

CREDIT MANAGEMENT IN NEPALESE DEVELOPMENT BANKS

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by

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CERTIFICATE OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled "**Credit Management in Nepalese Development Banks**". The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor has it been proposed and presented as part of requirements for any other academic purposes. The assistance and cooperation that I have received during this research work has been acknowledged. In addition, I declare that all information sources and literature used are cited in the reference section of this dissertation.

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REPORT OF RESEARCH COMMITTEE

Ms. Kamala Kumari Ale has defended research proposal entitled “**Credit Management in Nepalese Development Banks**” successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestions and guidance of supervisor Binita Manandhar and submit the thesis for evaluation and viva voce examination.

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APPROVAL SHEET

We, the undersigned, have examined the dissertation entitled “**Credit Management in Nepalese Development Banks**” presented by Kamala Kumari Ale a candidate for the degree of Master of Business Studies (MBS Semester) and conducted the viva voce examination of the candidate. We hereby certify that the dissertation is worthy of acceptance.

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ABBREVIATIONS

BFI	:	Bank and Financial Institutions
CAR	:	Capital Adequacy Ratio
IRR	:	Internal Rate of Return
L&A	:	Loan and Advance
L/C	:	Letter of Credit
NPLs	:	Non-Performing Loans
NRB	:	Nepal Rastra Bank
PESTE	:	Political, Economical, Social, Technical and Environment
PIS	:	Project Information Sheet
ROA	:	Return on Assets
ROE	:	Return on Equity
ROI	:	Return on Investment
SOL	:	Single Obligor Limit
SPSS	:	Statistical Package for the Social Science
SWOT	:	Strength, Weakness, Opportunity and Threats

Abstract

This study investigates the credit management practices of Nepalese development banks, focusing on their impact on financial performance, particularly profitability. The research examines three development banks like Jyoti Bikash Bank Ltd., Garima Bikash Bank Ltd., and Kamana Sewa Bikash Bank Ltd. over a ten-year period from 2013/14 to 2022/23. Utilizing a combination of quantitative analysis and financial ratios, the study assesses key metrics such as the Non-Performing Loan Ratio (NPLR), Loan Loss Provision Ratio (LLPR), Interest income to total loan and advance ratio (INR), Loan and Advance Ratio (L&AR), Capital Adequacy Ratio (CAR), Return on Assets (ROA), and Return on Equity (ROE). The findings reveal a significant negative correlation between NPLR and profitability, indicating that higher levels of non-performing loans adversely affect the banks' financial health. Conversely, a positive relationship is established between LLPR and profitability, suggesting that adequate provisions for potential loan losses enhance overall financial performance. The study highlights the variability in credit management effectiveness among the sampled banks, with Garima Bikash Bank Ltd. consistently demonstrating superior performance compared to its counterparts. Additionally, the research underscores the importance of maintaining a robust capital base to mitigate risks and ensure financial stability. The implications of these findings are far-reaching, providing valuable insights for bank management, policymakers, and stakeholders regarding the necessity of effective credit policies and risk management strategies. Ultimately, the study contributes to the understanding of how sound credit management practices can drive profitability and support economic development in Nepal, particularly in underserved communities.

Keywords: Credit Management, Financial Performance, Profitability.

CHAPTER-I

INTRODUCTION

1.1 Background of the Study

Credit is a financial arrangement in which a borrower receives goods, services, or money from a lender with the promise to repay the amount, usually with interest, at a later date. It is based on the trust that the borrower will fulfill the repayment terms, and it plays a crucial role in both personal finance and business transactions. Credit can take various forms, such as loans, credit cards, and lines of credit, and it allows individuals and organizations to make purchases or investments that they might not otherwise afford immediately. The terms of credit agreements typically include interest rates, repayment schedules, and penalties for non-compliance.

Credit refers to the trust that allows one party, such as a borrower, to obtain goods, services, or funds from another party, such as a lender, under the agreement that repayment will be made in the future. It is an essential component of financial systems, facilitating economic growth by enabling consumers, businesses, and governments to manage liquidity and fund investments. Credit arrangements typically involve terms regarding interest rates, repayment schedules, and collateral, if applicable, and play a crucial role in modern commerce and personal finance (Madura, 2021).

Credit management is the procedure whereby credit is decided and granted, and credit is monitored and collected in a way in which the borrower is obliged to pay and the lender's risk is minimized. It involves assessment of the creditworthiness of clients, setting appropriate levels of credit limits, and developing strategies on defaults or overdue payments. Credit management is fundamental for ensuring objective cash flow, reduced bad debts, and an expected long-term beneficial financial relationship between firms and their customers (Johnson, 2023).

Credit management plays a crucial role in a company's financial performance by ensuring that credit is extended responsibly and that outstanding debts are collected efficiently. It directly impacts cash flow, as timely collection of receivables ensures the company has enough liquidity to cover its operational costs and avoid relying on external financing. Effective credit

management also minimizes the risk of bad debts, protecting profitability by reducing write-offs and the associated costs of collections. Furthermore, it contributes to a company's overall financial stability by optimizing the use of assets and maintaining a healthy balance between sales growth and credit risk. By evaluating customers creditworthiness and establishing appropriate credit limits, businesses can strike a balance between extending credit and mitigating risk, leading to improved financial performance.

Credit management has a significant impact on the profitability of a bank by directly influencing both revenue generation and risk mitigation. By effectively managing credit, banks can ensure that loans are granted to creditworthy borrowers, minimizing defaults and maximizing interest income. This reduces the risk of non-performing loans (NPLs) and the associated costs of collections, which in turn helps control operational costs and protect profitability. Well-managed credit portfolios also enable banks to diversify their lending, reducing risk exposure to any one sector and stabilizing income. Additionally, maintaining a high-quality credit portfolio supports the bank's capital efficiency and regulatory compliance, which enhances investor confidence and overall financial performance. In summary, effective credit management drives profitability by boosting revenue, controlling costs, minimizing financial risks, and ensuring the bank's capital remains strong, while poor credit management can lead to higher defaults and increased operational costs, negatively impacting profitability.

Modern banking history of Nepal began from the establishment of Nepal Bank Ltd. in 1937. Nepal Rastra Bank was established in 1956 as a central bank of the country. . According to, Bank and financial ordinance 2006, "Bank and financial institutions can be merged in one another," commercial banks are increasing day by day in Nepal. There are 17 development banks in Nepal

The main focus of studying credit management is to understand how businesses and financial institutions assess, control, and monitor credit risk to ensure financial stability and profitability. This involves analyzing the processes of evaluating customers' creditworthiness, setting appropriate credit limits, and determining favorable repayment terms to minimize defaults. A key aspect of credit management is the development of effective strategies for managing accounts receivable, including timely collection practices and monitoring outstanding debts. The study also explores the impact of credit management on cash flow, profitability, and risk mitigation,

helping organizations optimize their financial performance. Ultimately, the goal is to balance the extension of credit with effective risk management to maintain healthy financial operations and reduce the risk of bad debts.

Minimum Capital Required for (B- Class) Development Banks

The Development Banks (B-Class) have to maintain the following minimum paid-up capital depending upon the level of operation.

Types of Banks or Financial Institution	Operation Level	Minimum paid-up Capital (NPR)
Development Bank	National Level	2,500,000,000
Development Bank	Provincial level	1,200,000,000

Jyoti Bikash Bank Limited (JBBL)

Jyoti Bikash Bank Limited (JBBL) is a prominent commercial bank in Nepal that offers a wide range of banking services, including savings and current accounts, loans, and foreign exchange. Founded with the vision to provide accessible and reliable financial services, the bank serves both individual and corporate clients across the country. Jyoti Bikash Bank has established itself as a key player in Nepal's banking sector, focusing on technological innovation, customer service, and financial inclusion. Currently Jyoti Bikash Bank has 121 branches across the country with 3 extension counter.

Garima Bikash Bank Limited (GBBL)

Garima Bikash Bank Limited is a prominent development bank in Nepal, founded with the aim of promoting economic growth and improving the standard of living for the people, particularly in rural and underserved areas. Established in 2010, the bank offers a range of financial services including savings accounts, loans, and investment products to individuals, small businesses, and farmers. It plays a vital role in fostering financial inclusion by providing accessible banking solutions and supporting community development through various microfinance initiatives. The bank strives to contribute to the overall socio-economic development of the country by empowering marginalized sectors of society.

Kamana Sewa Bikash Bank Limited (KSBL)

Kamana Sewa Bikash Bank Limited is a National Bank promoted by a very renowned business personality/a group with renowned individuals of the region, who have excelled in their field of business/profession and remained with integrity and social consideration. Guided by reputed Board of Directors and backed by their extremely professional and dynamic management team in all the areas of expertise with years of experience, quarter-backed with a successful record in the banking industry, Kamana Sewa Bank is committed to providing a variety of banking products and services with high technology to fit the needs of all customers/clients to their satisfaction and beyond their expectations.

1.2 Problem Statement

Development banks in Nepal have been facing various challenges and problems. Some of them are arising due to the economic condition of the country, some of them arising due to confused policy of government and many of them arising due to default borrowers. After liberalization of economy, banking sectors has various opportunities. The banks and financial institutions are competing among themselves to advance credit to limited opportunity sectors. Banks and financial institutions are investing in house loan, hire purchase loan for safety purpose. Although implementing the merger and acquisition policy, there is a lack of liquidity in the market. Bank and financial institution are not providing enough loan as customer demand. Due to unhealthy

competition among banks, negligence of lending principles, negligence of NRB rules of lending limitations, the recovery of the bank credit is going towards negative trends. Year by year the non-performing loans are increasing. To control such type of state, the regulatory body of the banks and financial institutions, NRB has renewed its directives of the credit loss provision. Therefore, it is necessary to analyze the ‘credit management’ or credit disbursement recovery provision for loss and write off of credit. As the sample of development bank JBBL, GBBL and KSBBL have been selected. Research problems can be shown in the form of following questions: -

- What is the current situation of credit management variables of sampled development banks?
- What is the relationship between total loan & advances to total deposit, interest income to total loan & advance, non-performing loan ratio, return on asset and return on equity of sampled development banks?
- What is the impact of credit management on profitability of sampled development banks?

1.3 Objectives of the Study

The specific objectives of the study are as follows:

- To assess the current situation of credit management variables of sampled development banks.
- To examine the relationship between total loan & advances to total deposit, interest income to total loan & advance, non-performing loan ratio, return on asset and return on equity of sampled development banks.
- To analyze the impact of credit management on profitability of sampled development banks.

1.4 Rationale of the study

Granting credit is one of the main sources of income of commercial banks and also a source of credit risk. The loan portfolios of the development banks are their major assets that contribute a significant proportion to their overall profits in the form of interest income. It means that loans

play a critical role in determining the financial performance of the institution. The findings of this study are helpful for the sampled banks as well as all other banks to adopt workable strategies to control the problem of growing non-performing loan portfolios through better credit management. The significance of this study will also serve as a guiding document for experts, professionals, academia, finance companies, co-operative, researcher/students who want to study in this topic, other interested parties and of course, the selected bank and the public. The outcome of this study is going to contribute to knowledge and literature in the subject under investigation. It will be useful as a source of reference for researchers, students, policymakers, bankers, economists and other stakeholders interested in the relationship between deposit collection, loan & advance and non-performing loan. Also, the management can identify the comparative status between sample bank and they can understand their weak area, which should be corrected. The analysis may also help to identify effective use of resources for efficient and profitable operation having the efficient service to the people.

1.5 Limitations of Study

The limitations are as follows:

- This study is concentrated on credit management in Nepalese development banks.
- Jyoti Bikash Bank Limited, Garima Bikash Bank Limited and Kamana Sewa Bikash Bank Limited are taken for the study.
- This study is based on secondary data.
- This study covers 10 years data from 2013/14 to 2022/2023.

CHAPTER – II

REVIEW OF LITERATURE

This chapter includes the conceptual review and empirical review. Conceptual review provides the fundamentals theoretical framework of the study and empirical review provides the empirical evidence regarding "Credit risk management in Nepalese Development banks with reference to JBBL, GBBL and KSBBL" that have been carried out previously in context of both local and international level.

2.1 Conceptual Review

The specific area of this study lies in credit operation practices and credit management, a case on development bank is taken as sample for the purpose. So it is logical to say these articles and reports those make a view for better understanding on the topic. Within this public deposits are mobilized in various development activity Banks and financial institutions. Commerce (Trade), Commercial Institution as commercial banks, development bank that income model and micro-financing institution with different models Credit administration is the manufacture and control of risk assets. The flowchart in Figure 1 illustrates that the process of lending also considers about: The people and system required for evaluation, approval loan request Negotiating terms Documentation Disbursement Administration outstanding loans Workout Knowledge Process strength/weaknesses Important objectives & goals setting Lending activities Allocating available funds to various lending functions such as commercial portfolio installment portfolio Mortgage portfolio etc. A project appraisal will be meaningful only if it is subject beyond conscious analysis/ diligence in investment decisions to incorporates basis for the macro & micro level viability of its overall futuristic plans.

2.1.1 Credit Policy & its parameters:

Concept of credit:

Credit word is originated from Latin credo consecutively. CREDO: I Believe (also in Latin) Credit normally describes a faith in circumstances or situation. Conclusion : It is based on an assumption that banks gives loan in its fullest capacity. Hence, credit is a belief that the bank

gives you its own money under the loan. Simply put, credit is a way to use someone else's money to buy something. In return for lending the money, you have to pay back that amount plus interest over a set period of time.

Credit is a process in which the lender advances resources or funds to the borrower's charge, to be repaid with inherent interest by an agreed-upon date in the future. It would facilitate the acquisition of goods, services, and investments otherwise unaffordable but not immediately so for an individual. Forms of credit involve personal loans, credit cards, mortgages, and business loans, each executing specific terms, interest, and schedule for repayment. The agreement between the borrower and lender is referred to as either the deed or the bond, with collateral against refundable credits. Credit is, however, basic for the activation of economic activity and progressive sustainability. Over-reliance on credit in any other case can, nonetheless, lead to a financial complication, either to a person or in the institutional setting. Critical to credit management is the recognition of the need for responsible lending, thus ensuring that credit retains its ability to serve its purpose without having severe repercussions for any of the parties involved (Eakins, 2018).

Credit Management:

Credit management is one of the most essential activities in any bank and cannot be neglected by any entity involved in the supply of credit lines no matter the nature of its business. It is the mechanism to ensure that customers will pay for the products delivered or the services provided. Credit management includes extending credit, establishing terms for such credit, collecting when one payment is due, and ensuring adherence to company credit policy, among other functions pertaining to credit.

Credit is the debt an individual or an entity has to a bank; it can be either secured or unsecured, depending on the repayment methods for the borrowed amount. Banks earn interest mainly on credits and advances, one of the main sources of income for banks. Bank prepares credit portfolio, a credit policy is a set of rules and standards that directs how bank can grant credit to customers and the collection method. Credit policy variables help in understanding the outstanding credit balance of customers. The main objective of this policy is to set certain

guidelines that help handle credit risk. To fulfill these objectives, they should manage and improve its on lending. They must give more attention to the flow of loan. The principle includes in credit policy are as follows:

- Principles of Safety of funds:
- Principle of Liquidity:
- Principal of purpose of Loan:
- Principles of profitability:
- Principal of Security:
- Principal of National Interest

Objectives of Credit Policy:

- To provide guidance to lending officers
- To make quality credit decisions
- To establish a standard for control
- To provide authority to different level of management
- To comply with the regulations.
- To avoid unnecessary risks.
- To have performing assets.

2.1.2 Criteria for Providing credit & loan

- a) Analysis of Customer's 5 C'S
- b) Analysis of Lending principles
- c) Analysis of project

a) Analysis of 5 C's

In other words, the following 5 Cs of Credit need to be considered when a loan is made:

1. Character: The track record of the applicant in honoring past financial, contract, and moral obligations. An evaluation of an applicant's character would include past payment history, pending, and resolved legal judgments against the applicant.

2. Capacity: Knowing whether the applicant has the capability to repay their borrowings remains essential. In this respect, the financial statement analysis, with emphasis on the ratio of liquidity to debt, is generally the means by which capacity is assessed.

3. Capital: Clearly, capital is another measure of an applicant's credit strength, represented by such ratios in relation to debt/ equity and the profitability ratios.

4. Collateral: In terms of financing, an applicant's assets available as collateral for the loan stand henceforth. There is a direct correlation between the chance of recovery by the firm and the level of assets held by the applicant. A balance sheet review, asset evaluations, and any legal claims against the applicant's assets, will be used to analyze collateral with substantial asset value.

5. Conditions: The assessment of the current economic conditions or business climate includes any other special circumstances surrounding the credit transaction relevant to either party. For instance, in case one of the parties happens to have surplus items that the applicant wants to purchase on credit, such a party is likely to be willing to sell such goods under more favorable terms or to sign up less creditworthy applicants. The evaluation highlights the general economic and business conditions alongside the special circumstances that may affect the applicant or the firm in assessing conditions.

b) Analysis of lending principles:

1. Safety: "Safety First" is most important principle of good lending. When a bank lends, then the bank should confirm on their lending whether they are safe or not. The bank shall ensure that the advances when granted to the right customers and is utilized in such a way that the advances are safe for all time.

2. Liquidity: It is not enough that the loan will come back, but also the advances granted to the customer must come on demand or in accordance with the agreed terms of repayment. The source of repayment must be definite.

3. **Profitability:** The primary objective of the bank is to earn a profit. It should try to invest in only those projects from which it can be assured of good and timely interest income. But a bank should never forget its own liquidity condition while lending out a huge number of loans.

4. **Security:** No matter how attractive the interest or rate is, there is always a possibility of a loan being defaulted upon if it is unsecured. Security means adequate collateral having good value which can easily be sold if required. Besides security, the bank should also integrate upon the financial position and status of borrower while lending loan.

5. **Diversification:** The bank should not concentrate on only one sector while extending the loan. It should try to diversify its investment. It should mobilize its resources on various collateral, various assets, different business and different individuals and organizations. This will help to reduce the bank's risk to a greater extent.

6. **National Interest:** Even when an advance satisfies all the above principles it might not be suitable if it does not take into account the national interest. Banks are required to grant advances on those sectors which are priorities by the government from time to time in meeting the national requirements. The bank should invest on such sectors as per the government or Nepal Rastra Bank.

c) Analysis of project

Project analysis helps in identifying the obstacles that may occur throughout the project execution and it can be used to improve the efficiency and effectiveness of projects. During a project, the management team must continuously check whether the tasks allotted to the team members are being completed on time. It includes the following analysis:

1. Project management analysis
2. Project PESTE analysis (political, economic, social, technical, environment)
3. Project market analysis
4. Project history analysis

2.1.3 Types and Nature of Loan

Loan and advances:

A. Secured Loan Advance: A secured loan or advance would be the one that has official backing for the higher value of security in relation to the loan granted amount. In other words, if the Distress value of security were greater than the loan granted, then it is a secured loan and advance. Distress value is determined by the market rate and government rate.

B. Unsecured Loans and Advances: An unsecured loan and advances is the one where the bank grants them without collateral or just on the basis of personal guarantee from any of such customers or corporate guarantee. "On the other hand, this type of loan is also called unsecured loans and advances when the bank grants loans and advances without any lower value of the security in relation to the loan amount."

Nature of Loan:

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

1. Fund Based Loan and Advances
2. Non Funded Based Loan and Advances

1. Fund Based Loan and Advances:

Fund based loans and advances are those which are given as such directly to the end-users. To avail fund based loan and advances, the loan will be granted immediately through either of the following modes; either by actual cash or manager's cheque to the customer. It is the reason that the loan is known as funded, because it is involving cash.

Funded based loan and advances are as follows:

a) Overdraft Loan:

This loan provisions are for the long-term clients of the bank who have been with it over a long

time. To such customers, with the bank, friendly and trustworthy relationships have been established to withdraw money according to their needs up to the free withdrawn limit. The overdraft is availed by the borrower to meet working capital needs in any business.

b) Term Loan:

It is the loan for financing capital/ fixed expenses on the project, as well as ongoing and upcoming projects. Term loan also helps in acquiring or importing plant, machinery, furniture, equipment etc. Term loan gives much longer credit using installment methods to repay.

b) Working Capital short term Loan:

This loan is provided to meet the day-to-day transactions of the companies, industries. It is essential for running any companies, businesses, industries etc.

c) Real Estate Loan:

Real estate loan is the credit secured by real property, including short-term credit to support building construction and land development, and longer-term credit to support the purchase of residential and commercial structures.

d. Trust Receipt Loan:

For short-term loans, the bank accepts a T/R as collateral, and they make advance payments to suppliers and service providers on behalf of the buyers and importers who are borrowing funds from the bank. It is similarly known as a trust receipt loan. The importer or buyer pays the borrowed funds back on the maturity date under the T/R terms.

e. Housing Loan: Housing loan is given for the building of house or purchasing of house, purchasing of plot, extension of house or repair and maintenance of house for the borrower. The portion of the cost to be incurred for the above purposes is determined by either the engineers or the engineering consultancy, and base to the amount shown above the bank will finance a portion

of amount depending on the repayment capacity of the borrower.

f) **Demand Loan:** Demand loan is short term loan granted for the fixed working capital requirement of the borrower. Periodic installment or lump sum payment is required for this. For opening this account, a separate Demand loan account is required to be opened by the customer. Demand loan can be redeemed either in the full or in part, but once the loan is given it cannot be again drawn by the customer.

g) **Bridge Loan:** Another form of short-term financing is followed by bridge loans as a method of providing immediate funds in case the project needs instant financing. Basically, these are loans to close the gap. Like demand loan, if once bridge gap loan is credited, no further withdrawal is allowed.

h) **Pledge Loan:** Pledge loan is the bailment of the goods as security against the payment of a debt or performance of a promise. Bailment is the delivery of the goods by one person to another for some purpose upon a contract; and after the purpose is completed, the goods are to be given back to the delivering person. A pledge may be in the form of goods, stocks, or any movable property.

i) **Hire Purchase Loan:** Hire purchase loans mean financing on vehicles to the customers by the bank. It is a credit facility introduced in financing the needs of customers such as motor vehicles or the equipment of contractors. Customers or borrowers take this opportunity to pay some part of the credit amount so that the remaining amount will be financed by the bank.

j) **Personal Loan:** The very personal loans are disbursed to the person or to the borrower who can use them to meet his or her demand for money through personal expenditures and expenses towards social functions and rituals; it has been further defined as those loans available to individuals having good sources of income and repayment abilities within timeframes. The simplest example of such loans would be the Consortium Loan: As consortium loan refers to financing of shared participation, it also covers the case when one bank cannot grant a higher loan because of Single Obligor Limit (SOL) or due to shortage of funds, such loan can be received simultaneously from other banks, or jointly with another bank: Consortium Credit or

Consortium Financing are those loans in which more than one bank mutually agrees to provide a facility to a certain borrower. Under the terms of consortium agreement, all banks share the ultimate interest in all advances and securities in a pre-decided ratio.

Loan Against Fixed Deposit Receipt: Thus, even if any customer has invested fixed deposit with bank and that is not matured, that facility can be availed whenever urgent fund requirement arises. One would be looking at Loan Against Fixed Deposit Receipt.

Loan Against Share: Some bank may provide loan against lien of share certificate. The share should be in listing in Stock Exchange.

Loan Against Gold: Some bank grant loan against gold by taking gold as a security. If the borrower is seeking lesser amount of fund, then some bank grant him loan upon submission of their gold as collateral.

2. Non Funded Based Loan and Advances: Non-funded advances are not advances related to any fund. These advances are purely, by bank, providing a commitment that in event of default by the borrower, it will compensate the loss as contained in contract with the borrower.

Usually, if the borrower defaults on this advance, it will be converted into fund-based advances.

Non-funded loan and advances are as follows:

a) Bank Guarantee:

A bank uses its convenience of guaranteeing a third party or beneficiary on behalf of their clients. It involves the written letter of undertaking by which the bank commits itself to make good losses to the third party when the terms of the contract are not complied with. The bank guarantee involves three parties:

- Principal debtor on whose behalf the guarantee is issued

- Beneficiary on whose favor guarantee is issued
- Guarantor who issues bank guarantee

The following are the types of bank guarantees:

i) Bid bond guarantee: Bid bond guarantee is a guarantee issued by bank for the benefit of the beneficiary on behalf of the customer for purposes of bidding the tender.

ii) Performance Bond Guarantee: A performance bond guarantee is a performance bond, which promise was issued by a bank to the beneficiary in favor of its customer who wins the tender.

iii) Advance Payment Guarantee: Advance Payment Guarantee is made available by the bank to the beneficiary on behalf of its customer to receive the mobilization fund as per the contract between beneficiary and customer.

iv) Maintenance Guarantee: Maintenance Guarantee obligates the debtor to pay up to the amount of Maintenance Guarantee for any non-maintenance of the beneficiary.

v) Retention Guarantee: Retention Guarantee obliges the retention creditors to compensate up to the amount of the retained money until certain defects are found in the job done by the debtors within a specific time.

vi) Custom Guarantee: Custom Guarantee assures the customs financial compensation to the amount of guarantee amount if goods are not removed out of the country by a given time.

vii) Judicial Guarantee: Through judicial guarantee, the bank assures to the court that the demanded amount shall be made available immediately once the court decides against the accused on behalf of whom the guarantee has been issued.

b) Letter of Credit: Letter of Credit (L/C) also called as Documentary Credit is a credit letter issued by a bank. It is a bank's condition to undertake payment. It acts as a document for making payment against documents. It is a document assuring importers or buyers and export or sellers payments. This is an undertaking made by the importer's bank that if the exporter exports the goods and produces document as

stipulated in documentary credit, then the bank would make payment to the exporter.

2.1.4 Deposit and Loan

The study in this section comprises of some important banking terminology for which efforts have been made to clear the meaning, which are frequently used in this research. They are as follows:

a) Deposits:

Deposits are the most important source of the liquidity for the bank. It is treated as a barometer of financial strength of banks. A deposit is the life blood of the commercial institutions. Even though, they constitute the great bulk of bank liabilities, the success of a bank greatly depends upon the extent to which it may attract more and more deposits. For accounting and analyzing purpose, three types of deposits are distinguished. They are;

i. Current Deposit/ Demand Deposit

The deposit in which an amount is immediately paid at the time of any account holder's demand is called demand deposit or current deposit. The bank does not provide interest in this deposit.

ii. Saving Deposit

The bank would be able to collect money from the deposits. Putting money into an account is called saving. Some restrictions might apply to a saving account, such as the maximum amount allowed for deposit and withdrawal. This type of deposit attracts some interest for the customer.

iii. Fixed Deposit

Account means "an account of sums deposited in a register for a certain period of time. Bank customers opening an account deposit their money therein for a fixed or specified time. Because the amount is deposited for a certain period, it is also called a time deposit. The rate of interest is considerably higher than that on saving or some other account since the banks make investments

and grant loans and advances from this amount."

b) Loans and Advances:

The primary functions of a bank involve creating value from its borrowed funds. Loans and advances significantly influence the asset side of a bank's balance sheet and serve as the principal sources of income for these financial institutions. These financial products may manifest in various forms, as they are permitted against a multitude of securities. Loans, overdrafts and the discounting of bills of exchange, among others, represent some of the distinct forms of bank lending.

c) Past Due/Overdue:

An amount owed under any credit facility is regarded as past due or overdue when it remains unpaid on the due date established by the bank.

d) Loan Classification:

Although all loans may initially appear sound at the time of disbursement, they often begin to exhibit signs of distress over time. Because of this, loans should be classified based on their health and provided for accordingly. In the specific context of Nepal, per NRB guidelines, these loans are categorized into two distinct classes.

They are as follows:

1) Performing Loan

❖ **Pass Loan:**

Loans are categorized in the pass loan in the following conditions

- No overdue or overdue up to 1 month time
- Loan provided against the collateral of fixed deposit receipt

- Loan provided against the collateral of government securities, bond, Nepal Rastra Bank debenture
- Loan up to 10 lakhs against the collateral of gold and silver

❖ **Watch list:**

Loan are categorized in the watch list in the following conditions

- Overdue up to 3 months
- Not renewed in one month or short term temporary loan due period
- Loan provided to those who are listed in the non-performing loan in other BFIs
- If interest and fees are regularly paid but such company, firm, organization is bearing negative cash flow for last consecutive 3 years.
- If a single bank advances the loan of the amount of 2 Arab (200 Crore) and is not a consortium/syndicate loan. .
- If NRB list the borrower in the watch list because his/her project does not fulfill the NRB standard
- Maximum lending 80:20 of Debt Equity Ratio

2) Non-Performing Loan

- ❖ **Sub Standard:** Overdue up to 1-6 month
- ❖ **Doubtful :** Overdue up to 6 month to 1 year
- ❖ **Bad debt:** Overdue more than 1 years

2.1.5. Loan Disbursement of Development Bank

Lending refers to the act of providing funds to a borrower by a financial institution. Generally known as a lender, the institution receives some form of interest on the loan given. Lending in banking can benefit both lenders and borrowers by creating liquidity in the markets where loans are generated and used. All banks follow almost similar originating policies. The various steps involved in the loan disbursement process are set out below:

a) Business Plan:

A borrower interested in taking a loan should approach the Marketing and Planning Division at the bank and make an application by filling out the project information sheet available with the above division regional offices. In this the prospective borrower has to furnish the following:

- Technical details
- Proposed financial structure;
- Expected raw material requirement and
- Certain legal information relevant to the proposed project.

The project information sheet (PIS) is to be submitted along with a project feasibility report and documents certifying the legal status of the company.

b) Processing of Business Plan:

In the event of processing of business plan at the branch, the plan is examined by the branch officials related to credit department. They prepare the loan proposal, which includes the feasibility of the plan.

c) Screening the Business Plan:

After submitting the project information sheet (PIS) along with the feasibility report which will be processed by credit department and then referred to the project screening committee for reviewing whether the project can be considered due to national priorities legal obligations, national and international policies and banks own credit policies. Credit in charge focuses to the exposure against the lending by investigation of outer and internal factors. Such credits are granted by bank against properties security

d) Loan Application:

They give application forms to the banks made up of all information concerning the given mortgage. For all the needy is it mandatory to submit the form along with all the required

documents Some documents are required for loan approval are loan application, citizen certificate of the applicant, salary certificate, firm/renew, company registration certificate, income tax registration certificate, last financial statement of audit, feasibility report.

Authenticated “Partnership deed” in the case of a partnership firm memorandum and article of association in the case of a company, citizenship certificate of proprietor/partners/promoters/guarantors with the percent of shareholding. Letter of Authority to sign loan deed and any other appropriate accounting record which are necessary to sign on behalf of company and signing of loan deed.

b) Loan Appraisal and Processing

- Then banks come in to play their challenging role after the application form and the required document is submitted. Analyzed the feasibility of the proposal and the documents The detailed examination of the individual is made. During loan processing, the bank verifies:
- Proposal must be under NRB directives.
- Proposal should comply with bank credit policy, credit procedural manual and bank and financial institution act.
- The assumption of cost estimating is inspected to be adopted on suitably.

The bank wants to make sure it can easily take control of a project whenever it needs to. They check out the project to see if it's actually there, you know, like making sure it's not just smoke and mirrors. Plus, they try to figure out if the borrower can keep up with paying interest on time and repay the loan when it's due. It's kind of like making sure your friend will pay you back when you lend them money.

c) Loan Approval

After a person, institution and project submit a proposal, bank makes a deep study and analyze from different aspects on the proposal. The bank also evaluates necessary documents. If the bank feels the loan proposal satisfactory, it can approve the loan accordingly.

d) Loan Documentation

Loan documentation involves several essential steps and requirements to ensure legal compliance and the protection of both parties involved. Typically, the borrower must provide personal and financial information, including identity proof (e.g., citizenship or passport), income details, and any assets that may serve as collateral. Banks and financial institutions may also require the submission of business plans for loans to businesses, along with statements of financial records like balance sheets, profit and loss accounts, and tax returns. The loan agreement itself is a formal contract, specifying the terms such as the loan amount, interest rate, repayment schedule, and consequences of default. In some cases, guarantors may be required to provide additional security for the loan. The entire documentation process is conducted in accordance with the regulations set by the Nepal Rastra Bank and BFIs laws.

After the approval of the loan from the bank, a letter is issued showing all the terms and conditions to be followed by the borrower. After the acceptance of the terms and conditions by the borrower the documentation process is carried out. As a loan documentation, loan deed is signed. Loan deed is an agreement which mention for how long the money is lent, what shall be the repayment schedule and what shall be the cost of money lent, what against money is lent and what action is to be taken in case of default. Besides the loan deed, the following documents shall be obtained according to the type and natures of credit for loan documentation process are the demand promising note, continuing security letter, letter of lien and set-off, letter of pledge, letter of guarantee, mortgage deed, letter of installments, partnership letter, letter of acknowledgement of debt, general/Special power of attorney, blue book/ ownership certificate in case of hire purchase.

e) Loan Disbursement

After careful appraisal and scrutinizing of the proposal and documentation, loan is disbursed.

f) Loan Audit

A bank suggests his debtor to use the loan in proper places, after it provides loan, as far as

possible with the intention of this objective, the bank performs audit of the loan. Thus, the audit is done from time to time by the bank, in addition to other function to find out a picture about 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

2.1.6 Loan Recovery Procedure

The credit management performs depends upon the loan recovery made. Hence we can say the most important activities performed by the credit department is loan recovery. The recovery process depends upon the time frame, the situation in which the loan is to be recovered. Practically, both distribution and process of recovery are explained in the loan deed. Loan deed contains all the necessary terms and conditions. If the terms and conditions written in the deed are not fulfilled there will be violation of deed. In such condition certain adjustment is added in the deed so that the terms and conditions are changed as per the demand. Generally, arrangement and adjustment between the bank and the customer are settled but the condition may arise to sell the mortgage to recover the loan amount.

In general arrangement of loan adjustment of the loan as per the demand of the customer is done. The duration of the loan payment is increased after making certain change in loan deed. It also happens that mortgage assets are also to recover the loan. All the recovery process is systematic and legal.

2.1.7 Profitability

Credit on profitability generally refers to the use of borrowed funds or credit facilities to finance investments that generate profits. By leveraging credit, businesses or individuals can increase

their potential return on investment (ROI), but it also comes with the risk of needing to repay the borrowed amounts regardless of whether the investment is profitable.

Here are some key points about credit and profitability:

1. **Leverage:** Businesses often use credit (such as loans, lines of credit, or bonds) to fund operations, expansion, or capital expenditure with the expectation that the returns generated from these investments will exceed the cost of borrowing, thus improving profitability.
2. **Cost of Credit:** The cost of borrowing is a key consideration. Interest payments and fees associated with credit can erode profits if the returns on the borrowed funds don't meet or exceed these costs. Thus, managing the cost of credit effectively is crucial to maintaining profitability.
3. **Return on Equity (ROE):** Credit can help businesses achieve higher returns on equity by enabling them to invest more capital than they would otherwise have access to. The additional profits generated from these investments can improve profitability, but if the investments underperform, the company may face financial distress.
4. **Risk and Profitability:** Using credit increases financial risk. If a business or individual is unable to generate sufficient returns from their credit-financed investments, they may struggle to meet their debt obligations, potentially leading to losses or bankruptcy. Therefore, the relationship between credit and profitability hinges on balancing risk and return.
5. **Credit Terms:** The terms of the credit (interest rate, repayment schedule, and collateral requirements) can influence profitability. Favorable terms can help improve profitability, while unfavorable terms can constrain cash flow and reduce earnings.

2.1.8 Risk Management:

Risk management refers to the process of identification, measurement, and control of risks that may affect either the capital or earnings of an organization. Risk entails the future uncertainty arising from the possibility of deviation from expected earnings or outcomes. It measures an investor's uncertainty willing to take, so as to have any gain from the investment. Major banks' risks are, namely, credit, operational, market, and liquidity risks. This report is mainly focused

on credit risk management; therefore a brief description of credit risk is given here.

Credit Risk:

Credit risk is the biggest risk for banks. Credit risk is the risk of non-repayment of loan. It is that risk in which a borrower will not settle its obligations in accordance with agreed terms. Credit risk is, therefore, defined as the risk of loss that arises when a contracting party fails to fulfill the terms and conditions of any financial contract with the bank. From this definition, it is apparent that the principal mode of realization of credit risk would occur when the borrower fails to make a scheduled payment of principal or interest or even the entire amount owing to the bank under the terms of any indebtedness with the bank.

Factors Affecting Credit Risk:

There are mainly two factors that affect credit risk i.e. internal and external factors:

a) Internal Factors:

- Lack of transparency in financial statement of borrower
- Excessive importance in mortgage lending against land and building
- Dearth of efficient human resources □ Lack of internal credit rating system and risk base pricing
- Name lending
- Inadequate financial analysis of borrower while lending
- Lack of detailed credit policy of the bank
- External influences from high-ranking officials while sanction or recovery
- Multiple banking arrangements on current assets of borrower
- Non-application of sophisticated credit risk model
- Increase in interest areas

b) External Factors:

- Political instability
- Economic environment □ Fluctuation of market interest rate
- Fluctuation of foreign exchange rate
- Fluctuation of commodity price
- Absence of credit rating agency
- Inefficiency of Credit Information Bureau
- No mechanism for submission of transparent and accurate financials.

Risk Mitigation Factors:

Risk is inevitable in all enterprises, organizations or companies. It arises both from change and human shortcoming so avoiding risk is not an option but should be managed and handled carefully. Risk can be mitigated by the bank using:

- Frequent monitoring
- Prompt action on early warning signals
- Effective problem loan management
- Deal with borrowers who meet the target market criteria
- Monitor industry condition
- Insurance assigned to bank
- Professional valuation of security

2.2 Empirical Review

The empirical review is simply talking about the various researches done by other researchers concerning selected topic. An empirical literature review is a type of review that involves collecting and analyzing data from published journals, articles, past researches and internet such as research studies, experiments, and surveys. The goal of an empirical literature review is to identify patterns, trends, and gaps in the existing research on a particular topic, in order to inform future research and practices.

Among some of the recent studies on credit management as reviewed below:

AlJaloudi (2024) conducted a research on Examining the Impact of credit risk management challenges on Bank performance. The objective was to explore CRM challenges and effective practices in the banking sector, particularly in emerging markets. The study used descriptive statistic and multiple regression to analyze the data. The study found that how effective asset and liability management, particularly in emerging economies. It concluded that implementing effective asset and liability management frameworks can significantly enhance devt management efficieny, particularly in emerging markets.

(Liu, 2023) conducted a research on Credit Risk Management of Commercial Banks in China. The study aimed to analyze the challenges faced by commercial banks in managing credit risk and to propose improvements for their risk management practices. The research utilized descriptive statistics and hypothesis test, multiple regression to analyze the data. The research found that the persistent issue of high non-performing assets, citing historical cases of credit mismanagement that have led to significant losses for banks. It concluded the lack of mature theories and technologies for credit risk prevention and evaluation as contributing factors to these challenges.

Osasere (2023) conducted a research on Credit Management and Financial Performance of Deposit Money Banks in Nigeria. The research aimed to investigates the effect of credit management on the financial performance of deposit money banks. The research utilized non performing loan ratio, capital adequacy ratio, return on assets, descriptive statistic and multiple regression to analyze the data. The study found that the non-performing loan ratio has a significant negative effect on return on assets, while the capital adequacy ratio does not significantly impact return on assets. The study concluded that effective credit management was important for maintaining bank profitability.

Humagain (2022) had studied on the Effect of credit risks on growth of commercial banks in Nepal. The research aimed to investigate the effects of credit risk management on the performance of commercial banks in Nepal, focusing on how various internal factors influence bank growth. The research employed capital adequacy ratio, Credit to Deposit ratio, Loan loss

Provision ratio, Non-performing Loan ratio, Correlation Coefficient and multiple regression to analyze the data. The findings revealed that while some relationships are significant, others are not, indicating a complex interplay between these factors and bank performance. The study concluded that NPL and Inflation had a significant negative relationship with growth of the commercial banks.

Nhan (2022) conducted a research on Decision to Implementation of Credit Management System at Commercial Banks in Vietnam. The purpose of the study was to determine the influencing factors on the choice process of a Credit Management System (CMS) in commercial banks. The research used descriptive statistics, correlation coefficient and multiple regression to analyze the data. The study found that factors such as usefulness, controllability, relevance, and implementation cost significantly impact the decision to adopt the CMS. The study concluded that credit risk management provide insights for future development in banking operations.

Alhassan (2021) studied on the Credit Management Strategies and Financial Performance of Industrial Goods Sector in Nigeria. The primary objective was to assess how credit risk assessment, debt recovery strategies, and receivable collection policies influence key financial metrics such as the ability to pay, levels of bad debt, and cash inflow. The study employed descriptive statistics, correlation coefficient and multiple regression to evaluate the data. The findings revealed that credit management strategies had a positive and statistically significant effect on liquidity. The study concluded that credit management strategies positively influence the profitability of the banks.

Al Zaidanin (2021) conducted a research on The Impact of Credit Risk Management on the Financial Performance of Commercial Banks. The research aimed to assess how various credit risk management factors influence the profitability of commercial banks operating in the UAE. The research used descriptive statistics, one-way ANOVA, and multiple regression to analyze the data . The findings indicated that the NPLR and CIR have a significant negative impact on the banks' Return on Assets (ROA). The study concluded that CAR, LR, and LDR show weak positive relationships with ROA but are statistically insignificant.

Mwangi² (2020) conducted a research on the Credit Management Practices and Loan

Performance: Empirical Evidence from Commercial Banks in Kenya. The objective of study was to examine the effect of credit management practices on the loan performance of commercial banks. The research used multiple regression to examine the relationships between credit management practices and loan performance. The study found that debt collection policy and lending policy had a positive significant effect on loan performance. The study concluded that client appraisal does not significantly impact loan performance.

Pradhan & Shah (2019) studied on the Credit Risk Management of Commercial Banks in Nepal. The article aimed to investigate the relationship between credit risk management practices, credit risk mitigation measures, and challenges faced by banks regarding the repayment behavior of their clients in Nepal. The research used statistical tools such as descriptive statistics, correlation analysis, and reliability testing to analyze the data. The study found that effective credit risk management and mitigation practices positively influence loan repayment while obstacles have no significant effect on repayment behavior . The study concluded that Nepali banks had to make a effective credit risk management strategies to influence the profitability of banks.

Osanebi (2019) conducted a research on The impact of credit management strategies on liquidity and profitability. The objective was to investigate how credit management strategies affect the liquidity and profitability of quoted chemical and paint manufacturing companies in Nigeria. The study used descriptive statistics and multiple regression to analyze the data. The findings revealed that various credit management strategies, including credit risk assessment, debt recovery strategies, and receivable collection policies, have a positive and statistically significant impact on liquidity indicators such as the ability to pay, levels of bad debt, and cash inflow. The study concluded that effective credit management strategies influence the profitability of the banks.

Olabamiji & Michael (2018) conducted a research on Credit Management Practices and Bank Performance. The objective was to explore how credit management affects the financial performance of Nigerian banks. The study used the descriptive statistics and multiple regression to analyze the data. The findings showed that credit management practices, especially client appraisal, contribute positively to the financial performance of Bank. The study concluded that effective credit management practices increase the banks performance.

Naenwi (2018) conducted a research on Impact of Credit Management on Bank Performance in Nigeria. The study aimed to investigate the impact of credit management variables—Credit Appraisal, Credit Risk Control, and Collection Policy—on the performance of commercial banks in Nigeria. The study used descriptive statistics, correlation coefficient and multiple regression to evaluate the influence of the credit management variables. The study found that all three credit management variables significantly impact bank performance. The study concluded that credit management variables have positive impact on bank performance.

Ucheaga (2017) conducted a research on the Credit Risk Management: Implications on Bank Performance and Lending Growth. The study aimed to investigate the quantitative effects of credit risk management on the performance of Deposit Money Banks. The study employed descriptive statistics and multiple regression to analyze the data. The findings indicated that while sound credit management strategies can enhance investor and saver confidence, leading to increased bank profitability. The study concluded that credit risk management had an insignificant impact on the growth of total loans and advances of banks.

Iftikhar (2016) conducted a research on the Impact of Credit Risk Management on Financial Performance of Commercial Banks of Pakistan. The research aimed to explore the relationship between credit risk management and the financial performance of commercial banks. The study utilized the financial tools like capital adequacy ratio, non-performing loan ratio, Loan and advance ratio to analyze the data. The study found that there was a significant positive relationship between effective credit risk management and the financial performance of the banks. The study concluded that improved credit risk strategies can lead to enhanced profitability.

Lalon (2015) conducted a research on the Credit Risk Management (CRM) Practices in Commercial Banks of Bangladesh. The article aimed to evaluate the efficiency of credit risk management practices at Bank and their impact on the bank's profitability and sustainability. The study employed a Descriptive statistics and multiple regression to evaluate the data. The findings revealed that the bank had established a comprehensive credit risk management framework, which includes effective credit policies and a structured credit approval process. The study concluded that effective credit policies guide the banks towards gaining profitability of the banks.

2.3 Research Gap

This continuity in research is ensured by linking the present study with the past research studies. All of the above research, although a good attempt for exploring the credit management, the previous researcher used the NEPSE index, but this study finds out conclusion using banking index which is a sub-index, banking index calculated based on listed banks. Past researchers entitled was the credit management, credit policy analysis, comparative study on credit management of development banks in Nepal and the period for data over the 6 years but current research is done by 10 fiscal years data for the study of Nepalese development bank.

The current research is about the credit management of Nepalese development bank with reference to JBBL, GBBL and KSBBL. This study fulfills the gap by giving an idea about credit management of selected banks. Many research and studies were conducted research on the topic of credit management, it was evident that there is lack of conclusiveness on the findings of the relationship between total deposit and loan disbursement, loan loss provision and loan disbursement and non-performing loan and loan disbursement. In Nepal there is few limited research being conducted on the respective topic. Nepalese development banks have great issue on their credit management. Even in those bounded studies researchers have failed to point out the specific and accurate result in the context of Nepalese development bank. Therefore, this study is useful to the concern bank as well as different persons, such as shareholders, investors, policy makers, stockbrokers, government etc.

CHAPTER -III

RESEARCH METHODOLOGY

Research methodology is a systematic way to solve a problem. In other words, research methodology describes the methods and process applied in the entire aspect of the study defines. It is a science of learning how to conduct research. The term "research methodology" primarily refers to the techniques, methods, and procedures used during the course of a scientific investigation. Therefore, the study explains how to begin doing this study including how to collect data, retrieve relevant information, establish the frame of variables, and research philosophy. This chapter has focused on the research design, population and sample of the study, nature and sources of data, instrument of data collection, methods of analysis and finally, research framework and definition of variables.

3.1. Research Design

This study has employed descriptive research design and causal comparative research design to deal with issues associated with the credit management in the context of Nepal. The financial problems have been described, measured, compared, and classified using the descriptive research design. The performance of Nepalese development banks has been examined using the casual comparative research design. More specifically, the study analyzes the relationship between liquidity ratio, loan and advance ratio, non-performing loan ratio, Loan Loss Provision Ratio, return on assets and return on equity, total loan to deposit ratio, loan disbursement to deposit collected of the Nepalese development banks during the time period of 2013/14 to 2022/23.

3.2. Population, Sample and Sampling design

All of Nepal's financial and banking institutions are governed by the Nepal Rastra Bank (NRB). There are now 17 "B" class development banks in Nepal, according to the most recent data from the Nepal Rastra Bank for the year 2023. The population for this study comprises all the development banks. Out of 17 development banks, three banks namely Jyoti Bikash Bank Ltd., Garima Bikash Bank Ltd. and Kamana Sewa Bikash Bank Ltd. selected for study purpose as sample for fiscal period of 2013/14 to 2022/23. Purposive sampling method applied while selecting banks from population. The purpose of this study is to find out the impact of credit

management on the financial performance of development banks in Nepal that is why it is called purposive sampling method.

3.3 Nature and source of data collection

This study is based on secondary sources of data in order to meet its objectives and respond the research questions which are obtained from selected banks for the period of 2013/14 to 2022/23.

The secondary sources of data for the study are obtained from following sources:

- Directives of Nepal Rastra Bank
- Statistics and Bank Supervision report published by Nepal Rastra Bank.
- Annual Report of the selected banks
- Internet, homepage and related link visit
- Different authors published articles, journals, reports, pervious study, research paper regarding topic.

3.4 Instrument of Data Collection

This study is basically based on the secondary data. So the data were collected from listed in NEPSE as a development bank. This research is based on annual reports, articles and journals of the banks. Various data which are published by the banks, their financial performance reports, articles, journals reference, annual reports and respective website are considered.

3.5 Data Analysis Tools

This section deals with financial and statistical models used for the purpose of analysis of secondary data. Financial tools include various ratio analyses that specifically measured the credit position of the banks while the Statistical tools include arithmetic mean, standard deviation, correlation coefficient and other statistics that measure the performance, The following financial ratios are going to be analyzed under the liquidity and credit position of the selected development banks in Nepal.

Financial Tools

Financial analysis is the analytical study of financial statements. It aims to develop a sense of

strengths and weaknesses of the firm in the financial respect. Financial tools are computed to ascertain the firm's financial condition. It is just the relationship existing between the financial variables for the financial statements.

1. Return on Assets (ROA)

Return on Assets of the bank is the ratio of the net income to the total assets. It measures the efficiency of the banks and generating profit out of its scarce resources. The higher the profit generated from the employed assets, the more efficient the bank.

Mathematically,

$$\text{Return on Assets (ROA)} = \frac{\text{Net profit after tax}}{\text{Total Assets}} \times 100\%$$

2. Return on Equity (ROE)

It measures the rate of return on shareholders, investment. It is the relationship between net income after tax and common shareholders, investment.

Mathematically,

$$\text{Return on Equity (ROE)} = \frac{\text{Net profit after tax}}{\text{Equity capital}} \times 100\%$$

3. Non- Performing Loan Ratio (NPLR)

Non-performing loans are the total sum of all borrowed money upon which the debtor has not made payments as scheduled for at least 90 days. A non-performing loan is either in default or near to being in default. Substandard loan, doubtful loan and bad/loss loan are taken into consideration under NPL. Loans which are overdue by a period from three months to a maximum period of six months called sub-standard loans. Doubtful loans are overdue by a period from six months to a maximum period of one year and bad/loss loans are overdue by a

period of more than one year.

Mathematically,

$$\text{Non-performing loan ratio} = \frac{\text{Total non-performing loan}}{\text{Total loan and advances}} \times 100\%$$

Where,

$$\text{Total non-performing loan (NPL)} = \text{Sub-standard loan} + \text{Doubtful loan} + \text{Bad loan}$$

$$\text{Total loan and advances} = \text{Total performing loan} + \text{Total non-performing loan}$$

4. Loan Loss Provision Ratio (LLPR)

A loan loss provision is an income statement expense set aside as an allowance for uncollected loans and loan payments. This provision is used for to cover different types of loan losses. Banks provide different types of loan products for their customers according to nature and needs of their customers.

Mathematically,

$$\text{Loan loss provision ratio} = \frac{\text{Total loan losses provision}}{\text{Total loan and advances}} \times 100\%$$

5. Loans and Advance Ratio (LAR)

Loans and advances refer to the lending component of the investments made by development banks for different credit programs. The loans and advance segment of the bank is a very important one because its performance is directly related to the bank's profits. Under this head, the balance sum of all loans and advances issued to various clients, including bills purchased and discounted, will show as a gross value less any allowable loan loss provisioning. Any funds borrowed from one entity to another entity to be repaid after a fixed period with an interest rate are said to be loans, while funds provided by the bank to an entity for a specific purpose that are

meant to be repaid any spans of time shorter than what would be deemed normal are known as advances.

Mathematically,

$$\text{Loan and Advance ratio} = \frac{\text{Total loan and advances}}{\text{Total deposit}} \times 100\%$$

6. Capital Adequacy Ratio (CAR)

CAR is the proportion of banks' Tier 1 and Tier 2 capital as a proportion of its risk-weighted asset. Capital Adequacy ratio is an expression of a bank's percentage risk-weighted credit exposures. Mathematically,

Mathematically,

$$\text{Capital Adequacy Ratio (CAR)} = \frac{\text{Total Capital}}{\text{Total Risk Weighted Assets}} \times 100\%$$

Where,

Total capital = Tier 1 capital + Tier 2 capital

Total risk weighted assets = on – balance sheet risk weighted items + off- balance sheet risk weighted items.

7. Interest Income to Loans and Advances Ratio:

The ratio shows the efficiency of the banks to manage the loans and advances to earn much more interest income from them. It gives a good aspect of the amount of interest income earned compared to the total loans and advances. It is calculated as follows:

$$\text{Interest Income to Loans and Advances Ratio} = \frac{\text{Total Interest income}}{\text{Total Loans \& Advance}}$$

Better ratio denotes a higher rate of receiving interest income and therefore indicates a better performance in lending activities and the opposite is the case.

Statistical Tools

Statistical tools are mathematical formulas, models and techniques that are used in statistical analysis of raw research data. The statistical tools is used to describe the relationship between variables and interpret the result.

1. Mean (\bar{X}):

The arithmetic mean is a way of calculating average or average which is equal to the value of the sum of the numbers in the list to the quantity of the items in the sample list. This one value gives readers an idea of the whole collection. Those are the boundaries within which the whole data set is described. Usually the average is one of the known central locations. An average is a common method of representing the center of a data set. The central tendency of the whole sample is given by the mean value statistics.

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

N

Where,

$\sum x$ = Sum of the variables 'x'

N = Total number of sample observation

2. Standard Deviation (σ):

The standard deviation is a measure of the amount of variation or dispersion of a set of value. It is defined as the positive square root of the mean of the square of the deviation taken from the arithmetic mean. The standard deviation is a measure of the amount of variation or dispersion of a set of value.

$$\text{Standard deviation } (\sigma) = \sqrt{\frac{\sum(X - \bar{x})^2}{n}}$$

Where,

$\sum x$ = Sum of the variables 'x'

\bar{x} = Mean value of variables

n = Total number of sample observation

3. Coefficient of Variation:

Coefficient of variation (CV) tells us how the data points in a data series are relatively spread out around the mean.

$$\text{Coefficient of Variation (CV)} = \frac{\sigma}{\bar{x}} \times 100\%$$

Where,

σ = Standard deviation

\bar{x} = Mean value

4. Correlation Analysis

Correlation analysis enables us in determining the degree and direction of relationship between two variables. It shows how two variables move together and also shows the degree of association between them. The relationship will explain by using bi-variant Pearson correlation coefficient. It measures correlation coefficient between two variables X and y is usually denoted by 'r' and can be obtained as:

$$\text{Correlation Coefficient (r)} = \frac{n \sum xy - \sum x \cdot \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}}$$

Where,

$\sum xy$ = Sum of product of two series.

$\sum x^2$ = Sum of squared in X series

$\sum y^2$ = Sum of squared in Y series

n = number of years

The value of correlation coefficient ranges from -1 to +1.

r = 0 means variables are correlated lies between -1 and +1

r = -1 means perfect negative correlation between the variables

r = +1 means positive correlation between the variables

5. Regression Analysis

It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and independent variables (loan & advance, nonperforming loan, loan loss provision). Mathematically, it is calculated as

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

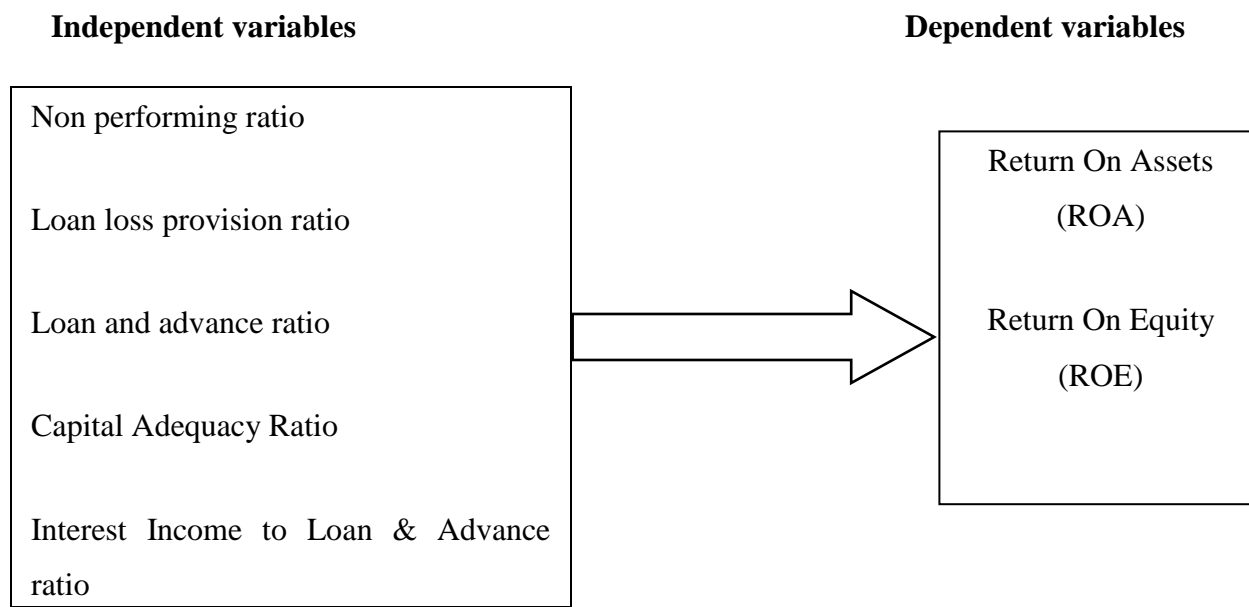
Analysis of data using SPSS

SPSS (Statistical Package for the Social Sciences) is a software program that is used in this research in disciplines. In this study, I try to analyze the interrelation between loans and advances to the other variables total deposits, total assets, net profit, and non-performing loans. The continuation of the topic of hypothesis testing will be brought up in this module, where a specific statement, or hypothesis, about a population parameter is generated, and sample statistics are applied in determining the likelihood that the hypothesized statement is true. This assumption is based on available data and the researchers' lies about population parameters. The specific test considered here is called analysis of variance (ANOVA) and is a hypothesis test suitable for comparing the means of a continuous variable between two or more independent comparison groups.

3.6 Research framework and Definition of variables

Research framework clearly illustrates the structure of the research plan and helps the researcher to formulate relevant objectives. This framework is made up of the research's major topics and the hypothesized links between them. Furthermore, this framework gives the systematic explanation of the link between the dependent and independent variables for the aim of analyzing development bank financial performance.

This studies focus on credit management in the Nepal Development Bank. Credit management is the process of borrowing among other things which includes setting credit limits. Verifying customer payments and billing Assessing the risks involved in extending customer credit. This study used a descriptive and contingent comparative research design. Various financial and statistical tools Used to understand relationships between variables and to explain results. The variables used in this study include return on assets (ROA), return on equity (ROE), non-performing loan ratio (NPLR), loan advance ratio (LAR), and liquidity ratio. (LR) Total liabilities Deposit interest rates are an independent variable that reflects bank performance. Below is a conceptual framework that describes the dependent and independent variables used in this study.



(Source: Humagain A. , 2023)

Figure 1: Research Framework

3.6.1 Definition of Independent Variables

Non-performing loan ratio:

A Non-Performing Loan (NPL) ratio is a financial metric used to assess the proportion of loans within a financial institution's portfolio that are in default or close to default. Specifically, it is the ratio of non-performing loans to total loans. A non-performing loan is one where the borrower has not made scheduled payments for a specified period, typically 90 days or more. A higher ratio suggests a greater proportion of loans that may not be repaid, signaling potential financial instability for the institution. A lower NPL ratio, conversely, indicates that a bank has a healthier loan portfolio. The NPL ratio is a crucial metric for regulators, investors, and analysts to evaluate the credit risk of financial institutions and their potential for profit generation (IMF, 2009).

Loan loss provision ratio

The loan loss provision ratio is a financial indicator that measures the proportion of a bank's loan portfolio allocated to cover potential credit losses. It is calculated as the total loan loss provisions

divided by the total outstanding loans. Loan loss provisions are funds set aside by banks to absorb potential losses arising from non-performing or defaulted loans. A higher loan loss provision ratio indicates a more conservative approach to credit risk, as the bank anticipates greater loan losses, while a lower ratio may suggest either lower perceived risk or inadequate provisioning (Basel Committee on Banking Supervision, 2004).

Loan and advance ratio

The loan and advance ratio, commonly known as the Loan-to-Advance Ratio (LAR), is a financial metric that compares the total loans given by a bank or financial institution to the total advances it has made. It is often used as an indicator of the level of risk a bank or financial institution is taking on in terms of its lending activities. A higher ratio suggests that a bank is aggressively lending, which may increase profitability but could also indicate reduced liquidity and higher credit risk. Conversely, a lower ratio signals more liquidity but potentially underutilized resources (Rose & Hudgins, 2020).

Capital Adequacy Ratio (CAR)

Capital Adequacy Ratio (CAR) is a measure used by financial institutions to assess their financial health and stability. It is the ratio of a bank's capital to its risk-weighted assets and is expressed as a percentage. CAR is crucial for ensuring that banks have enough capital to absorb potential losses while meeting obligations to depositors and other creditors. It consists of two components: i). Tier 1 Capital: Core capital, which includes equity capital and disclosed reserves. ii). Tier 2 Capital: Supplementary capital, such as subordinated debt and revaluation reserves (Nepal Rastra Bank, 2020).

Interest Income to Loans and Advances Ratio

The Interest Income to Total Deposit Ratio is a key financial metric that assesses a bank's efficiency in generating interest income relative to its deposit base. It reflects how well the bank utilizes customer deposits to earn revenue through interest-bearing assets such as loans and investments. A higher ratio indicates effective deployment of deposits in generating core banking

revenue, signifying robust asset management practices. Conversely, a lower ratio may highlight inefficiencies or reliance on non-interest income sources. By analyzing this ratio, stakeholders can evaluate a bank's profitability, operational efficiency, and the effectiveness of its lending and investment strategies. It is a crucial tool for understanding the income-generating capacity of a bank in relation to its deposit liabilities (Rose & Hudgins, 2020)

3.6.2 Definition of Dependent variables

Return on Assets (ROA)

Return on Assets (ROA) is a financial ratio that indicates how profitable a company is relative to its total assets. It measures a company's ability to generate profit from its assets and is calculated by dividing net income by A higher ROA indicates that a company is using its assets efficiently to generate profit. The ratio is typically expressed as a percentage (Brealey, Myers, & Allen, 2020).

Return on Equity (ROE)

Return on equity (ROE) is a financial metric that measures a company's ability to generate profits from its shareholders' equity. ROE provides insight into how effectively a company is using its equity base to generate profits. A higher ROE suggests efficient management and a profitable business model (Brealey, Myers, & Allen, 2020).

CHAPTER IV

RESULTS AND DISCUSSION

This chapter deals, in detail, with data analysis and presentation according to the objectives of the study. The analysis is done in a systematic order by using several of the financial and statistical tools. The facts derived from the models are likewise presented in tabular form. For easier reference by the readers, the tables have been constructed in the simplest and clearest manner, with each result interpreted jointly.

4.1 Analysis of data

The analysis, which is secondary data, was collected by using a variety of tools and formats. Presentation of the data collected and analyzed through various readable tables and discussion of the findings from the analysis have been included.

4.1.1 Non-Performing loan Ratio

According to Nepal Rastra Bank (NRB), the Non-Performing Loan (NPL) Ratio is a critical financial metric used to measure the proportion of a financial institution's non-performing loans relative to its total loans and advances. A loan is classified as non-performing when it remains overdue for a specific period, typically 90 days or more, or when its recovery is deemed uncertain due to the borrower's inability to meet repayment obligations. The NPL ratio is calculated as the total non-performing loans divided by the total loans and advances, expressed as a percentage. This ratio serves as a key indicator of the asset quality and financial health of a bank or financial institution, with lower ratios indicating better performance and risk management. NRB uses this ratio to assess the credit risk in the banking sector and ensure sound banking practices.

Table 1*Non-Performing Loan Ratio*

Fiscal Year	Jyoti Bikash Bank Ltd.	Garima Bikash Bank Ltd.	Kamana Sewa Bikash Bank Ltd.
2022/23	3.43	1.70	3.09
2021/22	1.47	0.85	2.31
2020/21	0.84	0.72	1.61
2019/20	0.92	0.79	1.79
2018/19	0.54	0.20	0.97
2017/18	0.40	0.27	1.13
2016/17	0.96	0.24	1.39
2015/16	1.39	0.31	1.03
2014/15	1.98	0.29	0.29
2013/14	2.67	0.12	0.17

(Source: Appendix I)

Table 1 presents the Non-Performing Loan (NPL) ratios for three development banks in Nepal—Jyoti Bikash Bank Ltd., Garima Bikash Bank Ltd., and Kamana Sewa Bikash Bank Ltd.—over the fiscal years 2013/14 to 2022/23. For Jyoti Bikash Bank Ltd., the NPL ratio shows fluctuations, with an initial high of 2.67% in 2013/14, dropping to a low of 0.40% in 2017/18, followed by a gradual increase, reaching 3.43% in 2022/23. This trend indicates varying credit quality and loan recovery performance over time. In contrast, Garima Bikash Bank Ltd. maintained a consistently lower NPL ratio compared to the other two banks, starting at 0.12% in 2013/14 and peaking at 1.70% in 2022/23. This reflects relatively strong credit risk management, despite a slight rise in recent years. Kamana Sewa Bikash Bank Ltd. showed an overall upward trend in its NPL ratio, beginning at a very low 0.17% in 2013/14 and increasing to 3.09% in 2022/23. Although there were some periods of decline, the general rise suggests growing challenges in managing non-performing loans. Overall, the data reveals that while all three banks initially experienced lower NPL ratios, recent years have seen an upward trend, potentially reflecting broader economic challenges, increased credit risks, or changes in loan portfolio quality.

4.1.2 Loan Loss Provision to Total Loan and Advance Ratio

The Loan Loss Provision to Total Loan and Advance Ratio is a key financial metric used in banking to assess the quality of a bank's loan portfolio and its preparedness to manage credit

risks. It represents the proportion of the total loans and advances that the bank has set aside as provisions to cover potential loan losses arising from defaults or non-performing loans. A higher ratio indicates a conservative approach to risk management, suggesting that the bank is allocating more resources to safeguard against potential losses. Conversely, a lower ratio may signal either a healthier loan portfolio or an underestimation of risk. This ratio helps stakeholders, including regulators and investors, evaluate the bank's financial resilience and risk management practices.

Table 2

Loan Loss Provision to Total Loan and Advance Ratio

Fiscal Year	Jyoti Bikash Bank Ltd.	Garima Bikash Bank Ltd.	Kamana Sewa Bikash Bank Ltd.
2022/23	2.37	0.94	2.13
2021/22	2.18	0.44	1.35
2020/21	2.07	1.81	2.33
2019/20	1.69	1.60	1.22
2018/19	1.41	1.16	0.65
2017/18	0.24	1.07	1.26
2016/17	0.62	0.14	2.78
2015/16	3.30	0.18	1.56
2014/15	2.24	1.84	1.35
2013/14	2.95	2.17	1.17

(Source: Appendix I)

Table 2 presents the Loan Loss Provision to Total Loan and Advance Ratio for three development banks in Nepal—Jyoti Bikash Bank Ltd., Garima Bikash Bank Ltd., and Kamana Sewa Bikash Bank Ltd.—across fiscal years 2013/14 to 2022/23. The ratio trends reveal variations in credit risk management practices among these banks. Jyoti Bikash Bank Ltd. shows fluctuating values, starting high at 2.95% in 2013/14, declining to a low of 0.24% in 2017/18, and then gradually rising to 2.37% by 2022/23. This indicates that the bank's provisioning has varied significantly, reflecting changes in loan quality and risk assessment over time. Garima

Bikash Bank Ltd. demonstrates relatively stable but lower ratios compared to Jyoti, with a notable dip to 0.14% in 2016/17 and 0.18% in 2015/16. However, recent years (2020/21 and beyond) show improved provisioning, peaking at 1.81% in 2020/21, and stabilizing at 0.94% in 2022/23. This suggests a conservative approach in earlier years and adjustments in response to market dynamics. Kamana Sewa Bikash Bank Ltd. displays consistent provisioning trends, with ratios ranging from 0.65% in 2018/19 to 2.78% in 2016/17. The ratio peaked in 2020/21 at 2.33%, indicating heightened provisioning during uncertain economic periods, and declined slightly to 2.13% in 2022/23, signaling better loan quality or lower perceived risks.

4.1.3 Loan and Advance to Total Deposit Ratio

The Loan and Advance to Total Deposit Ratio (LTD Ratio) is a financial metric used to assess a bank's liquidity and efficiency in utilizing its deposits to extend loans and advances. It represents the proportion of total customer deposits that have been deployed as loans and advances, indicating how effectively the bank is converting its deposit base into earning assets. A higher LTD ratio suggests that the bank is aggressively lending, which may boost profitability but could also increase liquidity risks if deposit withdrawals rise unexpectedly. Conversely, a lower ratio indicates a conservative lending approach, suggesting a stronger liquidity position but potentially lower income from loans. This ratio is vital for evaluating a bank's balance between growth and risk management, and regulators often set benchmark limits to ensure financial stability.

Table 3

Loan and Advance to Total Deposit Ratio

Fiscal Year	Jyoti Bikash Bank Ltd.	Garima Bikash Bank Ltd.	Kamana Sewa Bikash Bank Ltd.
2022/23	88.10	84.36	85.18
2021/22	94.71	89.01	94.14
2020/21	92.51	83.98	89.34
2019/20	85.12	82.82	83.26
2018/19	99.07	95.55	89.94
2017/18	90.36	94.82	88.80
2016/17	91.46	93.42	106.58
2015/16	562.14	358.02	104.20
2014/15	78.27	85.52	44.99
2013/14	80.65	86.12	77.83

(Source: Appendix I)

Table 3 outlines the Loan and Advance to Total Deposit Ratio (LTD Ratio) for Jyoti Bikash Bank Ltd., Garima Bikash Bank Ltd., and Kamana Sewa Bikash Bank Ltd. over the fiscal years 2013/14 to 2022/23. This ratio reflects the banks' efficiency in deploying deposits into loans and their approach to liquidity management. Jyoti Bikash Bank Ltd. shows considerable fluctuations in its LTD ratio. It started at 80.65% in 2013/14, surged dramatically to 562.14% in 2015/16 due to either a significant mismatch in deposit mobilization or data anomalies, then normalized in subsequent years, maintaining ratios in the 80–99% range. The ratio dropped to 88.10% in 2022/23, indicating a more stable lending strategy and improved liquidity management in recent years. Garima Bikash Bank Ltd. displays relatively stable trends compared to Jyoti. Its ratio fluctuated between 82.82% in 2019/20 and 95.55% in 2018/19, with a peak of 358.02% in 2015/16, likely reflecting a similar deposit-loan imbalance as seen in Jyoti during that year. By 2022/23, the ratio settled at 84.36%, suggesting balanced lending practices. Kamana Sewa Bikash Bank Ltd. exhibits a consistent trend, with the LTD ratio generally ranging between 85%

and 106%. Notably, it reached a high of 106.58% in 2016/17, suggesting aggressive lending during that period, but stabilized afterward, with a ratio of 85.18% in 2022/23, reflecting improved liquidity management and controlled lending growth.

4.1.4 Interest Income to Loan and Advance Ratio

The Interest Income to Loan and Advance Ratio is a financial metric that measures the efficiency of a bank in generating interest income from its loan and advance portfolio. It represents the proportion of interest earned relative to the total loans and advances disbursed. A higher ratio indicates that the bank is effectively utilizing its loan portfolio to generate income, often reflecting higher lending rates, better loan quality, or efficient credit management. Conversely, a lower ratio may suggest lower lending rates, weaker loan performance, or inefficiencies in income generation. This ratio is crucial for evaluating a bank's profitability and competitiveness, as interest income is typically a primary revenue source in the banking sector.

Table 4

Interest Income to Loan and Advance Ratio

Fiscal year	Jyoti Bikash Bank Ltd.	Garima Bikash Bank Ltd.	Kamana Sewa Bikash Bank Ltd.
2022/23	15.44	16.45	16.03
2021/22	12.23	13.05	13.40
2020/21	9.53	10.20	10.36
2019/20	13.18	13.47	13.29
2018/19	13.14	12.92	12.85
2017/18	12.29	13.21	14.63
2016/17	11.40	11.70	13.50
2015/16	11.42	10.68	6.82
2014/15	11.98	10.59	13.07
2013/14	13.21	13.45	14.61

(Source: Appendix I)

Table 4 presents the Interest Income to Loan and Advance Ratio for Jyoti Bikash Bank Ltd.,

Garima Bikash Bank Ltd., and Kamana Sewa Bikash Bank Ltd. across fiscal years 2013/14 to 2022/23. This ratio indicates how efficiently these banks have been generating interest income from their loan portfolios over the years. Jyoti Bikash Bank Ltd. shows a fluctuating trend. Starting at 13.21% in 2013/14, the ratio declined to 9.53% in 2020/21, likely reflecting lower interest rates or reduced lending profitability during that period. However, the ratio rebounded significantly to 15.44% in 2022/23, indicating improved efficiency in income generation, possibly due to higher lending rates or better-performing loans. Garima Bikash Bank Ltd. also experienced fluctuations. The ratio started at 13.45% in 2013/14, dipped to a low of 10.20% in 2020/21, and then increased consistently, reaching 16.45% in 2022/23. This upward trend in recent years suggests enhanced income from loans, likely driven by favorable interest rate adjustments or improved loan quality. Kamana Sewa Bikash Bank Ltd. exhibited a relatively steady performance, with the ratio ranging from 6.82% in 2015/16 to a high of 16.03% in 2022/23. The low ratio in 2015/16 could reflect challenges in lending efficiency or a strategic focus on lower-interest loans, while the steady increase in subsequent years indicates improved profitability from the loan portfolio.

4.1.5 Capital Adequacy Ratio

The Capital Adequacy Ratio (CAR) is a critical financial metric used in Nepal's banking sector to measure a bank's capital in relation to its risk-weighted assets (RWA). It ensures that banks maintain sufficient capital to absorb potential losses while continuing to operate safely and soundly. The ratio is calculated by dividing a bank's regulatory capital (comprising Tier 1 and Tier 2 capital) by its total risk-weighted assets. In Nepal, the Nepal Rastra Bank (NRB), the central bank, mandates the minimum CAR requirement under the Basel III framework. For commercial banks, the current minimum CAR is set at 11%, which includes a 1.5% capital conservation buffer. Development banks and finance companies have slightly different requirements, depending on their size and scope of operations. A higher CAR indicates that a bank is well-capitalized and better equipped to withstand financial shocks, protecting depositors and promoting stability in the financial system. Conversely, a lower CAR may suggest heightened vulnerability to risks. This ratio is a key indicator for regulators, investors, and other stakeholders to assess the financial health and risk management practices of Nepalese banks.

Table 5*Capital Adequacy Ratio*

Fiscal Year	Jyoti Bikash Bank Ltd.	Garima Bikash Bank Ltd.	Kamana Sewa Bikash Bank Ltd.
2022/23	12.96	13.69	12.24
2021/22	12.74	13.48	12.13
2020/21	13.04	11.43	13.93
2019/20	15.08	13.87	14.00
2018/19	16.27	14.44	16.81
2017/18	19.25	18.84	21.58
2016/17	30.60	24.99	12.76
2015/16	16.76	16.53	14.25
2014/15	17.05	15.63	13.57
2013/14	18.43	13.79	13.76

(Source: Appendix I)

Table 5 displays the Capital Adequacy Ratio (CAR) for Jyoti Bikash Bank Ltd., Garima Bikash Bank Ltd., and Kamana Sewa Bikash Bank Ltd. from fiscal years 2013/14 to 2022/23, highlighting their compliance with regulatory capital requirements and financial resilience over time. Jyoti Bikash Bank Ltd. shows a steady decline in CAR from 18.43% in 2013/14 to 12.96% in 2022/23. The ratio peaked at 30.60% in 2016/17, indicating a surplus of capital compared to risk-weighted assets. However, the downward trend in recent years reflects increased lending activity or capital deployment, though the bank remains above the regulatory threshold. Garima Bikash Bank Ltd. also experienced fluctuations. The CAR started at 13.79% in 2013/14, peaked at 24.99% in 2016/17, and gradually stabilized at 13.69% in 2022/23. This indicates effective capital management, with the bank maintaining sufficient buffers to meet regulatory requirements while expanding its risk-weighted asset base. Kamana Sewa Bikash Bank Ltd. demonstrated a similar trend, starting at 13.76% in 2013/14 and peaking at 21.58% in 2017/18. The ratio declined to 12.24% in 2022/23, indicating increased utilization of capital for growth. Despite the decrease, the bank consistently maintained its CAR above the regulatory minimum.

4.1.6 Return on Assets (ROA)

In Nepal, Return on Assets (ROA) is a financial ratio that measures a company's ability to generate profit from its assets. It is used to assess how efficiently a business is using its assets to

produce earnings. For banks and financial institutions, ROA is an important indicator of operational efficiency and profitability. A higher ROA indicates that a company is more effective at converting its assets into profits. In Nepal, where the banking sector is growing and evolving, this ratio is used by analysts, investors, and regulators to evaluate the performance of banks, especially in terms of their asset management and profitability.

Table 6

Return on Assets

Fiscal Year	Jyoti Bikash Bank Ltd.	Garima Bikash Bank Ltd.	Kamana Sewa Bikash Bank Ltd.
2022/23	0.41	1.42	0.58
2021/22	0.94	1.29	0.99
2020/21	1.11	1.15	1.17
2019/20	1.15	1.15	0.33
2018/19	1.46	1.53	1.07
2017/18	1.48	1.86	1.99
2016/17	1.73	1.97	2.14
2015/16	1.70	2.10	1.32
2014/15	1.39	1.94	2.27
2013/14	1.01	2.26	2.09

(Source: Appendix I)

The data from the table 6 shows the Return on Assets (ROA) for three banks—Jyoti Bikash Bank Ltd., Garima Bikash Bank Ltd., and Kamana Sewa Bikash Bank Ltd.—over a span of 10 fiscal years (2013/14 to 2022/23). ROA is an indicator of how efficiently each bank has utilized its assets to generate profit. From the table, Garima Bikash Bank Ltd. consistently had the highest ROA among the three banks, peaking at 2.26% in 2013/14 and gradually declining to 1.42% in 2022/23. This indicates that the bank has maintained relatively strong performance over the years but has seen a decrease in asset utilization efficiency in recent years. Kamana Sewa Bikash Bank Ltd. started with a strong ROA of 2.27% in 2014/15 but saw a steady decline, dropping to just 0.33% in 2019/20. After that, the bank showed a slight recovery, reaching 0.58% in 2022/23.

This suggests that Kamana Sewa Bikash Bank struggled with lower profitability in certain years, particularly around 2019/20, but has improved its efficiency in recent years. On the other hand, Jyoti Bikash Bank Ltd. exhibited more fluctuation in its ROA over the years. It had a peak of 1.73% in 2016/17 and saw a decline to 0.41% in 2022/23. The decline indicates a decrease in asset utilization efficiency, particularly in the most recent fiscal year. In summary, Garima Bikash Bank Ltd. has generally been the most efficient in terms of asset utilization over the past decade, while Kamana Sewa Bikash Bank Ltd. faced challenges but has been recovering. Jyoti Bikash Bank Ltd. saw more volatility, with a significant drop in recent years. These trends reflect differences in the banks' management, strategies, and external factors affecting their profitability.

4.1.7 Return on Equity (ROE)

Return on Equity (ROE) is a financial ratio that measures a company's ability to generate profits from its shareholders' equity. It is an indicator of how efficiently a company is using its equity capital to generate earnings. For banks, ROE is a crucial metric that helps investors understand the profitability and financial performance of the institution relative to the equity invested by shareholders. A higher ROE indicates that the bank is efficiently using its equity capital to generate profits. It is a key metric for assessing the profitability and financial strength of a company, especially for investors, as it reflects how well the management is utilizing shareholders' funds to drive growth and return value.

Table 7*Return on Equity*

Fiscal Year	Jyoti Bikash Bank Ltd.	Garima Bikash Bank Ltd.	Kamana Sewa Bikash Bank Ltd.
2022/23	5.22	16.21	7.63
2021/22	11.89	15.61	13.52
2020/21	12.66	15.64	15.58
2019/20	10.84	13.28	3.74
2018/19	13.26	15.68	8.77
2017/18	10.99	14.22	12.22
2016/17	8.90	12.23	14.84
2015/16	13.13	18.41	11.11
2014/15	10.24	14.81	20.43
2013/14	6.94	19.90	19.78

(Source: Appendix I)

Table 7 provides the Return on Equity (ROE) for three banks—Jyoti Bikash Bank Ltd., Garima Bikash Bank Ltd., and Kamana Sewa Bikash Bank Ltd.—over a span of 10 fiscal years (2013/14 to 2022/23). ROE is a measure of a bank’s ability to generate profit from its shareholders' equity. Garima Bikash Bank Ltd. has consistently displayed the highest ROE across the years, peaking at 19.90% in 2013/14 and maintaining strong levels over the years, although it gradually decreased to 16.21% by 2022/23. This suggests the bank has been highly efficient in generating profit from its equity, though there is a slight decline in recent years. Kamana Sewa Bikash Bank Ltd. had the highest ROE in 2014/15, reaching 20.43%, but saw a significant decline over the next years, especially in 2019/20, where its ROE dropped to just 3.74%. While it improved afterward, reaching 7.63% in 2022/23, the bank's overall performance shows a more volatile pattern in terms of equity profitability compared to Garima Bikash Bank. Jyoti Bikash Bank Ltd. has shown more variability in its ROE over the years, with a peak of 13.26% in 2018/19, but it sharply declined to just 5.22% in 2022/23. The decrease in recent years, particularly in 2022/23, suggests a decline in the bank’s ability to generate returns from equity. In summary, Garima Bikash Bank has maintained the most stable and strong ROE over the years, while Kamana Sewa

Bikash Bank experienced a sharp decline but managed a recovery in recent years. Jyoti Bikash Bank, although generally stable, faced a notable decrease in profitability in the last year of the data. These trends reflect differences in the banks' equity management, profitability strategies, and external factors affecting their financial performance.

4.2 Descriptive Statistics

Descriptive statistics refers to a set of techniques used to summarize and describe the main features of a dataset. These techniques help in organizing, presenting, and simplifying large amounts of data in a way that is easy to understand. The study find out the mean, standard deviation, and coefficient variance of the independent variable and dependent variable of three development bank.

Table 8

Descriptive Statistics of Sampled Development Banks

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
NPLR	30	0.12	3.43	1.13	0.89	0.78
LLPR	30	0.14	3.30	1.54	0.82	0.67
L&AR	30	44.99	562.14	112.68	98.72	9746.50
INR	30	6.82	16.45	12.60	1.98	3.93
CAR	30	11.43	30.60	15.80	4.10	16.79
ROA	30	0.33	2.27	1.43	0.53	0.28
ROE	30	3.74	20.43	12.92	4.13	17.02

(Source: SPSS output)

Table 8 provides descriptive statistics for various financial ratios of 3 sampled development banks over a 10 years period. Non-Performing Loan Ratio (NPLR) ranges from 0.12 to 3.43, with a mean of 1.13. The standard deviation is 0.89, indicating a moderate variation in NPLR across banks. The variance is 0.78, showing the spread around the mean. Loan Loss Provision Ratio (LLPR) has values between 0.14 and 3.30, with a mean of 1.54. The standard deviation is 0.82, suggesting moderate variability, and the variance is 0.67. Loans & Advances Ratio

(L&AR) ranges from 44.99 to 562.14, with a mean of 112.68. The standard deviation is high at 98.72, indicating significant variation in the loan and advance ratios among the banks, and the variance is 9746.50, showing a large spread. Interest Rate Ratio (INR) is between 6.82 and 16.45, with an average of 12.60. The standard deviation is 1.98, and the variance is 3.93, reflecting moderate variation in the interest rates of the sampled banks.

Capital Adequacy Ratio (CAR) varies from 11.43 to 30.60, with a mean of 15.80. The standard deviation is 4.10, indicating a moderate spread in capital adequacy levels, while the variance is 16.79. Return on Assets (ROA) ranges from 0.33 to 2.27, with a mean of 1.43. The standard deviation of 0.53 suggests moderate variability in return on assets across the banks, with a variance of 0.28. Return on Equity (ROE) shows values between 3.74 and 20.43, with a mean of 12.92. The standard deviation of 4.13 indicates a relatively high variability in return on equity, with a variance of 17.02. Overall, the data suggests a broad range of financial performances across the development banks, with noticeable variability in some ratios, such as the Loans & Advances Ratio and Return on Equity.

4.3 Correlation Coefficient Analysis

Correlation consists of analyzing the covariance between two or more variables, and covariance analysis is used to determine the degree of relationship between variables. The correlation analysis indicates the degree of closeness of the relationship between the variables. This study takes into consideration the Pearson's correlation coefficient between dependent and independent variables of Nepalese development banks for the period 2013/14 to 2022/23.

Table 9*Pearson's Correlation Coefficient of Sampled Development Banks*

		NPLR	LLPR	L&AR	IN to L&AR	CAR	ROA	ROE
NPLR	Pearson Correlation	1	.498**	-.035	.355	-.219	-.712**	-.656**
	Sig. (2- tailed)	.	.005	.854	.054	.246	.000	.000
LLPR	Pearson Correlation	.498**	1	.198	-.007	-.399*	-.208	-.148
	Sig. (2- tailed)	.005	.	.295	.970	.029	.269	.436
L&AR	Pearson Correlation	-.035	.198	1	-.216	.067	.190	.109
	Sig. (2- tailed)	.854	.295	.	.251	.724	.315	.566
IN to L&AR	Pearson Correlation	.355	-.007	-.216	1	-.114	-.120	-.084
	Sig. (2- tailed)	.054	.970	.251	.	.549	.527	.659
CAR	Pearson Correlation	-.219	-.399*	.067	-.114	1	.333	-.232
	Sig. (2- tailed)	.246	.029	.724	.549	.	.072	.217
ROA	Pearson Correlation	-.712**	-.208	.190	-.120	.333	1	.742**
	Sig. (2- tailed)	.000	.269	.315	.527	.072	.	.000
ROE	Pearson Correlation	-.656**	-.148	.109	-.084	-.232	.742**	1
	Sig. (2- tailed)	.000	.436	.566	.659	.217	.000	.

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

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

Table 9 presents the Pearson correlation coefficients between various financial ratios and metrics for development banks. The Pearson Correlation values show the strength and direction of the linear relationships between pairs of variables, while the Sig. (2-tailed) values indicate the statistical significance of these correlations.

NPLR (Non-Performing Loan Ratio) has a significant positive correlation with LLPR (Loan

Loss Provision Ratio) ($r = 0.498$, $p = 0.005$), suggesting that higher NPLR is associated with higher LLPR. There is a significant negative correlation with ROA (Return on Assets) ($r = -0.712$, $p = 0.000$) and ROE (Return on Equity) ($r = -0.656$, $p = 0.000$), indicating that higher NPLR is linked to lower profitability, both in terms of assets and equity. LLPR is significantly negatively correlated with CAR (Capital Adequacy Ratio) ($r = -0.399$, $p = 0.029$), indicating that banks with higher loan loss provisions tend to have lower capital adequacy ratios. There is no significant correlation between LLPR and other variables, such as L&AR (Loans & Advances Ratio), IN to L&A (Interest Rate on Loans & Advances), and ROA. L&AR does not show any significant correlation with other variables except for a minor positive correlation with LLPR ($r = 0.198$, $p = 0.295$). IN to L&A (Interest Income on Loans & Advances) has a significant positive correlation with NPLR ($r = 0.355$, $p = 0.054$), suggesting a mild relationship where higher interest rates might be linked to higher non-performing loans. There are no significant correlations with other variables. CAR is significantly positively correlated with ROA ($r = 0.333$, $p = 0.072$), but there is no significant correlation with ROE ($r = -0.232$, $p = 0.217$). ROA has a highly significant positive correlation with ROE ($r = 0.742$, $p = 0.000$), indicating that higher returns on assets are associated with higher returns on equity.

In summary, the analysis reveals that higher NPLR is associated with lower profitability (both ROA and ROE) and higher loan loss provisions. Additionally, capital adequacy and interest rates show some correlations with other factors but are less consistently significant across the board.

4.4 Regression Analysis

Multiple Regression Analysis is responsible for evaluating the impact of independent variables on dependent variables of banks. The study uses the multiple regression analysis to find out the impact of independent variable like non-performing loan ratio, loan loss provision ratio, Total Loan and Advance ratio, Interest income to loan and advance ratio, Capital Adequacy ratio on dependent variable Return on Assets and Return on Equity of three development banks over 10 years period from 2013/14 to 2022/23.

Table 10

Regression Analysis with Dependent Variable ROA:

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.815 ^a	.664	.594	.34	.664	9.499	5	24	.000

a. Predictors: (Constant), CAR, L&AR, NPLR, IN to L&AR, LLPR

Model Summary

The regression model explains 66.4% of the variance in the dependent variable, with a strong correlation ($R = 0.815$) between the predictors (CAR, L&AR, NPLR, INR, LLPR) and the outcome. The adjusted R^2 of 0.594 suggests a good model fit, accounting for the number of predictors. The standard error (0.34) indicates a relatively small prediction error. The F-test ($F = 9.499$, $p = 0.000$) confirms that the model is statistically significant, meaning the predictors collectively contribute to explaining the dependent variable.

Table 11*ANOVA Table*

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	5.425	5	1.085	9.499	.000 ^b
Residual	2.741	24	.114		
Total	8.166	29			

a. Dependent Variable: ROA

b. Predictors: (Constant), CAR, L&AR, NPLR, IN to L&AR, LLPR

The ANOVA table shows the analysis of variance for the regression model predicting ROA. The

Regression sum of squares is 5.425, with 5 degrees of freedom, and the Mean Square is 1.085. The F-statistic of 9.499, with a significance value of 0.000, indicates that the model is statistically significant, meaning the predictors collectively explain variations in ROA. The Residual sum of squares is 2.741, with 24 degrees of freedom, and the Total sum of squares is 8.166, which represents the overall variance in the dependent variable.

Table 12

Coefficient Table

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.150	.589		.254	.802
NPLR	-.542	.090	-.905	-6.017	.000
LLPR	.216	.100	.334	2.155	.041
L&AR	.001	.001	.130	1.037	.310
IN to L&AR	.071	.035	.264	1.992	.058
CAR	.038	.017	.290	2.206	.037

a. Dependent Variable: ROA

The coefficients table shows the regression results for predicting ROA. The constant is 0.150, with a p-value of 0.802, indicating no significant impact. Among the predictors, NPLR has a significant negative effect on ROA ($B = -0.542$, $p = 0.000$), meaning higher NPLR decreases ROA. LLPR has a significant positive effect ($B = 0.216$, $p = 0.041$), indicating that higher loan loss provisions improve ROA. L&AR ($B = 0.001$, $p = 0.310$) and IN to L&AR ($B = 0.071$, $p = 0.058$) are not statistically significant, while CAR ($B = 0.038$, $p = 0.037$) positively impacts ROA. The standardized coefficients (Beta) show the relative importance of the predictors, with NPLR having the strongest negative effect.

Regression Analysis with Dependent Variable ROE:

Table 13

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.792 ^a	.627	.549	2.77	.627	8.061	5	24	.000

a. Predictors: (Constant), CAR, L&AR, NPLR, IN to L&AR, LLPR

The model summary indicates that the regression model has a strong correlation ($R = 0.792$) with the dependent variable. The R^2 value of 0.627 means that approximately 62.7% of the variance in the dependent variable is explained by the predictors (CAR, L&AR, NPLR, IN to L&AR, LLPR). The adjusted R^2 of 0.549 accounts for the number of predictors and still shows a good fit. The standard error of the estimate is 2.77, indicating moderate prediction error. The F-change statistic of 8.061 with a significance level of 0.000 confirms that the model is statistically significant.

Table 14

ANOVA Table

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	309.374	5	61.875	8.061	.000 ^b
Residual	184.210	24	7.675		
Total	493.583	29			

a. Dependent Variable: ROE

b. Predictors: (Constant), CAR, L&AR, NPLR, IN to L&AR, LLPR

The ANOVA table shows the analysis of variance for the regression model predicting ROE. The Regression sum of squares is 309.374, with 5 degrees of freedom, and the Mean Square is 61.875. The F-statistic is 8.061, with a significance value of 0.000, indicating that the model is statistically significant and the predictors collectively explain the variation in ROE. The Residual

sum of squares is 184.210, with 24 degrees of freedom, and the Total sum of squares is 493.583, representing the total variance in the dependent variable.

Table 15

Coefficients Table

Coefficients^a						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	16.221	4.830		3.359	.003
	NPLR	-4.011	.739	-.861	-5.430	.000
	LLPR	.575	.821	.114	.701	.490
	L&AR	.005	.006	.126	.951	.351
	IN to L&AR	.433	.291	.208	1.490	.149
	CAR	-.362	.139	-.359	-2.592	.016

a. Dependent Variable: ROE

The coefficients table presents the regression results for predicting ROE. The constant is 16.221, with a p-value of 0.003, indicating a significant effect. NPLR has a significant negative impact on ROE (B = -4.011, p = 0.000), meaning higher NPLR reduces ROE. LLPR (B = 0.575, p = 0.490) and L&AR (B = 0.005, p = 0.351) are not significant predictors. IN to L&AR (B = 0.433, p = 0.149) also has no significant effect. CAR (B = -0.362, p = 0.016) has a significant negative effect, suggesting that higher CAR reduces ROE. The standardized coefficients (Beta) show that NPLR and CAR have the strongest influences on ROE.

4.5 Discussion

This study aimed to analyze the credit management of Nepalese development banks, specifically focusing on Jyoti Bikash Bank Limited (JBBL), Garima Bikas Bank Limited (GBBL), and Kamand Sewa Bikas Bank Limited (KSBBL). The research objectives included assessing the credit management of the selected banks, examining the relationship between total loan & advances to total deposit, interest income to total loan & advance, non-performing loan ratio, return on asset and return on equity of the sampled development banks, and analyzing the impact of credit management on profitability of the sampled development banks.

The current situation of credit management variables in development banks, particularly in

Nepal, reflects a complex landscape characterized by fluctuating performance metrics. The Non-Performing Loan Ratio (NPLR) has shown an upward trend in several banks, indicating increasing challenges in managing loan recoveries, with Jyoti Bikash Bank Ltd. experiencing a notable rise to 3.43% in 2022/23. In contrast, Garima Bikash Bank Ltd. has maintained a relatively lower NPLR, suggesting stronger credit risk management practices. The Loan Loss Provision Ratio (LLPR) has varied significantly among the banks, with Jyoti Bikash Bank showing a recent increase to 2.37%, indicating a more conservative approach to risk management. The Loan and Advance to Total Deposit Ratio (LTD Ratio) has also fluctuated, with Jyoti Bikash Bank Ltd. at 88.10% in 2022/23, reflecting a stable lending strategy. Furthermore, the Interest Income to Loan and Advance Ratio has improved for most banks, signaling better efficiency in generating income from loans. Overall, while some banks are effectively managing credit risks and maintaining profitability, others face challenges that necessitate enhanced credit management strategies to ensure financial stability and growth. The current situation of credit management variables at Kamana Sewa Bikash Bank Ltd. indicates a mixed performance in managing its credit portfolio. The Non-Performing Loan Ratio (NPLR) has shown an upward trend, increasing to 3.09% in 2022/23, which raises concerns about the bank's ability to recover loans and manage credit risk effectively. This trend suggests that the bank may be facing challenges in maintaining the quality of its loan portfolio. In terms of Loan Loss Provision Ratio (LLPR), Kamana Sewa Bikash Bank has demonstrated a consistent approach, with a ratio of 2.13% in 2022/23, indicating a proactive stance in setting aside provisions to cover potential loan losses. The Loan and Advance to Total Deposit Ratio (LTD Ratio) has remained stable, reflecting a balanced approach to utilizing deposits for lending, with a ratio of 85.18% in the same fiscal year. Additionally, the Interest Income to Loan and Advance Ratio has shown improvement, reaching 16.03%, which suggests that the bank is effectively generating income from its lending activities. Overall, while Kamana Sewa Bikash Bank is making strides in certain areas of credit management, the rising NPLR highlights the need for enhanced strategies to mitigate credit risk and ensure sustainable financial performance.

The relationship between key credit management variables such as the Non-Performing Loan Ratio (NPLR), Loan and Advance to Total Deposit Ratio (LTD Ratio), Loan Loss Provision to Loan and Advance Ratio (LLPR), Interest Income to Loan and Advance Ratio (INR), Capital

Adequacy Ratio (CAR), Return on Assets (ROA), and Return on Equity (ROE) in development banks is complex and significantly impacts their financial performance. A higher NPLR typically indicates a deterioration in loan quality, which negatively affects both ROA and ROE, as it suggests that a larger portion of loans is not being repaid, leading to potential losses. Conversely, a lower NPLR is associated with better asset quality and profitability. The LTD Ratio reflects how effectively a bank is utilizing its deposits to generate loans; a higher ratio can enhance profitability but may also increase liquidity risk if not managed carefully. The LLPR serves as a buffer against potential loan losses, and a higher ratio indicates a conservative approach to risk management, which can positively influence ROA by ensuring that banks are prepared for defaults. The INR ratio is crucial for assessing how well banks are generating income from their loans; a higher ratio suggests effective lending practices and can lead to improved profitability. Meanwhile, the CAR is essential for maintaining financial stability, as it ensures that banks have sufficient capital to absorb losses, thereby supporting both ROA and ROE. Overall, these variables are interrelated, with effective credit management practices leading to improved financial performance, while poor management can result in increased risks and reduced profitability for development banks. The previous researcher Humagain (2022) concluded that there is significant relationship between the credit to deposit ratio, loan loss provision ratio and non-performing loan. The previous researcher Pradhan and Shah (2019) found out that effective credit risk management and mitigation practices positively influence loan repayment while obstacle had no significant effect on repayment behavior. The previous researcher Iftikhar (2016) concluded that there was significant positive relationship between effective credit risk management and the financial performance of the banks.

The impact of credit management on the profitability of Jyoti Bikash Bank, Garima Bikash Bank, and Kamana Sewa Bikash Bank is significant, as each institution's approach to managing credit risk directly influences its financial performance. For Jyoti Bikash Bank, fluctuations in its Non-Performing Loan Ratio (NPLR) have been observed, with a notable increase to 3.43% in 2022/23, which negatively affects its profitability by necessitating higher loan loss provisions and reducing overall returns on assets and equity. In contrast, Garima Bikash Bank has maintained a relatively lower NPLR, peaking at 1.70%, which reflects effective credit management practices that enhance its ability to generate interest income and maintain

profitability, as evidenced by its consistent performance in Return on Assets (ROA) and Return on Equity (ROE). Kamana Sewa Bikash Bank, while showing a stable Loan and Advance to Total Deposit Ratio, has faced challenges with an increasing NPLR, which could hinder its profitability if not addressed through improved credit assessment and monitoring. Overall, effective credit management practices across these banks are crucial for minimizing defaults, optimizing interest income, and ensuring that adequate provisions are made for potential losses, ultimately driving their profitability and financial stability in a competitive banking environment. The previous researcher Osasere (2023) concluded that non-performing loan ratio has significant negative effect return on assets where capital adequacy ratio does not impact on the return on assets. The previous researcher Alhassan (2021) found that credit management strategies positively and statistically influence the profitability of the banks. The previous research by Osanebi (2019) concluded that various credit management strategies like credit risk assessment, debt recovery strategies, and receivable collection policies have a positive and statistically significant impact on profitability of the banks.

In conclusion, the study emphasized the significance of effective credit management in enhancing the profitability of Nepalese development banks. The research findings can serve as a guiding document for experts, professionals, academia, finance companies, cooperatives, researchers, and other stakeholders interested in the relationship between deposit collection, loan & advance, and non-performing loan. The management can identify the comparative status between sample banks and understand their weak areas, which should be corrected. The analysis may also help identify effective use of resources for efficient and profitable operation, having the efficient service to the people. The study will be helpful to policymakers while formulating the policy and people can understand how much benefits are being taken by them from commercial banks.

CHAPTER-V

SUMMARY AND CONCLUSION

5.1 Summary

The study focuses on the credit management practices of three development banks in Nepal: Jyoti Bikash Bank Ltd., Garima Bikash Bank Ltd., and Kamana Sewa Bikash Bank Ltd., spanning a fiscal period from 2013/14 to 2022/23. It aims to assess the relationship between various credit management variables—such as the Non-Performing Loan Ratio (NPLR), Loan and Advance to Total Deposit Ratio (LTD Ratio), Loan Loss Provision to Loan and Advance Ratio (LLPR), Interest Income to Loan and Advance Ratio (INR), and Capital Adequacy Ratio (CAR) and their impact on the banks' profitability, measured through Return on Assets (ROA) and Return on Equity (ROE). The research methodology employed descriptive and causal-comparative designs, utilizing secondary data from annual reports and financial statements. The findings reveal that effective credit management is crucial for enhancing profitability, as evidenced by the significant negative correlation between NPLR and both ROA and ROE, indicating that higher non-performing loans adversely affect financial performance. Garima Bikash Bank demonstrated superior credit management with lower NPLR and stable profitability metrics, while Jyoti Bikash Bank exhibited fluctuations in its credit ratios, reflecting challenges in maintaining asset quality. Kamana Sewa Bikash Bank faced similar issues with rising NPLR, which could hinder its profitability if not addressed. The study concludes that robust credit management practices are essential for minimizing risks, optimizing income generation, and ensuring financial stability, thereby providing valuable insights for stakeholders, including policymakers, investors, and banking professionals, on the importance of effective credit risk management in the development banking sector of Nepal.

5.2 Conclusions

The conclusion of the study emphasizes the critical role of effective credit management in enhancing the profitability and financial stability of development banks in Nepal, specifically focusing on Jyoti Bikash Bank Ltd., Garima Bikash Bank Ltd., and Kamana Sewa Bikash Bank

Ltd. The analysis reveals that a well-structured credit management framework is essential for minimizing the risks associated with non-performing loans, which have a significant negative impact on both Return on Assets (ROA) and Return on Equity (ROE). The study highlights that Garima Bikash Bank has successfully maintained a lower Non-Performing Loan Ratio (NPLR) compared to its counterparts, reflecting its effective credit assessment and monitoring practices, which in turn contribute to its consistent profitability. Conversely, Jyoti Bikash Bank and Kamana Sewa Bikash Bank have faced challenges with fluctuating NPLRs, indicating potential weaknesses in their credit management strategies that could jeopardize their financial performance if not addressed. The findings underscore the importance of proactive measures, such as rigorous credit evaluations, timely monitoring of loan performance, and adequate provisioning for potential losses, to safeguard against defaults and enhance income generation from interest. Furthermore, the study suggests that maintaining a healthy Capital Adequacy Ratio (CAR) is vital for ensuring that these banks can absorb potential losses while continuing to operate effectively. Overall, the conclusion reinforces the notion that sound credit management practices are not only pivotal for individual bank profitability but also for the overall health of the banking sector in Nepal, providing valuable insights for stakeholders to formulate strategies that promote sustainable growth and financial resilience in the face of evolving economic challenges.

5.3 Implications

The implications of the study on credit management practices in Nepalese development banks are significant and multifaceted. Firstly, it underscores the critical role of effective credit management in enhancing the profitability of banks by minimizing non-performing loans and optimizing interest income, which is essential for financial sustainability. The findings can inform policymakers and regulatory bodies, such as the Nepal Rastra Bank, in developing guidelines that promote sound credit management practices across the banking sector. Additionally, bank management can leverage these insights to refine their credit policies, focusing on rigorous credit evaluations and timely interventions to manage overdue loans effectively. The study also highlights the importance of allocating adequate resources towards credit risk management functions, including staff training and investment in technology for better monitoring and analysis. By demonstrating effective credit management, banks can

enhance stakeholder confidence, which is crucial for attracting deposits and investments. Furthermore, improved credit management practices contribute to the overall stability and resilience of the banking sector in Nepal, fostering a culture of continuous improvement among banks. The study serves as a foundation for future research on credit management, encouraging further exploration of the impact of external economic factors on credit risk and bank performance. Ultimately, by ensuring effective credit management, banks can better support community development initiatives through responsible lending practices, thereby contributing to economic growth in underserved areas.

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APPENDIX-I

Net Profit			
Fiscal Year	JBBL	GBB	KSBB
2022/23	301,816,958	1,264,676,082	361,364,544
2021/22	670,001,152	1,030,013,992	590,085,285
2020/21	663,869,529	836,317,904	598,175,740
2019/20	488,456,209	577,255,769	119,719,328
2018/19	531,341,553	594,423,927	284,582,021
2017/18	346,115,495	469,805,269	386,706,717
2016/17	228,457,540	349,011,275	176,881,551
2015/16	151,947,617	222,017,421	105,022,879
2014/15	102,988,496	144,209,772	81,305,675
2013/14	62,872,677	104,232,944	63,303,240

Total Assets			
Fiscal Year	JBBL	GBB	KSBB
2022/23	72,785,964,910	89,162,807,892	62,581,154,321
2021/22	71,407,867,243	80,030,526,606	59,881,699,953
2020/21	59,879,025,109	72,947,556,943	51,304,904,226
2019/20	42,361,101,622	50,293,647,873	36,621,711,872
2018/19	36,459,941,714	38,749,107,242	26,691,891,150
2017/18	23,401,931,557	25,286,456,388	19,459,669,775
2016/17	13,210,235,436	17,694,900,449	8,249,053,482
2015/16	8,917,851,666	10,582,389,098	7,944,979,040
2014/15	7,423,089,453	7,452,362,537	3,588,700,975

Total Equity			
Fiscal Year	JBBL	GBB	KSBB
2022/23	5,782,069,382	7,803,147,197	4,735,703,257
2021/22	5,637,254,321	6,596,537,256	4,364,579,329
2020/21	5,245,854,139	5,348,072,329	3,838,240,300
2019/20	4,504,008,240	4,346,602,325	3,204,056,688
2018/19	4,006,921,252	3,790,513,158	3,245,220,259
2017/18	3,150,590,804	3,303,143,342	3,164,960,525
2016/17	2,567,988,956	2,852,784,405	1,192,118,362
2015/16	1,157,373,964	1,205,765,203	945,632,957
2014/15	1,005,426,347	973,638,722	398,024,785
2013/14	906,451,027	523,697,676	320,029,416

Total Non-performing loan			
Fiscal Year	JBBL	GBB	KSBB
2022/23	1,881,101,583	1,115,680,027	1,443,784,219
2021/22	51,262,992,884	520,453,141	1,031,442,118
2020/21	46,091,512,021	54,319,087,098	646,884,348
2019/20	30,705,791,847	35,425,574,578	484,800,842
2018/19	140,329,000	28,539,694,749	124,017,686
2017/18	63,813,589	24,000,000,000	197,663,789
2016/17	87,967,169	30,564,775.73	84,995,163
2015/16	83,514,304	24,557,379.49	61,903,269
2014/15	100,106,381	20,000,000,000	7,383,421
2013/14	114,922,050	15,000,000,000	3,609,550

Total Loan and Advance			
Fiscal Year	JBBL	GBB	KSBB
2022/23	53,991,251,439	64,930,730,202	45,546,816,267
2021/22	50,949,979,338	60,892,336,811	43,544,119,531
2020/21	45,847,038,599	53,661,918,334	39,489,258,410
2019/20	30,909,861,778	35,144,046,037	26,565,295,982
2018/19	25,754,541,819	28,438,692,186	19,226,612,840
2017/18	16,030,524,874	18,707,768,100	13,170,143,706
2016/17	9,045,876,712	12,894,148,697	5,986,881,897
2015/16	5,891,664,458	7,909,148,703	5,891,348,742
2014/15	4,956,496,649	5,437,744,318	2,527,309,361
2013/14	4,182,258,351	3,458,052,991	2,074,056,937

Total Loan Loss Provision			
Fiscal Year	JBBL	GBB	KSBB
2022/23	1,277,737,236	612,446,227	971,114,858
2021/22	1,109,163,398	267,699,346	588,787,115
2020/21	947,317,421	973,209,926	921,255,837
2019/20	523,311,197	563,678,144	324,865,053
2018/19	363,033,000	328,702,564	124,018,000
2017/18	38,713,710	200,000,000	166,548,951
2016/17	55,829,789	17,572,906.26	166,615,686
2015/16	194,758,797	14,121,303.13	91,825,086
2014/15	111,074,050	100,000,000	34,224,203
2013/14	123,278,835	75,000,000	24,306,369

Total Interest income			
Fiscal Year	JBBL	GBB	KSBB
2022/23	8,337,429,584	10,683,204,016	7,302,567,522
2021/22	6,229,390,725	7,948,246,751	5,836,290,879
2020/21	4,370,740,978	5,471,105,719	4,090,314,629
2019/20	4,073,148,759	4,734,067,337	3,530,982,785
2018/19	3,384,495,431	3,675,566,829	2,471,320,000
2017/18	1,970,252,926	2,471,435,144	1,927,418,969
2016/17	1,031,444,425	1,508,185,374	808,271,465
2015/16	672,732,461	844,633,768	401,611,508
2014/15	593,848,160	576,044,043	330,262,785
2013/14	552,678,503	465,098,620	303,114,466

Total Capital			
Fiscal Year	JBBL	GBB	KSBB
2022/23	7,324,561,741	9,001,964,000	5,736,028,362
2021/22	7,369,635,233	8,125,484,000	5,536,164,970
2020/21	5,675,575,230	5,631,320,000	5,154,403,132
2019/20	4,676,916,925	4,678,298,000	3,374,031,249
2018/19	4,177,368,973	4,007,962,480	3,485,551,000
2017/18	3,035,784,165	3,304,521,770	1,214,289,970
2016/17	2,629,889,242	2,926,034,780	1,236,461,740
2015/16	1,218,045,837	320,477,000	998,096,830
2014/15	1,000,000,000	1,024,018,630	541,782,067
2013/14	1,000,000,000	558,650,140.00	341,527,085

(Source: Annual Reports of Banks)

APPENDIX-II

Bank's Name	Fiscal Year	NPLR	LLPR	L&AR	INR	CAR	ROA	ROE
Jyoti Bikash Bank Ltd.	2022/23	3.43	2.37	88.10	15.44	12.96	0.41	5.22
	2021/22	1.47	2.18	94.71	12.23	12.74	0.94	11.89
	2020/21	0.84	2.07	92.51	9.53	13.04	1.11	12.66
	2019/20	0.92	1.69	85.12	13.18	15.08	1.15	10.84
	2018/19	0.54	1.41	99.07	13.14	16.27	1.46	13.26
	2017/18	0.40	0.24	90.36	12.29	19.25	1.48	10.99
	2016/17	0.96	0.62	91.46	11.40	30.60	1.73	8.90
	2015/16	1.39	3.30	562.14	11.42	16.76	1.70	13.13
	2014/15	1.98	2.24	78.27	11.98	17.05	1.39	10.24
2013/14	2.67	2.95	80.65	13.21	18.43	1.01	6.94	
Garima Bikash Bank Ltd.	2022/23	1.70	0.94	84.36	16.45	13.69	1.42	16.21
	2021/22	0.85	0.44	89.01	13.05	13.48	1.29	15.61
	2020/21	0.72	1.81	83.98	10.20	11.43	1.15	15.64
	2019/20	0.79	1.60	82.82	13.47	13.87	1.15	13.28
	2018/19	0.20	1.16	95.55	12.92	14.44	1.53	15.68
	2017/18	0.27	1.07	94.82	13.21	18.84	1.86	14.22
	2016/17	0.24	0.14	93.42	11.70	24.99	1.97	12.23
	2015/16	0.31	0.18	358.02	10.68	16.53	2.10	18.41
	2014/15	0.29	1.84	85.52	10.59	15.63	1.94	14.81
2013/14	0.12	2.17	86.12	13.45	13.79	2.26	19.90	
Kamana Sewa bikash Bank Ltd.	2022/23	3.09	2.13	85.18	16.03	12.24	0.58	7.63
	2021/22	2.31	1.35	94.14	13.40	12.13	0.99	13.52
	2020/21	1.61	2.33	89.34	10.36	13.93	1.17	15.58
	2019/20	1.79	1.22	83.26	13.29	14.00	0.33	3.74
	2018/19	0.97	0.65	89.94	12.85	16.81	1.07	8.77
	2017/18	1.13	1.26	88.80	14.63	21.58	1.99	12.22
	2016/17	1.39	2.78	106.58	13.50	12.76	2.14	14.84
	2015/16	1.03	1.56	104.20	6.82	14.25	1.32	11.11
	2014/15	0.29	1.35	44.99	13.07	13.57	2.27	20.43
2013/14	0.17	1.17	77.83	14.61	13.76	2.09	19.78	

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Abstract This study investigates the credit management practices of Nepalese development banks, focusing on their impact on financial performance, particularly profitability. The research examines three development banks like Jyoti Bikash Bank