

CREDIT MANAGEMENT OF COMMERCIAL BANKS IN NEPAL

A Dissertation Submitted to the Research Department of Shanker Dev Campus,
Faculty of Management in Partial fulfillment of the requirements for the
Master's Degree

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July 2024

Certification of Authorship

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the reference section of the thesis.

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ACKNOWLEDGEMENT

First of all, I would like to thank Tribhuvan University for providing the opportunity to prepare the dissertation in fulfillment of the requirements for the Master's Degree of Business Studies. After many months of hard work and sincere effort from my side, this research has been conducted.

I would like to graciously thank several individuals for making the completion of this thesis possible. I would like to thank my dissertation supervisor Lecturer Srijana Khadka. She has provided me with invaluable advice, guidance, insight, and encouragement without which this dissertation would not be a success. I would also like to thank all the reputed authors whose writings have provided me the necessary guidance and invaluable materials for the enrichment of my research study in all possible ways.

Finally, to my family and friends: there are not enough words to express my deep gratitude for all of your love and support. I could not have persevered without having all of you to lean on. Thank you for always being there for me.

Perfection is anything can hardly be thought of knowing the universal fact, I have taken utmost care to avoid errors but I know they are inescapable, so I shall be obliged if they are forgiven.

Nisha Purkoti

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ABBREVIATIONS

ADBL	Agricultural Development Bank Limited
ANOVA	Analysis of Variance
CD	Credit Deposit
CDR	Credit Deposit Ratio
CV	Coefficient of Variation
F-value	Fishers' Value
IIR	Interest Income Ratio
LAR	Loan and Advance Ratio
LLPR	Loan Loss Provisions Ratio
NBL	Nepal Bank Limited
NPLR	Non-Performing Loan Ratio
P-value	Probability Value
RBBL	Rastriya Banijya Bank Limited
ROA	Return on Assets
ROE	Return on Equity
SD	Standard Deviation
Sig.	Significance
SN	Serial Numbers

ABSTRACT

The study deals with credit risk management of commercial banks in Nepal. The study has the major objective is to assess the practice of credit management at NBL, RBBL and ADBL. The study has been conducted having three samples such as government owned banks out of total 20 commercial banks as of 4th February 2024. The samples have been chosen on the basis of government owned three banks by nature. The total number of observations is thirty having three sample banks with ten years data ranging from 2070/71-2079/80. As per research design descriptive research design have been employed. The statistical tools consist of mean, standard deviation and CV as well as the inferential statistic consists of mainly correlation and regression analysis for cause and effect relationship between and among undertaken variables such as dependent i.e. profitability in terms of return on assets (ROA) and return on equity (ROE) and independent variables such as credit deposit ratio, interest income ratio, non-performing loan ratio, loan and advance ratio and loan loss provisions ratio. This study reveals that ADBL seems to be strong to mobilize its total deposit as loan and advances than other banks. . Return on equity of RBBL is high showing RBBL has sufficiently used existing capital. Debt to total assets ratio and loan losses to total loans ratio of ADBL is higher than RBBL and NBL which shows, ADBL uses more leverage in its capital structure compared to total capital

Key words: *Credit Risk, Profitability, Credit Deposit Ratio, Interest Income Ratio, Nonperforming Loan Ratio, Loan and Advance Ratio, Loan Loss Provisions Ratio and, Return on Assets and Return on Equity.*

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

The word "credit" - it has a lot of meanings in the financial world. But most often, it refers to a contract where a borrower gets some money or something of value & promises to pay the lender back later, usually with interest (Times, 2023). The debtor gives their word to repay the lender, often with interest added on - or they risk getting into financial or legal trouble (Times, 2023). Extending credit, it's been happening for thousands of years, ever since human civilization started. The type of credit a bank provides, it all depends on what the borrower needs (Union, 2023).

Banks can give short-term credit to help companies with their working capital needs or everyday expenses. There's often a delay between when a company sells stuff to customers & when they get the cash - short-term credit helps them get through those cash flow and liquidity issues (Union, 2023). They pay the bank back once they've converted their assets (like accounts receivable) into cash. Short-term credit, it usually needs to be paid off in 6 to 18 months. A revolving credit facility, that's an example of short-term credit. Banks can also give long-term credit to companies to finance bigger, long-term assets like property, plants, equipment, and acquisitions. Term loans, that's an example of long-term credit. This kind lasts more than a year. It can range anywhere from 2 years to 5, 10, or even 30 years (Collin, 2021).

Credit, it's the heart of commercial banks. It makes up a huge part of their transactions & investments. Most of their money-making activities rely on credit. It's the main factor for creating profits. And a good credit policy, it helps banks attract both borrowers & lenders, boosting their deposits, loans, & investments. Some research has even found a link between a country's economic development & its commercial banks (Karki, 2008). After all, these banks, they play a big role in the economy. So studying how they manage credit, is pretty important.

Credit management, it's the process of giving customers credit, setting payment terms to help them pay on time & in full, collecting payments, and making sure everyone (customers & employees) follows the credit policy. Effective credit management, it's about constantly identifying risks, figuring out the potential for loss, and strategically protecting against the risks of extending credit. One big benefit is getting a clear picture of the company's finances, so you can avoid unnecessary credit risk and spot opportunities (Bank Bazaar, 2023).

Profitability - it's a company's ability to generate profit from its activities by using its resources. More efficient companies, they'll make more profit as a percentage of their expenses than less efficient ones that have to spend more for the same profit (Geamanu, 2011).

Credit, it's a major revenue source for banks and financial institutions. But reckless lending and poor credit management, that can lead to non-performing loans which hurt the bank's performance & profits. Good credit management, it helps banks lend effectively by analyzing criteria, identifying & managing risks, and collecting payments efficiently. That boosts their overall profitability.

In Nepal, we've seen new methods & procedures introduced over time to improve credit management & reduce risk for banks. Back in the year 2058/59, the high NPAs at Nepal Bank Limited & Rastriya Banijya Bank really hurt their profits. But the Nepal Rokastra Bank stepped in, took over the banks, & brought in foreign management to implement better policies. And guess what? The banks' performance improved, NPAs went down, and their profits bounced back.

The banking system in Nepal, it's still evolving. It all started way back in the 1950s with the establishment of 'KausiToshiKhana' and 'Tejarath Adda' to serve government staff & the public. But modern banking that really took off when Nepal Bank Limited was set up in 1994. And the Nepal Rastra Bank, it was established in 2013 to guide the financial sector's growth. Nowadays, we've got 20 commercial banks, 17 development banks, and 17 financial companies providing services across the country (<http://www.nrb.org.np>).

1.1.1 Introduction of Sample Organization Under Study

Nepal Bank Limited

Nepal Bank Limited, it's the oldest commercial bank in Nepal. Established back in 1994 with support from the King & Prime Minister, it started with Rs. 10 million in authorized capital, Rs. 2.5 million in issued capital, and Rs. 0.842 million in paid-up capital. The government & private sector each owned 60% and 40% respectively. NBL's vision is to be the nation's most preferred bank, offering complete banking solutions. Their mission is to design, develop, and deliver banking products that satisfy all stakeholders, using cutting-edge tech. Today, NBL's got Rs. 15 billion in authorized capital, Rs. 14.405 billion in paid-up capital, with the government owning 51% and the public owning 49% (<https://nepalbank.com.np/personal/nbl-in-brief>, 2023).

Rastriya Banijya Bank

Rastriya Banijya Bank Limited, it's a fully government-owned bank set up in 2022 under a special statute. RBBL operated under the Commercial Bank Act until 2006, when it was re-registered as a public limited company. With Rs. 30 billion in authorized capital and Rs. 13.9403 billion in paid-up capital, the government owns 99.97% and the public owns 0.03%. RBBL's vision is to be the most credible bank for everyone, contributing to Nepal's prosperity. Their mission is to enhance the quality of life for all Nepalese by eliminating financial barriers and providing safe, innovative, affordable services through efficient centers, responsible processes, and empathetic staff (<https://www.rbb.com.np/content/introduction-rastriya-banijya-bank-limited-rbbl>, 2023).

Agricultural Development Bank

Agricultural Development Bank, it was established in 1967 by the government with Rs. 50 million in initial capital to provide easy loans for agricultural development. Today, it's got Rs. 25 billion in authorized capital, with Rs. 18.620 billion in paid-up capital. 51% is owned by the government, 49% by the public. ADBL's vision is to be a "mass-based complete bank" serving from urban to rural areas, with the mission of delivering

comprehensive banking solutions through its extensive network (<https://www.adbl.gov.np/about-us/overview/>, 2023).

1.2 Problem Statement

With the financial sector opening up in the 80s, Nepal now has lots more banks and financial institutions. But that's also led to unhealthy competition, rising non-performing loans, and credit management becoming a big issue. Researchers see a need to analyze credit management practices in Nepali commercial banks to address these problems. After all, good credit management is crucial for banks to stay stable and profitable. Questions around credit practices, efficiencies, liquidity, and management quality all need to be explored.

Credit management idea has seemed as a major research gap in Nepalese Commercial banking sector. There is absence of such scientific and empirical research that could recognize the issues of credit management in Nepalese commercial banks. Some research questions regarding to the credit practices, credit efficiencies, liquidity position, industrial environment, management quality, organization climate, are considered as a clear evident in present situation.

It is necessary to form higher creditability position of bank to improve the profitability situation of the bank. The credit is the major source for building better creditability position of every commercial bank and is the most effective and sincere area in commercial bank. For banks and financial institution to remain stable and profitable, better credit management is necessary, and a slight reduction in credit quality becomes the most common reason of decreased financial performance. Credit lending and not being able to recover it is the most substantial risk for a bank, as it is for any other financial organization. The research problems can be further stated as follows:

- What is the position of credit, profitability and non-performing loan of commercial banks?
- What is the relationship of non-performing loans and credit, deposits with profitability of commercial banks?
- Is there any effect of credit deposit ratio, interest income ratio, non-performing loan

ratio, loan and advance ratio, loan loss provisions ratio on profitability (ROA and ROE) of commercial banks?

1.2 Objectives of the study

The main objective of this study is to evaluate the impact of credit management on profitability of sample commercial banks in Nepal. The specific objectives of the study are as follows:

- To assess the position of credit, profitability and non-performing loan of commercial banks.
- To examine the relationship between non-performing loans, credit, deposits, and profitability.
- To analyze the effect of credit deposit ratio, interest income ratio, non-performing loan ratio, loan and advance ratio, loan loss provisions ratio on profitability (ROA and ROE) of commercial banks.

1.3 Rationale of the study

Credit management is an essential aspect of banking that plays a crucial role in ensuring the stability and profitability of financial institution. The purpose of credit management is to manage a bank's loan portfolio in a manner that balances the risk taken with the return expected. This study will look into the details of the financial performance of NBL, ADBL and RBBL through different ratios for ten years and compare the post reform results. Regarding the economic structure of the country, the banks do not have sufficient opportunity to grow efficiently. Hence, the expected benefit of this study is to make realizable suggestions, which are believed to improve the present credit management situation prevailing in the banking sector precisely in sample banks by evaluating its credit management movement. The findings from this study has supplemented the knowledge of the stakeholders on the loan and advance process of sample banks and to analyze the process they develop and its utilization to measure of their success. It would be beneficial to the officers and forecasters to be aware of what is anticipated from them as professional in handling the loan and advance process.

Moreover, this study provide the basis for planning and the result of this study would enable the concerned government body to see the loan and advance of the bank and its legal implications and will also help formulate the new credit policy, as there are certain loopholes as a result of which non- performing assets has been regarded as the main problem of the commercial banks in these days. The study has been mainly beneficial to the shareholders, depositors and other creditors to identify the productivity of their funds in the sample banks. Likewise, other financial agencies, e.g. financial experts are also interested in the performance of sample banks. Beside them, the study will also help the management of the bank to analyze the utility of its loan management and policies of the sample banks in comparison to competitors.

1.4 Limitation of study

The study will be conducted based on secondary data from the published reports by the banks and will have following limitations:

- Out of 20 commercial banks as of 4th February 2024, 3 commercial bank named RBBL, NBL and ADBL only have been taken for the study.
- The study covers the relevant data from fiscal year 2070/71-2079/80 information only for 10 years.
- The study is based on secondary data and information from financial statement available on Banks websites
- Only limited within financial and statistical tools for analysis.

CHAPTER 2

REVIEW OF LITERATURE

Review of the literature refers to examining research papers or other pertinent statements in the relevant fields of study in order to identify all previous studies, their results, and their shortcomings and to enable the conduct of additional research. It is necessary and essential step in the study process. This chapter reviews recent and pertinent literature on the subject of "Credit Management of Commercial Banks of Nepal." This chapter reviews a number of books, journals, articles, senior theses, and research reports that are relevant to the subject.

Theoretical Review

2.1.1 Concept of Credit

The Latin word "credo" is the source of the English word "credit." The definition of "Credo" in Latin is "I believe." Credit typically denotes belief about a situation or scenario. Based on the idea that banks lend significantly more money with few resources. Credit, then, is the loan that the bank makes using its resources on the basis of faith. "A direct or indirect promise to invest money, along with the right to recover that amount in return, as well as any interest or other charges, refinancing given in exchange for the security of creditor investment, credit restructuring and renewal, the guarantee made for credit repayment or any such promise for such repayment, and the word also includes any type of debt," are all considered forms of credit. (Joseph 1998).

2.1.2 Concept of Credit Management

From the perspective of the debtor, credit management is handling money, particularly debts, to avoid having creditors pursuing you. It is imperative that both debtors and creditors take credit management very seriously. Credit management is a valuable tool for maintaining a company's financial stability when it operates well Charles (1999).Credit management involves putting in place and upholding a set of guidelines and practices to

reduce the amount of money invested in debtors and the business's exposure to bad debts. (Prasanna, 1988).

2.1.3 Process of Credit Management

Accurately determining the client base's creditworthiness and viability as a firm is the first step in credit management. This is particularly crucial if the business decides to give certain of its client's access to a credit line or revolving credit. Therefore, the process of establishing particular requirements that a client must fulfill in order to approve the suggested loan arrangement is good credit management. As part of the assessment procedure, credit management also requires figuring out the total credit limit that will be issued to a specific consumer. (Prasanna, 1988).

Gathering information on the potential customer's current financial situation, including the current credit track record that reveals the customer's character in meeting obligations and collateral value, is one of the many factors used as part of the credit management process to evaluate and qualify a customer for the receipt of some form of commercial credit. Another factor that is taken into account is the current ratio of income to outstanding debt. In addition to shielding the bank or other financial institution from potential losses, good credit management works to shield the client from accruing additional debt that they are unable to pay off on time. The financial institution such as banks receives a reasonable amount of assurance that loans granted to a client will be paid back within terms, or that regular minimum payments will be received on credit account balances. (Richard & Stewart, 1996).

2.1.4 Criteria for Providing Loan

To put in simple words when a loan is made the following 5 C's of Credit needs to be evaluated by (Clemens, 1963).

Character: The qualities that a loan officer looks for in a candidate are accountability, truthfulness, seriousness, purpose, and a sincere desire to pay back all debts. The consumer must first persuade the loan officer that they have a legitimate plan to repay the loan and a clear reason for seeking bank credit. The loan officer has to make sure the borrower is telling the truth while answering the bank's queries and that they are using the money responsibly. The application should not be given a loan if the loan officer believes the

customer is not honest in their promises to use the borrowed funds and to repay them as agreed (Union, 2023).

Capacity: The ability of the borrower to produce enough cash flow from regular operations to cover future obligations is referred to as capacity. It is necessary to determine whether the company has the assets (money, revenue, and income) necessary to pay back the debt. The company must be stable enough to make a profit that covers bank loan repayment as well as a respectable rate of return for the promoters (Union, 2023).

Capital: It stands for the money kept in the borrowing company as a safety net against unforeseen losses. A company with a strong equity position will be financially resilient during times of operational hardship. (Bazaar Bank, 2023).

Collateral: The security that the borrower offers as collateral. Is the borrower's net worth or quality of assets sufficient to back the loan is a question that the loan officer must respond to. The age, condition, and level of specialty of the borrower's assets are features that the loan officer is especially aware of (Bank Bazaar, 2023).

Condition: Trends in the business or field in which the borrower works must be known to the credit analyzer. It must be evident how the loan could be offset by shifting economic conditions. Even if a loan may appear excellent on paper, it may lose value due to inflation-induced high interest rates, falling sales or income during a recession, or both (Times, 2023).

2.1.5 Various Types of Credit

Loan portfolio management deals with managing all types of credit. There are many types of credit that commercial banks provide authors by (Beckman, 1995). This lending can be categorized as: Loan and advances based on their nature can be categorized as:

A. Secured Loan Advances

Loans and advances that are issued with a larger value of security than the loan amount granted are referred to as secured loans and advances. Stated differently, this loan is referred to as a secured loan and advance if the security's distress value exceeds the loan

amount provided. Market rate and government rate are taken into account when calculating distress value (Karki, 2008).

B. Unsecured loan and Advances

Unsecured loans and advances are those that the bank grants without requiring any collateral, or it grants them exclusively in exchange for a customer's personal guarantee or a company guarantee. Once more, loans and advances granted by banks that require less valuable collateral than the loan amount are known as unsecured loans and advances (Karki, 2008).

Loan and advances based on the involvement of the fund. Based on the involvement of the fund, loan and advances can be classified as:

1. Fund Based Loan and Advances

Fund based loan and advances are the direct lending of funds to the customers. It is called funded since it involves to cash. Funded based loan and advances are as follows:

a. Overdraft

An overdraft is a short-term credit provided to cover a borrower's working capital needs. A one-year overdraft is all that is provided. It may be extended for an additional year at the borrower's request if they are sincere, their interests have not accrued, or they are truly doing a decent transaction. (Bazaar Bank, 2023).

b. Cash Credit

A drawing account against bank credit is known as cash credit. The same procedures that apply to overdraft also apply to it. It is necessary for the borrower to open a cash credit account with the bank and receive a separate check from the bank for the account. Customers may borrow money from the bank up to a certain amount. Cash credit is permitted in relation to the security of material possessions. These could include hypothecation of present assets such as stock, plant, and machinery, as well as any insurance policies that benefit the bank (Bank Bazaar, 2023).

c. Demand Loan

Another type of short-term loan that is given to a borrower to satisfy their fixed working capital needs is a demand loan. It is necessary to make installment payments on a lump-sum or recurring basis. A customer must open a separate Demand loan account in order to do this. A demand loan that has been fully or partially returned once cannot be withdrawn by the consumer again (Bank Bazaar, 2023).

d. Bridge Loan

A bridge loan is a type of short-term loan that is given to finance urgent needs, particularly those related to projects. In essence, it's a loan intended to bridge the gap. Similar to an in-demand loan, the borrower cannot withdraw a bridge gap loan once it has been credited. (Bank Bazaar, 2023)

e. Pledge loan

The bailment of goods as security for the fulfillment of a promise or the payment of a debt is known as a pledge loan. Delivering products to another party for a specific purpose in accordance with a contract is known as bailment. The items must be returned to the person who delivered them once their intended use has been fulfilled. Products, stocks, or any other transportable property may be pledged (Bhandari, 2003).

f. Hire Purchase Loan

Hire purchase loans are bank-financed automobiles provided to clients. This loan facility was established to finance consumer durables like cars or equipment used by contractors. Customers or borrowers are expected to pay a percentage of the whole amount under this arrangement, with the bank financing the remaining sum (Collin, 2021).

g. Housing Loan

A housing loan may be taken out for the building, acquisition, or enlargement of a home, as well as for repairs and upkeep at no cost to the borrower. An engineer or engineering consultancy will estimate a specific cost needed for the aforementioned purposes, and the bank will finance a portion of that cost based on the borrower's ability to repay it. In order to show the bank favor, borrowers should insure the proposed home (Collin, 2021).

h. Personal Loan

Individuals or borrowers are given personal loans to cover their cash needs for social functions, customs, and personal money management. Borrowers who can repay the loan on time and have steady income sources are given this one (Collin, 2021).

i. Term Loan

Term loans are provided to fund capital and fixed costs for both current and future projects. A term loan can be used to import or buy equipment, furniture, machinery, plants, and other items. Term loans are given out for comparatively longer durations and are paid back in installments (Bhandari, 2003).

j. Consortium Loan

Participation finance is what a consortium loan is. Consortium loans are used when two banks work together to finance a loan when one bank is unable to provide a larger amount of credit because of a cash crunch or the single obligate limit. When multiple banks come to an agreement, they can lend money to a borrower through consortium financing or consortium credit. The consortium agreement provides for the acquisition of a common stake by the participating banks, as well as a predetermined proportionate share of advances and securities (Bank Bazaar, 2023)

k. Loan against Fixed Deposit Receipt

When a consumer needs money quickly, they can use a loan secured by their fixed deposit receipt if they have a fixed deposit with a bank that hasn't matured. According to Bank Bazaar (2023), the bank must advance credit against the same receipts.

l. Loan against Share

Some bank may provide loan against lien of share certificate. The share should be in listing in Stock Exchange (Bhandari, 2003).

m. Loan against Gold

Certain banks use gold as collateral when granting loans against it. Some banks would lend money to borrowers who are looking for smaller amounts of money if they can provide gold as security (Collin, 2021).

2. Non Funded Based Loan and Advances

Certain advances do not include the fund as part of their grant. We refer to these advancements as non-funded advances. With these advances, the bank simply guarantees

that, should the borrower default, it would bear the loss in accordance with the agreed-upon terms. This advance will change to fund-based advances if the borrower defaults on it (Bhandari, 2003).

None funded loan and advances are as follows:

a) Bank Guarantee

A bank guarantees a beneficiary or third party on behalf of its clients. There are three parties engaged in a bank guarantee. The primary debtors for whom the guarantee is issued; the beneficiary for whom the guarantee is issued; and the guarantor who issues the bank guarantee. The sorts of bank guarantees are as follows:

I. Bid Bond Guarantee

A bank that supports the bidder on behalf of its client for the tender issues a bid bond guarantee.

II. Performance Bond Guarantee

Performance Bond Guarantee is issued by a bank favoring the beneficiary on behalf of its customer to whom the tender is awarded.

III. Advance Payment Guarantee

Advance Payment Guarantee is issued by a bank to beneficiary on behalf of its customer for receiving the mobilization fund from beneficiary as per the contract.

IV. Maintenance Guarantee

Maintenance Guarantee guarantees the beneficiary of financial reimbursement to the extent of Maintenance guarantee in case of non-maintenance by the debtor.

V. Retention Guarantee

Retention Guarantee assures the creditors of financial reimbursement to the extent of retained money if some defects are noticed in job accomplished by the debtors till a specific period.

VI. Custom Guarantee

Custom Guarantee assures the customs financial reimbursement to the amount of guarantee if goods are not taken out of the country by a specified time.

VII. Judicial Guarantee

Through judicial guarantee, the bank assures the court that the money will be obtainable on the first demand of the court if the decision goes against the defendant on whose behalf the guarantee is issued (Union, 2023).

b) Letter of Credit

A bank will issue a credit letter known as a letter of credit, sometimes referred to as documentary credit. It's a conditional undertaking of payment from a bank. It serves as a tool for paying with documents. It is a document that guarantees payment to the exporter or seller and the importer or buyer. The bank of the importer has agreed to pay the exporter if the exporter exports the products and provides the documentation required under the documentary credit (Union, 2023).

2.1.6 Principle of Good Lending

Following maturity, the borrower will receive all advances and loans repaid in accordance with the terms and conditions that were agreed upon at the time of approval. Every lending officer is required to investigate the borrower's capacity to repay the loan. It's possible that borrowers won't be willing or able to pay back the loan. Therefore, in order to protect the loan, the bank needs assume the borrower's security. Banks provide credit facilities in accordance with specified guidelines; these guidelines are recognized as the creators of credit policy by (Swani, 1979).

The major principles of good lending are:

a. Safety

"Safety First" is most significant principle of good lending. When a bank lends, then the bank should authorize on their lending whether they are safe or not.

b. Liquidity

Repayment of the loan alone is insufficient; the customer must additionally get advances on demand or in compliance with the terms of repayment that have been agreed upon. Repayment must come from a specified source (Collin, 2021).

c. Profitability

Profit is the bank's primary objective. The bank must raise its investment in order to accomplish this without allowing the fund to sit idle. The bank ought to make an effort to fund just those ventures from which it can guarantee timely interest revenue and commodities.

d. Security

If the loan is unsecured, there is always a chance that it will default, regardless of how appealing the interest rate or interest is. Adequate collateral with high value that can be quickly sold when needed is what is meant by security. When granting a loan, the bank should consider the borrower's status and financial situation in addition to security.

e. Diversification

The loan should not be extended by the bank to a single industry. It ought to make an effort to spread its investment. It should allocate its resources to diverse businesses, individuals, and organizations, as well as diverse collateral and assets. This will contribute to a larger reduction in the banks' risk.

f. National Interest

If an advance disregards the national interest, it may not be appropriate even if it complies with all of the aforementioned standards. Banks are obligated to make advancements in those areas, which the government periodically designates as priorities in order to meet the needs of the country. According to the government or Nepal Rastra Bank, the bank should engage in certain sectors (Bhandari, 2003).

2.1.7 Some Important Terminology

The study in this section comprises of some important banking terminology for which efforts have been made to clarify the meaning, which are frequently used in this research work authors by (Singh, 2063). They are as follows:

a. Deposits

The primary source of liquidity for any commercial bank is deposits. It's used as a gauge of banks' financial strength. The lifeblood of commercial banks is a deposit. Three headings are used to group deposits for accounting and analysis purposes.

They are:–

i. Current Deposit/ Demand Deposit

Demand deposits, also known as current deposits, are those in which money is disbursed right away upon demand from any account holder. Interest is not offered by the bank on this deposit.

ii. Saving Deposit

The savings deposit is a means by which the bank can obtain funds. A savings account is defined as "an account of amounts deposited in a bank for saving purposes" by the Commercial Bank Act of 2031. Customers who make this kind of deposit receive interest.

iii. Fixed Deposit

A fixed account is defined as "an account of amounts deposited in a book for a certain period of time" under the Commercial Bank Act 2031. When opening an account, clients deposit money into it for a predetermined amount of time (Bank Bazaar, 2023).

b. Loans and Advances

The primary purposes of commercial banks are to generate revenue from borrowed funds. The main sources of revenue for banks are loans and advances, which also occupy the majority of the asset side of any bank's balance sheet.

c. Past Due/Overdue

An amount due under any credit facility is treated as past due or unpaid when it has not been paid on the due date fixed by the bank.

d. Loan Classification

Even though every loan was approved at the time of distribution, as time goes on, problems begin to surface. The loan should be supplied and classed according to its condition. Based on NRB rules, loans are categorized into four groups in the context of Nepal. Pass, Subpar, Doubtful, and Loss are the categories.

e. Events-of-Default

An "event-of-default" occurs when a borrower breaches the terms and conditions of the loan arrangement after obtaining the loan. The terms "willful defaulter" and "non-willful defaulter" refer to the two categories of event-of-default. It should be made clear in the loan agreement section what steps the bank is legally permitted to take to ensure that its funds are recovered in the event that the borrower breaches the conditions of the loan.

f. Performing Loans

Performers are loans and advances that are good. Loans that create cash flow and are in good standing are those that return principal and interest to the bank. As "performing loans," only those that fit into the "PASS" category are referred to. All loans and advances

in the pass category have principal that is neither past due nor past due for a maximum of three months.

g. Non-Performing loans/Non-Performing Assets

Loans that fail to timely return principle and interest to the bank are considered non-performing loans. "Non-Performing loans" are defined as loans that fit into the categories of "Substandard," "Doubtful," and "Loss." The specifics and criteria used to categorize nonperforming loans differ from nation to nation because each one established regulations based on the needs of its own banking system. The entire amount of non-performing loans divided by the total amount of loans and advances outstanding yields the NPL ratio.

h. Loan Loss Provision

Every loan has some associated risk. The bank must set aside money for loan loss provisions in order to reduce the risk of potential loan losses. A loan loss provision is designed to account for potential losses and to accurately depict the assets of the bank. As a result, it is customary to report net loss rather than gross loan in the financial statement (total loan – loan loss provision). The quantity and quality of NPLs determine the amount of provisioning. Different countries may have different provision ratios. The NRB has recommended 1.3%, 25%, 50%, and 100% provision for pass, substandard, doubtful, and loss loans, respectively, in the context of Nepal. (Rastra Bank of Nepal, 2023)

2.1.8 Lending and Recovery Management of Commercial Bank

A. Loan Disbursement Process of Commercial Bank

In general, corporate, business, and consumer loans are the three categories of loans offered by commercial banks. A commercial bank pays out loans to borrowers in a number of processes. It's possible that the banks' lending practices are comparable to those of other banks. The steps can generally be enumerated as follows (Shrestha, 1993).

a) Application

The banks that have all the information needed for a certain loan offer application forms. The form must be submitted by the indigent along with any necessary documentation. Typically, the documentation needed by the banks to proceed with the application form processing might be found under the loan application. For a loan to be approved, the bank

requires the following documents: the loan application, the applicant's citizenship certificate, their wage certificate, a renewed firm registration certificate, an income tax registration certificate, the most recent audited financial statement, and a feasibility report (Reed, 2002). For a partnership firm, the verified "Partnership deed," for a corporation, the memorandum and articles of organization, and the citizenship certificates of the proprietor, partners, promoters, and guarantors, along with the percentage of shares held. The authority letter granting permission to sign the loan agreement and any other pertinent documents

b) Loan Appraisal and Processing

Banks face a challenging task after the application and any necessary documents are filed. The proposal's and the documents' viability are examined. Complete investigation of the person is completed. A commercial bank evaluates loans based on the information obtained from the inquiry, historical performance, and future projections. When processing loans, the bank makes the following determinations: The proposal must adhere to NRB guidelines:

- The proposal must comply with the bank credit policy, the credit procedure manual, the bank and financial institution ordinance 2060 (Act 2061), and other relevant regulations. In order to accept the proper estimate, the cost estimate is analyzed. The projected working capital needs to be appropriate in comparison to previous.
- Performance as well as based on the intended future growth. • Adequate is the desired internal rate of return (IRR) and return on investment (ROI). SWOT analysis of the suggested
- The project ought to offer a realistic guarantee. The borrower must be deserving of credit.
- Security ought to be unquestionable. It ought to be simple to legally and practically
- When required, place under the bank's supervision. In addition to the aforementioned, the bank verifies the project's physical presence. The bank also tries to ascertain whether the borrower will be able to pay interest timely and repay the amount of loan on maturity (<https://www.nrb.org.np>).

c) Loan Approval

When an individual, organization, or initiative submits a proposal, the bank thoroughly examines and evaluates the proposal from all angles. The bank assesses the required

paperwork as well. The bank may grant the loan in accordance with its assessment of how satisfactory the loan proposal is.

d) Loan Documentation

Following the bank's approval of the loan, the borrower receives a letter outlining all the terms and restrictions they must abide by. The documentation procedure is completed once the borrower has accepted the terms and conditions. The loan deed is signed as loan documentation. A loan deed is an agreement that specifies the terms of the loan, including how long it will last, how much it will cost, how it will be repaid, what will happen if it is not repaid, and what will happen if there is a default. In addition to the loan deed, the demand promising note, continuing security letter, letter, and other papers must be obtained in accordance with the kind and nature of credit for the loan documentation procedure.

e) Loan Disbursement

When careful appraisal and inspecting of the proposal and documentation, loan is disbursed.

f) Loan Audit

A bank demands that its debtor use the loan appropriately. Following loan disbursement, the bank conducts an audit of the loan with the aim of achieving this goal as much as feasible. As a result, the bank periodically performs an audit in addition to other tasks to obtain information regarding loan utilization.

The tools used for audit of loan are:

- Performance statements.
- Cash flow statements.
- Stock turnover statements.
- Profitability statements.
- Audited balance sheet.
- Site inspection

B. Loan Recovery Process of Commercial Bank

The success of credit management is contingent upon loan recovery. Thus, it can be concluded that loan recovery is the credit department's most crucial task. To recover loans, there are no hard and fast rules followed. The time frame, or circumstance in which the debt is to be recovered, determines the course of the recovery process. In actuality, the loan

document explains the recovery procedure as well as distribution. The loan deed has all required terms and conditions. There will be a breach of the deed if the terms and conditions stated in it are not met. In such a case, a few adjustments are made to the deed so that the terms and conditions can be modified in response to the request.

In general, the bank and the client reach a settlement, but there may be circumstances when selling the mortgage is necessary to recoup the loan balance. General loan arrangements, or loan adjustments made in response to customer requests, are carried out. After certain changes are made to the loan deed, the length of the loan payment is extended. Additionally, mortgage assets may be used to repay the loan. The entire process of rehabilitation is lawful and methodical. In accordance with cautious, banks also provide eyesight to determine whether or not loans are used in the appropriate region (Piao & Xiao, 2022).

2.1.9 Profitability

Profitability is the degree to which a business turns a profit. Businesses can assess their profitability based on a variety of factors, including costs, demand, productivity, and competitiveness. A ratio, such as the gross profit margin, net profit margin, operating margin, or EBITDA, is typically used to illustrate profitability. A company's profitability can be evaluated by comparing its profit margin to its total expenses and revenue. Profitability is a relative measure of profit.

The profitability ratios evaluate a company's capacity to make money over time in relation to its revenue, operating expenses, balance sheet assets, and shareholders' equity using data from a single moment in time. These are some of the most widely applied techniques in financial analysis. Profitability ratios can provide insight into a commercial bank's overall health and financial performance. The best applications for ratios are in comparison. Three different profitability ratios are typically computed: equity shareholder fund, sales, and investment. The different ratios of profitability are:

a) Gross profit ratio

This measures the relation between gross profit and sales which helps to determine the efficiency with which production or purchase and sales are carried on.

b) Operating profit ratio

This measures the relation between operating profit and sales and helps to determine the operational efficiency of the management

c) Net profit ratio

This measures the relation between net profit and sales and is useful for determining the overall profitability due to various factors such as operational efficiency trade on equity etc.

d) Return on asset

This measures the relation between the net profit before interest and tax and total asset which find out how efficiently the total assets have been managed by the management.

e) Return on Investment

This measures the relation between the net profit before interest and tax and capital employed which find out how efficiently the long term funds supplied by creditors and shareholders have been used. It can be used for evaluating investment decisions.

f) Return on equity

This measures the relation between the net profit after interest and tax and shareholders fund. It helps to find how efficiently the funds supplied by all shareholders have been used have been used.

2.1.10 Impact of credit management on profitability

In relation to commercial banks and other financial institutions, in order for them to turn a profit, they must distribute (i.e., invest in various sectors) their collections (deposits) and other funds towards the lucrative, secure, and marketable sectors. These banks and financial institutions should get enough information on the company (client) that they plan to invest in for this reason. This information covers things like the company's financial history, type of operation, and loan repayment capacity. It is important to collect all of this data with an eye toward investment security and assurance. The lending process that the bank uses determines its profits and income. Additionally, lending guidelines and investments in various sectors and securities

Banks' investing practices and policies have an impact on revenue and profit. The maxim "the greater the credit created by the bank, the higher will be the profitability" is constantly

kept in mind when developing investment procedures and regulations. Not only is a sound lending and investment policy necessary for a bank to be profitable, but it is also very important for developing nations like Nepal to encourage commercial saving.

2.2 Empirical Reviews

2.2.1 Review of International Articles

An attempt has been made to look through and evaluate some of the relevant publications on this topic that have been published in various economic journals, websites, the World Bank Bulletin, dissertation papers, newspapers, and other relevant books. Researchers' opinions and conclusions about fund mobilization have also been considered.

Nargiza (2023) in order to demonstrate the significance of the investment portfolio in commercial banks as well as the fundamental investment portfolio management techniques that commercial banks can employ, used descriptive statistical analysis in his paper, "Investment strategies of commercial banks in financial market." The main conclusions drawn from his research were that commercial banks tend to place fewer funds in securities and continuously draw in new depositors by offering attractive interest rates and favorable circumstances.

In Hang's (2022) article, "Policy recommendations for controlling credit risks in commercial banks after the Covid-19 pandemic in Vietnam," she describes how she collected primary data through in-depth questionnaires and descriptive statistics, then compared, analyzed, and synthesized the commercial banks' statistical reports with the goal of analyzing some current issues and the main factors influencing the credit risk of these banks. She also concludes that, despite ongoing review, Vietnamese banks are unable to meet Basel standards. Additionally, it has been determined that improper loan product design has an impact on borrowers.

Obae and Jagongo (2022) in their article "Credit Management Practices and Loan Performance of Commercial Banks in Kenya," used a descriptive method to investigate the impact of credit rationing practices on the loan performance of Kenyan commercial banks

as well as the impact of client appraisal practices. They discovered that credit rationing practices, debt collection practices, and client appraisal practices have a major impact on the loan performance of Kenyan commercial banks.

Piao and Xiao (2022) conducted an empirical study with the goal of examining the mechanism of commercial bank credit risk formation in China from the perspective of macro policy management or the process of commercial bank risk formation from the perspective of system and institutional changes, using behavioral finance theory and artificial neural networks. They discovered that while the rate of nonperforming loans has decreased annually, the ability of large state-owned banks to control nonperforming loans needs to be strengthened.

Brahmaiah (2022) through an empirical analysis, has examined the Indian banking sector over the course of five fiscal years, from 2016–2017 to 2020–2021. The majority of Indian banks have designed their risk management frameworks with a focus on credit risk management, capital adequacy management, asset quality improvement, and earnings enhancement over the last five years, according to their published annual reports titled "Credit Risk Management Practices of Indian Banking Industry: An Empirical Study." Additionally, it was found that PVBs fared better than PSBs across all comparison fronts in the study, and the majority of Indian banks managed credit risk using sophisticated risk management systems and processes, which decreased NPAs and increased bank profitability.

Siddique, Khan and Khan (2021) in their article titled "The effect of credit risk management and bank-specific factors on the financial performance of the South Asian commercial banks," sought to understand the impact of credit risk management and bank-specific factors on the financial performance of South Asian commercial banks. They discovered that while CAR and average lending rate were significantly positively correlated with the financial performance of Asian commercial banks, NPLs, the cost efficiency ratio, and the liquidity ratio were significantly negatively correlated with ROA and ROE.

Oboro et al. (2020) in their article, "Risk management strategies and banks' financial sustainability in the face of the recent global pandemic." Have addressed the effectiveness of product/service diversification strategies, risk hedging strategies, and corporate governance strategies on the financial sustainability of the Nigerian banking industry in the face of COVID 19. The authors found that these strategies are pertinent for formulating policies against the pandemic.

Mafumbo (2020) in his article, "Credit management, credit policy and financial performance of commercial banks in Uganda" sought to ascertain whether credit policy and performance were correlated by examining the impact of credit management on the financial performance of commercial banks in Uganda. Poor asset quality or a high ratio of non-performing loans to total assets has been linked to subpar bank performance, according to research on capital adequacy, performance, and credit risk control and performance. In addition, there was no significant correlation found between lending policy and financial performance. Other factors influencing the financial performance of Ugandan banks include capital sufficiency and credit risk control.

Brahmaiah(2019) in his article," Why Non-Performing Assets Are More in Public Sector Banks in India?" determine why there are more non-performing assets (NPAs) in public sector banks (PSBs) than in private sector banks (PVSBS), By using secondary data, it has been determined that PSBs are inefficient in managing their credit and credit portfolio because evidence suggests that they have more non-performing assets (NPAs) than their counterparts. Specifically, the policies and practices of scheduled commercial banks (SCBs) regarding NPA management should be reviewed and evaluated. The causes of NPAs should be studied, including ownership structure, credit terms, conditions, and covenants, nature of loans, type of borrowers, bank management practices, and business cycles. And PSBs' generous credit policies are the main reasons for their increased NPAs.

Tan et al. (2019) used secondary data for their article, "On the Nexus of Credit Risk Management and Bank Performance: A Dynamic Panel Testimony from Some Selected Commercial Banks in China." with the aim of examining the relationship between credit risk management and bank performance in a multivariate framework, They used bank size, non-performing loans, real GDP, net income, inflation, and return of total assets to loans

as indicators of credit risk and return of assets as a proxy of bank performance for a selected group of commercial banks in China between 2006 and 2017. Non-performing loans have been found to have a mitigating effect on ROA. While real GDP and inflation have a negative but negligible impact on ROA, the ratio of total assets to loans has a positive but statistically insignificant effect on ROA. Net income and bank size also have a beneficial impact on bank performance. The ratio of total assets to loans and ROA exhibit bidirectional causality, while real GDP, inflation (INF), bank size (BS), non-performing loans (NPL), and ROA to real GDP as well as inflation (INF) to real GDP exhibit unidirectional causality. There are noteworthy causal correlations between Chinese bank performance and credit risk management metrics.

In their 2018 study, "Research on Credit Risk Assessment of Small and Medium-Sized Enterprises in Commercial Banks," Gao and Zhang found that earning power, ability to repay debt, and flow capacity have a negative impact on the probability of default. The study involved the random selection of 60 enterprises and the use of 30 enterprises as test sample groups. The logistic model was used to build an evaluation index system for credit risk assessment for small and medium-sized enterprises in commercial banks.

In order to explain strategies to mitigate challenges resulting from unpaid loans, Afriyie et al. (2018) wrote an article titled "Credit Risk Management System of Commercial Banks: An Analysis of the Process." This article could be used to further understand the components of the credit risk management (CRM) system of commercial banks (CBs) in less developed economies, such as collateral. Credit risk was positively impacted by credit manuals. STAFF has a beneficial role in minimizing credit cost.

Nga (2017) found that while human resources have largely kept up with the growth of the banking industry, the quality of human resources remains low, and The State Bank should keep implementing synchronous measures to stabilize the monetary market. The recommendations enhancing the effectiveness of credit risk management for commercial banks in Ho Chi Minh City was written with the intention of giving readers accurate

information regarding factors affecting the credit risk management of commercial banks in Ho Chi Minh City. Many Vietnamese banks have opted to diversify their product offerings by embracing the retail banking trend.

Sharon(2013) in her article, titled "Credit Risk Management in Indian Banking System," Sharon sought to assess how credit risk management policies affect banks' credit monitoring, credit risk models, and credit limit management. She discovered that Indian banks have been implementing credit risk management policies and procedures in accordance with the BASEL, which validates the banks' application of credit risk management policies.

Junyi and Han(2012) in their article, "Research on the Credit Management of Commercial Banks of Lianyungang City for the SMEs," Junyi and Han used an empirical study to give an overview of the Credit Management of Commercial Banks of Lianyungang City for the SMEs. They found that while the commercial banks are not willing to lend to SMEs, they do not have sound credit policies, a system that warns of risk, and feedback information that is targeted at SMEs. Additionally, they did not fully address the issues of SMEs' inability to pay off their debts.

Table 1

Summary of International Articles

S.N.	Article	Writers (Date)	Objectives	Methodology	Major findings
1	Investment Strategies of Commercial Banks in Financial Market	Nargiza (2023)	To show the importance of the investment portfolio in commercial banks and the basic investment portfolio management strategies that commercial banks can use.	Descriptive Statistics	Commercial banks, in contrast to investment banks, place fewer funds in securities. Commercial banks in constantly attracting new depositors and collecting new deposits with attractive interest rates and favorable conditions
2	Policy recommendations for controlling credit risks in commercial banks after the Covid-19 pandemic in Vietnam	Hang (2022)	To analyzes some current problems and leading causes of the credit risk of commercial banks.	Primary data through detailed questionnaires, descriptive statistics, and compares,	Although commercial banks are issued and reviewed every year, they are still unable to meet Basel standards. An unsuitable loan

				analyzes, and synthesizes the statistical reports of commercial banks.	product design will affect the borrower.
3	Credit Management Practices and Loan Performance of Commercial Banks in Kenya	Obae and Jagongo (2022)	To determine the effect of credit rationing practice on loan performance of commercial banks in Kenya. To establish the effect of client appraisal practice on loan performance of commercial banks in Kenya	Descriptive Survey Design	Client appraisal practice, debt collection practice and credit rationing practices have significant effect on the loan performance of commercial banks in Kenya.
4	Risk Management Analysis of Modern Commercial Banks Using Behavioral Finance Theory and Artificial Neural Networks	Piao and Xiao (2022)	To examine the mechanism of commercial bank credit risk formation in China from the perspective of macro policy management or to examine the process of commercial bank risk formation from the perspective of system and institutional changes	Empirical study	The rate of nonperforming loans has decreased year by year, and the control ability of nonperforming loans of large state-owned banks needs to be strengthened
5	Credit Risk Management Practices of Indian Banking Industry: An Empirical Study	Brahmaiah (2022)	To examine the risk management techniques and practices of credit risk management followed by Indian commercial banks for the period from 2011-2017 to 2020-2021. To compare risk management practices followed by the public sector banks (PSBs) and private sector of banks (PVBs)	Empirical study of the Indian banking sector for five financial years from 2016-2017 to 2020-2021 based on their published annual reports.	Risk management framework designed by the most of the Indian banks has focused on credit risk management, management of capital adequacy, improving asset quality and enhancing the earnings during the last 5 yrs. The PVBs outperformed the PSBs on all the fronts of comparison in the study. Most of the Indian banks used the sophisticated risk management process and systems to manage credit risk and thereby reduce NPAs and improve profitability of banks.

6	The effect of credit risk management and bank-specific factors on the financial performance of the South Asian commercial banks	Siddique, et al. (2021)	To capture the effect of credit risk management and bank-specific factors on South Asian commercial banks' financial performance.	Secondary data and generalization method	NPLs, Cost Efficiency Ratio and Liquidity Ratio have significantly negatively related to FP (ROA and ROE), while CAR and Average Lending Rate have significantly positively related to the FP of the Asian commercial banks.
7	RISK MANAGEMENT STRATEGIES AND BANKS' FINANCIAL SUSTAINABILITY IN THE ACE OF THE RECENT GLOBAL PANDEMIC	Oboro et al. (2020)	To address the effectiveness of product/service diversification strategies, risk hedging strategy, and corporate governance strategy on financial sustainability of the Nigerian banking industry in the face of COVID 19.	Primary data used and analyzed using Pearson correlation matrix and multiple regression technique	Product Diversification Strategy, Service Diversification Strategy, Risk Hedging Strategy, and Corporate Governance Strategy are relevant for policy formulation against the global pandemic.
8	CREDIT MANAGEMENT, CREDIT POLICY AND FINANCIAL	Mafumbo (2020)	To analyzing the effects of credit management on the financial performance of commercial banks in Uganda.To determine whether there is a relationship between credit policy and performance, Capital Adequacy and performance and credit risk control and performance	Casual research design Use of secondary data, use of descriptive statistics for data analysis	Poor asset quality or high non-performing loans to total asset are related to poor bank performance. Credit policy had also a weak relationship with financial performance. Other factors apart from the credit policy, capital adequacy and credit risk control affect the financial performance of Banks in Uganda.
9	Why Non-Performing Assets Are More in Public Sector Banks in India?	Brahmaiah (2019)	To identify why there are more non-performing assets (NPAs) in the public sector banks (PSBs) than those in the private sector banks (PVSBs).To evaluate and review the policies and practices of scheduled commercial banks (SCBs) in terms of NPA management.To study the causes of NPAs, such as ownership structure, credit terms, conditions	Secondary data	PSBs are inefficient in managing their credit and credit portfolio since evidence shows that they have more NPAs than their counterparts.Primary causes of higher NPAs in PSBs are their liberal credit policies and loose terms and conditions of loans, deficiencies in the credit sanctions, and disbursements of loans.

and covenants, nature of loans, kind of borrowers, bank management practices and business cycles.

	<p>On the Nexus of Credit Risk Management and Bank Performance: A Dynamic Panel Testimony from Some Selected Commercial Banks in China</p>	<p>Tan, et al. (2019)</p>	<p>To examine the liaison amid credit risk management and bank performance in a multivariate framework using bank size, non-performing loans, real GDP, net income, inflation and return of total assets to loans as indicators of credit risk and return of assets as a proxy of bank performance for some selected commercial banks in China from 2006-2017.</p>	<p>Panel time series data of 6 years from secondary source</p>	<p>Non-performing loans has a mitigating impact on ROA. Net income and bank size also have positive effect on bank performance, whereas real GDP and inflation impact negatively on ROA but insignificant whilst ratio of total assets to loans on the other hand also has a statically insignificant but positive effect on ROA. There is existence of bidirectional causality between ratio of total assets to loans and ROA, and the presence of unidirectional causality extending from real GDP, inflation (INF), bank size (BS) and non-performing loans (NPL) to ROA, as well as inflation (INF) to real GDP. There exist significant causal relationships between the indicators of credit risk management and performance of banks in China</p>
<p>11</p>	<p>Research on Credit Risk Assessment of Small and Medium-Sized Enterprises in Commercial Banks</p>	<p>Gao, Zhang (2018)</p>	<p>To build the credit risk assessment evaluation index system to the small and medium-sized enterprise of commercial bank.</p>	<p>60 enterprises were randomly selected to form 30 enterprises were test sample groups, using logistic model</p>	<p>Earning power, Ability to repay debt and Flow capacity have negative effect on the probability of default</p>

12	CREDIT RISK MANAGEMENT SYSTEM OF COMMERCIAL BANKS: AN ANALYSIS OF THE PROCESS	Afriyie, et al. (2018)	To expatiate strategies to mitigate challenges resulting from unpaid loans, which could be used further in understanding the components of credit risk management (CRM) system of commercial banks (CBs) in a less developed economy.	Use of both primary (interviews) and secondary (various relevant documents) information from CBs and key management officials dealing with credit management	Collateral as well as Credit manual had positive effects on reducing credit risk. STAFF has a positive effect on minimization of credit cost.
13	THE RECOMMENDATIONS ENHANCING THE EFFECTIVENESS OF CREDIT RISK MANAGEMENT FOR COMMERCIAL BANKS IN HO CHI MINH CITY	Nga (2017)	To provide readers with accurate information regarding factors affecting the credit risk management of commercial banks in Ho Chi Minh City	Primary data through questionnaire and analyzed through multiple regression analysis	Human resources have basically met the development of the banking industry, but the quality of human resources is still low. The State Bank should continue to implement synchronous measures to stabilize the monetary market. Retail banking is a trend that many Vietnamese banks choose to diversify their products
14	Credit Risk Management in Indian Banking System	Sharon (2013)	To evaluate credit risk management policy determines the monitoring of credit of banks. To evaluate credit risk management policy determines the credit risk models of banks. To examine credit risk management determines the credit limit management of banks	Questionnaire Based	Indian banks have been adopting credit risk management policy and procedures as stated by the BASEL and confirms banks implementation of credit risk management policy.
15	Research on the Credit Management of Commercial Banks of Lianyungang City for the SMEs	Junyi, Han (2012)	To provide an over view on Credit Management of Commercial Banks of Lianyungang City for the SMEs	Empirical study	The commercial banks are not willing to loan to the SMEs. Commercial banks lack of sound credit policy and system aiming at the SMEs. Commercial banks lack of perfect system of risk warning and feedback

information aiming at the SMEs credit. Commercial banks didn't deal with perfectly the problems of escaping debts of the SMEs

2.2.2 Review of Nepalese Articles

Previously this study, various studies regarding the various aspects of commercial banks such as fund mobilizing policy, financial performance, and investment policy, lending policy, interest rate structure, resource mobilization and capital structure have conducted several thesis works. Some of them, which are relevant for this study, are presented beneath:

Silwal (2008) conducted a study on the "Lending Policy of Commercial Banks in Nepal" with the aim of analyzing the historical role of commercial banks, demonstrating the relationship between deposits and loans and advances, and identifying the main weaknesses in the commercial banks' lending policies. The study, which was primarily based on secondary data, concluded that a strong banking system is a prerequisite for good lending policies. However, branch expansion in various rural locations is particularly challenging due to regional differences, transportation, and geographic heterogeneity. Thus, it can be concluded that Nepal's commercial banks are not actively using the sources they have gathered from various industries. Banks are growing deposits by offering greater interest rates, which encourages customers to save more money overall. The banks will then have the opportunity to put these idle cash to good use. In a country that is predominantly agricultural, like Nepal, where governmental investment has limited capability, this kind of commercial bank operation is very essential.

Karmacharya (2009) In his thesis paper "A study on the Deposit Mobilization by the Joint Venture Banks," set out to analyze the Bank's utilization side in comparison to the collective resources, illustrate the connection between short- and long-term deposits and credit, and, based on the study's findings, recommend certain actions for enhancing the joint venture banks' financial performance. Karmacharya's study revealed that Nepal Bank's resource utilization is lacking in comparison to resource collection. The bank should consider expanding its branches to improve deposit collection and extend credit options for

both short- and long-term periods. Additionally, the bank should consider lending money to legitimate projects without requiring security.

Panta (2010) in his thesis paper "A Study of Commercial Bank Deposits and Utilizations," he attempted to investigate the gathering and application of resources. His primary goals were to examine the application resources used by commercial banks for both short- and long-term loans, to illustrate the deposits and uses made by these banks, and to make recommendations for future development based on the study's overall conclusions. He has come to the conclusion that because commercial banks only make short-term loans, they have not made the most use of their resources. In order to better utilize deposits and enhance their current state, he has recommended that all commercial banks prioritize long-term lending. And has made an effort to display the utilization and deposit position, Additionally, he has not discussed the danger factors. His only concern is collecting deposits; he is unable to demonstrate, assess, or determine the sound investment strategy or financial standing. His research period only covers FY 2005–2010, hence it is unable to display the deposit position and its use in subsequent years.

Bohara (2011) examined the financial performance of two joint venture banks primarily in his thesis work, "A Comparative Study of the Financial Performance of Nabil Bank Ltd. and Standard Chartered Bank Ltd." His primary goal is to compare the liquidity, activity, and profitability of NABIL and SCBNL's financial performances. The author has provided a summary and concluded that SCBNL has exhibited a better growth trend than NABIL in terms of earnings per share, cash dividend per share, tax per share, net profit, total loans, total deposits and advances, and market value per share over the last three years of the study period. In addition to excellent credit collection practices, he has made recommendations about investing in government assets, the OBS Operation Loan Recovery Act, project-oriented investing, efficient portfolio management, and creative approaches to bank marketing and banking facilities. Additionally, he has made significant policy and management approach recommendations.

Working capital of BOKL is positive, according to Shrestha's (2011) thesis, "The Management of Working Capital Position of BOK," which examined the management of working capital position of Bank of Kathmandu Limited. The organization's liquidity is represented by its working capital. It implies that a company's working capital increases its liquidity and vice versa. While the bank's current ratio fluctuates slightly, the ratio of savings deposits to total deposits has been steadily rising at the beginning and falling towards the end of the research period. The trend for BOKL's loan and advance to total ratio is rising.

The goal of Chhetri's (2012) thesis, "A Study on Fund Mobilization of Standard Chartered Bank, NIBL and Nepal SBI Bank Ltd," was to compare the relationships between deposits and total investment, deposit and loan also advance net profit of SCB, NABIL, and SBI, respectively, as well as to assess the growth ratio of loan and advance and total investment with respect to the growth rate of total deposits and net profit, liquidity, and asset management efficiency. The study was primarily based on secondary data, and the findings indicate that SBI has a superior liquidity situation than both SCB and NABIL. The highest cash and bank balance to total deposit ratio belongs to SCB once more, while the highest cash and bank balance to current ratio belongs to SBL. It was noted that SBI continues to maintain a greater Growth ratio in total deposits, while NABIL is quite successful in lending money and advancing its collected deposits as well as investing in productive industries.

Dhungana's (2013) in his thesis, "Fund Mobilization and Investment Policy of Banks of Nabil Bank and Himalayan Bank Ltd." the primary goals of this study were to investigate the fund mobilization and investment made by the HBL and NIBL that were chosen for the investigation, evaluate the commercial banks' liquidity, profitability, and risk position in asset management, and ascertain the correlation between the bank's total deposit and loans and advances, total deposit and total investment. According to the study, if all other factors stay the same, the total deposit, loan, advance, and investment of the chosen bank will increase. The association between the deposit and the chosen bank's loan and advance as well as the deposit and investment was good. Additionally, the loan and advance trend analysis

Dhungana (2013) titled "A study on working capital management of selected joint venture banks in Nepal. "His thesis' primary goals were to assess the components of working capital, look into the sample banks' cash and bank, money at call or short notice, miscellaneous, and government securities sections. The study's primary conclusions were that the sample banks' working capital components varied over the course of the investigation. A significant amount of the total revenue that is secured is made up of cash and bank balances, money on hand or at short notice, miscellaneous items, and government securities. It is discovered that SCBNL more effectively separates its findings in working capital.

2.3 Research Gap

In order to draw more definitive conclusions on credit management, more thorough testing and the adjustment of relevant variables are required, as the earlier studies only provided limited data. The basis of my research was established by earlier studies that attempted to determine the impact of various commercial banks' credit management strategies but were unable to accurately depict the state of credit management in Nepal's banking industry. Based on 10 years of data from government commercial banks' fiscal years 2070/71 to 2079/2080, the current study attempts to accomplish its goals through the analysis of secondary sources of data. Previous research focused on Nepal's commercial banks, either separately or in comparison; however, the government-owned banks in this research sample are called NBL and RBBL.

CHAPTER 3

RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. It refers to the various sequential steps that are to be adopted by a researcher during the course of studying the problem with certain objectives.

3.1 Research Design

Descriptive and causal comparative research design have been used to evaluate the credit management of sample Banks. Descriptive research design is used to accurately and systematically describe a population, situation or phenomenon. Similarly casual comparative research design is used to identify cause-effect relationships between independent and dependent variables.

In this study descriptive research design is used to examine the position of credit, profitability and non-performing loan of selected commercial bank. Likewise casual comparative research design have been used to examine the relation between non-performing loan, credit and deposit with profitability of selected commercial bank. It is also used to analyze the effect of credit deposit ratio, interest income ratio, non-performing loan ratio and advance ratio, loan loss ratio and interest expenses on profitability.

3.2 Population and Sample

As of February 4, 2024, there were twenty commercial banks operating throughout the nation, with the majority of their equities being actively traded on the stock market. Three commercial banks were chosen for this study's research. Based on their efforts to mobilize funds, these banks are contrasted. Convenience sampling is used to choose NBL, RBBL, and ADBL from the population based on the convenience of the data. Taking into account the statistics for ten years from the fiscal years 2070/71-079/80 for all three government banks the fund mobilization procedures that these three banks are

using to deploy both their own and collected funds are compared. The qualities that a loan officer looks for in a candidate are accountability, truthfulness, seriousness, purpose, and a sincere desire to pay back all debts. Initially,

3.3 Sources of sample

The primary source of secondary data for the study was publicly available financial reports. The balance sheet, profit and loss statement, and literature publishing of the relevant banks are the secondary sources of information. Some crucial information for this study project was provided by the concerned bank's NEPSE report. Additional data and information have been gathered from reliable sources, including the National Planning Commission, Nepal Rastra Bank, Campus Library, several publications, magazines, and other reports—both published and unpublished—that have been verified by the authorities. Using the SSPS system, all of the secondary data values are examined. Regression tools are utilized with the support of the SSPS system Descriptive statistics. Determining the appropriate correlations between the independent and dependent variables that measure the cost is helpful.

3.4 Data Analysis Tools

Every research project starts with data analysis and presentation. To achieve the study's goal, certain financial and statistical instruments are needed. The most trustworthy instruments are the statistical and financial ones. Numerous financial and statistical tools have been used in this investigation. These tools improve the analysis's efficacy, ease, authenticity, and reliability. The many outcomes acquired through the utilization of financial and statistical instruments are compiled under distinct categories. To interpret the outcomes, they are then contrasted with one another. To accomplish the specific goals, two different types of tools have been deployed.

3.4.1 Financial Tools

Financial tools basically help to identify the financial strengths and weaknesses of the firm by properly establishing relationships between the items of the balance sheet and the profit and loss account. Following financial tools are used in this study:

i) Loan and Advances to Total Deposit Ratio

This ratio is computed to determine the extent to which the chosen banks are making profitable use of their total collections or deposits on loans and advances. A higher ratio indicates better overall deposit utilization. By dividing loan and advances by total deposits, one can calculate this ratio, which is represented as,

$$\text{Loan and Advances to Total Deposit Ratio} = \frac{\text{Total loan and Advances}}{\text{Total Deposit}}$$

ii) Interest income to Total income

A commercial bank's primary source of revenue is interest from loans and advances. The strong success of lending operations is indicated by the large volume of interest income.

$$\text{Interest income to loans \& advances} = \frac{\text{Interest income}}{\text{Total Income}}$$

iii) Non-Performing Loans to Total Loan and Advances Ratio

All commercial banks must set up loan loss provisions against dubious and bad loans in accordance with NRB directives. The percentage of non-recovery loans in total loans and advances is shown by this ratio.

$$\text{Non-Performing Loans to Loan and Advance:} = \frac{\text{Total non performing loan}}{\text{Total loans ad advances}}$$

iv) Loans and Advances to Total Assets Ratio

The major part of total assets for the bank is loans and advances. This ratio indicates the volume of loans & advance out of the total assets. A high degree of the ratio indicates that the bank has been able to mobilize its fund through lending function.

$$\text{Loan and Advances to Total Assets Ratio} = \frac{\text{Loans and advances}}{\text{Total assets}}$$

v) **Loans loss provision to total loan and advances ratio**

The growing likelihood of a non-performing loan is redirected by the provision for loan loss. Dividends will decline as a result of the profit declining due to the growing loan loss provision. One benefit of booking loan loss provision is that it lowers deposit risk and controls credit risk, strengthening banks' financial standing.

Loan loss provision to Total loan and advances Ratio: $\frac{\text{Loan loss provision}}{\text{Total loans ad advances}}$

3.4.2 **Statistical Tools**

In this study, some important statistical tools have been used to present and analyze the data for achieving the objectives, which are presented beneath:

i) **Arithmetic Mean**

The arithmetic means or simple mean of set of observations in the sum of all the observation divided by the number of observations (Elhance & Agarwal, 1975). The arithmetic average of a variable is the best value that represents the group as a whole. A series' arithmetic mean can be found using:

$$\text{Mean } (\bar{X}) = \frac{\sum X}{N}$$

Where = Sum of the variables 'x' and N = No. of Observation

ii) **Coefficient of Variation (C.V)**

The most widely used metric for determining relative variance is the coefficient of variation. When a researcher wishes to compare the variability of more than two years, they employ it for such challenges. Higher the coefficient of variation, or C.V., or lower consistency, less uniformity, higher consistency, greater uniformity, higher stability, and homogeneity.

$$C.V = \frac{\text{Standard deviation } (\sigma)}{\text{Expected Return } (X)} \times 100$$

iii) **Standard Deviation (S.D)**

One significant and popular way to assess dispersion is via the standard deviation. Dispersion is the measurement of the mass of a figure's scatter-ness around an average in a series. The standard deviation increases with the degree of dispersion. A small standard deviation, represented by the letter σ , indicates both a high level of observational uniformity and series homogeneity; a big standard deviation, on the other hand, indicates exactly the opposite.

$$S.D (\sigma) = \sqrt{\frac{1}{N} \sum (X - \bar{X})^2}$$

Where,

N = Number of observations

X = Expected return of the historical data

iv) **Regression Analysis**

Regression can be literally understood as moving backward, returning to the average value, or going back in time. The method of examining the relationship between variations in one series and variations in another is called regression analysis. It establishes the type and intensity of the connection between two variables. (Elhance & Agarwal, 1975). Thus, regression is the estimation of unknown values or prediction of one variable from known values of other variables.

The Regression Model,

$$ROE_{it} = \beta_0 + \beta_1 \text{CDR} + \beta_2 \text{IIR} + \beta_3 \text{NPLR} + \beta_4 \text{LAR} + \beta_5 \text{LLPR} + \epsilon_{it}$$

$$ROA_{it} = \beta_0 + \beta_1 \text{CDR} + \beta_2 \text{IIR} + \beta_3 \text{NPLR} + \beta_4 \text{LAR} + \beta_5 \text{LLPR} + \epsilon_{it}$$

β_0 = Constant Value

β_1 = Coefficient of CDR

β_2 = Coefficient of IIR

β_3 = Coefficient of NPLR

β_4 = Coefficient of LAR

β_5 = Coefficient of LLPR

ROE = Return on Equity

ROA = Return on Assets

CDR = Credit Deposit Ratio

IIR = Interest Income Ratio

NPLR = Non-performing loan Ratio

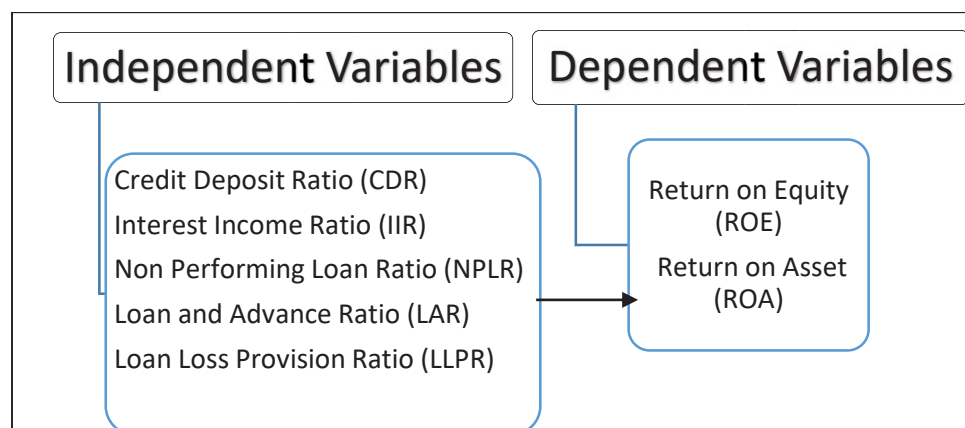
LAR = Loans and Advances Ratio

LLPR = Loan Loss Provision Ratio

ϵ_{it} = Error Terms

3.5 Theoretical Framework

From the theoretical and empirical literature reviews, the research develops the following framework for study:



Source: Mafumbo (2020) and Alzeaideen (2019)

Figure 1: *Theoretical Framework*

Definition of Variables

Total Loans to Deposit Ratio of Nepalese bank

The primary funding source for banks is deposits. To determine how well the banks are using their deposits for loans and advances, this ratio is computed. A higher ratio denotes better overall deposit utilization.

Non-Performing Loans to Total Loan and Advances Ratio

All commercial banks are required by the NRB to set up loan loss provisions against questionable and bad debts. The percentage of non-recovery loans in total loans and advances is displayed by this ratio.

Loans and Advances to Total Assets Ratio

Loans and advances make up the majority of the bank's overall assets. The amount of loans and advances relative to total assets is indicated by this ratio. A high ratio indicates that the bank has been successful in allocating its funds through lending, whereas a low ratio denotes low productivity and a high degree of liquidity safety.

Loans Loss Provision to Total Loan and Advances Ratio

The loan loss provision shows the growing likelihood of non-performing loans, and a rise in loan loss provision lowers earnings, which lowers dividends. A low ratio suggests that the assets in the total loan and advance volume are of good quality, whereas a high ratio suggests that the assets in the total loan and advance volume are riskier.

Interest Income to Total Income Ratio

This ratio measures the volume of interest income in total income. High ratio indicates the high involvement made by lending whereas low ratio indicates low involvement made by lending and high contribution by other fee-based activities in total income.

Return on Assets

Generally speaking, a ROA of more than 5% is good and more over 20% is exceptional. But companies in the same industry should always compare their return on assets (ROAs). A software developer, for example, has considerably less assets than a computer developer

on their balance sheet. The software company's assets have been undervalued as a result, and its ROA may become hazy.

Return on Equity

The return on equity is a measure of the profitability of a business in relation to the equity. It shows the effectiveness of fund invested by shareholders in banks and financial institution.

CHAPTER-IV

RESULTS AND DISCUSSION

This chapter presents and analyzes the chosen NBL, RBBL, and ADBL data that was gathered to meet the study's predetermined objectives. Data analysis and presentation are crucial phases of a research project. To provide the financial data in tabular form and enable recommendations for remedial action to be made, analysis is done. The several facets of credit management will be covered in this chapter, along with their actual results and recommendations for corrective action. Financial statements for the fiscal years 2070/2071 and 2079/2080 have been provided for analysis.

4.1 Financial Tools

4.1.1 Total Loan to Total Deposit Ratio

This ratio assesses how well the bank manages its total deposit on loans and advances in order to produce revenue or not. Better mobilization of the collected deposit is indicated by a high ratio, and vice versa.

Table 2

Total Loan to Total Deposit Ratio of Sample Bank

Bank	RBBL	ADBL	NBL
Fiscal Year	CDR (%)	CDR (%)	CDR (%)
2070/71	56.73	94.8	59.45
2071/72	61.05	93.77	68.45
2072/73	58.46	95.46	71.05
2073/74	69.3	92.9	79.17
2074/75	71.38	100.26	75.68
2075/76	77.15	93.62	78.14
2076/77	67.16	85.84	72.25
2077/78	73.64	92.93	82.76
2078/79	88.49	107.01	86.97
2079/80	76.9	91.56	72.68
Mean	70.026	94.815	74.66
SD	9.7393	5.5744	7.7696
CV	13.91	5.88	10.41

Source: Appendix-I, II &III

Table 2 represents total loans to total deposit of Sample commercial Banks. The Total loans to total deposit ratio of RBBL is in fluctuating trend with highest value 88.49 in the F/Y 2078/79 and lowest 56.73 in the F/Y 2070/71. The mean, S.D and C.V of RBBL are 70.02, 9.73 and 13.91 respectively. ADBL is in fluctuating trend with highest value 107.01 in the F/Y 2078/79 and Lowest 85.54 in the F/Y 2076/77. The 51 mean, S.D and C.V of ADBL are 94.81, 5.57 and 5.88 respectively. NBL is in fluctuating trend with highest value 86.97 in the F/Y 2078/79 and Lowest 59.45 in the F/Y 2070/71. The mean, S.D and C.V of NBL are 74.66, 7.76 and 10.41 respectively. From mean point of view, the mean ratio of ADBL is greater than NBL and RBBL. ADBL has maintained higher loan and advances to total deposit. In this way, it shows that ADBL seems to mobilize its total deposit as loan & advances better than RBBL and NBL. However higher ratio does not mean it is always better from the point of liquidity. Both banks are capable to use more than 50% of deposit on loan and advances. If maintained this, it helps to make consistency on the profitability of the banks. Similarly, C.V. analysis stated that ADBL is more consistent than NBL and RBBL in generating total loans to deposit ratio because ADBL has less C.V than that NBL and RBBL.

4.1.2 Non-Performing Loan to Total Loan and Advances

The non-performing loan to total loan mirrors the credit risk of the bank. Higher the ratio indicates high exposure of non-performing loan on total loan and thus indicates high credit risk, which may affect the sustainability of the bank.

Table 3

Non-Performing Loan to Total Loan and Advances

Bank	RBB	ADBL	NBL
Fiscal Year	NPLR	NPLR	NPLR
2070/71	6.38	5.46	5.12
2071/72	5.35	5.35	3.98
2072/73	4.25	4.36	3.11
2073/74	3.77	4.6	3.32
2074/75	4.75	3.41	3.37

2075/76	4.59	3.29	2.64
2076/77	4.08	2.84	2.47
2077/78	3.23	1.88	2.05
2078/79	2.09	2.09	1.83
2079/80	3.77	2.78	2.85
Mean	4.226	3.606	3.074
SD	1.1692	1.2789	0.9635
CV	27.67	35.47	31.34

Source: Appendix-I, II &III

Table 3 represents total non-performing loans to total loan and advances of Sample Banks. The total non-performing loans to total loan and advances ratio of RBBL is in fluctuating trend with highest value 6.38 in the F/Y 2070/71 and lowest 2.09 in the F/Y 2078/79. The mean, S.D and C.V of RBBL are 4.22, 1.16 and 27.67 respectively. ADBL is in fluctuating trend with highest value 5.46 in the F/Y 2070/71 and Lowest 1.88 in the F/Y 2077/78. The mean, S.D and C.V of ADBL are 3.61, 1.27 and 35.47 respectively. NBL is in fluctuating trend with highest value 5.12 in the F/Y 2070/71 and Lowest 1.83 in the F/Y 2078/79. The mean, S.D and C.V of NBL are 3.07, 0.96 and 31.34 respectively.

From mean point of view, the mean ratio of RBBL is greater than NBL and ADBL which shows that RBBL has high nonperforming loan than NBL and ADBL.

4.1.3 Loans and Advances to Total Assets Ratio

The major part of total assets for the bank are loans and advances. This ratio specifies the volume of loans and advance out of the total assets. A high degree of the ratio shows that the bank has been able to mobilize its fund through lending function and low ratio represents low productivity with high degree for safety in terms of liquidity.

Table 4

Loans and Advances to Total Assets Ratio

Bank	RBB	ADBL	NBL
Fiscal Year	LAR	LAR	LAR
2070/71	49.65	72	52.9

2071/72	54.33	72	60.5
2072/73	49.67	75	58.9
2073/74	51.78	73	63.4
2074/75	52.69	77	55.6
2075/76	49.96	75	53.9
2076/77	47.25	70	54
2077/78	59.67	70	60.8
2078/79	65.92	73	65.9
2079/80	57.68	66	60.2
Mean	53.87	72.3	58.61
SD	5.71	3.1287	4.3738
CV	10.61	4.33	7.46

Source: Appendix-I, II &III

Table 4 represents loan and advances to total assets of Sample Banks. The loans & advance to total assets ratio of RBBL is in fluctuating trend with highest value 66 in the F/Y 2078/79 and Lowest 47 in the F/Y 2076/77. The mean, S.D and C.V of RBBL are 53.87, 5.71 and 10.60 respectively. The loans & advance to total assets ratio of ADBL is in fluctuating trend with highest value 77 in the F/Y 2074/75 and lowest 66 in the F/Y 2079/80. The mean, S.D and C.V of ADBL are 72.3, 3.12 and 4.33 respectively. The loans & advance to total assets ratio of NBL is in fluctuating trend with highest value 65 in the F/Y 2078/79 and lowest 52.9 in the F/Y 2070/71. The mean, S.D and C.V of NBL are 58.61, 4.37 and 7.46 respectively.

From the mean point of view, it can be said that mean ratio of has ADBL highest than NBL and RBBL. It can be concluded that higher the mean ratio it indicates good lending performance. ADBL has better consistency than RBBL and NBL due to less CV.

4.1.4 Loans Loss Provision to Total Loans and Advances Ratio

The provision for loan loss indicates the increasing chance of non-performing loan. Increase in loan loss provision declines its profit and result to decline in dividends. But its positive impact is to strengthen the financial circumstances of banks by controlling the

credit risk and reduced the risks related to deposits. The low ratio specifies the good quality of assets in total volume of loan & advances. High ratio specifies more risky assets in total volume of loan & advances.

Table 5

Loans Loss Provision to Total Loans and Advances Ratio

Bank	RBB	ADBL	NBL
Fiscal Year	LLPR	LLPR	LLPR
2070/71	5.8525	8.4623	5.3
2071/72	4.9544	5.0668	4.5
2072/73	4.3199	4.7096	3.7
2073/74	3.9501	4.8732	3.7
2074/75	4.071203	3.8054	3.4
2075/76	5.8651	3.2339	3.3
2076/77	3.3371	3.3371	3.7
2077/78	3.848	2.7999	3.2
2078/79	3.4545	2.9553	3
2079/80	4.48	2.78	3.5
Mean	4.4133	4.2024	3.73
SD	0.8953	1.7318	0.6848
CV	20.29	41.21	18.36

Source: Appendix-I, II & III

Table 5 represents loan loss provision to total loan and advances of sample banks. The loan loss provision to total loan and advances ratio of RBBL is in fluctuating trend with highest value 5.85 in the F/Y 2070/71 and lowest 3.33 in the F/Y 2076/77. The mean, S.D and C.V of RBBL are 4.41, 0.89 and 20.29 respectively. The loan loss provision to total loan and advances ratio of ADBL is in fluctuating trend with highest value 8.46 in the F/Y 2070/71 and Lowest 2.79 in the F/Y 2079/80. The mean, S.D and C.V of ADBL are 4.20, 1.73 and 41.21 respectively. The loan loss provision to total loan and advances ratio of NBL is in fluctuating trend with highest value 5.3 in the F/Y 2070/71 and Lowest 3 in the F/Y 2078/79. The mean, S.D and C.V of NBL are 3.73, 0.68 and 18.36 respectively.

4.1.5 Interest Income to Total Income Ratio

This ratio measures the volume of interest income in total income. High ratio indicates the high involvement made by lending whereas low ratio indicates low involvement made by lending and high contribution by other fee-based activities in total income

Table 6

Interest Expenses to Total Expenses Ratio

Bank	RBB	ADBL	NBL
Fiscal Year	IIR	IIR	IIR
2070/71	88.22	90.96	90.39
2071/72	86.89	89.62	90.23
2072/73	87.8	89.22	89.64
2073/74	88.11	88.54	87.7
2074/75	91.77	92.03	102.52
2075/76	90.76	91.66	87.02
2076/77	93.21	87.29	88.13
2077/78	91.46	83.39	87.05
2078/79	92.44	93.28	92.38
2079/80	95.42	94.46	95.38
Mean	90.61	90.05	91.044
SD	2.77	3.203	4.7977
CV	3.06	3.56	5.27

Source: Appendix-I, II &III

Table 6 represents interest income to total income of sample banks. The interest income to total income ratio of RBBL is in fluctuating trend with highest value 95.42 in the F/Y 2079/80 and Lowest 87.80 in the F/Y 2016/17. The mean, S.D and C.V of RBBL are 90.61, 2.77 and 3.06 respectively. The interest income to total income ratio of ADBL is in fluctuating trend with highest value 94.46 in the F/Y 2079/80 and Lowest 83.39 in the F/Y 2077/78. The mean, S.D and C.V of ADBL are 90.05, 3.203 and 3.56 respectively. The interest income to total income ratio of NBL is in fluctuating trend with highest value 102.52 in the F/Y 2074/75 and Lowest 87.05 in the F/Y 2077/78. The mean, S.D and C.V

of NBL are 91.04, 4.79 and 5.27 respectively. From Average point of view, it can be said that NBL has high interest income to total income. The lowest ratio of RBBL and ADBL indicates its low dependency in fund-based activity. The highest ratio of NBL indicates greater dependency on fund-based activities.

4.1.6 Return on Asset

Return on assets associates the value of a business's assets with the profits it generates over a period of time. ROA is a helpful indicator for evaluating a company's performance. When a firm's ROA rises over time, it point out that the company is generating more profits out of each rupees it owns in assets. On the other hand, a declining ROA suggests a company has made wrong investments, i.e. spending too much money and may be directed for trouble.

Table 7

Return on Asset

Bank	RBB	ADBL	NBL
Fiscal Year	ROA	ROA	ROA
2070/71	1.47	1.76	0.92
2071/72	3.22	3.12	0.55
2072/73	1.42	2.32	2.79
2073/74	1.6	2.15	2.78
2074/75	1.42	2.71	2.41
2075/76	2.23	2.77	1.51
2076/77	1.64	1.86	1.22
2077/78	1.1	1.59	1.33
2078/79	1.3	0.9	1.12
2079/80	0.91	0.5	1.81
Mean	1.631	1.968	1.644
SD	0.6592	0.8281	0.7824
CV	40.42	42.08	47.59

Source: Appendix-I, II & III

Table 7 represents return on assets of sample banks. The ADBL has the highest average of return on assets over the ten years whereas RBBL has the lowest average of return on assets. The average return on assets of RBBL, ADBL and NBL over ten years are 1.631, 1.97 and 1.644 percentage respectively. In addition, the average value of ROA is less than 5 percentage in every bank thus, each bank has to make optimum utilization of available all sorts of assets. Further, there is no consistency in ROA of commercial banks and is fluctuating.

4.1.7 Return on Equity

Return on equity (ROE) shows how effectively a business uses its equity or the money funded by its stockholders and cumulative retained profits to yield income. A high ROE recommends that a company's management team is more effective when it comes to make use of investment financing to grow their business and is more capable of providing returns to investors. A low ROE, however, point out that a company may be mishandled and could be investing earnings into unproductive sectors.

Table 8

Return on Equity

Bank	RBB	ADBL	NBL
Fiscal Year	ROE	ROE	ROE
2070/71	100.39	19.34	45.69
2071/72	102.49	39.62	13.48
2072/73	30.82	13.41	27.07
2073/74	29.09	13.39	8.62
2074/75	31.64	13.77	13.97
2075/76	29.48	15.31	9.94
2076/77	19.62	11.58	7.87
2077/78	13.24	11.54	9.36
2078/79	14.48	6.72	8.51
2079/80	8.84	3.94	9.55
Mean	38.009	14.86	15.406

SD	34.3993	9.696	12.0649
CV	90.5	65.24	78.31

Source: Appendix-I, II & III

Table 8 depicts that the average return on equity ratio for commercial banks, RBBL, ADBL and NBL has 38.09, 14.86 and 15.41 percentage respectively. The reasonable ROE specifies that a company is increasing its profit generation without needing as much capital. The commercial banks management has positioned shareholder capital in well process. It is found that commercial banks have excellently and sufficiently used existing capital. The equity shareholders have been provided satisfactory return in commercial banks. The wealth and growth of equity shareholders have been accomplished by commercial banks in satisfactory way. Similarly, however, there is inconsistency in return on equity ratio over ten years in all commercial banks because of high CV.

4.2 Statistical Tools

4.2.1 Descriptive Analysis

The descriptive statistics used in this study consists of minimum, maximum, mean, standard deviation and CV associated with variables under consideration. Therefore, descriptive statistics enables to present the data in a more meaningful way, which allows simpler analysis of the data.

Table 9

Descriptive Analysis

Variables	N	Highest	Lowest	Mean	SD	CV
CDR	30	107.01	56.73	79.83	13.1	16
NPLR	30	6.38	1.83	3.64	1.18	32
LAR	30	77	47.25	61.59	8.92	14
IIR	30	102.52	83.39	90.56	3.53	4
LLPR	30	8.46	2.78	4.12	1.17	28
ROA	30	3.22	0.5	1.75	0.74	42

ROE	30	102.49	3.94	22.76	23.31	102
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Source: Appendix-IV

Table 9 reveals the Descriptive Analysis between depended variable and independent variable. CDR ranges from 107.01 highest to 56.73 lowest, average CDR is 79.83, standard deviation is 13.1 which means CDR of commercial banks deviates 13.1% from average CDR and Coefficient of Variation is 16 there is high level of dispersion in CDR of commercial banks. NPLR ranges from 6.38 highest to 1.83 lowest, average NPLR is 3.64, standard deviation is 1.18 which means NPLR deviates by 1.18% from its average and Coefficient of Variation is 32 which means high level of dispersion in NPLR of commercial banks. LAR ranges from 77 highest to 47.25 lowest, average is 61.59, standard deviation is 8.92 which means LAR deviates by 8.92% from its average and Coefficient of Variation is 14 which shows high level of dispersion in data.. IIR ranges from 102.52 highest to 83.39 lowest, average is 90.56, standard deviation is 3.53 which shows IIR deviates by 3.53% from its average and Coefficient of Variation is 4 shows low dispersion in data. LLPR ranges from 8.46 highest to 2.78 lowest, average is 4.12, standard deviation is 1.17 which mean LLPR deviates by 1.17% from its average and Coefficient of Variation is 28 which means high dispersion in LLPR of commercial bank. ROA ranges from 3.22 highest to 0.5 lowest, average is 1.75, standard deviation is 0.74 which shows ROA deviates by 0.74% from its average and Coefficient of Variation is 42 shows high dispersion in ROA of commercial banks. ROE ranges from 102.49 highest to 3.94 lowest, average is 22.76, standard deviation is 23.31 which means ROA deviates by 23.31% from its average and Coefficient of Variation is 102 which shows high dispersion in ROA of commercial banks.

4.2.2 Correlation Matrix

Correlation is the statically tool, which shows the degree of relationship between two or more variables of a population. It describes the degree to which one variable is linearly related to another. Amongst the various ways of finding out coefficient of correlation, Karl Pearson's method is applied in the study. The result of coefficient of correlation is always between +1 and -1 when r is +1, it means there is perfect relationship between two variables and vice versa. When r is 0 it means there is no relationship between the variables.

Table 10*Correlation Matrix*

	CDR	NPLR	LAR	IIR	LLPR	ROE	ROA
CDR	1.						
NPLR	-.39*	1.					
LAR	.90**	-.26	1.				
IIR	.08	-.07	-.03	1.			
LLPR	-.16	.81**	-.07	-.11	1.		
ROE	-.55**	-.71**	-.40*	.26	.45*	1.	
ROA	.13	.29	-.23	.12	.16	.29	1.

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

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

Source: Appendix-V

Table 10 reveals the correlation matrix between depended variable and independent variable profitability i.e., ROE, ROA and independent variables CDR, NPLR, LAR and LLPR using correlation coefficient matrix. The correlation coefficient between CDR and ROA is 0.13 but the relationship is not significant. Likewise the correlation coefficient between CDR and ROE is -0.55 which indicate that there is a negative correlation between CDR and ROE and the relationship is significant at 1% level of significance. The correlation coefficient between NPLR and ROA is 0.29 but the relationship is not significant. Likewise the correlation coefficient between NPLR and ROE is -0.71 which indicate that there is a negative correlation between NPLR and ROE and the relationship is significant at 1% level of significance. The correlation coefficient between LAR and ROA is -0.23 but the relationship is not significant. Likewise the correlation coefficient between LAR and ROE is -0.40 which indicate that there is a negative correlation between LAR and ROE and the relationship is significant at 5% level of significance. The correlation coefficient between IIR and ROA is 0.12 but the relationship is not significant. Likewise the correlation coefficient between IIR and ROE is 0.26 which indicate that there is a positive correlation between IIR and ROE but the relationship is not significant. The correlation coefficient between LLPR and ROA is 0.16 which indicate that there is a

positive correlation between LLPR and ROA but the relationship is not significant. Likewise the correlation coefficient between LLPR and ROE is 0.45 which indicate that there is a positive correlation between LLPR and ROE and the relationship is significant at 5% level of significance.

4.2.3 Regression Analysis among Credit to Total Deposit, Non-performing Loan to Loan and Advances, Loan Loss Provision to Loan and Advances Interest Income to Total Income and ROA

The regression is used to define the statistical relationship between two or more variable and to make predication of one variable on the basis of the others. Multiple regression analysis has been done in the study. When we take more than one independent variable and forecast the value of the dependent variable through the suitable regression line the analysis is known as multiple regression analysis.

Table 11

Summary Table

Multiple R	R Square	Adjusted R Square	Standard Error	Observations
0.74	0.54	0.45	0.98	30.00

Source: Appendix-VII

Dependent Variable: ROA

Table 11 shows the summary of multiple regression analysis taking ROA as dependent variable, where the value of R² is 0.54 meaning that 54 percent variation in ROA is explained by independent variables i.e., CDR, NPLR, LAR, IIR and LLPR and remaining change in ROA is not explained by these variables.

Table 12

ANOVA Table

	Df	SS	MS	F	P Value
Regression	5	27.49	5.49	5.71	0.00
Residual	24	23.11	0.96		

Total 29 50.61

Source: Appendix-VII

Dependent Variable: ROA

Table 12 presents the ANOVA (P-value) test for the significance of multiple regression coefficients. The P-value for overall regression model is 0.00 which is less than 5% level of significance which shows that the joint contribution of CDR, NPLR, LAR, IIR and LLPR on ROA is significant.

Table 13

Results from regression of ROA

	Coefficients	Standard Error	t Stat	P-value
Intercept	3.81	5.02	0.76	0.46
CDR	0.01	0.04	0.28	0.78
NPLR	-0.57	0.26	-2.22	0.04
LAR	0.10	0.05	1.92	0.07
IIR	-0.09	0.05	-1.63	0.12
LLPR	-0.67	0.26	-2.57	0.02

Source: Appendix-VII

Dependent Variable: ROA

Table 13 presents the regression coefficient of independent variables CDR, NPLR, LAR, IIR and LLPR of sample banks and the intercept value of dependent variable ROA. According to the regression result of CDR has no significant impact on ROA as P value is 0.78 which is greater than 5% level of significance. NPLR has significant impact on ROA as the P value is 0.04 which is less than 5% level of significance. This means that holding other independent variables constant, when one percent of NPLR is increases it result in decreases of ROA of the banks by 57 percent. LAR has no significant impact on ROA as the P value is 0.07 which is greater than 5% level of significance. IIR has no s significant impact on ROA as the P value is 0.12 which is greater than 5%. LLPR has significant impact on ROA as the P value is 0.02 which less than 5% level of significance. This means that holding other independent variables constant, when one percent of LLPR is increases it result in decreases of ROA of the banks by 67 percent.

4.2.4 Regression Analysis among Credit to Total Deposit, Non-performing Loan to Loan and Advances, Loan Loss Provision to Loan and Advances Interest Income to Total Income and ROE

Table 14

Summary Table

Multiple R	R Square	Adjusted R Square	Standard Error	Observations
0.81	0.65	0.58	15.37	30.00

Source: Appendix-VI

Dependent Variable: ROE

Table 14 shows the summary of multiple regression analysis taking ROE as dependent variable, where the value of R Square is 0.65 meaning that 65 percent variation in ROE is explained by independent variables i.e., CDR, NPLR, LAR, IIR and LLPR and remaining change in ROE is not explained by these variables.

Table 15

ANOVA Table

	Df	SS	MS	F	P Value
Regression	5.00	10622.58	2124.52	8.99	0.00
Residual	24.00	5673.30	236.39		
Total	29.00	16295.88			

Source: Appendix-VI

Dependent Variable: ROE

Table 15 presents the ANOVA (P-value) test for the significance of multiple regression coefficients. The F-value for the significant test is 8.99 and P value for overall regression model is 0 which is less than 5% level of significance which shows joint contribution of CDR, NPLR, LAR, IIR and LLPR on ROE is significant.

Table 16

Results from regression of ROE

	Coefficients	Standard Error	t Stat	P-value
Intercept	142.50	79.10	1.80	0.08
CDR	-0.58	0.55	-1.05	0.31

NPLR	-15.44	4.61	-3.35	0.00
LAR	-0.17	0.76	-0.23	0.82
IIR	1.33	0.83	1.61	0.12
LLPR	-4.89	4.29	-1.14	0.27

Source: Appendix-VI

Dependent Variable: ROE

Table 16 presents the regression coefficient of independent variables CDR, NPLR, LAR, IIR and LLPR of sampled banks and the intercept value of dependent variable ROE. According to the regression result of CDR has no significant impact with ROE as P value is greater than 5% level of significance. NPLR has significant impact with ROE as its P value is less than 5% level of significance. This means that holding other independent variables constant, when one percent of NPLR is increases it result in decreases of ROE of the banks by 154.4 percent. LAR has no significant impact with ROE as P value is greater than 5% level of significance. IIR has no significant impact with ROE as P value is greater than 5% level of significance. LLPR has no significant impact with ROE as P value is greater than 5% level of significance.

4.3 Discussion

The findings of this study have been discussed for uniformity or discrepancy with the previous researchers' findings. The correlation coefficient between CDR and NPLR is -0.39 which indicate that there is a negative correlation between CDR and NPLR and the relationship is significant at 5% level of significance. It shows that, 1% increase in CDR results decrease in NPLR by 39%. The finding is similar with Gao (2018) and Zhongmin, Mpeqa, Mensah, Ding and Musah (2019)

The correlation coefficient between CDR and LAR is 0.90 which indicate that there is a positive correlation between CDR and LAR and the relationship is significant at 1% level of significance. It shows that, 1% increase in CDR results increase in LAR by 90%.

The correlation coefficient between CDR and IIR is 0.8 which indicate that there is a positive correlation between CDR and LLPR. The correlation coefficient between CDR and LLPR is -0.16 which indicate that there is a negative correlation between CDR and LLPR. The correlation coefficient between CDR and return on equity is -0.55 which indicate that there is a negative correlation between CDR and return on equity and the

relationship is significant at 1% level of significance. It shows that, 1% increase in CDR results decrease in return on equity by 55%. The result is similar with Brahmaiah (2019).

Furthermore, the correlation coefficients between the loan-to-deposit ratio and return on equity are negative, indicating that there is a negative correlation between the loan-to-deposit ratio and return on equity. Furthermore, loan deposits have a negative impact on the profitability of commercial banks. Hence, an increase in the loan-to-deposit ratio leads to a decrease in return on equity. Hence, the results of these studies are consistent with Silwal (2008) and Panta (2010).

The correlation coefficient between NPLR and LAR is -0.26 which indicate that there is a negative correlation between NPLR and LAR. The correlation coefficient between NPLR and IIR is -0.07 which indicate that there is a negative correlation between NPLR and IIR. The correlation coefficient between NPLR and LLPR is 0.81 which indicate that there is a positive correlation between NPLR and LLPR and the relationship is significant at 1% level of significance. It shows that, 1% increase in NPLR results increase in LLPR by 81%.

The correlation coefficient between NPLR and return on equity is -0.71 which indicate that there is a negative correlation between NPLR and return on equity and the relationship is significant at 1% level of significance. It shows that, 1% increase in NPLR results decrease in return on equity by 71%. The correlation coefficients between the non-performing loan ratio and the return on equity are negative, suggesting that increase in non-performing loan have a negative impact on profitability. Therefore, when the non-performing loan ratio increases, the return on equity decrease. This finding is therefore similar to Piao and Xiao (2022), Siddique, Khan and Khan (2021) and Mafumbo (2020) results.

The correlation coefficient between LAR and IIR is -0.30 which indicate that there is a negative correlation between LAR and IIR. The correlation coefficient between LAR and LLPR is -0.07 which indicate that there is a negative correlation between LAR and LLPR. The correlation coefficient between LAR and return on equity is -0.40 which indicate that there is a negative correlation between LAR and return on equity and the relationship is significant at 5% level of significance. It shows that, 5% increase in LAR results decrease

in return on equity by 40%. Thus, loans have a negative impact on profitability. Therefore, an increase in lending leads to decreased return on asset and lower return on equity. This result is therefore consistent with Silwal (2008) and Chhetri (2021) results

The correlation coefficient between IIR and LLPR is -0.11 which indicate that there is a negative correlation between IIR and LLPR. In addition, the correlation coefficient between the interest income ratio and return on asset and return on equity is positive, suggesting that there is a positive correlation between the interest income ratio and return on asset and return on equity. Interest rates also have a positive influence on profitability (ROA, ROE). Consequently, the interest income ratio and return on assets and return on equity move in the same direction. Therefore, the results of this study are consistent with Silwal (2008), Bohara (2011) and Dhungana (2013).

The regression result of CDR, LAR and IIR shows no significant impact on ROA as P value is greater than 5% level of significance. This shows that change in CDR, LAR and IIR doesn't impact on ROA of commercial bank. The regression result of NPLR and LLPR shows significant impact on ROA as P value is less than 5% level of significance. This shows that change in NPLR and LLPR impacts on ROA of commercial bank. This finding is therefore similar to Piao and Xiao (2022), Siddique, Khan and Khan (2021) and Mafumbo (2020) results.

The regression result of CDR, LAR, LLPR and IIR shows no significant impact on ROE as P value is greater than 5% level of significance. This shows that change in CDR, LAR LLPR and IIR doesn't impact on ROE of commercial bank. The regression result of NPLR shows significant impact on ROE as P value is less than 5% level of significance. This shows that change in NPLR impacts on ROE of commercial bank. This finding is therefore similar to Bohara (2011) and Dhungana (2013) results.

CHAPTER-V

SUMMARY AND CONCLUSION

This chapter includes the summary of thesis, conclusion based on findings and implication of the study.

1.1 Summary

The handling of credit risk by Nepal's commercial banks is the subject of the study. The primary goal of the study is to evaluate NBL, RBBL, and ADBL's credit management practices. Out of all 20 commercial banks as of February 4, 2024, three samples of government-owned banks were used in the study. The random sampling approach was used to select the samples. Thirty observations in total, from three sample banks, covering 10 years of data from 2069/70 to 2079/80. Descriptive and causal comparative study designs have been employed in accordance with research methodology.

The statistical tools include mean, standard deviation, and CV. The inferential statistic primarily consists of correlation and regression analysis for cause and effect relationship between and among undertaken variables, such as independent variables like credit deposit ratio, interest income ratio, non-performing loan ratio, loan to asset ratio, and loan loss provisions ratio, and dependent variables like profitability in terms of return on equity (ROE) and return on assets (ROA).

It shows that ADBL seems to be strong to mobilize its total deposit as loan and advances. However higher ratio does not mean it is always better from the point of liquidity. Both banks are capable to use more than 50% of deposit on loan and advances. If retained this, it helps to make uniformity on the profitability of the banks. It can be concluded that higher the mean ratio it indicates good lending performance. Here RBBL should focus to increase loan and advances to total assets ratio to increase lending performance. ADBL is better in than of consistency RBBL and NBL due to CV of ADBL is less than RBBL and NBL. The loan loss provision to total loan and advances of NBL is better in consistency than of RBBL and ADBL due to low CV. ADBL is in riskier because its CV is higher than RBBL and NBL. ROE of RBBL is higher than ADBL and NBL. It is found that commercial banks have efficiently and adequately used existing capital. The equity shareholders have been provided reasonable return in commercial banks. The wealth and growth of equity

shareholders have been managed by commercial banks in reasonable way. The average value of ROA is less than 5 percent in every bank which indicates that each bank has to make optimum utilization of all sorts of assets.

1.2 Conclusion

In the light of the evidence, it is discovered that debt to total assets ratio and loan losses to total loans ratio of ADBL is higher than RBBL and NBL which shows, ADBL uses more leverage in its capital structure compared to total capital. RBBL's high loan loss provision ratio indicates a higher level of potential losses than other banks. Return on asset of ADBL is high indication ADBL has been utilizing assets better than RBBL and NBL. Return on equity of RBBL is high showing RBBL has sufficiently used existing capital.

In addition, the correlation coefficients between the loan to deposit ratio and the investment return are positive and the correlation coefficients between the loan to deposit ratio and return on equity are negative. In addition, loan deposits have a negative impact on the profitability of commercial banks. Therefore, an increase in the loan-to-deposit ratio leads to a decrease in return on equity. Similarly, the correlation coefficients between the nonperforming loan and the return on investment and return on equity are negative, suggesting a negative correlation between the non-performing loan rate and the return on investment and return on equity. Bad debts also have a negative impact on profitability. Therefore, when the bad debt ratio increases, the return on capital and the return on equity decrease.

As per the third objective, loans have a detrimental impact on profitability. As a result, reduced returns on equity and assets are the result of increased lending. Additionally, the non-performing loan ratio has a detrimental effect on his ROE and ROA. In a similar vein, profitability (ROA and ROE) is negatively impacted by the interest expense rate. Profitability is also positively impacted by interest rates (ROA, ROE). As a result, the return on equity, return on assets, and interest income ratio all trend in the same way.

1.3 Implications

The following study implication, which would be beneficial in management decision making, policy markets, investors, researchers, and academicians, may be expressed based on the findings and conclusion of the study.

- Many other variables, such as money supply, exchange rate, etc., can be used to expedite the development of commercial banks in Nepal.
- The development of excellent value institutions, such as law and order, well-organized bureaucracy, and democratic responsibility, is vital. The reduction of microeconomic variables such as inflation and interest rates is necessary to fully capitalize on the stock market.
- Nepalese commercial banks have experienced difficulties due to a market built on rumors, investors not having enough information, and information being unavailable. Programs must therefore be introduced to raise public awareness.
- The commercial bank does better than the other industries. Therefore, it is advised that they make investments in this field. The stock exchange should have robust operations and efficient management, with a focus on investors and the market.
- The study's conclusions are used to formulate plans and policies related to financial decision-making. The results of this study help the financial manager maintain the fast ratio, which ultimately boosts the profitability of life insurance firms. The main conclusions of this study can be used to develop various plans and strategies aimed at increasing the profitability of the life insurance industry.
- The results of this study can help the financial managers in an effective manner.
- The results are also beneficial to shareholders who wish to invest cash and financial instruments in the life insurance market. Investment is the giving up of current money for future money. By implying superior ideas through its conclusions, this study contributes to efficient and profitable investment. Typically, investors invest cash and financial instruments such bonds, shares, debentures, marketable securities, commercial papers, trade credit, letters of credit, repurchase agreements, and treasury bills. Prospective Range The study's findings have revealed fresh information from a Nepalese perspective that is valued by industry players.
- Since fund managers and equity investors can utilize the aforementioned characteristics to estimate appropriate ratios, the study's findings appear to be very helpful to them.

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APPENDIX – I

Data of Rastriya Banijya Bank Limited (RBBL)

Bank	RBB						
Fiscal Year	CDR	NPLR	LAR	IIR	LLPR	ROE	ROA
2070/71	56.73	6.38	49.65	88.21	5.8525	100.39	1.47
2071/72	61.05	5.35	54.34	86.87	4.9544	102.49	3.22
2072/73	58.46	4.25	49.68	87.8	4.3199	30.82	1.42
2073/74	69.3	3.77	51.78	88.11	3.9501	29.09	1.6
2074/75	71.38	4.75	52.70	91.77	4.071203	31.64	1.42
2075/76	77.15	4.59	49.97	90.76	5.8651	29.48	2.23
2076/77	67.16	4.08	47.25	93.21	3.3371	19.62	1.64
2077/78	73.64	3.23	59.68	91.46	3.848	13.24	1.1
2078/79	88.49	2.09	65.92	92.44	3.4545	14.48	1.3
2079/80	76.9	3.77	57.69	95.42	4.48	8.84	0.91
Mean	70.026	4.226	53.87	90.605	4.4133	38.009	1.631
SD	9.7393	1.1692	5.71	2.7735	0.8953	34.3993	0.6592
CV	13.91	27.67	10.61	3.06	20.29	90.5	40.42

Source: Annual Reports from 2070/71 to 2079/80

APPENDIX – II

Data of Agricultural Development Bank Limited (ADBL)

Bank	ADBL						
Fiscal Year	CDR	NPLR	LAR	IIR	LLPR	ROE	ROA
2070/71	94.8	5.46	72	90.96	8.4623	19.34	1.76
2071/72	93.77	5.35	72	89.62	5.0668	39.62	3.12
2072/73	95.46	4.36	75	89.22	4.7096	13.41	2.32
2073/74	92.9	4.6	73	88.54	4.8732	13.39	2.15
2074/75	100.26	3.41	77	92.03	3.8054	13.77	2.71
2075/76	93.62	3.29	75	91.66	3.2339	15.31	2.77
2076/77	85.84	2.84	70	87.29	3.3371	11.58	1.86
2077/78	92.93	1.88	70	83.39	2.7999	11.54	1.59
2078/79	107.01	2.09	73	93.28	2.9553	6.72	0.9
2079/80	91.56	2.78	66	94.46	2.78	3.94	0.5

Mean	94.815	3.606	72.3	90.05	4.2024	14.86	1.97
SD	5.5744	1.2789	3.1287	3.203	1.7318	9.696	0.83
CV	5.88	35.47	4.33	3.56	41.21	65.24	42.1

Source: Annual Reports from 2070/71 to 2079/80

APPENDIX – III

Data of Nepal Bank Limited (NBL)

Bank	NBL						
Fiscal Year	CDR	NPLR	LAR	IIR	LLPR	ROE	ROA
2070/71	59.45	5.12	52.9	90.39	5.3	45.69	0.92
2071/72	68.45	3.98	60.5	90.23	4.5	13.48	0.55
2072/73	71.05	3.11	58.9	89.64	3.7	27.07	2.79
2073/74	79.17	3.32	63.4	87.7	3.7	8.62	2.78
2074/75	75.68	3.37	55.6	102.52	3.4	13.97	2.41
2075/76	78.14	2.64	53.9	87.02	3.3	9.94	1.51
2076/77	72.25	2.47	54	88.13	3.7	7.87	1.22
2077/78	82.76	2.05	60.8	87.05	3.2	9.36	1.33
2078/79	86.97	1.83	65.9	92.38	3	8.51	1.12
2079/80	72.68	2.85	60.2	95.38	3.5	9.55	1.81
Mean	74.66	3.074	58.61	91.044	3.73	15.406	1.644
SD	7.7696	0.9635	4.3738	4.7977	0.6848	12.0649	0.7824
CV	10.41	31.34	7.46	5.27	18.36	78.31	47.59

Source: Annual Reports from 2070/71 to 2079/80

APPENDIX – IV

Descriptive Statistics of Sample Commercial Banks

Variables	N	Highest	Lowest	Mean	SD	CV
CDR	30	107.01	56.73	79.83	13.1	16
NPLR	30	6.38	1.83	3.64	1.18	32
LAR	30	77	47.25	61.59	8.92	14
IIR	30	102.52	83.39	90.56	3.53	4
LLPR	30	8.46	2.78	4.12	1.17	28
ROA	30	3.22	0.5	1.75	0.74	42
ROE	30	102.49	3.94	22.76	23.31	102

APPENDIX – V

Calculations of Correlation Coefficient of sample Commercial Banks

		CDR	NPLR	LAR	IIR	LLPR	ROE	ROA
CDR	Pearson Correlation	1.00	-.39*	.90**	0.08	-0.16	-.55**	0.13
	Sig. (2-tailed)		0.03	0.00	0.66	0.41	0.00	0.50
	N	30.00	30.00	30.00	30.00	30.00	30.00	30.00
NPLR	Pearson Correlation	-.39*	1.00	-0.26	-0.07	.81**	.71**	0.29
	Sig. (2-tailed)	0.03		0.17	0.71	0.00	0.00	0.12
	N	30.00	30.00	30.00	30.00	30.00	30.00	30.00
LAR	Pearson Correlation	.90**	-0.26	1.00	-0.03	-0.07	-.40*	0.23
	Sig. (2-tailed)	0.00	0.17		0.90	0.72	0.03	0.21
	N	30.00	30.00	30.00	30.00	30.00	30.00	30.00
IIR	Pearson Correlation	0.08	-0.07	-0.03	1.00	-0.11	-0.26	-0.12
	Sig. (2-tailed)	0.66	0.71	0.90		0.57	0.17	0.54
	N	30.00	30.00	30.00	30.00	30.00	30.00	30.00
LLPR	Pearson Correlation	-0.16	.81**	-0.07	-0.11	1.00	.45*	0.16
	Sig. (2-tailed)	0.41	0.00	0.72	0.57		0.01	0.41
	N	30.00	30.00	30.00	30.00	30.00	30.00	30.00
ROE	Pearson Correlation	-.55**	.71**	-.40*	0.26	.45*	1.00	0.29

	Sig. (2-tailed)	0.00	0.00	0.03	0.17	0.01		0.12
	N	30.00	30.00	30.00	30.00	30.00	30.00	30.00
ROA	Pearson Correlation	0.13	0.29	-0.23	0.12	0.16	0.29	1.00
	Sig. (2-tailed)	0.50	0.12	0.21	0.54	0.41	0.12	
	N	30.00	30.00	30.00	30.00	30.00	30.00	30.00

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

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

APPENDIX – VI

Calculations of Regression Coefficient of sample Commercial Banks (ROE)

Multiple R	R Square	Adjusted R Square	Standard Error	Observations
0.81	0.65	0.58	15.37	30.00

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>P Value</i>
Regression	5.00	10622.58	2124.52	8.99	0.00
Residual	24.00	5673.30	236.39		
Total	29.00	16295.88			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	142.50	79.10	1.80	0.08
CDR	-0.58	0.55	-1.05	0.31
NPLR	15.44	4.61	3.35	0.00
LAR	-0.17	0.76	-0.23	0.82
IIR	1.33	0.83	1.61	0.12
LLPR	-4.89	4.29	-1.14	0.27

APPENDIX – VII

Calculations of Regression Coefficient of sample Commercial Banks (**ROA**)

Multiple R	R Square	Adjusted R Square	Standard Error	Observations
0.48	0.23	0.08	0.72	30.00

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>P Value</i>
Regression	5.00	3.83	0.77	1.47	0.24
Residual	24.00	12.49	0.52		
Total	29.00	16.32			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	1.17	3.71	0.32	0.76
CDR	0.00	0.03	0.07	0.94
NPLR	0.43	0.22	1.97	0.06
LAR	-0.03	0.04	-0.81	0.42
IIR	0.02	0.04	0.55	0.59
LLPR	-0.24	0.20	-1.18	0.25

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