position. Hence, the managers have to consider different possible developments. It is useful especially to identify the development with the highest probability in order to get an idea of the damage that will consistently affect the corporation. It is also useful to identify the development that will generate the biggest loss in order to assess the effects on the existence of the corporation. On the basis of this sort of information, the managers have to take measures to handle the risks.

In practice, it is useful to classify the different risks according to the amount of damage they possibly cause Fuser et al.(1999). This classification enables the management to divide risks that are enabling to threat the existence of the corporation from those which can only causing slight damages. Frequently, there is an inverse relationship between the expected amount of loss and its corresponding likelihood, i.e. risks that will cause a high damage to corporation, like earthquakes or fire, occur seldom, while risks that occur daily, like interest rate risks or foreign exchange risks, often cause only relatively minor losses, although these risks can sometimes harm the corporations seriously.

2.8.4 Risk Monitoring

Effective risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place Al-Tamimi and Al-Mazrooei(2007).Risk monitoring can be used to make sure that risk management practices are in line and proper risk monitoring also helps bank management to discover mistake at early stage Al-Tamimi and Al-Mazrooei(2007).

Monitoring is the last step in the corporate risk management process Pausenberger and Nassauer(2005). According to them, control has to be established at different levels. The control by the management board will not be enough to ensure the effective functioning of the risk monitoring system, because the management board members do not have time on their hands to exercise extensive control. Hence, the management board will install an independent unit to complete the task of internal supervision. This task is the responsibility of the internal audit. Also, the supervisory board is obliged to control the risk management process. The supervisory board is supported by the auditor. If the auditor discovers a defect, he will have to inform the supervisory board and the management board. Finally, the shareholders of the corporation can use their rights to demand information in order to judge the efficiency of the risk management system. The director's report enables the shareholders to assess the status of the corporation knowledgeably and thoroughly.

CHAPTER THREE- RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research design utilized, target population, sample size determination, sampling technique, data collection instruments, and data analysis tools, the measuring instrument used, the procedure followed to gather data, and the statistical techniques used to analyze the data and finally, ethical consideration that should be taken into account.

3.2 Research Approach

Bhattacharjee (2012) defined a research design, a comprehensive plan for data collection in an empirical research project. It has also indicated the two categories of data collection techniques used in scientific research, quantitative and qualitative approach. Despite the apparent separation of these techniques, it should be noted that quantitative approach does not necessarily exclude collection of qualitative data, or vice versa. The study was conducted as a quantitative study approach in order to depict the relationship of selected risk management aspects and risk management practices. A quantitative research was used to test the hypothesized relationships. Quantitative approach helps the researchers to test relationships between variables.

3.3 Target Population

Target populations of the study were risk expert staffs of commercial Bank of Ethiopia under west Addis Ababa district. Risk expert includes staffs of marketing department, monitoring and compliance department, operation department and all west A.A district branch managers.

3.4 Sample Size

A sample can be described as a subset or a part of large population (Zikmund, 2003). In connection to this the researcher chooses the following formula to determine the appropriate sample size based on 95% confidence level and 5% margin of error or level of precision.

West Addis Ababa district has 169 risk experts (CBE WAAD payroll data)

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

N = population size

n = sample size

e = error limit (5%)

$$n = \frac{169}{1 + 169(.0025)} = 119 \quad \text{source:- (Yemane, 1967) sample size determination formula.}$$

So based on the above formula a sample of 119 has been selected from the target population, the sample size allocated to department of marketing, operation, compliance and branches with proportion to their population size.

Table1. sample size

Department	No of risk expert	Sample size proportion
Marketing	22	15
Operation	16	11
Compliance	18	13
Branches	113	80
Total population	169	119

Source: CBE WAAD payroll confirmation; 2017

3.5 Sampling Technique

Stratified random sampling techniques were used to select sample from the target population. This is because; the study focuses on different groups of respondents would require having its own representative from the total sample size. Stratified sampling guaranty specific groups within a population are adequately represented in the sample.

Commercial bank of Ethiopia has fifteen districts of which the head quarter four district found in Addis Ababa city administration these are East, West, North and South (www.combanketh.et). The researcher chooses CBE WAAD to conduct the study because of its nearness. The researcher used the Districts office and Branches as a stratum. The estimated numbers of clerical, professional and managerial staff were identified from each stratum. Then from each stratum respondents were selected through random sampling method.

3.6 Data Collection Instruments

Both secondary and primary sources of data were used to analyze the research topic. Secondary data gathered through from CBE risk management guidelines, quarterly reports of the bank, web page, and bank documentation on each risk as well as other existing relevant literature.

Both open-ended and closed ended semi-structured questionnaires and observations were conducted to collect primary data. So as to give flexibility to the respondent, the semi-structured questionnaire sets the agenda but does not presuppose the nature of the response. A questionnaire is a list of carefully structured questions with a view to exploring a reliable response from a chosen sample Hussey and Hussey (1997). The questionnaire and an information sheet explaining the purpose of the study distributed to risk expert employees of commercial bank of Ethiopia under west Addis Ababa district.

To assess the respondents' level of agreement, the questionnaire developed in lick-ert scale model.

3.7 Data Analysis Tools

Quantitative data analysis was conducted to analyze the collected data. Both descriptive and inferential statistics was applied to describe and interpret the result of the study. To show and rank the respondent's responses the researcher used table and whereas to show the relationship correlation and regression were used. As Greener (2008) stated that in most types of research studies, the process of data analysis involves the following three steps: first preparing the data for analysis, then analyzing the data and finally, interpreting the data. Based on these steps, content analysis of data involved presenting data or respondent's responses in table form or graph forms then data analyzed through using correlation and regression the information from secondary data supports of the analyses. Statistical package for social sciences (SPSS) software used to analyze the collected data from questionnaire.

CHAPTER FOUR -DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

This chapter deals with data presentation, analysis and interpretation. These data are presented and analyzed based on data collected through structured and open-ended questions in semi structured questionnaires, and secondary data or documents from commercial bank of Ethiopia. For this purpose, questionnaires have been distributed to 119 risk expert staffs of commercial banks of Ethiopia under WAAD of which 113 permanent clerical staffs responded the questionnaires. These questionnaires are related to risk management practice in commercial bank of Ethiopia under WAAD. In addition to the questionnaires, secondary data or documents that are related to risk management were used in the presentation and analysis part.

4.2 The General Background of the Respondents

In the following table the demographic information of respondents is presented. These include the educational back ground, work experience, gender and educational qualification of respondents. To get information on these issues the respondents were asked a semi-structured question and their responses are presented and analyzed as follows. The results of this survey processed using the SPSS software.

Table2: Demographic background of respondents

		Frequency	Valid Percent
Gender	Male	90	79.6
	Female	23	20.4
	Total	113	100.0
Work experience	1-5years	7	6.2
	5-10years	93	82.3
	10-15years	13	11.5
	Total	113	100
Level of education	Degree	90	79.6
	Master's degree	23	20.4
	Total	113	100
Age of respondents	21-30years	86	76.1
	31-40years	21	18.6
	41-50years	6	5.3
	Total	113	100

Source: Own survey

As one can see in the figure above, there is a clear overweight with male respondents. It indicates that the number of male and female respondents are not proportional instead male covers the majority of the respondents.

The other background information of the respondents is years of working in banking operations. As shown in the table above, the percentage of the years of experience of the respondents those were working with risk management. Out of 113 respondents, 7 respondents (6.2% of total respondents) represent a group that covers 1 to 5 years of experience, 93 respondents (82.3 of the total respondents) represent a group that covers greater than 5-10

years of experience and the rest 13 respondents (11.5% of total respondents) that covers greater than 10-15 years of experience.

As it is indicated above, one can understand that almost 80% of the experts have greater than 5 years of experience working in the banking operations. It implies that most of the staffs“ acquired enough experience to perform risk management activities, though they fulfill the minimum requirement set by the bank standard. Table 1 also indicates level of education of the respondents. Accordingly, out of 113 respondents, 90 (79.6%) have BA and 23 (20.4%) of the respondents have Master’s degree in different educational qualifications. These results indicated that almost all the bank staffs possessed first degree. The data implies that almost all of them fulfill the minimum requirement and some of them are beyond the standard of educational qualification set by the bank (Human resource procedures, 2017).

Lastly the above table shows the age of the respondent’s. Accordingly out of 113 respondents, 86 (76.1%) respondents found under the age of 21-30 years, 21 respondents (18.6%) found under the age of 31-40 years and the rest 6 (5.3%) of the respondent found under the age of 41-50 years. The above table shows that most of the staffs are young and energetic and also ready to change.

4.2 Risk Management Practices and Risk Management Aspects

4.2.1 Reliability Test

The reliability of the scales used within the questionnaire is evaluated using Cronbach’s alpha. It allows measuring the reliability of different variables. The questionnaire adopted for this study contains 29 statements representing each of the five aspects of risk management. It is used to estimate how much variation in scores of different variables is attributable to chance or random errors (Selltiz et al., 1976). There is a general rule that a coefficient greater than or equal to 0.7 is considered acceptable and a good indication of construct reliability (Nunnally, 1978). The four aspect of risk management practice Cronbach’s alpha greater than 0.7 as shown below in table 5. It means that there is an acceptable degree of consistency among the responses against each item.

Multiple-Regression Model: The regression model is applied to estimate the relationship between Risk Management Practices and the four explanatory variables as follows:

$$RMP = f (URRM, RI, RAA, RM)$$

Table 3: Reliability test

Set of Questions	N of Items	Cronbach's Alpha
Risk Management Practice	6	.916
Understanding Risk Management	7	.710
Risk Identification	6	.763
Risk Assessment and Analysis	5	.812
Risk Monitoring	5	.728

Source: own survey

4.2.2 Risk Management Practice

The following table (table6) analyzes risk management practice. In order to assess the risk management practice of CBE, respondents were presented with six related questions. These questions/statements are expected to be in practice, and the respondents rated them by their level of agreement. Then one sample t-test was run for each statement to assess the average agreement level in the bank's practice.

As the risk management practice, the management of the bank is supposed to review the bank's performance regularly. Regarding this, the average level of respondents' agreement is $M=3.82$, with $t\text{-value}=9.43$ and $p\text{-value}=0.00 < 0.05$. This indicates that, respondent's high level agreement to the first statement. Hence, in due consideration of managing risk, the bank management was proactively reviews the bank's performance.

With an average level of agreement, $M=3.79$, there is also a high level of agreement among respondents that, CBE is highly effective in its continuous review/feedback regarding risk management strategies and performance. The management practice in the bank, rated with $M=3.73$, were capable of providing guidance to its staff members about managing risks. This was done through documented risk management process and procedures. On top of the established risk management process, the bank emphasized employing qualified people having the knowledge in banking risk management. This statement was agreed to $M=3.65$, which is a level significantly above the moderate level of agreement ($t\text{-value}=7.58$, $p\text{-value}=0.00 < 0.050$).

Rating the statement that, effective management is one of the objectives of the bank, there was significantly high level agreement, $M=4.08$, among the respondents. This indicates that the high level of concern by the bank in effectively managing its risks was confirmed by its respondents. As a result, it may not be risky investing the bank funds in specific sector of the economy. This last statement was also highly agreed by the respondents with $M=3.88$. Overall, the risk management practice in CBE was rated to $M=3.82$ average agreement level, which is found to be significantly above the moderate level ($t\text{-value} = 11.16$, $p\text{-value} = 0.00 < 0.05$). Hence, CBE's risk management practice was evaluated to a high level within the 95% CI in the range 3.68-3.97.

Table4.Risk management practice

	N	Mean	Std. Deviation	Test Value = 3					
				t-value	df	p-value	Mean Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Q1.The bank executive management regularly reviews the organizations performance in managing its business risk	113	3.82	.928	9.427	112	.000	.823	.65	1.00
Q2. your bank highly effective in continuous review/feedback on risk management strategies and performance	113	3.79	.940	8.910	112	.000	.788	.61	.96
Q3. Your bank’s risk management process and procedures are documented and provide guidance to staff about managing risks.	113	3.73	.848	9.099	112	.000	.726	.57	.88
Q4.Your bank emphasizes the recruitment of highly qualified people having banking knowledge in risk management.	113	3.65	.906	7.584	112	.000	.646	.48	.81
Q5. Effective risk management is one of the objectives of the bank.	113	4.08	1.151	9.974	112	.000	1.080	.87	1.29
Q6.It is too risky to investment your bank funds in one specific sector of the economy.	113	3.88	.810	11.612	112	.000	.885	.73	1.04
Risk management practice	113	3.8245	.78548	11.158	112	.000	.82448	.6781	.9709

Source: own survey

4.2.3 Analysis of Understanding Risk and Risk Management

The following table (table5) presents the respondents evaluation regarding risk understanding and its management in the bank. This was assessed using seven statements as indicated in the table. The first statement assesses weather there is a common understanding of risk in the bank. The one-sample t-test result with $M=2.19$, which falls within the 95% CI of 2.04-2.33, showed that there is lack of common definition of bank risk and the understanding of risk varies throughout the bank. Whereas, the respondents agreed that there is a clear management statements on risk management in the bank. For this 2nd statement, the average agreement level $M=3.55$ was above moderate level agreement.

Although there is lack of same interpretation of risk, there is a high level agreement, $M=3.81$, which respondents had positively responded to the statement that, the responsibility for risk management is clearly set out and understands throughout the bank. Moreover, an average agreement level $M=3.89$ showed that there is an understanding of the accountability in relation to risk management.

It was agreed to the level $M= 3.44$ that managers have understanding on the risk that the bank faced, and they are responsible to manage the risks. Respondents significantly agreed with $M=3.79$ recognizing the importance of managing risk to ensure the success and performance of the bank. This importance of managing and controlling risks was well communicated throughout the bank. This practice of communicating the significance of controlling risks was agreed to a high level with $M.3.77$.

Overall, the practice of CBE in the understanding and managing risk was computed by aggregating responses to the seven statements in the bank.; which was rated with $M=3.49$ average level of agreement. It is significantly above the moderate level agreement as revealed in the test ($t\text{-value} = 10.00$, $p\text{-value} = 0.00 < 0.05$). The risk understanding and control practice of the bank can be assessed to the 95% CI in the range 3.39-3.58.

Table5: understanding risk and risk management

	N	Mean	Std. Deviation	Test Value = 3					
				t-value	Df	p-value	Mean Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Q1.A common definition of bank risk is used throughout the bank	113	2.19	.785	-11.019	112	.000	-.814	-.96	-.67
Q2.There are clear management statements on risk management in the bank	113	3.55	.824	7.081	112	.000	.549	.40	.70
Q3.The responsibility for risk management is clearly set out and understands throughout the bank.	113	3.81	.987	8.769	112	.000	.814	.63	1.00
Q4.the accountability of risk management clearly set out and understood throughout the Bank	113	3.89	.783	12.129	112	.000	.894	.75	1.04
Q5. managing risk is important for the success and performance of the bank	113	3.79	.761	10.998	112	.000	.788	.65	.93
Q6.The importance of risk management and control has been communicated throughout the organization	113	3.73	.782	9.864	112	.000	.726	.58	.87
Q7 Managers in the organization understand the risks faced by the organization which they are responsible for managing	113	3.44	1.017	4.624	112	.000	.442	.25	.63
Understanding risk and risk management	113	3.4855	.51598	10.001	112	.000	.48546	.3893	.5816

Source: own survey

4.2.4 Analysis of Risk Identification

As to the risk identification in the bank, five statements were used to evaluate the practice. The first statement that, changes in the risks are recognized and identified, respondents made an average agreement level of $M=3.34$, which is beyond the moderate level agreement to the statement. Similarly, the capability of the bank identifying the potential risks was rated to a higher level agreement with $M=3.60$. This indicates that the bank is capable of tackling risks that may in danger its aims and objectives. Moreover, the bank was rated to the level $M=3.71$ that it is capable of identifying/measuring the damage in its credibility and reputation, which is associated to the risks that may be overlooked by the bank.

The bank was supposed to understand its strength and weakness regarding risk management; moreover the bank was supposed to evaluate its stance in comparison with other banks. CBE, as evaluated by the respondents, was cautious in assessing its and competitors' strength and weakness in risk management system. This was testified by $M=3.67$ average level of respondents 'agreement. To this effect, the bank has developed and applied procedures for the systematic identification of opportunities. This 5th statement was rated to $M=3.44$ level of agreement.

Overall, the risk identification by the bank was rated with $M=3.56$ average level of agreement, which is within the 95% CI in the range 3.44-3.69. This is above moderate level agreement, although it is not high level potential by the bank in identifying its risks.

Table6: Analysis of risk identification

	N	Mean	Std. Deviation	Test Value = 3					
				t-value	df	p-value	Mean Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Q1. Change in risks are recognized and identified when the bank rules and responsibilities.	113	3.34	.941	3.798	112	.000	.336	.16	.51
Q2. the bank identifies the main potential risk relating with declared objectives	113	3.60	.978	6.542	112	.000	.602	.42	.78
Q3. your bank identifies the risk damage to the organizational credibility and reputation	113	3.71	.863	8.723	112	.000	.708	.55	.87
Q4.the bank is aware of the weakness of the risk management systems of the other banks	113	3.60	.996	6.423	112	.000	.602	.42	.79
Q5. the bank is aware of the strengths of the risk management systems of the other banks	113	3.67	1.137	6.286	112	.000	.673	.46	.88
Q6.Your bank has developed and applied procedures for the systematic identification investment of opportunities.	113	3.44	1.008	4.665	112	.000	.442	.25	.63
Risk Identification	113	3.5605	.67003	8.892	112	.000	.56047	.4356	.6854

Table8

Source: SPSS data analysis output, 2018

4.2.5 Analysis of Risk Assessment and Analysis

Once identifying the risks, the bank has to do a thorough assessment and analysis of the risks. In so doing, the bank is expected to prioritize the risks in the likelihood of the risk as well as the impacts by the risks. Moreover the bank needs to make cost-benefit analysis of assuming a particular risk. The table below presents the evaluation by the respondents regarding the risk assessment and analysis potential of the bank.

For the 1st statement, the average level agreement $M=3.73$ indicated that the bank didn't faced difficulty in prioritizing its main risks. Similarly, it was not difficult for the bank to assess the likelihood of risk occurrence's, which was agreed to the level $M=3.69$. The bank also faced no difficulty to assess the potential impact of a certain risk occurrences; the bank was also able to accurately evaluate the cost-benefit of taking risk. For these 3rd and 4th statements, the respondents average agreements were significantly high and above the moderate level agreement with $M=3.69$ and $M=3.95$. in addition the bank analyses and evaluates the opportunities by mitigating potential risks. For this statement, respondents also had high level agreement with $M=3.72$.

The overall risk assessment and analysis by the bank was assessed to the level $M=3.75$, which is considerable above the moderate level agreement and falls within the 95% CI in the range 3.61-3.89.

Table7: Analysis of risk assessment and analysis

	N	Mean	Std. Deviation	Test Value = 3					
				t-value	df	p-value	Mean Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Q1.The bank finds it not difficult to prioritize its main risks.	113	3.73	1.020	7.564	112	.000	.726	.54	.92
Q2.The bank finds it not difficult to assesses the likelihood of risk occurring.	113	3.69	.867	8.465	112	.000	.690	.53	.85
Q3. The bank find it not difficult to assess the potential impacts of risk materializing.	113	3.65	.874	7.966	112	.000	.655	.49	.82
Q4.Your bank is able to accurately evaluate the costs and benefits of taking risks	113	3.95	1.171	8.593	112	.000	.947	.73	1.17
Q5.Your bank analyses and evaluates the opportunities that it has to achieve objectives.	113	3.72	.949	8.027	112	.000	.717	.54	.89
Risk assessment and analysis	113	3.7469	.74211	10.699	112	.000	.74690	.6086	.8852

Source: SPSS data analysis output, 2018

4.2.6 Analysis of Risk Monitoring

Risk monitoring is one component of the risk management system in the bank was also assessed using five statements as the test results depicted in the table below. One aspect of monitoring risk is the reporting of its effectiveness by the management. This aspect of monitoring risks was evaluated to the level $M=3.41$ by the respondents. This is a considerably appreciable practice in the bank that the effectiveness of the risk monitoring is well considered as integral part of the management reporting requirement.

The bank is also believed to have made an assessment of its internal capability for monitoring and reviewing risks. The appropriate level of controlling the risk faced by the bank was also seen positively though it was not a high level agreement by the respondents. For these 2nd and 3rd statements, the average rating by the respondents were $M=3.38$ and $M=3.20$, respectively.

Reporting and communication of risks is believed to be an important aspect of monitoring risk. This process in the bank is supposed to support the effective management of risk in the bank. The respondents' average rating, $M=3.25$, is also a positive evaluation, but not as such a high level rating. In responding to the risks, the bank also makes evaluation of the effectiveness of its controls and management of the risks. For this practice, an $M=3.46$ average rating by the respondents shows a considerably adequate level practice.

The overall assessment of risk monitoring by the bank was rated with $M=3.34$ average level agreement, that falls within the 95% CI in the range 3.22-3.45.

Table8: Analysis of risk monitoring

	N	Mean	Std. Deviation	Test Value = 3					
				t-value	df	p-value	Mean Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Q1.monitoring the effectiveness of risk management is an integral part of routine management reporting	113	3.41	.913	4.742	112	.000	.407	.24	.58
Q2. The organization has assessed the need for the use of internal capability for monitoring and review of risks.	113	3.38	.827	4.890	112	.000	.381	.23	.53
Q3.level of control by the bank is appropriate for the risk that it faces	113	3.20	.956	2.264	112	.026	.204	.03	.38
Q4.Reporting and communication process within your bank support the effective management of risk.	113	3.25	.931	2.829	112	.006	.248	.07	.42
Q5.The bank response to risk includes an evaluation of the effectiveness of the existing controls and risk management.	113	3.46	.813	6.015	112	.000	.460	.31	.61
Risk monitoring	113	3.3398	.61580	5.866	112	.000	.33982	.2250	.4546

Source: own survey

4.2.7 Relationship Between Dependent and Independent Variables

In the above sections, one-sample t-tests were computed to assess the practice of the bank with regard to its Risk Management practice(dependent variable), and the four components of the risk management aspects(namely: Understanding Risk, Risk Identification, Risk Assessment and Analysis, and Risk Monitoring) as independent variables.

In order to understand the association between the independent variables with the dependent variable, correlation analyses were performed. The following table presents how these five variables were correlated each other. From the table it is well seen that any two variables was significantly correlated one another, as indicated with double-aesthetics (**), Moreover, these correlations are all positive value indicating that there is a direct relationship among these variables. Particularly, the Risk management practice is found to have direct/positive and significant relation with each of the four independent variables. The highest relationship being with Risk Management Understanding resulting in $r=0.673$.

Risk Identification being the 2nd to have significant and direct relationship with the Risk Management practice that can be expressed with $r=0.624$. The Assessment/analysis of risk, and the monitoring of risks are also have significant relation with the Risk Management practice in the bank that can be expressed with $r= 0.582$ and $r=0.575$, respectively.

Table9: Correlation between independent and dependent variables.

		Risk management practice	Understanding risk and risk management	Risk Identification	Risk AssAnalysis	Monitoring Risk
Risk management practice	Pearson Correlation	1				
	p-value					
	N	113				
Understanding risk and risk management	Pearson Correlation	.673**	1			
	p-value	.000				
	N	113	113			
Risk Identification	Pearson Correlation	.624**	.586**	1		
	p-value	.000	.000			
	N	113	113	113		
Risk AssAnalysis	Pearson Correlation	.582**	.499**	.645**	1	
	p-value	.000	.000	.000		
	N	113	113	113	113	
Monitoring Risk	Pearson Correlation	.575**	.495**	.730**	.533**	1
	p-value	.000	.000	.000	.000	
	N	113	113	113	113	113

** . Correlation is significant at the 0.01 level (2-tailed).

Source: own survey

These direct relationships implied the potential improvement that can be achieved in the bank’s Risk management practice through improvement of the four components. That is, the four independent variables (the components) have significant impact in the bank’s capability managing its risks.

In order to assess the impacts posed by the four variables on the dependent variable, a linear regression analysis was performed. The regression analysis result is depicted in the table. The VIF (variance inflation factor) for each variable is seen very low (i.e below 4.00). Hence the regression analysis is not affected by multi-collinearity problem associated to strong relationship among the independent variables.

From the regression analysis, the level of impact these four variables imposed on the dependent variable was represented by the R-square statistic. This R-square value represents the coefficient of determination that amounts the variation in the dependent variable explained by the four independent variables. From the result, it is found that 55.8% of the Risk Management practice in the bank can be attributed to the level of practice in the bank with regard to the four components.

From the regression coefficient Beta, B, it is possible to expect improvement in the bank’s risk management system by improving the risk management practices. By improving the level of risk understand throughout the bank, the whole system of risk management would show a 0.629 level of improvement. A one level improvement in the current practice of risk identification, the bank can achieve a 0.151 level improvement in its risk management practice. The regression analysis result also revealed improvements of 0.215 and 0.216 levels as the result of improvement in the bank’s risk assessment/analysis and risk monitoring practice respectively.

Table10: Impact of independent variables on dependent variables

Model	Unstandardized Coefficients		Standardized Coefficients	t-value	p-value	Collinearity Statistics		R	R Square	Adjusted R Square
	B	Std. Error	Beta			Tolerance	VIF			
1 (Constant)	-.428	.361		-1.184	.239			0.757	.574	.558
Understanding risk and risk management	.629	.121	.413	5.197	.000	.625	1.600			
Risk Identification	.151	.125	.128	1.204	.231	.347	2.880			
Risk Assessment Analysis	.215	.089	.203	2.406	.018	.557	1.797			
Risk monitoring	.216	.119	.169	1.820	.072	.456	2.191			

Source: own survey

Table 11: Risk measurement (part5).

	No of respondents	Percentage
Organizational impact	80	4.4%
Reputational impact	113	17.7%
Likely hood occurrence	113	27.4%
Achievement of objectives	113	50.4%
If other specify	0	0%

Source: own survey

Analysis of question No.7 (how the organization measures its risk)

The high scores across all of these questions demonstrate that commercial bank of Ethiopia west Addis Ababa district measures risk in all aspects even if 20 respondent responded the bank not measure risk in terms of organizational impact. In the same way the literature review indicating that, risk is directly proportionate to return, the more risk a bank takes, it can expect to make more money. However, greater risk also increases the danger that the bank may incur huge losses and be forced out of business. In fact, today, a bank must run its operations with two goals in mind – to generate profit and to stay in business (Marrison, 2005). Banks, therefore, try to ensure that their risk taking is informed and prudent. Thus, maintaining a trade-off between risk and return is the business of risk management. Moreover, risk management in the banking sector is a key issue linked to financial system stability

CHAPTER FIVE- FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 INTRODUCTION

This chapter deals with findings, conclusions and recommendation of the study based on the research findings. Finally, further research is suggested in the last part of this chapter.

5.2 Summary of Findings

In this section, the findings from the respondents will be presented in a summarized and informative manner.

The respondents have good level of educational qualification and enough experience which enables the respondents to have clue idea of the risk management practice.

Banks don't experience difficulty in identifying and ranking their main risk. This important aspect of the risk management process is facilitated to a considerable extent through continuous monitoring & assessment of risk management. And banks have reasonable level of success with the current measures utilized to manage the identified risks.

According to respondents response monitoring the effectiveness of risk management is an integral part of routine management reporting and evaluation of the effectiveness of the existing controls.

The respondents agree on the statements that bank has documented risk management guidelines and most of the respondents understand the risk management practice.

The four risk management aspect (understanding risk and risk management, risk identification, risk assessment and analysis and risk monitoring) have a positive relationship with risk management practices.

The Risk management practice is found to have direct/positive and significant relation with each of the four independent variables. Understanding risk and risk management has highest and significant relationship with risk management practice followed by risk identification, risk assessment and analysis and risk monitoring respectively.

These relationships brought significant impact to the overall risk management practice in the bank, with 55.8% explanation power. That is, 55.8% in the overall risk management practice were influenced by the four aspect of risk management. So, an improvement in one of these aspects would considerably improve the risk management practice.

5.3 Conclusion

According to the uncertainty of conditions, the financial industries are facing a large number of risks. For this reason, the financial industries emphasize on risk management. This paper therefore examined risk management practice in commercial bank of Ethiopia. Also the relationship of the risk management practice with four aspects of risk, were evaluated using the data gathered from risk-related workers in the bank.

The research findings suggested that there is adequate level of risk management practice (the dependent variable). The bank also paid considerable attention in the four aspects of risk management, which are the independent variables in the study. However, the average agreement to these aspects suggests the need for further improvements.

Understanding of risk and its management was found to have been well practice, and directly related to the risk management practice in the bank. The risk identification aspect was also found to have related and significantly influenced the risk handling practice of the bank.

The risk monitoring, and risk analysis were also under the focus of the bank. The bank is believed to have made an assessment of its internal capability for monitoring and reviewing risks, although they were not practiced to the highest level. Overall, the independent variables have positive and significant relationship with dependent variable, i.e. risk management practice.

Moreover, the risk management aspects were found to have immensely contributed to the risk management practice; that without adequately handling them the bank may not guarantee to avoid its risks.

Generally, the findings suggested that commercial bank of Ethiopia was not highly risk-focused.

5.4 Recommendation

The following recommendations are being made with the aim of helping to improve the risk management practice and system in banks and thus making them more competitive.

Even if there was a good risk management practice in the bank but there is no common definition for the risk events. Due to this the researcher recommends that if the bank could develop common risk definition or an encyclopedia helps to improve the effectiveness of risk managements.

To stay ahead of the competition at all times, banks must ensure there is a continuous monitoring process to ensure the effectiveness of risk management. With the growing demand of customers for quality products and services and investors looking out for high growth in earnings, the bank need to extensively examine its risks, and quantifying each risk in order to manage it effectively. Particularly, the bank needs to work in improving its status with regard to its understanding, identifying, monitoring and analyzing potential risks. Since the risk management aspects had apple effect in risk management, the bank needs to continuously evaluate and improve its status with respect to them.

The four aspects of risk management couldn't measure the whole aspect of effective risk management practice of the bank so that the researcher recommend that a further research required in order to know other attributes to effective risk management. Besides that the researcher conducts the study only on CBE WAAD, which may not represent the entire districts and branches found in CBE.

References

- Kumar, chatterjee, and chandresekhar and patwandhan(2005), Risk Management ,Acase study in Islamic Bank in Pakistan.
- Jorion and Ahimed(2001),financial risk manager hand book,second edition,University of California.
- Gleason(2000),The failure of risk management,how it's broken and how to fix, Nagoya Japan
- Hassan (2010),Practical guide for risk management practice,university of Newyork.
- Khan and Ahimed(2001),fundamental for the assessment of risk from environmental radiation,at the NATO advanced research workshop.
- Adarkwa, (2011), "Risk Management and Bank Performance, A case study of First Atlantic Merchant Bank Ghana Limited", Master"s Thesis.
- Bhattacharjee, A. (2012), social science research: Principles, Methods and Practices, 2nd ed., USA: University of South Florida.
- Carey, A. (2001), "Effective risk management in financial institutions: the Turnbull approach", *Balance Sheet*, Vol. 9, No.3, pp. 24-27
- Fasika(2012), "Commercial Bank operational risks management: Exploratory study on selected Ethiopian Commercial Banks", Master"s Thesis.
- Greuning, H., BrajovicBratanovic, S (2009), "Analyzing banking risk a framework for assessing corporate governance and risk management", 3rd edition, Washington, D. C.: The World Bank
- Jorion, Phillippe and Sarkis J. Khoury, (1996), Financial Risk Management Domestic and International Dimensions, Blackwell Publishers, Cambridge, Massachus
- National Bank of Ethiopia (2010), "*Commercial banks risk management guidelines*".
- Osborne, A. (2012), Risk management Made Easy. Andy Osborne and Ventus Publishing Aps. ISBN 978-87-7681-984-2.
- Pyle, H. David (1997), Bank Risk Management Theory, Working paper RPF-272, Haas School of Business, University of California, Berkeley, pp. 2.

aSantomero, A.M. (1995), *Financial Risk Management: The Whys and How's*, *Financial Markets, Institutions and Instruments* 4(5):1-14

Sharma, B.R. (2003). *Bank Frauds- Prevention & Detection*, Universal law Publishing Co. Pvt.Ltd.

Hassan, A. (2009) *Risk management practices of Islamic banks of Brunei Darussalam*. *Journal of Risk Finance*; Vol. 10, Issue 1, p. 23-37.

Haynes, A. (2005) *The effective articulation of risk-based compliance in banks*. *Journal of Banking Regulation*; Vol. 6, Issue 2, p. 146-162.

Herring, R. J. (2007) *The Rocky Road to Implementation of Basel II in the United States*. *Atlantic Economic Journal*; Vol. 35, Issue 4, p. 411-429.

Jacobson, T. Lindé, J. and Roszbach, K. (2006) *Internal ratings systems, implied credit risk and the consistency of banks' risk classification policies*. *Journal of Banking & Finance*; Vol. 30, Issue 7, p. 1899-1926.

Lang, W. and Nayda, W. (2008) *Is Advanced Credit Risk Management Worth the Plunge?* *RMA Journal*; Vol. 90, Issue 8, p. 35-41.

Nunnally, C.J. (1978), *Psychometric Theory*, McGraw-Hill, New York, NY.

Oldfield, G. S. and Santomero, A. M. (1997) *Risk management in financial institutions*. *Sloan Management Review*; Vol. 39, Issue 1, p. 33-46.

Paletta, D. (2004) *Basel II Banks' Monitoring Of Risk Ratings Said Lacking*. *American Banker*; Vol. 169, Issue 98, p. 3.

Saunders, M. Lewis, P. and Thornhill, A. (2007) *Research Methods for Business Students*. Harlow: Pearson Education.

Sawyer, N. (2009) *Basel Committee improves market risk framework*. *Risk*; Vol. 22

Selltiz, C., Wrightsman, L.S. and Cook, W. (1976), *Research Methods in Social Relations*, Holt, Rinehart and Winston, New York, NY

Sjölander, P. (2009) *Are the Basel II requirements justified in the presence of structural breaks?* *Applied Financial Economics*; Vol. 19, Issue 12, p. 985-998.

Tschoegl, A. E. (2003) *The Key to Risk Management: Management*. Working Papers -- Financial Institutions Center at The Wharton School; 2003, p. 1-25.

Wellink, N. (2008) *A robust framework for risk management*. *Banker*; Vol. 158, Issue 984, p. 10.

Wood, D. (2007) *Basel II backlash*. *Risk*; Vol. 20, Issue 12, p. 72-74.

Al-Tamimi, H. A. H., & Al-Mazrooei, F. M. (2007). Banks' risk management: a comparison study of UAE national and foreign banks. *Journal of Risk Finance*, The, 8(4), 394-409.

Appendix

WOLKITE UNIVERSITY COLLEGE OF BUSSINESS AND ECONOMICS DEPARTMENT OF MANAGEMENT

QUESTIONNAIRE ON RISK MANAGEMENT PRACTICES IN COMMERCIAL BANK OF ETHIOPIA

Dear respondent

The purpose of this questionnaire is to collect relevant information on **Risk management practices in commercial bank of Ethiopia**. The information required is strictly for academic purpose

As part of a study for the award of MBA at Wolkite University and any information provided would be treated with the utmost confidentiality and shall be used only for the intended purpose.

If you have any questions or concerns regarding to complete the questionnaire, please call 0920-19-52-73 or email to simemulemma@gmail.com you can use office outlook through simemulemma@cbe.com.et thank you in advance for giving your time and effort in completing this survey questionnaire.

Your help is highly appreciated.

Sincerely,

Simemulema

Part (1) Demographic Questions

The following questions concern your position and other personal information.

Please respond to the questions below by ticking (√) the right option.

1. Gender:

Male	
Female	

2. What is your marital status?

Married	
Unmarried	
Divorced	
Widow	

3. Working experiences?

Less than one year	
1-5	
5-10	
10-15	
More than 15 years	

4. What is your age group?

Under 21	
21-30	
31-40	
41-50	

Above 50	
----------	--

5. What is your highest education qualification?

Certificate	
Diploma	
Degree	
Master's degree	
PhD	

6. What is your position?

Management class

Non-management

Table 1: Reliability of statistics**Summary of Measures**

Variable	Measure	No. of Items in the Scale	Cronbach's Alpha Result
Understanding risk and risk management	AL-Tamimi and AL-Mazrooei(2007), Abul Hassan,(2009)	8	0.771
Risk assessment and analysis	AL-Tamimi and AL-Mazrooei(2007), Abul Hassan,(2009)	7	0.651
Risk identification	AL-Tamimi and AL-Mazrooei(2007), Abul Hassan,(2009)	5	0.689
Risk monitoring	AL-Tamimi and AL-Mazrooei(2007), Abul Hassan,(2009)	5	0.809
Risk management practices (dependent variable)	AL-Tamimi and AL-Mazrooei(2007), Abul Hassan,(2009)	10	0.887

Risk management Practices

1 Strongly Disagree (SA)	2 Disagree (D)	3 Neutral (N)	4 Agree (A)	5 Strongly Agree (SA)
---	---------------------------------	--------------------------------	------------------------------	--

Using the scale above (1 – 5) please tick (√) the levels of agreement in each of the items below with regards to the risk management practices of your bank.

Part2:-risk management practices in commercial bank of Ethiopia

	SA	A	N	DA	SD
	5	4	3	2	1
1. The bank executive management regularly reviews the organizations performance in managing its business risk.					
2. Your bank highly effective in continuous review/feedback on risk management strategies and performance					
3. Your bank’s risk management process and procedures are documented and provide guidance to staff about managing risks.					
4. Your bank emphasizes the recruitment of highly qualified people having banking knowledge in risk management.					
5. Effective risk management is one of the objectives of the bank.					
6. It is too risky to investment your bank funds in one specific sector of the economy.					

Part3:-Understanding risk and risk management

	SA	A	N	DA	SD
	5	4	3	2	1
1. A common definition of bank risk is used throughout the bank					
2. There are clear management statements on risk management in the bank					
3. The responsibility for risk management is clearly set out and understood throughout the bank.					
4. the accountability of risk management clearly set out and understood throughout the Bank					
5. managing risk is important for the success and performance of the bank					
6. The importance of risk management and control has been communicated throughout the Organization					
7. Managers in the organization understand the risks faced by the organization which they are responsible for managing					

Part4. Risk identification

	SA	A	N	DA	SD
	5	4	3	2	1
1. Change in risks are recognized and identified when the bank rules and responsibilities.					
2. The bank identifies the main potential risk relating declared aims and objectives.					
3. your bank identifies the risk damage to the organizational credibility and reputation					
4. The bank is aware of the strengths and weakness of the risk management systems of the other banks.					
5. Your bank has developed and applied procedures for the systematic identification investment of opportunities.					

6. What are the top three risks that could threaten achievements of the bank’s main objectives over the next twelve months?

5. Risk assessment and analysis

	SA	A	N	DA	SD
	5	4	3	2	1
1. The bank finds it difficult to prioritize its main risk.					
2. The bank finds it difficult to assesses the likelihood of risk occurring.					
3. The bank find it difficult to assess the potential impacts of risk materializing.					
4. Your bank is able to accurately evaluate the costs and benefits of taking risks					
5. Your bank analyses and evaluates the opportunities that it has to achieve objectives.					

6. How often does the bank assess the overall risks to the achievement of its objectives?

7. The organization measures risk in terms of (please tick all that apply)

- financial impact
- reputational impact
- Likelihood of occurrence
- Achievement of objectives
- Other(please specify)

Part6:-Risk monitoring

	SA	A	N	DA	SD
	5	4	3	2	1
1.monitoring the effectiveness of risk management is an integral part of routine management reporting					
2. The organization has assessed the need for the use of internal capability for monitoring and review of risks.					
3. Level of control by the bank is appropriate for the risk that it faces.					
4. Reporting and communication process within your bank support the effective management of risk.					
5. The bank response to risk includes an evaluation of the effectiveness of the existing controls and risk management.					

