ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

AN ASSESSMENT OF CREDIT RISK MANAGEMENT IN DASHEN BANK SHARE COMPANY

BY
ENDALKACHEW NIGUSSE
ID No: SGS/0080/2008A

JANUARY, 2018
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A THESIS SUBMITTED TO SCHOOL OF GRADUATE STUDIES OF ST. MARY'S UNIVERSITY IN PARTIAL FULFULIMENT OF THE REQUIRMENTS FOR THE DEGREE OF MASTERS OF BUSINESS ADMINISTRATION

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Approved by the Board of Examiners:

Dean, Graduate Studies	**Signature & Date**
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Statement of Declaration

I, Endalkachew Nigusse, declare that this research entitled "An assessment of Credit Risk Management Practice in Dashen Bank Share Company" is my original work. I have produced it independently except the close advice, guidance and suggestions of my research advisor. I assure that this study has not been submitted for any scholarly award in this or any other university. It is offered for the partial fulfillment of the degree of Masters of Business Administration (MBA in General Management).

______Endalkachew Nigusse____
Name

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Signature

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Date

ENDORSEMENT

This thesis paper is submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

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Advisor

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Signature

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Date

St. Mary's University, Addis Ababa

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Acronyms and Abbreviations

POSs: - Point of Sale Terminals

ATMs:- Automatic Teller Machines

BCBS:- Basel Committee of Banking Supervision

DB: - Dashen Bank

LRM;- Loan Review Mechanism

FIs:- Financial institutions

NBE: - National Bank of Ethiopia

NPL: - Non Performing loan

NIB:- Nordic Investment Bank

SPSS: - Statistical Package for Social Science

Abstract

Credit Risk Management becomes major discussion issues in the financial institutions because of uncertainty related to borrowers' business. This study of Credit Risk Management is attempted to assess practices related to credit risk management in Dashen Bank (DB). Thus, the rationale behind for undertaking this study was to assess credit risk management techniques and tools that are being used and how Dashen Bank implements those techniques, policies and procedures, as well as, to know how the bank identify, measure, monitor, evaluate and control credit risk and to suggest possible solutions. The study design was descriptive in which quantitative and qualitative data sets were mixed to describe the state of affair. To this effect, both primary data survey data (using questionnaire) and interview data were used along with secondary data. The questionnaire was adapted from previous studies and was used to quantify the perception of the respondents towards the credit risk management practice of Dashen Bank. Ninety six samples were involved using stratified random sampling at head office, district offices and branches. The researcher organized and analyzed the collected data by SPSS-23. From the findings it is concluded that the bank has well organized credit policy and good credit granting practice and used suitable credit risk assessment tools and techniques and credit risk management practice. However, the bank has some pitfalls like rigidity on the Bank's credit policy and process. Furthermore, implementation of procedure and credit operation manual, strategies and polices as well as credit collection techniques are questionable. Thus, it is recommend that Dashen Bank should simplify and review its credit manual, policy and procedure as well as ensure its implementation to become more competitive in the banking industry and meet customer expectation. The bank should also design and adopt credit risk model in addition to the existing model that are more popular for credit evaluation to predict the level of risk originated from the business perspective that can help to construct effective credit risk management techniques. Finally, the study may provide a possible opportunity to all stake holders to gain deep knowledge about the banks credit management practice and have important practical implications for the bank regulators authorities and policy makers of the bank.

***Key words**: Credit Risk Management Principles, Credit Risk Management practice, and Dashen Bank.*

CHAPTER ONE: INTRODUCTION

1. Introduction

This section provides the general overview of the study. The general information included in this chapter are the background of the study, statement of the problem, the research question, objective of the study, justification of the study, scope of the study as well as organization of the study.

1.1. Background of the study

Banks are a financial institution that established for lending, borrowing, issuing, exchanging and taking deposit. Lending is the principal business activity for most commercial banks. The credit portfolio is typically the largest asset and the predominate source of revenue. As such, it is one of the greatest sources of risk to a bank's safety and soundness. Lending represents the heart of the banking industry. Loans are the dominant asset in most depository institution's portfolios and represent 50 to 75 percent of the total amount at most banks, generate the largest share of operating income and represent the banks greater risk exposure (Donald & Koch, 2006). Moreover, its contribution to the growth of any country is huge in that they are the main intermediaries between depositors and those in need of fund for their feasible projects (creditors) thereby ensure that the money available in economy is always put to good use. Credit creation is the main income generating activity for the banks (Chinwe, 2015). Therefore, managing loan in a proper way not only has positive effect on the banks performance but also on the borrower firms and a country as a whole. Failure to manage loans, which make up the largest share of banks assets, would likely lead to non-performing loans.

Banks have an intermediation role in one's country that they collect money from those who have excess and lend it to others who need it for their investment. Availing credit to borrowers is one means by which banks contribute to the growth of economies. An efficient and well-functioning financial sector is essential for the development of any economy, and the achievement of high and sustainable growth. One of the indicators of financial sectors health is loan qualities. Most unsound financial sectors show high level of NPLs within a country. 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. Credit risk is the king of all risks. Many authors ranked the types of risk in terms of importance for the banks and credit risk got the first rank (Atakelt & Veni, 2015', Hussain & Al-Ajmi, 2012', Alam & Masukujjaman, 2011). Credit risk can be defined as 'the potential that a contractual party will fail to meet its obligations in accordance with the agreed terms'. Credit risk is also referred to as default risk, performance risk or counterparty risk (Ken & Peter, 2014). Different countries and researchers find out different causes for loan default across different countries and have a multidimensional aspect both, in developing and developed nations.

Adequately managing credit risk in financial institutions (FIs) is critical for the survival and growth of the FIs. In the case of banks, the issue of credit is of even of greater concern because of the higher levels of perceived risks resulting from some of the characteristics of clients and business conditions that they find themselves in. Management of credit risk is the process of controlling the potential consequences of credit risk (Ken & Peter, 2014). Assessing the determinants of credit risk is the cornerstone for the effectiveness of risk management system and practice (Atakelt & Veni, 2015). Improper credit risk management reduce the bank profitability, affects the quality of its assets and increase loan losses and non-performing loan which may eventually lead to financial distress (Chinwe, 2015). Regarding factors leading to nonperforming loans with particular reference to banking sectors Bercoff, Julian, Giovanni & Franque (2002) identified the following: Depressed economic conditions, high real interest rate, inflation, lenient terms of credit and credit orientation, high credit growth and risk appetite, poor monitoring and follow up among others. Among the financial distress that come from the significant amounts of non-performing loans emanating from lack or poor credit risk management system could hinder development and expansion of the Banks. It also leads clients to have lack of confidence and the Banks to lose their loyal and prominent customers. Moreover, investors may not be willing to invest their funds on the banks stock at the desirable price or may avoid completely purchasing the stock. This in turn affects the capital structure of the Banks. Therefore, unless the problems are managed properly, it would definitely result in financial crises. Loans are becoming large and at the same time bad loans have increased substantially in the past few years. This appears as a problem and should be of interest to every commercial banker. There should therefore be prior concern on the side of the commercial banks to give due diligence in maintaining sound asset quality management and risk management as well as prudent loan processing system.

Dashen Bank Share Company is one of the financial institutions engaged in providing commercial banking activities like other commercial banks in the country. In Ethiopian banking industry, DB showed encouraging development in investment and business activities, thus becoming the fertile ground for the banking industry. The bank has been providing different loans and advances to its customers by maintaining minimum NPL position requirement 5% set by NBE. However, loans and advances above 3% for corporate position is accounted as holding a deteriorated asset quality. Holding significant amount for provision for doubtful loans and advances is also another factor that has negative consequences on the Banks performance. Presently, bank credit risk management becomes a major interest among academics and practitioners. While previous studies on bank credit risk management were mainly concerned with some variables of the causes of NPL, little research has attempted to address credit risk management to other commercial Banks in Ethiopia. This research attempts to fill a gap in the literature by focusing on the credit risk management issues Dashen Bank S. Co. Therefore, the principal concern of this study is to ascertain to what extent Dashen Bank can manage its credit risks, what tools or techniques are used and to what extent DB implement its credit risk management techniques, policies and procedures in order to minimize causes of credit risks by assessing the bank’s credit risk management practice.

1.2. Background of Dashen Bank

Currently there are many commercial banks found in Ethiopia as a result the free market competition policy the country follows. Dashen Bank S. Co. is one of, and the second next from Awash Bank in establishment, it is one the private commercial banks licensed to undertake commercial banking business in Ethiopia.

Dashen Bank is established in 1995 to carry out commercial banking activities. The bank got its license from the National Bank of Ethiopia. Dashen Bank comes into existence with an authorized and subscribed capital of Birr 50,000,000. As of November 30, 2017, the Bank's capital is raised to Birr 3.4 billion. It operates through its Head Office in Addis Ababa, Premier Branch which is launched in 2016/17 fiscal year, 303 net worked branches, 6 Foreign Exchange Bureaus, 205 ATMs and also reached to 837 Point of Sale (POS) terminals located within and outside Addis Ababa. At the end of June 2017, the corporate deposit totaled Birr 27.8 billion increasing by Birr 5.0 billion. Dashen Bank has established SWIFT bilateral key exchange (International Banking Service) arrangement to 461 scattered around 172 cities in 72 countries around the globe. During the concluded financial year, the Bank's outstanding loans & advances have reached to Birr 17.7 billion. The non-performing loan ratio of the bank stood at 4.4% as of April 30, 2017 which is above the target rate of 3%. The distribution of loans and advances covered all major economic sectors. Domestic Trade and Services ranked on top of the bank's loan portfolio while the Manufacturing and Foreign Trade (Import and Export) sectors took the second and third place respectively. The Bank was able to generate gross profit of Birr 980 million, which was higher by 3.1% compared to 2015/2016 budget year. Despite the pressure on foreign currency, international banking operations continued to generate a substantial amount of income for the Bank. The overall income earned from foreign banking operations amounted to Birr 898.9 million, which suggests an increase by 1% as compared to that of 2015/16 fiscal year. (DB S. Co. Annual Report 2016/2017, Finote Dashen, 2016, Budget call, 2016/2017, and Corporate budget proposal for the year 2017/2018).

1.3. Statement of the problem

Banks established to provide financial intermediation services while at the same time endeavor to maximize profit and shareholders' value. Credit creation is the main income generating activity for banks (Chinwe, 2015). Despite the fact that loan is major source of banks' income and constitutes their major assets, it is risky area of the industry. That is also why credit risk management is one of the most critical risk management activities carried out by firms in the financial services industry. In fact, of all the risks banks face, credit risk is considered as the most lethal as bad debts would impair banks profit. It has to be noted that credit risk arises from uncertainty in a given counter party's ability to meet its obligations. Lending is very risky in that repayment of the loans is not always guaranty and if this loan is not managed which lead to the largest share of the bank's asset, would likely lead to high levels of non-performing loans. If the management delays on collecting cash from debtor, it has serious financial problem since it increased bad debt and affect customer relation with the bank. According to Hunt (1986) as citied by (Hagos, 2010) default problem destroy lending capacity as the flow of repayment declines. Credit default may also deny new applicant access to credit as the bank cash flow management problem augment in direct proportion to increase default problem.

As per NBE directives loans and advances are regularly reviewed and classified in a manner consistent with regulatory standards. Loans and advances which are not performing in accordance with contractual repayment terms are recognized and reported as past due in a manner consistent with regulatory standards. Accrued but not uncollected interest on loans or advances is accounted for in accordance with international accounting and regulatory standards. Timely and adequate provisions are made to the provisions for loan losses account in order to accurately reflect the risk inherent in lending activities and to ensure that disclosed capital and earnings performance are accurately reflected. Directives of National Bank of Ethiopia (2012) stated that non-performing loan (NPL) is a loan that is not earning income or full payment of principal and interest is not longer anticipated i.e. principal or interest is 90 days or more delinquent.

Dashen Bank annual activity report 2010-2016 and corporate budget proposal for the year 2017/2018 indicates that NPL has a significant negative impact on the financial performance of the bank. NPL rate varies ranges from 4.39% in 2010 to about 4.4% in 2017 which is below minimum requirement 5% set by NBE, still there is considerable amount of loan found under irregular loan repayment status but above the target rate of 3% of the company. The bank states in its credit procedure manual that maximum NPL position allowed for the corporate position of loans and advance is 3%; any measure of credit asset performance above this figure is accounted as holding a deteriorated asset quality. Besides, as per the bank's annual report, its provision for doubtful loans and advances for the last four years (2014 to 2017 G.C) is increased. Different studies on issues of non-performing loan indicates that loan default disallow new applicant's access to credit as the banks cash flow management problems increase in direct proportion to the increasing default problem.

The goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions (Basel, 2000). Banks carry out credit risk management as a measure of administering its credit risk. This is done by having a well-developed credit mechanism and procedure, that is to say, credit appraisal, training staff and terms to offset the possibility for loss and improve on financial performance (Grace, 2010).

Many researches were conducted in Ethiopia in the area. For instance, Girma (2011) conducted on credit risk management and its impact on performance of Ethiopian Commercial Banks. Similarly, Tibebu (2011) studied about credit risk management and profitability of Commercial Banks in Ethiopia. Azeze (2014) is also studied an assessment of the impact of non-performing loan on Dashen Bank profitability. Addis (2016) conducted the study on non-performing assets and their impact on financial performance of Commercial Banks in Ethiopia and Kokeb (2015) on assessment of the Dashen Bank's credit administration, practice, problem, and prospects. Furthermore, some researches such as G/Wahd (2016) and Solomon (2013) conducted on the specific topic but were conducted in different banks other than Dashen Bank.

Hence, the problem stated above and most of the researches is focused on part of the credit risk management and even some are focused in the specific topic but still no comprehensive work has been carried out in Dashen Bank and these calls to a research to assess the credit risk management practice in DB, and to narrow the research gap by paying attention to the topic and seek answers to the following basic questions.

1.4. Research questions

The researcher tries to answer the following question**s:**

- ✓ What credit risk management techniques used by Dashen Bank, Ethiopia?
- ✓ What tools are used by Dashen Bank for its credit risk management?
- ✓ How does Dashen Bank implement credit risk management techniques, policies and procedures in order to minimize causes of credit risks?
- ✓ How does the bank identify, measure, monitor, evaluate and control credit risk?

1.5. Objectives of the study

1.5.1. Main objective

The main objective of the study is to assess credit risk management practices of Dashen Bank S. Co.

1.5.2. Specific objectives

- ✓ To identify the types of credit risk management techniques and tools being used by DB so as to determine their relevance to the bank's existing situation.
- ✓ To investigate how DB credit risks management techniques, policies and procedures implement in order to decrease causes of credit risks.
- ✓ To examine the risk mitigating, monitoring and controlling practices implemented by DB.

1.6. Significance of the study

The outcomes and results of this research will have potential value to financial institutions, particularly to Dashen Bank, in order to identify the spotlight in credit risk management and to fill the gabs in DB's credit risk management practices. Moreover, it will show credit risk management practices in DB and suggest possible remedies that help to improve existing credit risk management process. Furthermore, this study will serve as insights/inputs as well as to be used as a reference for further studies on the area.

Finally, it serves as an opportunity to the researcher to apply his knowledge which had been gained throughout his university courses to the practical environment and further enhance his career development on the bank's overall credit process and activities.

1.7. Definition of used terms

Credit – the right to receive payments or the obligation to make payment on demand at some future time on account of the immediate transfer of goods (Kent, 2008).

Risk - is a condition in which there is a possibility of an adverse deviation from a desired outcome that is expected or hoped for (Vaughan, 1992).

Credit risk - the potential that a contractual party will fail to meet its obligations in accordance with the agreed terms (Ken & Peter, 2014).

Credit risk management - is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters (Basel committee, September 2000).

Credit risk management practice - the process of analyzing and renewing credit risk management documents and apply constantly in actual credit granting process, credit administration and monitoring and risk controlling process with suitable credit risk environment, understanding and identification of risk so as to minimize the unfavorable effect of risk taking activities (Atakelt, 2015).

Non-Performing loans - defined as loans or advances whose credit quality has deteriorated such that full collection of principal and/or interest in accordance with the contractual repayment terms of the loan or advances in question (NBE, 2012).

1.8. Scope/Delimitation of the study

The scope of this study is to assess the credit risk management practices in DB. The result of the research paper may not be generalized to other commercial banks operating in Ethiopia. The study used annual financial report which is reported from 2010 G.C to 2017 G.C. The study also delimited to bank's officials only as units of study without including views of borrowers but interview was conducted to selected bank officials who has a direct relationship with the credit customer from initiation, customer handling till the final loan process stage. In terms of area coverage, the research delimited to the head office, corporate office, district offices and some branches of Dashen Bank S. Co. as per their loan exposure ability, capability and experience.

1.9. Organization of the study

The study is organized into five chapters. Chapter one incorporates introduction, backgrounds of the study, backgrounds of Dashen Bank, statements of the problem, research questions, objective of the study, significance of the study, scope/delimitation of the study and organization of the study. Chapter two deal with theoretical, empirical review of the related literatures and conceptual model. The third chapter is the research design & methodology of the study with subtopics. Chapter four is concerned with data analysis and discussion results. Chapter five describes and presents summaries of major findings, conclusions, possible recommendations, limitations and implications for further research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

In the previous chapter, the main problems and objectives which will be addresses in the study are stated. This chapter provides theoretical and empirical literature review of the study. Besides, conceptual model is includes under this chapter which is framed to summarize the main focus and scope of this study.

2.1 Theoretical Literature Review

The purpose of this sub-heading is to discuss in detail theoretical issues pertaining to credit risk management from books, articles, research papers, internet publications and unpublished sources.

2.1.1 Overview of credit risk management

Credit risk management has attracted considerable attention over the past decade, particularly since the 1997 financial crisis. In this chapter is discussed the qualitative and quantitative aspects of credit risk management including the definition of Credit, Risk in banks, Credit risk management, Importance of credit risk Management, Principles for the Management of Credit Risk, Techniques of risk management, Tools of Credit Risk Management, Credit/loan collection, Bank and customer relationship effect on loan risk, Credit Risk Measurement and Credit Risk Mitigation Techniques. The review reveals that the development of the subject and highlight the research gap in the area of credit risk management of financial institutions.

2.1.2 Definition of credit

The word Credit is comes from the Latin word “Credo” which means ‘I believe’. Credit is a matter of faith in the person and no less than in the security offered. Credit is purchasing power not derived from income, but by financial institutions either as an offset to idle by depositors in the banks, or as a net addition to the total amount of purchasing power. In fact, no economy can function without credit; all economic transactions are settled by means of credit instruments today. It is the very life blood of modern business and commercial system. Kent (2008) defines credit as the right to receive payments or the obligation to make payment on demand at some future time on account of the immediate transfer of goods.

2.1.3. Risk in banks

Risk is a condition in which there is a possibility of an adverse deviation from a desired outcome that is expected or hoped for (Vaughan, 1992). The individual hopes that adversity will not occur, and it is the possibility that this hope will not be met that constitutes risk. Risk is a potential variation in outcomes. It is when there is uncertainty about the occurrence of a loss that risk becomes an important problem. Banks involve businesses of taking and managing risks.

According to Santomero (2009), bank's risk is classified into six types: Systematic or market risk, credit risk; counterparty risk; liquidity risk; operational risk; and legal risks. Each of these risks might generate harmfully influence the financial institution's probability, market value, liabilities and shareholder's equity. It is also worthwhile to clarify the concept of each. To begin with systematic risk is the risk of asset value change associated with systematic factors. It is sometimes referred to as market risk. By its nature, this risk can be hedged, but cannot be diversified completely away. In fact, it can be regarded as un-diversifiable risk. All investors assume this type of risk, whenever assets owned or claims issued can change in value as a result of broad economic factors. Systematic risk comes in many different forms. For the banking sector, however, two are of greatest concern, namely variations in the general level of interest rates and the relative value of currencies. Because of the bank's dependence on these systematic factors, most try to estimate the impact of these particular systematic risks on performance, attempt to hedge against them and thus limit the sensitivity to variations in un-diversifiable factors. Accordingly, most will track interest rate risk closely. They measure and manage the firm's vulnerability to interest rate variation, even though they cannot do so perfectly. At the same time, international banks with large currency positions closely monitor their foreign exchange risk and try to manage, as well as limit, their exposure to it. In a similar fashion, some institutions with significant investments in one commodity such as oil, through their lending activity or geographical franchise, concern themselves with commodity price risk. Others with high single-industry concentrations may monitor specific industry concentration risk as well as the forces that affect the fortunes of the industry involved. Counterparty risk comes from non-performance of a trading partner. The non-performance may arise from counterparty's refusal to perform due to an adverse price movement caused by systematic factors, or from some other political or legal constraint that was not anticipated by the principals. Diversification is the major tool for controlling nonsystematic counterparty risk. Counterparty risk is like credit risk, but it is generally viewed as a more transient financial risk associated with trading than standard creditor default risk. The other one is; Liquidity risk, which can best be described as the risk of a funding crisis. While some would include the need to plan for growth and unexpected expansion of credit, the risk here is seen more correctly as the potential for a funding crisis. Such a situation is related to unexpected event, for instance, a large charge off, loss of confidence, or a crisis of national proportion such as a currency crisis. In any case, risk management here centers on liquidity facilities and portfolio structure. Recognizing liquidity risk leads the bank to recognize liquidity itself as an asset, and portfolio design in the face of illiquidity concerns as a challenge. Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events (Hull, 2012). Operational risks, therefore, appear at different levels, such as human errors, processes, and technical and information technology. As such, individual operating problems are small probability events for well-run organizations but they expose a firm to outcomes that may be quite costly.

Legal risk: the bank's legal risks relate to inadequate or inefficient documentation, issues of legal capacity, enforceability and the applicability of national laws and dispute resolution mechanisms in the jurisdictions under which it operates (Nordic Investment Bank, 2016). Legal risk, the risk of money laundering and terrorism financing, and the risk of non-compliance of the information system. Legal risk arises from the activities of an institution's management or employees. Fraud, violations of regulations or laws, and other actions can lead to catastrophic loss. The last but not the least risk in bank is credit risk. Credit risk can be defined as the potential that a contractual party will fail to meet its obligations in accordance with the agreed terms (Ken & Peter, 2014). Credit risk arises from non-performance by a borrower. Credit risk is defined as the potential that the borrowers will fail to honor the obligation of repaying the loans in accordance with the agreed terms when the loan was disbursed. Credit risk is the greatest risk on performance of the bank. It may arise from either an inability or an unwillingness to perform the in the signed contractual agreement manner. This can affect the lender holding the loan contract, as well as other lenders to the creditor. Accordingly, credit risk is diversifiable, but difficult to eliminate completely. This is because a portion of the default risk may, in fact, result from the systematic risk. Credit risk management system was considered as one of the main cause of financial crises in general and banking failure in particularly (Gestel, 2009). All financial institutions face all these risks to some extent. From the above mentioned types of risk, the researcher focused on credit risk of banks since credit risk has significant and considerable impact on banks performance.

2.1.4 Credit risk management

Risk management is a systematic way of protecting business resources and income against losses so that the organization's aims are reached without interruption, creating stability and contributing to profit. It is a scientific approach to the problem of dealing with risks faced by individual and business (Feseha, 1986). Proper risk management procedure needs to identify the risk, measure and quantify risk then develop strategy to manage risk (Gestel & Basens, 2009).

2.1.5 Importance of credit risk management

In this dynamic business environment, 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. 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 (Achou and Tenguh, 2008). Moreover, it also classified credit risk management in to two different dimensions as preventive measures and curatives measures. Preventive measures include risk assessment, risk measurement and risk pricing, early warning system to pick early signals of future defaults and better credit portfolio diversification. The curative measures, on the other hand, aim at minimizing post sanction loan losses through such steps as securitization, risk sharing, legal enforcement etc. It is widely believed that an ounce of prevention is worth a pound of cure.

A report issued by a committee on banking supervision of bank for international settlements (BIS, 2004) states that while financial institutions have faced difficulties over the years for multitude of reasons, the major cause of serious banking problems of credit standards for borrowers and counterparties, poor portfolio risk management, or a lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank's counterparties. According to Shimko (2004), the goal of credit risk management to any bank is to maximize a risk adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credit or transactions. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long term success of any banking organization. Throughout the world, credit risk has proved to be the most critical of all risks faced by a banking institution. A study of bank failures in New England found that, of the 62 banks in existence before 1984, which failed from 1989 to 1992, in 58 cases it was observed that loans and advances were not being repaid in time, (Achou and Tenguh, 2008). Some of the strategies used for reducing and coping with portfolio credit risk according to Achou and Tenguh (2008), are geographic diversification, loan size limits (Rationing), over collateralization and credit insurance. According to Fight (2004) no economy in the world can function without credit, credit is the very life-blood of the modern economic system which serves the economy in different ways which includes:

1. Credit provides the most convenient and economic medium of exchange by either supplementing or superseding other forms of money.
2. It facilitates the production and exchange of goods and services.

3. It increases the level of aggregate demand and level of consumption in the country.

4. It promotes thrift by providing productive channels of employment for saving in the economy.

5. It facilitates development of large-scale enterprises and specialized industries.

6. It facilitates the optimal use of the capital resources of the economy.

7. It influences the level of output and employment in the economy by influencing the rate of capital formation in the country, especially during the periods of trade cycles.

8. It provides the financial system with powers to render useful services to the economy in providing a system of exchange and a system of capital supply.

9. It benefits the society as a whole.

2.1.6 Principles for the management of credit risk

The Basel committee is the primary global standard setter for the prudential regulation of banks and provides a forum for cooperation on banking supervisory matters. The Basel committee was established by the central bank governors of the group of ten countries at the end of 1974 and established to enhance financial stability by improving the quality of banking supervision worldwide. BCBS (Basel Committee of Banking Supervision) has issued three accords named Basel 1, Basel 2 and Basel 3. Of which, credit risk is considered in Basel 1- principles for the management of credit risk which was publicized on 2000. According to Basel committee (September 2000), credit risk is most simply defined as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms. The goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organization. Banks should be eager for awareness of the need to identify, measure, monitor and control credit risk as well as to determine that they hold adequate capital against these risks and that they are adequately compensated for risks incurred.

2.1.6.1. Principles for the assessment of bank's credit risk

According to Basel committee (September 2000), the goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. All members of the Basel Committee agree that the principles set out in this paper should be used in evaluating a bank's credit risk management system. The Committee stipulates the following principles for banking supervisory authorities to apply in assessing bank's credit risk management systems.

A. Establishing an appropriate credit risk environment

Principle 1: The board of directors should have responsibility for approving and periodically (at least annually) reviewing the credit risk strategy and significant credit risk policies of the bank. The strategy should reflect the bank's tolerance for risk and the level of profitability the bank expects to achieve for incurring various credit risks.

Principle 2: Senior management should have responsibility for implementing the credit risk strategy approved by the board of directors and for developing policies and procedures for identifying, measuring, monitoring and controlling credit risk. Such policies and procedures should address credit risk in all of the bank's activities and at both the individual credit and portfolio levels (Basel committee, September 2000).

Principle 3: Banks should identify and manage credit risk inherent in all products and activities. Banks should ensure that the risks of products and activities new to them are subject to adequate risk management procedures and controls before being introduced or undertaken, and approved in advance by the board of directors or its appropriate committee.

B. Operating under a sound credit granting process

Principle 4: Banks must operate within sound, well-defined credit-granting criteria.

These criteria should include a clear indication of the bank's target market and a thorough understanding of the borrower or counterparty, as well as the purpose and structure of the credit, and its source of repayment.

Principle 5: Banks should establish overall credit limits at the level of individual borrowers and counterparties, and groups of connected counterparties that aggregate in a comparable and meaningful manner different types of exposures, both in the banking and trading book and on and off the balance sheet.

Principle 6: Banks should have a clearly-established process in place for approving new credits as well as the amendment, renewal and re-financing of existing credits.

Principle 7: All extensions of credit must be made on an arm's-length basis. In particular, credits to related companies and individuals must be authorized on an exception basis, monitored with particular care and other appropriate steps taken to control or mitigate the risks of non-arm's length lending (Basel committee, September 2000).

C. Maintaining an appropriate credit administration, measurement and monitoring process

Principle 8: Banks should have in place a system for the ongoing administration of their various credit risk-bearing portfolios.

Principle 9: Banks must have in place a system for monitoring the condition of individual credits, including determining the adequacy of provisions and reserves.

Principle 10: Banks are encouraged to develop and utilize an internal risk rating system in managing credit risk. The rating system should be consistent with the nature, size and complexity of a bank's activities.

Principle 11: Banks must have information systems and analytical techniques that enable management to measure the credit risk inherent in all on- and off-balance sheet activities. The management information system should provide adequate information on the composition of the credit portfolio, including identification of any concentrations of risk.

Principle 12: Banks must have in place a system for monitoring the overall composition and quality of the credit portfolio.

Principle 13: Banks should take into consideration potential future changes in economic conditions when assessing individual credits and their credit portfolios, and should assess their credit risk exposures under stressful conditions (Basel committee, September 2000).

D. Ensuring adequate controls over credit risk

Principle 14: Banks must establish a system of independent, ongoing assessment of the bank's credit risk management processes and the results of such reviews should be communicated directly to the board of directors and senior management.

Principle 15: Banks must ensure that the credit-granting function is being properly managed and that credit exposures are within levels consistent with prudential standards and internal limits. Banks should establish and enforce internal controls and other practices to ensure that exceptions to policies, procedures and limits are reported in a timely manner to the appropriate level of management for action.

Principle 16: Banks must have a system in place for early remedial action on deteriorating credits, managing problem credits and similar workout situations.

E. The role of supervisors

Principle 17: Supervisors should require that banks have an effective system in place to identify measure, monitor and control credit risk as part of an overall approach to risk management. Supervisors should conduct an independent evaluation of a bank's strategies, policies, procedures and practices related to the granting of credit and the ongoing management of the portfolio. Supervisors should consider setting prudential limits to restrict bank exposures to single borrowers or groups of connected counterparties (Basel committee, September 2000).

2.1.7. Techniques of risk management

There are four techniques of risk management (Gestel & Basens, 2009). These are: Risk avoidance, risk reduction, risk retention/acceptance and transfer of risk to the third party.

i. **Risk avoidance:** is a simple way of treatment which refers to individual investing in the products that are not too risky. Avoidance does not imply avoiding all risks. Avoidance may seem the answer to all risks, but avoiding risks also means losing out on the potential gain that accepting (retaining) the risk may have allowed. Not entering a business to avoid the risk of loss also avoids the possibility of earning the profits.

ii. **Risk reduction** deals with methods that reduce the severity of the loss taken which means use collateral to reduce the possibility of actual loss.
iii. **Risk retention** involves accepting the loss when it occurs. Risk acceptance/retention applied for low- risk assets. It emphasizes the diversification of investments in various sectors and countries.
iv. **Risk transfer** is the process of causing another party such as banks, insurance or companies to accept the risk;

Commercial banks are in the risk business. In the process of providing financial services, they assume various kinds of financial risks. One of the risks, Credit risk arises from non-performance by a borrower. Credit risk can be defined as ‘the potential that a contractual party will fail to meet its obligations in accordance with the agreed terms’ (Ken and Peter, 2014). Similarly others literature support that credit risk is defined as the probability that a bank borrower or counterparty will fail to meet its obligations in accordance with contracted terms (Basel, 2000). Credit risk arises whenever a lender is exposed to loss from borrower, counterparty, or an obligor who fail to honor their debt obligation as they have agreed and contracted. Whenever credit risk arises, there should be a credit risk management to undertake the credit risk. According to Greuning & Bratanovic (2009), credit risk management includes management function such as identification, measurement, aggregation, control and continuous monitoring of credit risk.

Credit risk management in financial institutions has become crucial for the survival and growth of the institutions (Afriyie & Akotey, 2012). It is a structured approach of uncertainty management through risk assessment, development of strategies to manage it and mitigation of risk using managerial resources. The strategies of credit risk management involves transferring risks to other parties, avoiding risks, reducing the negative influence of risk and accepting some or all of the consequences of a particular risk (Afriyie & Akotey, 2012). According to Grace N. (2010), Banks carry out credit risk management as a measure administering credit to borrower. This is done by having a well develop credit mechanism and procedure, that is to say, credit appraisal, training staff and terms to offset the possibility for loss and improve on financial performance (Grace, 2010). In management of this risk banks are concern about their financial performance so this risk management being take as serious issue. Furthermore, according to Atakelt (2015), credit risk management practice define as the process of analyzing and renewing credit risk management documents and apply constantly in actual credit granting process, credit administration and monitoring and risk controlling process with suitable credit risk environment, understanding and identification of risk so as to minimize the unfavorable effect of risk taking activities. The effectiveness of credit risk management process is dependent on different variables such as proper application of best risk management documents, staff quality, credit culture, devoted top management bodies, sufficient training program, proper organizational structure, ample level of internal control and performance of intermediation function. This indicates that credit risk management includes different issues such as developing and implementing suitable credit risk strategy, policy and procedure, accurate identifications of risk, best credit granting process, credit administration, monitoring and reporting process determining and controlling the frequency and methods of reviewing credit policy and procedure and setting authority and responsibility clearly. Besides he mentioned that by establishing suitable credit risk environment, acceptable level of credit limit, best credit granting process, proper monitoring and controlling credit risk and optimizing risk return of a bank credit risk management develop credit performance. The reason for conducting risk management is due to banks and banking activities have evolved significantly over the time (Gestel & Basens, 2009). With the introduction of money, financial services such as deposit taking, lending money, and money transfer have gradually become important. So that, banks exposed to credit, market, operational, interest rate and liquidity risk. Efficient management on these risks is necessary for banks to reduce its losses on earning, insolvent and those depositors cannot be refunded and regulatory requirement (Hull, 2012). The management of credit risk of credit portfolios is therefore one the most important tasks for the financial liquidity and stability of banking sector in connection with increased sensitivity of banks to the credit risks and changes in the development of prices of financial instruments (Kiseláková and Kiselák, 2013).

2.1.8 Tools of credit risk management

According to Sunitha and Raju (2013), Thirupathi & Manojkumar (2013), Bhaskar (2014) and Nayan & Kumaraswamy (2014) the tools through which credit risk management is carried out are:

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 Bench marks for fresh exposures and periodicity for renewal based on risk 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 cutoff limit ensuring that at least 30% to 40% of the portfolio is subjected to LRM in a year so as to ensure that all major credit risks embedded in the balance sheet have been tracked.

2.1.9 Credit/loan collection

There is no guarantee that when a bank has a good credit policy, its credit activity cannot encounter problem. There is a likely that some borrowers who will pass the due date and some may be in NPL position. Credit collection procedures have to be implemented on how to collect the loans. It will be some problem if the credit collection procedures were not well formulated, of if the implementation is not well performed or if the credit policy was not followed. This is because if the borrower repays late or defaults payments, the bank will obviously look for other means to meet this created financial loophole. This can lead to increased debts, which can lead to higher interest which is directly increase banks expense, reduced profits, reduced borrowing capacity, increased equity, reduced shareholders value, reduced future capital investments, limits the bank's long term business performance, or an increase in the length of trade credit taken from supplier's (Maness & Zietlow, 2005). Poor asset quality leads nonperforming loan that can seriously damage a banks' financial position having an adverse effect on banks operation (Lafunte, 2012).

As per NBE (2012), NPLs are defined as "loans or advances whose credit quality has deteriorated such that full collection of principal and/or interest in accordance with the contractual repayment terms of the loan or advances in question". It further provides that: Short term loans are NPLs when principal and/or interest is due and uncollected for 90(ninety) consecutive days or more beyond the scheduled payment day or maturity.

Medium and long term loans are NPLs when principal and/or interest is due and uncollected for 12 (twelve) consecutive months or more beyond the scheduled payment day or maturity. According to NBE (2012) directive, Ethiopian commercial banks are required to classify their loans as pass, special mention, substandard, doubtful and loss in accordance with Bank for International Settlements (BIS) standards as presented below:

Pass: loans in this category are fully protected by the current financial and paying capacity of the borrower and not subject to any criticism.
Special mention: Short term loans past due for 30 days or more, but less than 90 days and medium and long term loans past due for 6 month or more, but less than 12 months.
Substandard: Short term loan past due for 90 days or more, but less than 280 days and medium and long term loans past due for12 months or more, but less than 18 months.
Doubtful: Short term loan past due for 280 days or more, but less than 360 days and medium and long term loans past due for18 months or more, but less than 3 years.
Loss: Short term loan past due for 360 days or more, and Medium and long term loans past due for 3 years or more.

According to NBE (2012) directive, all Ethiopian commercial banks required holding provisions for each loans mentioned above so as to absorb the potential losses in their loans portfolio. The minimum provision requirements are mentioned below: Bank for International Settlements (BIS) is an international banking supervisory institution that was established by the central bank governors of the Group of Ten countries in 1975. It consists of senior representatives of bank supervisory authorities and central banks from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom, and the United States (Coen, 2010).

Table 1: Loan status classification

Classification of loans	**Minimum provision requirement**
pass	**1%**
Special mention	**3%**
Substandard	**20%**
Doubtful	**65%**
loss	**100%**

Source: NBE (2012)

Among the above classified loans under Table 1, the last three loans such as, substandard, doubtful and loss are considered as NPLs (NBE, 2012). In fact, such type of classification is in accordance with BIS standards except some variation on the percentage of provision requirement. For instance, as per BIS standard doubtful loans are required 50% provision whereas under the NBE directive banks are required to hold 65% provision. So it is important duty of the bank to accelerate its loan collection in order to avoid/reduce the above negative consequences.

2.1.10 Bank and customer relationship effect on loan risk

The relationship between a bank and its customers is very vital for its success. Building a good customer relationship with the borrower is good for the bank because this help to develop loyalty and trust and they will know that if they present the bank with difficulty, they are not going to black stare. It will also help the borrower to notify their problem to the bank before the bank and borrower face severe problem that gives a chance to the bank to handle the problem in advance. When the bank also has a good relationship with the customer, it will be possible to call them at any point of time to ask how their business is moving. This can lead to a better advice in time before things go off hand.

2.1.11 Credit risk measurement

Since exposure to credit risk continues to be the leading source of problems in banks world-wide, banks and their supervisors should be able to draw useful lessons from past experiences. Banks should have a keen awareness of the need to identify, measure, monitor and control credit risk as well as to determine that they hold adequate capital against these risks and that they are adequately compensated for risks incurred as per the report issued by a committee on Banking supervision of Bank for international settlements (BIS, 2004). Basel I accords allows banks to use their own internal models in measuring credit, hence making it easier for banks use (Basel I, 1999).

2.1.11.1 Credit risk management models

It is hard to differentiate between the traditional approach and the new approaches since many of the ideas of traditional models are used in the new models (Achou and Tenguh, 2008). The traditional approach is comprised of four models depicted herein under.

I. **Expert systems**

Credit decision is left to the local or branch lending officer or relationship manager. Implicitly, this person's expertise, subjective judgment, and weighting of certain key factors are the most important determinants in the decision to grant loan. According to Saunders and Allen (2002) the expert analyzes five key factors, subjectively weights them, and reaches a credit decision:

a. **Character:** A measure of the reputation of the firm, its willingness to repay, and its repayment history e.g. age factor. Character refers to the borrower's personal qualities, for example, trustworthiness, eagerness and responsibility to pay debt. Borrowers who show abnormal state of uprightness and responsibility to reimburse their obligations are viewed as qualified for credit (Machiraju, 2004).
b. **Capital:** The equity contribution of owners and its ratio to debt (leverage). These are viewed as good predictors of bankruptcy probability. High leverage suggests a greater probability of bankruptcy.
c. **Capacity:** The ability to repay, which reflects the volatility of the borrower's earnings. This additionally alludes to borrowers' capacity to contain and service debt judging from the achievement or generally of the endeavor into which the credit facility is utilized. Borrowers who display fruitful business execution over a sensible past period are likewise viewed as ideal for credit facility (Machiraju, 2004).
d. **Collateral:** These are resources, typically portable or undaunted property, swore against the execution of a commitment Examples of collateral are buildings, inventory and account receivables. Borrowers with a great deal more assets to pledge as collateral are considered favorable for credit facility (Machiraju, 2004). In the event of default, a banker has claims on the collateral pledged by the borrower. The greater the priority of this claim and the greater the market value of the underlying collateral, the lower the exposure risk of the loan (Saunders and Allen, 2002).

e. **Cycle (or Economic) Conditions:** The state of the business cycle; an important element in determining credit risk exposure, especially for cycle dependent industries. Condition refers to the financial circumstance or condition winning at the credit's season application. In times of retreat borrowers discover it entirely hard to acquire credit facility (Machiraju, 2004).

II. Artificial neural networks

Due to the time consuming nature and error-prone nature of the computerized expertise system, many systems use induction to infer the human expert's decision process. The artificial neural networks have been proposed as solutions to the problems of the expert system. This system simulates the human learning process. It learns the nature of the relationship between inputs and outputs by repeatedly sampling input output information. Neural networks have a particular advantage over expert systems when data are noisy or incomplete. Neural networks can make an "educated guess" much as would a human expert.

III. Internal rating at banks

This system developed for loans by the U.S. office of the Comptroller of the currency (OCC). Over the years, banks have subdivided the pass/performing rating category, for example at each time, there is always a probability that some pass or performing loans will go into default, and that reserves should be held against such loans. Besides, according to Thirupathi & Manojkumar (2013), Internal rating system assist financial institutions to manage and control credit risks they face through lending and other operations by grouping and managing the creditworthiness of borrowers and the quality of credit transactions.

IV. Credit scoring systems

The systems can be found in virtually all types of credit analysis, from the consumer credit to commercial loans. A credit score is a number that is based on a statistical analysis of a borrower's credit report, and is used to represent the creditworthiness of the person. A credit score is primarily based on credit report information. Lenders, such as banks use credit scores to evaluate the potential risk posed by giving loans to consumers and to mitigate losses due to bad debt. Using credit scores, financial institutions determine who are the most qualified for a loan, at what rate of interest, and to what credit limits.

2.1.12 Credit risk mitigation techniques

A number of techniques are available to banks to assist in the mitigation of credit risk. Collateral and guarantees are the most commonly used. Notwithstanding the use of various mitigation techniques individual credits transactions should be entered into primarily on the strength of the borrower‘s repayment capacity. According to Dohnal (2008), Credit Risk Mitigation (CRM) defined as a mechanism used by different credit institution in order to minimize their credit risk related with exposure which the institution continuous to hold. He also further point to that credit risk mitigation techniques can be distinguish in to two parts the first one is funded credit protection which includes real estate and financial instrument. The reduction of the credit risk exposure of a credit institution draw from the right of the credit institution in case of default to liquidate or retain, to obtain transfer or appropriation of certain assets, to retain certain assets, to reduce the amount of the exposure and to replace the amount of the exposure. The other one is unfunded credit protection which includes guarantee. “A bank should disclose the effect of credit risk mitigation techniques, including Collateral, guarantees, credit insurance and legally enforceable netting agreements” **(**Basel, 2000).

i. Funded credit protection

a. Collateral

Collateral is an asset that serves as security against counter party risk (Anderson and Joeveer, 2014). A collateralized transaction is a transaction where the credit exposure or potential credit exposure of the credit institution to a counterparty is hedged in whole or in part by collateral posted by the counterparty or by a third party on behalf of the counterparty (Basel, 2004). Collateralized credit exposures must have a risk biased exposure amount less than the same credit exposure without credit protection. The collateral can be in the form of real estate, receivable and other form of physical collateral (Dohnal, 2008).

b. On-balance sheet netting

According to Basel (2004), Banks where legally enforceable netting arrangement for loans and deposits they may calculate capital requirement on the bases of net credit exposure. The claim between the credit institution and counter party may be recognized. They also indicated that Master netting agreements covering repurchase transactions and/or securities or commodities lending or borrowing transactions and/or other capital market driven transactions.

ii. Unfunded credit protection

The amount that the safety provider has carried out to pay in the event of the default or non-payment of the borrower or on the event of other specified credit situation is the value of unfunded credit protection. Where the amount that the protection provider has carry out to pay is not higher than the exposure value, the value of the credit protection shall be reduced by 40%; where the amount that the protection provider has carry out to pay is higher than the exposure value, the value of the credit protection shall be no higher than 60% of the exposure value (Basel, 2004).

a. Guarantees

A guarantee must represent a direct claim on the guarantor with the extent of the cover being clearly defined and unquestionable. A guarantee must be irrevocable; there must be no clause in the guarantee that would allow the guarantor to cancel unilaterally the cover of the guarantee or that would increase the effective cost of cover as a result of deteriorating credit quality in the guaranteed exposure. A guarantee must also be unconditional; there should be no clause in the guarantee outside the direct control that could prevent the guarantor from being obliged to pay out in a timely manner in the event that the original counterparty fails to make the due payment. The indirect guarantee covers all credit risk elements of the claim; both the original guarantee and the indirect guarantee meet all the operational requirements for guarantees except that the indirect guarantee need not be direct and explicit to the original claim (Basel, 2008).

b. Loan commitments

A loan commitment is a facility which gives the obligor the option to borrow at his own discretion. In practice, this essentially means both a loan (equal to the amount currently drawn on the line) and an option to increase the amount of the loan up to the face amount of the facility. The counterparty pays interest on the drawn amount, and a fee on the undrawn amount in return for the option to draw down further. For these exposures three factors influence the revaluation in future rating states: the amount currently drawn; expected changes in the amount drawn that are due to credit rating changes; and the spreads and fees needed to revalue both the drawn and undrawn portions. All of these factors may be affected by covenants specific to a particular commitment (Morgan, 1997).

2.1.13 Credit risk management in Dashen Bank

Dashen Bank credit's facility is categorized by Business line or sector, the needs of customers and nature of their business and duration of the loan and others categorization systems.

2.1.13.1 Types of credit in banks

Credit can be classified in different ways. Dashen Bank S. Co. participates in extending credit or financial support to all sectors established by the government of Ethiopia in an effort to ensure an effective and efficient management of the economy. The economic sectors are generically comprised in the Agriculture, industry and service cluster. The credit creation or extension of the financial support can be in the form of working capital, investment and consumption of durable consumable goods/services.
The specific categorization of the economic sectors, for the purpose of the credit management and monitoring function, are portrayed as follows. So DB classified types of credit based on:

A. Business line or sector

i. Agriculture sector- financial supports for the purpose of working capital expenditure and revenue expenditure in the form of input financing for the purchase of seeds, fertilizers, chemicals and labor cost; and output financing for the purpose of harvesting, storing and transportation to market places andto help development and acquisition of farms estates, farm machinery and equip ment, harvesting and storage facilities and transportation facilities.

ii. Construction sector- financial supports for the purpose of working capital expenditure and revenue expenditure to help undertaking of turnkey projects or Engineering Procurement Construction (EPC) contracts and for the purpose of capital expenditures or investments to help development and acquisition of construction site facilities, construction machinery and equipment.

iii. Domestic service sector- financial supports for the purpose of working capital expenditure and revenue expenditure to help smooth running of the daily activities for education sector, hospitality services, tour and guide operations, health care services, garages, mechanical and electro-mechanical services and consultancy and trade auxiliary services and for the purpose of capital expenditures or investments to help development and acquisition of service facilities of capital goods, buildings, machinery and equipment, hardware and software technologies and tools.

iv. Domestic trade sector- Financial supports for the purpose of working capital expenditure and revenue expenditure to help facilitation of the trade from acquisition of goods from local suppliers/producers to transportation, storage and distribution of good to local final consumers and for the purpose of capital expenditures or investments as well as to help development and/or acquisition of transportation, storage and distribution facilities for goods produced/supplied an consumed locally; and expansion of sales/distribution/retailing outlets.

v. Export sector- financial supports for the purpose of working capital expenditure and revenue expenditure to help facilitation of the acquisition of goods from suppliers/producers to transportation, storage, clearing and preparation and distribution of final good to the foreign markets and for the purpose of capital expenditures or investments to help development and/or acquisition of transportation, storage, clearing and preparation and distribution facilities for the foreign markets.

vi. Import sector- Financial supports for the purpose of working capital expenditure and revenue expenditure to help acquisition of good from foreign market, transportation, customs clearance, storage and distribution of goods to the local market and for the purpose of capital expenditures or investments to help development and/or acquisition of transportation, storage and distribution facilities.

vii. Manufacturing sector- Financial supports for the purpose of working capital expenditure and revenue expenditure to help acquisition of materials from input market to the output markets and for the purpose of capital expenditures or investments to help development and/or acquisition of production and related infrastructural facilities that include land and buildings, industrial machineries and equipment and related infrastructures.

viii. Mining sector- financial supports for the purpose of working capital expenditure and revenue expenditure to cover operational costs and sales expenses and for the purpose of capital expenditures or investments to help development and /or acquisition of mining farms, resource exploration, commissioning of production and acquisition of mining technological machineries and equipment for the purpose.

ix. Real Estate sector- financial supports for the purpose of working capital expenditure and revenue expenditure to help smoothly carry out administration, minor maintenances and property management activities for those engaged in real estate rental business, for the purpose of working capital expenditure and revenue expenditure to help smoothly carry out construction, administration, marketing and sales activities for those engaged in real estate development for sales and for the purpose of capital expenditures or investments to help engineering, procurement and construction of real estates.

x. Transport sector- financial supports for the purpose of working capital expenditure and revenue expenditure to help smoothly carry out the administration and provision of transportation service and for the purpose of capital expenditures or investments to help acquisition of transportation fleets.

xi. Consumer/Personal- financial supports for the acquisition of home supplies, higher education packages, health services and life insurance policies and for the purpose of acquisition of residential buildings and automobiles and for acquisition of communal facilities to neighborhoods or villages.

B. The needs of customers and nature of their business

i. Overdraft Facility: This is credit facility by which customer is allowed to draw cash in excess of his deposit, but to the extent of an approved limit by the bank.

ii. Term Loan: it is a type of credit facility giving for specific time. The duration may be short up on one year or medium up to five years and long about five years. These loans are paid by equal monthly, Quarterly or semi-annually repayments.

III. Revolving Credit Facilities: Credit instruments designed for tenor based financial support which include advance on L/C, Merchandise loans, export pre-shipments [including export credit guarantee scheme availed by DBE, export post-shipments[including revolving overdrafts or export bills discounting] and bridge trade finance.

iv. Letter of credit Facility: The bank provides its customers advance to cover some part of the cost and deal with the exporters' bank on behalf of the importer.

v. letter of guarantees: Letter of commitments issued by the bank on behalf of suppliers, manufacturers, buyers, service providers and project sponsors; and on account of its customers to facilitate tender participation, one-off contract performance and credit line contract performance.

2.1.13.2 Credit process in DB

To ensure an effective and efficient credit management that enhances taking of relevant information and delivering quality credit decision, appropriate credit framework is implemented and Dashen Bank requires undertaking of the following processes uniformly and consistently to ensure prevalence of prudent credit lending.

a. Properly identify and verify that the applicant is a legitimate borrower.

b. Properly define the borrower's credit needs.

c. Ensure that the credit to be offered by the bank matches those needs.

d. Verify that the sources of repayment are adequate to repay the debt as agreed.

e. Structure the credit to meet the borrower's needs in way that minimizes
the bank's risk.

2.2 Credit risk management experience in some country

With the developing of economy, international financial markets have made a speedy progressive move over the past decades. The importance of financial markets and banks in an economy has been widely recognized by governments and academics (Önder and Özyıldırım, 2013). Schumpeter stated that the development of financial system would prompt national income and economic development as cited by (King and Levine, 1993). A recent study by Bittencourt (2012) confirms Schumpeterian theory. Bittencourt investigates the role of financial development (i.e., more widespread access to finance) in generating economic growth in four Latin American countries between 1980 and 2007. The results confirm the Schumpeterian prediction that finance directs the entrepreneur to invest in productive activities, and therefore to promote economic growth. According to Yang (2013), In China, the capital market is less developed and the finance channel lies mainly on commercial banks. Commercial banks have developed significantly over the past two decades along with China's economic growth. With the expansion, the banking industry has increasingly faced a number of risks. Credit risk is the most important one reflecting the risk of defaults that Chinese financial institutions face. The recent tarnishing bankruptcies in the United States (such as WorldCom, Enron, HealthSouth, Tyco) and many other high-profile banks failures in Asia have forced many banks and financial institutions to realize the need for a viable credit risk management (Duffie and Singleton, 2003).

Like many financial institutions in other developing economies, China's financial institutions are also facing the problem of low level of capital adequacy. In many cases, the capital adequacy of Chinese local banks did not meet the requirement of 8 per cent of the Basel Accord. The Chinese government attempted to peel away bad debts from state-owned banks by setting up bank asset management companies and injecting investment from the state (Shan and Xu, 2012). For some reasons, the rate of capital adequacy did not go up as expected. Back in 1978, when Deng Xiaoping set the process of economic reform in motion, he acknowledged that he had no definitive plan of how the job would be done. The objective was clear: to create national wealth and to reverse the poverty that was crushing China. Deng's poetic commitment to cautious, flexible instrumentalism has guided China's reform over the ensuing years. The banking reform was being carried out within the broader context of China's transition from a centrally planned economy to a market economy under Deng's reform plan.

The study conducted by Yang (2013) has made several contributions to show Credit Risk Management in financial institutions in general and Rural Commercial Banks in China/RCBs in particular. RCBs risk management capacity is insufficient. Firstly, the bank is generally lacking of modern risk management concept, awareness and culture. The bank managers tend to lay more attention on business development rather than internal control of the risk raised from the loan issuing. The implementation of "three examinations system" (i.e., inspections for credit quality before, in and after the process of issuing of loan) is less effective. Secondly, the development of the internal control systems and internal audit fall behind the schedule. Thirdly, the development of risk management support system (e.g., IT) lags behind. The effectiveness of risk recognition, valuation and precaution system are rather weak. While the bad debt ratio is gradually improved, it still keeps at a relatively high level comparing with other commercial banks. RCBs may not possess the necessary experience, risk management tools and qualified personnel to successfully compete with city commercial banks and other financial institutions (e.g., foreign banks) in credit risk management. The proper functioning of financial control, risk management, accounting, Internet banking, credit card service, customer service and other data processing systems, together with the communication networks between various branches and outlets and main data processing centers, is critical to RCBs' business and their ability to manage credit risk.

Yang (2013) finalized his study by recommending, financial institutions found in china especially Rural CBs should operate in a different business environment and expose some unique risks, which require adopting a different credit risk management approach concerning both quantitative and qualitative variables. Banks can tap increasingly sophisticated measuring techniques in approaching risk management issues with the advancements of technology. Technological developments, particularly the increasing availability of low cost computing power and communications, have played and will continue to play an important supporting role in facilitating the adoption of more rigorous credit risk analysis. The need for to identify new and profitable business opportunities and properly measure the associated risks, is growing. To achieve this, banks need to gather adequate information about potential customers to be able to calibrate the credit risk exposure. The information gathered will guide the bank in assessing the probability of borrower default and price their products accordingly.

2.3 Empirical studies

Different researchers were conducted on this area of studies in different financial institutions. For instance, Yang (2013) find out that the key principles in credit 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 on his research title Credit Risk Management in Rural Commercial Banks in China. Likewise, Michael (2004) investigate that the management of credit risk in financial institutions in Ghana by using quantitative and explanatory analysis. The study finds out that there is a significant relationship between bank performance (in terms of profitability) and credit risk management (in terms of loan performance). Better credit risk management results in better bank performance. Thus, it is of importance that banks practice prudent credit risk management to safeguard assets of the bank and protect the investors' interest. Furthermore, the study shows that there is a positive relationship between profitability (ROE) and loan loss (NPA\TLA). It also shows there is an inverse relationship between higher interest income and lower loan losses.

Atakelt and Veni (2015) conducted a study to investigate the level of Credit risk management practice of Ethiopian commercial banks by developing a question like: Have Ethiopian commercial banks established appropriate Credit risk environment, have Ethiopian commercial banks undertaken Sound Credit granting process, have Ethiopian commercial banks maintained appropriate Credit administration, measurement and monitoring system, Have Ethiopian commercial banks ensured the adequate control over credit risk, and finally Do Ethiopian commercial banks have effective Credit risk management system and practice? The study was descriptive research design and carried out with primary data collection through self-developed questionnaire. It was found out there is somewhat appropriate credit risk environment and maintained appropriate credit administration, measurement and monitoring process in Ethiopian commercial banks when they follow or apply appropriate or sound credit granting process as well as when the banks enact adequate and sufficient control over the credit risk. Additionally, he found out that Ethiopian commercial banks faced risks like credit risk firstly and then followed by liquidity and operational risk. He uses Econometrics model and confirm that four aspects of NBE and Basel's Credit risk management principles and guideline explains 60% of the variations in Credit risk management practice of Ethiopian commercial banks. From the above theoretical as well as empirical review, managing credit risks has effects on financial performance of banking industry. Most of the literature reviewed covered studies on abroad countries banking industry. But there are few literatures and researches are available on Ethiopian Banks, especially on Dashen Bank. Therefore, the student researcher claims here that there are no sufficient studies conducted mainly on Dashen Bank overall Credit Risk Management practice. Therefore, this researcher conducted the study entitled "Assessment of Credit Risk Management in Dashen Bank S. Co." to assess the credit risk management practice and thereby to recommend courses of action that are assumed to maintain and keep its growth with sound risk management practice and providing customer based and quality service.

2.4 Conceptual model

NBE sets requirements for a banking business operation by NBE. Thus, a bank shall fulfill sound information management and internal control systems, risk management policies and procedures, and human resource organization and such other essential obligations to carryout banking business as determine by the directive to be issued by the National Bank (Proclamation N0. 592/2008). Under the umbrella of International credit principles, NBE has its banking business proclamation and directives that helps to ensure safety, soundness and stability of the banking system by having a comprehensive law for the licensing and supervision of the banking business. Each banks found in the country is governed by NBE. Dashen Bank, is one of private banks in Ethiopia has prepared its own policy and procedure. Of which, Credit policy and procedure manual is prepared for the purpose of enhancing the understanding of the credit operation, ensuring uniformity of the credit practice and standardizing the credit decision making process; and thereby facilitate the credit service provision at the desired service quality and responsiveness.

The conceptual framework for this study, as shown in the figure is framed; Dashen Bank credit risk management practice is assessed by taking consideration the International principles for the management of credit risk and NBE proclamations, policies and procedures as well as different directives since sound credit risk management system and practice in bank is not an alternative rather it is a matter of survival for not only safety of individual bank and depositors but also for national and global financial stability. Thus, the following conceptual model is framed to summarize the main focus and scope of this study.

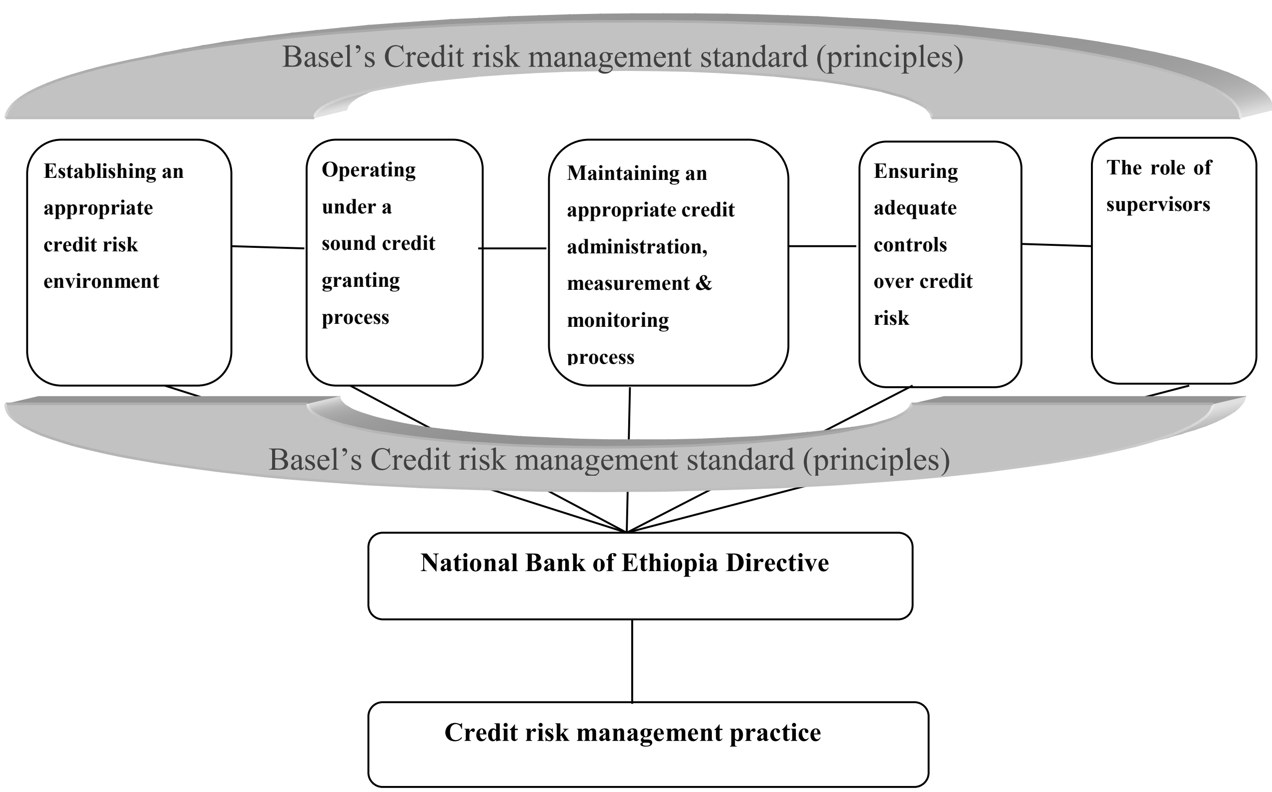

Figure 1: Model of Credit risk management practice: Self extracted.

The student researcher tried to define Credit risk management practice as the process of reviewing and updating Credit risk management documents and apply consistently in actual credit granting process, credit administration and monitoring and risk controlling process with appropriate credit risk environment, the role of supervision, understanding and identification of risk so as to minimize the adverse effect of risk taking activities. Basel (1999) and other literature in the area of credit risk management suggested that banks should have sound and updated credit strategy, policy and procedures, sound credit granting process, proper credit administration and monitoring and credit risk controlling system that consistently applied in each credit cycle with appropriate credit risk environment in order to have effective credit risk management system and practice.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter of the study constitutes the study design and methodology as well as ethical consideration that underpinning the study. The methodology of a study involves the types of data used in undertaking the study as well as the processes and procedures used in data collection. The chapter is categorized into the following sub-headings: Research design and approach, population and sampling techniques, types of data & tools/instruments of data collection, methods of data analysis ethical, validity, and reliability considerations.

3.1. Research design and approach

According to Mutua (2008) as citied by (Muluwork, 2016) research design refers to the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to purpose with the economy in procedure. A research design is likewise characterized as the plan, layout or arrangement that is utilized to create answers to research questions (Orodho, 2003). Accordingly, the research design in this manner turns into the key which directs the whole research process. It serves to comprehend the way of research being led by the student researcher. The research design adapted for this study is descriptive type and chosen that is to seek and gain an in-depth understanding of credit risk management practices of Dashen Bank S. Co. According to Zinkmund (2003) as citied by (Muluwork, 2016) descriptive research design is a research design concerned with establishing what is happening as far as a particular variable is concerned. The student researcher used mixed research approach (both qualitative and quantitative methods) because such an approach helps to minimize limitations of applying any of a single approach and allows to gain a fuller understanding of the research problem and/or to clarify a given research result as well as creates a synergistic effect.

Furthermore, it is a good strategy using mixed method that helps to achieve a balance since divergent views and limitations are heard among each methods (Teddlie & Tashakkori, 2003). Many social science research projects have adopted a mixed method design and in recent years this approach has also gained acceptance in business and information systems research (Bryman & Bell, 2007). As noted in Greene, Caracelli, & Graham (1989) cited in (Yesegat, 2009) adopting a mixed methods approach has a number of benefits. The first benefit is triangulation pertaining to a situation where researchers seek convergence, corroboration, correspondence of results from quantitative and qualitative methods to increase validity of constructs and inquiry results. Secondly, by mixing methods complementarily, researchers seek elaboration, enhancement, illustration, clarification of the results from one method with the results from the other method. Thirdly, by mixing methods with developmental intent, researchers seek to use the results from one method to help develop or inform the other method. Finally, to increase the scope of inquiry mixed method with expansion intent seeks to extend the breadth and range of inquiry by using different methods for different inquiry components. Mixed method research involves both collecting and analyzing quantitative and qualitative data either sequentially or concurrently. Accordingly, this study used both primary and secondary sources of data.

3.2. Population and sampling techniques

This sub-section deals with the population of the study. From the population the student researcher provides a sample frame and in this sub-section it is clearly described about the specific population about which information is desired.

3.2.1. Target group (Population)

According to Snijders and Bosker (1999), a population is the entire group of persons having the characteristic or characteristics that interest a researcher. According to Mutua (2008) as citied by (Muluwork, 2016) population is a well-defined or set of people, services, elements, and events, group of things or households that are being investigated (Orodho and Kombo, 2002). Target population is the specific population about which information is desired (Orodho, 2004). For this study, the target population of the study comprised 127 employees who are found at the corporate office, head office, district offices and some branches of DB.

In this regard, the researcher was in need of the most appropriate personnel of the bank who has in-depth knowledge of the credit risk management practices of the bank and can therefore provide adequate, direct and reliable information useful for this research because they were directly involved on loan processing, approval and administering of the loan.

3.2.2. Sample size and techniques

Sampling is a technique of selecting a suitable sample for the purpose determining parameters of the whole population. Population is the list of elements from which the sample may be drawn (John, Hafiz, Robert and David, 2007). A sample is drawn to overcome the constraints of covering the entire population with the intent of generalizing the findings to the entire population. In this regard, the sampling technique used for the purpose of this study is stratified random sampling as it is assumed to provide more efficient sample considering that the population of the study was segmented in to different districts, corporate office, head office and branches. A stratified random sampling technique was chosen for two basic reasons: first, it gives more efficient sample than could be taken based on simple random sampling. Second, the assurance that the sample will accurately reflect the population on the basis of the criteria used for stratification. Hence, the technique can result more precise information inside the subpopulations about the variables that the student researcher are studying. In fact, it has some disadvantage that it may be difficult in some populations to divide into strata. However, the population is already segmented in-to departments, district offices and branches.

This sampling method can be kept small in size without losing its accuracy. Hence, from target population, 96 individuals were selected and included in the sample size from customer relationship departments, credit analysis & appraisal department, legal service & credit recovery department, risk management & compliance department, portfolio management, district offices and Grade 3 & 4 branch managers. As noted by

Kothari (2004), good sample design must be viable in the context of time and funds available for the research study. Usually it is impossible to survey every member of a population because of money, time and other factors. Hence, the sample size required and calculated using the given below Taro Yamane's formula:

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

Where: n is sample size
N= Population. i.e. 127
e=Margin of error (5% or 0.05)
I=Constant

Plugging in the values in the above formula:

n=127/1+127(5%) 2
n=127/1+127(0.0025)
n=127/1.3175

Sample size = 96

The researcher used 96 as sample size. The Following the objectives of the study, proportionate stratified sampling approach was followed to select the number of respondents from each strata/work units as stated in the following table.

Table 2: Sample size determination

<table>
<tr><td colspan="7">Stratification</td><td colspan="2" rowspan="2">Sample Size</td><td colspan="7" rowspan="2">Proportion</td></tr>
<tr><td rowspan="2">A</td><td rowspan="2">B</td><td rowspan="2">C</td><td rowspan="2">D</td><td rowspan="2">E</td><td rowspan="2">F</td><td rowspan="2">G</td></tr>
<tr><td rowspan="2">No. of included staffs</td><td rowspan="2">Suspended sample</td><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td></tr>
<tr><td colspan="7">No. of Credit related Staffs</td><td>11%</td><td>41%</td><td>17%</td><td>7%</td><td>9%</td><td>7%</td><td>8%</td></tr>
<tr><td>14</td><td>52</td><td>22</td><td>9</td><td>11</td><td>9</td><td>10</td><td>96</td><td>31</td><td colspan="7" rowspan="2">Selected staffs from each work unit/offices</td></tr>
<tr><td colspan="7">Total number of credit-related staffs found in each of work unit</td><td colspan="2">selected sample size</td></tr>
<tr><td colspan="7">127</td><td colspan="2">96</td><td>11</td><td>39</td><td>17</td><td>7</td><td>8</td><td>7</td><td>7</td></tr>
</table>

Note: figures in decimals taken respective approximation.

A=Grade 3, 4 & Special grade branches; B=Districts; C=Customer Relationship department; D= Credit Analysis & Appraisal Department; E= Legal Service and Credit Recovery Department; F= Risk Mgt. & Compliance Department; G= Portfolio Mgt.

3.3. Types of data and tools/instruments of data collection

In this study both primary and secondary data were used. Primary data were collected with the help of a questionnaires and interview. The instrument used for data collection from employees was a semi-structured questionnaire which was adapted from Hagos (2010). 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). According to Dawson (2002) as citied by (Tsion, 2015), semi-structured questionnaires are used both in qualitative and quantitative research designs. It contains both closed ended questions and open-ended questions. Open ended questions have some problems and ask the respondent to answer in his or her own words. Whereas, closed ended questions are those which the respondent's answers are limited to a fixed set of responses (Zinkmund, 2003). As cited by (Tsion, 2015), Louis (2000) also noted that stated that open-ended questions in semi-structured might be used to find out what participants think about the issues to be studied. But closed questions in semi-structured questionnaire are used to enable the respondents to choose among the alternative or to tick the boxes. Open ended questions have some problems and ask the respondent to answer in his or her own words. Whereas, closed ended questions are those which the respondent's answers are limited to a fixed set of responses.

Both open-ended questions and closed ended questions (semi-structured questionnaires) was used to collect data from the staff that are participates in credit related activities. The questionnaire explaining the purpose of the study was distributed to management and staff of the Dashen Bank. In order to maximize the chances of obtaining adequate responses, the length of the questionnaire was taken into consideration. The questionnaire was divided into four sections. The first one is concerned with gathering demographic data. The second section is about Dashen Bank's credit manual, the third section attempted to assess about Risk management techniques and tools and the fourth section is concerned to credit risk measurement, monitoring and controlling techniques of Dashen Bank.

To obtain a more comprehensive picture about the credit risk management in Dashen Bank, it is necessary to assess from the professionals about the bank's use and motivation for the use of existing credit risk management practice. In this regard, the student researcher used another instrument for the primary data collection purposes which was a semi-structured interviews and it was adopted from Hagos (2010). This is underlined by Saunders, Lewis and Thornhill (2009), where it is necessary for you to understand the reasons for the decision that your research participants have taken, or to understand the reasons for their attitudes and opinions, you are likely to need to conduct a qualitative interview. To save the interviewee's time and costs, the interviews are conducted in their own offices after an appointment was fixed. This is where they feel the most comfortable and where they may have access to every data needed. A central aim within the first few minutes is to establish the researcher's credibility and to gain the interviewee's confidence (Saunders et al. 2009; Bryman and Bell 2007). Therefore, every interview starts with a short explanation of the research aim and an introduction of the interviewer.

Interview is undertaken by the researcher himself in order to effectively gather pertinent information to the study. Twenty individuals were selected who are directly involved in loan and appraisal process of the bank those are branch managers, district office staffs and customer relationship managers with ample experience and knowledge in credit risk management. Due to the time constraint and availability, only fifteen senior staffs were interviewed. Document analysis is a social research method and is an important research method, involves reading and analyzing lots of written material. In this study, in support of primary sources, documents that were analyzed include the case bank's different reports, directives, budget call, corporate budget proposal, credit policy and procedure manual, bulletins, literature related to the subject and other source document which was relevant to the study.

3.4. Methods of data analysis

For the purpose of this study, both primary and secondary data are used. a semi-structured questionnaire and Interview used to collect primary data. A semi-structured interview is prepared and administered to the staff working in the loan. This helped to address the research questions more specifically or to concentrate more on the topic itself. Interview is undertaken by the researcher himself in order to effectively gather pertinent information to the study. Secondary data is collected from different reports, directives, budget call, corporate budget proposal, credit policy and procedure manual, bulletins and other related literatures. So as to achieve the stated objective, the collected data were analyzed using descriptive statistics. Depending on the collected information from semi-structured questionnaires, the student researcher organized and analyzed the data by the help of SPSS-23 (Statistical Program for Social Sciences) to arrive at conclusions on the findings. The data is summarized and presented in the frequency, tables and percentages to give solutions for the problem. The student researcher was also used descriptive statistical measures such as mean and standard deviation. Generally, simple descriptive analysis method was used because the study is descriptive that portray accurately the characteristics of a particular individual, situation or a group and enables to collect detailed and factual information that describes an existing phenomenon such as current conditions, attitudes, interests, feelings and characteristics. The descriptive study is popular in business research because of its versatility across disciplines.

3.5. Ethical, validity, and reliability considerations

3.5.1. Ethical considerations

It is important to address ethical, validity and reliability concern of the data collection as well it's highly important throughout the whole research process including data analysis and dissemination of findings to make sure that the final thesis report provides honest, fair and unbiased explanation. Saint Mary's University communication letter was forwarded to Bank to obtain support. Respondents also participated voluntary and the subject and objective of the study was disused clearly.

3.5.2. Reliability considerations

Reliability of data is another concern. Zikmund (2003) define reliability as the measurements which are free from error and therefore yield consistent result. For the reliability & validity of this study, the researcher follows procedures starting from the data collection up to analysis. The researcher first collects the data from published and unpublished reports of banks by the authorized body. Those secondary data which were officially published sources cannot be manipulated by the researcher as well as by respondent. In addition scientific articles, journals, thesis and books used to guarantee the reliability and validity of the data. Reliability in semi-structured interviews is concerned with whether two or more interviewers would receive identical responses from one interviewee. In semi-structured interviews, reliability is always related to issues of bias (Saunders et al., 2009). To reduce bias, the interviewer has always tried to avoid enforcing his own beliefs and thought about the research topic when asking questions. The creation of a relationship of trust between the interviewer and the participants as well as the proof of the interviewer´s credibility and the assurance of confidentiality has been considered as essential in the present research. Nevertheless, response bias cannot be eliminated with absolute certainty.

3.5.3. Validity considerations

To increase the validity of the study, the student researcher used frequency analysis that make the researchers easy to understand and interpret the data collected. In this regard, the analysis was carried out after collecting the necessary data from different sources mentioned above to transform into a valuable information using SPSS version 23. Then the outputs of the SPSS (which is considered as user friendly and possibly the most widely used computer software for the analysis) were interpreted through frequency, tables, percentages, mean and standard deviation in order to increase the validity. Following Saunders et al (2009), in qualitative research, validity refers to the extent to which the researcher gains access to their interviewees' knowledge and experience, and is able to infer a meaning that the interviewee intended from the language that was used by this person. Therefore, validity of semi-structured interviews is not really an issue when they are conducted carefully (Saunders et al. 2009).

Therefore, in order to gather necessary, valid and reliable information regarding credit risk management practice of DB the sample was carefully selected from bank's official who have ample experience credit granting process, analysis and decision making activity. As noted in Greene, Caracelli, & Graham (1989) cited in (Yesegat, 2009) a mixed methods approach has triangulation benefit pertaining to a situation where researchers seek convergence, corroboration, correspondence of results from quantitative and qualitative methods to increase validity of constructs and inquiry results.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF RESULTS

This chapter deals with the presentation, analysis, and interpretation of data obtained from the primary as well as secondary sources. The primary data were obtained through survey method (using a questionnaire) and through interview method (using a semi-structured interview guide). Copies of the questionnaire were administered using stratified random sampling to respondents out of which 84(85%) were properly filled-in and returned. Furthermore a face-to- face interviews were conducted with 20 participants who were purposefully selected, and 15(75%) were properly participated in providing responses. These were committee members that are found in Customer Relationships Department and District Offices as well as branch managers of the bank who are believed to have extensive experience with high level of decision making role in credit related activities.

4.1 Results of data gathered from survey question

This part has four sections in relation to the survey data. The first section deals with the demographic data of the respondents. The second section deals with the banks credit manual and policy. The third section deals with the tools and techniques of credit risk management used by the organization, and the last section deals with credit risk measurement, monitoring and controlling techniques of the bank.

4.2 Personal characteristics of the respondents

The demographic characteristic includes Gender, Age, Marital Status, Level of Education, and Work Experience over all in the bank and only on credit line. Table 3, from item 1 to item 6 below shows details of background information of respondent.

Table 3: Personal characteristics of the respondents

S.N	Items	Type	No.	%
1	Gender	Male	64	76.2
		Female	20	23.8
		Total	84	100
2	Age (in Years)	18-25	5	6.0
		26-35	62	73.8
		36-45	12	14.3
		Above 45	5	6.0
		Total	84	100
3	Marital Status	Single	38	45.2
		Married	46	54.8
		Total	84	100
4	Education qualification	Diploma Holder	3	3.6
		Degree Holder	73	86.9
		Masters and above	8	9.5
		Total	84	100
5	Work Experience in the bank	0-5 years	15	17.9
		6-10 years	38	45.3
		11-15 years	27	32.1
		16-20 years	4	4.8
		Total	84	100
6	Work Experience in credit field	0-3 years	12	14.3
		4- 7 years	23	27.4
		8-11 years	46	54.9
		12-15 years	1	1.2
		16-19 years	2	2.4
		Total	84	100

Source: SPSS-23 frequency output own survey 2017

As shown in Item 1 of table 3, 64(76.2%) of the respondents are male while the remaining 20(23.8%) are females. This indicates that, the majority of the respondents were found to be male compared to females in the organization.

As indicated in Item 2 of table 3, 62(73.8%) are in the ranges from 26 to 35, 12(14.3%) are between the ranges of 36 to 45, 5(6%) are in the ranges of between 18 to 25, and the rest 5(6%) are also in the range of age above 45. This shows that the bank has a production human capital that can work with full potential to meet goals. Financial industry is very sensitive and risk exposed service area which requires the human resource to be more responsible, trust full, and accountable for the prudent management of the finance. According to Item 3 of table 3, 46(54.8%) of the bank employees are married while 38(45.2%) are yet single. This indicates that the employees working in such risk exposed area are matured to hold responsibility.

Educational background of an employee is an important factor to be considered with regard to making business decision. Education improves the skill, capacity, communication and access for the development of endeavors. Regarding the respondent's educational qualification as indicated above on table 3, 73(86.9%) of the respondents are degree holders, 8(9.5%) of the respondents hold Master's degree and above while 3(3.6%) of the respondents are Diploma holders. This denotes that the majority of the bank's employees working in the credit services are educated to manage their responsibilities as required by the bank.

As presented above on Item 5 of table 3, 38(45.3%) of the respondent (relatively high percentage or number of respondents from others) have been working for DB for 6-10 years, 27(32.1%) of them have been working for the organization for 11-15 years, 15(17.9%) of the respondents have been working for 0-5 years and the rest 5(5%) of the respondents have been working for the organization for 16-20 years. In general, almost more than 69(82%) of the respondents have been working for more than 5 years in DB, this indicates their ample work experience which validates both the reliability and validity of the information they offer.

Item 6 of table 3, shows the work experience which is related to credit activity of DB staffs. In this regard it is found that, 46(54.9%) of the respondents are working in credit related areas for 8-11 years, 23(27.4%) of the respondents are working in credit related areas for 4-7 years, 12(14.3%) of them are working in credit related areas for 0-3 years, 1(1.2%) of them are working in credit related areas for 12-15 years, and 2(2.4%) of them are working in credit related areas for 16-19 years.

Thus, one can conclude by saying that most of the services of the credit management departments of Dashen Bank are performed by professional and experienced staff members.

4.3. Credit manual, policy and procedure

According to Basel committee on Banking supervision (September 2000), in order to be effective, credit policies must be communicated throughout the organization, implemented through appropriate procedures, monitored and periodically revised to take into account changing internal and external circumstances. They should be applied, where appropriate, on a consolidated bank basis and at the level of individual affiliates. In addition, the policies should address equally the important functions of reviewing. Policies and procedures that are properly developed and implemented enable the bank to: (i) maintain sound credit-granting standards; (ii) monitor and control credit risk; (iii) properly evaluate new business opportunities; and (iv) identify and administer problem credits. In line with this, the researcher raised questions which are depicted in the subsequent table in order to assess the Credit manual, policy and procedure of the bank in connection to the stated policies and procedures.

Table 4: Credit manual, policy and procedure of the bank

S.N	Loan processing procedure and policy		VH	H	M	L	VL	Total	Mean	St. Dev
1	Credit manual and policy up dating and level of convenience for loan creation	F	2	62	17	3	-	84	2.25	.557
		%	2.4	73.8	20.2	3.6	-	100		
2	Flexibility level of the bank's credit policy and procedures	F	-	8	45	29	2	84	3.30	.673
		%	-	9.5	53.6	34.5	2.4	100		
3	The bank's policies and procedures comply with the regulations of National Bank	F	20	54	9	1	-	84	1.89	.621
		%	23.8	64.3	10.7	1.2	-	100		
4	Implementation of bank's credit operation manual	F	2	32	45	5	-	84	2.63	.636
		%	2.4	38.1	53.6	6	-	100		

Source: SPSS-23 frequency output own survey 2017

VH=Very High; H=High; M=Medium; L=Low; and VL=Very Low

According to the Basel committee for banks supervision, in order to be effective, credit policies must also be periodically revised (at least annually) to take into account changing internal and external circumstances. Loans are the dominant asset in most depository institution's portfolios generate the largest share of operating income and represent the banks greater risk exposure (Donald & Koch, 2006). Producing and developing credit policy and procedures as well as other pertinent manuals and guidelines help to create common understanding and uniformity among all employees. It is crucial to have credit policy document to protect the bank against over exposure, mal-administration of credit arresting the creation of non-performing loans, and arrive at a trade-off between returns and risks. In connection to this, the researcher raised questions for the employees of the bank and interviewed senior bankers and branch managers.

Consequently, as revealed in item 1 of table 4, 64(76.2%) of the respondents said (mean 2.25 and St. dev. 0.557) agree that the level of credit manuals or policy of the bank is highly up to date and agree it is suitable for loan availing creation. Referring similar item 1 of table 4, 17(20.2%) of the employees have comment on the extent of credit manual or policy of the bank is medium for the up dated manual and suitable for loan availing creation, the rest of each of 3(3.6%) of the bank employee replied the level of credit manuals or policy of the bank as Low. Interview made with most of the senior bankers and branch managers have agreed on the worthwhile to have credit manual and to assess credit worthiness of the loan applicant. In this regard, the researcher has learnt that Dashen Bank assess the credit worthiness of the loan applicant through Know your customer principle, NBE credit information central data server (ECRB-Ethiopian Credit Report Bureau) and Internal rating mechanism. But the customers are not fully satisfied by the credit service provided by the bank because of tight loan repayment period, due to lack of flexibility on credit availing process, delay is observed on loan process and unfavorable situation is created due to the new company's structure implementation under district offices creates unfavorable situations for the customers because district offices and corporate offices are found far from their business area by comparing with their respective branches. Besides, customer dissatisfied because the loan which is granted to the customer is not enough to meet their need/plan. This means it is not customer need base and sometimes subjective judgment/evaluation is reflected rather than using the scientific methodology (Eg. Decision is made by ignoring the bank's Internal rating method results). Furthermore, it is observed from the interview that customers are not fully satisfied on loan granting process because it would be ceased suddenly for unknown period of time when the bank faced liquidity problem and this lacks consistency.

In compliance to the policy of the regulating body, all banks formulate their own credit policies and procedures which assist to provide different type of credit within each credit policy to their loan customers. Therefore, knowing the outlook of loan clients for each bank is very important in reshaping its credit policy and procedures. Hence, In order to know the nature of the bank's credit policy, the researcher raised questions for the employees of the bank who has plenty experience in overall of the banks operation as well as in loan related activities. Consequently, as revealed in item 2 of table 4, 45(53.6%) of the respondents (mean 3.3 and St. dev. 0.673) agree that the flexibility of the bank credit policy and procedure is Medium, 31(36.9%) claimed as it Low. While, 8(9.5%) of them said that the flexibility of bank's credit policy and procedure of the bank is high. Thus, this implied that bank's credit policy and procedure is rigid. In addition to this, though interview is conducted for 20 senior bankers, 15 (75%) respondents disclosed their response and almost all interviewed have agreed on the importance, attractiveness and convenience of flexible credit policies and procedures as it assists for loan creation and growth.

Item 3 of table 4, 74(88.1%) of the employees (mean 1.89 and St. dev. 0.621) have agreed on the compliance of the credit policy and credit procedures to the regulation and directions of the National bank of Ethiopia (NBE), which is the regulatory body of the nation and this implied that the bank has no problem with comply issue against the regulations of National Bank since significant amount of the respondents replied positively. Banks have responsible of producing and developing credit policy and procedures as well as other pertinent manuals and guidelines help to create common understanding and uniformity as well as should ensure its implementation among all employees who is engaged in credit activity. In this regard, in item 4 of table 4, 45(53.6%) of the respondents (mean 2.63 and St. dev. 0.636) agree that has medium response on the implementation of bank's credit operation manual whereas 34(40.5%) of the respondents replied that bank's credit operation manual highly implemented and the rest 5(6%) of them responds as low. As Ken & Peter (2014) states that credit evaluation process into a functional activity requires a detailed set of guidelines, procedures and processes which has the generic name of a credit policy manual. This manual should be implemented to formalize the day to day management of credit decisions by ensuring consistent thinking and action of people who is engaged in credit risk management on the issues. In this regard Dashen Bank's credit operation manual is not implemented throughout the bank in each employee and this shows that more of the respondents doesn't have clear understanding about the existing credit operation manual of the Bank.

The variables having lesser mean value than group mean was taken as low effect, variables having mean value approximate to group mean are moderate needed more support to be taken as having effect from interview and empirical studies and variables with high mean value were the foremost factors has high effect. But looking at the mean alone tells only part of the story so that standard deviation is also to be consider that provide additional insight on how far the individual responses to a question vary or deviate from the mean. Regarding to this, as mentioned above, by looking the mean value only it would seem the item 2 (Flexibility level of the bank's credit policy and procedures) rated as 3.30 which is higher mean value and ranking is significant for item 4 (Implementation of bank's credit operation manual) with mean value of 2.63, while item 3 (The bank's policies and procedures comply with the regulations of National Bank) is last with having mean value of 1.89. But the higher St. dev. value of 0.673 for item 2 could indicate that responses were polarized and this tells how spread out the responses or scattered far. However, the majority of the participants gave somewhat positive response that Credit manual and policy up dating and level of convenience for loan creation have greater influence on banks credit manual, policy and procedure of the bank since it has lesser St. dev. value of 0.557 and it is less deviate or scattered than other variables.

4.4. Credit risk management techniques and tools

Risk model deals with the understanding and prediction of risk levels (Beasens and Gestel, 2009). Thus, an internal rating system assist financial institutions to manage and control credit risks they face through lending and other operations by grouping and managing the creditworthiness of borrowers and the quality of credit transactions (Thirupathi & Manojkumar, 2013). Furthermore, Basel committee (September 2000) as indicated in chapter 2 literature review part that banks are encouraged to develop and utilize an internal risk rating system in managing credit risk. Measurement or assessment of credit risk is of vital in credit risk management to know how much credit risks a particular loan request or the overall credit portfolios carry. To be effective in credit risk management, banks need to devise mechanisms to measure the credit risk. Generally, credit risk measurement involves both subjective and objective criteria. Among the objectives one, use of internal rating mechanism is the most common method. The rating system should be consistent with the nature, size and complexity of a bank's activities according to Basel committee Principle number 10.

From the above we can say that having proper internal risk rating system is an important tool to facilitate early identification of risk profiles of borrowers. To this effect, Dashen Bank has also applied internal risk rating system as a credit risk management tools. However, even if the existence of the internal rating methods is good for the bank's measurement or assessment of credit risk, but it inhibits the customer from enjoying as per their plan and creates dissatisfaction. This was supported with interview which was conducted for 20 senior bankers. 15 (75%) were fully respond. From which, most of or around 67% of interviewee replied that credit risk (Internal rating method) required some adjustment. Besides, proper implementation of this scientific method is ignored and subjective judgment/evaluation is reflected rather than using the method.

Table 5: Banks credit risk management techniques/Models

Credit risk models used in DB	Frequency	Percent
Expert	2	2.4
Internal Rating System	79	94
Credit Scoring System	3	3.6
Total	84	100

Source: SPSS-23 frequency output own survey 2017

According to survey collected and shown on the above table 5, 79(94%) that is almost all respondents agree that the bank used Internal Rating system techniques in managing credit risk except 3(3.6%) and 2(2.4%) of the respondents replied that the bank used Credit scoring system and Expert system respectively. From the above table it can be concluded the financial institution have developed internal credit rating to manage their credit risk. Well-managed credit risk rating systems promote bank safety and soundness by facilitating informed decision making. Rating systems measure credit risk and differentiate individual credits and groups of credits by the risk they pose. This allows bank management and examiners to monitor changes and trends in risk levels. Most of the respondent agree that there is a well-known techniques/Models used by the bank for proper credit risk management in order to manage the credit risk level of loan processed that helps to know the borrower's ability to meet their obligation. Thus, the bank should continue to strengthen its best practice of assessment techniques and has an implication that, based on a survey of related literature review and other different literatures supports as well as commercial banks in Ethiopia practically are using different tools for risk assessment/credit risk models, DB sticks to only on one measurement tools.

Table 6: Credit risk management Techniques and tools

S. N	Effectiveness and frequency of credit risk techniques/models		VG	G	F	P	VP	Total	Mean	St. Dev
1	Effectiveness of the DB credit risk management techniques/models	F	7	62	8	5	2	84	2.20	.773
		%	8.3	73.8	9.5	6	2.4	100		
2	Updating and reviewing of loan problems	F	3	65	11	4	1	84	2.23	.647
		%	3.6	77.4	13.1	4.8	1.2	100		

Source: SPSS-23 frequency output own survey 2017

VG=Very Good; G=Good; F=Fair; P=Poor; and VP=Very Poor

As it can be seen in item 1 of table 6, 69(82.1%) of the respondent (mean 2.20 and St. dev. 0.773) beliefs that existing DB credit risk management techniques/models is effective for managing credit risk at DB. Credit problems should be subject to more frequent review and monitoring. The review should update the status of the loan and progress of the remedial plans. Progress made on problem loan should be reported to the senior management. As per the Basel committee, the bank should have an efficient internal review and reporting system in order to manage effectively the bank's various portfolios. This system should provide the board of directors and senior management with sufficient information to evaluate the performance of account officers and the condition of the credit portfolio.

Banks must have a system in place for early remedial action on deteriorating credits, managing problem credits and similar workout situations. One reason for establishing a systematic credit review process is to identify weakened or problem credits. A reduction in credit quality should be recognized at an early stage when there may be more options available for improving the credit. In this regard, As item 2 table 6, 68(81%) of the respondents (mean 2.23 and St. dev. 0.647) has a good response that updates and reviews its loan problems has an implication that Dashen Bank effectively and timely updates and reviews its loan problems.

Table 7: Credit risk management techniques and tools

S. N	Communication of banks strategy and policy		VH	H	M	L	VL	Total
1	Credit risk strategy and polices being effectively communicated in the bank	F	-	13	29	38	4	84
		%	-	15.5	34.5	45.2	4.8	100

Source: SPSS-23 frequency output own survey 2017

VH=Very High; H=High; M=Medium; L=Low; and VL=Very Low

The establishment of a sound credit strategy and policy by the banks provide a foundation for sound credit risk management. According to the Basel committee, in order to be effective and the board of directors should have responsibility for approving and periodically (at least annually) reviewing the credit risk strategy and significant credit risk policies of the bank. As per the Basel committee for banks supervisions, senior management of banks should develop and establish credit policies and credit administration procedures as part of the overall credit risk management framework and get approved from board. Besides, such policies and procedures should provide guidance to the staff and aim to obtain an in-depth understanding of the bank's clients, their credentials & their businesses in order to fully know their customers on various types of lending. Senior management of the bank should ensure effective implementation of these policies. Therefore, as Basel committee the credit risk strategy and policy should be effectively communicated throughout a bank and all relevant personnel should clearly understand their bank's approach in taking credit risk and credit risk management. Nonetheless, only 13(15.5%) of the respondents said that they were effectively communicating of the strategies and policies throughout their organization with the extent of high level, 42(50%) of them are replied that credit risk strategy and polices being poorly communicated in the bank and 29(34.5%) of the respondents said that they were communicating the strategies and policies throughout their organization at the medium level. As per Basel committee (2000), senior management should have responsibility for implementing the credit risk strategy approved by the board of directors and for developing policies and procedures. In this regard, Dashen Bank is not effectively communicated the Credit risk strategy and polices in its organization.

4.5. Credit risk management process/Credit risk measurement, monitoring and controlling techniques of DB

Loan requests should be carefully analyzed and appraised in accordance with the prevailing credit policy and procedures. Financial statements should be analyzed to determine the financial soundness of the applicants. All type of risks such as ownership risk, management risk, business risk, financial risk, collateral risk and legal risk should be assessed with utmost care. Credit monitoring and controlling process is the main point in the credit granting process because every loan must be monitored and controlled by the lender or the bank with proper monitoring and controlling mechanism. Senior management should have responsibility for implementing the credit risk strategy approved by the board of directors and for developing policies and procedures for identifying, measuring, monitoring and controlling credit risk. Such policies and procedures should address credit risk in all of the bank's activities and at both the individual credit and portfolio levels according to Basel committee Principle number 2. Nevertheless, among the interviewed under study most of respondents had said that they do have policies and procedures for identifying, measuring, monitoring and controlling credit risk, poor loan follow up and monitoring is exhibited and this is resulted from previous reluctant loan collection habit at some branch and resisting of the adoption of new bank's structure from some branches is reflected. The researcher confirmed while making the interview.

Table 8: Credit risk management process/Credit risk measurement, monitoring and controlling techniques of DB

S. N	Credit risk management process		VH	H	M	L	VL	Total	Mean	St. Dev
1	Simplicity of credit providing procedure	F	1	10	22	40	11	84		
		%	1.2	11.9	26.2	47.6	13.1	100	3.60	.907
2	Effectiveness of credit collection technique	F	2	16	52	14	-	84		
		%	2.4	19	61.9	16.7	-	100	2.93	.673
3	Bank's credit management policy in dealing with non-performing loan	F	1	40	35	8	-	84		
		%	1.2	47.6	41.7	9.5	-	100	2.60	.679
4	Implementation of the company's procedures to enforce loan repayment	F	1	7	47	26	3	84		
		%	1.2	8.3	56	31	3.6	100	3.27	.717
5	Bank's loan default/NPL trend	F	1	44	30	9	-	84		
		%	1.2	52.4	35.7	10.7	-	100	2.56	.700

Source: SPSS-23 frequency output own survey 2017

VH=Very High; H=High; M=Medium; L=Low; and VL=Very Low

Banks must operate within sound and well defined credit granting criteria (Basel committee 2000). In this regard, as shown above on item 1 of table 8, 51(60.7%) of the respondents respondent (mean 3.60 and St. dev. 0. 907) the simplicity of credit providing process in Dashen Bank were ranked as low, 22(26.2%) of the respondents about the simplicity of credit providing process ranked as medium, only 11(13.1%) each ranked as high. This implied that, only few customers are satisfied with the existing of credit providing procedure. In the current dynamic market environment, satisfaction of the need of existing and potential customers is one of ingredient to attain service excellence.

As item 2 of table 8 clearly shows, 52(61.9%) of the respondent's respondent (mean 2.93 and St. dev. 0.673) said that the effectiveness credit collection techniques of the bank as medium, 18(21.4%) rated as high and 14(16.7%) rated as low. Effective credit collection techniques are one of the necessities for financial institutions for their sound asset quality management. Regarding to this, credit collection techniques of the bank is not highly effective. NPL has a significant negative impact on the financial performance of the bank. Item 3 of table 8, shows that 41(48.8%) of respondents (mean 2.60 and St. dev. 0.679) replied that bank's credit management policy is highly support or dealing with to minimize non-performing loan of the bank. Whereas, 35(41.7%) respond it was medium, 8(9.5%) other respondent rated as low. Only around 41(49%) of the respondents said that bank's credit management policy is highly support or dealing with to minimize non-performing loan of the bank. Nevertheless, this figure is not in the highest level. In addition, more respondents stressed that current credit providing procedure practices and credit collection techniques are required to be reviewed, changed or simplified.

Item 4 of table 8, 47(56%) of the respondents (mean 3.27 and St. dev. 0.717) have rated implementation of the company's procedures to enforce loan repayment is medium, 29(34.6%) rated low, while 8(9.5%) of the respondents rated high. This shows that the bank is expected to excel implementation of company's procedure to the highest level in order to enforce and improve the loan repayment habit of its customer.

Though, as found from secondary data the existing NPL level of the bank's was continuously falling and also below the acceptable level of the NBE's acceptable maximum NPL's rate (5%) and Corporate NPL level (3%) for the period from fiscal year 2009 up to June 2015, item 5 of table 8 shows 45(53.6 %) of the respondents (mean 2.56 and St. dev. 0.7) rated bank's loan default or NPL trend as high, 30(35.7%) rated as medium and only 9(10.7%) rated as low. From the respondents major percentage of respondents agree that the banks NPL or default level is increasing. Non-performing loan that can seriously damage a banks' financial position has an adverse effect on banks operation (Lafunte, 2012). Hence, the result above poses a red light for the bank and desires a lot of effort to bring the level of NPL to a minimum level of bank's allowed for the corporate position.

By looking the mean value only it would seem the item 1 (Simplicity of credit providing procedure) rated higher than value. But the higher Standard Deviation value for item 1 could indicate that responses were separated. However, the majority of the participants gave somehow positive response on the level of the variable on item 3 (Bank's credit management policy in dealing with non-performing loan) since showed slight or minimum deviation from the group and the respondents somewhat less deviation.

Table 9: Credit risk management process/Credit risk measurement, monitoring and controlling techniques of DB

S. N	Credit creation and monitoring		VG	G	F	P	VP	Total	Mean	St. Dev
1	Credit analysis and procedure in terms of granting/availing credit process	F	15	50	10	9	-	84	2.15	.843
		%	17.9	59.5	11.9	10.7	-	100		
2	Bank's Clients' business-visiting experience	F	1	9	20	37	17	84	3.71	0.951
		%	1.2	10.7	23.8	44	20.2	100		

Source: SPSS-23 frequency output own survey 2017

VG=Very Good; G=Good; F=Fair; P=Poor; and VP=Very Poor

In relation to credit analysis, as indicated in item 1 of table 9, 65(77.4%) of the respondents (mean 2.15 and St. dev. 0.843) of the bank employees have rated the credit analysis of the bank as good, 10(11.9%) rated fair while 9(10.7%) rated poor. Hence, there is a gap because 50(59.5%) of the bank employees have rated the credit analysis of the bank as good, only 15(17.9%) rated very good, this needed to improve the quality of credit analysis and loan processing to the level of very good (Satisfactory level) that can enable to create quality loans arresting non-performing loans and increase customer satisfaction.

In order to ensure the sound execution and operation of businesses, banks should carry out timely follow-up or supervision visits, because they have to ascertain the utilization loans granted is per the purposes for which they were intended to and to ensure timely repayments as planned. The purpose of supervision or follow-up in banks is, to enable loan clients improve their efficiency in business implementation and loan utilization that improves income and loan repayment status. If there is continuous follow up and supervisions to evaluate the loan utilization and repayment, this makes borrowers to observe their obligation and improve the proper utilization of the loan thereby improving repayment performance. According to Basel committee, a common and very important problem among troubled banks in the early 1990s was their failure to monitor borrowers or collateral values. Many banks neglected to obtain periodic financial information from borrowers or real estate appraisals in order to evaluate the quality of loans on their books and the adequacy of collateral. As a result, many banks failed to recognize early signs that asset quality was deteriorating and missed opportunities to work with borrowers to stem their financial deterioration and to protect the bank's position. This lack of monitoring led to a costly process by senior management to determine the dimension and severity of the problem loans and resulted in large losses.

Accurate, timely and complete data is a foundation for effective risk management. As shown above on item 2 of table 9, 54(64.2%) of the respondents (mean 3.71 and St. dev. 0.951) rated business-visiting experience of the bank as poor while 20(23.8%) and 10(11.9%) of the respondents rated as fair and good respectively. Whenever there is loan request the concerned bank employee uses to visit and supervise and gather some important information that helps for loan processing and decision making minimizing risk. Besides, the Bank expects to undertake regular business visit to ensure that the businesses are performing as expected. But the result shows that there is no regular and uniform business visiting exposure in the bank which creates difficulty in estimating periodic status of the borrower.

Table 10: The extent of factors contributing for occurrence of NPL/loan default in the bank

S.N	Causes for NPL/default and level of its impact		VH	H	M	L	VL	Total	Mean	St. Dev
1	Lack of Follow up	F	37	29	14	4	-	84	1.82	0.880
		%	44	34.5	16.7	4.8	-	100		
2	Over financing	F	5	16	55	8	-	84	2.79	0.695
		%	6	19	65.5	9.5	-	100		
3	Underfinancing	F	3	17	56	5	3	84	2.86	0.730
		%	3.6	20.2	66.7	6	3.6	100		
4	Lack of Training	F	3	17	49	12	3	84	2.94	0.797
		%	3.6	20.2	58.3	14.3	3.6	100		
5	Inadequate Information Customer	F	24	34	25	1	-	84	2.04	0.798
		%	28.6	40.5	29.8	1.2	-	100		
6	Delayed Loan Approval	F	4	34	37	8	1	84	2.62	0.775
		%	4.8	40.5	44	9.5	1.2	100		
7	Loan Diversion	F	15	40	22	6	1	84	2.26	0.880
		%	17.9	47.6	26.2	7.1	1.2	100		
8	Absence of Bookkeeping	F	11	28	33	9	3	84	2.58	0.972
		%	13.1	33.3	39.3	10.7	3.6	100		
9	Lack of client market	F	7	25	40	8	4	84	2.73	0.923
		%	8.3	29.8	47.6	9.5	4.8	100		

Source: SPSS-23 frequency output own survey 2017

VH=Very High; H=High; M=Medium; L=Low; and VL=Very Low

Table 10 shows responses on factors indicating for occurrence of NPL/loan default, 66(78.5%) of the respondents agree that lack of follow up usually leads to loan default the average response has a mean 1.82 and St. dev. of 0.88. On the other hand 58(69.1%) of the respondents agree (mean 2.04 and St. dev. 0.798) in-adequate information about the customer lead to NPL/loan default. With regard to loan diversion, 55(65.5%) of the respondents agree (mean 2.26 and St. dev. 0.88) that it leads to loan default. Other factors, 38(45.3%) of the respondents (mean 2.62 and St. dev. 0.775) agree delayed in loan approval, 39(46.4%) of the respondents (mean 2.58 and St. dev. 0.972) agree are absence of book keeping, 32(38.1%) of the respondents (mean 2.73 and St. dev. 0.923) agreed lack of clients market, 20(23.8%) of the respondents (mean 2.86 and St. dev. 0.73) agreed under financing, 21(25%) of each of the respondents (mean 2.79 and St. dev. 0.695) agreed over financing, 20(23.8%) of each of the respondents (mean 2.94 and St.

dev. 0.797) agreed lack of training lead the customers to occurrence of loan default/NPL. This implied that reasons for the occurrence of loan default and nonperforming loans in DB are mainly due to the lack of ensuring that all loans and advances are being repaid as per the pre-determined repayment schedule as per loan contract, lack of ensuring the customer due diligence assessment conduction and failing to ensure all the relevant legal documents are documented properly. Besides, lack of ensuring that the availed loan is utilized for the intended purposes as stated in the loan contract (loan diversion) is another major reason for the occurrence of loan default/NPL. These all leads to credit risk that has bad consequences on the Bank's financial stability, clients' business performance, and country's economy as a whole. Hence, the bank should address those points in order to meet maximum National Bank NPL rate and achieve banks own Maximum NPL rate as well as reduce customer dissatisfaction.

As mentioned above, by looking the mean value only it would seem item 4 (Lack of Training) rated higher than value. But the higher Standard Deviation value indicate that responses were somewhat polarized. However, the majority of the participants gave somehow positive response on the level of the variable on item 2 (Over financing) and standard deviation showed slight or minimum deviation from the group. According to Solomon (2013) point out that the major contributing factors for the increment of NPL in NIB Bank S. Co. are poor risk assessment, poor monitoring/follow-up, credit culture and relaxed credit terms. As the researcher confirmed while making the interview and supported same, reluctant loan follow up/poor monitoring, lack of adequate information and/or absence of well-organized central base about the customers as well as the business environment have highest contributing factors for occurrence of NPL/loan default in the bank.

Table 11: Bank's support when customers face default problem

Rate bank's support for default customers	Frequency	Percent
High	34	40.5
Medium	41	48.8
Low	9	10.7
Total	84	100

Source: SPSS-23 frequency output own survey 2017

According to the Basel committee principle 16, Banks must have a system in place for early remedial action on deteriorating credits, managing problem credits and similar workout situations. Besides, NBE allowed the Bank to make any restructuring like extension of the life of the loan, injection of additional loans, rearrangement of loan repayment structure, waiver of the arrears and others renegotiation when the borrower faces a certain problem and unable to pay the loan. Restructuring is defines as the legal entity defers or reschedules outstanding debt(s): reduces the interest payable, postpones payments, changes the obligation's seniority or extends its maturity Ken & Peter (2014). Regarding to this, as seen in table 11, 41(48.8%) respondents replied that bank support customers when they face default problems at medium level, 34(40.5%) are rated as high, 9(10.7%) are rated as low. Therefore, from the majority response the level of support from the bank when customers fail to repay their debt is found at medium level and this should be excel to high supporting level because it helps to identify weakened or problem credits, reduction in credit quality might be recognized at an early stage when there may be more options available for improving the credit. Banks must have a disciplined and vigorous remedial management process, triggered by specific events, that is administered through the credit administration and problem recognition systems. Besides, it helps to create workout programs that are critical to manage the credit risk. The additional resources, expertise and more concentrated focus of a specialized workout section normally improve collection results. A workout section can help develop an effective strategy to rehabilitate a troubled credit or to increase the amount of repayment ultimately collected. An experienced workout section can also provide valuable input into any credit restructurings organized by the business function (Basel committee 2000).

Nevertheless, as the researcher confirmed while making the interview the new legal and credit recovery department had a highest level of trust to bring a better improvements on loan collection and shown better achievement but the bank should excel its support to reach to the high level of achievement and should enforce the department by experienced staff members and should engage at maximum capacity.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter summarized research findings that has been discussed and analyzed in detail in the previous chapters and provides conclusions. In addition, general recommendations are given on credit risk management practices of Dashen Bank so as to improve credit risk management practice. The chapter closes by giving limitations and implication for further research.

5.1 Summary of major findings

Based on the data presentation, analysis, and interpretation shown in previous chapter, the following are summaries of the major findings:

Only for about 8(9.5%) of the respondents that the existing bank's credit policy and procedure is highly flexible and for 45(53.6%) of the respondents (mean 3.3 and St. dev 0.673) it is rated as medium to comply with the existing dynamic market environment and customer need. As evidenced through interview that the customers are not fully satisfied by the credit service provided by the bank because of tight loan repayment period, due to lack of flexibility on credit availing process, delay is observed on loan approval decision and lack of consistency in loan granting process. Under financing and sometimes subjective decision is also made rather than using the scientific methodology without considering the bank's Internal rating method results. Regarding to bank's credit operation manual implementation 45(53.6%) of the respondents (mean 2.63 and St. dev. 0.636) agreed at medium level whereas 34(40.5%) of the respondents replied that the bank's credit operation manual is highly implemented.

Almost all which is 79(94%) respondents agree that the bank used Internal Rating System techniques in managing credit risk. For about only 13(15.5%) of the respondents that strategies and policies of the bank is highly and effectively communicated throughout the organization. Majority of the respondents which is around 51(60.7%) of the respondents (mean 3.60 and St. dev. 0.907) respond that the simplicity of credit providing process in Dashen Bank were ranked as low, 22(26.2%) of the respondents claimed that the simplicity of credit providing process is medium, only 11(13.1%) of the respondent justified the existence of simplicity in credit processing by ranking it high. Concerning to effectiveness of credit collection technique, 52(61.9%) of the respondent (mean 2.93 and St. dev. 0.673) ranked that the current collection techniques of the bank as medium, 18(21.4%) rated as high and 14(16.7%) rated as low. Only 41(48.8%) of respondents (mean 2.60 and St. dev. 0.679) replied that bank's credit management policy is highly support or dealing with the minimization of non-performing loan of the bank. Whereas, 35(41.7%) respond it as medium, while the rest 8(9.5%) rated as low. About 47(56%) of the respondents (mean 3.27 and St. dev 0.717) have rated implementation of the company's procedures to enforce loan repayment is medium, 29(34.6%) rated low, while 8(9.5%) of the respondents rated it as high. Around 45(54%) of the respondent (mean 2.56 and St. dev. 0.7) rated bank's loan default or NPL trend as high, 30(35.7%) rated as medium and only 9(10.7%) rated as low. Majority of the respondents around 65(77.4%) of the respondents (mean 2.15 and St. dev. 0.843) of the bank's employees have rated the credit analysis of the bank as good. However, from the interview it was noted that complaint on length of loan processing time, excessive reduction of loans and subjective decision-making by credit committee of the bank is reflected. Business-visiting experience of the bank rated as poor by 54(64.2%) of the respondents (mean 3.71 and St. dev. 0.951) while 20(23.8%) and 10(11.9%) of the respondents rated as fair and good respectively.

Around 66(79%) of the respondents (mean 1.82 and St. dev. of 0.88) replied that lack of follow up is a major cause of NPLs at bank Level. On the other hand 58(69.1%) of the respondents agree (mean 2.04 and St. dev. 0.798) in-adequate information about the customer lead to NPL/loan default. With regard to loan diversion, 55(65.5%) of the respondents agree (mean 2.26 and St. dev. 0.88) that it leads to loan default. Other factors, 38(45.3%) of the respondents (mean 2.62 and St. dev. 0.775) agreed that delayed in loan approval, 39(46.4%) of the respondents (mean 2.58 and St. dev. 0.972) agreed absence of book keeping, 32(38.1%) of the respondents (mean 2.73 and St. dev. 0.923) agreed lack of clients market, 20(23.8%) of the respondents (mean 2.86 and St. dev. 0.73) agreed under financing, 21(25%) of the respondents (mean 2.79 and St. dev. 0.695) agreed over financing, and 20(23.8%) of each of the respondents (mean 2.94 and St. dev. 0.797) agreed lack of training leads that to the occurrence of loan default/NPL. As the researcher confirmed while making the interview and supported same, reluctant loan follow up/poor monitoring, lack of adequate information and/or absence of well-organized central data base about the customers as well as its business environment have highest contributing factors for occurrence of NPL/loan default in the bank. About 41(48.8%) of the respondents replied that the bank support customers when they face default problems at medium level, 34(40.5%) at high level while 9(10.7%) at low level.

Even if the overall Credit Management and Practice of DB is good, it needs some improvements in order to stay in a leading position in this dynamic business environment and to minimize the bank's NPL rate as desired.

5.2 Conclusions

The Bank has both strong and weak sides regarding to the credit risk management techniques and tools as well as policies and procedures used by DB. The bank has up to date and suitable credit manuals and policy that states duty and responsibility of all departments. The other strong points of the bank is its credit policy and procedures are in compliance with the regulation and directions of the NBE. However, there is tight loan repayment period, lack of flexibility on credit availing process. The Bank's credit analysis and procedures is lengthy and reluctant to approve adequate amount per the requisition and intended purpose of the business. The researcher has concluded that the Internal rating system techniques are used by the bank for managing its credit risk. But, sometimes subjective decision is also observed by ignoring this scientific methodology. So that, lack of proper implementation of the credit policy and procedure as well as rigidity is reflected. In the current competitive and dynamic markets any financial institutions like banks should design and implement customer oriented policies and strategies to survive in the future. From the study, the researcher has found that strategies and policies of the bank are not effectively communicated throughout the organization which requires improvement on implementation.

The researcher has investigated how does Dashen Bank identifies, measure, monitor, evaluate and control credit risk. In this regard, the researcher has found that the simplicity of credit providing process and effectiveness of credit collection techniques of the bank is not satisfactory. Even half of the respondent's believed that the bank's credit management policy is highly support or dealing to minimize non-performing loan of the bank, still the figure shows that mutual agreement or understanding in the organization about the merits of credit management policy is not reached. In order to finance sectors adequately well, the banks profit should be stable and the disbursed loans should be collected on the scheduled time. Whereas once the bank do not collect the fund on the agreed repayment period, its profit were affected by the non-performing loans. Hence, the student researcher conclude that implementation of the company's procedures to enforce loan repayment is not effective and this may leads the bank to loan default or NPL trend.

Though credit analysis of the bank has got good response, business-visiting experience of the bank is poor, there is no pre - scheduled business visit in order to ensure the sound execution and operation of businesses as well as helps to recover bad loans in a timely manner. Based on the results amongst the nine variables that has the highest contributing factors for the occurrence of NPL/loan default is lack of follow up, in-adequate information about the customer which is resulted from absence of central data base system in the bank and loan diversion against the intended purpose. The study shows that banks support when its customers faced loan default problem is not satisfactory.

Generally, the bank has good practice in credit risk management from credit appraisal to the final stages of credit recovery that will be used as benchmark. However, there are major points recommended by the researcher to fill the gap shown in the finding and to reduce NPL rate, create customer satisfaction, to envision as well as keep vision statement of the bank.

5.3 Recommendations

Based on the foregoing deductions, the researcher wish to make the following recommendations to management and staff of Dashen Bank S. Co, academia and other stakeholders. These recommendations are meant to strengthen the lending practices by reducing credit risk in DB and the banking industry as a whole.

From the study the student researcher conclude that Dashen Bank has designed its risk grading technique - internal credit rating system which deals with the understanding and prediction of risk levels. Having this positive fact, the bank should rely or stick to the result of this scientific methodology in order to minimize subjective decision, make sound credit decision and create customer satisfaction. Moreover, the bank do not have credit risk model which is more popular credit evaluation techniques that predict the level of risk originated from the business instead of the bank like Value at Risk Model, Merton model and Credit Metrics model. Thus, the bank could manage its credit risk level using different risk measurement models in addition to existing model.

The bank should made remarkable changes on its credit manual, policy, procedures and develop its strategies to make simplified and flexible so that they could fit to the dynamic market environment that incorporate or meet the idea and business plan of the clients, to satisfy the delivery of loan to its clients, to detect poorly underwritten credits and prevent weak credits from being granted. In addition, the bank should make the customers and employees to aware about the merits of current bank structure and current credit manual, policy and procedure so that every customer and employee will be a risk manager and the bank should monitor for the effective and proper implementation.

Dashen Bank has its techniques to identify, measure and evaluate the credit risk. Hence, the bank should improve and simplify both the loan approval process & procedure as well as loan collection techniques in order to have better approach that will meet the objectives of the bank as well as the clients demand. In order to ensure the sound execution and operation of businesses, banks should carry out timely and periodical business visits, because they have to ascertain the utilization of granted loans is per the intended purpose. Loans and advances and non-performing loans are major variables in determining asset quality and generating profit of the bank (Kargi, 2011). Therefore, serious attention should be given in order to reduce NPL while processing loans and loan collection. In this regard, survey result shows that one of the major causes for the occurrence of loan default and nonperforming loans of the bank is lack of proper follow up. Hence, the bank should assure the implementation of consistent and periodic follow up about the status of the customer and its business to recognize the problem early. Lending business without gathering the necessary information is just like putting money in fire (Atakelt & Veni, 2015). Hence, the bank should improve its existing Management Information System or outsource to external expertise in order to have dependable and comprehensive central data base system that can help to access accurate, prompt, and full information about the client and its business activity so as the bank can easily handle assessment and appraisal of the credit. In addition, the bank should provide advising service to the customer before and after granting of loans about the relevancy record keeping practice since the loan decision is made based on their documents submitted. In order to strengthen the banks monitoring and controlling of its credit risk culture, the bank should address and work out on each default problem because all leads to credit risk that has bad consequences on the bank's financial stability and customers' business performance. Lastly, the bank should excel its support or advice to reach the highest level when customers faced loan default problem. So this helps to identify weakened or problem credits at an early stage and helps to create workout programs.

5.4 Limitations of the study & Implications for further research

This study is under taken and has attempted to focus on Dashen Bank S. Co's practice of managing its credit risk. The study is limited to Dashen Bank only and as the study considers only Dashen Bank, the result of the research paper may not be generalized to other commercial banks operating in Ethiopia. In addition, it is known that loan losses can also occur as a result of the borrowers' character not to repay the debt in line with the agreement, apart from the lenders lax credit risk management system. Therefore, the problem should have been seen from both sides. Nevertheless, due to time constraint the student researcher couldn't incorporate views of borrowers. To narrow this gap, interview was conducted to selected bank officials who has a direct relationship with the credit customer from initiation, customer handling till the final loan process stage. Besides time constraint to gather the required information, shortage of reference materials is limited the student researcher while collecting the secondary data. Furthermore, delay of the respondents to respond the questionnaire and hard to conduct interview at appropriate time period as well as the student researcher limited experience in executing researches before was a limitation to the study. However, regardless of this fact the student researcher tried to gather all data relevant to the study.

Generally, this study will provide enough insight/input for further study in the area of credit risk management practice by including views of borrowers. It is also worth to study for Dashen Bank to assess the practice of its credit risk management and enables the company to provide excellence service and promote the bank as per its vision to prove unparalleled in banking services. Furthermore, it would be helpful to develop knowledge that the student researcher has got by theoretical aspects through practice and it helps me for the fulfillment of student's researcher Masters of Business Administration/MBA.

References

Achou, F.T. & Tengue, N.C. (2008). *Bank performance and credit Risk management*. Unpublished Master's Thesis: University of Skovde.

Adams J. et al (2007). *Research Methods for Graduate Business and Social Science Students.* Thousand Oaks, CA: Sage Publications Pvt Ltd

Afriyie, H.O. & Akotey, J.O. (2012). *Credit Risk Management and Profitability of Selected Rural Banks in Ghana*. Unpublished Study: Catholic University College of Ghana.

Anderson, W. & Joeveer, K. (2014). *The Economics of Collateral*. The London School of Economics.

Atakelt, H.A. & Veni, P. (2015). Determinants of Credit Risk in Ethiopian Private Commercial Banks. *Accounting and Financial Management Research*.5(3):1-14.

Atakelt, H.A. & Veni, P. (2015). Empirical Study on Credit Risk Management Practice of Ethiopian Commercial Banks. *Journal of Finance and Accounting*. 6(3):134-147.

Bank for International Settlements, (June 2006). *Sound Credit Risk Assessment and Valuation for Basle committee*. Switzerland.

Basel Committee, (September 2000). *Principles for the Management of Credit Risk*. Washington, D.C. Basel Committee on Banking Supervision.

Bercoff, J.J. & et al (2002). Argentinean Banks, Credit Growth and the Tequila Crisis: A Duration Analysis. Unpublished Paper.

Bhaskar, P.J. (2014). Credit Risk Management in Indian Bank. *International Journal of Advance Research in Computer Science and Management Studies*, Vol.2: Issue 1.

Bittencourt, M. (2012). Financial development and economic growth in Latin America: Is Schumpeter right?. *Journal of Policy Modeling.* 34(3):341-355.

Bryman, A. & Bell, E. (2007). *Business Research Methods,* (2nd edition). Oxford: Oxford University Press.

Cassel, C., & Symon, G. (1994). Qualitative research in work contexts. In C. Cassell, & G. (Eds), *Qualitative Methods in Organizational Research.* 1-13. Thousand Oaks, CA: Sage Publications.

Chinwe, L.D. (2015). Credit Risk Management in Commercial Banks. *Economics and Finance*. 6(3):51-56.

Coen, B. (2010). The Basel Committee on Banking Supervision: *Its Global Role and Current Initiative*, United Nations General Assembly Working Group on the World Financial and Economic Crisis and its Impact on Development, New York.

David Shimko (2004), Credit Risk Models and Management, (2nd edition). Canada.

Dashen Bank S. Co. (2016/2017). *Annual Report*.

Dashen Bank S. Co. (February 2017). *Budget call*. Unpublished.

Dashen Bank S. Co. (2017). *Manning plan*. Unpublished.

Dashen Bank S. Co. (2016). *Finote Dashen*, (2nd edition).

Dashen Bank S. Co, (2017/2018). Corporate Budget Proposal

Dohnal, M. (2008). *Basel II Implementation-Retail Credit Risk Mitigation.* Czech Republic.

Duffie, D. and Singleton, K. J. (2003). *Credit Risk: Pricing, Measurement and Management*. Oxford: Princeton University Press.

Feseha, A. (1986). *Risk Management & Insurance*. Addis Ababa Commercial College.

Fight, A. (2004). *Credit Risk Management for Essential Capital Markets*. London: Elsevier Butterworth Heinemann Press.

Gestel, T.V. & Basens, B. (2009). *Credit Risk Management*, (1st edition). New York: Oxford University press.

Grace, M.F. & et al (2010). *The Value of Investing in Enterprise Risk Management*. Robinson College of Business, Georgia State University.

Greuning, H.V. & Bratanovic, S.B. (2009). *Analyzing Banking Risk: A Framework for Assessing Corporate Governance of Financial Risk*, (3rd Edition). Washington DC: The World Bank.

Hagos, M. (2010). *Credit Management: A case study of Wegagen Bank S. Co*. Unpublished Master’s Thesis: Mekelle University.

Hull, J. (2012). *Risk Management and Financial Institutions*. + Web Site, (3rd Edition). New Jersey USA: John Wiley & Sons, Hoboken.

Hussey, J. & Hussey, R. (1997). *Business Research: a practical guide for undergraduate and postgraduate students*. Basingstoke: Macmillan.

Kargi, H.S. (2011). *Credit Risk and the Performance of Nigeria Banks*. Zaria: Ahmadu Bello University.

Ken, B. & Peter, M. (2014). *Credit Risk Management*, (3rd edition). Edinburgh: Edinburgh Business School Heriot-Watt University.

Kent, R.P. (2008). *Money and Banking.* New Delihi: Konark Publishing Pvt Ltd.

King, R.G. and Levine, R. (1993). Finance and growth: Schumpeter might be right. *Quarterly Journal of Economics.*108(3):717-738.

Kiseláková, D. & Kiselák, A. (2013). Analysis of Banking Business and its Impact on Financial Stability of Economies Euro Area, *Polish Journal of Management Studies.*8.

Kothari, C.R. (2004). *Research Methodology, Methods and Techniques,* (2nd revised edition). India: University of Rajasthan.

Lafunte, E. (2012). *Monitoring Bank Performance in the Presence of Risk Mirceaepure*. Working Papers Barcelona, Spain.

Liamputtong, P. (2009), *Qualitative Research Methods*, (3rd edition). Oxford: Oxford University Press.

Machiraju, H.R. (2004). *Modern Commercial Banking*. India-New Delhi: Vikas Publication House PVT.

Mac-Donald, S.S. & Koch, T.W. (2006). *Management of Banking*, (6th edition). U.S.A: Thomson - South Western.

Maness, T. S. & Zietlow, J.T. (2005), *Short term financial management*, (3rd edition). Thomson: South Western.

Michael, A.B.K. (2004). Credit Risk Management in Financial Institutions: A Case Study of Ghana Commercial Bank Limited. *Research Journal* of *Finance and Accounting*. 5(23): 67-84.

Muluwork, K. (2016). *The Relationship between Non-Performing Loans and Financial Performance of Commercial Banks in Ethiopia*. Unpublished Master's Thesis, University of Nairobi.

Morgan, J.P. (1997). *Credit Metrics*-Technical document. New York.

National Bank of Ethiopia (2012). Asset Classification and Provisioning for Development Finance Institutions. *Directive No. SBB/52/2012*. (6th edition).

National Bank of Ethiopia (2008). Banking Business Proclamation. *Proclamation No. 592/2008.*Addis Ababa.

Nayan, J. & Kumaraswamy, M. (2014). *Retail Credit Risk Management in Indian Public Sector Banks*. Hemagangotri University of Mysore.

Nordic Investment Bank (2016), *Risk Management Policies.* Unpublished. Finland, Helsinki.

Önder, Z. and Özyildirim, S. (2013). Role of bank credit on local growth: Do politics and crisis matter?. *Journal of Financial Stability*.9(1):13–25.

Orodho, J.A. (2003). *Essentials of Educational and Social Sciences, Research Methods*. Nairobi: Masola Publishers.

Radha, M. & Vasudevan, S.V. (1980). *A Text Book of Banking: Law, Practice and Theory of banking*. New Delhi. S, Chand & Co. Ltd.

Santomero, A.M. (1997). Commercial Bank Risk Management: an analysis of the process. *Journal of Financial Services Research.* 12 (2-3): 83-115.

Saundres, A. & Allen, L. (2002). *Credit Risk Measurement New Approaches to Value at Risk and Other Paradigms*, (2nd edition). New York: John Wiley & Sons, Inc.

Saunders, M. et al (2009). *Research Methods for Business Students*. London: Pearson Edition.

Shan, Y. G. and Xu, L. (2012). Bad debt provisions of financial institutions: Dilemma of China's corporate governance regime. *International Journal of Managerial Finance*. 8(4):344 – 364.

Snijders, T. & Bosker, R. (1999). *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling.* Thousand Oaks, CA: Sage Publications.

Sunitha, R. & Raju, J. K. (2013). *Risk Management in Banking Sector-an Empirical study*. Davangere: Davangere University.

Teddlie, C. & Tashakkori, A. (2003). *Major Issues and Controversies in the Use of Mixed Methods in the social and Behavioral Sciences*. Thousand Oaks, CA: Sage Publications.

Thirupathi, K. & Manojkumar, M. (2013*).* Risk Management in Banking Sector –an Empirical Study. *International Journal of Marketing, Financial Services & Management Research*. Vol.2, No. 2.

Tsion, F. (2015). *Risk Management Practice of Ethiopian Commercial*. Unpublished Master's Thesis: Addis Ababa University.

Vaughan, E.J. (1992). *Fundamentals of Risk and Insurance*, Student edition of textbook.

Yang, W. (2013). *Credit Risk Management in Rural Commercial Banks in China*. PhD Thesis: Edinburgh Napier University.

Yesegat, A.W. (2009). *Value Added Tax in Ethiopia: a study of operating costs & compliance*. PhD Thesis: University of New South Wales.

Zikmund, W.G. (2003). Business Research Methodology, (7^{th} edition). United States: South Western.

Appendix – A: Survey Questionnaire

ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

MBA PROGRAM

(Questionnaire to be filled-in by Bank's Customer Relationships Department, District Offices, Credit Analysis & Appraisal Department, Legal Service & Credit Recovery Department, Risk Management & Compliance Department, Portfolio office and Branch Managers who are involving in credit activity)

Dear respondents,

The purpose of this Questionnaire is to gather valuable data regarding the **"Credit risk management practice of Dashen Bank S.C."** as a requirement for the completion of Master's Degree in Business Administration at St. Mary's University. I feel that your ideas and comments have significant contribution for the success of this research. Thus, I appreciate your cooperation to give me your time for the success of this thesis. I assure you that the information to be shared by you will be used only for academic purpose and will be kept confidential.

Instruction:

To answer the close-ended questions please encircle on the letter of your choice; and for the open-ended questions write your response on the blank spaces provided next to each question.

Thank you for your cooperation!

Sincerely,

Endalkachew Nigusse

Tel- 0911-932135

E-mail:endalkjack2@gmail.com

Part I. Personal Details:

1. Gender:

a) Male b) Female

2. Age:

a) 18-25 b) 26-35 c) 36-45 d) Above 45

3. Marital Status:

a) Single b) Married

4. Educational qualification

a) 12th complete b) Diploma holder c) Degree holder d) Master and above

5. Years of experience?

a) In the bank ________years. b) In the credit field _______ years.

Part II. Details on manuals:

1. To what extent do you think the credit manual or policy of the bank is up to date and convenient for loan creation?

a) Very high b) High c) Medium d) Low e) Very low

2. How do you rate the flexibility level of the Bank's credit policy and procedures?

a) Very high b) High c) Medium d) Low e) Very low

3. To what extent do you think the Bank's policies and procedures comply with the regulations of National Bank?

a) Very high b) High c) Medium d) Low e) Very low

4. How do you rate the extent to which the Bank's credit operation manual has been properly implemented?

a) Very high b) High c) Medium d) Low e) Very low

Part III. Risk management techniques and tools

1. Which techniques/Models does Dashen Bank use for credit risk management?

a) Expert systems b) Rating systems, including bank internal rating systems

c) Neural networks d) Credit scoring systems

e) Please State if any _________________

2. How do you rate the effectiveness of the above credit risk management techniques/models used by your organization?

a) Very good b) Good c) Fair d) Poor e) Very Poor

3. To what extent the credit risk strategy and polices being effectively communicated throughout the organization?

a) Very high b) High c) Medium d) Low e) Very low

4. How do you rate the bank's up-dating and reviewing its list of loan problems?

a) Very good b) Good c) Fair d) Poor e) Very Poor

Part IV. Credit risk measurement, monitoring and controlling techniques of DB

1. How do you rate the credit analysis and procedure followed by the Bank in terms of granting/availing credit?

a) Very good b) Good c) Fair d) Poor e) Very Poor

2. How do you evaluate your bank in terms of the simplicity of credit providing procedure?

a) Very High b) High c) Medium d) Low e) Very Low

3. How do you rate the effectiveness of credit collection technique used by your Bank?

a) Very high b) High c) Medium d) Low e) Very low

4. How do you rate your' clients' business-visiting experience by considering your company credit manual?

a) Very good b) Good c) Fair d) Poor e) Very Poor

5. How do you evaluate the Bank's credit management policy in dealing with non-performing loan?

a) Very high b) High c) Medium d) Low e) Very low

6. To what extent you implement the company's procedures to enforce repayment?

a) Very high b) High c) Medium d) Low e) Very low

7. What is the degree of Bank's loan default/NPL trend from time to time?

a) Very high b) High c) Medium d) Low e) Very low

8. How do you rate the following major reasons in relation to loan default in your organization?

Items (Possible Reasons)	Ratings				
	Very high	High	Medium	Low	Very Low
Lack of follow-up					
Over financing					
In adequate financing (Under financing)					
Lack of training					
Inadequate information about customer creditworthiness					
Delayed loan approval					
Loan diversion					
Absence of book-keeping					
Lack of market for clients' product					

9. How do you evaluate the Bank's support when customers default due to unforeseen circumstances?

a) Very high b) High c) Medium d) Low e) Very low

Thank you!

Appendix – B: Semi-Structured Interview Guide

This interview questions designed for the purpose gathering first hand data regarding to the **"Credit risk management practice of Dashen Bank S. Co."** for fulfillment of the requirements of the Master's Degree in Business Administration at St. Mary's University. Your response has significant contribution for the success of this research. Thus, I appreciate your cooperation to give me your precious time for the success of this research thesis.

Interview questions for Customer Relationships Department, District Offices and Branch Managers of the Bank

1. How do you assess the creditworthiness of a loan applicant?
2. Do you think that customers are satisfied by the credit service provided by the bank? Kindly would you justify why?
3. To what extent do you think that the policy and procedures are well defined to provide fast response to the prospective customers?
4. How far do you think the current credit procedures; reviewing and approval culture is helping the bank to achieve its objectives?
5. How do you ensure the proper implementation of the bank's credit operations manual?
6. What do the current credit monitoring/follow up techniques of the bank's look like?
7. How do you evaluate your bank in the current stiff competition and what Credit risk management policy and procedures, strategies are you realizing to be the best?
8. What preventive measures do you think is effective to be used before failing loans to default? ____________________________________