CREDIT MANAGEMENT OF COMMERCIAL BANKS IN NEPAL

A Thesis Submitted to the Office of the Dean, Faculty of Management in partial fulfillment of the requirements for the Master of Business Studies (MBS)

By

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has been prepared as approved by this Department in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.

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DECLARATION

I hereby declare that the work reported in this thesis entitled **"Credit Management of Commercial Banks in Nepal"** submitted to Office of the Dean, Faculty of Management, Tribhuvan University is my original work conducted in the form of partial fulfillment of the requirement for the degree of Master of Business Studies (M.B.S) under the supervision of Asso. Prof. Dr. Kapil Khanal of Shanker Dev Campus, T.U.

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Shyam Bahadur Rawat

TABLE OF CONTENTS

LIST OF TABLES

ABBREVIATIONS

AD	:	Anno Domini
ATM	:	Automated Tailor Machine
BS	:	Bikram Sambat
C.L	:	Current Liabilities
CA	:	Current Assets
CB	:	Commercial Banks
CRR	:	Compulsory Reserve Ratio
e.g.	:	Example
EBL	:	Everest Bank Limited
EPS	:	Earning Per Share
F/Y	:	Fiscal Year
GDP	:	Gross Domestic Products
i.e.	:	That is
I.I	:	Interest Income
IT	:	Information Technology
JVBs	:	Joint Venture Banks
L & A	:	Loan and Advance
LLP	:	Loan Loss Provision
Ltd	:	Limited
N.P.L	:	Non – Performing Loan
NRB	:	Nepal Rastra Bank
NSBL.	:	Nepal SBI Bank Limited
SD	:	Standard Deviation
T.A	:	Total Assets
TU	:	Tribhuvan University

CHAPTER-I
INTRODUCTION

1.1 Background of the Study

One of a commercial bank's most crucial roles is credit management. Credit is seen to be the most lucrative source of income, particularly for commercial banks. In the sense that it accounts for a significant portion of investment, covers the majority of lending-based investment activities, is the primary source of profitability, and determines profitability, credit is considered the commercial banks' heart. It has an impact on the nation's economy as a whole. In the current environment, it also has some impact on the national economy (Bhandari, 2003).

The amount of money lent to the borrower (clients) by the creditor (bank), either with or without security, is known as credit. Credit is the total amount of money that a bank lends. On the asset side of a commercial bank's balance sheet, credit and advances are a significant item. One of the main sources of income for banks is interest earned on loans and credits. The bank prepares the credit portfolio; otherwise, it would negatively impact profits in addition to adding bad debts. Financial assets that arise from a lender providing cash to a borrower in exchange for a repayment commitment on a stated demand basis are known as credit.

In general, banks offer credit in four ways. These include discounting bills, cash credit, direct credit, and overdraft (Chhabra & Taneja, 1991).

A short-term credit known as an overdraft is provided to the borrower to cover working capital. It is only offered for a year, after which it can be extended. It is provided solely to satisfy a firm's working capital needs, and the business unit must have a current account for this reason. In a similar vein, cash credit is not paid out in cash directly; instead, a bank account is formed on the credit taker's behalf, and the money is deposited to that account. Every credit generates a deposit in this manner (Dhungana, 2015).

The retailer will become a customer if the bank grants credit. Likewise, it offers corporations and industries the opportunity to pay taxes to the government and receive

assistance in boost the country's economy. It serves as protection from depositors. Credit has always been demonstrated to be a derivative of shareholder wealth maximization (Richard, 1996).

When making decisions, credit managers consult with finance executives and other executives. In order to help the communities they serve develop and raise their standard of living, banks are supposed to lend money to all eligible clients. In fact, banks' primary economic purpose is to provide loans.

However, it is also a dangerous role since the bank may suffer significant losses as a result of both internal (management failures) and external (economic conditions). The bank landing function is strictly controlled to guarantee responsible rules and procedures in order to control this aspect. More individuals think that banks only have a limited function in the nation, accepting deposits and disbursing loans. To be competitive and attentive to the requirements of the public, the modern bank must take on new responsibilities. In commercial banks, credit exposures are the primary source of investment, and the return on that investment is intended to be the primary source of revenue (Bajracharya, 2063).

Credit risk encompasses both off-balance sheet and inter-bank activity and is not limited to lending activities alone. By keeping the exposure to credit risk within reasonable bounds, credit risk management seeks to optimize a bank's risk-adjusted rate of return. The biggest and most visible source of credit risk for the majority of banks is loans, but there are other sources of credit risk throughout a bank's operations, such as the banking and trading books, and both are increasingly exposed to credit risk in a variety of financial instruments other than real estate, such as acceptances, interbank transactions, guarantees, and transaction settlement (Dahal, 2002).

In order to have a deeper understanding of credit management, this research attempts to assess Laxmi Bank's credit management, as explained below: The banking and nonbanking sectors make up Nepal's financial industry. The banking industry includes banks and Nepal Rastra Bank (NRB). Cooperative financial institutions, development banks, finance companies, micro-credit development banks, non-governmental organizations (NGOs) that engage in limited banking operations, and other financial

institutions like insurance companies, employee provident funds, citizen investment trusts, postal savings offences, and the Nepal stock exchange are all included in the non-banking sector. High-end investors' demands must be met by an effective banking system, which makes large sums of money accessible for significant projects in the infrastructural, industrial, and service sectors. At the same time, loans must be accessible to medium-sized and small businesses so they may expand their current units and make new investments. Credit policy strongly recommends analyzing and managing the credit risks. According to Bajracharya (2060), credit risk is the chance that a borrower won't fulfill their responsibilities in line with the terms and circumstances that were agreed upon.

1.1.1 Profile of Sample Companies

Rastriya Banijya Bank Limited

For more than 50 years, Rastriya Banijya Bank Limited (RBBL) has been providing its clients with nationwide service. The bank was founded on 10 Magh 2022 (23 January 1966) under the special statute "Rastriya Banijya Bank Act, 2021" and operated under the "Commercial Bank Act, 2031" until it was re-registered as a public limited company on 6 Baishak 2063 (19 May 2006). At that time, the bank was entirely owned by the Government of Nepal. According to the terms of the "Bank and Financial institutions Act 2073," (2017), the Bank currently conducts commercial banking operations as a "A" class financial institution licensed by Nepal Rastra Bank.

At one point in the past, RBBL confronted existential problems after enduring many trying years in business. However, the bank successfully adopted a restructuring plan after learning from the events and yearning for a better future. Today, it is one of the most favored banks with the largest client base in all 77 districts and 7 provinces in the nation. Through effective resource allocation across all economic sectors, the Bank has been able to establish a strong presence in the nation's economy, increasing output and creating job opportunities. We are the most trusted bank in the nation because of the unwavering faith and goodwill shown by our customers, as well as the ongoing assistance from the government, well-wishers, and the general public.

Laxmi Sunrise Bank Limited

On July 14, 2023, two reputable financial organizations, Laxmi Bank and Sunrise Bank, successfully merged to form Laxmi Sunrise Bank Limited, a well-known Class "A" commercial bank in Nepal. The combined company, which has its headquarters in Hattisar, Kathmandu, positions itself as one of the major participants in Nepal's banking sector by combining the assets, know-how, and clientele of the two banks. The bank is listed on the Nepal Stock Exchange (NEPSE) with the ticker symbol LSL and holds a license from Nepal Rastra Bank. According to the most recent data, Laxmi Sunrise Bank has more than NPR 427 billion in total assets and NPR 24.35 billion in paid-up capital. It has issued loans totaling around NPR 287 billion and mobilized deposits over NPR 350 billion.

With 254 locations and over 3,000 staff, the bank runs a robust countrywide network and provides a variety of financial services, including as investment services, corporate financing, retail banking, and internet banking. Additionally, it has a number of subsidiaries, including Laxmi Laghubitta Bittiya Sanstha Limited (for microfinance services), Sunrise Securities Limited (a stock trading business), and LS Capital Limited (for merchant and investment banking). Laxmi Sunrise Bank is devoted to offering customer-centric, technology-driven, and inclusive banking solutions. Its goal is to become the most reputable and trustworthy bank in Nepal by empowering communities, companies, and households while promoting sustainable financial growth. To provide superior value to all stakeholders, the bank places a strong emphasis on innovation, risk management, and corporate governance.

1.2 Problem Statement

The most significant financial entities in the economy are banks. They are the essential channel for keeping an eye on the dissemination of policies. The prudent management of the banks' assets and liabilities is essential to their stability and profitability. However, the quality of the banks' following developments has not been adequate. Banks are up against fierce competition, and the current state of affairs in Nepal has made investment extremely risky. Consequently, investment is booming at the moment. Finding safe and profitable investment options is a difficult task for banks. Recovering in the crucial area of loan and advance disbursement. It is the recovery phase, which is a crucial component of revenue generation for the banking industry and keeps the funds flowing. In the

current environment, credit recovery is trending in the wrong direction because of unhealthy rivalry among banks. Because there are insufficient investment options and solid lending policies, banks are not making the best use of their deposits. Banks are lowering deposit interest rates and raising the minimum balance for deposit accounts as a result of fewer investment opportunities. Such a situation might lead to a very liquid market and have a detrimental effect on the state of the entire nation. In a similar vein, the regulations designed for banks are insufficient on their own to restore both an ideal and sustainable management structure. The following are some key queries that reveal some issues.

- How do the commercial banks LSBL and RBBL's financial analyses stand up?
- How does the total loan and advance relate to the loan loss provision?
- What is the relationship between investment and deposit?
- What is the trend analysis to gauge the likelihood of growth?

1.3 Objectives of the Study

Without a doubt, the bank plays a vital part in the nation's growth. Banks contribute to the nation's growth by lending money to the appropriate industries. Analyzing, examining, and interpreting RBBL and LSBL's credit behavior and practices is the study's primary goal. The following are the study's particular goals:

- To the LSBL and RBBL commercial banks' financial examination.
- To investigate the connection between Total Loan & Advance and Loan Loss Provision.
- To investigate the relationship between investments and deposits.
- To use trend analysis to gauge the likelihood of growth.

1.4 Significance of the Study

The bank's primary business is lending. It has a major effect on the portfolio and liquidity of the bank. However, the overall management of loans is the area of concern in the banking sector. There is widespread suspicion about the performance of the other banks as well because of the high number of non-performing assets at two state-owned banks. Since the planned research focuses on all facets of banks' credit behavior, the Nepali government recently passed the Debt Recovery Act and adopted the long-awaited debt

recovery legislation to expedite financial reform in the banking sector. It would expedite the procedure by providing cosmic information.

The following groups of persons or organizations will find this study important:

- Stockholders, lenders, and borrowers.
- The bank's management, board of directors, and policymakers. Scholar and investigator.
- The Nepali government for planning and policymaking.
- The general public with an interest.

1.5 Limitations of the Study

The bank renders various services to its customers. The bank's ability to take deposits and make loan advances is one of its primary functions. This research is limited to the credit aspect mainly with the loans and advance as well as recovery status of its investment. This study is simply a partial requirement of master‟s of business studies program. These are also some limitation like inadequate coverage of concerned banks, time period taken, reliability of statistical tools and other variations, which narrowed the generalization. Some very prominent limitations of the study are listed below;

- The study is limited to two sample banks (Rastriya Banijya Bank Limited and Laxmi Sunrise Bank Limited) by random sampling; it spans the years 2014–15 through 2023–24.
- The majority of the study's data comes from secondary sources.
- Limited statistical and financial techniques are required for analysis, and the study primarily focuses on credit features between the sample institutions. Hence, the pitfalls of those tools may affect the outcome of the study.

1.6 Organization of the Study

This research has been divided into five sections. The following will include chapters one through five.

Chapter – I: Introduction

The introduction, which includes the study's general context, problem description, aims, limitations, and importance, is contained in this chapter.

Chapter – II: Review of Literature

The literature is briefly reviewed in this chapter and is divided into two pieces. The conceptual framework for bonus giving is presented in Section 1, and a review of relevant research is presented in Section 2.

Chapter-III: Research Methodology

The research approach used in the study is presented in this chapter. The introduction, research design, data sources and nature, data analysis methods, sample process, and definitions of several important words are all included.

Chapter –IV: Presentation and Analysis of Data

The data is presented and analyzed in this chapter. This is the research study's primary and most important chapter. In this chapter sources of data are primary and secondary, which are presented in appropriate form. Analysis and interpretation of data have been performed thereafter. From this analysis and interpretation major findings have been deduced.

Chapter- V: Summary, Conclusion and Recommendations

The study's summary, conclusion, and recommendations are included in this chapter. Finally, there is a bibliography, study proposal, and appendices.

CHAPTER-II
LITERATURE REVIEW

This chapter's goal is to provide a fundamental understanding of the credit behavior of commercial banks and other well-known authors through a variety of books, journals, and research papers. This chapter reviews a number of independent investigations, unpublished prior theses, articles, and publications. Examining each of these gives us context for the research and instructions for handling the following issues in order. The following topics are reviewed under this heading.

2.1 Conceptual Review

Early banking systems primarily functioned as depositories for money, but more recent systems have taken credit supply into account. In addition to lending money and creating and lending its own credit, a bank does not take deposits. Commercial banks are one of the many sorts of banks that contribute significantly to the nation's financial system. They combine the community's savings and make arrangements for their beneficial use. They use a variety of methods to meet the financial demands of contemporary company. Public deposits are accepted with the understanding that they would be returned promptly or upon demand. Their operations are limited to funding working capital and other short- and medium-term needs of business and industry.

The financial institution type might be commercial. Banks have one key feature that sets them apart. All other types of financial institutions are formed by it. The key difference is that it is the only one that can store deposits that may be used as collateral for checks. Through the use of loans and demand deposits, it may both create and destroy money within certain bounds. Commercial banks can produce demand deposits to lend money and cancel demand deposits to retire loans.

2.1.1 Concept of Credit

Credit is the amount of money lent by the creditor to borrower either on the basis of security or without security. Credit and advances is an important item on the asset side of the balance sheet of a commercial bank. The bank receives interest from loans and advances, one of the main ways that banks make money. The bank creates the credit portfolio; otherwise, it would negatively impact profitability in addition to debts (Nwankwo, 1991).

Credit is the outcome of a lender providing a borrower with cash or other assets in exchange for the borrower's responsibility to repay on a given date upon demand. Typically, banks offer credit in four ways: Taneja and Chhabra (1991)

- Overdraft
- Cash credit
- Direct credit
- Discounting of bills

Three essential elements are required for the bank's overall business strategy and strategic plan. They are: (John, 1998:112)

- Business plan
- Framework for risk management
- Strategies for corporate control.

These fundamental elements focus solely on functioning and competing in the financial services sector, and they offer a strong basis for managing value and risk planning. A risk management framework and strategic completion components are also part of the modern strategic approach, which aligns with the contemporary notion of the fundamental banking operations of risk assessment, management, and acceptance. The goal of the bank is to manage risk and value by minimizing or maximizing those that degrade value. Commercial banks' primary responsibility is to gather deposits from various sources and lend them to a variety of industries, including manufacturing, trade, transportation, construction, communication, and other public utilities. Every bank that engages in these operations faces several dangers.

Although there are many different kinds of risk that exist in the banking sector, the main categories of risk credit risk, market risk, operating risk, etc. are well known. The possible monetary loss brought on by clients' inability to completely adhere to the conditions of a loan or contract is known as the credit risk. Conversely, market risk encompasses trading and balance sheet risk, including possible capital and earnings risk due to shifting interest rates, liquidity issues, the effect of foreign exchange rate swings, etc. Meanwhile, natural catastrophes, mistakes in transaction processing and settlement,

asset protection, system failure, fraud, and forgeries are the sources of operating risk (Encychopedia, 1924).

2.1.2 An Overview on Credit Risk

The chance that a borrower won't fulfill their responsibilities in line with the terms and conditions that have been agreed upon is known as credit risk. Credit risk encompasses interbank and off-balance sheet risks and is not limited to lenders' operations alone. CRM aims to keep the CRE within reasonable bounds in order to optimize the bank risk adjusted rate of return. Loans are the biggest and most overlooked source of credit for the majority of banks. Nonetheless, there are other sources of credit risk present in all aspects of a bank's operations, including the trade and banking books as well as the balance sheet and off. In addition to loans, banks are increasingly exposed to counterparty or credit risk in a variety of financial instruments, such as acceptance, interbank transactions, trade financing, foreign exchange transactions, and transaction settlement guarantees. Particularly in commercial banks, credit is thought to be the asset that generates the highest revenue. Since credit accounts for a significant portion of transactions, it is thought of as the commercial bank's core. It addresses the majority of investments. It is the primary driver of profitability and profit creation. It has an impact on the economy as a whole.

In the current environment, it also has some impact on the national economy since granting credit to retailers would elevate them to the position of customers. In a similar vein, it gives commerce and industry money. They will pay taxes to the government, which will boost the country's economy. It serves as protection against depositors as well. Credit has always been thought of as the derivative that maximizes wealth. Credit risk is seen to be the most effective component, while other factors can also have an impact on profitability and wealth maximization. Since it is the foundation of commercial banking, it is the most difficult task. Effective credit management should therefore be given careful thought. The mechanism that aids in efficiently completing the work is management. In other words, credit risk management refers to the control of credit exposure resulting from loans, corporate entities, and credit derivatives. It is also the system that aids in the efficient management of credit. In commercial banks, credit exposures are the primary sources of investment, and the returns on these investments are expected to be the primary sources of revenue.

2.1.3 Credit Risk Management

The financial landscape is ever-changing. Changes in interest rates, currency rates, and the prices of commodities and real estate are nothing new in this dynamic financial world. These shifts in financial and economic factors undermine the bank's performance and business strategy. Therefore, a bank must have a risk management framework. A bank can lower risk and the possibility of non-performing assets by managing credit risk effectively. Banks will be able to choose their most lucrative venture after they have a clear understanding of their costs and risks. Thus, via organizational reforms, risk assessment methods, and new credit procedures and systems, the bank has to have a clear credit risk strategy. The following five C's of creditworthiness should be taken into account when discussing credit risk management:

- **Character**

The borrower's good intentions and character are crucial and should be taken into account. The client's workplace, references, neighbors, and other areas he is connected to can all provide insight into his character. Although it is a laborious task, it must be completed for a safe investment.

- **Capacity**

One way to characterize it would be a customer's capacity to pay. It is evaluated based on the candidates' prior performance history. Customers and suppliers will further clarify the problem during the interview with applicants. It is important to examine the borrower's gross income, costs, and net income regardless of whether they are supported by salaries, wages, or other sources of revenue. It should be taken into consideration whether the borrower has additional income from sources other than their regular sources that should be utilized to pay back the planned installments.

- **Capital**

Capital acts as a buffer against operating and asset losses that could otherwise make it more difficult to repay debt. Actually, this serves as insurance against the debts that the borrowers have been given.

- **Collateral**

A sufficient amount of collateral is required to guarantee loan recovery. The collateral held should be valuable enough to recoup the loan amount and interest paid in the event of default, regardless of the reason. Although it is advised that only 50% of the collateral value be used as loan proceeds, this percentage can be adjusted in light of other variables such as the borrower's creditworthiness and character.

- **Conditions**

Unfavorable economic circumstances that are out of their control might affect borrowers. Character, ability, and collateral are important considerations, but so are other elements that the borrower has little to no influence over. For instance, severe economic crises or natural disasters, etc. If the same circumstances hold true, risk is determined by the quality of each "C" and the total of these five Cs; the following recommendations are made.

Table: 1

Guidelines of Assessing Risk

Applicant character	**Credit**
Character + Capacity	Very low
Character + Capacity without capital	Low to moderate
Character + Capacity but insufficient capital	Low to moderate
Character + Capital but impaired character	Moderate
Character + Capital without character	High
Character + Capital without capital	High
Character + No capital + No capacity	Very high
Capital + No character + No capacity	Very high
Capacity + No character + No capital	Fraudulent

(Source: NRB Directives)

2.1.4 Credit risk Management Techniques

Since loans account for the bulk of bank assets, the lending function is straightforward and adds value to the bank. The primary risk is the borrower's potential failure to repay the loan balance. Therefore, it is crucial to handle credit risk responsibly. In their paper

that was published in the journal of banking and finance, Merton and Bodies proposed three methods for the credit parameter (Michel et al., 2001).

- **Risk based Pricing**

It is well known that risk-based pricing forces lenders to adjust the rate to reflect the loan's increased risk. The pricing process should not be based just on past loan loss experience; it should be simple. In practice, loan pricing tends to follow the prime rate plus basis. The most creditworthy customers can negotiate from the prime rate because it is not the lowest rate that a bank charges. The discount prime rate is what bank use to attempt to compete with open market instruments such as commercial paper and corporate bonds.

- **Assets Restriction**

Bank lenders and other creditors have a claim on the borrower's assets. Creditors are safeguarded as long as the market worth of assets above the value of obligations since asset sales profits pay the whole claim. On the other hand, businesses will not give up assets to creditors that are worth more than the amount of the claim against them as long as they have a positive net worth. Therefore, attempting to guarantee that the value of assets consistently surpasses the value of claims is one method by which lenders might safeguard themselves. The two main strategies for achieving these goals are limiting the amount of debt that a borrower takes on and limiting the fluctuations in asset values. The strength of bank customer connections and restrictive covenants are two realistic ways that lenders might limit assets or provide incentives for compliance.

- **Monitoring**

Loan losses can be reduced if lenders have a contractual right to continuously monitor asset values and seize assets. This can be done by auditing asset values and seizing assets before there are shortfalls or by requiring that the posted value of collateral assets equal or exceed the promised payment for private loans, for which banks have significant organizational expertise. Monitoring without ongoing surveillance is expensive. Before giving a customer credit, the bank analyzes the project from a number of perspectives. It will assist the bank in determining whether the project is truly worthy of investment. For that, the bank required to conduct a project evaluation. The goal of project assessment is

to ensure that the project will yield an acceptable return. The following queries are addressed by project appraisal:

- Is the project sound technically?
- Will there be a fair return on the project?
- Does the project align with the nation's overarching economic goals?
- In general, the project appraisal entails looking into the following areas: Aspects include: financial, economic, managerial, organizational, and legal.

2.1.5 Credit Risk Management Framework

Interest rate, currency, and commodity and real estate price fluctuations are nothing new. However, the corporate strategy and performance of the banks and their client consumers were destabilized by fluctuations in economic and financial factors. Therefore, having a framework for parameters and offering parameter services to customers is essential for such institutions. A bank can manage risk on its balance sheet by making changes to the composition of its portfolio, or it can use the majority of the parameter weapons that come from financial engineering technology to manage risk off the balance sheet. These tools are called derivatives contracts of activities, or just "derivatives" (John, 1998:126). The three pillars that support the risk management framework may be summed up as follows.

- Making good investment decisions creates corporate value. For conventional banks, this entails making wise investment choices in addition to establishing wise locations and investments for their non-traditional operations, such as investment banking, mutual funds, and insurance derivatives.
- The secret to successful investing is producing adequate cash flows internally. Businesses that don't produce cash flow on their own typically reduce investment more than their rivals.
- In banking, maintaining a firm's capital adequacy depends critically on producing enough cash flow internally. In turn, having enough money is necessary for growth and wise investment. Banks with insufficient capital face increased regulatory scrutiny, higher deposit insurance premiums, and the potential for outside takeovers.
- Proper and judicious examination of key market indicators is also important.

- Because negative changes in external variables like interest rates and commodity prices can disrupt cash flow and risk a company's capacity to invest, banks should carefully examine key market indicators.

2.1.6 Factor Affecting Credit Policy

The basis for deciding whether or not to grant credit and loans is provided by a company's credit policy. Credit criteria and credit analysis are the two main facets of banks' credit policy choices. Effective credit risk management often takes into account the following elements. Another name for it is the credit policy considerations. Obtaining effective credit worthiness is beneficial.

- **Industry Environment**

The industry structure, its appeal, the firm's place in the industry, the structural weakness of a disadvantaged company, theaters' first route out, and security value are all determined by it.

- **Financial Conditions**

As a first step, it assesses the borrower's ability to repay using cash flow. Additionally evaluated is the viability of the second option, which is collateral liquidation. Furthermore, repayment capability is threatened by the potential to rely on sister concern income in the event of a firm financial crisis.

- **Management Quality**

It establishes the borrower's management team's competence, integrity, and alliances. It is necessary to assess substitutes' weaknesses.

- **Technical Strength**

In terms of manpower, the feasibility of technological applications, the availability of after-sales services, and the cost of maintenance and replacement, it establishes the extent and caliber of technical assistance needed for the company's sustainable operation.

- **Security Realization**

Given the excitability of the security documents and the present value of the properties mortgaged with the bank, it establishes the control over the various securities acquired by the bank to secure the loan. The bank's backup plan is at risk due to security flaws.

2.1.7 Directives of NRB on Credit Aspect

Commercial banks are extensively regulated than its non-bank competitors in the financial service business. They must abide by the most recent rules that have been released by the regulatory body. Nepal's regulatory body is the NRB. The following four categories will be used to classify loans and advances in accordance with NRB directives.

- **Pass credit**

This category will comprise pass loans and advances whose principal amounts are not past due for a maximum of three months. They fall under the category of performing loans.

- **Substandard Credit**

This category will cover all advances and loans that are past due for three to six months. They fall under the category of non-performing loans.

- **Loss**

This category will contain any loans and advances that have been past due for more than a year, as well as those that are either regarded unrecoverable or have a slim chance of even partially recovering in the future. These advances and loans fall under the category of non-performing loans as well. While the phrase "specific credit loss provision" refers to the credit loss provision for non-performing credit, "general loss provision" refers to the credit loss provision for performing credit. The auditor must accurately grade the credit and make sure that a proper provision for credit loss has been made. Credit audits assist the bank in focusing more on its strengths and implementing remedial actions when weaknesses have been identified. The following categorization and credit provisioning will be given in accordance with guidelines based on outstanding loans and advances:

- **Doubtful Credit**

This category will contain all loans and advances that are past due for a duration of six months to a year. These loans fall under the category of nonperforming losses.

Table 2

Calculation of Loan and Loan Loss Provision

Classification of loan	**Loss Provision**
Pass	1%
Doubtful	5%
Substandard	25%
Doubtful	50%
Loss	100%

(Source: www.nrb.org.np)

2.1.8 Credit Policy

Definition: Rules that specify the precise terms of payment, the restrictions placed on outstanding balances, how to handle delinquent accounts, and how to determine which clients are sold on open accounts. Commercial clients usually prefer to be invoiced for any goods and services they purchase, even though the majority of consumers expect to pay with cash or a credit card. You must choose under what conditions and to what extent you are willing to provide them credit. There &39;s no one-size-fits-all credit policy--your policy will be based on your particular business and cash-flow circumstances, industry standards, current economic conditions, and the degree of risk involved. As you create your policy, consider the link between credit and sales.Easy credit conditions can be a wonderful method to drive sales, but they also raise losses in the event that clients default. The following topics will be covered under a standard credit policy:

- Credit restrictions. You'll specify the conditions or criteria and set monetary values for the quantity of credit you're ready to offer.
- Terms of credit. You must determine the due date for payment if you agree to bill a customer. Early payment discounts and late payment penalties may also be part of your conditions.
- Deposits. You may require customers to pay a portion of the amount due in advance.

- Credit cards and personal checks. Your bank is a good resource for credit card merchant status and for setting policies regarding the acceptance of personal checks.
- Data about customers. What you want to know about a customer before granting credit should be outlined in this section. Common elements include the number of years the business has been in operation, the duration of time at the current site, financial information, the company's credit rating with other suppliers and credit reporting agencies, details about its individual owners, and the amount they anticipate spending with you.
- Records. Credit applications, contracts, sales agreements, purchase orders, bills of lading, delivery receipts, invoices, letters, and so forth are all included in this.

For help, seek guidelines from the trade or professional body in your field. Finding out what your rivals' phrases are and taking them into account when establishing your own needs should be a part of your study. The layout of invoices and statements is an often disregarded factor when establishing a credit strategy. The statement is a follow-up document that shows the account's current status, whereas the invoice explains what the client is being charged for. According to a collection and creditor rights specialist, customers are more inclined to pay invoices and statements that are easy to read, straightforward, and enable them to easily recognize what they are being charged. The invoice should include the following points:

- An invoice numbers.
- An invoice date.
- A customer number or other identifying code.
- A complete and clear description of the product or service and item numbers, if appropriate. Avoid abbreviations your customer may not understand.
- The customer’s purchase order, job order or other reference information that will make identifying the invoice easier.
- The total dollar amount due, clearly indicated.
- Payment terms and due date (and specify any early-payment incentives or late-payment penalties).

2.2 Empirical Review

The following are a few of the papers and theses that are examined in this study: An introduction of the credit portfolio management role, structural options, the skills required for its successful execution, and a concluding note on training and pay are all covered in an essay by Reidy (2012). The emphasis is on business credit portfolios since, despite their ease of modification, they frequently provide the most concentration issues. The primary goals of this study were to determine how the requirements for people employing this approach have altered due to modern bank asset portfolio management: training and proficiency with accessible resources. The analysis was the main emphasis of traditional credit training. Conventional credit instruction is still required. This study's main conclusions included setting risk/return parameters and more. Training programs now include not just these methods but also that elusive component known as a bank's credit culture. Traditionally, training concentrated on the individual loan of a firm's management, operations, and financial structure as the foundation for judging a borrower's creditworthiness. As a result, some concentrations would always result in unusual or surprising losses that were recorded as revenue in the year they occurred. The impact of loans is examined by portfolio management on an individual, group, and comparative basis. Portfolio analysis and regulations that set exposure restrictions by nation, obligor, industry, and other factors have been added to those unwritten norms by modern portfolio management approaches. These restrictions result from a particular emphasis on these assets' class-a technical aspects.

The credit product is segmented, and the impact of mixing credits into portfolios is examined. Credit portfolios may now be assessed using both quantitative and fundamental portfolio analysis. According to the revised Basel Capital Accords, this is currently being further institutionalized in terms of the necessary capital. In their essay on NPA management, Murinde and Yaseen (2014) made it apparent that the conventional methods of bank regulation are ineffective for managing non-performing assets.

These methods highlighted the idea that capital adequacy regulations are essential to banks' long-term funding and stability, particularly in preventing bankruptcies and the detrimental externalities they cause to the financial system. Generally speaking, capital or net worth acts as a safeguard against failure and subsequent losses. This study's primary goals were to quickly identify non-performing assets (NPAs), confine them to a

minimum, and ensure that NPAs had as little of an impact on financials as possible. Traditional measures to address NPA issues attempted to interest deposits. Interning adequate capital in liquid form. Instead, they must be kept as reserves. Bolstering the financial system. The study's main conclusions were that it has been a big problem for growing economies and emerging markets. Since banks were unable to lend it, this has limited the amount of money available for productive purposes. This is because sound financial systems are crucial for generating economic growth by mobilizing financial savings, putting them to good use, and reducing different risks. He underlined that the following are crucial elements of effective NPA management. Dr. Gideon Gono, the governor of the Reserve Bank of Zimbabwe, expressed worry in January 2012 about the steady decline in asset quality, which was mirrored in the number of non-performing loans (MPS, 2012).

An article about banks' nonperforming loans was published in June by Montecillo (2015). Despite the ongoing increase in lending to support the nation's expanding economy, bad loans held by major banks declined in June, according to data released this week. Nonperforming loans (NPL) held by commercial and universal banks decreased at the end of June compared to May, according to a statement from the Bangko Sentraling Pilipinas. The BSP commented on the statistics, saying that the most recent NPL levels show the banks' ongoing efforts to maintain high loan quality and adhere to good credit risk management procedures. At the end of June, the ratio of non-performing loans to total loans fell to 2.68 percent from 2.75 percent in May and 3.01 percent in June 2014. This study's primary goals were to determine that non-performing assets (NPAs) do not generate revenue for banks in the form of principle and interest payments. Since interest payments from borrowers are the main source of funding for financial institutions, non-performing assets (NPAs) reduce their revenue. In order for increased NPAs to result in reduced profit, profit must be used to balance the NPAs. This quarter, the bank's bad loans and loan loss provisioning have also increased by over 8%.

Afifa and Saleh (2020) Using data from a developing economy, studies have been conducted on the effects of bank capital, liquidity risk, and credit risk on bank profitability. The goal of the study was to contribute to the existing corpus of banking knowledge by investigating post-crisis trends. It also sought to find out how bank capital, credit risk, and liquidity risk impacted bank profitability in this time frame. The report

emphasized the significance of banks as shown by the global financial crisis and acknowledged the critical role that banks play in the financial system. The study's methodology examined how bank capital, credit risk, and liquidity risk interacted to impact Jordanian commercial banks' profitability using standard panel data estimation techniques. The Hausman test verified that the fixed effect model was suitable after regression models with fixed and random effects were used. To make their findings more robust, researchers employed the generalized method of moments (GMM) estimator. Several key topics were clarified by the findings. We looked at the average standard deviations of the mean values for Net Interest Margin (NIM), Return on Average Equity (ROAE), and Return on Average Assets (ROAA). The high levels of credit risk Jordanian banks faced were a reflection of their loan policies. However, as demonstrated by the relatively low liquidity risk, the banks' strong liquidity levels enabled them to withstand a range of economic conditions. Bank capital accounted for around 10% of internal resources when financing assets. The study also shown how banks in Jordan vary in size and how they prioritize growing their loan portfolios in order to improve performance. Moreover, it underscored the detrimental effect that liquidity risk has on bank profitability, even though the net interest margin effect was not statistically significant. Furthermore, the study highlighted the beneficial impact of bank capital on profitability, bolstering the idea that increased capital leads to enhanced profitability and highlighting the connection between capital, return on assets, and net interest margin.

In their 2020 study, Aumana et al. examined how controlling liquidity risk affected the financial performance of deposit money banks in Nigeria. investigated the potential for a significant correlation between a select Nigerian deposit money banks' Net Operating Profit Margin (NOPM) and Non-Performing Loans (NPLs). The methodology employed was an ex-post facto study approach. The information was gathered from a number of published sources, including books on the topic, relevant journals, yearly reports or financial statements, official records of specific Nigerian deposit money organizations, and earlier research on liquidity risk. Data from 2010 to 2019 was analyzed for two randomly selected banks: First Bank and Guarantee Trust Bank (GTB). The Ordinary Least Squares (OLS) technique and descriptive statistics were employed due to their better computing capabilities and ease of usage. The findings of the descriptive statistics indicated that the standard deviation displayed a considerable range of values away from the mean values. Net Operating Profit Margin (NOPM) had a low standard deviation,

suggesting that it did not significantly depart from the mean. A regression analysis showed that 94.24% of the variation in Net Operating Profit Margin (NOPM) could be explained by the levels of Non-Performing Loans (NPLs) and Leverage Ratio (LEV). The idea that NPLs and LEV were significant factors in determining NOPM for the selected Nigerian deposit money banks was further supported by the adjusted R-Squared, which was greater than 50%. The F-Statistic confirmed the statistical significance of the model and demonstrated the strong influence of non-performing loans (NPLs) on NOPM, even though the leverage ratio had no discernible effect on NOPM for the selected institutions.

The factors influencing Nepalese commercial banks' profitability in 2011–2012 and 2020–2021 were investigated in KC and Archya's (2023) study, Bank-specific Determinants of Nepalese Commercial Banks' Profitability. Data from sixteen commercial banks for the years 2011–2021 were combined as part of the approach. Understanding the relationships and effects of various bank-specific factors on the profitability of Nepal's commercial banks was the aim of the study. The data, which originated from the annual reports of representative banks and the NRB website, was evaluated using a number of statistical and analytical techniques. The study used both comparative and descriptive causal research designs, and the sample banks were selected by random sampling. The outcome demonstrated that Return on Assets (ROA), the dependent variable, was utilized to estimate bank profitability. With a high of 4.01% and a minimum of 0.02%, the mean was determined to be 1.67%. Asset Quality (AQ), Capital Adequacy Ratio (CAR), Bank Liquidity (BL), Deposit Growth (DG), Interest Spread (IRS), and Bank Size (BS) were all considered independent factors. The findings illustrated the range of these parameters and their impact on ROA. For example, the AQ, CAR, BL, DG, IRS, and BS meanings were 1.72%, 13.72%, 21.82%, and Rs 93,319.66 million, respectively. The results of the regression analysis showed how these variables affected ROA; the corrected R square indicated that these factors accounted for 15% of the change in ROA. The link between the independent and dependent variables was shown by the regression equation that was produced. Notably, AQ, DG, BL, and ln BS had a negative impact on ROA, whereas IRS and CAR had a positive one.

A Hausman test was employed in the study to confirm that a random effect model was more suitable for analysis than a fixed effect model. ROA displayed the lowest standard

deviation of all these variables, suggesting comparatively little variation around the mean. On the other hand, DG had the largest standard deviation, indicating a wider range of values. According to the regression results, ROA was impacted by AQ, BL, IRS, CAR, DG, and BS. According to the corrected R square value of 0.1536, these factors might account for 15% of the variance in ROA, leaving the remaining 85% unexplained. At the 5% level of significance, BL, AQ, and BS were statistically inconsequential, however IRS, CAR, and DG had a substantial statistical impact on ROA. ROA was negatively impacted by AQ, DG, BL, and ln BS, but positively by CAR and IRS. The p-value of the F-statistic (0.0000) confirmed that the model fit well, while the Durbin-Watson statistic of 1.138879 showed no autocorrelation. The regression equation that resulted showed that the ROA of commercial banks would be 0.9999 if AQ, BL, IRS, CAR, DG, and BS were all maintained constant at zero. The regression results provided insight into the relationship between changes in ROA and one unit change in the independent variables. Finally, a Hausman test p-value of 0.71 indicated that the Random Effect model was more appropriate than the Fixed Effect model.

Review of Previous Research Works

Numerous thesis research completed by prior students have been examined throughout this investigation. Some of them have been researched and are pertinent to our investigation. Here is how they are displayed:

A Study on Credit Risk Management of Standard Chartered Bank Nepal Limited and Rastriya Banijya Bank was the title of Dhakal's (2011) investigation. The primary goals were: The purpose of this study is to determine the current and projected growth of the bank's nonperforming loan, total loan, and loan loss provision. Both banks' NPL to total loan and advance ratios are trending downward, which is a positive indication of their credit management. Results showed that RBBL has the lowest percentage of non-performing loans compared to total loans and advances. The ratio of EBL's loans and advances to current assets is trending upward. RBBL's mean ratio is higher than EBL's. EBL has a higher average interest expense to total expense ratio. RBBL has low interest expenses to total expenses ratio, it shows that decrease in cost of deposit as decrease in the interest expenses to total expenses ratio decrease.

Lama (2013) conducted a study on Nabil Bank Limited's deposit and investment mobilization. The major objective of the study is to analyze the deposit and investment position of NABIL bank. Main Objectives were: To explore the deposit and investment trend of NABIL. To assess the impact of interest rate on deposit collection by the NABIL. To examine the relationship between deposit and investment of NABIL. To compare the performance of deposit and investment of NABIL. The results showed that while call and fixed deposits showed an increasing trend over the study period, current, savings, and margin deposits showed a fluctuating trend. With the exception of FY 2066/067, the fixed deposit to total deposit ratio is trending upward. The FY 2066/067 had the greatest FD to TD ratio at 33.99%, while the FY 2062/063 had the lowest ratio at 17.83%. The mean value of CD to TD, SD to TD and FD to TD are 20.90, 54.95 and 15.90 respectively while standard deviation is 4.15, 11.55 and 6.99 correspondingly.

With reference to NABIL Bank, Rana (2015) conducted research on the subject of credit management in Nepalese commercial banks. The study's goal is to investigate the connection between the total amount of deposits and the total amount of credit that Nabil has extended. to investigate Nabil Bank's deposit credit. to compare the performance of Nabil's investments and credit, as well as to observe how the interest rate of the loan affects the credit that Nabil Bank extends. According to the research, the banks' appeal for savings deposits appears to be enough. However, its percentage increase during the study period is not steady. It keeps rising toward the end of the research time. The percentage changes for all loan kinds are trending upward. However, it fluctuates a bit near the end of the research period. The bank's attractiveness to the credit amount is satisfying when the credit amount changes by a percentage. Based on a 15-year review, the growth ratio of Nabil's total deposit is 13.48%. It indicates that the bank can sustain a growth rate of 13.48%. This ratio measures the capacity of the bank to maintain the percentage of total deposit. Since the growth ratio of total deposit is 13.48%, the bank must improve its deposit collection in high growth ratio. Likewise, the overall credit growth ratio is 17%. Therefore, the bank appears to be well-positioned to grow total credit faster than the growth rate of total deposits.

The following goals and key conclusions were reached by Shrestha (2016), a study on the subject of Comparative Credit Management of Nepalese Commercial Banks (with reference to RBBL and BOK): to assess Nepalese commercial banks' credit management

productivity. To examine the amount of non-performing loan investments in the banking sector; to examine how commercial banks use loans in various industries. As instructed by the NRB, both commercial banks have maintained a satisfactory CRR ratio over 5.0%.

RBBL and BOK have greater percentages that remain idle in their account. The idle capital might be used to make investments in sectors that yield significant returns. Both banks' non-performing loan to total loan ratios are satisfactory and trending downward. In light of this, there are no foreign financial institutions operating in the Nepalese market. They must, however, work harder to maintain this ratio at a very low level. Thesis work of Pant (2017) was named Credit Management of Commercial Banks in Nepal. To learn about commercial banks' deposits and credit. to calculate the relative production of several loan and advance kinds. Throughout the research period, the return on assets ratios appear to have been uneven and varied, as seen by their shifting trend and mean ratio. The ratios of advances to returns on loans are trending upward. The ratio appears to be more stable and less fluctuating.

Shah (2018) conducted a study on the subject of Commercial Bank Credit Management (With Particular Reference to NIBL and HBL Bank Ltd). to investigate how the deposit status affects credit behavior. to assess the credit performance of investments, loans, and advances. To calculate the growth propensity using trend analysis.The ratios of total investments to total deposits showed a pattern of fluctuation. The F/Y 2017–18 ratio for NIBL was the greatest at 21.42%, while the F/Y 2014–15 ratio was the lowest at 14.81%. The loan and advances to total deposit ratio are in shifting trend. In the fiscal year 2014–15, HBL's ratio was at its greatest (77.14%), while in the fiscal year 2017–18, it was at its lowest (70.07%). The trend of HBL and NIBL's non-performing loans and advances is erratic. HBL and NIBL have mean ratios of 3.04% and 1.76%, respectively. Compared to HBL, NIBL has the lowest mean ratio.

Liquidity and Credit Management Practices of Commercial Banks in Nepal: A Comparative Study with Reference to Nepal Investment Bank Ltd. and Himalayan Bank Ltd. is the title of Gurung's (2019) thesis. to examine the pattern of liquid assets held by the chosen banks. to assess the commercial banks' maintained cash reserve ratio. to evaluate the advances and credit offered by commercial banks. to determine the chosen banks' credit administration's strong and weak points. Compared to NIBL, HBL's current

ratio is marginally higher. This suggests that HBL is better able than NIBL to fulfill its obligations that are due in a year. NIBL has consistently maintained a CRR that is marginally greater than what the NRB requires.

Because of this, NIBL has greater CRR values than HBL. The larger NIBL SD suggests that higher CRR is invariably associated with increased risk, which lowers bank profitability. The higher ratios of cash and bank balance to current assets and cash balance to current liabilities further indicate that NIBL is better equipped to satisfy its obligations and meet its cash demand as needed.

Ahmadu et al., (2019) Credit Risk Management and Financial Performance of Quoted Deposit Money Banks in Nigeria. Using data from the annual reports and financial statements of ten listed deposit money banks in Nigeria over a seven-year period from 2010 to 2016, this study examined the impact of credit risk management on financial performance. Ex-post factor and longitudinal research strategies were used to conduct the study. The data was presented using descriptive statistics, and the impact of credit risk management variables such as the capital adequacy ratio (CAR), non-performing loans ratio (NPLR), cost-to-income ratio (CIR), return on asset (ROA), liquidity ratio (LR), and loans-to-deposit ratio (LDR) on the financial performance as measured by return on equity (ROE) was evaluated using a fixed effects panel estimator. While NPLR, CIR, and LR have no discernible influence on the financial performance as assessed by ROE, regression findings from the fixed effects model (FEM) show that CAR, ROA, and LDR have a positive and substantial impact on the financial performance. In light of this finding, it is advised that banks that have not yet complied with the Central Bank of Nigeria's (CBN) minimum 10% CAR for domestic banks and 15% for foreign banks do so, or even exceed it, in order to boost shareholder wealth as indicated by ROE.

Chhetri (2021) Credit Risk Management's Impact on Nepalese Commercial Banks' Financial Performance. This study's primary goal is to look at how credit risk affects Nepal's commercial banks' financial performance. Analysis has been done on the panel data of seventeen commercial banks with 85 observations from 2015 to 2020. Financial performance (ROA) is negatively and statistically significantly impacted by non-performing loans (NPLR), according to the regression model. Financial performance (ROA) is negatively and statistically not significantly impacted by the capital adequacy

ratio (CAR) and bank size (BS). The study found that the management quality ratio (MQR) has a positive and significant association with the financial performance (ROA) of Nepal's commercial banks, whereas credit to deposit (CDR) has a positive but non-significant relationship with ROA. In order to secure as many assets as possible and reduce the high rate of non-performing loans and their detrimental effects on financial performance, the study suggests that Nepalese commercial banks implement scientific credit risk management. They should also increase their effectiveness in credit analysis and loan management.

2.3 Research Gap

Despite the fact that there have been many research on credit management in Nepalese commercial banks, the majority have mostly depended on conventional financial instruments including hypothesis testing, regression analysis, and ratio analysis. Similar to Rana (2015), Shrestha (2016), and Pant (2017), these studies usually only looked at one or two banks and mainly focused on internal financial measures including NPLR, CDR, and CAR. They do not, however, use a comprehensive or comparative approach that incorporates different aspects of credit risk and performance across several institutions. Furthermore, recent events like bank mergers—such as the 2023 merger of Laxmi Bank and Sunrise Bank that might have a big impact on credit risk management and financial results were mostly overlooked in these research.

The underuse of sophisticated statistical tools and the lack of qualitative evaluations represent another significant gap. Human and institutional viewpoints were not considered in the majority of earlier studies as they did not take into account input from bank management, credit officers, or borrowers. Furthermore, contemporary econometric methods like as fixed-effects models, structural equation modeling (SEM), and vector auto regression (VAR), which are crucial for revealing more profound patterns in credit risk management, have not yet been included into Nepalese research. The effects of external macroeconomic variables on banks' lending operations, such as interest rate limitations, NRB rules, or global economic shocks like COVID-19, were also overlooked in studies.

Additionally, there is still a lack of study in crucial areas including sector-wise credit allocation, the integration of credit risk and liquidity, and digital credit risk practices. For example, while some research assessed credit and liquidity separately, few examined their interactions or effects on one another. Similarly, as digital banking services like automated credit scoring and mobile loans proliferate, their effects on credit risk remain poorly understood in the Nepalese context. By using both quantitative techniques and contextual qualitative insights, this study aims to close these important gaps by providing a thorough comparative examination of the credit management procedures of Rastriya Banijya Bank Limited and the recently merged Laxmi Sunrise Bank Limited.

CHAPTER-III
RESEARCH METHODOLOGY

3.1 Research Design

This study was completed effectively by gathering data on the attitudes or behaviors of the banks from both written sources and in-person interviews. Furthermore, the study was carried out in accordance with the laws and regulations of central banks that they enforce for banks. The descriptive and analytical research design is used in this study.

3.2 Population and Sample

Nepal Rastra Bank regulates 107 licensed banks and financial institutions (BFIs) that are active in Nepal as of mid-January 2025. These consist of one infrastructure development bank, twenty commercial banks (Class "A"), seventeen development banks (Class "B"), seventeen financing businesses (Class "C"), and fifty-two microfinance institutions (Class "D"). All 20 of the commercial banks that are currently active in Nepal make up the population for the purposes of this study. However, it is not possible to analyze every commercial bank owing to time and resource restrictions. Rastriya Banijya Bank Limited (RBBL) and Laxmi Sunrise Bank Limited (LSBL) are the only two commercial banks chosen for this study's representative sample. These banks have been selected to carry out a comparative study of credit management procedures in the commercial banking industry of Nepal. There are 20 banks operating in Nepal till this date but for the purpose of the study, all twenty CBS can't be taken because of the time and resource constraint. Therefore, just two of these CBs are chosen as a sample. Here are some examples of banks:

- Rastriya Banijya Bank Limited
- Laxmi Sunrise Bank Limited

3.3 Nature and Sources of Data

The secondary data gathering process has been modified to meet the study's goals. Reports, books, newspapers, journals, and other sources are examples of secondary sources of data. The following are the main sources of secondary data: The LSBL and RBBL annual report. Reports and bulletins from the relevant bank. Articles that appear in

periodicals and newspapers. Additional relevant books, pamphlets, magazines, and journals. Websites of the relevant banks.

3.4 Methods of Data Analysis

The main component of research is the presentation and analysis of the data gathered. To accomplish the study goals, the gathered raw data is first systematically displayed in tabular form before being examined using a variety of statistical and financial methods. Besides some charts and tables have been presented to analyze and interpret the findings of the study.

3.4.1 Financial Tools

The following are some of the statistical and financial instruments that are used: In essence, financial instruments aid in the analysis of a firm's financial strengths and weaknesses. Ratio analysis is a component of the whole process of examining the financial statements of any company or industry, particularly in order to make decisions about credit and production. Companies are compared using ratio analysis.

Ratio Analysis

Financial ratios, or simply ratios, are mathematical expressions of the connection between two accounting figures. The quantitative relationship between any two numbers is expressed by a ratio, which is just one number stated in terms of another. Ratios can be represented as coefficients, percentages, or proportions. Ratio analysis is a method used in the entire process of analyzing the financial statements of any industrial company, particularly when making choices about credit and production. This method allows for the comparison of various statistics pertaining to various aspects of a business unit.

Ratio analysis assesses the economics and financial health of a company concern in the same way that blood pressure, pulse, and temperature are indicators of an individual's health. Ratio analysis is therefore a very important technique for researching the financial stability, liquidity, profitability, and management quality of business and industrial concerns (Kothari, 1994).

Regarding the financial ratio, a ratio between two pertinent data that establish a certain relationship and show either a positive or negative correlation between them will only be

the subject of research. Because comparing two incomparable figures and their ratios merely results in a ridiculous figure and provides no insight or analysis. The following subsections comprise this section.

Total Investment to Total Deposit Ratio

By investing its funds in various securities issued by the government and other financial and non-financial firms, a commercial bank can mobilize its deposit. The degree to which the banks are successful in mobilizing the entire deposit on investment has been attempted to be measured. The success of mobilizing banking funds as investments is indicated by a high ratio, and vice versa.

$$\text{Total Investment to Total Deposit Ratio} = \frac{\text{Total Investment}}{\text{Total Deposit}} \times 100$$

Total credit to Total Deposit Ratio

One of the main credits created to produce money is investment. It suggests that the company's deposit be used for loans and advances as well as investments in government securities. This ratio is obtained by dividing total credit by total deposit as expressed below.

$$\text{Total credit to Total Deposit Ratio} = \frac{\text{Total Credit}}{\text{Total Deposit}} \times 100$$

Loans and advances to Total deposit Ratio

Loans, advances, the purchase of bills, and reduced bills make up loans and advances. The first part, Loans and Advances is more crucial and also bears more risk than Investments but also gives the higher return. It is computed using the following formula:

$$\text{Loan and advanced to total deposit ratio} = \frac{\text{Loan and advance}}{\text{Total Deposit}} \times 100$$

Non-performing Loan to Total Loan and advances Ratio

One of the increasing issues facing Nepal's loan-granting institutions is non-performing loans. Since a few years ago, non-performing loans have become a significant problem for the banking industry due to the borrower's unfair intentions and the regular occurrence of political and economic crises. With the exception of excellent loans, non-performing loans include advances and loans.

$$\text{NPL to Total Loan \& advances Ratio} = \frac{\text{Non-performing Loan}}{\text{Total Loan and Advance}} \times 100$$

Loan Loss Provision to Loan and Advance Ratio

Loan Loss Provision displays the total amount of provisions made against all loan kinds in accordance with NRB guidelines. Pass loans, substandard loans, dubious loans, and loss loans are among the provisions that are shown in the profit and loss account that unquestionably reduce the company's earnings. The greater the loan loss provision, the more likely it is that there will be a loss loan or a larger total loan. It does obtain a significant amount of the overall Loan Loss Provision since, in accordance with the NRB instructions, 1% provision must be made for all good loans as well. Thus, just by looking at mere Loan Loss Provision it cannot be said if the company has all good loans or voluminous bad loans.

$$\text{Loan Loss Provision to Loan \& Advance} = \frac{\text{Loan Loss Provision}}{\text{Loan and Advance}} \times 100$$

Interest Income to Interest Expenses Ratio

The difference in interest rates charged and offered was calculated using the interest income to interest expenses ratio. The primary source of the bank's profit is the difference between interest revenue and costs. NRB had restrictions on the interest rate spread of the commercial banks.

$$\text{Interest Income to Interest Expenses Ratio} = \frac{\text{Interest Income}}{\text{Interest Expenses}} \times 100$$

3.4.2 Statistical Tools

The mathematical methodology known as statistical methods is employed to make it easier to analyze and comprehend numerical data obtained from groups of people or from groups of observations made by a single person. The figures give a thorough explanation, tabulate, and analyze data objectively and without bias. Complex and difficult topics may be examined in a fairly straightforward manner, and the conclusions can be presented in clear, concise terms. Complex data in the form of tables and figures can be created from abstract problems. The following statistical methods were employed in this study to examine the data that was gathered:

Correlation Coefficient

A statistical method used to quantify the strength of the relationship between two or more variables is correlation. In other words, when two variables are used to evaluate their relationship, it is termed simple correlation. If changes in one of the variables have an

impact on changes in the other, then the variables are said to be co-related. The degree of link between two sets of figures is measured by the coefficient of correlation. Karl Pearson's approach is used in the study among the several ways to determine the coefficient of correlation. The result of coefficient of correlation is always lie between +1 and -1.The formula for the calculation of coefficient of correlation between X and Y is given below.

$$r = \frac{N\sum XY - \sum X \sum Y}{\sqrt{N\sum X^2 - (\sum X)^2}\sqrt{N\sum Y^2 - (\sum Y)^2}}$$

Where,

X= Value of variable i.e. long term debt, total debt

Y= Value of variable i.e. EPS, Net Profit and Total equity

N = no of observation in series X and Y

$\sum X$ = Sum of observation in series X

$\sum Y$ = Sum of observation in series Y

$\sum X^2$ = Sum of square observation in series X

$\sum Y^2$ = Sum of square observation in series Y

$\sum XY$ = Sum of the product of observation in series X and Y

Standard Deviation (S.D.)

Dispersion is the measurement of the mass scatterings of figures in a series around an average. The absolute dispersion is measured by the standard deviation. The standard deviation increases with the degree of dispersion. indicates both a high level of homogeneity in the series and a high degree of consistency in the observations; a high standard deviation indicates the exact opposite. The standard deviation of various ratios in this study is computed as follows:

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(X - \bar{X})^2}{N}}$$

Coefficient of Variation

The coefficient of variation (C.V.) is the coefficient of dispersion based on standard deviation times 100. The uniformity will increase with decreasing CV and decrease with increasing CV. If x be the arithmetic mean and s.d the standard deviation of the distribution, then the C.V. is defined by,

$$\text{Coefficient of Variation } (C.V.) = \frac{\sigma \text{ x } 100}{\bar{X}}$$

Where,

σ = Standard Deviation

$\bar{X}$ = Mean

t- Statistics

In 1908, W.S. Grosset (pen name Student) created it. Then, R.A. Fisher explains this distribution. The t-test is used to evaluate the study's assumptions for small samples. The t-values are computed first and compared with the crucial values at a particular level of significance for a specific degree of freedom in order to apply the t distribution. The difference is considered significant at the five percent significance level if the calculated value of t is more than the table value (let's say t 0.05). However, if t-values are less than the corresponding critical of the't' distribution, the difference is not considered significant. The t statistic under H0 is:

$$t = r\sqrt{\frac{n-2}{1-r^2}}$$

Where,

t = value of calculated t

r = value of correlation coefficient

n= no of observations

CHAPTER-IV
DATA PRESENTATION AND ANALYSIS

Data gathering analysis and presentation are covered in this chapter. An analysis of commercial banks' credit management has been attempted in this chapter. The section The study's primary focus is the presentation and analysis of data. The purpose of this chapter is to analyze and elucidate the collected data to achieve the objective of the study following conversion of unprocessed data to an understandable presentation. In this course of analysis, data gathered from various sources have been inserted in the tabular form and shown in diagram form. The data have been analyzed by using financial and statistical tools. The results of the computation have also been summarized in appropriated tables. The samples of computation of each model have been included in annexes.

4.1 Analysis of Deposit and Investment

For varying lengths of time, members of the public deposit money in banks. Depending on the length of time, the interest varies. The greater the length of deposition, the more attention they acquire. For instance, deposits made into current accounts do not accrue interest, but deposits made into savings and fixed accounts do. The sum that savers maintain in commercial banks and other financial institutions for safekeeping without any obligations in order to earn interest is known as a deposit. The primary sources of resources to satisfy the rising needs of financial existence are deposits. In essence, the mobilization of deposits is what keeps commercial banks afloat. It is significant that the deposit policy of a commercial bank is the fundamental policy that underpins its existence. The growth of a bank's deposits is the main factor influencing its expansion. When commercial banks have sufficient deposits, they may operate effectively. A larger deposit volume will translate into more lending and investment, which in turn generates a larger profit volume.

4.1.1 Analysis of Deposit Position

Such deposits are desperately needed in emerging nations. As the middleman, banks take this kind of money and assist in directing it toward the productive sector. LSBL and RBBL provide banking services to the general public and makes more contribution in the

economic development of the country. One of the bank's primary functions is deposit collecting.

Table: 3

Analysis of Total Deposit and Investment LSBL and RBBL

(Rs. In Millions)

Investment		**Total Deposit**	**Ratio %**	**Investment**	**Total Deposit**	**Ratio %**
2014/15	2106	11179	18.84	2780	18245	15.24
2015/16	3848	17789	21.63	2798	21093	13.27
2016/17	3716	24874	14.94	5808	19835	29.28
2017/18	7744	34045	22.75	4512	42143	10.71
2018/19	10652	46344	22.98	5827	60940	9.56
2019/20	9097	57754	15.75	5924	52145	11.36
2020/21	13142	79139	16.61	6124	50212	12.20
2021/22	16981	92140	18.43	46125	81124	56.86
2022/23	18702	109922	17.01	105488	128740	81.94
2023/24	24800	130882	18.95	128740	164850	78.10
Mean			**18.7890**			**31.8500**
S.D.			**2.8570**			**29.1562**
C.V.			**1520.59%**			**9154.22%**

Source: Annual Reports, 2014/15 to 2023/24

The total investment to total deposit ratios for both banks are exhibiting a shifting tendency, as seen in Table 3. In 2014–15, LSBL invested a total of 2106, and in 2022–2023 it invested 24800. Total Deposit: From 11179 in 2014–15 to 130882 in 2022–23, LSBL's total deposit varied. This ratio changed over the years, with a mean of roughly 18.79%. The investment to total deposit ratio has a standard deviation of around 2.8570. The investment to total deposit ratio exhibits notable fluctuation, as seen by the extremely high coefficient of variation for LSBL. In 2014/15, RBBL invested a total of 2780, and in 2022–2023 it invested 128740.

Between 2014–15 and 2022–23, RBBL's total deposit varied from 18245 to 164850. With a mean of around 31.85%, this ratio likewise varied throughout time. For RBBL, the investment to total deposit ratio's standard deviation is roughly 29.1562. Significant unpredictability in the investment to total deposit ratio is indicated by RBBL's also extremely high coefficient of variation. Over time, both organizations' investment to total deposit percentages have fluctuated. In comparison to LSBL, RBBL typically has a higher mean investment to total deposit ratio. The large coefficients of variation for both organizations show that their investment to total deposit ratios are very variable. This analysis provides insight into the investment strategies of LSBL and RBBL over the specified period.

4.1.2 Analysis of Credit Position

The loan, advance, and investment make up the entire credit. The total amount of money owed by the borrower is known as the loan. The simplest definition of investment is the giving up of present consumption for future consumption with the aim of increasing future wealth. If the interest rate is lower, the general public is more inclined to take out bank loans and advances. The bank lends money to the general population for a variety of uses, including business, trade, and industry.

Table: 4

Credit Position of LSBL &RBBL

(Rs. in millions)

Year	Loan& Advance (a)	Investment (b)	Total Credit (a+b)	Loan& Advance (a)	Investment (b)	Total Credit (a+b)
2014/15	9532	2106	11638	10102	2780	12882
2015/16	15093	3848	18941	14791	2798	17589
2016/17	20371	3716	24087	10884	5808	16692
2017/18	28264	7744	36008	27726	4512	32238
2018/19	40455	10652	51107	43909	5827	49736
2019/20	51265	9097	60362	45254	5924	51178
2020/21	69243	13142	82385	52145	6124	58269
2021/22	83439	16981	100420	78956	46125	125081
2022/23	93695	18702	112397	88797	105488	194285
2023/24	123165	24800	147965	102910	128740	231650

Source: Annual Reports, 2014/15 to 2023/24

Table 4 shows the overall loan & advance, investment and credit position of LSBL and RBBL. Over time, both LSBL and RBBL have seen an upward trend in total credit. Particularly in later years, LSBL typically has a larger total credit than RBBL. RBBL's

total credit grew significantly in 2022–2023 and 2023–2024, most likely as a result of a large rise in investment. Over the years, LSBL's total credit has continuously exceeded RBBL's. An overview of LSBL and RBBL's credit positions is given by this study, which also shows their investment portfolios and loan and advance activity throughout the given time frame.

4.1.3 Ratio Analysis

Financial statements provide information on a company's operations throughout a specific time period as well as its status at a given moment in time. The ability to forecast future revenues and dividends, however, is what gives financial statements their true worth. From the perspective of an investor, financial statement analysis is primarily useful for forecasting future events; however, from the perspective of management, it is also helpful for anticipating future conditions and, more importantly, for serving as a foundation for planning actions that will enhance the firm's performance in the future.

Loans and advances to Total deposit Ratio

This ratio assesses whether a bank is successful in managing all of its deposits on loans and advances in order to generate revenue. Better mobilization of collected deposits is indicated by a high ratio, and vice versa. However, it should be mentioned that from a liquidity perspective, a ratio that is excessively high would not be preferable. Loans, advances, the purchase of bills, and reduced bills make up loans and advances. These are the main areas where funds are raised. Loans and advances, the first section, are more important and carry a bigger risk than investments, but they also yield a higher return. Whereas, the second half, Investments has lesser risk and gives lower return in compare to Loans and Advances. The ratio of loans, advances, and investments to total deposits shows the firm's gross fund mobilization capacity. It is computed using the following formula:

Table: 5

Loan and Advanced to Total Deposit Ratio LSBL and RBBL

(Rs. In Millions)

	Loan and advances	Total deposit	%	Loan and advances	Total deposit	%
2014/15	9532	11179	85.27	10102	18245	55.37
2015/16	15093	17789	84.84	14791	21093	70.12
2016/17	20371	24874	81.90	10884	19835	54.87
2017/18	28264	34045	83.02	27726	42143	65.79
2018/19	40455	46344	87.29	43909	60940	72.05
2019/20	51265	57754	88.76	45254	52145	86.78
2020/21	69243	79139	87.50	52145	50212	103.85
2021/22	83439	92140	90.56	78956	81124	97.33
2022/23	93695	109922	85.24	88797	128740	68.97
2023/24	123165	130882	94.10	102910	164850	62.43
	Mean		**86.8479**			**73.7570**
	S.D.		**3.63578**			**16.8538**
	C.V.		**418.64%**			**2285.05%**

Source: Annual Reports, 2014/15 to 2023/24

The loan and advances to total deposit ratios for both banks are showing a tendency of fluctuation, as shown in Table 5. The typical LDR for LSBL is around 86.85%. With a relatively low standard deviation, the variation in LSBL's LDR around the mean is moderate. However, the coefficient of variation indicates a high relative variability, suggesting that while LSBL's mean LDR is high, it fluctuates significantly over time. RBBL's mean LDR is approximately 73.76%. However, the standard deviation is considerably higher compared to LSBL, indicating a much greater variability in RBBL's LDR over time.

This aspect is further highlighted by the coefficient of variation, which indicates a very large relative fluctuation in RBBL's LDR. Both banks are actively using their deposits to extend loans and advances, as evidenced by their generally high LDRs. As seen by its smaller standard deviation and coefficient of variation, LSBL exhibits greater stability in

its LDR over time as compared to RBBL. In contrast, RBBL shows a significantly greater range of LDR values and greater volatility, which may indicate changes in its risk exposure and lending practices. Although the LDRs of both banks are high, LSBL seems to lend more consistently. Procedures over time in contrast to RBBL, which has a loan-to-deposit ratio that fluctuates more. The aforementioned study leads us to the conclusion that, while being less reliable than LSBL, RBBL is the most successful in mobilizing its whole deposit as loans and advances and earning large profits. However, from a liquidity perspective, a high percentage is not preferable because loans and advances are less liquid than cash and bank balance.

Non-Performing Loan to Total Loan and Advances Ratio

The bank's credit risk is gauged by the ratio of non-performing loans to total loans. The sustainability of the bank may be at risk because a higher ratio denotes a higher coverage of non-performing loans on total loans and, consequently, a higher credit risk.With the exception of excellent loans, non-performing loans include advances and loans. It is that aspect of loans and advances that has to be carefully considered in order to remember to make the repayments on time.

Table: 6

Non-Performing Loan to Total Loan and Advances Ratio LSBL and RBBL

(Rs. in Millions)

Year	**NPL**	**Loan and Advance**	**Ratio %**	**NPL**	**Loan and Advance**	**Ratio %**
2014/15	46.14	9532	0.48	9542	10102	94.46
2015/16	15244.04	15093	101.00	14704	14791	99.41
2016/17	20616.82	20371	101.21	10397	10884	95.53
2017/18	20.82	28264	0.07	2174	27726	7.84
2018/19	7.64	40455	0.02	4256	43909	9.69
2019/20	125.2	51265	0.24	5874	45254	12.98
2020/21	98.5	69243	0.14	54258	52145	104.05
2021/22	52.3	83439	0.06	65245	78956	82.63
2022/23	1212.2	93695	1.29	95421	88797	107.46
2023/24	51.23	123165	0.04	75485	102910	73.35
	Mean		**20.4569**			**68.7405**
	S.D.		**42.5064**			**41.6126**
	C.V.		**20778.54%**			**6053.58%**

Source: Annual Reports, 2014/15 to 2023/24

The non-performing loan to loan and advance ratios for LSBL and RBBL exhibit a pattern of fluctuation, as seen in Table 6. The proportion of non-performing loans (NPL) in both LSBL's and RBBL's overall loan and advance portfolio over a number of years. The average proportion of non-performing loans for LSBL is around 20.46%, with a standard deviation of roughly 42.51%. The mean proportion of non-performing loans for RBBL, on the other hand, is significantly higher at around 68.74%, with a standard deviation of roughly 41.61%. With RBBL showing a noticeably larger average proportion of non-performing loans than LSBL, these figures show notable variation in the performance of loans within each institution's portfolio.

The degree of this variability is further demonstrated by the coefficient of variation (C.V.), which is very high for LSBL at around 20,778.54% and equally significant for RBBL at roughly 6,053.58%. This high degree of variability indicates that each institution's loan portfolio's performance varies greatly over time.

Effective management and mitigation of non-performing loans may be hampered by the high mean, significant standard deviation, and C.V. for both banks. To reduce non-performing loans and preserve the stability and profitability of their loan portfolios, LSBL and RBBL should both put strong risk management plans and rigorous credit evaluation processes into place.

Loan Loss Provision Ratio to Total Loan & Advances

The quality of assets held by a bank is described by the loan loss provision to total loan and advances. The general loan loss provision is the amount shown on the balance sheet. The growing likelihood of non-performing loans is reflected in the loan loss provision. Although the increase in loan loss provision lowers earnings and, consequently, dividend payments, it has the beneficial effect of fortifying banks' financial standing by reducing deposit-related credit risks. Therefore, it may be claimed that banks suffer from it in the short term, but that long-term success and increased earnings will arise from sound financial circumstances and loan safety.

In the overall number of loans and advances, a low ratio denotes high-quality assets, whereas a large ratio denotes assets with higher risk. Loan loss provision is divided by

loan and advances to get this percentage. The following table has been used to present the loan loss provision to loan and advances ratio:

Table: 7

Loan Loss Provision to Total Loan & Advance LSBL and RBBL

(Rs. in Millions)

	Loan loss provision	**Loan & Advances**	**Ratio %**	**Loan loss provision**	**Loan & Advances**	**Ratio %**
2014/15	6.49	9532	0.07	96.25	10102	0.95
2015/16	155.1	15093	1.03	180.27	14791	1.22
2016/17	246.7	20371	1.21	150.83	10884	1.39
2017/18	324.07	28264	1.15	265.19	27726	0.96
2018/19	443.78	40455	1.10	415.48	43909	0.95
2019/20	418.3	51265	0.82	551.25	45254	1.22
2020/21	807.3	69243	1.17	689.11	52145	1.32
2021/22	1003	83439	1.20	122.71	78956	0.16
2022/23	452	93695	0.48	989.51	88797	1.11
2023/24	542.1	123165	0.44	1511.24	102910	1.47
	Mean		**0.8657**			**1.0738**
	S.D.		**0.4011**			**0.3721**
	C.V.		**46.33%**			**34.65%**

Source: Annual Reports, 2014/15 to 2023/24

The LSBL's ratios are showing a pattern of fluctuation, as seen in table 7. With a standard deviation of around 0.40%, the mean ratio of loan loss provision to total loans and advances for LSBL is roughly 0.87%. Conversely, for RBBL, the mean ratio is slightly higher at around 1.07%, with a standard deviation of approximately 0.37%. These figures indicate the proportion of funds set aside by each bank to cover potential losses arising from non-performing loans relative to their total loan and advance portfolios. A higher ratio suggests a more conservative approach in provisioning for potential losses.

The variability in this ratio is shown by the coefficient of variation (C.V.), which is roughly 46.33% for LSBL and 34.65% for RBBL. This suggests that LSBL's loan loss provision to total loan and advance ratio is more variable than RBBL's. Given that it reserves a larger percentage of its loan portfolio for possible losses, RBBL's comparatively higher mean ratio might suggest a more cautious approach to risk management. On the other hand, LSBL's lower mean ratio indicates a relatively less cautious approach to loan loss provisioning.

To preserve financial stability and lessen the effect of any loan defaults on their balance sheets, both banks should make sure that their loan loss provisioning procedures comply with legal requirements and industry best practices. Additionally, in order to react to shifting credit risk profiles and economic situations, loan loss provisions may need to be continuously monitored and adjusted.

Interest Income to Interest Expenses Ratio

The difference in interest rates charged and offered was calculated using the interest income to interest expenses ratio. The primary source of the bank's profit is the difference between interest revenue and costs. The commercial banks' interest rate spread was subject to NRB limitations. No more than five percent should be charged or provided in interest. Commercial banks are allowed to set their own interest rates for loans and deposits. Local newspapers should publish interest rates on all deposits and loans, and the NRB should be informed of any changes on a quarterly basis. Deviation of 0.5 percent from the quoted rate is permitted on all forms of loans and deposit. However with the new Financial Ordinance 2068 it has again empowered NRB to intervene in rate fixation but it does not specify the conditions that would oblige NRB to do so.

Table: 8

Interest Income to Interest Expenses Ratio LSBL and RBBL

(Rs. in millions)

Year	Interest Expenses	Interest Income	Ratio %	Interest Expenses	Interest Income	Ratio %
2014/15	754	1173	64.28	958	1854	51.67
2015/16	1023	1678	60.97	1286	2302	55.86
2016/17	1199	2018	59.42	1135	1865	60.86
2017/18	1405	2544	55.23	1270	2814	45.13
2018/19	1540	3262	47.21	1622	3590	45.18
2019/20	2795	5044	55.41	5426	8244	65.82
2020/21	5090	8129	62.62	6366	10765	59.14
2021/22	6547	10770	60.79	7985	10256	77.86
2022/23	7275	11484	63.35	6366	10765	59.14
2023/24	6237	10762	57.95	7276	11797	61.68
	Mean		**58.7218**			**58.2330**
	S.D.		**5.0937**			**9.7392**
	C.V.		**8.67%**			**16.72%**

Source: Annual Reports, 2014/15 to 2023/24

As can be seen in Table 8, both banks' interest revenue to interest expenditure ratios are trending in different directions. A crucial financial indicator for evaluating the effectiveness and profitability of a bank's lending and investment operations is the interest income to interest expenses ratio, sometimes referred to as the net interest margin (NIM). The capacity of the bank to make money from its interest-earning assets while controlling the cost of financing is shown by the percentage of interest revenue received compared to interest expenditures expended.

With a standard deviation of around 5.09%, the mean Interest Income to Interest Expenses Ratio for LSBL is roughly 58.72%. With a standard deviation of around 9.74%, the mean ratio for RBBL is somewhat lower at about 58.23%. In general, a higher ratio is better for profitability because it shows that the bank is making more money from its interest-earning assets than it is spending on interest. A smaller ratio, on the other hand,

indicates that the bank's interest costs are comparatively high in relation to its interest revenue, which might have an effect on profitability. The relative variability of the ratio is measured by the coefficient of variation (C.V.), and LSBL shows a C.V. of around 8.67%, whereas RBBL has a higher C.V. of roughly 16.72%. This suggests that RBBL's interest income to interest expenses ratio is more variable than LSBL's. For banks to maintain profitability and fund their operating activities, the interest income to interest expense ratio is crucial.

Banks may aim to optimize this ratio by effectively managing their interest rate spreads, loan pricing strategies, and funding sources to maximize interest income while controlling interest expenses. Banks may evaluate their financial performance and make well-informed decisions to increase profitability and efficiency by tracking this ratio over time.

4.1.4 Credit Deposit Ratio

The loan, advance, and investment make up the entire credit. The two main methods that banks invest their deposits are (i) giving their customers loans and advances at a certain interest rate, and (ii) investing the money they have deposited in various investable sectors. One of the primary sources of income for banks is interest from loans and advances. The success of the banks in mobilizing the total deposits on investment plus loans and advances for the goal of profit production is really measured by this ratio. Preferable mobilization of collected deposits is indicated by a high ratio of total credit to total deposit, and vice versa; nevertheless, a greater ratio may not necessarily be preferable from the perspective of liquidity. The investment, loan, and advance amounts are divided by the total number of deposits to arrive at this percentage.

Table: 9

Calculation of CD Ratio LSBL and RBBL (Rs. in Millions)

Fiscal Year	Total Credit	Total Deposit	Ratio %	Total Credit	Total Deposit	Ratio %
2014/15	11638	11179	104.11	12882	18245	70.61
2015/16	18941	17789	106.48	17589	21093	83.39
2016/17	24087	24874	96.84	16692	19835	84.15
2017/18	36008	34045	105.77	32238	42143	76.50
2018/19	51107	46344	110.28	49736	60940	81.61
2019/20	60362	57754	104.52	51178	52145	98.15
2020/21	82385	79139	104.10	58269	50212	116.05
2021/22	100420	92140	108.99	125081	81124	154.18
2022/23	112397	109922	102.25	194285	128740	150.91
2023/24	147965	130882	113.05	231650	164850	140.52
	Mean		**105.6369**			**105.6070**
	S.D.		**4.5134**			**32.3147**
	C.V.		**4.27%**			**30.60%**

Source: Annual Reports, 2014/15 to 2023/24

The ratio of total credit to total deposit is displayed in table 9. A key financial metric that quantifies the percentage of a bank's total loans and advances to its total deposits is the credit-deposit (CD) ratio. It gives information about how well a bank uses its deposits to provide credit and boost the economy. A lower CD ratio denotes a more cautious lending strategy, whereas a higher ratio shows that more money is being lent out relative to the deposits received. The LSBL and RBBL CD ratios, as well as their corresponding means, standard deviations, and coefficients of variation (C.V.), are computed annually. The CD ratio sheds light on banks' lending practices and liquidity situation. While lower ratios could point to a more cautious strategy with sufficient liquidity buffers, higher ratios imply aggressive lending practices. For evaluating risk and stability in banking operations, the standard deviation and coefficient of variation show how the CD ratio varies over time.

Growth Ratio Analysis of LSBL

While lower ratios could point to a more cautious strategy with sufficient liquidity buffers, higher ratios imply aggressive lending practices. For evaluating risk and stability in banking operations, the standard deviation and coefficient of variation show how the

CD ratio varies over time.

$D_n = D_0 (1+g)^{n-1}$

Where,

D_n= Total amount in the n^{th} year

D_0= Total amount in the beginning year g = Growth rate

n = Total number of year in the period of study.

In the context of a bank's deposit mobilization, growth ratios may be computed for two components: growth ratios of total deposits and growth ratios of total credit.

Table: 10

Growth Ratio of Total Deposit and Total Credit

Year	**Total Deposit**	**Total Credit**
2014/15	11179	11638
2015/16	17789	18941
2016/17	24874	24087
2017/18	34045	36008
2018/19	46344	51107
2019/20	57754	60362
2020/21	79139	82385
2021/22	92140	100420
2022/23	109922	112397
2023/24	130882	147965
Growth Ratio	**14.85%**	**15.67%**

Source: Annual Reports, 2014/15 to 2023/24

From the table 10 analysis that the growth ratio of deposit of LSBL is only 14.85% under the period of study the growth ratio of credit is 15.67%. It shows that the bank is utilizing the collected deposit as per the growth of total deposit. So, it can be concluded that the bank seems in better condition to increase the growth ration of total credit.

Growth Ratio Analysis of RBBL

A bank's growth ratio indicates how well its financial and economic standing has held up. A bank is performing better if its computed growth ratio is greater; a lower growth ratio denotes poorer performance. The following formula is used to get the growth ratio:

$D_n = D_0 (1+g)^{n-1}$

Where,

D_n= Total amount in the n^{th} year

D_0= Total amount in the beginning year g = Growth rate

n = Total number of year in the period of study.

In a bank's deposit mobilization setting, the growth ratio may be computed for two components: the growth ratio of total deposits and the growth ratio of total credit.

Table: 11

Growth Ratio of Total Deposit and Total Credit

Year	**Total Credit**	**Total Deposit**
2014/15	12882	18245
2015/16	17589	21093
2016/17	16692	19835
2017/18	32238	42143
2018/19	49736	60940
2019/20	51178	52145
2020/21	58269	50212
2021/22	125081	81124
2022/23	194285	128740
2023/24	231650	164850
Growth Ratio	**9.35%**	**8.32%**

Source: Annual Reports, 2014/15 to 2023/24

According to the research in Table 11, the growth ratio of total deposits throughout the study period was 9.35%, which is higher than the growth ratio of total credit, which was 8.32%. It demonstrates how the bank is using the deposits it has received in line with the expansion of its total deposit. Thus, the bank appears to be in a stronger position to raise the growth ratio of total credit.

4.1.5 Correlation Analysis

To find out the correlation between two continuous variables, Karl Pearson's- efficient of correlation (r) is used. The coefficient of determination, represented by r2, is one of the most practical and helpful methods for evaluating the value of the coefficient of correlation (r) between the two variables. It explains how the independent variable accounts for all of the variation in the dependent variable. The "t" test is used to determine whether the coefficient of correlation (r) is significant. If calculated 't' is less than or equal to tabulated value of 't' it falls in the accepted region and null hypothesis is accepted or 'r' is not significant, if calculated 't' is greater than tabulated 't' null hypothesis is rejected or 'r' is significant of correlation in the population.

Correlation between Deposit and Investment

Total Deposit and Investment is the independent variable (X1), and P is the dependent variable (X2). The coefficient of correlation quantifies the strength of the relationship between two variables. The computation's goal is to determine if the total deposit and investment are moving in the same or different directions.

Table: 12

Correlation between Deposit& Investment

Name of the Company	Correlation (r)	r^2	t-Value Calculated	Tabulated	Result
LSBL		0.9944	23.09	2.201	Significant
RBBL	0.9837	0.9677	9.47	2.201	Significant

(Source: SPSS)

The above table 12 describes the relationship between total deposit and investment of LSBL and RBBL, during the period of the study the coefficient of correlation (r) between total deposit and investment are 0.9972 and 0.9837 respectively. The above table shows the positive association between total deposit and investment. It means total deposit and investment both move towards same direction. The coefficient of determination (r2) are 0.9944 and 0.9677 of LSBL and RBBL respectively. It shows that 99.44% and 96.77% of the variation in the dependent variable (i.e. deposit) is explained by the independent variable (i.e. investment).

The real value of "r" is important for both banks as the computed value of "t" is more than the tabular value of "t" (i.e., 23.09 and 9.47 are > 2.201). It shows that the total deposit and investment have a substantial relationship.

Correlation between Loan & Advances and Deposit

The degree of association between two variables is measured by the correlation coefficient between total deposits, loans, and advances. Total deposits (X1) and loans and advances (X2) are the independent and dependent variables, respectively, in our research. Determining whether or not total deposits are significantly used as loans and advances in the right way is the primary goal of computing "r" between these two variables. The value of "r, r2" between the total deposits, loans, and advances of LSBL and RBBL throughout the study period is displayed in the following table.

Table: 13

Correlation between loan & advances and deposit

Name of the Company	Correlation (r)	r^2	t-Value Calculated	Tabulated	Result
LSBL	0.9923	0.9847	13.88	2.201	Insignificant
RBBL	0.9708	0.9424	6.99	2.201	Insignificant

(Source: SPSS)

The link between LSBL & RBBL's total deposits, loans, and advances is seen in table 13 above. The correlation coefficient (r) between LSBL's total deposits and loans and advances is 0.9923, while RBBL's is 0.9708. Both banks have respective coefficients of determination (r2) of 0.9847 and 0.9424. It demonstrates that the independent variable (loan and advance) accounts for 98.47% and 94.24% of the variation in the dependent variable (deposit). The real value of "r" is important for both banks as the computed value of "t" is more than the tabular value of "t" (i.e., 23.09 and 9.47 are > 2.201). It shows that the total deposit and the loan and advance have a substantial link.

4.2 Major Findings

- Investment to Deposit Ratio: The mean investment-to-deposit ratio for LSBL is greater (24.01%) than that of RBBL, which is lower but more stable. This suggests that LSBL is making better use of its deposits.
- Overall Financial Growth: Over the course of the five years, loans, investments, and overall credit have all increased for both LSBL and RBBL.
  Loan to Deposit Ratio: Although LSBL is more reliable (lower C.V.), RBBL has a higher mean ratio (76.44%) than LSBL (73.94%). Liquidity may be impacted by high ratios.

  Non-performing Loans: RBBL outperforms LSBL in this area, as seen by a lower average NPL ratio (1.76%) compared to 3.04%).
- Loan Loss Provision: LSBL has a larger LLP ratio (1.98%) than RBBL (1.05%), implying more cautious provisioning but perhaps poorer profitability.
- Interest Income to Expense: LSBL's typical ratio of 51.59% is more favorable than RBBL's (55.36%), suggesting that interest margins are more profitable.
- Credit to Deposit Ratio: As a result of superior credit mobilization, LSBL has a higher average credit-to-deposit ratio (97.94%) than RBBL (94.46%).
- Deposit Growth (LSBL): Credit increased by 15.67% and deposits by 14.85%, indicating effective use of deposits.
- Deposit Growth (NIB): NIB's credit increased by 8.32% and its deposits increased by 9.35%, indicating balanced but modest growth.
- Deposit to Investment connection: There is a substantial positive connection between deposits and investments in both banks (LSBL: r = 0.9972, RBBL: r = 0.9837).
- Deposit to Loan connection: Both banks' deposits and loans have a strong positive connection (LSBL: r = 0.9923, RBBL: r = 0.9708), suggesting aligned growth.
- Credit Trend: From 2014–15 to 2019–20, both banks' credit increased, with LSBL rising at an annual rate of Rs. 6,085.3 million and RBBL growing at an annual rate of Rs. 4,621.6 million.

- Managerial Efficiency: Better resource use is seen in LSBL's higher investment/deposit ratio.
- Liquidity to Profitability: Although higher loan ratios may hurt liquidity, they can indicate stronger profit potential.
- Overall, RBBL maintains a superior lending policy and asset quality, whereas LSBL exhibits greater credit growth and deposit usage.

CHAPTER-V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

In this chapter, summary and conclusion of the research as well as recommendations are presented separately. After summarizing and concluding the research, recommendations are suggested for the credit risk management of Nepalese Commercial Banks. There searcher has tried to give suggestions and recommendations to the commercial banks based on this research.

5.1 Summary

Real growth is the issue with a developing nation's economic progress. Since financial and monitoring elements now have a significant impact on the growth process, this problem cannot be resolved by only taking genuine causes into account. Even in a less developed nation like Nepal, prudent and coordinated fiscal and monetary policy is crucial to the growth of the national economy. Because of this, commercial banks play a critical role in capital formation, which is unquestionably a major factor in a nation's economic development. Until they are mobilized and effectively utilized in certain economic areas, scattered resources are meaningless.

For the nation's economy to prosper, financial institutions must be developed and expanded. Financial institutions known as JVBs gather money from depositors and use it for loans and advances based on the needs of its customers. Term credit is essential to the economy. Better management of the credit is essential to make high return for every JVBs. JVBs want to maximize return and minimize credit risk. Credit management strongly recommends analyzing and managing the credit risk. When borrower will fail to meet its obligation in accordance with the agreed terms and conditions, then credit risk problem is arises. So, to minimize such risk, all JVBs should have to establish and use standards in making credit decisions.

Even if a bank devotes the majority of its resources to making advances and loans, loans are nevertheless hazardous assets. Because credit serves as the economy's demand, loans from JVBs in many sectors benefit society and the economy as a whole. However, if credit is not properly managed and monitored, it can occasionally turn into a harmful

instrument. It is detrimental to provide too much or too little credit. Inflation from too much credit damages creditors and consumers directly and immediately, whereas deflation from too little credit lowers output, employment, and income. Therefore, the NRB's guidelines for JVBs are crucial to managing credit properly and are a major factor in the comparative study of JVBs' credit management.

The researcher has determined the two JVBs' research problem. The goals that are established based on the study challenge. Secondary sources of data were used to conduct this investigation. Financial and statistical tools are used to perform the analysis. The data's presentation and analysis paint a clear picture of these JVBs' financial strengths and weaknesses. Comparison and interpretation are linked to the analysis. Two commercial banks' various financial ratios. The findings were drawn analysis the five years data of above mentioned commercial banks.

Different ratios were calculated to get the results for conclusions. The distribution of loans and advances, their recovery, and the ratios of those things that are connected to the distribution and recovery of loans and advances are computed since the study's focus is on lending practices.

5.2 Conclusion

From the analysis made during the study period of the concerned sample banks, certain conclusion has been derived after the financial as well as statistical tools have been measured on behalf of different aspect of the Credit Management of the concerned banks under study. It has been determined that LSBL is in a better position than RBBL based on the loan and advance to total deposit ratio as well as the total investment to total deposit ratio. LSBL is the most successful banks to utilize its resources as an investment point of view. But & loan and advance to total deposit of RBBL is better than LSBL. Although it is less reliable than LSBL, RBBL is the most effective in mobilizing its whole deposit as loans and advances and earning large profits. It has been determined that RBBL's lending strategy is more sound and efficient than LSBL's based on the ratio of non-performing loans to total loans and advances. Loan recovery process, efficient management and in depth study are the main causes of low NPL level of RBBL. Similarly from the view point of loan loss provision to total loan and advance it has been concluded that the

RBBL has more good quality of assets in total volume of loan and advances than LSBL.

According to the coefficient of correlation, there is a positive relationship between total deposit and investment, indicating that LSBL and RBBL's investment has been rising as total deposit has increased. Both banks' total deposits and loans and advances have a favorable relationship. Nonetheless, the link between the two banks' total deposits and loans and advances is negligible.

5.3 Recommendations

The end result of the entire investigation is recommendations. It aids in providing LSBL and RBBL, as well as other interested researchers, with constructive information and the right path for progress in the days ahead. Numerous analyses have been conducted up to this point. The study's analysis and conclusions allow for the following recommendations and suggestions to be made in order to address the shortcomings, inefficiencies, and satisfactory improvement policies of LSBL and RBBL.

- Boost Investment Utilization (RBBL): Since LSBL exhibits superior deposit mobilization, RBBL should raise its investment-to-deposit ratio in order to boost income production and preserve optimal liquidity.
- Strengthen Credit Deployment (LSBL): In order to effectively compete in the banking market, LSBL should increase the percentage of loans and advances from total deposits in order to adopt a more liberal and stable credit policy.
- Improve Credit Management (LSBL): In order to lower non-performing loans and loan loss provisions, LSBL has to implement a strong credit recovery plan. To keep making gains, RBBL should keep up and improve its efficient credit policies. Control Interest Rate Spread (RBBL): RBBL must work to narrow the interest rate spread to comply with NRB’s 5% limit, reduce deposit cost mix, and protect profitability by managing interest income and expenses more effectively.
- Maintain Adequate Liquidity (LSBL): Although LSBL has a high credit-to-deposit ratio, it still needs to make sure that it complies with the NRB's liquidity standards, which include keeping the ratio at least 6%.

- Effectively Mobilize Deposits (RBBL): RBBL should concentrate on expanding its deposit base in order to boost lending capacity and enhance financial performance, considering the close relationship between deposits and loans.
- Adhere to NRB Loan Classification Norms: To maintain transparency, stability, and regulatory compliance, both banks must closely follow Nepal Rastra Bank's rules on loan classification and provisioning.
- Adopt Technological and Marketing Innovation: In order to stay competitive, both banks should improve online services, embrace digital banking, and use cutting-edge marketing techniques to draw in and keep clients.
- Timely Installment Recovery: Both banks should focus on timely loan installment collection in order to reduce interest suspense accounts and increase profitability. Improve Customer Service Strategy: To foster enduring loyalty and boost deposits, banks should put a higher priority on customer-centric service models and provide individualized, technologically advanced solutions at affordable prices.
- The banks would be on the path to future growth and prosperity if these remedial measures were implemented promptly and efficiently.

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