ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

RISK MANAGEMENT PRACTICE IN COMMERCIAL BANK OF ETHIOPIA (CBE)

BY

LIDIYA ASSEFA

MAY 2019

ADDIS ABABA, ETHIOPIA

St. MARY'S UNIVERSITY

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RISK MANAGEMENT PRACTICE IN COMMERCIAL BANK OF ETHIOPIA (CBE)

A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ST. MARY'S UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN MBA

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List of Acronyms

CBE= Commercial Bank of Ethiopia

CR = Credit Risk

HR= Human Resource

IRR =Interest rate Risk

LR= Liquidity Risk

MR= Market Risk

NBE= National Bank of Ethiopia

LRM= Loan Review Mechanism

OR = Operational Risk

RAROC = Risk Adjusted Rate of Return on Capital

RSA = Rate sensitive assets

SPSS= Statistical Package for Social Sciences

VAR= Value at Risk

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ABSTRACT

This thesis is aimed at the assessments of risk management practices of Commercial Bank of Ethiopia. The data was obtained from primary sources that were collected through questionnaire and analyzed by the descriptive form of research design. Open and closed-ended questionnaires were administered to 267 respondents from selected districts and head office and analyzed using SPSS software package. The questionnaires covered key aspects of risk management including the importance of risk management practices, risk identification, risk monitoring and nature of risk management practices. According to the analysis made the main finding of the study is that credit and liquidity risks are identified as risks that affect the bank seriously. Moreover, GAP-analysis, Duration GAP-analysis and Risk adjusted rate of return on capital (RAROC) are the major practices the bank use to identify the risks to manage it. The bank should also look for the best ways to mitigate the prevalence of these risks and strength the existing risk identification practices. Some recommendations were made and prominent amongst them were 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 controlling culture throughout all processes and activities.

Key words*: Risk, Risk Identification, and Risk Management Practice*

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The core business of banking is to attract funds and to resell or invest. Investing is not without risk. Banks need to take risk to maintain their margins and to fulfill their role in the economy. Nowadays, the banking environment is facing various changes, the most significant of which are liberalization of service sector, a major progress in the technological aspect, and a rise in competition among banks and other institutions.

In the view of these changes, evolution within the banking sector itself has to come along too in order to keep pace with such contemporary developments. This in turn requires identifying and clarifying the various risks that banks may encounter assessing such risks and managing them while also suggesting means through which risks and their impacts can be curbed (Khalid & Amjad, 2012).

The banking business characterizes its self by intensive competition considering both the cost and the products. For this reason, the banks seek to identify and adopt new and more efficient ways to fight their competitors and to gain more customers that will be retained and loyal. In this way, banks make efforts to reduce costs and make better offers by screening borrowers and differentiating the prices accordingly to maximize the profits and minimize the losses-risks (Stavroula, 2009).

The well-known Basel regulations issued by the Basel Committee on Banking Supervision are aimed at regulating the coverage of risk to which financial level, thus creating preconditions for intensification of competition in international banking institutions are exposed (Basel Committee on Banking Supervision, 2014). The Committee's principal goal is to harmonize financial institutions supervision at the international level.

As a regulator and supervisor of all financial institution activities in the country, National bank of Ethiopia (NBE), has a mandate to issue and provide guidance to all financial institutions as to the risk management system (NBE, 2010). The bank has revised the 2003 banks risk management guidelines in 2010 to incorporate latest developments in the area. The risk management guidelines are consistent with international standards and best practices,

expected to provide minimum risk management (risk identification, measurement, monitoring and control) standards for all banks operating in the country. It covers the most common and interrelated risks that banks could face in the country, namely, credit, liquidity, market and operational risks. The guidelines are those expected to assist risk-based supervision and contribute towards safety and soundness of the banking system (Tsion, 2015).

Risk management is concerned with understanding and managing the risks that an organization faces in its attempt to achieve its objectives. These risks will often represent threats to the organization such as the risk of heavy losses or even bankruptcy. Risk management has traditionally associated itself with managing the risks of events that would damage the organization (Woods and Dowd, 2008).

In recent years, the Ethiopian financial industry is registering an encouraging growth in terms of the size and number of commercial banks, insurance companies, and microfinance institutions. The banking industry in the country is making a great advancement in terms of quality, quantity, expansion and diversification and is keeping up with the updated technology, ability and stability of a financial system. A bank that takes excessive risk is likely to run into difficulty and may eventually itself fail its obligations and become insolvent. Hence, to survive and prosper, a bank must have a strong and effective control system with extra concern for the risk involved in the business.

The risk management practice of Commercial Bank of Ethiopia is at its infancy stage, as NBE directives say the establishment of the risk department is a recent phenomenon, this study analyzes the risk management practice of Commercial Bank of Ethiopia. These necessity calls for an in-depth investigation on risk management practices and here lays the justification of this study.

1.2 Statement of the Problem

The financial institutions today operate in a very uncertain environment where conditions can change due to inflation, interest rate fluctuation, financial crises, mounting competition, government influence, and increasing regulatory requirements (Negese and Pasha, 2014).

The very nature of the banking business is so sensitive because more than 85% of their liability is deposits from depositors (Saunders and Cornett, 2006). Banks use these deposits to generate credit for their borrowers, which in fact is a revenue generating activity for most banks. This credit creation process exposes the banks to high default risk which might led to financial distress including bankruptcy. All the same, beside other services, banks must create credit for their clients to make some money, grow, and survive stiff competition at the market place.

In Commercial Bank of Ethiopia, most researches are conducted on particular types of risks unlike risk management in general. For instance, Tibebu (2011), Biruk (2015), Gebrewahd, (2016) and Tiru (2017) have studied the credit risk management of commercial bank of Ethiopia. The exception to this argument is that Tsion (2015) has conducted a research on risk management of selected Ethiopian commercial banks. However, the present paper focused on risk management practice in Commercial Bank of Ethiopia.

Recent experience of the CBE shows that there is increased trend in the usage of information technology, unprecedented growth of branch expansion, introduction of new products and services, and use of new forms of service delivery channels. All these developments will significantly change the risk profile of the Bank. Thus, it is of paramount importance to continuously assess the internal and external environment to understand the risk profile of the Bank and proactively manage it, accordingly.

The possible consequences of risk if not properly managed include unpaid or non-performing loans, expensive deposits, limited new revenues, low trustworthiness and confidence (Biruk, 2015). In light of this, the present paper aims to investigate risk management practices of commercial bank of Ethiopia.

1.3 Research Questions

The following research questions are raised in order to address objectives of the study

1. What are the major risks that Commercial Bank of Ethiopia (CBE) is exposed to?
2. What are the risk management techniques used by CBE?
3. How does the bank identify, measure, monitor, evaluate, and control risk?
4. Are the employees of CBE aware of concepts of risk and its associated management?

1.4 Objective of the study

1.4.1 General Objective

The general objective of this study is to analyze the risk management practice of CBE by examining the techniques adopted to mitigate major risk types.

1.4.2 Specific Objectives

Specifically, the study has the following objectives:

1. To identify the types of risk faced by CBE
2. To assess the extent of risk management execution techniques of CBE
3. To examine the process of identification, measurement, monitor, evaluation, and control of risk in CBE
4. To assess the level of employee's awareness on concept of risk and its associated management

1.5 Significance of the Study

This study contributes to the literature by providing evidence from CBE risk management practice. This paper would be invaluable to the banks management for better understanding of the level of risk management of the bank. Moreover, regulatory bodies such as the National Bank of Ethiopia can use the study findings to improve on the framework for risk management.

1.6 Scope of the Study

This study attempts to analyze risk management practice of selected districts of CBE as it is a bank with a huge market share and large number of branches than the private banks operating in Ethiopia.

Commercial bank of Ethiopia has 15 districts and over 1,280 branches throughout Ethiopia. However, this study has focused on four districts namely East Addis Ababa, North Addis Ababa, South Addis Ababa, West Addis Ababa and Head office. This paper confines itself to four districts and Head office located in Addis Ababa due to time and resource shortage.

1.7 Limitation of the Study

The study is subjected to several shortcomings that probably limit the interpretation of the findings. Since the researcher delimited the scope only to four districts of commercial bank of Ethiopia, thus the ability to generalize to the entire population of commercial bank of Ethiopia may be adversely affected. The sample is however similar in nature to the population of employees in commercial bank of Ethiopia to get adequate and relevant information.

1.8 Organization of the Paper

The study is organized into five chapters. Chapter one discusses the background information, identifies the research gap and presents the research objective and significance of the study. Chapter two presents the review of related theoretical literature. Chapter three presents the type of research design, research approach and data analysis method. The fourth chapter presents result and discussion. Chapter five present summary, conclusion and recommendations.

1.9 Definition of Basic Terms

Risk is anything that can create hindrances in the way of achievement of certain objectives. It can be because of either internal factors or external factors, depending upon the type of risk that exists within a particular situation (Kanchu.and Kumar, 2013).

Liquidity is the availability of cash or the capacity to obtain it on demand, or the quality being readily converted to cash.

Market risk – portion of security's stand-alone risk that can not be eliminated through diversification (Gup and Kolari, 2005).

CHAPTER TWO
LITERATURE REVIEW

This chapter covers the explanation of the theoretical framework/literature review and developed in a manner that give an insight and deep understanding of risk management practice in banking business. It starts with a definition and concept of the risk and types of risk in banking sector. Then the risk management concepts or practices are reviewed. After that, the literature focuses risk management process and techniques. It also helps the reader to gain an understanding about the benefits of risk management.

2.1 Review of Theoretical Literature

2.1.2 Definitions of Risk

The term risk originates from the Italian 'riskare', which means 'to dare' (Moles, 2016). The dictionary lists risk as both a noun and a verb. When used as a noun it has the connotation of danger, hazard, the chance of loss, an enterprise that can lead to profit or loss, the amount of a loss (hence the 'sum at risk'), a gamble or a bet. When used as a verb, risk means to expose oneself to the potential for loss, to make a bet or a wager, to gamble, to undertake an uncertain enterprise or venture. Both uses imply that there is the possibility of gains as well as losses.

Risk is also defined as anything that can create hindrances in the way of achievement of certain objectives. It can be because of either internal factors or external factors, depending upon the type of risk that exists within a particular situation. Exposure to that risk can make a situation more critical. A better way to deal with such a situation; is to take certain proactive measures to identify any kind of risk that can result in undesirable outcomes. In simple terms, it can be said that managing a risk in advance is far better than waiting for its occurrence (Kanchu.and Kumar, 2013).

There is also a psychological meaning to risk: it is that state of uncertainty or doubt in the face of a situation with beneficial and adverse consequences: gains and losses (Fischhoff, 2012).

Risk is concerned not just with the extent or probabilities of potential losses but also with deviations from the expected outcome. It is the extent to which the actual result may deviate

from the expected result that makes a situation risky. It is a function of objectives. Without an objective or intended outcome, there is only uncertainty. A rider to this is that risk arises only where the deviation from the objective matters; that is, if it affects individuals or firms financially, or entails some other adverse consequence. It can also provide an opportunity (Sharma, 2003).

Risk is unavoidable in every area of our life. All businesses, whatever their size and shape, in whatever markets they operate and no matter what products and services they provide, are constantly faced with various types of risks. As argued by Osborne (2012), businesses can only prosper by successful risk taking.

Although the terms risk and uncertainty are often used synonymously, there is difference between the two. (Sharma, 2003) has indicated that

"... Uncertainty must be taken in a sense radically distinct from the familiar notion of Risk, from which it has never been properly separated. ... The essential fact is that "risk" means in some cases a quantity susceptible of measurement, while at other times it is something distinctly not of this character; and there are far-reaching and crucial differences in the bearings of the phenomena depending on which of the two is really present and operating. ... It will appear that a measurable uncertainty, or "risk" proper, as we shall use the term, is so far different from an un-measurable one that it is not in effect an uncertainty at all."

In short, Sharma defined only quantifiable uncertainty to be risk and provided the example of two individuals drawing from an urn of red and black balls; the first individual is ignorant of the numbers of each color whereas the second individual is aware that there are three red balls for each black ball. The second individual estimates (correctly) the probability of drawing a red ball to be 75% but the first operates under the misperception that there is a 50% chance of drawing a red ball. Sharma argues that the second individual is exposed to risk but that the first suffers from ignorance.

The emphasis on whether uncertainty is subjective or objective seems to us misplaced. It is true that measurable risk is easier to insure but we do care about all uncertainty, whether measurable or not. In a paper on defining risk, Holton (2004) argues that there are two ingredients needed for risk to exist. The first is uncertainty about the potential outcomes from an experiment and the other is that the outcomes have to matter in terms of providing utility. He notes, for instance, that a person jumping out of an airplane without a parachute faces no

risk since he is certain to die (no uncertainty) and that drawing balls out of an urn does not expose one to risk since one's wellbeing or wealth is unaffected by whether a red or a black ball is drawn. Of course, attaching different monetary values to red and black balls would convert this activity to a risky one.

One can attach probabilities to risk. It can be measured, estimated or calculated in some way. Therefore, risk can be quantified and expressed as a parameter, a number or a value. In terms of risk theory, the probability of an event occurring takes a value that can range from zero to one. An event is impossible if it has a probability of zero; an event is certain if it has a probability of one. Risk will be greatest if the gain- or loss-making event has a probability of one; that is, it is certain to occur (Moles, 2016).

2.1.3 Types of Risks in Banking Sector

Risk at the apex level may be visualized as the probability of a banks' financial health being impaired due to one or more contingent factors. While the parameters indicating the banks' health may vary from net interest margin to market value of equity, the factor which can cause the important are also numerous. For instance, these could be default in repayment of loans by borrowers, change in value of assets or disruption of operation due to reason like technological failure.

In the process of providing financial services, banks assume various kinds of risk both financial and non-financial (Adarkwa, 2011). Financial risks include credit risk, market risk and liquidity risk that are directly related to financial operations of banks. The non-financial risks on the other hand indirectly affect the financial performance of banks. These include strategic risk, political/country risk, reputational risk, operational risk etc.

2.1.3.1 Financial Risk

Financial risk arises from any business transaction undertaken by a bank, which is exposed to potential loss. This risk can be further classified into credit risk, liquidity risk and market risk.

i) Credit Risk

As part of all risks, Credit creation is the main income generating activity for the banks. However, this activity involves huge risks to both the lender and the borrower. The risk of a trading partner not fulfilling his or her obligation as per the contract on due date or anytime

thereafter can greatly jeopardize the smooth functioning of a bank ‘s business. On the other hand, a bank with high credit risk has high bankruptcy risk that puts the depositors in jeopardy. Among the risk that face banks, credit risk is one of great concern to most bank authorities and banking regulators. This is because credit risk is that risk that can easily and most likely prompts bank failure (Basel, 2000).

Credit Risk is the potential that a bank borrower/counter party fails to meet the obligations on agreed terms. There is always scope for the borrower to default from his commitments for one or the other reason resulting in crystallization of credit risk to the bank. These losses could take the form outright default or alternatively, losses from changes in portfolio value arising from actual or perceived deterioration in credit quality that is short of default. Credit risk is inherent to the business of lending funds to the operations linked closely to market risk variables. The objective of credit risk management is to minimize the risk and maximize bank’s risk adjusted rate of return by assuming and maintaining credit exposure within the acceptable parameters (Hempel and Simonson, 1999).

The instruments and tools, through which credit risk management is carried out, are detailed below as documented in (Kanchu and Kumar, 2013).

a) Exposure Ceilings: - Prudential Limit is linked to Capital Funds – say 15% for individual borrower entity, 40% for a group with additional 10% for infrastructure projects undertaken by the group. Threshold limit is fixed at a level lower than prudential exposure; Substantial Exposure, which is the sum total of the exposures beyond threshold limit should not exceed 600% to 800% of the Capital Funds of the bank (i.e. six to eight times).

b) Review/Renewal: Multi-tier Credit Approving Authority, constitution wise delegation of powers, Higher delegated powers for better-rated customers; discriminatory time schedule for review/renewal, Hurdle rates, and benchmarks for fresh exposures and periodicity for renewal rating, etc. are formulated.

c) Risk Rating Model: Set up comprehensive risk scoring system on a six to nine-point scale. Clearly define rating thresholds and review the ratings periodically preferably at half yearly intervals. Rating migration is to be mapped to estimate the expected loss.

d) Risk based scientific pricing: Link loan pricing to expected loss. High-risk category borrowers are to be priced high. Build historical data on default losses. Allocate capital to absorb the unexpected loss.

e) Portfolio Management The need for credit portfolio management emanates from the necessity to optimize the benefits associated with diversification and to reduce the potential adverse impact of concentration of exposures to a particular borrower, sector or industry. Stipulate quantitative ceiling on aggregate exposure on specific rating categories, distribution of borrowers in various industry, business group and conduct rapid portfolio reviews.

f) Loan Review Mechanism. This should be done independent of credit operations. It is also referred as Credit Audit covering review of sanction process, compliance status, and review of risk rating, pickup of warning signals and recommendation of corrective action with the objective of improving credit quality. It should target all loans above certain cut-off limit ensuring that at least 30% to 40% of the portfolio is subjected to LRM in a year to ensure that all major credit risks embedded in the balance sheet have been tracked.

ii) Liquidity Risk

Liquidity risk refers to uncertainty regarding the ability of a firm to unwind a position at little or no cost, and relates to the availability of sufficient funds to meet financial commitments when they fall due.

Liquidity risk is 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 (Gup and Kolari, 2005). Liquidity risk is a major risk for the bank portfolio in that, in extreme cases it could result in bankruptcy.

iii) Market Risk

These financial risks arise because of possible losses due to changes in future market prices or rates. The price changes will often relate to interest or foreign exchange rate movements, but also include the price of basic commodities that are vital to the business (Stavroula, 2009).

According to Saunders and Cornett (2006), market risk can be defined as the possibility of loss to banks caused by the changes in market variables. It 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. Thus, interest rate risk and foreign exchange risk are the two types of market risk.

2.1.3.2 Non-Financial Risks

a) **Strategic Risk:-**The risk that occurs due to changes in behavior and activity of the economic and financial environment in which it operates. Stavroula, (2009) defines strategic risk as possibility that a failure at a firm, in a market segment, or to a settlement system could cause a "domino effect" throughout the financial markets affecting one financial institution after another or a "crisis of confidence" among investors, creating illiquid conditions in the marketplace. The ''domino effect'' refers to the risk hidden under the interconnection of several sectors in market and begins when the disorder of one firm or one segment of the market can affect and cause failure in segments of or throughout the entire financial system. The interconnection of obligations among the same institutions and with the cash markets exacerbates that risk.

b) Reputational Risk:-The potential that negative publicity regarding the bank's business practices, whether true or not, will cause a decline in the customer base, or revenue reduction.

c) Operational risk: - Operational risk is a financial risk because of potential operational breakdowns in terms of people risk, process risks and technology risks. These include frauds, inadequate computer systems, control failures, operation failures, or natural disasters etc.

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events, including legal risk. It is the potential financial loss because of breakdown in day-to-day operational processes. It can arise from failure to comply with policies, laws, and regulations, from fraud or forgery. In order to mitigate this, internal control and internal audit systems are used as the primary means (Basel Committee on Banking Supervision, 2003).

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.

Since 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 ecommerce, 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).

d) Legal Risk: - Legal risks are risks associated with changes in legal banking environment. New regulation, new statutes, tax legislation and court opinions can convert previous well-performed transactions into struggles even when both sides have previously cooperated adequately and are fully able to perform in the future. Additionally, legal risk can arise from the activities of an institution's management or employees. Fraud, violations of regulations or laws, and other actions can result in big and danger losses. Moreover, there exists possible risk of loss due to an unenforceable contract or a total aversion of a counter party. Finally, there is also the possibility the contract to be illegal or one of the parties who entered into the contract not to have the proper authority (Stavroula, 2009).

e) Country Risk:- Country risk is the risk of a general crisis in a country stemming from other, more specific, risks. Such risk is the risk of default (mainly in country debt) of sovereign issuers, such as central banks or government-sponsored banks. Additionally, deterioration of the economic conditions and of the value of the local foreign currency in terms of the banks base currency, legal restrictions, stop of currency convertibility and a market crisis are the most popular risks that lead to a country's unstable and risky economic life (Brown and Moles, 2014 as cited in Biruk, 2015).

2.1.4 Risk Management

Risk management is the identification, assessment, control, and decisions made regarding the treatment by an organization or an individual of particular risks faced by the organization or the individual. It can be a formal process involving procedures, quantitative and qualitative assessments leading to review and decision, or it can be informal (Moles, 2016).

Risk Management is the application of proactive strategy to plan, lead, organize, and control the wide variety of risks that are rushed into the fabric of an organizations daily and long-term functioning (Kanchu and Kumar, 2013).

Firms can benefit from financial risk management in many different ways, but perhaps the most important benefit is to protect the firm's ability to attend to its core business and

achieve its strategic objectives. By making stake- holders more secure, a good risk management policy helps encourage equity investors, creditors, managers, workers, suppliers, and customers to remain loyal to the business. In short, the firm's goodwill is strengthened in all manner of diverse and mutually reinforcing ways (Woods and Dowd 2008).

The theory of financial economic theory states that corporate risk management is appropriate to increase firm value in the presence of capital market imperfections such as bankruptcy costs, a convex tax schedule, or underinvestment problems. According to Carter et al. (2006), risk management can increase shareholder value by harmonizing financing and investment policies. A credible risk management can mitigate underinvestment costs by reducing the volatility of firm value. As the underinvestment problem which includes financial risk management is likely to be more severe for firms with significant growth and investment opportunities, various measures such as the market-to-book ratio, research and development to sales ratio, capital expenditure to sales, net assets from acquisitions to size which are indicators of financial performance are used for testing the under investment hypothesis.
The key principles in risk management are establishment of a clear structure, allocation of responsibility and accountability, processes have to be prioritized and disciplined, responsibilities should be clearly communicated, and accountability assigned there to. Organizing and managing the lending functioning a highly professional manner and doing so pro-actively can minimize whatever the degree of risk assumed losses. Banks can tap increasingly sophisticated measuring techniques in approaching risk management issues with the advancements of technology (Yang, 2013).

Bessis (2010) also adds that in addition to its 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).

2.1.5 Risk Management Processes

The following process shows that before risk can be managed, it must be identified. Once the risk is identified, measures are taken to measure its intensity or to evaluate the outcome of the risk, and assessment of the consequences is being done, control measures are then put in place

to avoid or reduce its intensity and after that good monitoring is being done to see whether the expected outcomes are as desired. Following these processes increases the likelihood and impact of positive events and decreases the likelihood and impact of negative events (Diego, 2013). There is no a single management system that would fit for all banks. NBE requires each bank to develop its own comprehensive risk management system fitted to its need and circumstances.

i). **Risk Identification**- The first stage is to identify the risks to which the organization is exposed. Risk identification needs to be methodical, and to address the organization's main activities and their associated risks. Risk identification may be carried out via questionnaires, surveys, brainstorming sessions, or a range of other techniques such as incident investigation, auditing, root cause analysis, or interviews. The aim is to use staff expertise to identify and describe all the potential financial risks to which the organization may be exposed (Woods and Dowd, 2008). During the process of risk identification, the bank is able to study its activities and the places where its resources are exposed to risk.

ii). **Risk Measurement**

It refers to an assessment of the degree of the risk, which a particular transaction or an activity is exposed. Though the exact measurement of risk is not possible, the level can be determined with the help of rating models. Risk measurement comes in after the identification phase to give an understanding of the nature and level/extent of the risk so that it can be managed in an appropriate manner. This is because without risk measurement the intensity of effect or consequences that can result from the identified risk if neglected, cannot be easily analysed.

A good risk measurement will determine the risk management techniques that have to be put in place to manage the said risk. Some of the risk measurement techniques include Value at Risk (VAR), duration analysis, sensitivity analysis, stress testing and scenario analysis.

iii). **Risk Assessment**

The risk assessment task is to understand what is at risk and what events could potentially cause harm or benefits. The risk is being assessed in terms of the severity of the impact, likelihood of occurring and controllability (Gray & Larson, 2006). When this is done, it helps the bank to know the chances that the risk might occur, and if it occurs, the impact it can have on the bank and how they can possibly control it.

Risk assessment is done by prioritizing the risk either by using risk analysis or risk evaluation (Williams et al.., 2006). This risk analysis is based on the likelihood and consequences. Likelihood depends on the probability how the risk will occur, and how frequently it will take place. On the other hand, consequences can be measured by looking at the effects on results or on the enablers of results (Williams et al, 2006). Knowing the frequency of occurrence of the risk and the effect it will have should it occur, gives the bank the base to know how important the risk is risk evaluation is then carried out when a good risk analysis has been undertaken. An evaluation is done against an appropriate risk-acceptance criterion to give a ranking (Williams et al.., 2006). For example, low (tolerable), Medium (low as reasonably practical) and High (intolerable) this ranking then determines the decision or standpoint of the bank but what should be noted it that a decision depends on each bank independently.

iv). **Risk Control or minimization**- can be done 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.

Hedging leads to the elimination of risk through its sale in the market, either through cash or spot market transactions or through a transaction, such as a forward, future or swap, that represents an agreement to sell the risk in the future.

Diversification reduces risk by combining less than perfectly correlated risks into portfolios. For instance, while individual borrowers from a bank each represent a significant element of credit risk, for the depositors at the average bank there are virtually no concerns about credit risk.

Insurance involves paying a fee to limit risk in exchange for a premium. For example, one has only to consider the benefits to be derived from paying a fixed premium to protect against property damage or loss, or for life assurance, in the traditional insurance contract. In doing so, the insurer, usually an insurance company takes on the risk of unknown future losses.

There are three ways to control risks or at least minimize their adverse consequences with the help of above tools. These are avoiding or placing limits on certain activities/risks, mitigating risks and offsetting risks (Tsion, 2015).

CBE’s 2016 annual report states that interest rate, currency, credit, liquidity, and other risks, are controlled by independent risk control group to ensure compliance with group’s risk limit.

The Group's risk limits are assessed regularly to ensure their appropriateness given the Groups objectives and strategies and current market conditions. Varieties of techniques are used in measuring the risks inherent in its trading and non-trading positions.

v). **Risk Monitoring and Reviewing** - Keeping close track of risk identification measurement activities in 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 (Ashan & Poonam, 2013). However, main elements of risk management include identifying, measuring, monitoring, and managing various risk exposures, these activities 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 or sections of the institution to create a risk management culture.

According to Jorion (2001), a comprehensive risk management system should encompass four components. These are active board or 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 control

2.1.6 Techniques of Risk Management

a) 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. In this method a maturity/re-pricing schedule that distributes interest-sensitive assets, liabilities, and off-balance sheet positions into time bands according to their maturity (if fixed rate) or time remaining to their next re-pricing (if floating rate), is prepared. These schedules are then used to generate indicators of interest-rate sensitivity of both earnings and economic value to changing interest rates. After choosing the time intervals, assets and liabilities are grouped into these time buckets according to maturity (for fixed rates) or first possible re-pricing time (for flexible rate s). The assets and liabilities that can be re-priced are called rate sensitive assets (RSAs) and rate sensitive liabilities (RSLs) respectively. Interest sensitive gap (DGAP) reflects the differences between the volume of rate sensitive asset and the volume of rate sensitive liability and given by GAP = RSAs – RSLs as documented in (Cumming and Beverly, 2001

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).

b) Duration-GAP Analysis

It is another measure of interest rate risk and managing net interest income derived by taking into consideration all individual cash inflows and outflows. Duration is value, time weighted measure of all cash flows, and represents the average time needed to recover the invested funds. Duration analysis can be viewed as the elasticity of the market value of an instrument with respect to interest rate. 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).

c) Value at Risk (VaR)

It is one of the newer risk management tools. The Value at Risk (VaR) indicates how much a firm can lose or make with a certain probability in a given time horizon. VaR summarizes financial risk inherent in portfolios into a simple number. Though VaR is used to measure market risk in general, it incorporates many other risks like foreign currency, commodities, and equities (Jorion, 2001).

d) Risk Adjusted Rate of Return on Capital (RAROC)

It gives an economic basis to measure all the relevant risks consistently and gives managers tools to make 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 et al, 2006).

e) Securitization

It is a procedure studied under the systems of structured finance or credit linked notes. Securitization of a bank's assets and loans is a device for raising new funds and reducing

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

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

g) Internal Rating System

An internal rating system helps financial institutions manage and control credit risks they face through lending and other operations by grouping and managing the credit-worthiness of borrowers and the quality of credit transactions (IBD, 2001)

2.1.7 The Importance of Banking Risks

Risk management is an essential element of corporate governance, needed to balance risk and reward, threat and opportunity, strategy and operations. Sound and effective risk management and controls promote both bank and industry stability making the investors and counterparties feel rather confident to involve in financial deals. Banks have economic and commercial incentives to employ strong risk management internal control systems. Without such controls, a bank is vulnerable to risk. The importance of risk management and controls in protecting against serious and unanticipated loss is best illustrated by some recent cases; where risk management and controls broke down; or were not properly implemented.

2.2 Review of Empirical Literature

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.

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 it and the role of IT and human judgment. 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 Brunei 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.

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 reveals 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.

2.3. CONCEPTUAL FRAMWORK

As shown in figure 2.1 below the researcher tried to assess how Commercial Bank of Ethiopia identify, measure, monitor, control and evaluate credit risk starting from the beginning up to its settlement. In the identification phase credit request is full of uncertainty so risk should be identified from different perspectives, in measurement phase all possible risks should be measured, once possible risk was identified and measured response and action plans must be made then after every performers acct accordingly to assure risk under control and timely decision. Through ought the process monitoring and evaluation of each phase and finally lesson learned must be drawn and documented as a reference. In doing so board of directors should design appropriate strategies, tools and techniques. CBE should also have committed and experienced employees to manage risk before its bad consequences with full heart

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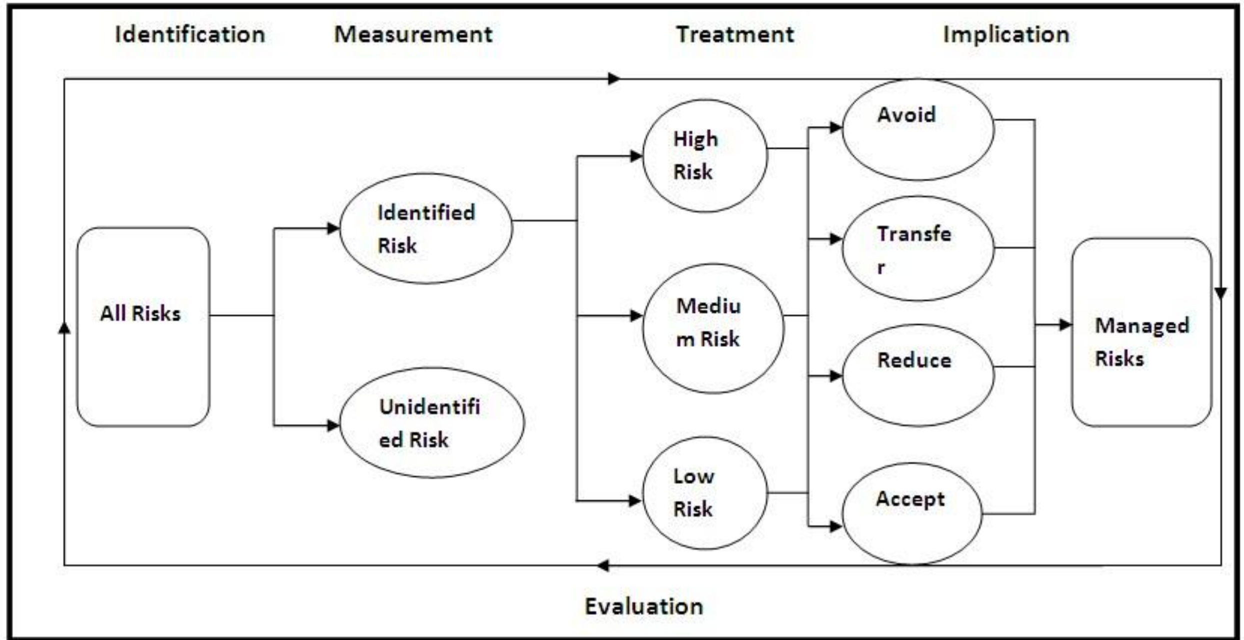
Figure 2.1: Steps in Risk Management Process



Source: Ir. Tony Van Gestel and Bart Baesens, 2009

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Research Approach and Design

A qualitative type of research approach is employed. It is decided to use the descriptive form of research design to provide answer to the research questions. Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection. This research design is used because it often uses visual aids such as graphs and charts to aid the reader in understanding the data distribution. Because the human mind cannot extract the full import of a large mass of raw data, descriptive statistics are very important in reducing the data to manageable form. (Glass & Hopkins, 1984).

3.2. Population and Sampling technique

Commercial bank of Ethiopia has 15 districts and over 1,280 branches throughout Ethiopia. However, the total number of target population for the study comprise 875 employees selected from four districts namely East Addis Ababa, North Addis Ababa, South Addis Ababa, West Addis Ababa and Head office. This paper confines itself to four districts and Head office located in Addis Ababa due to time and resource shortage. the above mentioned

Formula for calculating a sample for proportions that are known, Kothari (2004) developed the Equation that yield a representative sample for proportions. Where, n_0 is the sample size, Z^2 is the abscissa of the normal curve that cuts off an area at the tails (1 - a equals the desired confidence level, e.g., 95%), e is the desired level of precision, p = 0.5, is the estimated proportion of an attribute that is present in the population, and q is 1-p. The value for Z is

Found in statistical tables that contain the area under the normal curve. Hence, Kothari (2004) suggested that the sample size should be determined by using the following formula when the number of population is finite.

$$n_0 = \frac{Z^2.pq.N}{(N-1)e^2 + Z^2.pq}$$

Where, n_0= size of sample

e = acceptable error

z = standard variant at a given confidence level

p = the proportion in a target population estimated to have a characteristic being measured

q = p – 1

Thus, the population of the study constituted 875 employees of the four districts and head offices who are homogenous in kind (CBE HR Transaction, 2019) and using 95% of confidence level and 5% of confidence interval, a sample size of 267 selected as follows.

$$n_0 = \frac{(1.96)^2 * (0.5)(0.5) * 875}{(0.05)^2(875-1) + (1.96)^2 * (0.5)(0.5)} = 267$$

3.3 Types of data, sampling technique and sample size used

This paper used a primary data, which would be collected from districts and Head office employees. Accordingly, a sample size of 267 employees was randomly included in this study.

3.4 Data collection instruments collection

The data was collected by using questionnaires. The questionnaire will incorporate a Likert scale measurement. It is a rating scale, which requires the respondents to indicate a degree of agreement or disagreement with each of a series of statements or questions. Questionnaires are an important instrument for research as a tool for data collection. The use of questionnaires was justified to the extent that questionnaires are effective way of collecting information from a large literate sample in a short span of time and at a reduced cost than

other methods. The questionnaires were made use of closed ended questions to ensure consistency, easy coding, and data analysis.

3.5 Data Analysis Method

Greener (2008) stated that in most types of researches, 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. This research paper used descriptive method of data analysis on the data collected through questionnaires. The data gathered through questionnaires are analyzed and presented through descriptive method of data analysis. As this study constitutes qualitative data that was collected via a questionnaire, a descriptive data analysis method was used in order to describe and analyze the collected data. It was captured on to a statistical package of SPSS just to support the data presentation. As a part of descriptive method, tables, graphs, and charts were employed to represent and interpret the results and findings of the study clearly.

3.6 Reliability and Validity of the Data Gathering Instrument

Content validity of the structured questionnaire was checked and incorporated comments by providing the instrument to professionals who are working in the corporation and the research advisor. In the process, the questionnaire was modified by the advisor and by the professionals. In addition, the content validity was checked by ensuring that the by designing data collection instruments very carefully to include all the necessary questions related to answer the problem statement.

The Cronbach�What alpha coefficient test conducted to measure the internal consistency reliability. Before distributing the questionnaire to the selected respondents, a pilot-test exercise was conducted. It also tasted using Cronbach‘s Alpha test and done upon 10 individuals who was selected at random in order to check the internal reliability of the questionnaire. Accordingly, the reliability of the instrument was measured using Cronbach`s alpha and calculated by using statistical software SPSS. In theory, reliability can range from 0 to 1.00, but the reliability of measures of human traits and behaviors never quite reaches 1.00. Some very good achievement tests may reach .98, but probably not any higher than that. In this regard, the result of Cronbach`s coefficients alpha was highly reliable which is 0.93 as shown in table below.

3.7 Ethical issues

In doing any research, there is an ethical responsibility to do the work honestly and with integrity. The basic principle of ethical research is to preserve and protect the human dignity and rights of all subjects involved in a research project. In this regard, the researcher assured that the respondents‘ information are confidential and used only for the study purpose. The researcher also committed to report the research findings in a complete and honest manner, without confusing others about the nature of the results.

CHAPTER FOUR

RESULT AND DISCUSSION

4.1. Respondents Profile

In this case, 267 structured questionnaires were prepared, and distributed to CBE's workers. Hence, the questionnaires were all filled, and collected. The analysis of data gathered is presented as tabular form below:

Table 1: Respondent's Profile

Measure	Item	Frequency	Percent
Gender	Female	53	20
	Male	214	80
Service year	<1	27	10
	1-5	134	50
	6-10	40	15
	>10	67	25
Your Major at study/ University is	Banking	37	14
	Banking and finance in general	120	45
	Management/Accounting/Economics	83	31
	Engineering/Law	27	10

Source: Own Survey, 2019

The overhead table explains that 80% of the employees are male while 20% of them are female. 50% of them have a service year that range between one to five years and 25% of the respondents have a service year above ten years, 15% of the respondents' service year is six to ten years, and the remaining 10% of the respondents have a service year less than one year. This presentation shows that majority (90%) of the employees have spent 5 years and above in the bank. This implies that the bank employees constitute experienced staffs that can execute their duties effectively. As mentioned above that the majority of the respondents or 45% are qualified in banking and finance in general, 31% of them are qualified in management or accounting or economics, 14% of them qualifies in banking and only 10% of them qualifies in engineering or law education field of study. The employees' qualification is concentrated on the fields required for banking industry, which would make the bank productive and manage its risks effectively.

4.2 Risk Ranking

Table 2: Responses and Response Rate

Questions	Frequency	Percent
Credit Risk (CR)	104	39%
Operational Risk (OR)	56	21%
Liquidity Risk (LR)	51	19%
Market Risk (MR)	37	14%
Interest rate Risk (IRR)	19	7%
Total	267	100%

Source: Own Survey, 2019

As depicted in the above table, 39% of the respondents have ranked credit risks first. 21% of them ranked operation risks second, liquidity risk is ranked third by 19% of the respondents, market risks found to be less effect that ranked fourth by 14% of the respondents and interest rate risk is the least ranked item that has less adverse effect in CBE. According to the result presented in the above table, 2 the bank is more exposed to credit risk and operational risk than the other types of bank risks. Likewise, liquidity risk is also potential risk that the bank is exposed to as stated and ranked third in the above table. Market and interest rate risks are not free of impacts but the prevalence and damage it causes to the bank is less than credit and operational risks according the respondents. This implies that the banks functions more concentrated on credit, operational activities, and liquidity. Therefore, the bank should work to reduce the impact of these risks based on the ranking by its employees presented as above. The bank has to create awareness to its employees regarding risk occurrence, identification and controlling mechanism.

Table 3: Ranking Risk Identification Technique

Item	Frequency	Percent
GAP analysis	91	34%
Duration-GAP analysis	59	22%
Risk adjusted rate of return on capital (RAROC)	51	19%
Securitization	21	8%
Sensitivity analysis	16	6%
Value at risk (VaR)	13	5%
Internal Rating System	16	6%
Sum	100	100%

Source: Own Survey, 2019

According to the table above from those who had write up their responses, 34%of them had provided information that banks use gap analysis technique to identify risks. 22% of them identified that CBE uses duration gap analysis in the second place to identify and control its risks.19% of the respondents believe that banks use risk adjusted rate of return on capital (RAROC) technique to identify its risk. Likewise, 8% of the respondents said that it is securitization technique, 6% of them stated it is sensitivity analysis that CBE uses as risk identification technique and 5% and 6% of the respondents mentioned that CBE uses value at risk and internal rating systems to identify risks respectively. Again from table above the ranking of risk identifications by respondents that gap analysis and duration gap analysis are the two techniques that are used by the bank mostly and seldom utilization of other techniques. Moreover, this discussion shows that the banks employees are not well informed about the banks risk identification technique as it is evidenced by the above table that for each type of risk identification technique the number or rate respondent's is less than fifty or fifty percent. Therefore, the bank is endorsed to provide training to its workers to create awareness on the technique of risk identifications.

Table 4: Employee Awareness on Importance of Risk Management Practice

Risk identifications	Strongly Agree (%)	Agree (%)	Disagree (%)	Agree and Above (%)
Your bank identifies its main risks	64	31	5	95
Your bank registers the identified risk for further assessment	60	35	5	95
The bank emphasizes the recruitment of highly qualified people having knowledge in risk management	42	41	17	83
Your bank gives due consideration to formal brain storming risk identification	31	40	29	71
Your bank gives due attention to the quality of documents submitted by borrowers with respect to the business.	48	41	11	89

Source: Own Survey, 2019

Risk identifications: Risk identification carried out via questionnaires, surveys, brainstorming sessions, or a range of other techniques such as incident investigation, auditing, root cause analysis, or interviews. Accordingly, the table above shows that 95% of the respondents agreed that the bank identifies its main risks and it registers the identified risk for further assessment. 83% of them agreed and found the bank emphasizes the recruitment of highly qualified people having knowledge in risk management, and 71% of the respondents agreed and stated that the Your bank gives due consideration to formal brainstorming risk identification. Moreover, 89% of them have said that the bank gives due attention to the quality of documents submitted by borrowers with respect to the business. This implies that the bank takes a serious care during risk identification process. Moreover, employees are aware of risk identification process.

Table 5: Risk Assessment and Analysis

Risk assessment and analysis	Strongly Agree	Agree (%)	Disagree (%)	Agree and Above (%)
Your bank uses numerical methods to assess risks	41	45	14	86
Your bank uses qualitative methods to assess risks	15	21	64	36
Your bank effectively assesses the likelihood of different risks occurring	51	36	13	87
Your bank develops action plans for implementing decisions and management plans for identified risks	42	38	20	80
Your bank's risk management processes provide guidance to staff about the management of risk	59	20	12	79

Source: Own Survey, 2019

Risk assessment and analysis: the risk assessment task is to understand what is at risk and what events could potentially cause harm or benefits. The risk is being assessed in terms of the severity of the impact, likelihood of occurring and controllability (Gray & Larson, 2006). When this is done, it helps the bank to know the chances that the risk might occur, and if it occurs, the impact it can have on the bank and how they can possibly control it. In this regard, 86% the respondents agreed that the bank uses numerical methods to assess risks, 36% of them agreed that the bank uses qualitative methods to assess risks, 87% of them agreed and said that the bank effectively assesses the likelihood of different risks occurring. 80% confirmed their agreement that the bank develops action plans for implementing decisions and management plans for identified risks and 79% of the users agreed that Your bank 's risk management processes are well documented and provide guidance to staff about the management of risk. Hence, the respondents agreed that the presence of convenience applications, language options and their utilization skills has brought about the highest degree of perceptions in the case of ease of use in mobile technology.

Table 6: Risk monitoring

Risk monitoring	Strongly Agree	Agree (%)	Disagree (%)	Agree and Above (%)
Monitoring the effectiveness of risk management is an integral part of routine management reporting.	49	24	27	73
The bank's response to risk includes an evaluation of the effectiveness of the existing controls and risk management responses	49	40	11	89
The bank's response to risk includes action plans in implementing decisions about identified risk	57	30	13	87
The level of control is appropriate for the risk it faces.	39	32	28	71
Monitoring the effectiveness of risk management is an integral part of routine management reporting	19	17	64	36

Source: Own Survey, 2019

Risk monitoring: is Keeping close track of risk identification measurement activities in light of the risk principles and policies are 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 (Ashan & Poonam, 2013). However, main elements of risk management include identifying, measuring, monitoring, and managing various risk exposures, these activities 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 or sections of the institution to create a risk management culture. Accordingly, from the survey result 73% of respondents agreed and believed that monitoring the effectiveness of risk management is an integral part of routine management reporting. Eighty nine percent of them said that the bank's response to risk includes an evaluation of the effectiveness of the existing controls and risk management responses while 87% of them perceived that the bank's response to risk includes action plans

in implementing decisions about identified risk. The other 71% of them responded that the level of control is appropriate for the risk it faces and finally 36% of them agreed that monitoring the effectiveness of risk management is an integral part of routine management reporting.

Table 7: Risk evaluation

Risk evaluation	Strongly Agree	Agree (%)	Disagree (%)	and Above (%)
The bank emphasize on continuous review and evaluation of the techniques used in risk management	54	35	11	89
Your bank is able to accurately evaluate and prioritize different risk treatments	47	39	14	86
Your bank's response to risk includes an evaluation of the effectiveness of the existing controls and risk management responses	56	31	13	87

Source: Own Survey, 2019

Risk evaluation: the effectiveness of the risk management strategy is evaluated frequently. One verifies whether the resulting risk taking remains in line with the strategy and applies corrections where necessary. This involves evaluation of the relevant risk drivers; the measurement process is evaluated, back testing procedures, the result of the risk treatment plans and the actual implementation. Risk evaluation therefore, is used to make decisions about the significance of risks to the organization and whether each specific risk should be accepted or treated. Therefore, the different management levels within the bank should be informed accordingly from the risk management process, so as the appropriate decisions to be made. Hence 89% of the respondents agreed that the bank emphasize on continuous review and evaluation of the techniques used in risk management. While 86% of them believe that the bank is able to accurately evaluate the costs and benefits of taking risks, 87% of them said and agreed that the bank's response to risk includes an evaluation of the effectiveness of the existing controls and risk management responses.

Table 8: Risk Management Practices

Risk management practices	Strongly Agree	Agree (%)	Disagree (%)	Agree and Above (Total)
There is significant board and senior management involvement in the risk management in your bank.	52	37	11	89
The bank's risk management procedures and processes are documented	44	39	17	83
The bank's policy encourages training programs in the area of risk management	36	44	21	79
Your bank takes significant steps to keep up to date with current risk management trends	31	40	22	71
The effective management of risk is central to your Bank's performance and success of your bank.	25	11	64	36
Application of risk management techniques reduces costs or expected losses to banks.	61	27	13	87
Effective risk management is one of the main objectives of your bank.	53	33	14	86
Your bank follows a strict risk management process in order to be immunized from adverse consequences.	50	21	29	71
The risk management process is handled by a specified section	26	10	64	36
It is important for your bank to emphasize continuous review and evaluation of the techniques used in risk management.	46	40	14	86
The bank is aware of the strengths and weaknesses of the risk management systems of the other banks	41	45	15	85

Source: Own Survey, 2019

Risk management practices: refers to an assessment of the degree of the risk, which a particular transaction or an activity is exposed. Though the exact measurement of risk is not possible, the level can be determined with the help of rating models. Risk measurement comes in after the identification phase to give an understanding of the nature and level/extent of the risk so that it can be managed in an appropriate manner. This is because without risk measurement the intensity of effect or consequences that can result from the identified risk if neglected, cannot be easily analysed. Hence, 89% of the respondents agreed that there is significant board and senior management involvement in the risk management in the bank. Eighty three percent of them agreed that the bank's risk management procedures and processes are documented. It provides guidance to staff about

managing risk and it is found that they can get resolved the problems they faced related to mobile banking services from nearby branches easily. Seventy nine percent of respondents agreed that the bank's policy encourages training programs in the area of risk management and the bank follows a strict risk management process in order to be protected from adverse consequences. While 71% of them agreed and confirmed that the bank takes significant steps to keep up to date with current risk management trends and 85% of the respondents agreed that the bank is aware of the strengths and weaknesses of the risk management systems of the other banks. Similarly 86% of them agreed that it is important for the bank to emphasize continuous review and evaluation of the techniques used in risk management, 87% of them agreed application of risk management techniques reduces costs or expected losses to banks.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary of Major Findings

Credit Risk (CR), Operational Risk (OR) and Liquidity Risk (LR) are the three risk types identified as major risks that CBE is exposed to. Liquidity risk is also potential risk that the bank is exposed to as stated and ranked third in the above table. Market and interest rate risks are not free of impacts but the prevalence and damage it causes to the bank is less than credit and operational risks according the respondents;

The respondents said that banks use gap analysis technique (30%) to identify risks, 21% of them identified that CBE uses duration gap analysis in the second place to identify and control its risks and 19% of the respondents believe that banks use risk adjusted rate of return on capital (RAROC) technique to identify its risk. Hence GAP and duration GAP analysis are the two major risk identification techniques that CBE is using mainly;

About 95% of the respondents agreed that the bank identifies its main risks and it registers the identified risk for further assessment and they are aware of banks risk identification strategies;

About 87% of them agreed and said that the bank effectively assesses the likelihood of different risks occurring while 80% confirmed their agreement that the bank develops action plans for implementing decisions and management plans for identified risks. 79% of the users agreed that bank's risk management processes are well documented and provide guidance to staff about the management of risk of the respondents and they are well aware of banks risk assessment and analysis

About 89% of them said that the bank's response to risk includes an evaluation of the effectiveness of the existing controls and risk management responses, 87% of them perceived that the bank's response to risk includes action plans in implementing decisions about identified risk and aware of banks risk monitoring process;

About 89% of the respondents agreed that the bank emphasize on continuous review and evaluation of the techniques used in risk management and aware of banks risk evaluation process;

About 87% of them agreed application of risk management techniques reduces costs or expected losses to banks,89% of the respondents agreed that there is significant board and senior management involvement in the risk management in the bank and aware of banks risk management practice and;

Credit Risk (CR), Operational Risk (OR), Liquidity Risk (LR), Market Risk (MR), and Interest rate Risk (IRR) are types of risk identified in this survey.

5.2. Conclusion

The study conducted on the title of risk management practice of the Commercial Bank of Ethiopia has involved the purpose of identifying the types of risks, risk management technique and practices existed in use. Accordingly, a primary data was collected from selected employees of the banks through questionnaire. The collected data is analyzed descriptively by making use of tables as means of presentations. The study also incorporates different prior research works to support the researching idea.

The descriptive statistics analysis of the raw data show that interest rate risk, market risk, credit risk, operational risk, liquidity risks are the risk types identified in the study. According to the discussion, the bank is more exposed to credit risk and operational risk than the other types of bank risks. Likewise, liquidity risk is also potential risk that the bank is exposed to, as stated in the presentation. Market and interest rate risks are not free of impacts but the prevalence and damage it causes to the bank is less than credit and operational risks according the respondents. Therefore, the bank should work to reduce the impact of these risks based on the ranking by its employees presented as above. The bank has to create awareness to its employees regarding risk occurrence, identification and controlling mechanism.

Gap analysis, duration-gap analysis, and risk-adjusted rate of return on capital (RAROC) are the three techniques identified that the commercial bank of Ethiopia using currently. The ranking of risk identifications by respondents that gap analysis and duration gap analysis are the two techniques that are used by the bank mostly and others are seldom utilized

techniques. Besides, the discussion showed that the banks employees are not well informed about the banks risk identification technique as it is evidenced by presentation above that for each type of risk identification technique the number of respondents are less than fifty percent.

On the other hand, employees are somewhat aware of the banks risk identification techniques, about 95% of the respondents agreed that the bank identifies its main risks and it registers the identified risk for further assessment. while 83% of them agreed and found the bank emphasizes the recruitment of highly qualified people, 71% of the respondents agreed and stated that the bank gives due consideration to formal brainstorming risk identification risk management practice and risk evaluation processes but they have less awareness about the bank’s risk monitoring and assessment and analysis process

Similarly, about 86% of the respondents believe that the bank is able to accurately evaluate the costs and benefits of taking risks. 87% of the respondents said and agreed that the bank's response to risk includes an evaluation of the effectiveness of the existing controls and risk management responses. 86% of them agreed that it is important for the bank to emphasize continuous review and evaluation of the techniques used in risk management, 87% of the respondents agreed application of risk management techniques reduces costs or expected losses to banks.

5.3. Recommendations

In principle risk management is the responsibility of all staff at all levels. However, there must be a clear distribution of risk management responsibility to confirm its management accountability for risk control. Risks must be visible, measurable, and manageable to ensure a meaningful risk culture throughout all processes. Hence, CBE should emphasis on how it is possible to avoid or mitigate the impact of the main risks like credit risk, operational risk and liquidity risk.

The ranking of risk identifications by respondents that gap analysis and duration gap analysis are the two techniques that are used by the bank mostly and others are seldom utilized techniques. The bank should consider other techniques of risk identification techniques.

Training has to be considered on the activity of risk identification techniques as there is little awareness regarding the application of gap analysis and duration gap analysis to identify risks at individual level.

Likewise, the bank should give more emphasis on awareness creation to its employees in the area of risk management, strength their awareness on banks risk monitoring process, and improve employees' awareness concerning risk identification and risk management techniques of the bank. Moreover, to stay ahead of the competition at all times, the bank need to safe guard that there is a constant monitoring and evaluation process to ensure the integrity of risk management practice and controls systems.

References

Adarkwa, (2011). “Risk Management and Bank Performance, A case studyof First Atlantic Merchant Bank Ghana Limited”, Master’s Thesis.

Ashan S. & Poonam, G. (2013). “Measure for identifying & controlling risk in Indian Commercial Banks”, The International Journal of Management, Vol. 2, Issue 2.

Basel Committee on Banking Supervision, (2000).Principles for the management of credit risk. Washington, D.C.

Basel Committee on Banking Supervision, (2003). Sound Practices for the Management and Supervision of Operational Risk

Basel Committee on Banking Supervision, (2014). A brief history of the Basel Committee. retrieved on 05.01.2019 from http://www.bis.org/bcbs/history.pdf?noframes=1

Biruk, D. (2015). Assessment of credit risk management practice of commercial bank of Ethiopia. Unpublished Master’s Thesis St. Mary university.

Bessis, J. (2010), Risk Management in Banking, Wiley, Third edition

Creswell, J. W. (2003), Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 2nd ed., California: Sage Publications.

Crouhy, M., Galai, D. & Mark, R. (2006). The Essential of Risk Management.New York: McGraw-Hill Companies, Inc.

Cumming, Ch. and Beverly J. H. (2001). “The Challenges of Risk Management in Diversified Financial Companies”, Economic Policy Review, Federal Reserve Bank of NewYork, 7, 1-17, pp. 850-855

Diego J. (2013). A Guide to the Project Management Body of Knowledge. New York: Project Management Institute, Inc.

Fasika Firew (2012*),"*Commercial Bank operational risks management: Exploratory study on selected Ethiopian Commercial Banks*",* Master‟s Thesis.

Fischhoff, B. (2012). Risk Analysis and Human Behaviour. New York: Routledge.

Fatemi, A. and Glaum, M. (2000). "Risk management practices of German Firms", Journal of Managerial Finance, Vol. 26, No. 3, pp. 1-17.

Glass, G. V., & Hopkins, K. D. (1984). Test Bank for Statistical Methods in Education & Psychology (2nd ed.) Englewood Cliffs, N.J.: Prentice-Hall. Smith

Gray F. & Larson W. E. (2006). project Management: The managerial process, 3rd Edition.

Greuning, H, & Bratanovic, B.S (2009). Analysing and managing banking risk a framework for assessing corporate governance and risk management, 2nd edition, Washington, D. C.: The World Bank

Gup, B. and Kolari, J. (2005). Commercial Banking the Management of Risk, John Wiley & Sons, Inc.

Hassan, A. (2009), *"*Risk Management Practices of Islamic Banks of Brunei Darussalam",*Journal of Risk Finance*, Vol.10, No.1, pp. 23-37.

Hempel, G. and Simonson, D. (1999), Bank Management-Text and Cases, John Wiley & Sons Inc.

Holton, G. A. (2004). Defining Risk, Financial Analysts Journal, 60 (6), 19–25.

Jorion, Ph. (2001). Value at Risk, the New Benchmark for Managing Financial Risk, McGraw Hill, New York.

Kanchu, T.and Kumar, M.M (2013). International Journal of Marketing, Financial Services & Management Research ISSN 2277- 3622 Vol.2, No. 2, February (2013).

Moles, P. (2016). Sources of Financial Risk and Risk Assessment. National Bank of

Ethiopia (2010), “Commercial banks risk management guidelines”.

Negese, T. and Pasha,S.A. (2014). Risk Assessment and Handling in Ethiopian Banking: A Comparative Study in Public and Private Sector.

Osborne, A. (2012), Risk management Made Easy. Andy Osborne and Ventus Publishing Aps. ISBN 978-87-7681-984-2.

Saunders, A. and Cornett, M. (2006), Financial Institutions Management: A Risk Management Approach, McGraw-Hill, and Irwin.

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

Ltd.

Stavroula, K. (2009). Risk management in banking; the case of Greek banking industry. University of Macedonia, Department of Balkan, Slavic and Oriental Studies MA in Politics and Economics of Contemporary Eastern and S.E. Europe

Tibebu T. (2011). Credit Risk Management and Profitability of Commercial Banks in Ethiopia, Unpublished Master’s Thesis Addis Ababa University. Unpublished Master’s Thesis. Addis Ababa university

Tsion, F. (2015). Risk Management Practice of Ethiopian Commercial Banks Woods, M. and Dowd,

K. (2008). Financial Risk Management for Management Accountants. Published by The Society of Management Accountants of Canada, the American Institute of Certified Public Accountants and The Chartered Institute of Management Accountants.

Yang W. (2013). Credit RiskManagement in Rural Commercial Banksin China, Edinburgh Napier University.

Williams R., Boudewijn B., Barrie D., Ton V.,Jos V., Mark S. and Rolf V.. (2006), Quality and risk management: What are the key issue? TQM Magazine, Vol.18 No.1,20

Appendix:

St. Mary's University

School of Graduate Studies

Questionnaires Objectives:

This questionnaire is designed to collect information about the risk management practice in commercial bank of Ethiopia. The data or information collected in such away shall be used as primary data in my thesis, which I am conducting as a partial fulfillment for the requirement for Master's Degree in Business Administration in General Management. The data collected is used only for study purpose. Thus, your ideas and comments are highly honored and kept confidential. Writing your name is not required and please put tick mark ( ) to indicate your choice. You are also kindly requested to write your opinion on the space provided for the questions that demand your additional view.

No need to mention your name and the information provided is to be used only for this study and any information given will be kept confidential.

Thank you for your Cooperation!!

1. Background Information

Instructions: Please use this √ mark for each question to indicate your response.

1. Gender: Female ☐ Male ☐

2. Your Major at study/ University is

☐ Banking ☐ Banking and finance in general

☐ Management/Accounting/Economics ☐ Engineering/Law

☐ Others please specify ______________________________

3. over all banking service years in the CBE

☐ Under 1year ☐ 1– 5years ☐ 5 – 10years ☐ over 10years

2. Risk ranking

Instructions: Rank in order of importance your bank's risk exposure.

1. Interest rate Risk (IRR) ………………………….
2. Market Risk (MR) ………………………….
3. Credit Risk (CR) ………………………….
4. Operational Risk (OR) ………………………….
5. Liquidity Risk (LR) ………………………….

3. Ranking risk identification techniques

Instructions: Which techniques does your bank use in order to identify its risks? You can circle more than one item.

1. GAP Analysis
2. Duration-GAP Analysis
3. Risk Adjusted Rate of Return on Capital (RAROC)
4. Securitization
5. Sensitivity Analysis
6. Value at Risk (VaR)
7. Internal Rating System

4. The employee awareness on importance of Risk Management Practice

Instructions: complete the following table by using 3-likert scale provided as:

1=Strongly Agree, 2= Agree, 3= Disagree

No.	Item	**Strongly agree**	**Agree**	**Disagree**
	1. Risk Identification			
1.1	Your bank identifies and prioritizes its main risks			
1.2	Your bank registers the identified risk for further assessment			
1.3	The bank emphasizes the recruitment of highly qualified			
1.4	Your bank gives due consideration to formal brainstorming			
1.5	Your bank gives due attention to the quality of documents			
	Risk Assessment and Analysis			
2.1	Your bank uses numerical methods to assess risks			
2.2	Your bank uses qualitative methods to assess risks			
2.3	Your bank effectively assesses the likelihood of different			
2.4	Your bank develops action plans for implementing decisions			

2.5	Your bank‘s risk management processes provide guidance to staff about the management of risk			
	3. Risk Monitoring			
3.1	Monitoring the effectiveness of risk management is an			
3.2	The bank’s response to risk includes an evaluation of the effectiveness of the existing controls and risk management			
3.4	The bank’s response to risk includes action plans in			
	The level of control is appropriate for the risk it faces.			
3.6	Monitoring the effectiveness of risk management is an integral part of routine management reporting			
	4. Risk Evaluation			
4.1	Your bank emphasize on continuous evaluation of the techniques used in risk management			
4.2	Your bank is able to accurately evaluate the costs and benefits of taking risks			
4.3	Your bank is able to accurately evaluate and prioritize different risk treatments			
4.4	Your Bank's response to risk includes an evaluation of the effectiveness of the existing controls and risk management responses			
	5. Risk Management Practices			
5.1	There is significant board and senior management involvement in the risk management in your bank.			

5.2	The bank's risk management procedures and processes are documented and provide guidance to staff about			
5.3	The bank's policy encourages training programs in the area of			
5.4	Your bank views the supervisory role of the National Bank			
5.5	Your bank takes significant steps to keep up to date with			
5.6	The effective management of risk is central to your Bank's			
5.7	Application of risk management techniques reduces costs or expected losses to banks.			
5.8	Effective risk management is one of the main objectives of your bank.			
5.9	Your bank follows a strict risk management process in order to			
5.10	The risk management process in your bank is handled by a specified sector			
5.11	The bank finds it difficult to prioritize its main risk			
5.12	It is important for your bank to emphasize continuous review and evaluation of the techniques used in risk			
5.13	The bank is aware of the strengths and weaknesses of the			

Thanks you for your time and cooperation!

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Assistant Prof. Tiruneh Legesse. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Lidiya Assefa ……………………..

Name Signature

St. Mary's University, Addis Ababa May, 2019

ENDORESEMENT

This thesis has been submitted to St. Mary‘s University, School of Graduate Studies for examination with my approval as a university advisor.

……………………………………… ……………………………………

Advisor Signature

St. Mary’s University May, 2019