ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONIMICS

MASTER OF BUSINESS ADMINISTRATION

THE EFFECT OF CREDIT MANAGMENT ON BANK PERFORMANCE: IN THE CASE OF ZEMEN BANK

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A THESIS SUBMITTED TO THE COLLEGE OF BUSINESS AND ECONOMICS OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE MASTER OF BUSINESS ADMINISTRATION (MBA) IN FINANCE REQUIREMENTS

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DECLARATION

I, the undersigned, declare that this study was original and completed by myself, that the work was not submitted to any other Institute for any degree, certification, or other professional qualifications, and that all materials utilized were obtained from reputable sources for the study were properly acknowledged by citing them in the text and providing detailed information in the reference.

Declared By:

Kalkidan Haileyesus	_____	**APRIL 2022**
Name	**Signature**	**Date**

CERTIFICATION

This is to certify that the work contained in the thesis titled "The effect of credit management on bank performance," by "kalkidan Haileyesus," was completed under my supervision, and that this research study was given for examination with my approval.

ALEM HAGOS (PHD) _____

Advisor **Signature**

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ACRONYMS

AROA - Adjusted Return on Assets

ATM- Automated Teller Machine

CAF- Credit Application Form

DM- Default mode model

EAD- Exposure at Default

EPS- Earning per share

FI- Financial Institutions

FSS - Financial Self-sufficiency

IBD- International Banking Department

L/C- Letter of Credit

LAF- Loan Approval Form

LGD – Loss Given Default

M - Maturity

MFI- Main Financial Institutions

MTM – Mark- to- Market

NPL- Non-Performing Loan

NBE- National Bank of Ethiopia

O/D- Overdraft

P/E – Price/ Earning

PD – Probability of Default

ROA – Return on Asset

ROE – Return on Equity

SC- Share Company

VAR – Value- at- Risk

V/P- Vice President

ABSTRACT

This research study is about analyzing the effect of credit management on bank performance. The study critically assessed the effects of credit management on Zemen bank performance. A descriptive survey design and an explanatory research design were used in this study. Data was gathered in both qualitative and quantitative formats. Interviews were used to obtain qualitative data, which was summarized, and questionnaires were used to collect quantitative data, which was analyzed using descriptive and inferential analysis methods. The sampling was done with a purposeful sampling strategy. As already stated Primary, data was gathered from respondents via questionnaires and interviews, while secondary data was gathered via the bank's annual reports, directives, and bulletins. The independent variables and dependent variable (performance) have a positive connection, according to the findings. Credit processing and assessment, loan default, and collection policy all have a significant impact on performance. Credit monitoring and management, as well as credit policies and practices, have a moderate impact on performance. Both of these variables have a lot of weight. The bank's credit creation, policy, and process are flexible, the credit analysis and procedure are outstanding, and the bank has a moderate procedure that aids in performance enhancement, according to data analysis on credit creation, policy, and procedure. The bank should perform periodic loan reviews that address all or at least the majority of presently existing loans, it is also necessary for the bank to improve its credit policies and procedures, which will aid in the reduction of default rates and non-performing loans. As a result, the bank's credit performance will improve, according to one possible recommendation. This is the major internal control that allows the bank to identify the overall credit risk level of the loan and improve loan portfolio management efficiency.

Key Word: *Credit management and performance*

CHAPTER ONE

1. Introduction

1.1. Background of the study

Banks are financial entities that were established to lend, borrow, issue, exchange, and accept deposits, as well as to preserve or handle money in compliance with a country's laws and standards. Among their activities, credit supply is the most essential product that banks offer to potential business owners as a key source of income (Hagos 2021).

Credit is a phrase used in commerce and finance to describe transactions involving the transfer of money or other property with the promise of repayment, usually at a predetermined future date. As a result, the transferor becomes a creditor, and the transferee becomes a debtor; hence, credit and debt are just terms expressing the same process from opposing perspectives (Donald L. 2008).

Credit is the provision of resources (such as granting a loan) by one party to another party where that second party does not immediately pay the first party for the resources in full, thereby generating a debt, and instead arranges either to pay for or to return those resources (or equivalent value) at a later date. The first party is called a creditor, also known as a lender. The second party is called a debtor, also known as a borrower (http://www.selfgrowth.com/articles/Tabije3.html).

Credit is one of the many factors that can be used by a firm to influence demand for its products. According to Horne and Wachowicz (1998), firms can only benefit from credit if the profitability generated from increased sales exceeds the added costs of receivables. Myers and Brealey (2003) define credit as a process whereby possession of goods or services is allowed without spot payment upon a contractual agreement for later payment.

Banks analyze a number of elements as part of credit management while giving credit as a key source of revenue, this assists them in reducing the danger of default, which can lead to financial difficulties and bankruptcy. This is due to the fact that when banks give credit, they are subject to the risk of default (risk of interest and principal repayment), which must be successfully handled in order to reach the required level of loan growth and performance (Hagos 2010).

Timely identification of potential credit default is important as high default rates lead to decreased cash flows, lower liquidity levels and financial distress. Lesser credit exposure, on the other hand, indicates an appropriate debtors' level with lower likelihood of bad debts and hence financial soundness. According to Scheufler (2002), in today's business environment risk management and improvement of cash flows are very challenging. According to Charles Mensah (1999), credit management is critical: The credit management process merits special attention since it has a significant impact on the success or failure of financial organizations.

This means that credit should be accompanied with credit rules and procedures that are acceptable and appealing in order to improve credit management performance while preventing the banking system from failing. Credit management covers the entire lending process, from evaluating prospective borrowers through obtaining the loan amount. Credit management in the banking sector is involved with activities such as accepting applications, loan evaluation, loan approval, monitoring, recovery of non-performing loans, and so on (Shekhar, 1985). According to Hettihewa (1997), credit management is critical since extending credit is viewed as the equivalent of investing in a customer.

Credit management is one of the most crucial operations in any business and should not be disregarded by any economic entity that deals with credit, regardless of its corporate nature. It is the process of ensuring that customers will pay for the goods or services given. According to Myers and Brealey (2003), credit management is the procedures and techniques utilized by a corporation to maintain an adequate level of credit and its effective management.

Nzotta (2004) credit management, in his opinion, has a significant impact on the success or failure of commercial banks and other financial organizations. This is because deposit bank failure is significantly influenced by the quality of loan choices and, as a result, the quality of risky assets. He also identifies credit management as a significant predictor of a deposit bank's credit portfolio's stability. A fundamental requirement for excellent credit management is the ability to handle customer credit lines rationally and efficiently. To limit their exposure to bad debt, over-reserving, and bankruptcy, businesses must obtain a better understanding of their customers' financial situation, credit score history, and changing payment behaviors.

To the best of my research, no general or specialized study on the influence of credit management on performance at Zemen Bank has been conducted, although there has been an attempt to study in other banks, despite the fact that little work has been done in the financial sphere. As a result, the researcher believes that researching the established issue is appropriate, and that little work has been done to evaluate the influence of credit management on performance, which would alleviate concerns and contribute to the bank's increasing market share and revenue creation. As a result, the researcher is especially interested in the research topic, as well as the bank's contribution and object in general, in analyzing the gaps in credit management performance, which is crucial to study in today's fierce competition using current financial measures.

1.2. Statement of the Problem

According to Shekhar (1985), financial institutions' (FIs') ability to handle credit successfully is critical to their survival and growth. Credit management is becoming increasingly crucial to banks as a result of greater levels of perceived risk as a result of client profiles, corporate situations, and the economic environment in which they operate. Furthermore, insufficient effort is devoted in studying the impact of credit management on bank performance, which would aid in problem resolution and contribute to the bank's increased market share and revenue production. As a result, the researcher is interested in the research area in particular, as well as the bank's contribution and object in general, in assessing the gaps in credit management on performance, which is critical to be studied in the current competitive environment using modern financial measurements.

Wondimagegnehu (2012) used a mixed research technique to perform a study on the causes of NPLs in Ethiopian banks, concentrating only on bank-specific factors that create NPLs. According to the study, the causes of loan default include poor credit assessment, failed loan monitoring, an underdeveloped credit culture, lenient credit terms and conditions, aggressive lending, compromised integrity, weak institutional capacity, unfair competition among banks, willful default by borrowers and their knowledge limitation, fund diversion for unintended purpose, and over/under financing by banks. Even though both findings are recent, there are gaps that have not been addressed by either researcher and require additional exploration by others.

According to Shekhar (1985), Credit is essential in many people's daily lives and in almost all industries that involve monetary input in some way. Banks are the principal sources of credit as well as other services like as deposit mobilization, domestic and international transfers, and currency

exchange. Furthermore, credit management has far-reaching consequences at both the micro and macro levels. Inefficient credit allocation boosts costs for successful borrowers, erodes the fund, and limits banks' capacity to shift assets to alternative uses. Furthermore, the higher the borrowing limit, the higher the risk. Loan default, which occurs as a result of poor credit management, reduces a bank's ability to lend. Overall, it will disrupt the usual influx and outflow of funds that a bank must maintain in order to remain in a stable credit market.

As we all know, Commercial banks' principal function is to extend credit to their customers. However, not all borrowers follow the conditions of their bank loan repayment agreements. Some borrowers default on their loans, resulting in bad debts for the banks concerned. It is believed that bad debts harm loans, which are the bank's earning assets, putting the bank's profitability at jeopardy. The more bad debts that are written off from the bank's revenues, the lower the net profit and hence the amount available for distribution as dividends to shareholders; this also limits the amount that can be invested back into the business (Basil, 2013).

The credit department strives to effectively implement the bank's credit management policy in order to maximize ZEMEN's risk-adjusted rate of return by keeping credit risk exposure within acceptable bounds. To this end, it shall maintain balanced loan portfolio for the bank as well as periodically reviewing the bank’s portfolio quality in view of limit on total outstanding loans and advances, Geographic location, Credit concentration: type of loan, sector, single client, connected group, loan size, maturity etc. (Zemen bank’s credit policy and procedure manual, revised 2017).

Hagos (2010) discovered that the bank was managing its credit successfully in many aspects in this specific location in a case study on "Credit Management Practice of the Wegagen Bank in Tigray Region" using both primary and secondary data as well as qualitative and quantitative data analysis tools. However, the researcher has also suggested that very long loan procedures, insufficient credit policy in terms of customer aspect deterring credit clients, and only short term credit facility resulted in repayment stress on the client within a short period, leading to customer termination.

To the best of my research, no general or specialized study on the influence of credit management on performance at Zemen Bank has been conducted, although there has been an attempt to study in other banks, despite the fact that little work has been done in the financial sphere. As a result, the researcher believes that researching the established issue is appropriate, and that little work has been done to

evaluate the influence of credit management on performance, which would alleviate concerns and contribute to the bank's increasing market share and revenue creation. As a result, the researcher is especially interested in the research topic, as well as the bank's contribution and object in general, in analyzing the gaps in credit management performance, which is crucial to study in today's fierce competition using current financial measures.

The NBE's stringent limits, rules, and regulations limit the Bank's flexibility and ability to customize services for consumers. Another important external obstacle to the bank's objectives is the country's economic inflation and stability.

1.3. Research question

1. What is the effect of client appraisal on performance of Zemen Bank?
2. What is the effect of Loan default on the performance of Zemen Bank?
3. What is the effect of credit collecting on time on performance of Zemen Bank?
4. What is the effect of credit monitoring process on performance of Zemen Bank?

1.4. Objective of the study

1.4.1. General objective

The general objective of the study is to critically analyze the effect of credit management on bank performance in case of Zemen Bank.

1.4.2. Specific objectives

- ✓ To evaluate the effect of client appraisal on performance of Zemen Bank.
- ✓ To examine the effect of Loan default on the performance of Zemen Bank.
- ✓ To evaluate the effect of credit collecting on time on performance of Zemen bank.
- ✓ To evaluate the effect of credit monitoring process on performance of Zemen Bank.

1.5. Significance of the study

This research is especially significant to the case company because it will aid in the identification of major credit management constraints. The findings will be useful to emerging banks, including Zemen Bank management and staff, who will be able to understand the credit management practices that contribute to the bank's performance and ensure that they follow acceptable banking credit practices and procedures, as well as make credit management practices and procedures easier for bank customers to understand and appreciate.

Ethiopia's National Bank could use this research to build and strengthen the country's current credit risk management framework for all commercial banks. The study will benefit academics and scholars because it will add to the existing body of information. The study will also provide research groups and scholars with background knowledge, as well as identify gaps that will serve as a baseline for researchers interested in growing the discipline.

1.6. Scope of the study

The research focused on Zemen Bank S.C., one of Ethiopia's growing private commercial banks. The study examined and contrasted the bank's lending rules, methods, credit operations, and management with those of the National Bank. It also decided whether or not loan growth and performance met the bank's expectations. Furthermore, the research focused on finding the major elements influencing the bank's best loan management strategies, loan growth, and loan default causes. As independent variables, loan defaulter, client assessment, credit process, credit policies and procedures, collection policy, and credit monitoring and follow ups were investigated, while performance was considered as an dependent variable. It was done by involved departments, as well as selected branch managers and concerned workers, in order to obtain a deeper understanding of the challenges.

It is apparent that if the researcher covered all branches, the results would be more adequate; but, because to time and financial constraints, the researcher was only able to conduct the study in chosen branches in the Addis Abeba region.

1.7. Limitation of the study

The respondents addressed were cautious to offer information for fear that it would be used to intimidate them or depict them or their institution in a negative manner. When prompted, some respondents even refuse to complete questionnaires. The issue was addressed in the study by including an introductory letter from the school in which participants were promised that the information they submitted would be kept private and utilized solely for academic purposes. The absence of senior management was one of the challenges encountered during data gathering.

The researcher also encountered challenges in gathering information from respondents because some of the information required is dependent on sentiments, emotions, attitudes, and perceptions that cannot be objectively defined or validated. Because of the lack of confidentiality that envelops financial institutions, there has been a lack of reaction. Because the respondents' names would not be

printed on the research equipment, the researcher encouraged them to participate without holding back any information they might have.

1.8. Organization of the study

There are five portions to the research study. Each chapter's content is grouped around the chapter's sub-topics. The first chapter serves as an introduction, beginning with an explanation of the study's background and progressing through an overview of the case company and a declaration of the study's problem. It includes research questions, the general and specific objectives of the study, the significance of the investigation, the scope of the study, and the constraints of the study. The associated literature for the second chapter was then reviewed. This chapter covers reviews of both theoretical and empirical literature. Chapter three largely describes the research approach and processes for carrying out the research investigation. The fourth chapter, which deals with data analysis and interpretation, is the most significant. Finally, Chapter 5 discusses summary, conclusion, and recommendation.

CHAPTER TWO

2. Review of Related Literature Review

2.1. Introduction

In this chapter, papers concerning Bank Credit Management that have been written and documented in various manuals, literatures, and writers were reviewed according to the title that are relevant to credit management.

2.2. Overview of the Organization

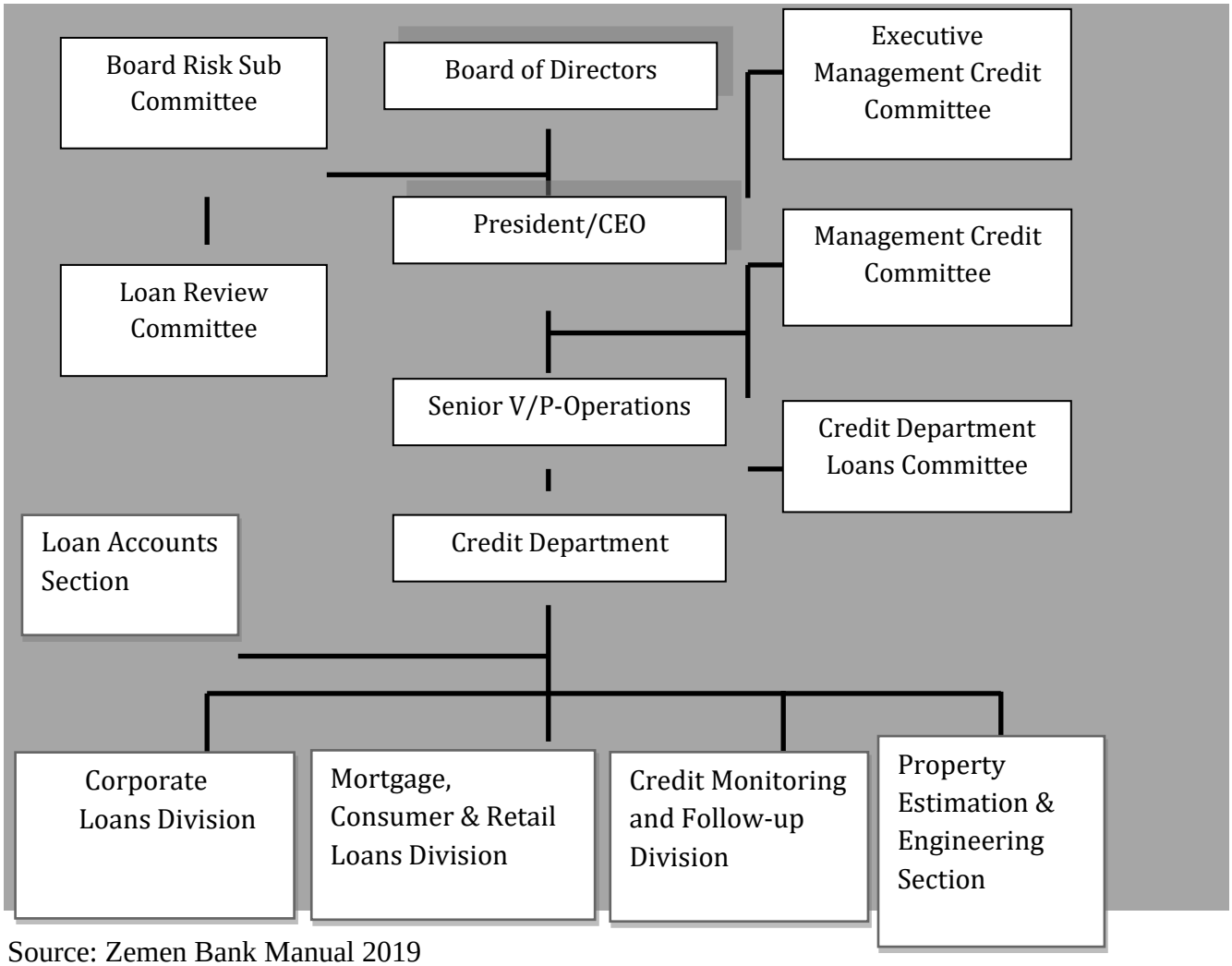
Zemen Bank was founded with the intention of introducing new life into Ethiopia's financial sector and banking industry. Its mission is to give its clients with professional teamwork, trust, and high levels of service, and it prioritizes upholding the highest standards, being progressive, and innovative. (2009 Annual Report of the Zemen Bank) Zemen Bank launched its activities by utilizing cutting-edge information technology (including some of the most advanced banking software and hardware to be found anywhere in the country). It pioneered the use of multi-channel banking (such as ATMs, the Internet, and mobile banking), as well as unparalleled customer service tailored to each client's unique needs. (2009 Annual Report of the Zemen Bank)

In addition to focusing on quantitative measures of banking operations, the bank qualitatively strengthened Ethiopia's banking system. Thanks to cutting-edge information technology, it has introduced novel products and services to the Ethiopian market. Furthermore, great customer service was provided via unique corporate services and a tastefully furnished branch space. Not only is the bank concerned with what they do, but also with how they do it. (Zemen Bank Annual report 2009).

In recent years, both the public and private sectors of the economy have seen tremendous expansion in investment and commercial operations, offering fertile ground for the banking business. Zemen Bank has been working hard to capitalize on these and other opportunities in order to meet its corporate goals. Because of its small capital base and liquidity, the bank has only provided its customers with short and medium-term loans and advances. By providing loans and advances to its customers and creating money for its owners, the bank has been a significant contributor to the country's investment needs

Figure 1.1

2.3. Organization of the Credit Function



Source: Zemen Bank Manual 2019

2.4. Theoretical review

2.4.1. Definition of Credit

Credit is derived from the Latin word "Creditum," which meaning "belief or trust." Credit in economics refers to pledges made by one party to pay another for money borrowed or products or services acquired. It is a medium of exchange to receive money or goods on demand at some future date (Jhibgan, 2002).

Credit, according to the Encyclopedia Britannica, is a transaction between two parties in which one (the creditor or lender) delivers money, products, services, or securities in exchange for a promise of

future payment by the other (the debtor or borrower). Typically, such transactions entail the payment of interest to the lender.

Another hypothesis holds that the term credit is derived from the Latin word "Credo," which means "I Believe." Credit is granted on the basis of faith in the person, not on the security offered. Credit is purchasing power that is not earned but is provided by financial institutions as an offset to depositors' idle income or as a net addition to the total quantity of purchasing power. In reality, no economy can function without credit. All economic transactions are now settled via credit instruments. It is the essential lifeblood of today's commercial and business systems (Cole, 2000).

2.4.2. Definition of credit management

Credit management is defined in a variety of ways by various experts. Among these, several examples are listed below: Credit management at a bank, according to Nath (2013), is a dynamic sector that necessitates a certain amount of long-term planning in order to deploy funds in various fields while reducing risk and maximizing return on investment. The purpose of credit management is to maximize performing assets while limiting non-performing assets, as well as to assure the optimal point of lending and advance and effective management.

Credit management, according to Wise (2014), is the act of constructing a portfolio of assets based on credit linkages and managing the risks connected with these investments. As a result, credit management requires evaluating the risk connected with each loan and then examining the total amount of risks associated with all loans. The fundamental purpose of credit management is to keep loan defaults to a minimum. Banks reduce loan portfolio default risk by considering the credit payback history of both individuals and organizations requesting loans. Credit management, according to Myers and Brealey (2003), is the procedures and strategies used by a company to maintain an appropriate amount of credit and its effective management.

Credit management, from the perspective of a debtor, is the management of finances, particularly debts, so that you do not have a trail of creditors following you about. Credit management is a major duty that both the debtor and the creditor must accept. Credit management, when properly implemented, is a fantastic tool for a company's financial stability Wise (2014)

2.4.3. Transaction cost theory

Transaction cost theory tries to explain why organizations exist and why they grow or outsource operations to the outside world. According to the transaction cost hypothesis, businesses attempt to minimize the costs of sharing resources with the environment, as well as the bureaucratic expenses of intra-company exchanges. As a result, businesses assess the expenses of exchanging resources with the environment against the administrative costs of executing tasks in-house. Institutions and markets, according to the notion, are two distinct means of organizing and coordinating economic transactions. When external transaction costs exceed internal bureaucratic expenses, the firm grows because it can carry out its activities at a lower cost than if they were carried out in the market. The company will be reduced if the administrative costs of organizing the activity surpass the external transaction costs. According to Coase (1937), every company will expand as long as its activities can be conducted at a lower cost.

2.4.4. Credit risk Models

Risk model deals with the understanding and prediction of risk levels (Beasens and Gestel, 2009). Credit risk modeling methodologies allow a tailored and flexible approach to price measurement and risk management (Basel, 1999).

2.4.5. Value at Risk Model (VAR)

It is a relatively new risk management tool. The Value at Risk (VAR) of a corporation reflects how much it can lose or make with a specific probability over a given time horizon. VAR is a simple figure that describes the financial risk inherent in portfolios. VAR is used to quantify market risk in general, but it also includes many other hazards such as foreign currency, commodities, and equities. (Thirupathi and Manojkumar, 2013). Credit VAR models can be gathered in two main categories: 1) Default Mode models (DM) and 2) Mark-to-Market (MTM) models.

Credit risk is characterized as default risk in the former, and a binomial technique is used. As a result, only two alternative outcomes are considered: default and survival. The latter encompasses all probable changes in the borrower's creditworthiness, which are properly referred to as "credit migrations." Credit losses occur solely when a default occurs in DM models. On the other hand, MTM models are multinomial, in that losses arise also when negative credit migrations occur (Altman, 2006).

2.4.6. The Merton model

The basic idea behind the Merton model is straightforward: default happens when the value of a firm's assets (its market value) is less than the value of its liabilities. At the maturity of the loan, the payment to the debt holders is thus the lesser of two amounts: the face value of the debt or the market value of the firm's assets. All essential credit risk factors, including default and recovery at default, are a function of the firm's structural characteristics, which include asset levels, asset volatility (business risk), and leverage (financial risk). As the creditors' reward is a function of the residual value of the defaulted company's assets, the RR is thus an endogenous variable (Altman, 2006). The likelihood of a firm becoming bankrupt is heavily influenced by the beginning period market value of that firm's assets relative to its outside debt, as well as the volatility of that firm's asset market value. (Cornett and Saunders, 2002).

2.4.7. Credit Metrics model

Credit Metrics is a method for analyzing portfolio risk owing to changes in debt value induced by obligor credit quality changes. We incorporate changes in value induced not only by potential default occurrences, but also by credit quality upgrades and downgrades. Furthermore, we analyze the value-at-risk (VAR), which is the volatility of value rather than just the projected losses. Importantly, we evaluate risk in the context of the entire portfolio. We look at the relationship between credit quality changes across obligors. This allows us to calculate the portfolio's diversification benefits or potential over-concentration directly. Furthermore, Credit Metrics enables us to include specific market risk components in our risk estimations. These include the market driven volatility of credit exposures like swaps, forwards, and to a lesser extent, bonds (Brown*et al*., 2003)

2.4.8. Internal Rating System

By categorizing and regulating the creditworthiness of borrowers and the quality of credit transactions, an internal rating system supports financial institutions in managing and controlling the credit risks they face through lending and other operations. (Thirupathi and Manojkumar, 2013) Capital market looks to credit rating as a determinant of an obligor’s financial health. Rating agencies

2.4.9. Asymmetric Information Theory

Information asymmetry describes a situation in which business owners or managers know more about their company's prospects and hazards than lenders (PWHC, 2002, quoted in Eppy.I) (2005). It refers to a situation in which all people involved in an undertaking are unaware of relevant information. In a

debt market, information asymmetry occurs when a borrower who takes out a loan has a better understanding of the potential risks and rewards associated with the investment projects for which the funds are intended. The lender on the other hand does not have sufficient information concerning the borrower (Edwards and Turnbull, 1994).

2.4.10. In-Kind Finance: A Theory of trade credit

According to Burkart and Ellingsen (2004), diverting inputs is often less beneficial for an opportunistic borrower than diverting cash. As a result, supply may be more willing to lend than banks. Trade credit and bank credit may be complements or substitutes, according on the model. Trade credit has a short maturity, is prevalent in less developed markets, and the accounts payables of large unrated organizations are more countercyclical than those of small firms.

2.5. Dimension of Credit Management

Credit management, according to Pandey (1997), specifically performs the following basic ideas in respect to credit policy:

Formulation of credit policy: - The primary duty for businesses that sell credit on a regular basis is to develop a credit policy, which includes decisions about three credit terms: cash discount, discount duration, and credit period. If any credit standard specifies the characteristics that consumers must demonstrate in order to receive credit, credit term refers to the period of credit and the term of payment of customers, including any discounts. Pandey's (1997).

Evaluation of credit policy: - These entail determining the creditworthiness of the credit application. It consists of three steps:

A. Collection of credit information

B. Analyzing and evaluating information

C. Making of credit decision

Implementation of credit policy: - Once a credit policy has been developed and assessed, the following stage is to adjust and implement it.

Administering and controlling credit policy: - The goal of this phase is to verify and control whether or not the installed policy is working appropriately.

Credit management is the installation and upkeep of a set of policies and processes designed to reduce the amount of money invested in debtors and the business's exposure to bad debts (Hagos, 2010). When effectively handled, credit management is a fantastic instrument for a company's financial

stability and profitability. The process of regulating and collecting customer payments is sometimes referred to as credit management. This is the position within a bank or organization in charge of credit regulations that enhance income while lowering financial risks.

2.6. Credit Policies and Procedures

Credit policies are not the primary responsibility of the Credit and Risk Department. Every employee who interacts with consumers in any way must understand and follow the credit policy (http://www.bwaresolutions.com/).

Credit rules must be communicated throughout the business, administered through suitable procedures, monitored, and revised on a regular basis to reflect changing internal and external events in order to be effective. They should be employed both at the consolidated bank level and, if necessary, at the level of individual affiliates. Furthermore, the policies must address the crucial function of reviewing. Economic conditions and the firm's credit policies are the two most important elements influencing the quantity of a firm's account receivable. Of course, economic conditions are largely outside the financial manager's control. However, like with other current assets, the manager can alter the level of receivables in accordance with the profitability/risk tradeoff Pike and Neale (1999).

Lowering quality standards may increase demand, resulting in greater and more profitable receivables as well as a higher risk of bad debt. Credit and collection policies of one company are not independent of those of other companies. (Sindani et al, 2012).

The study of individual policy variables reveals that the competitive process, as well as the opportunity cost of taking on additional receivables, are accounted for in the design of the demand function. Policy variables include the quality of trade accounts accepted, the length of the credit period, the cash discount, any special terms such as seasonal timing, and the firm's collection program. These characteristics, when considered combined, have a significant impact on the average collection period and the proportion of bad debt losses (Horne, 1995: 361).

2.7. Process of credit management

The process of credit management begins with accurately assessing the credit-worthiness of the customer base and his/her business viability. This is particularly important if the company chooses to extend some type of credit line or revolving credit to certain customers. Hence, proper credit

management is setting specific criteria that a customer must meet before receiving the proposed credit arrangement. As part of the evaluation process, credit management also calls for determining the total credit line that will be extended to a given customer (Yalemzewed, 2013).

When the process of Credit Management function becomes, efficient, everyone involved benefits from the effort. The vendor /bank has a reasonable amount of assurance that invoices issued to a client will be paid within terms, or that regular minimum payments will be received on credit account balances. Customers have the opportunity to build a strong rapport with the vendor and thus create a solid credit (Habtamu, 2015).

2.8. Types of credits

There are four different sorts of credit. Financial institutions would be able to get the best loan recovery solution and avoid paying excessive fees if they understand how each one works (Yalemzewed, 2013).

Service credits: Payments for utilities such as telephone, gas, electricity, and water are made on a monthly basis. A deposit is frequently required, and if your payment is not received on time, you may be charged a late fee.

Loans: loans can be given for small or large quantities, and for short or long terms. Loans can be repaid in a single lump sum or in multiple regular installment payments until the loan amount and finance charges are completely paid off. Loans are also classified as secured or unsecured.

Installment credit: is characterized as a timely purchase, retail financing, or a straightforward payment plan. The borrower takes the items home in exchange for a promise to pay later. Automobiles, major appliances, and furniture are common purchases made in this manner. You frequently sign a contract, pay a down payment, and agree to pay the balance in equal installments. Finance charges are built into the payments. The item you purchase could be used as security for the loan.

Credit cards: Individual retail outlets, banks, or businesses issue them. If you pay off your credit card in full at the end of each month, it can be the equal of an interest-free loan.

2.8.1. Credit products

Any commitment or obligation under which the Bank agrees to make payments on behalf of or for the account of the Borrower, including letters of credit, guarantees, or other arrangements intended to facilitate transactions between the Borrower and third parties, or under which the Bank enters into a credit or financial accommodation, agreement, or other arrangement with the Borrower, whether or not the Bank's obligation is contingent. Inkumbi,M (2009) according to this, some of them are listed below.

1. Overdraft Facility

An overdraft is a type of credit facility that allows a customer to draw funds beyond the deposits in their current accounts for the express purpose of meeting the day-to-day operational needs of a viable and ongoing business. The Bank will reimburse the outstanding balance of an overdraft on demand. It is usually sponsored for a set period of time, such as a year. On a daily basis, interest is levied on the facility's outstanding balances, and the accrued interest is capitalized at the end of each month Inkumbi,M (2009).

2. Overdraw from Current Accounts

An overdraft is a temporary facility that allows a customer to withdraw a defined amount of funds in excess of his current account balance in order to satisfy an unanticipated and temporary financial shortage.Overdraw may be entertained provided the applicant is a highly valued customer Inkumbi,M (2009).

3. Merchandise Loan

A merchandise loan is a short-term credit facility issued by the bank in which the merchandise or documentary evidence (Railway Receipt, Warehouse Receipt, and Airway Bills) serves as a pledge or collateral for the loan. The goal of a product loan is to relieve the consumer of a short-term cash flow difficulty caused by money tied up in the merchandise Inkumbi,M (2009).

4. Pre-shipment Export Credit Facility

Pre-Shipment Export Credit Facility is a loan extended for purchase of raw materials, processing and converting them into finished goods, warehousing, packing and transporting the goods until the time of shipment. The applicant should present valid sales contract from a foreign buyer Inkumbi,M (2009).

5. Advance against import bills

Committed Letters of Credit that the Bank has on its books may be settled by extending an Advance against Import Bills facility. Such a facility should be settled as soon as possible and not later than one month Inkumbi,M (2009).

6. Import Settlement Loan

Import Letter of Credit Settlement Loan is a form of loan extended to a borrower by converting the outstanding import letter of credit document's value either to a merchandise loan facility or a term loan for a maximum period of one year when a customer is unable to clear the L/C document due to shortage of working capital. It is granted to existing high value customers of the Bank having temporary cash flow problem to settle the net-margin-held on the import L/C document value Inkumbi,M (2009).

7. Letter of Guarantee Facility

A Letter of Guarantee Facility issued by the Bank is a written promise/irrevocable obligation by the Bank to compensate (pay a sum of money) to the beneficiary (local or foreign) in the event that the obligor fails to honour his/her/its obligations in accordance with the terms and conditions of the guarantee/agreement/contract. It can be one-time or renewable facility Inkumbi,M (2009).

8. Term Loan

A term loan is a loan provided for working capital and/or project finance that must be returned with interest over a certain period of time. The loan is repaid in a lump sum on maturity, or in periodic instalments (i.e. monthly, quarterly, semi-annually, or annually), depending on the nature of the business and its cash flow Inkumbi,M (2009).

9. Bridge Loan

A bridge loan is an interim financing for an individual or a business until permanent or the next stage of financing can be obtained or the customer sells its stock. Bridge loans are typically more expensive than conventional financing to compensate for the additional risk of the loan. Bridge loans typically have a higher interest rate and other costs Inkumbi,M (2009).

2.8.2. Credit Planning

The concept of credit planning has increased in popularity in recent years. Credit planning is the allocation of financial resources from whichever source they are available. In such a way that the

output and investment targets of the plan are fully accomplished, and the distribution of these resources does not inhibit plan programmers' implementation. According to this viewpoint, credit planning at each level of the banking system is secondary, because bank credit is just one of many financial resources available from numerous sources. Bank credit is prevalent, and the national allocation of their available sources through a bank is an important component of economic planning and policy. When banks must rely solely on deposits, the need of such planning is magnified (Myers and Brealey) (2003).

Credit Analysis

According to Abebaw (2015), credit analysis is the major approach for reducing the credit risk on a loan request. This includes assessing the borrowers' financial status, predicting the possibility of default, and reducing the risk of non-payment to an acceptable level. In general, credit evaluations are based on the loan officer's subjective assessment (or judgmental assessment technique). When a customer applies for a loan, bank officials review all available data to determine whether the transaction meets the bank's risk-return objectives. Credit analysis is essentially default risk analysis, in which a loan officer attempts to assess a borrower's ability and willingness to repay. In the same way (Compton (1985) identified three distinct areas of commercial risk analysis related to the following questions:

- What risks are inherent in the company's operations? Lowering quality standards may increase demand, resulting in greater and more profitable receivables as well as a higher risk of bad debt. Credit and collection policies of one company are not independent of those of other companies. If the product and capital markets are sufficiently competitive, what other companies do will impact one company's credit and collection practices. Such behavior is tied to the pricing of a product or service and must be viewed as part of the larger competitive process. What have managers done, or what have they failed to do, to mitigate those risks (Compton, 1985)?
- How can a lender arrange and manage its own risks while supplying funds (Compton, 1985)?

The first question requires the credit analyst to produce a list of circumstances that could jeopardize a borrower's capacity to repay. The second recognizes that repayment is primarily determined by the borrower's decisions. Is management aware of the critical risks, and has it taken any action? According

to Timothy (1995), the last question demands the analyst to define how risks can be controlled in order for the bank to develop an acceptable loan agreement. Credit analysts at banks frequently use the five C's of credit to focus their analysis on the most important aspects of an applicant's credit worthiness. Pandey (1997) recognized five credit C's. Character, Capacity, Capital, Collateral, and Conditions are some of them.

2.8.3. Credit processing

The credit process, according to Timothy (1995), consists of company growth and credit analysis, credit execution and administration, and credit evaluation. The process will be divided into several parts, beginning with development and ending with approval.

Business Development and Credit Analysis

Business development refers to the process of advertising bank services to existing and new consumers. The lending process includes identifying new credit consumers and soliciting their banking business, as well as maintaining relationships with current customers and cross-selling non-credit services. Every bank employee, from drive-up window tellers to board members, is responsible for business development. On a daily basis, each employee interacts with potential clients and has the power to advertise bank services. Many banks utilize cash bonuses or other incentive systems to reward staff who effectively cross-sell services or bring in new business to drive marketing efforts. Timotheus (1995).

Credit Execution and Administration

Depending on the bank's organizational structure, the formal credit decision may be made individually or by committee. This structure varies according to the size of the bank, the number of employees, and the type of loans processed. A bank's Board of Directors normally has the final say on which loans are approved. Each lending officer frequently has independent authority to approve loans up to a particular amount. Timotheus (1995).

Credit Review

The loan review program aims to reduce credit risk, deal with issue loans, and liquidate the assets of failed borrowers. Effective credit management separates loan review, credit analysis, execution, and administration. The review approach is divided into two sections: monitoring current loan performance and dealing with problem loans. Many banks have a formal loan review committee that is

independent of loan officers and reports directly to the chief executive officer and board's lending committee. Loan review specialists examine current loans to ensure that the borrower's financial situation is acceptable, that loan documentation is in place, and that pricing satisfies return targets. Timotheus (1995).

Credit Rating

Credit ratings measure a borrower's creditworthiness and are generally a reflection of a borrower's capacity to repay loans and interest. Banks frequently utilize internal ratings that they calculate themselves in addition to the regular ratings issued by credit-rating organizations. Each bank may have its own system for calculating internal ratings (Bank for International Settlements, 2000). A bank may have internal ratings for different types of borrowers. Internal credit risk rating systems are becoming an increasingly essential component of large commercial banks' credit risk monitoring and management for individual exposures as well as portfolios Timothy (1995).

Credit Approval and Implementation

Individual steps in the credit approval process, as well, as how they are carried out, have a substantial impact on the risks associated with loan acceptance. Two aspects affect the quality of credit approval processes: on the one hand, a transparent and full communication of the risks when giving the loan, and on the other, an adequate assessment of these risks. Furthermore, the efficiency with which loan approval processes are carried out is a crucial ranking component. Due to the major differences in the character of individual borrowers and the assets to be funded, as well as the large number of products and their complexity, there can be no universal process for assessing credit risks. The risk-adjusted quality of the credit approval process is determined by the best possible detection and appraisal of the credit risk arising from a prospective exposure. Timotheus (1995).

Credit Analysis and client appraisal

The credit analysis and evaluation process is the critical evaluation of the potentials of the borrower's business strength through identification of both strong and weak features and balancing the results for final judgment by the Bank's credit approving body. The Credit Analyst/Officer should study and appraise the borrower's information in order to make credit decisions. Both the borrower's good and negative characteristics should be ruled out.

Lawrence (1997:776-777) recognized five credit C's. Character, Capacity, Capital, Collateral, and Conditions are some of them. The Credit Analyst shall take the following five C's into account when assessing and evaluating the loan request of the borrower.

Character

Willingness of the borrower to meet the obligation of the loan. This evaluates the integrity (honesty) of the borrower Lawrence (1997:776-777).

Capacity

The borrower's financial ability to repay the debt. The credit analyst should first analyze the borrower's repayment potential. The following are the most typical loan repayment sources: cash flow from operational activities, proceeds from the sale of fixed assets, reductions in working capital, and injection of extra funds from external sources. The Credit Analyst assesses the ability of the borrower to generate cash to cover day-to-day operational requirements Lawrence (1997:776-777).

Capital

The financial strength of the borrower; i.e. the "value" of the applicant what does the balance sheet statement of the applicant looks like? It investigates on the borrower's willingness and possibility to continue paying his/her/its obligations regularly, if there is a financial crisis. The borrower must show commitment to raise additional capital as required Lawrence (1997:776-777).

Conditions

The circumstances or conditions under which the borrower operates. It comprises the economic, political, socioeconomic, and international events that have an impact on the firm. The Credit Analyst should research the present state and prospects of the local and global economies, as well as the borrower's business sector/industry. In the process, opportunities and threats to the business in the dynamic and volatile environment shall be identified and analyzed Lawrence (1997:776-777).

Collateral

The goal of evaluating the strength of the collateral given is to determine the extent to which the loan granted is protected against loss, as well as the customer's ability and willingness to repay the debt. The legal acceptance of the collateral determines its strength. In order to foreclose any collateral, the Bank must have the authority to transfer ownership or title deed of the collateral. The Credit Analyst

should ensure that the full title of the collateral is secured; Registered by an appropriate registration organ; and kept under the Bank's safe custody Lawrence (1997:776-777).

In all aspects, the Credit Analyst shall ensure proper assessment of the degree of the risk associated with the borrower's general credit worthiness, and determines;

- ✓ The purpose of the loan (assessment of end-use of the loan),
- ✓ The loan size (matching the loan request with the purpose and payback period)
- ✓ Period and term of repayment (matching of the term of the loan with the payback period and tenure.

In the case of analyzing project loans, the Credit Analyst shall perform in-depth analysis of all aspects of the project to be financed. All financial, market (demand and supply), management, and the technical aspects of the project shall be objectively analyzed Lawrence (1997:776-777).

2.8.4. Credit monitoring and follow ups

Credit Monitoring- It refers to the daily and/or periodic verification, analysis, and reporting of the appropriate execution of credit decisions, as well as Credit Policies and Procedures, to ensure that the Bank's credit function is carried out as intended and structured. (Yihnalem (2015)

General Objectives of Credit Monitoring -The major objectives of credit monitoring from the Bank's point of view are: Check that the loan monies are being used for the purpose specified in the loan agreement. Ongoing evaluation of the borrower's operations and financial performance. Reduce non-performing loans to maintain credit quality and avoid losses. (Yihnalem (2015).

Responsibility for Credit Monitoring- The Credit Follow-Up and Monitoring Division Manager and the concerned Credit Analyst who processed the specific Loan are responsible for monitoring and following-up the case on a regular basis and maintaining a proper and continuous report on each file. The responsible Credit Division Manager shall assist the Monitoring and Follow-up Manager in ensuring the overall credit monitoring and follow-up activities in accordance with the already established rules and on a regular basis. The Credit Follow-Up and Monitoring Division Manager shall prepare a monitoring and reporting action plan (Yihnalem (2015).

The Credit Follow-Up and Monitoring Division Manager on a regular basis shall:

Closely follow-up on case-by-case basis, the collection of all loans and advances under his/her mandate, according to pre-set follow-up schedules. Assess and identify loans with and without problems, including arrears, irregular repayments, overdue etc. on a monthly basis for regular loans, and bi-weekly basis for arrear loans, Perform rigorous follow-up of all past-due loans and exert the utmost to re-graduate these cases to performing loan status, Check early warning signals of each loan extended through a planned schedule to identify possible problems of customers that might retard loan repayments ,Conduct scheduled visits with the Division Manager, if necessary of customer businesses to assess repayment abilities, In collaboration with the Division Manager, prepare and submit periodic reports to Senior Management concerning the results of the credit monitoring activities, the status of each loan and advances, as well as any issues that have direct bearing on the process, Report to the Senior Management on observed loan repayment problems of customers with feasible solutions and Prepare insurance and loan follow-up mechanisms for appropriate follow up of the borrower's credit status(Yihnalem (2015).

Monitoring Mechanisms

The bank will use a variety of credit monitoring tools to guarantee that the bank's asset quality is properly maintained. The following mechanisms shall be implemented by the responsible personnel of the Bank:

The customer's communication is established and maintained. Regardless of the loan's status or the customer's position and attitude, the relevant Credit Division must establish and maintain a continuous and constructive relationship with the customer. To that end, the Credit Department Manager and Division Managers of the Bank will act as point people to maintain the relationship and analyze the needs of borrowers on a regular basis. (Yihnalem (2015).

The Credit Department Manager and the concerned Credit Division Manager maintain close communication with the borrower with the view to:

- ✓ Make him/her feel confident to keep relationship with the Bank.
- ✓ Create awareness of his/her loan repayment responsibilities, thus creating the commitment on the side of the borrower to comply with the terms and conditions of the loan contract.
- ✓ Develop and nurture positive attitude among borrowers towards the Bank.
- ✓ Enhance the image of the Bank as borrower friendly,

- ✓ Create a suitable environment to properly understand the situation of the borrower in order to manager his/her loan properly.

Telephone, mail, personal visits, or a mix of any of the foregoing mediums, as deemed suitable, shall constitute the means of contact. Because good communication is the foundation of a two-way beneficial relationship, the Credit Department employees should always treat the customer with the utmost respect. The Credit Department Manager/Credit Analysts/Division Managers shall provide appropriate and regular advice to customers concerning any repayment problems encountered by them (Yihnalem (2015).

Collection Policy

A collection policy is one of numerous policies that a business should employ to maintain proper credit management; this policy is essential because not all consumers pay the firm's bills on time. Some customers pay slowly, while others do not pay at all. As a result, the collection effort should prioritize collecting from late payers and reducing bad debt losses. (Kariuki, 2010).

Credit risk Management

Credit risk can be divided into four risk components, according to Oesterreichische National bank of Vienna Credit Approval Process and Credit Risk Management (2000).

a. Probability of Default (PD)

b. Loss Given Default (LGD)

c. Exposure at Default (EAD)

d. Maturity (M)

PD, LGD, and EAD are the three most significant components in credit approval processes. While maturity (M) is essential to determine required capital, it plays only a minimal role in risk assessment. The importance of PD, LGD, and EAD is discussed more below.

a) Probability of Default (PD)

Examining a borrower's default risk comprises determining the borrower's current and future ability to meet interest and principal repayment obligations. This evaluation must take into account various borrower characteristics (natural or legal person), which should result in credit approval processes being differentiated based on the borrowers handled by the bank.(Oesterreichische National bank of Vienna (2000). Furthermore, for specialized finance transactions, interest and principal repayments should be paid entirely from the cash flow of the funded object, with no recourse to the borrower's

other assets. In this case, the credit analysis must assess the viability of the underlying business model, which means that the source of cash flows required to cover interest and principal payback commitments must be taken into account (Oesterreichische National bank of Vienna (2000).

b) Loss Given Default (LGD)

The default loss is influenced by the collateralized component as well as the cost of selling the collateral. As a result, while developing credit approval processes, the calculated value and kind of collateral must also be considered. (Oesterreichische National bank of Vienna (2000).

c) Exposure at Default (EAD)

The exposure at default corresponds to the amount owed to the institution in the great majority of the situations mentioned here. Thus, in addition to the type of claim, the amount of the claim is a significant factor in the credit approval process (Oesterreichische National bank of Vienna (2000).

Financial Performance Measures

According to Hermes and Lensink (2007), the financial systems approach, which emphasizes the need of long-term financial programs, is more likely to succeed than the poverty lending strategy. The premise is that financial institutions must be financially sustainable in order to ensure long-term large-scale outreach to the disadvantaged. Measuring and evaluating bank performance has been difficult due to a lack of publicly available financial information as well as discrepancies in reporting in an industry that is generally unregulated. Michael and Miles (2007) plethoras of financial ratios are available for evaluating financial institution performance (CGAP 2003, The Seep Network, and Alternative Credit Technologies, 2005). Although it is difficult to synchronize the various interpretations of all the ratios, they provide multiple viewpoints in measuring the performance of financial institutions across all domains, namely profitability, efficiency, leverage, and risk. In summary, when assessing the drivers of financial institution performance, appropriate consideration should be given to the particular focus of each ratio.

Financial Profitability

Return on Assets (ROA) falls within the domain of performance measures and tracks FI’s ability to generate income based on its assets. The ratio excludes non-operating income and donations. ROA provides a broader perspective compared to other measures as it transcends the core activity of FIs namely, providing loans, and tracks income from operating activities including investment, and also

assesses profitability regardless of the FIs funding structure. ROA is expected to be positive as a reflection of the profit margin of the FI, otherwise it reflects non-profit or loss. In banks and other commercial institutions, the commonest measures of profitability are Return on Equity (ROE), which measures the returns produced for the owners, and Return on Assets (ROA), which reflects that organization's ability to use its assets productively.

$$\text{ROE} = \frac{\text{After-tax profits}}{\text{Starting (or period-average) equity}}$$

$$\text{ROA} = \frac{\text{After-tax profits}}{\text{Starting (or period-average) assets}}$$

Return on total assets (ROA) considers return on investment (ROI) and reflects an organization's effectiveness in creating profits with its available assets; consequently, the higher the better. Return on equity (ROE) measures the return on an owner's equity; thus, the higher the ROE, the better. Earnings per share (EPS) is the amount earned on behalf of each common share, therefore the greater the number, the better. The price/earnings (P/E) ratio measures how much investors are prepared to pay for each dollar of earnings, and it reflects investor confidence (Hermann, 2008). In this study, the financial performance of the bank will be measured using Return on equity (ROE).

These are appropriate indicators for unsubsidized institutions. But donor interventions more typically deal with institutions that receive substantial subsidies, most often in the form of grants or loans at below-market interest rates. In such cases, the critical question is whether the institution will be able to maintain itself and grow when continuing subsidies are no longer available. To determine this, normal financial information must be "adjusted" to reflect the impact of the present subsidies. Three subsidy-adjusted indicators are in common use: Financial Self-sufficiency (FSS), Adjusted Return on Assets (AROA), and the Subsidy Dependence Index (SDI).

2.9. Empirical Review

This part of the review takes a closer look at empirical studies on the subject, which is being studied.

Afroz (2013), in his study, the researcher attempted to specify and assess the necessity of credit portfolio management at Bangladesh Kirishi Bank, as well as characterize the bank's current credit management practice and offer suggestions. The research employed primary and secondary data sources, as well as descriptive data analysis methodologies. The research discovered that: the framework of the bank's function is unclear, agro business financing is risky for the bank, very few activities on L/C and other purchase type financing have been made, and the bank's poverty alleviation

credit program is successful but accounts for a small portion of the total portfolio (only 3 percent and 4 percent).

Agu and Basil (2013) used both primary and secondary data sources, such as interviews, questionnaires, and other sources, in their study of Credit Management and Bad Debts in Nigerian Commercial Banks. To determine the nature and causes of bad debts in Nigeria, the researchers used both qualitative and quantitative data analysis approaches such as time series and regression data analysis. As a result, the researchers discovered that banks were typically inefficient as a result of insufficient monitoring of borrowers' borrowed money utilization, a rise in loan rates, and a failure in appropriate follow-ups, inappropriate credit policy, and weak credit administration procedures.

Hagos (2010), which is a case study on “Credit Management Practice of the Wegagen Bank in Tigray Region” using both primary and secondary data and qualitative and quantitative data analysis tools, has found that the bank was managing its credit well in many aspects in this specific region. However, the researcher has also indicated that very long loan processes, insufficient credit policy in terms of customer's aspect discouraging credit customers, and only short term credit facility resulted in repayment burden on the client within a short period that leads the customers to termination.

Haron et al. (2012) evaluated the credit management system on the loan performance of microfinance institutes in order to determine the effect of credit duration, client assessment, credit risk control, and credit collection policies on the institute's loan performance. The researchers used primary data sources and a quantitative study approach to investigate the associations of these selected parameters. These researchers discovered that MFI credit terms have an effect on loan performance, that client involvement in credit term formulation has an effect on loan performance, that interest rates charged have a reverse effect on loan performance, that MFI credit risk controls have an effect on loan performance, and that institute collection policies have a high effect on loan repayment performances. As a result, the study concludes that all of the above-mentioned parameters have a relationship with loan performance, and lenders should offer loan extensions while keeping these factors in mind.

Al Musharafa (2013) analyzed several of the Bangladesh commercial banks in his study to evaluate credit assessment activities and to make possible recommendations. In his study, the researcher used both primary and secondary data sources, as well as qualitative and quantitative data analysis methods, to evaluate the bank's credit assessment, using loan and advance growth, income from loan, sector credit allocation and credit risk management, and nonperforming loan status as measuring parameters. The study discovered that loan and advance growth is sustainable, that improved loan sector

allocation, risk management, and loan and advance revenue are increasing, despite the fact that certain banks' general lending policies need to be strengthened.

Omoijiode (2014) conducted a comparative study on the topic "Critical Assessment of Credit Management in the Nigerian Banking Sector." The purpose of this comparative study was to determine the level of Union and Zenith bank advance and provision against doubtful debts, evaluate Union bank net competitive advantage or disadvantage in credit management, and determine if Union bank net competitive advantage or disadvantage in credit management against Zenith bank of Nigeria. The researcher acquired secondary data from the 2005/2006 financial reports of Nigerian Union and Zenith banks, as well as United Bank's loan and advance.

In addition, the researcher used qualitative analysis techniques to compare the two banks' loan and advances (via the balance score card map), financial perspective, loan and advance mix (O/D and loans against doubtful accounts provision), customer perspectives (customer service capability and geographic coverage), internal perspective (relationship management and credit monitoring), and learn and growth perspective (knowledge, innovation technology, and reward system). The study's findings show an inverse relationship between Union Bank's loan portfolios and provision, i.e. Union Bank's loan and advance are smaller than Zenith Bank's, but Union Bank's provision is bigger due to the failure to monitor loan and advance efficiently. In terms of success criteria, Zenith Bank outperforms Union Bank of Nigeria.

Joseph (2014) conducted research on the effectiveness of loan portfolio management in Tanzanian rural savings and credit cooperatives. To discover characteristics that affect Credit Portfolio quality, the researcher employed both primary data in the form of questionnaires distributed to seventy microfinance officers from fourteen microfinance institutes, as well as multi regressive and descriptive data analysis techniques. The data found that loan portfolio quality has a considerable influence on loan size, gender (females have a better payback history than men), loan type, borrower location, and insurance coverage and status.

Wondimagegnehu (2012) used a mixed research technique to perform a study on the causes of NPLs in Ethiopian banks, concentrating only on bank-specific factors that create NPLs. According to the study, the causes of loan default include poor credit assessment, failed loan monitoring, an underdeveloped credit culture, lenient credit terms and conditions, aggressive lending, compromised integrity, weak institutional capacity, unfair competition among banks, willful default by borrowers and their knowledge limitation, fund diversion for unintended purpose, and over/under financing by

banks. Despite the fact that these findings are recent, there are gaps that have not been addressed by either researcher and require further investigation by others.

According to Habtamu (2005), the sources of major credit problems are mentioned below:

Credit management errors have been directly or indirectly responsible for the bulk of major banking issues. Certain critical issues, in the perspective of supervisors, tend to persist. Severe credit losses in the banking sector are generally the result of multiple concurrent issues, such as concentrations, due diligence failures, and insufficient supervision. Concentrations are almost certainly the root source of serious credit issues. Credit concentrations are defined as any exposure with a significant potential loss in relation to the bank's capital, total assets, or overall risk profile, if adequate data are available.
Banking authorities should impose precise limits on concentrations to a single borrower or group of related borrowers, and institutions should be expected to set much lower single-obligor exposure limits. Most bank credit managers are also aware of industry concentrations. Many institutions are experimenting with detection systems based on common risk features or correlations between them. While small banks may find it difficult to avoid exceeding or nearing concentration limits, extremely large banking organizations must be aware that, due to their massive capital base, their exposures to single obligors may reach inappropriate proportions while remaining inside legal limits. Many credit problems point to basic inadequacies in credit-granting and credit-monitoring procedures. While errors in underwriting and management of market-related credit exposures are major contributors to bank losses, many credit issues might have been prevented or mitigated by a competent internal credit process.

According to the data gathered by the researcher, no general or specialized study on the evaluation of credit management methods in Zemen bank has been completed. As a result, the researcher believes it is proper to do study on the predetermined topic. Based on the previous empirical study of literatures, the researchers discovered that no studies had been conducted specifically to identify the issues connected with a lack of good credit management appraised the bank and clients with reference to Zemen Bank Share Company.

2.10. Summary of knowledge gap

Most studies which were conducted on credit management have been conceptual in nature and focused only on the industry in general and on big banks in particular. There are limited studies providing evidence to the credit management of emerging banks. Even if the issue of credit management is

equally important for all banks, it is less focused on and few studies are conducted on the credit management on emerging commercial banks. However, as per the researcher's knowledge, no study is conducted on Zemen Bank to assess the effect of credit management on performance. Hence, this study aims to fill the gap in the literature by concentrating on the assessment of credit management on Zemen Bank. Thus, the researcher felt it is appropriate to assess the credit management problems and thereby to recommend courses of action that are assumed to promote quality loan growth and curtail non-performing loan.

2.11. Hypothesis

Based on previous theories and empirical data, determinants of factors that affect credit management on performance in Zemen bank will be theorized. As a result, the following hypotheses have been established to guide the research.

Credit analysis: is the most widely used way of reducing the credit risk associated with a loan application. This comprises assessing the borrowers' financial status, forecasting the likelihood of default, and minimizing the risk of nonpayment to a manageable level. In general, credit evaluations are based on the subjective judgement of the loan officer (or judgmental assessment technique). When a customer applies for a loan, bank officials examine all available information to determine whether the loan meets the bank's risk-return objectives. According to Abebaw (2015)

H1: Credit analysis and credit appraisal has significant and positive influence on the performance of the bank.

Loan default: The fundamental purpose of credit management is to keep loan defaults to a minimum. Banks reduce loan portfolio default risk by considering the credit payback history of both individuals and organizations requesting loans. Credit management, according to Myers and Brealey (2003), is the procedures and strategies used by a company to maintain an appropriate amount of credit and its effective management.

H2: Loan default has significant and positive influences on the performance of the bank.

Credit Monitoring: Financial institutions bear a great deal of responsibility for asset quality as well as prompt interest and principal repayment. A financial institution must implement a strong and effective credit monitoring system that monitors the borrower's account from numerous viewpoints in order to take timely action. Anjichi (1994).

H3: Credit monitoring process has significant and positive influence on performance of the bank.

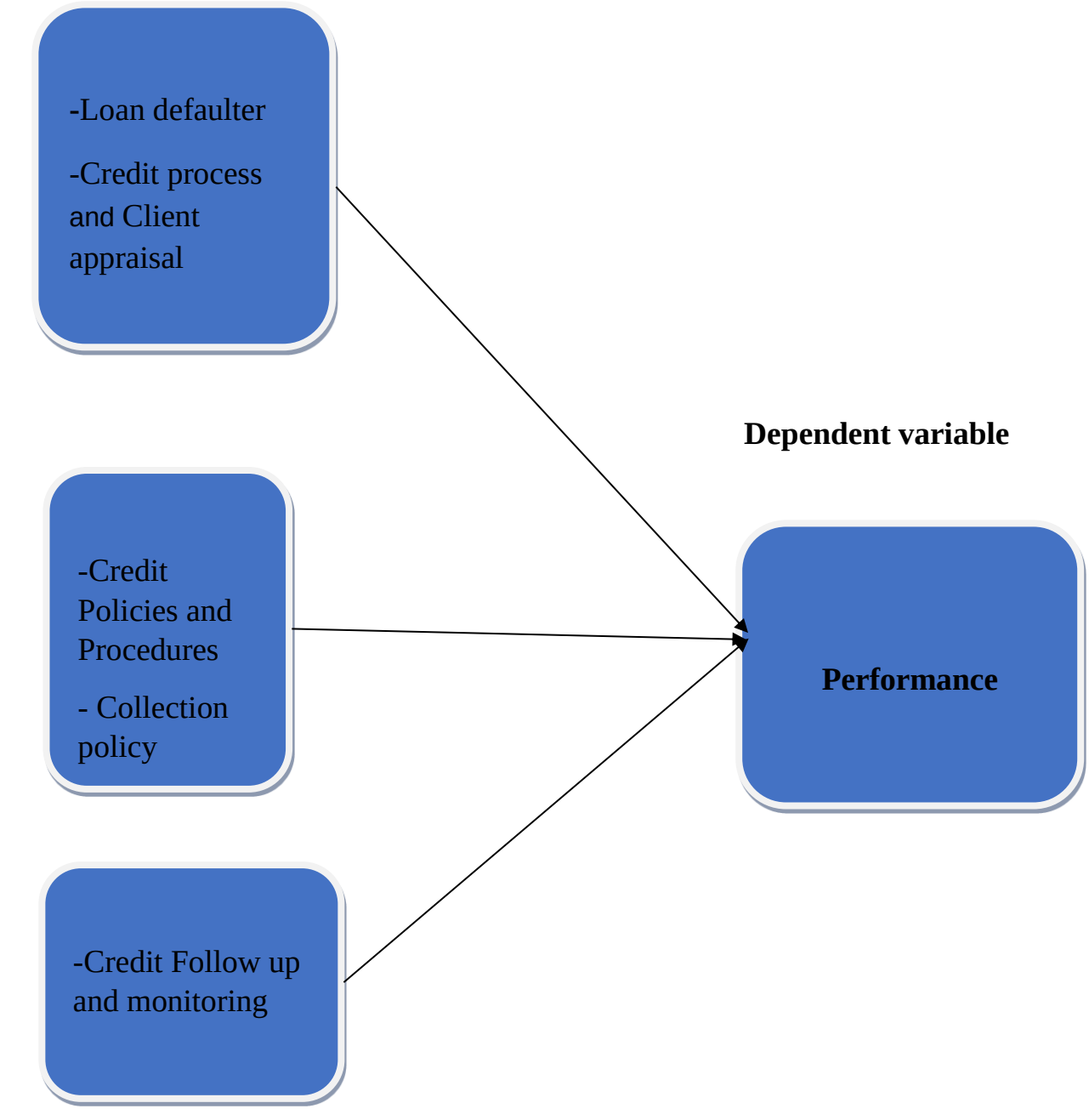
Credit follow-ups: According to Nelson (2002), in financial institutions, the credit management process would consist of strategies and processes that are applied in a systematic manner. As a result, adequate loan and credit advance follow-ups drive appropriate credit analysis using financial analytical tools and assure timely loan repayments following disbursement, lowering non-performing loans.

H4: Credit follow-ups have significant and positive influences on performance of the bank.

2.12. Conceptual framework

The impact of credit management on bank performance was the focus of this study. The figure below displays the major factors that influence the credit management process and, as a result, the likelihood of poor performance. The chart below depicts the components impacting credit management and their impact on performance. The independent variables are those that have an impact on the management process, whereas the dependent variable is performance.

Figure 2.12. Conceptual framework



Source: The researcher, 2021

CHAPTER THREE

3. Research Design and Methodology

This chapter mostly focused on the research design and methods that was used to conduct the study. It goes over the research design, data source, data collection method, target population, sample design, sample size, and data analysis methodologies in depth.

3.1. Research Design

The research strategy used was a descriptive, explanatory and inferential data analysis design based on the case study approach. A research design is the system, plan, or approach that was used to create responses to research questions. To acquire information on the current situation, the descriptive research approach was applied. Rather than evaluating or interpreting, the emphasis was on describing. In terms of the financial condition, the descriptive method was rapid and practical. The explanatory research design was utilized to analyze the variable results.

3.2. Data collection method

This study made use of both primary and secondary data sources. To collect primary data, a questionnaire was used. Secondary Annual reports, manuals, credit policy, financial statements that include the value of loans outstanding, and procedures of Zemen Bank S.C. are recognized using National Bank directories, as well non-performing loan implementation, supervision, monitoring, and repayment methods.

3.3. Target population size

The key goals of this research were the bodies that are directly involved in the management of credit in the case company, such as credit department staff who are involved in credit processing and administration, as well as clients. Zemen Bank employs 1069 full-time employees as of this year. Among them are five executive managers. There are 14 departments that collaborate. This means that each department has 14 directors. There are 37 divisional managers in total, reporting to the fourteen directors of each department. There are also 40 Addis Ababa city branch managers (including assistant managers and section heads), as well as 621 Addis Ababa city non-managerial professional personnel, with 80 on branches and 30 in the credit department, and 180 regional branch employees working under those divisional and branch managers. The remaining 172 employees are non-professionals such as drivers, motorists, security guards, office messengers, and other support staff.

Because Addis Ababa city employees are the most accountable for the effect of credit management on bank performance, and because the level of accountability has been downgraded from top to bottom hierarch of position, and because reaching regional branch employees is inconvenient, the researcher only conducted this research study on Addis Ababa city employees. Furthermore, because non-professional personnel have no direct relation to the study, they have been omitted from the target population by the researcher.

As a result, the research's target populations were credit management committee staffs, credit department staffs (including corporate loan division and retail loan division, credit monitoring and follow up division, and property estimation and engineering section), and credit monitoring and follow up division staffs. Senior bank officials, loan officers, and branch clerks directly involved in the credit procedure were all included.

3.5. Data collection method and target population

As previously noted, both interviews and questionnaires were used to collect primary data. Interview questions were largely focused at executive credit managers and committee members to acquire a deeper grasp of the subject of this research project. A questionnaire was utilized to collect primary data from credit department workers, loan officers, credit monitoring and follow up staff, and other senior professional staff.

3.6. Sampling Design

Probability sampling was used as a sampling design strategy. To determine its target population, the researcher employed a stratified random sampling technique, which entails stratification or segregation followed by a random selection of individuals from each strata.

3.7. Sample Size

Based on the target population size, the research sample sizes are respondents who are directly responsible for credit management. These respondents are divided into four strata based on the sample design. Before establishing the stratum sample size, let us calculate the desired sample size.

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

Where: - N = Target population

n = sample size

e = level of precision=0.05

The number of total target population for this research is 206 (total number of Addis Ababa city employees).

n = 206/ (1+ 206(0.05)2) = 136

The sample size out of each stratum is as follows;

nh = (Nh/N)*n

Where: - nh = Sample size for hth stratum

Nh = Population size for hth stratum

N = Size of entire population

n = Size of entire sample

First stratum – Executive mangers

nh = (5/206)*136 = 3.3

Second stratum – Department directors

nh = (14/206)*136 = 9.2

Third stratum – Divisional and Addis Ababa branch managers

nh = (77/206)*136 = 50.8

Fourth stratum – Addis Ababa non-managerial professional staffs who are related to credit processing

nh = (110/206)*136= 72.6

Summary of result for desired sample size is as follows;

Table 3.1: Sample Size

Stratum	**Total population size**	**Mathematical procedure**	**Desired sample size**
Executive managers	5	nh = (5/206)*136 = 3.3	3
Directors	14	nh = (14/206)*136 = 9.2	9
Divisional and AA branch managers	77	nh = (77/206)*136 = 50.8	51
AA Non- Managerial staffs	110	nh = (110/206)*136= 72.6	73
Total	206	n = 206/ (1+ 206(0.05)2) = 136	136

3.8. Data analysis methods and process

This section of the study goes over data analysis approaches and processes for the acquired data. The research data was examined qualitatively as well as quantitatively. Data for qualitative analysis is gathered through the use of an interview as a data collection method.

Questionnaires were utilized to obtain quantitative data, which was then analyzed utilizing explanatory and inferential data analysis techniques. In the descriptive data analysis approach, only the general profile of respondents was employed. A Likert scale was used to determine the variable's scale.

In contrast, the inferential data analysis method was used to investigate independent and dependent variables. The regression analysis approach is used to highlight the links between independent and dependent variables.

3.9. Empirical Model

An empirical model is a representation of the relationship between two or more dependent and independent variables (Gujarati and Porter, 2009). The relationship between the dependent and independent variables is represented mathematically as follows;

$Y = \beta 1 + \beta 2X \; 0 < \beta 2 < 1$

In this mathematical equation, Y represents the dependent variable, X represents the independent variable, 1 represents the intercept, and 2 represent the slope coefficient. The relationship between the two variables is depicted in this equation. Gujarati and Porter (2009) explained that relationships between economic variables are frequently imprecise. As a result, to demonstrate the inexact connection of variables, an equation must include a random (stochastic) variable. This variable is also referred to as the disturbance term or the error term. As a result, it may be expressed numerically as;

$Y = \beta 1 + \beta 2X + \mu$

Where Y is the dependent variable, X is the independent variable, β1 is the intercept, β2 is the slope coefficient, and illustrating that there are elements that affect the dependent variable but are not included in the equation. The above formula can be used to indicate the relationship between the independent and dependent variables when there is only one independent variable. This is known as a single equation model. The equation is referred to as a multiple equation model when there are more than one independent variable (Gujarati and Porter, 2009). Because there are several independent variables in this research investigation, a multiple equation model was used. Mathematically, it is as follows:

$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \mu$

Where; Y represents the dependent variable, which is performance. X1 represents the first independent variable which is organizational process factor or major factors that affect credit management. The variable that affect the performance is further listed.

Those sub-factors are loan defaulter, client assessment, credit process, credit policies and procedures, collection policy, and credit monitoring and follow-ups. X represents the independent variable. B0 is the intercept or constant variable. β1, β2 and β3 are coefficient of each variable. μ represents the error term or disturbance.

3.10. Reliability and validity

The researcher intends to do a pilot study using a sample of the total sample size before beginning the thorough investigation. There are numerous advantages to doing so. Developing and testing the adequacy of research instruments, evaluating the feasibility of a full study, designing and testing the protocols for the larger study, establishing and testing the sampling and recruitment strategies, collecting preliminary data, obtaining effect size information, and training research assistants are just a few examples. (Connelly, 2008, p. 411).

Connelly (2008) suggested taking 10% of the sample for a pilot test. But the percent of a sample taken can be expanded. For this research study, 15% of the sample was taken for reliability and validity test that is out of a total sample size of 136, the researcher took 20 samples to test reliability and validity.

3.10.1. Reliability

The reliability test is used to determine how consistent research instruments are. This is defined as "the degree to which a research instrument generates the same results on several occasions when used in the same situation". (Heale and Twycross, 2015, p. 66-67).
Result of reliability for this research study is as follows.

Table 3.2: Reliability test

Variables	**Cronbach's Alpha**	**Number of Questions**
Credit Management	.729	4
Credit Processing And Appraisal	.727	5
Credit Monitoring And Controlling	.719	4
Credit Policies And Procedures	.721	4
Loan Default	.701	5

Collection Policy	.710	5
Performance	.719	4
Total	.718	31

Source: Own survey, 2021

Cronbach's Alpha considers a coefficient value greater than 0.70 to be reliable (Matematik, Othman, Yin, Sulaiman, Inbrahim, and Razaha-Rashid 2011). As a result of the results of the above table, we can conclude that the instruments used for this research study are all reliable, showing that the instruments used have internal consistency.

3.10.2. Validity

Validity on the other hand is defined “as the extent to which a concept is accurately measured in a quantitative study” (Heale and Twycross, 2015, p. 66).

Validity result is as follows

Table 3.3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.663
Bartlett's Test of Sphericity	Approx. Chi-Square	101.013
	Df	21
	Sig.	.000

Source: Own survey, 2021

Validity is determined by two factors. One is the Kaiser-Meyer-Olkin sampling adequacy measure (KMO), which "indicates the proportion of variance in variables that may be driven by underlying factors." KMO must have a value of 0.5 or above to be considered acceptable. Bartlett's sphericity test is the second measuring value. The approved value for Bartlett's sphericity test is less than 0.5. (Field, 2005). KMO received a score of 0.663, while Bartlett received a score of.000, as seen in the table above. As a result, we may conclude that the instruments utilized are reliable.

3.11. Ethical consideration

During the course of this research project, the researcher willingly enlisted the participation of respondents from the target group and provided clear information about the subject under consideration. The responses of participants were kept strictly confidential. There was no evidence of fraud in the data collected. This research project poses no risk to anyone participating or the case company's social or financial well-being.

CHAPTER FOUR

4. Data Presentation and Interpretation

This component of the research investigation presents the data presentation and interpretation. A total of 136 random population samples were taken. To attain the required sample size, four strata were established. The interview was used to obtain qualitative data from the first and second strata groups (executives and department directors) of the 136 sample population, and the replies were summarized.

A questionnaire was utilized to collect quantitative data from the remaining two strata groups, which are divisional and department managers (third strata) and non-managerial professional staffs (fourth strata). That example, 136 questionnaires were distributed, and 90 of them were returned, representing a 70 percent response rate. Descriptive and inferential analyses are used to evaluate and analyze the results.

4.1. Descriptive analysis of general information

This section tabulates and gives a descriptive analysis of the general information provided by respondents. The general information is made up of demographic characteristics of respondents such as age, gender, level of education, and year of service.

4.1.1. Age

The following table below shows the frequency and percent of age group participated on this research study.

Table 4.1.1. Age group of respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-25	24	26.7	26.7	26.7
	26-32	30	33.3	33.3	60.0
	33-40	8	8.9	8.9	68.9
	41-50	17	18.9	18.9	87.8
	>50	11	12.2	12.2	100.0
	Total	90	100.0	100.0	

Source: Own survey, 2021

From the table above, we can see that the age group of Twenty one to twenty-five is 26.7%, the age group from twenty-six to thirty-two is 33.3%, age group from thirty-three to forty is 8.9% and the age group from forty-one to fifty is 18.9%. The age group of above fifty is 12.2%. This shows that the majority of the respondents are between the ages of 21 to 32.

4.1.2. Gender

The second demographic character assessed in this research study is the gender of respondents. Following is a table showing the number of male and female respondents who participated in this research study described in percent.

Table: 4.1.2. Gender of respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	52	57.8	57.8	57.8
	female	38	42.2	42.2	100.0

	Total	90	100.0	100.0	

Source: Own survey, 2021

As we can see from the table above, the percent of male participants for this research study is 57.8% male and 42.2% female. This shows that there are almost a balanced number of genders at the case company.

4.1.3.Education

The degree of education of respondents is the third demographic characteristic considered. The results of the collected data on educational levels are shown in the table below.

Table: 4.1.3. Education level of the respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	first degree	35	38.9	38.9	38.9
	master's degree	55	61.1	61.1	100.0
	Total	90	100.0	100.0	

Source: Own survey, 2021

According to the table above, 38.9% of respondents have a Bachelor's degree and 61.1% have a Master's degree. There is no one who can compare to the Masters. This suggests that a Master's degree is the most common level of education among the responders.

4.1.4. Year of service at the bank

The fourth demographic character assessed is the year of service of respondents. The following table presents the result of collected data on the year of service.

Table: 4.1.4. Year of service at the bank

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-3	20	22.2	22.2	22.2
	4-7	29	32.2	32.2	54.4
	8-10	28	31.1	31.1	85.6
	>10	13	14.4	14.4	100.0
	Total	90	100.0	100.0	

Source: Own survey, 2021

The percentage of respondents' years of service spent working in credit management is shown in the table above. The researcher wanted to determine how much experience the respondents had with credit management, this question was asked. The results showed that 22.2% have 0-3 years' experience working in credit management area. Whereas, employees with credit management experience of 4-7, 8-10 and >10 years represented 32.2%, 31.1% and 14.4% respectively. This indicates half of the credit department staffs are well experienced in credit area that helps to accomplish their task as the bank mission.

4.1.5. Data analysis on credit creation, policy and procedure

How can you get better understanding of your institution credit policy and procedure?

Table: 4.1.5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	rigid	5	5.6	5.6	5.6
	flexible	79	87.8	87.8	93.3
	average	6	6.7	6.7	100.0
	Total	90	100.0	100.0	

Source: Own survey, 2021

The purpose of the aforementioned inquiry was to learn more about how employees feel about their institution's credit management system. Form what the researcher get for the analysis it 5.6% of the respondent indicates rigid, 87.8% of the respondent indicates flexible and 6.7% of the respondent indicates average. This implies that the bank's credit creation, policy and procedure are flexible.

How do you assess credit analysis and the bank's credit-extension procedure?

Table: 4.1.6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very good	66	73.3	73.3	73.3
	good	19	21.1	21.1	94.4
	fair	5	5.6	5.6	100.0
	Total	90	100.0	100.0	

Source: Own survey, 2021

The purpose of the aforementioned inquiry was to learn more about how employees feel about their institution's credit management system. Form what the researcher get for the analysis 73.3% of the

respondent indicates very good, 21.1% of the respondent indicates good and 5.6% of the respondent indicates fair. This implies that the credit analysis and procedure are very good.

How do you evaluate your bank credit providing procedure

Table: 4.1.7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	based on creativity	2	2.2	2.2	2.2
	conservative	5	5.6	5.6	7.8
	moderate	83	92.2	92.2	100.0
	Total	90	100.0	100.0	

Source: Own survey, 2021

As shown in the table, 92.2 percent of respondents said the bank's credit-approval procedure is moderate, while 5.6 percent said it is conservative. While 2.2 percent of respondents responded that credit is awarded based on innovation. It shows that the bank has a modest mechanism in place that aids in the implementation of its policies.

Your bank's loan approving and recommendation procedures for client credit proposals are based on.

Table: 4.1.8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	loan committee at all level	70	77.8	77.8	77.8
	branch manager and president	20	22.2	22.2	100.0
	Total	90	100.0	100.0	

Source: Own survey, 2021

In the above table, respondents were asked the bank loan approving and recommending procedure on the credit proposal, 77.8% agreed that based on recommendation loan committee at all level, zero respondent agreed based on recommendation of loan department, 22.2% agree that it is based on

branch manager and president. Specifically zero respondents agreed it is based on board recommending. This indicates that most of the credit procedures are done by loan committee and there is involvement of the president and branch managers at some levels.

4.2. Inferential analysis of variables

Variables of this research study are analyzed using inferential analysis. Inferential analysis is conducted to show the correlation and impact of independent variables on dependent variable.

4.2.1. Correlation variables

The correlation of variables shows an association of variables with one another. It measures how one variable influences the other variable. The correlation of variables simply shows their association and the direction of their relationship. Variables can be related positively or negatively. A positive correlation coefficient (represented by + sign) means as one variable increases, the other variable increases. A negative correlation coefficient of variables (represented by – Sign) is the opposite of the positive relation. A negative correlation of variables is when one variable increases, the other will decrease (Freeman and Young, 2009).

Table 4.2.1 shows the correlation of variables for this research study.

MacEachron (1982) described correlation with the following range.

- ✓ range between 0.00 to 0.20/-0.00 to -0.20 is very weak or very low
- ✓ range between 0.20 to 0.40/-0.20 to -0.40 is weak or low
- ✓ range between 0.40 to 0.60/-0.40 to -0.60 is moderate
- ✓ range between 0.60 to 0.80/-0.60 to -0.80 is strong or high
- ✓ range between 0.80 to 1.0/-0.80 to -1.0 is very high or very strong

		Credit processing	Credit monitoring	Credit policy and procedure	Loan default	Colleccing policy	Performace
Credit processing	Pearson Correlation	1					
	Sig. (2-tailed)						
Credit monitoring	Pearson Correlation	.211**	1				
	Sig. (2-tailed)	.004					

Credit policy and procedure	Pearson Correlation	.145*	.425**	1			
	Sig. (2-tailed)	.048	.000				
Loan default	Pearson Correlation	.011	.433**	.557**	1		
	Sig. (2-tailed)	.886	.000	.000			
Collecting policy	Pearson Correlation	.095	.562**	.626**	.785**	1	
	Sig. (2-tailed)	.196	.000	.000	.000		
Performancece	Pearson Correlation	.138	.593**	.486**	.462**	.495**	1
	Sig. (2-tailed)	.060	.000	.000	.000	.000	
	N	186	186	186	186	186	186

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Source: Own survey, 2021

4.2.2. Model Summary

The value to show how the dependent variables included in a research study express the dependent variable is indicated by R2 (R square). A given level of R square value indicates that the research subject is explained by that amount of R square value. The result of model summary for this research study is presented as follows on table 4.2.1.

Table: 4.2.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.737[a]	.544	.355	.400

a. Predictors: (Constant), credit processing or appraisal, credit monitoring and controlling, credit policies and procedures, loan default, collection policy

b. Dependent variable: performance

Source: Own survey, 2021

Based on the result above, which is R square .544, we say that the dependent variable performance can be explained by the independent variables operational factor (that is Credit processing or appraisal, credit monitoring and controlling, credit policies and procedures, loan default, collection policy by 54.4%. This result shows that there is room for other possible factors that can affect dependent variable performance. The model summary result gained for this research study is considered sufficient.

4.2.3. Analysis of variance (ANOVA)

Analysis of variance (ANOVA) was developed by Ronald Fisher in 1918. It is the measurement of variance of variables. ANOVA tests if there is a difference among variables. The variance of variables is tested to determine if there is a relationship among the variables. It shows if a study is significant or not.

Table: 4.2.2. ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.014	26	.462	2.886	.000[b]
	Residual	10.086	63	.160		
	Total	22.100	89			

a. Dependent Variable: performance

c. Predictors: (Constant is Credit processing or appraisal, credit monitoring and controlling, credit policies and procedures, loan default, collection policy

Source: Own survey, 2021

As we can see in the table above, the significant result of the ANOVA test is .000. This shows that there is a relationship between the independent factors (credit processing or assessment, credit monitoring and controlling, credit policies and procedures, loan default, and collection policy) and the dependent variable (performance), and that the study is significant.

4.2.4.Coefficient of variables

The coefficient of variables (the beta coefficient) is an expression of independent variables' level of importance on dependent variable determined. The coefficient of each independent variable is presented in table 4.2.4 as follows.

Table: 4.2.3. Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.802	1.037		2.702	.000
Credit processing	.236	.136	.227	1.744	.046
Credit monitoring and controlling	.150	.138	.145	1.083	.029
Credit policy and procedure	.121	.134	.127	.907	.017
Loan default	.659	.156	.626	4.219	.000
Collection policy	.363	.108	.342	3.352	.001

a. Dependent Variable: performance

Source: Own survey, 2021

According to the above table, loan defaults have the largest impact on performance. The coefficient for organizational structure is quite small. Other factors with lower coefficient values than the six operational factors include credit processing and assessment, credit monitoring and regulating, credit

collection policy and procedures, and collection policy (communication, operational planning, resource availability, human resource factor, work environment and policy, and manual).

Therefore, based on the result in the regression coefficient table 4.2.3 and accordingly to the above general mathematical equation the estimated regression model of this study for ZEMEN is presented below.

$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 3X4 + \beta 3X5 + \varepsilon$

Y = 2.802 +.236X1+.150X2+.121X3+.659X4+.363X5 +.400

Given this formula and based on the result on table 4.2.3 the mathematical equation for variables of this study is;

Performance = 2.802 + 0.236 credit processing + 0.150 credit monitoring + 0.121credit police + 0.659 loan default+ 0.363collection policy+0.400

The intercept (β0) is the point on the vertical axis where the regression line crosses the Y-axis. The value of β0 is 2.802, which mean the expected value of performance is 2.802

4.3. Assumptions of linear regression test

There are four assumption of linear regression test. These assumptions of linear regression models are clearly presented on this section of the research study.

4.3.1. Multicollinearity test

The multicollinearity test is the first linear regression assumption test discussed in this research. The multicollinearity test is a hypothesis that examines the degree of correlation between two independent variables. Two ways are used to assess this test. The tolerance (coefficient approach) is one, and the variance inflation factor is the other (VIF). The value of tolerance (coefficient method) has to be 0.80 or above. Variance inflation factor also should not exceed above 10. Table 4.3.1 shows multicollinerity test result for independent variables of this research study.

Table: 4.3.1. Coefficients

Model		Collinearity Statistics		
		Tolerance	VIF	Minimum Tolerance
1	QCM	1.000	1.000	1.000
	CPA	.994	1.006	.994
	CPP	.707	1.415	.707
	LD	.730	1.370	.730
	ECP	.950	1.052	.950

Dependent Variable: Performance

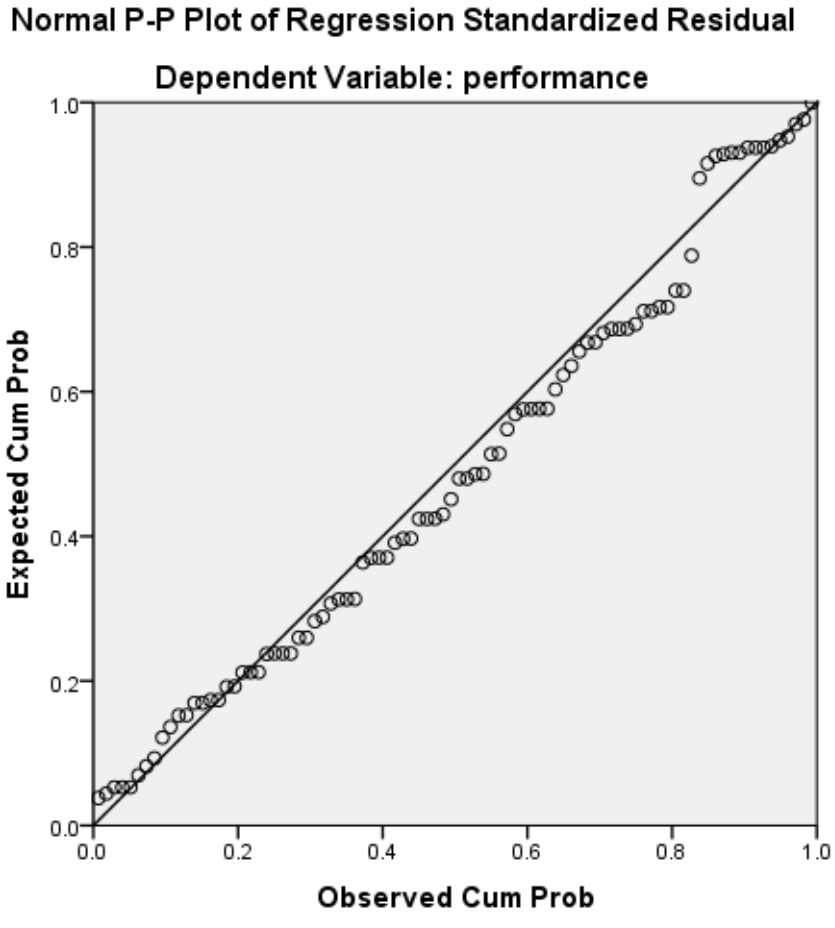
Source: Own survey, 2021

From the result in table 4.3.1, we understand that there is multicollinerity as tolerance value of credit processing and appraisal, credit monitoring and controlling, credit policies and procedures, loan default and collection policy is 0.80 and above. Additionally, all independent variables value multicollinearity, variance inflation factor (VIF) is fulfilled as VIF value of all independent variables is below 10.

4.3.2. Linearity test

The linearity test is the second linear regression assumption test presented in this research study. The linearity test requires that the connection between the independent and dependent variables must be a straight line. This signifies that the P-Plot line should be straight when depicted in a figure. The image below depicts the linearity test of this research study's independent and dependent variables.

Figure 4.3.2 Linearity test



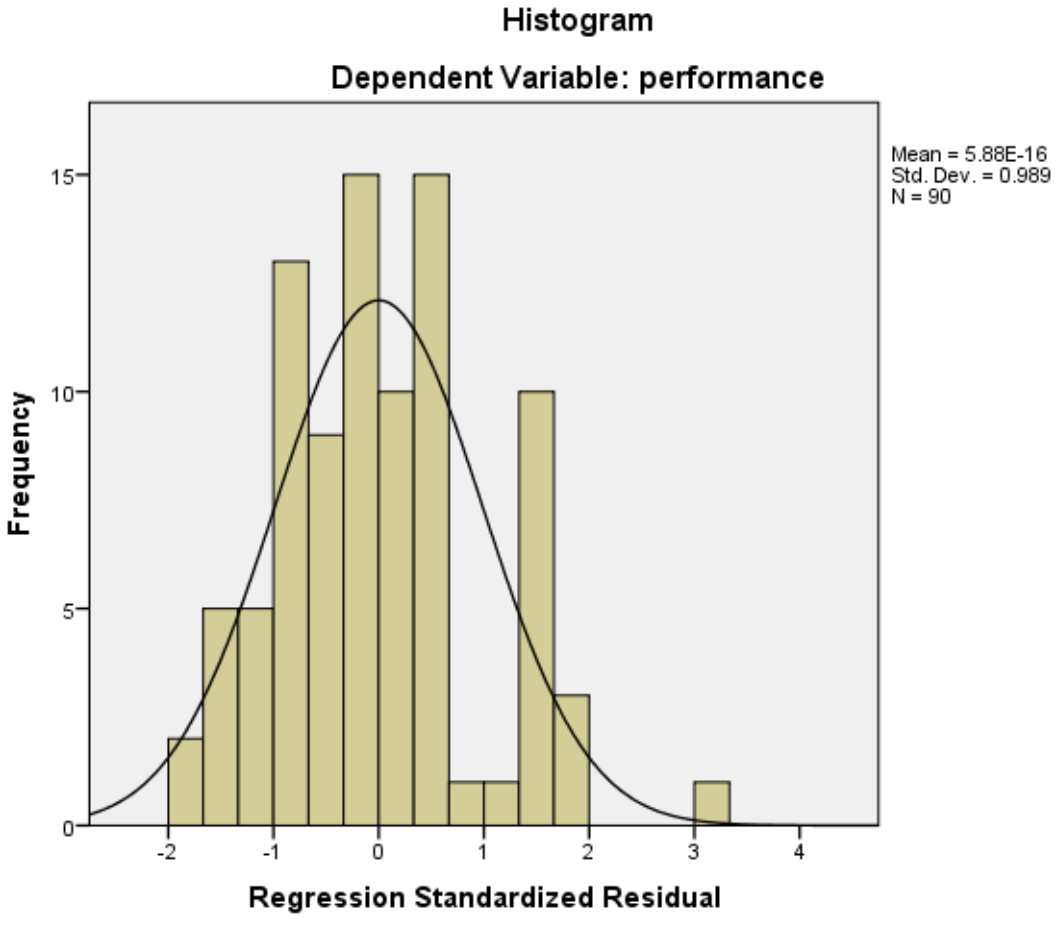
Source: Own survey, 2021

As shown in figure 4.3.2, we can say the assumption of linearity test for the independent and dependent variables of this research is sufficient, showing there is a linear relationship among them.

4.3.3.Normality test

The normality test is used to demonstrate that a variable's distribution is normal. The test is displayed as a histogram graphic, which illustrates the distribution of data. Errors are considered to be normally distributed for any arrangement of values on the predictor variables. (Osborne and Waters, 2002). A normality test for this research study is represented by figure 4.3.3 below.

Figure 4.3.3: Normality test



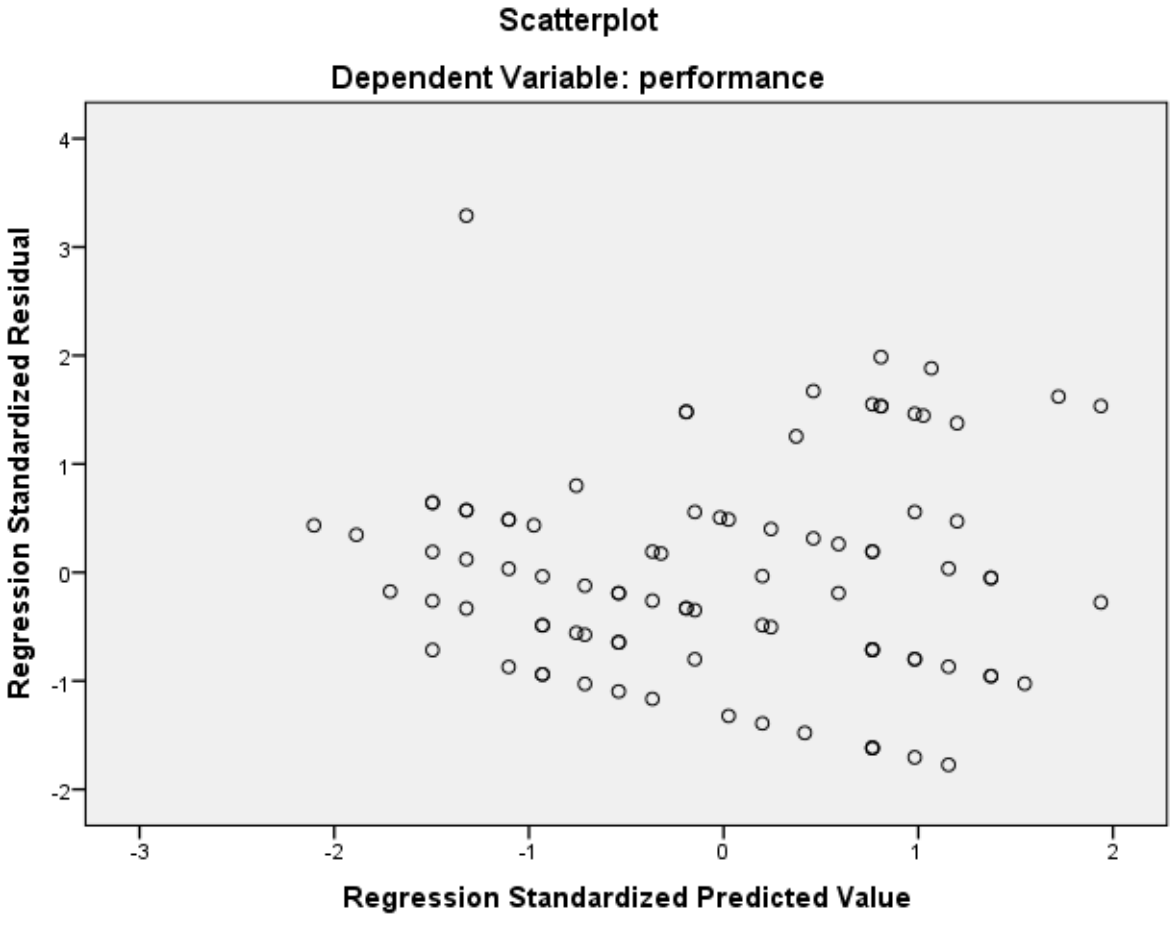
Source: Own survey, 2021

As we can see from figure 4.3.3 there is a normal distribution of variables and we can say the variables of this research study fulfills the assumption of normality.

4.3.4. Heteroscedasticity test

The heteroscedasticity test, presented as a scatterplot, depicts how scatter looks variables in a scatterplot image. Figure 4.3.4 is scatterplot to show the way variables of this research study scattered.

Figure 4.3.4 Hetroscedasticity test



Source: Own survey, 2021

4.4. Qualitative data of interview question

Interview questions were targeted to the executive managers and directors of case company. Summary of answers gained through interview are discussed as follows.

What are the major factors that affect credit management at Zemen bank?

According to the comments the researcher received during the interview, internal and external factors influence credit management; some are unavoidable, while others are preventable. External and internal factors all have an impact on how a bank manages its loan portfolio. External variables include the state of the economy, major fluctuations in commodity equity prices, foreign currency rates and interest rates, trade prohibitions, and economic penalties.

Aside from internal factors, the majority of them mentioned the borrower's financial health, the severity of the consequences of a default (for both the borrower and the lender), the size of the credit extension, historical trends in default rates, and variety of macroeconomic considerations, such as economic can be considered the most important factor that affects credit management. According to the data, internal aspects that affect credit management include upfront prepayment, credit insurance contracts, security deposits, time and duration contracts, collateral and guarantees, and contract amount.

How do you assess the creditworthiness of a loan applicants?

Creditworthiness is an assessment of your likelihood of repaying the debt, which is often expressed by a credit score ranging from 300 to 900. In the instance of Zemen Bank, the loan applicant's creditworthiness is evaluated in a variety of methods. According to the respondent, the bank scores customers by looking at their payment history to see if they have paid on time or if they have defaulted, their credit inquiries to see how many times they have inquired for credit and applied for loans, their credit mix to see if they have outstanding loans, and their credit mix to see if they have outstanding loans.

Does your bank prefer collateral based lending? Why?

The bank favors collateral-based lending since collateral is an asset or property supplied by the consumer. It is used to obtain a loan and serves as a safety for the lender in the case of a default by the borrower. As a result, banks prefer collateral-based loans because they are the most risk-free way to avoid loss in the case of a loan default. However, after assessing the clients' potential, the bank lends to specific consumers without collateral.

What do you believe should be done to address these constraints?

To address the issues of credit management, the bank should apply a number of approaches, as evidenced by the responses provided. It is vital to establish a clear and coordinated credit management system; late or delayed payments can put the bank at risk of bad debt, and it is usually something that can be swiftly addressed with a light nudge or reminder. Conduct continual study about how customers handle their credit. Maintaining a positive working relationship with the customer can also help overcome obstacles, and the bank should encourage the consumer to pay on time.

4.5. Discussion of findings

According to the findings of this research study, credit processing and appraisal, credit monitoring and controlling, credit policy and procedures, loan defaults, and collection policy are all highly connected and significant for credit management process and performance.

From the findings as shown in Table 4.2.1., the value of adjusted R squared was 0.355 an indication that there was variation of 35.5% on performance of Zemen bank S.C due to change in credit processing and appraisal, credit monitoring and controlling, credit policy and procedures, loan defaults and collection policy. This shows that 35.5% changes in performance of Zemen Bank could be accounted for like credit processing and appraisal, credit monitoring and controlling, credit policy and procedures, loan defaults and collection policy. R is the correlation coefficient which shows the relationship between the study variables, there was a strong positive relationship between the study variables as shown by 0.737.

From research finding as shown on Table 4.2.2, the calculated value was greater than the critical value (1.699 < 2.886) an indication that credit processing and appraisal, credit monitoring and controlling, credit policy and procedures, loan defaults and collection policy influence performance of Zemen Bank S.C. The significance value was of 0.000, which was less than 0.05, which this is an indication that the model was statistically significant.

The regression equation established from table 4.2.3 indicated that that holding credit processing and appraisal, credit monitoring and controlling, credit policy and procedures, loan defaults and collection policy to a constant zero , performance of Zemen Bank S.C would be 2.802 , a unit increase in credit processing and appraisal would lead to increase in performance of Zemen Bank by a factor of 0.236, a unit increase in credit monitoring and controlling would lead to increase in performance of Zemen Bank by a factor of 0.150, unit increase in credit policy and procedures would lead to increase in performance of Zemen Bank by a factor of 0.121, unit increase in loan defaults would lead to increase in performance of Zemen Bank by a factor of 0.659 and unit increase in collection policy would lead to increase in performance of Zemen Bank by a factor of 0.363.The significance of the variables was supported by the t values whose significance values were less than 0.05 which indicates that the variables were statistically significant in influencing performance of Zemen Bank.

Credit processing

Credit processing is an independent element that influences performance. According to the findings of this research study, credit processing has a strong correlation and has a large and beneficial impact on performance. According to Timothy (1995), the credit process consists of three functions: business development and credit analysis, credit execution and administration, and credit review.

According to Habtamu (2005), errors in underwriting and management of market-related credit exposures are key drivers of bank losses, and Many credit issues may have been avoided or lessened if a competent internal credit process had been in place, indicating that credit management is primarily based on and begins with credit processing, and the credit process is reliant on each bank's systems and controls to allow management and credit officers to evaluate risk and return trade-offs. Overall credit processing contributes significantly to a bank's gross earnings and net profit. The above points demonstrate that credit processing has a considerable and still favorable impact on performance.

Credit monitoring and controlling

Credit monitoring and control is a separate factor that determines performance. Credit monitoring and controlling, according to the conclusions of this research study, have a correlation and have a substantial and good impact on performance. According to Anjichi (1994), in order to avoid non-performing loans, a financial institution must establish a solid and effective credit monitoring system that examines the borrower's account from a variety of perspectives. Furthermore, (Yihnalem (2015) defines credit monitoring as "the daily and/or periodic verification, analysis, and reporting of the appropriate execution of credit decisions, as well as Credit Policies and Procedures, to ensure that the Bank's credit function is carried out as intended and structured." The preceding elements illustrate that credit monitoring and control have a significant and yet positive impact on performance.

Credit policy and procedure

According to the findings of the study, credit policy and procedure is another independent variable that has a significant and positive influence on performance. According to Scheufler (2002), a credit policy sets a shared set of goals for the business and recognizes the credit and collection department as an important contributor to the organization's initiatives. According to Pike and Neale (1999), a solid credit policy serves as the blueprint for how a firm communicates with and treats its most valuable asset, its customers. According to the above theory, if the credit policy is properly formulated, implemented, and understood at all levels of the financial institution, it allows management to

maintain proper standards of bank loans in order to avoid unnecessary risks and accurately assess opportunities for business development.

Loan default

Loan default is the other independent variable that affect the performance significantly in line with the study finding. According to Shekhar, 1985 Loan default, which occurs as a result of poor credit management, reduces a bank's ability to lend, it will disrupt the usual influx and outflow of funds that a bank must maintain in order to remain in a stable credit market.so the justifies that loan default has significant effect on performance.

Collection policy

According to the study's findings, collection policy is another independent variable that has a substantial influence on the bank's performance. According to (Kariuki, 2010), the collection effort should concentrate on accelerating collections from late payers and reducing bad debt losses. Because collection policy is the final component of credit policy, it entails identifying difficulties in recovering payment of past-due accounts, indicating that collection policy has a substantial impact on performance

4.6. Summary of Hypothesis Testing

This sub-topic summarizes each of hypotheses stated previously. The results are displayed in the table below. Table: 4.5.1 Summary of hypothesis testing

No	Hypothesis	Test result
1	Credit analysis and credit appraisal has significantly positive influence on the performance of the bank	Accepted
2	Loan default has significantly positive influences on the performance of the bank.	Accepted
3	Credit monitoring process has significantly positive influence on performance of the bank.	Accepted
4	Credit follow-ups have significantly positive influences on performance of the bank.	Accepted

Source: Own survey, 2021

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5. Introduction

This chapter discusses major data results, as well as conclusions formed from the findings and recommendations made in response to them. The study's conclusion and recommendations were centred on achieving the study's goal. The goal of the study was to see how credit management affected bank performance.

5.1. Summary of the Findings

The goal of this study was to use quantitative data to analyze the impact of credit management on bank performance. The research findings eventually lead to the answers to the research questions discussed in chapter one, namely: What is the effect of client appraisal on performance of Zemen Bank? What is the effect of Loan default on the performance of Zemen Bank? What is the effect of creating credit and collecting its loan on time on performance? What is the effect of credit monitoring process on performance of Zemen Bank?

136 questionnaires were distributed to the respondents out of which, 90 questionnaires were returned with a response rate of 70%. The sum of the independent variables average Cronbach's alpha value is (α = 0.718) and the reliability test of the study is located on "Acceptable" range.

Out of 90 respondents, most respondents were age group 21– 25 and 26 – 32 that is 26.7% and 33.3% respectively and 57.8% (52) are male and 42.2% (38) were females. 38.9% of the respondents have Bachelor Degree and 61.1% of the respondents have Master's Degree. 85.5% of the respondents have less than 10 years of experience.

The study discussed credit management effect on performance. Accordingly, from the regression analysis, it can be concluded that credit processing and appraisal, loan default and collection policy have great influence in performance.

Correlation among independent variables and dependent variable was positive. ANOVA tested the variance of variables and proved that a relationship exists between variables of the study. The result of the model summary was .544 which means independent variables of this research study can explain dependent variables by R^2= 54.4 %.

The bank has not yet deployed adequate measure to recover non- performing loans. The bank should improve the time allotted for centralized decision making of credit. The credit approval period shall be reasonable as soon as possible. The lack of manpower is not a case in the bank for determining the decision making process however; the bank should hire staff with the required skill and train them. Submission of incomplete data by the applicant is a reason for delay the loan officer or branch manager should use a checklist as first contact as the time of application and resolve the incompleteness.

5.2. Conclusion

Credit management and its impact on performance were investigated in this study. There are five independent variables that influence performance. Credit processing and evaluation on performance, credit monitoring and controlling on performance, credit policies and procedures on performance, loan default on performance, and collection policy on performance were the independent variables in this study.

The independent variables and dependent variable (performance) had a positive correlation. Performance is heavily influenced by credit processing and appraisal, loan default, and collection policy. Performance is moderately influenced by credit monitoring and management, as well as credit policies and processes. Both of these variables are significant. According to data analysis on credit creation, policy, and procedure, the bank's credit creation, policy, and procedure are flexible, the credit analysis and procedure are excellent, and the bank has a moderate procedure that aids in the performance enhancement. The majority of credit procedures are handled by the loan committee, with the president and branch managers participating at various levels.

The qualitative data gathered revealed that credit management and performance are influenced by both internal and external influences. Credit processing, credit assessment, credit monitoring, and credit regulating, credit policy, collection policy, and loan defaults are

all internal elements that affect performance. External factors like as the NBE's rules, regulations, and intervention, the country's economy, exchange rate, and inflation have a significant impact on credit management and, as a result, the bank's success.

5.3. Recommendations

The following possible recommendations are forwarded for an effective strategy implementation process and better performance.

- The study recommends that the bank should enhance its collection policy by adapting a more stringent policy to a lenient policy for effective debt recovery.
- The study also recommends that there is need for the bank to enhance their credit monitoring and controlling techniques so as to improve the bank performance. Through credit monitoring and controlling techniques, the bank will be able to know credit worth clients and thus reduce their non-performing loans.
- It is also necessary for the bank to improve its credit policies and procedures, which will aid in the reduction of default rates and non-performing loans. As a result, the bank's credit performance will improve.
- The fundamental 5cs should also be considered throughout the assessment process, including capital adequacy, application capacity, collateral value (fair estimation), payback history (character), and overall business conditions. Before financing, Zemen Bank shall employ an approved and verified feasibility report of the proposed project that was recommended by appropriate technical consultants.
- Visiting business on regular basis after disbursement , applying due care before granting a loan, establishing payment guideline, considering prompt payment, writing reminder letter, providing incentive for prompt payment, as best strategy in retrieving credit; but legal advice in retrieving credit is put at last by respondents.
- The bank should conduct periodic loan reviews that address all or at least the majority of currently existing loans. This activity is the primary internal control that allows the bank to determine the overall loan's credit risk level and improve the efficiency of loan portfolio management.

5.4. Areas for Further Research

The study's purpose was to determine how credit management affected Zemen Bank's performance. More research is needed on the impact of Credit Reference Bureaus on loan performance in Ethiopian commercial banks. More research should be undertaken on the relationship between credit management and non-performing loans in commercial banks, as well as the reasons for loan default in banks from the client's perspective.

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Appendices I

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

MASTER OF BUSINESS ADMINISTRATION (MBA)

Dear respondents,

I am a prospective Master's Degree graduate student in the Master of Business Administration in Finance program at Addis Ababa University (MBA). “Effect of Credit Management on Bank Performance: In the Case of Zemen Bank,” is the title of a research project I'm working on. I humbly request that you offer some information by responding to the interview questions. The information you provide will be kept strictly secret and will only be used for research purposes.

Thank you in advance

Kalkidan Haileyesus (The researcher)

General Instruction

Please use the mark sign (√) to indicate your answer.

Part I: Questionnaire on respondent’s general profile

1. Age

21-25	☐	33-40	☐	Above 51	☐
26-32	☐	41-50	☐		

2. Gender

Male	☐	Female	☐

3. Level of education

BSC/BA Degree	☐	Other (specify)……	

Master's Degree ☐

4. Year of service in the bank

0-3 ☐ 4-7 ☐

8-10 ☐ above 10 ☐

Part II: Question on credit management

1. Credit Creation, Policy and procedure

5. How can you get a better understanding of your institution's credit policies and procedures??

Rigid ☐ Flexible ☐ Average ☐

6. How do you rate credit analysis and procedures followed by the bank in Extending credit?

Excellent ☐ Very good ☐ Good ☐ Fair ☐ Poor ☐

7. How do you evaluate your bank's credit providing procedures?

Based on creativity ☐ Conservative ☐ Moderate ☐

8. Your banks Loan approving /recommending procedures of the credit proposal of clients is based on

Loan committee at all level ☐ Branch Manager and president ☐

Loan department ☐ Board ☐

2. Credit Management Process

Please provide your level of agreement using the following rates (Where 1= strongly disagree, 2= Disagree, 3= Neutral, 4 = Agree, 5 = strongly agree)

No	Statement					
	Effect of Credit Processing /Appraisal/ on performance	1	2	3	4	5
1	The Bank Checks the borrower history before granting loans					
2	The Bank properly assess the customer ability to meet obligation					
3	The procedure of crediting-granting approval established accountability for decisions made.					
4	There are times credit granting and monitoring process is overridden by Directors, senior management					
5	The bank carried out credit processing activities independent of appraisals					
	Effect of Credit monitoring and controlling on performance	1	2	3	4	5
6	The bank adheres to all of the restrictions and punishments imposed by the various approving bodies.					
7	Collateral coverage is regularly assessed and related to the borrower's financial positions					
8	The bank monitor the business of clients after granting credits on regular interval basis					
9	Customers are often given sufficient training on loan usage					
	Effect of Credit Policies and Procedures on performance	1	2	3	4	5
10	The process of " Credit administration " is performed					

	independently of individuals involved in the " business organization" of credit					
11	The Bank keeps the workout activity separate from the credit origination area.					
12	For credit and collateral files, the bank has well-structured documentation tracking systems.					
13	The bank has appropriate criteria for Credit classification and provisioning					

	Effect of Loan Default on performance	1	2	3	4	5
14	Loan defaults can emerge in the instances when customer's capacity is not assessed					
15	Enforcement of guarantee policies provides chances for loan recovery in case of loan defaults					
16	Failure to assess customers capacity to repay results in loan defaults					
17	Poor credit management reduce the bank lending capacity and be cause for loan default					
18	Lack of collateral and high interest rates are likely the cause loan default					

	Effect of Collection Policy on performance	1	2	3	4	5
19	Available collection procedures have aided in the efficient management of credit operations.					
20	Regular reviews of collection policies have been conducted to improve the state of credit management.					

21	In comparison to a moderate strategy, a tight policy is effective in debt collection.					
22	Incentives for employees are beneficial in boosting delinquent loan recovery.					
23	In credit management, developing collection policies has proven to be difficult.					

	Performance	1	2	3	4	5
24	The factors affecting the credit management process have no significant effect on the overall performance of the bank					
25	The bank is operating at a satisfactory level.					
26	The key factors affecting the bank's credit management process are unavoidable, preventing the bank from meeting its objectives.					
27	The bank's credit management is so excellent that it outperforms the financial market and achieves the desired level of performance.					

38. Any other challenges, factors, techniques and measures applied by the bank?

……

Appendices II

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

MASTER OF BUSINESS ADMINISTRATION (MBA)

Interview

Dear Respondents,

I am a prospective Master's Degree graduate student in the Master of Business Administration in Finance program at Addis Ababa University (MBA). “Effect of Credit Management on Bank Performance: In the Case of Zemen Bank,” is the title of a research project I am working on. I humbly request that you offer some information by responding to the interview questions. The information you provide will be kept strictly secret and will only be used for research purposes.

Thank you in advance.

Kalkidan Haileyesus (The researcher)

1. What are the major factors that affect credit management at Zemen bank?
2. How do you assess the creditworthiness of a loan applicant?
3. Does your bank prefer collateral based lending? Why?
4. What do you think should be done to overcome these limitations?