CREDIT RISK MANAGEMENT AND PROFITABILITY OF COMMERCIAL BANKS IN NEPAL

A Thesis

By

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RECOMMENDATION

This is to certify that the Thesis

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Has been prepared as approved by this Department in the prescribed format of the faculty of management. This thesis is forwarded for examination.

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VIVA VOCE SHEET

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And found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfilment of the requirement for **Master Degree of Business Studies (M.B.S.)**

Viva-Voce Committee

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Member (External Expert) **……**

DECLARATION

I hereby declare that the work reported in this thesis entitled "CREDIT RISK MANAGEMENT AND PROFITABILITY OF COMMERCIAL BANKS IN NEPAL "submitted to Research Department of Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfilment of the requirement for the degree of Masters of Business Studies under the supervision Mrs. Srijana Khadka of Shanker Dev Campus, T.U.

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ABBREVIATIONS

BE	:	Base Rate
CAR	:	Capital Adequacy Ratio
CV	:	Coefficient of variation (C.V)
EBL	:	Everest Bank Ltd
ISP	:	Interest Spread Rate
LR	:	Liquidity Ratio
NABIL	:	Nabil Bank Ltd.
NPL	:	Non performing loan
NSBIB	:	Nepal SBI Bank Ltd.
ROE	:	Return on Equity
S.D	:	Standard Deviation
TU	:	Tribhuwan University

CHAPTER- I

INTRODUCTION

1.1 Background of the Study

Credit risk refers to the likelihood that a borrower will fail to meet their debt obligations, resulting in financial losses for the lender. This type of risk is assessed through various methods, including credit scoring, financial analysis, and historical payment patterns. To mitigate credit risk, financial institutions often require collateral, diversify their loan portfolios, set strict credit limits, and implement continuous credit monitoring systems. Types of credit risk include default risk, concentration risk, and country risk, each posing unique challenges. Regulatory frameworks like Basel III help institutions manage credit risk by setting capital requirements and conducting stress tests. Effective credit risk management is essential to prevent significant financial losses and maintain stability within the financial system (Veizi & Zhuli, 2023).

Profitability is a measure of a company's ability to generate earnings relative to its revenue, expenses, and other costs over a specific period. It is a key indicator of financial health and business success, reflecting how efficiently a company utilizes its resources to produce profit. Profitability ratios, such as net profit margin, return on assets (ROA), and return on equity (ROE), are commonly used to assess a company's performance and compare it with industry peers. High profitability enables a company to reinvest in its operations, pay dividends to shareholders, and withstand economic downturns. Effective management practices, cost control, and strategic decision-making are critical to sustaining and improving profitability (Mamari et al., 2022).

Commercial banks in Nepal play a crucial role in the country's financial ecosystem, offering a wide array of services such as deposits, loans, payment processing, and foreign exchange. Regulated by the Nepal Rastra Bank (NRB), these banks ensure financial stability and support economic growth. Prominent commercial banks include Nepal Investment Bank Limited (NIBL), known for its extensive branch network and diverse services; Nabil Bank, the first private sector bank in Nepal, recognized for its innovation and customer service; Standard Chartered Bank Nepal Limited, offering international banking services; Himalayan Bank

Limited, which has a strong presence in retail and corporate banking; and Rastriya Banijya Bank (RBB), a major state-owned institution. These banks collectively contribute to the development and modernization of Nepal's banking sector, facilitating financial inclusion and economic progress (Obae & Jagongo, 2022).

The credit risk and profitability of commercial banks in Nepal are closely intertwined, as effective management of credit risk is essential for maintaining and enhancing profitability. Credit risk, the risk of a borrower defaulting on their loan obligations, poses a significant threat to the financial health of banks. High levels of non-performing loans (NPLs) can erode profit margins, as banks need to allocate more funds to cover potential losses. This can directly impact their ability to generate sustainable profits (Emmanuel et al., 2021).

In Nepal, commercial banks face various challenges in managing credit risk, including economic volatility, political instability, and regulatory changes. To mitigate these risks, banks adopt stringent credit assessment procedures, diversify their loan portfolios, and closely monitor borrower performance. Additionally, adherence to regulatory frameworks such as those prescribed by the Nepal Rastra Bank (NRB) is crucial in maintaining credit discipline and financial stability (Kulchittivej et al., 2020).

Profitability for Nepali commercial banks is influenced by their ability to manage credit risk effectively. High profitability allows banks to reinvest in their operations, expand their services, and enhance shareholder value. Profitability metrics such as net interest margin, return on assets (ROA), and return on equity (ROE) are key indicators of a bank's financial performance (Zimon & Dankiewicz, 2020).

In summary, the ability of commercial banks in Nepal to manage credit risk effectively is fundamental to their profitability. Strong credit risk management practices not only safeguard against potential losses but also enable banks to achieve stable and sustained financial growth.

1.1.1 In Short Background of the Sample Bank

Everest Bank Limited

Everest Bank Limited is a prominent commercial bank in Nepal, known for its robust financial services and extensive reach within the country. Established in 1994, the bank has steadily grown to become one of the leading financial institutions, offering a wide range of services including retail banking, corporate banking, and international banking. Everest Bank is

particularly noted for its customer-centric approach, leveraging modern banking technologies to enhance service delivery and customer experience. The bank has a strategic partnership with Punjab National Bank (PNB), one of the largest banks in India, which has bolstered its financial strength and operational expertise. Everest Bank's commitment to innovation, along with its strong governance and risk management practices, has contributed to its reputation as a reliable and forward-thinking institution in Nepal's banking sector.

Nepal SBI Bank Limited

Nepal SBI Bank Limited is a distinguished commercial bank in Nepal, established as a joint venture between the State Bank of India (SBI) and Nepalese partners in 1993. Leveraging SBI's extensive international banking experience and expertise, Nepal SBI Bank offers a comprehensive suite of banking services including retail banking, corporate banking, and trade finance. The bank is known for its commitment to technological innovation, providing customers with modern banking facilities such as internet banking, mobile banking, and ATMs. With a strong focus on customer satisfaction and financial inclusion, Nepal SBI Bank has expanded its presence across the country through an extensive network of branches and service points. The bank's adherence to sound banking practices and regulatory compliance has earned it a solid reputation for reliability and trustworthiness in Nepal's banking sector.

Nabil Bank Limited

Nabil Bank Limited is one of the leading commercial banks in Nepal, renowned for its pioneering role in the country's banking sector. Established in 1984, it was the first private sector bank in Nepal, marking a significant milestone in the nation's financial history. Nabil Bank offers a wide range of services, including retail banking, corporate banking, and international trade finance. Known for its innovation and customer-centric approach, the bank has introduced several firsts in the Nepali banking industry, such as the launch of credit cards and automated teller machines (ATMs). With a robust network of branches and ATMs across the country, Nabil Bank ensures extensive reach and accessibility for its customers. The bank's commitment to excellence is reflected in its strong financial performance, strategic growth initiatives, and adherence to best practices in governance and risk management. Nabil Bank's vision is to be the "Bank of First Choice," continually striving to enhance customer experience and contribute to Nepal's economic development.

1.2 Problem Statement

The study on "Credit Risk and Profitability of Commercial Banks in Nepal" addresses a critical gap in understanding the dynamics between credit risk management and financial performance within the Nepali banking sector. Nepal's commercial banks face unique challenges stemming from economic volatility, regulatory changes, and varying borrower profiles, which directly impact their credit risk exposure. Despite the importance of effective credit risk management in safeguarding financial stability, there remains a need to comprehensively assess how Nepali banks identify, measure, and mitigate credit risks. Moreover, the study aims to explore how these risk management practices influence profitability metrics such as net interest margins, return on assets (ROA), and return on equity (ROE) (Jahan & Rahman, 2020).

The research focuses on several key objectives. Firstly, it seeks to analyse the current credit risk management frameworks employed by commercial banks in Nepal, examining their adequacy in addressing diverse borrower profiles and economic uncertainties. Secondly, the study aims to quantify the impact of credit risk on the profitability of these banks, considering both direct financial implications from non-performing loans (NPLs) and indirect effects on operational efficiency and capital allocation. Lastly, the research aims to compare the credit risk management practices of different banks, identifying best practices and areas for improvement that could enhance overall financial resilience and profitability within the sector (Asant, 2018).

The study on "Credit Risk and Profitability of Commercial Banks in Nepal" is motivated by the need to understand the intricate relationship between credit risk management practices and financial performance within Nepal's banking sector. As a crucial component of banking operations, credit risk directly impacts the stability and profitability of commercial banks. Nepal's banking environment is characterized by diverse economic conditions, regulatory frameworks, and borrower profiles, which necessitate a nuanced analysis of how these factors influence credit risk exposure and subsequent profitability metrics (Jonathan & Michael, 2018).

Firstly, the research aims to comprehensively assess the current credit risk management practices adopted by commercial banks in Nepal. This involves examining the strategies and tools banks use to assess creditworthiness, monitor borrower behaviour, and mitigate potential

risks. Understanding the adequacy and effectiveness of these practices is essential in identifying vulnerabilities and strengths within the sector (Nwanna &Oguezue, 2017).

Secondly, the study seeks to quantify the impact of credit risk on the profitability of Nepali commercial banks. Non-performing loans (NPLs) and provisioning for credit losses can directly affect banks' financial health by reducing net interest margins and requiring increased capital reserves. Indirectly, inefficient credit risk management can lead to higher operational costs and hinder strategic investment decisions, thereby impacting overall profitability metrics such as return on assets (ROA) and return on equity (ROE) (Gautam, 2021).

Thirdly, the research aims to explore the regulatory landscape governing credit risk management in Nepal. Regulatory frameworks established by the Nepal Rastra Bank (NRB) play a pivotal role in shaping banks' risk management practices and ensuring financial stability. Analysing the alignment between regulatory requirements and actual industry practices can provide insights into potential gaps or areas for enhancement in credit risk management frameworks (Chand, 2020).

Furthermore, the study intends to compare the credit risk profiles and profitability outcomes across different commercial banks in Nepal. By examining banks of varying sizes, market focuses, and geographical reach, the research aims to identify best practices and benchmarks for effective credit risk management. This comparative analysis can highlight successful strategies that promote resilience and sustainability within the banking sector. The problem of doing these study are presented here below questions.

i. What is the current status of credit risk and profitability of Nepalese commercial bank?
ii. Is there any relationship of credit risk to the profitability of Nepalese commercial bank?
iii. Do the impact of credit risk on the profitability of Nepalese commercial bank?

1.3 Objective of the Study

The following are the objectives of the study.

i. To examine the current status of credit risk and profitability of Nepalese commercial bank.
ii. To examine the relationship of credit risk to the profitability of Nepalese commercial bank.

iii. To analyse the impact of credit risk to the profitability of Nepalese commercial bank.

1.4 hypothesis of the study

The hypothesis statement of the research are following.

Hypothesis 1: There is the significant relationship of credit risk to the profitability of Nepalese commercial bank.

Hypothesis 2: There is the significant impact of credit risk to the profitability of Nepalese commercial bank.

1.5 Significant of the Study

The research on "Credit Risk and Profitability of Commercial Banks in Nepal" holds significant importance for several key stakeholders and contributes to various aspects of Nepal's financial sector:

The findings can inform policymakers and regulators at the Nepal Rastra Bank (NRB) about the effectiveness of existing regulatory frameworks related to credit risk management. Insights into the impact of credit risk on profitability can guide the formulation of policies that enhance financial stability and resilience within the banking sector.

Commercial banks in Nepal can benefit from the research by gaining a deeper understanding of best practices in credit risk management. The study can highlight areas for improvement and optimization in risk assessment, monitoring, and mitigation strategies, thereby helping banks to enhance their profitability and operational efficiency.

Investors and shareholders of Nepali banks can use the research findings to assess the risk-return profiles of their investments. Understanding the relationship between credit risk and profitability can provide insights into the financial health and potential returns of banking institutions, influencing investment decisions and portfolio management strategies.

The research contributes to the academic literature by adding empirical evidence and insights specific to Nepal's banking sector. It provides a foundation for further studies and comparative analyses across different countries or regions, contributing to global knowledge on banking risk management and financial performance.

A stable and profitable banking sector is crucial for overall economic development in Nepal. Effective credit risk management practices contribute to financial stability, facilitate access to credit for businesses and individuals, and support sustainable economic growth by channelling resources efficiently.

In conclusion, research on the credit risk and profitability of commercial banks in Nepal plays a pivotal role in enhancing understanding, guiding policy decisions, improving industry practices, and fostering economic resilience. It addresses critical gaps in knowledge and supports efforts towards a robust and sustainable financial ecosystem in Nepal.

1.6 Limitation of the Study

i. Limited availability and reliability of data related to credit risk which are secondary in nature and financial performance across all commercial banks in Nepal could restrict the depth and breadth of the analysis.
ii. Methodological choices, such as the selection of variables, statistical techniques, and modelling assumptions, could introduce biases or limitations in interpreting results.
iii. External macroeconomic shocks, geopolitical events, or sector-specific developments beyond the control of banks or researchers could influence credit risk and profitability trends, potentially confounding the study's outcomes.
iv. Research is conducted from the data using financial year 2013/14 to 2022/23.

1.7 Organizations of the study

The study organize in to five chapter and the planning of chapter base are:

Chapter one: included the background statement of problem, objectives, hypothesis if any, significant of the study, limitations and chapter plan.

Chapter two: included the theoretical review, empirical review and research gap of the study.

Chapter three: included the research design, population and sampling design, nature and source of data, methodology, research framework and definition of variables.

Chapter four: included the result and finding and discussion.

Chapter five: included the summary, conclusion and recommendations.

At the end the reference and appendixes are presented.

CHAPTER- II

LITERATURE REVIEW

Chapter two included the theoretical review, empirical review and research gap of the study. Theses study shows the theories of different scholar at first, second the article in Nepalese's and international context study. Third is the research gap.

2.1 Theoretical Review

Theories of credit Risk

Credit risk is a complex area of study within financial risk management, and several theories and frameworks help to understand its nature and implications. Here are some key theories and concepts related to credit risk:

Probability of Default (PD): This theory focuses on the likelihood that a borrower will default on their financial obligations. It involves assessing factors such as the borrower's credit history, financial health, industry conditions, and economic outlook to estimate the probability of default over a specific time horizon (Joshi, 2018).

Loss Given Default (LGD): LGD theory examines the potential loss a lender may incur if a borrower defaults. It considers factors such as collateral values, recovery rates on defaulted loans, and legal costs associated with loan recovery processes. LGD helps banks determine the economic impact of defaults on their portfolios (Zimon & Dankiewicz, 2020).

Credit Migration Theory: This theory emphasizes the dynamic nature of credit risk, where borrowers' creditworthiness can change over time due to various factors such as economic conditions, business performance, and financial health. Credit migration models track these changes and assess the likelihood of borrowers moving between credit quality categories (e.g., from investment-grade to speculative-grade (Kulchittivej et al., 2020)

Portfolio Credit Risk: Portfolio credit risk theory focuses on the risk associated with a portfolio of loans or investments rather than individual credits. It examines diversification benefits, correlations among assets, and portfolio concentration to understand how these factors collectively impact overall credit risk exposure (Emmanuel et al., 2021).

Credit VaR (Value at Risk): Credit VaR theory estimates the potential loss in the value of a credit portfolio due to adverse movements in credit spreads or default probabilities. It integrates statistical techniques with credit risk factors to quantify the maximum potential loss within a specified confidence interval over a given time horizon (Mamari et al., 2022).

Structural Models: Structural credit risk models, such as the Merton model, use firm-specific factors (e.g., asset value, debt structure, volatility) to estimate the likelihood of default. These models rely on insights from corporate finance and option pricing theory to assess credit risk based on the company's financial structure and market conditions (Gautam, 2021).

Credit Rating Agencies (CRAs): Although not a theory per se, credit rating agencies play a crucial role in credit risk assessment by assigning ratings based on the likelihood of default. Their methodologies and rating scales provide a standardized framework for investors and lenders to evaluate creditworthiness (Chand, 2020).

Theories of profitability

Profitability theories in finance and business management provide frameworks to understand and optimize how companies generate and sustain profits. Here are some key theories of profitability:

Profit Maximization Theory: Rooted in classical economics, this theory posits that businesses aim to maximize their profits by optimizing production, pricing strategies, and cost management. It assumes that firms act rationally to achieve this goal, considering factors such as demand elasticity, production costs, and market competition (Jahan & Rahman, 2020).

Agency Theory: This theory explores the relationship between principals (owners/shareholders) and agents (managers) within a company. It suggests that conflicts of interest may arise when managers pursue their own goals rather than maximizing shareholder wealth. Agency theory proposes mechanisms such as performance-based incentives, corporate governance structures, and transparency to align managerial actions with shareholder interests and enhance profitability (Obae & Jagongo, 2022).

Resource-Based View (RBV): RBV emphasizes the role of internal resources and capabilities in achieving sustainable competitive advantage and profitability. It posits that firms can

generate superior profits by leveraging unique resources (e.g., technology, patents, skilled workforce) and capabilities (e.g., innovation, operational efficiency) that are valuable, rare, and difficult to imitate by competitors (Mamari et al., 2022).

Market Structure Theory: This theory examines how market conditions and industry structure influence profitability. It suggests that firms in industries with high barriers to entry, limited competition, and differentiated products or services can achieve higher profit margins compared to those in competitive markets. Market structure theory highlights the importance of industry analysis and strategic positioning in maximizing profitability (Nwanna &Oguezue, 2017).

Stakeholder Theory: Unlike traditional profit-centric theories, stakeholder theory expands the focus beyond shareholders to include all stakeholders (employees, customers, suppliers, community) who impact or are impacted by a company's actions. It argues that satisfying the diverse needs and interests of stakeholders leads to sustainable profitability and long-term value creation for the organization (Kulchittivej et al., 2020).

Dynamic Capabilities Theory: This theory emphasizes a firm's ability to adapt, innovate, and respond strategically to changing market conditions and competitive pressures. It suggests that firms with strong dynamic capabilities can identify new opportunities, adjust strategies, and leverage their resources effectively to maintain profitability over time (Obae & Jagongo, 2022).

Value-Based Management (VBM): VBM theory integrates financial metrics (e.g., return on investment, economic value added) with strategic objectives to optimize shareholder value and profitability. It emphasizes aligning management decisions and actions with long-term value creation, fostering a culture of performance accountability and value maximization (Emmanuel et al., 2021).

2.2 Empirical Review

2.2.1 Empirical Review in International Context

Telg et al. (2023) examined the dynamics of rating and default risk during the COVID-19 pandemic from a credit risk modeling viewpoint. They found that growth dynamics consistently served as a reliable predictor of credit risk throughout the pandemic, despite variations caused by government interventions and lockdowns. Unobserved component

models were useful for explaining the high-default wave in the early 2000s but were less effective in predicting defaults beyond growth dynamics during the 2008 financial crisis or the early COVID-19 default peak. Government support variables did not reduce the significance of growth proxies or unobserved components.

Natufe and Evbayiro-Osagie (2023) investigated credit risk management and return on equity (ROE) for Nigerian deposit money banks (DMBs) over twelve years following the Central Bank of Nigeria's mandate for a common accounting year-end. The study analyzed variables such as capital adequacy ratio (CAR), liquidity ratio, loan-to-deposit ratio, risk asset ratio (RAR), non-performing loans ratio (NPLR), loan loss provision ratio, and bank size (SZ), with ROE as the dependent variable. Using panel data regression analysis, they identified CAR, RAR, NPLR, and SZ as significant determinants of ROE. The study also revealed an increased reliance on offshore borrowings in Eurobonds by Nigerian DMBs to create risk assets due to restrictions on using local depositors' funds. Shareholders of DMBs with international banking licenses did not receive significantly higher compensation for their risk exposure compared to investors in risk-free assets.

Veizi and Zhuli (2023) explored the effect of risk management on bank profitability in Nigeria using correlation analysis, pooled ordinary least squares estimates, and fixed and random effect estimations. The study used return on assets (ROA) as the dependent variable and considered liquidity risk, credit risk, operational risk, market risk, capital risk, and bank size as independent variables. The findings showed that ROA was negatively impacted by liquidity risk, capital risk, and bank size, while marketing risk had a significant positive impact. Operational risk and credit risk had an insignificant positive relationship with ROA. The study concluded that liquidity risk and capital risk tend to slightly reduce ROA.

Mamari et al. (2022) studied the relationship between risk management practices and a bank's financial performance using secondary data from the annual reports of eight banks listed on the Muscat Stock Exchange. The analysis, conducted with Structural Equation Modelling and Partial Least Square Software, revealed a positive and significant relationship between risk management and return on assets (ROA). The study suggested that effective risk management positively influences a bank's performance as indicated by ROA. However, there was no significant relationship between risk management and return on equity (ROE).

Obae and Jagongo (2022) investigated the effects of credit rationing and client appraisal on the loan performance of development banks in Kenya. They employed a descriptive survey design involving 38 development banks, gathering primary data on credit management practices through questionnaires and secondary data on loan performance via document reviews. Regression analysis indicated that credit rationing and client appraisal significantly predicted loan performance, with debt collection notably affecting the performance of commercial bank loans. The study concluded that effective credit management practices are vital for development banks, enhancing loan performance.

Emmanuel et al. (2021) explored the impact of credit risk on bank performance in Nigeria, focusing on three randomly selected banks. Using return on assets (ROA) as the dependent variable and factors like capital adequacy ratio, non-performing loans ratio, total loans to total assets, total deposits, and interest rates as independent variables, the study employed classical Ordinary Least Square and panel co-integration techniques. The findings revealed that credit risk negatively affected bank performance in the short term, with a long-term relationship established between credit risk and bank performance.

Kulchittivej et al. (2020) examined credit management guidelines to bolster the Thai industrial sector. Analyzing data from 500 questionnaires distributed to industrial business executives in Thailand, the study employed descriptive analysis, categorizing responses into SMEs and large enterprises, and used structural equation modeling. The results identified four key factors in credit management: characteristics management, financial management, operations management, and assets management. The study underscored the critical role of characteristics management in SMEs, with financial management directly influencing assets management.

Zimon and Dankiewicz (2020) studied trade credit management strategies in Polish group purchasing organizations during the COVID-19 pandemic, focusing on the construction sector. The study highlighted mechanisms that enabled SMEs in purchasing groups to adapt their trade credit management strategies. These adaptations included purchasing goods with large reserves, strict receivables control, transitioning to cash sales, and limiting long-term trade credit sales.

Jahan and Rahman (2020) investigated credit risk management and its impact on bank performance, particularly return on equity (ROE), through a survey of 12 banks (6 state-owned and 6 private development banks) in Bangladesh. The study utilized various statistical tools, including mean, standard deviation, regression analysis, one-way ANOVA, and principal component analysis. The research aimed to provide stakeholders with detailed insights into the credit risk management practices of development banks and their influence on profitability.

Olabamiji and Michael (2018) investigated the impact of credit management practices on the financial performance of Nigerian banks, focusing on First Bank Plc. Using purposive sampling, the study gathered data from 30 respondents and analyzed it using both descriptive and inferential statistics. The findings revealed that credit management practices significantly and positively influenced the financial performance of First Bank. Key predictors of financial performance identified were client appraisal, credit risk control, and collection policy.

Asant (2018) examined the credit risk management of microfinance institutions in Ghana, targeting all such institutions in the country and sampling five in the Ashanti region. The study, using questionnaires for data collection, found that corporate, individual, and SME commercial loans were the primary sources of credit risk for these institutions. It recommended that microfinance institutions enhance their credit administration departments to better quantify and manage organizational risk exposures.

Jonathan and Michael (2018) analyzed the relationship between credit risk management and bank performance in Nigeria, using Fidelity Bank Nigeria PLC as a case study. The study employed descriptive survey research and analyzed data from the bank's annual reports using the Pearson Coefficient of Correlation. The study concluded that there was no significant relationship between credit risk management and bank performance in Nigeria, observing only weak negative relationships.

Nwanna and Oguezue (2017) explored the connection between credit management and the profitability of Deposit Money Banks (DMBs) in Nigeria. Utilizing secondary data from the Central Bank of Nigeria Statistical Bulletins and DMBs' Annual Reports, the study employed multiple regression techniques. The findings indicated that loans and advances and loan loss provisions had positive but insignificant effects on profitability, while non-performing loans had a negative and insignificant effect.

Alemarga et al. (2014) conducted a study on credit management at Dashen Bank S.C. The research aimed to detail the elements of credit management in private development banks, including loan processing, granting, disbursement, and recoveries. Using both primary and secondary data sources, the study applied qualitative and descriptive methods for analysis. The findings provided insights and recommendations for improving credit management practices at Dashen Bank S.C.

Table 1

Summary of Empirical Review in Nepalese Context

Sn	Authored and date	Objectives	Methodology	Findings
1	Natufe and Evbayiro-Osagie (2023)	To conducted a study on credit risk management and return on equity of Nigerian deposit money banks.	Using panel data regression analysis, they identified the capital adequacy ratio (CAR), risk asset ratio (RAR), non-performing loans ratio (NPLR), and size (SZ) as significant determinants of return on equity (ROE).	The study revealed that Nigerian Deposit Money Banks (DMBs) increasingly relied on offshore borrowings in Eurobonds to create risk assets due to restrictions on using local depositors' funds. It was also found that shareholders of DMBs with international banking licenses did not receive significantly higher compensation for their risk exposure compared to investors in risk-free assets.

2	Telg et al. (2023)	To explored the dynamics of rating and default risk during the COVID-19 crisis from a credit risk modeling perspective.	Regression and correlation etc.	Unobserved component models were helpful in explaining the high-default wave in the early 2000s but were less effective in predicting defaults beyond growth dynamics.
3	Veizi and Zhuli(2023)	To investigated the impact of risk management on bank profitability in Nigeria, employing correlation analysis, pooled ordinary least square estimates, and fixed and random effect estimations.	Their study utilized return on assets (ROA) as the dependent variable, with independent variables including liquidity risk, credit risk, operational risk, market risk, capital risk, and bank	The results indicated that return on assets (ROA) was negatively affected by liquidity risk, capital risk, and bank size, while it was significantly and positively impacted by market risk. Operational risk and credit risk were found to have an insignificant positive relationship with ROA.
4	Mamari et al. (2022)	To investigated the relationship between risk management practices and a	This quantitative study relied on secondary data obtained from the annual reports	The findings showed a positive and significant relationship between risk management and return on assets (ROA). The study suggested that effective risk management positively

		bank's financial performance.	of eight banks listed on the Muscat Stock Exchange. The analysis employed Structural Equation Modeling (SEM) with Partial Least Squares (PLS) Software.	impacts a bank's performance, as evidenced by ROA.
5	Obae and Jagongo (2022)	To examined the impact of credit rationing and client appraisal on the loan performance of development banks in Kenya.	Employing a descriptive survey design across 38 development banks in the country, the study gathered primary data on credit management practices.	Regression analysis demonstrated that both credit rationing and client appraisal were significant predictors of loan performance. Additionally, debt collection was found to have a significant impact on the performance of commercial bank loans.
6	Emmanuel et al. (2021)	To investigate the effect of credit risk on bank performance in	The study utilized classical Ordinary Least Squares	The results indicated that credit risk had a negative impact on bank performance in the short term, while a long-term relationship was

		Nigeria, focusing on three randomly selected banks.	(OLS) and panel co-integration techniques.	established between credit risk and bank performance.
7	Kulchittivej et al. (2020)	To explored credit management guidelines to strengthen the Thai industrial sector.	The study analyzed data from 500 questionnaires distributed to industrial business executives in Thailand. It employed descriptive analysis and categorized the responses into SMEs	The findings underscored four critical factors in credit management guidelines: characteristics management, financial management, operations management, and assets management. The study emphasized the pivotal role of characteristics management within SEM, where financial management directly influenced assets management..
8	Zimon and Dankiewicz (2020)	To presented a study on trade credit management strategy in Polish group purchasing organizations during the COVID-19 pandemic.	Cantering on data from the construction sector in Poland, the study illuminated mechanisms that enabled SMEs within purchasing	These adaptations encompassed strategies such as purchasing goods with significant reserves, rigorous control of receivables, shifting towards cash sales, and restricting long-term trade credit transactions.

			groups to adjust their strategies for managing trade	
9	Jahan and Rahman (2020)	To aim to understand credit risk management and its impact on a bank's performance, specifically return on equity (ROE).	Various statistical tools were employed for analysis, including mean, standard deviation, regression analysis, one-way ANOVA, and principal component analysis.	The research aimed to provide stakeholders with accurate information about the credit risk management practices of development banks and how these practices influence profitability, specifically return on equity (ROE).
10	Olabamiji and Michael (2018)	To explored the influence of credit management practices on the financial performance of Nigerian banks,	Using purposive sampling, the study gathered data from 30 respondents and utilized both descriptive and inferential	The results showed that credit management practices had a significant positive impact on the financial performance of First Bank. Client appraisal, credit risk control, and collection policy were identified as key

		with a focus on First Bank Plc.	statistics for analysis.	predictors of financial performance.
11	Asant (2018)	To investigated the credit risk management of microfinance institutions in Ghana.	Targeting all microfinance institutions in Ghana, the study sampled five institutions operating in the Ashanti region, employing questionnaires as the primary data collection instrument.	The study found that corporate, individual, and SME commercial loans were the primary sources of credit risk for microfinance institutions in Ghana.

2.2.2 Article and Thesis Review in Nepalese Context

Aryal (2022) evaluated credit investment and recovery at Financial Public Enterprises in Nepal, facilitated by ADB/N. The research addressed issues of people being unable to repay credit due to high interest rates from non-institutional sources, leading to property transfer and potential landlessness. Despite ADB/N's efforts in credit collection, challenges persisted. The findings indicated an increasing trend in actual credit disbursement and collection, although the rate of outstanding credit decreased. There was a positive correlation between credit disbursement and collection, and the targeted values set by planning and project departments closely matched actual outcomes. A lack of customer awareness about bank policies was identified, leading to recommendations for improved borrower education and enhanced focus on credit collection and outstanding amounts.

Gautam (2021) analyzed finance companies in Nepal, focusing on interest rate structures and credit repayment. The study found a rapid decline in the use of funds for hire purchase credit

and used credit loss provisions to assess credit quality. It highlighted a significant annual increase in credit loss, underscoring the need for better control. Companies with above-average credit loss provisions were advised to reconsider their investment and repayment policies.

Chand (2020) investigated credit disbursement and repayment at the Agriculture Development Bank Nepal (ADB/N), addressing issues such as limited benefits to small farmers and slow credit collection impeding economic growth. The study examined repayment situations, investment growth rates, and causes of non-repayment, finding a significant correlation (coefficient value of 0.94) between credit disbursement and repayment. Recommendations included ADB/N playing a larger role in meeting rural credit demands and channeling credit through borrower groups for more effective recovery.

Joshi (2018) studied the fund mobilization and investment policies of EBL, Nabil, and BOK. The findings revealed that EBL had a better liquidity position than Nabil and BOK, with its total investment falling between the other two banks. EBL had a lower ratio of total interest earned to total outside assets compared to Nabil and BOK and a higher capital risk ratio but an average credit risk ratio.

Panta (2019) examined development bank deposits and their utilization, noting a consistent percentage of total credit supplied by development banks over five years. There was a significant increase in deposit collection during this period, indicating a growing gap between collection and utilization. The study emphasized the need for equitable and sector-wise policies in commercial banks to contribute to the country's economic upliftment.

Table 2

Summary of thesis and article Review in Nepalese Context

Sn	Authored and date	Objectives	Methodology	Findings
1	Aryal /(2022)	To conducted an evaluation of credit investment and recovery of Financial Public Enterprises in	Using panel data regression analysis	The findings indicated an increasing trend in actual credit disbursement, collection, and outstanding, albeit at a decreasing rate. There was a positive

		Nepal facilitated by ADB/N.		correlation between credit disbursement and collection, and the targeted credit collection and disbursement set by planning and project departments closely matched the actual values.
2	Gautam /(2021)	To analyze the finance companies of Nepal, focusing on objectives related to the interest rate structure and credit repayment.	Regression and correlation etc.	The study underscored a notable annual rise in credit losses, emphasizing the necessity for stringent control measures. Companies with higher-than-average credit loss provisions were advised to reassess their investment and repayment policies.
3	Chand /(2020)	To explored credit disbursement and repayment at the Agriculture Development Bank Nepal.	Their study employed return on assets (ROA) as the dependent variable, with independent variables including liquidity risk, credit risk, operational risk, market risk, capital	The findings revealed that return on assets (ROA) was negatively influenced by liquidity risk, capital risk, and bank size. In contrast, marketing risk had a significant and positive impact on ROA. Operational risk and credit risk showed an insignificant positive relationship with ROA.

			risk, and bank size.	
4	Mamari et al./ (2022)	To investigated the relationship between risk management practices and a bank's financial performance.	This quantitative study, based on secondary data collected	The study identified a systematic relationship between credit disbursement and repayment, characterized by a substantial correlation coefficient value of 0.94.
5	Joshi /(2018)	To aimed to understand the fund mobilization and investment policy of EBL, Nabil, and BOK.	Using a descriptive survey design applied.	The findings indicated that EBL (Everest Bank Limited) had a stronger liquidity position than Nabil and BOK (Bank of Kathmandu), with its total investment falling between the other two banks. EBL also exhibited a lower ratio of total interest earned to total outside assets compared to Nabil and BOK. Additionally, EBL had a higher capital risk ratio but an average credit risk ratio compared to Nabil and BOK.
6	Panta/ (2019)	To studied development bank deposit and its utilization, noting a consistent percentage of total credit supplied by development	In her research titled "Development Bank Deposit and Its Utilization," Panta (2019) observed that the percentage	The study noted a significant increase in deposit collection, highlighting a growing gap between the accumulation of deposits and their utilization for credit purposes. This trend underscores an emerging economic necessity.

	banks over five years.	of total credit supplied by development banks remained relatively stable over a five-year period, aiming to contribute to the economic upliftment of the country.

2.3 Research Gap

Many researchers have predominantly focused on individual countries, presenting diverse findings. However, a noticeable gap exists as no prior study has comprehensively examined credit management and profitability across all deposit money banks in Nepal. Recognizing this geographical void, our research endeavours to fill this gap by conducting an inclusive study within the context of Nepal. Additionally, our exploration of existing research on credit management and bank profitability reveals a temporal gap, with most studies covering up to the year 2022. To address this temporal discrepancy, we extend our investigation to encompass the period up to 2023, which includes the aftermath of the global economic recession and its consequential impact on credit management challenges faced by banks.

In contrast to previous researchers who often employed a single model with more than five independent variables, our research is driven by academic intent. Notably, many of these prior studies were conducted in international contexts, with a focus on sectors beyond banking. For future scholars, there is an opportunity to explore different sectors within Nepal, deviating from the conventional emphasis on commercial banks. Furthermore, potential research initiatives could span over a decade, providing a more comprehensive understanding. In our study, we specifically consider three independent variables alongside dependent variables.

CHAPTER-III

RESEARCH METHODOLOGY

The chapter covers the research design, population and sampling design, nature and source of data, methodology, research framework and definition of variables. The research methodology provides a structured approach to solving a problem through systematic and planned processes that involve the collection, analysis, and interpretation of data. It includes the plan, structure, and strategy used in investigations to address research questions or test hypotheses. This chapter on research methodology covers elements such as research design, data sources, population and sample, and methods and tools for data analysis. The main components of the research methodology for this study are outlined below.

3.1 Research Design

Descriptive and causal comparative research design has been employed to archives the objectives of the research. The objective rerated to the current status of the credit risk and profitability are covers from the descriptive research design. The objectives to relate to the relationship between the independent and dependent variables and objectives three related to the impact of independent variables to the dependent variable are through the causal comparative research design.

3.2 Population and Sample and Sampling Design

In the mid July 2023 total number of commercial bank are 20. The employing the propulsive sampling three bank are selected and they are Everest bank limited, Nabil bank limited and Nepal SBI bank limited.

3.3 Nature and Sources of Data

The nature and source of data are related to the either primary data or secondary data. The primary data are collected by the researcher at the time of research. Secondary data are already prepared by the other person and the researcher use this on their research. In this research study the secondary nature of data are used. They are prepared by the respective sample bank and presented in the annual report of them.

3.4 Methods of Analysis

The method of the study are related to the financial and statistical analysis of the research.

3.4.1 Financial analysis

The financial analysis included the different ration analysis of the dependent and independent variables. The study here ratio of credit risk representing the nonperforming assets, liquidity ratio, capital adequacy ratio, interest spread rate, base rate and ratio of return on equity is calculated.

i. Return on equity
ii. Non-performing loan to total loan
iii. Capital adequacy ratio
iv. Liquidity ratio
v. Interest spared rate
vi. Base rate

Return on equity

Return on equity (ROE) is a financial ratio that measures the profitability of a company in relation to its shareholders' equity. ROE indicates how effectively a company is using its equity to generate profit. A higher ROE generally suggests that a company is generating more profit with less investment, which is often seen as favourable by investors. It is calculated using the:

$$\text{Return on equity} = \frac{net\ profit}{total\ equity}$$

Non-performing loan to total loan

The non-performing loan (NPL) ratio to total loans is a financial metric used to assess the quality of a bank's loan portfolio. The NPL ratio is used by analysts and investors to gauge the asset quality of a bank. A higher NPL ratio indicates a higher proportion of risky loans in the bank's portfolio, which could potentially lead to higher credit risk and losses for the bank. Banks strive to keep this ratio low to maintain financial health and minimize potential losses from bad loans. The formula is the ratio:

$$\text{Non-performing loan to total loan} = \frac{non\ perfoming\ loan}{total\ loan}$$

Capital adequacy ratio

The Capital Adequacy Ratio (CAR) is a measure of a bank's financial strength and its ability to absorb potential losses. It is used to ensure that banks have enough capital to cover unexpected losses due to credit risks and operational risks. The CAR is regulated by banking authorities to ensure that banks maintain a sufficient level of capital relative to their risk exposure. A higher CAR indicates a stronger financial position and lower risk of insolvency. Banks typically aim to maintain a CAR that meets or exceeds regulatory requirements to ensure financial stability and protect depositors' funds.

Capital adequacy ratio= $\frac{trial\ 1\ capital + trial\ 2\ capital}{total\ risk\ weighted\ exposer}$

Liquidity ratio

Liquidity ratios are financial metrics that assess a company's ability to meet its short-term obligations using its liquid assets. There are several types of liquidity ratios, two common ones being:

Current ratio= $\frac{current\ assets}{current\ liabilities}$

Interest spared rate

The term "interest spared rate" typically refers to a metric used in the context of refinancing or restructuring debt. It represents the amount of interest that a company saves or avoids paying as a result of refinancing its debt at a lower interest rate or restructuring its debt obligations.

The calculation of interest spared rate generally involves comparing the total interest expense under the old debt structure with the total interest expense under the new, restructured or refinanced debt structure. The formula can be expressed as:

Interest spared rate = $\frac{toal\ interest\ expenses\ old\ debt - total\ interest\ expenses\ of\ new\ debt}{total\ intereset\ expenses\ of\ old\ debt}$

Base rate

The term "base rate" generally refers to the minimum interest rate set by a central bank or a monetary authority, which serves as a benchmark for lending rates in the financial system. Here are a few key points about base rates:

Central Bank Base Rate: Central banks use base rates (also known as policy rates) to influence economic activity by adjusting the cost of borrowing money. The central bank sets a target for

the base rate based on its monetary policy objectives, such as controlling inflation, stabilizing the currency, or supporting economic growth.

Bank Lending Rates: Commercial banks and other financial institutions typically set their lending rates (e.g., prime rates) based on the central bank's base rate. The base rate serves as a reference point, and lending rates offered to consumers and businesses often include a markup above this base rate, reflecting factors such as credit risk, market conditions, and profitability goals.

3.4.2 Statistical Analysis

Mean ($\bar{X}$)

The mean, in statistics, represents the average or the arithmetic average of a set of numbers. It serves as a measure of central tendency within a probability distribution, alongside the median and mode. Additionally, it is commonly referred to as the expected value.

Standard Deviation (σ):

Standard deviation serves as a metric to quantify the extent of variation or dispersion within a set of values. Computed as the square root of variance, it involves assessing each data point's deviation from the mean (Acharya et al. 2018).It is denoted by (**σ**).

Standard Deviation (**σ**) = $\sqrt{\frac{\sum(X - \overline{X})^2}{N}}$

Where,

X=variables

$\overline{X}$ = mean

N= No. of Period

Minimum and Maximum

The minimum in the research context represents the smallest frequency value, while the maximum refers to the highest frequency value in the distribution. This measurement aids in understanding the range of frequency differences within the research values.

Correlation Analysis (r):

It is the simplest of ascertaining the correlation between two variables. It is not influences by the size of the extreme items. Karl Pearson coefficient of correlation is usually denoted by ‘r’.

Correlation Coefficient (r) = $\frac{n\sum XY - \sum X \sum Y}{\sqrt{[\{n\sum x^2 - (\sum X)^2\}\{n\sum Y^2 - (\sum Y)^2\}]}}$

Where,

N = number of X and Y

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

$\sum$X = Sum of the series X

$\sum$Y = Sum of the series Y

$\sum X^2$ = Sum of the square of series X

$\sum Y^2$ = Sum of the square of series Y

Acharya et al. (2018) describe correlation analysis as a statistical tool used to determine the direction and strength of the relationship between two sets of variables. It shows how two variables co-vary and quantifies the degree of association between them. The Pearson correlation coefficient is used to describe this relationship, with values ranging from -1 to +1. A value of -1 indicates a perfect negative correlation, meaning the two variables move exactly in opposite directions. Conversely, a correlation coefficient of +1 indicates a perfect positive relationship, meaning the variables move together in the same direction.

Multiple Regression Analysis

Multiple regression analysis is a statistical technique used to investigate the relationship between a single dependent variable and several independent variables. Its main objective is to predict changes in the dependent variable based on changes in the independent variables. This method evaluates how well multiple predictors can forecast outcomes. Additionally, the coefficient of determination measures the proportion of variability in the dependent variable that can be explained by the regression model. The multiple regression equation can be formulated as:

Model

$ROE = \alpha+\beta_1\times NPL+ \beta_2\times LR+ \beta_3\times CAR+ \beta_4\times ISR+ \beta_5\times BR+e$

Where,

NPL=Credit risk

LR=Liquidity Ratio

ROE=Return on Equity

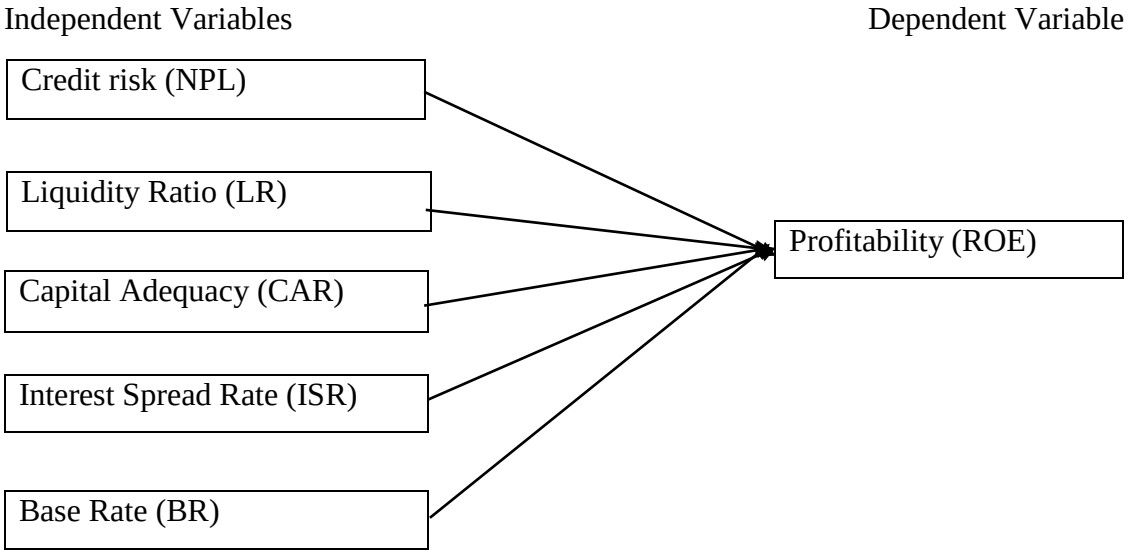
CAR=Capital Adequacy

ISR=Interest Spread Rate

BR=Base Rate

3.5 Research framework and definition of variables

To simplify the presentation of the research, the variables are abbreviated as follows. This is illustrated in the figure below.



Source: (Kulchittivej et al., 2020)

Figure1: *Research Framework*

Definition of variables

Dependent Variable

Profitability

Profitability refers to the ability of a business or an investment to generate earnings or profits relative to its expenses and other costs over a specific period of time. It is a key measure of financial performance and is essential for assessing the efficiency and sustainability of operations. Here in the study profitability measured by return on equity (ROE) is a financial ratio that measures the profitability of a company in relation to its shareholders' equity. ROE indicates how effectively a company is using its equity to generate profit. A higher ROE

generally suggests that a company is generating more profit with less investment, which is often seen as favourable by investors.

Independent Variables

Credit risk

Credit risk refers to the potential loss that a lender or investor may incur due to the failure of a borrower or counterparty to meet their financial obligations. It is a fundamental risk in lending and financial transactions and arises from the uncertainty of whether borrowers will repay their loans or honour their contractual obligations. Under this the non-performing loan (NPL) ratio to total loans is a financial metric used to assess the quality of a bank's loan portfolio. The NPL ratio is used by analysts and investors to gauge the asset quality of a bank. A higher NPL ratio indicates a higher proportion of risky loans in the bank's portfolio, which could potentially lead to higher credit risk and losses for the bank. Banks strive to keep this ratio low to maintain financial health and minimize potential losses from bad loans.

Capital adequacy ratio

The Capital Adequacy Ratio (CAR) is a measure of a bank's financial strength and its ability to absorb potential losses. It is used to ensure that banks have enough capital to cover unexpected losses due to credit risks and operational risks. The CAR is regulated by banking authorities to ensure that banks maintain a sufficient level of capital relative to their risk exposure. A higher CAR indicates a stronger financial position and lower risk of insolvency. Banks typically aim to maintain a CAR that meets or exceeds regulatory requirements to ensure financial stability and protect depositors' funds.

Liquidity ratio

Liquidity ratios are financial metrics that assess a company's ability to meet its short-term obligations using its liquid assets. There are several types of liquidity ratio. Here in the research the current ratio is used.

Interest spared rate

The term "interest spared rate" typically refers to a metric used in the context of refinancing or restructuring debt. It represents the amount of interest that a company saves or avoids paying as a result of refinancing its debt at a lower interest rate or restructuring its debt obligations.

The calculation of interest spared rate generally involves comparing the total interest expense under the old debt structure with the total interest expense under the new, restructured or refinanced debt structure.

Base rate

The term "base rate" generally refers to the minimum interest rate set by a central bank or a monetary authority, which serves as a benchmark for lending rates in the financial system. Here are a few key points about base rates:

Central Bank Base Rate: Central banks use base rates (also known as policy rates) to influence economic activity by adjusting the cost of borrowing money. The central bank sets a target for the base rate based on its monetary policy objectives, such as controlling inflation, stabilizing the currency, or supporting economic growth.

Bank Lending Rates: Commercial banks and other financial institutions typically set their lending rates (e.g., prime rates) based on the central bank's base rate. The base rate serves as a reference point, and lending rates offered to consumers and businesses often include a markup above this base rate, reflecting factors such as credit risk, market conditions, and profitability goals.

CHAPTER-IV

PRESENTATION AND ANALYSIS OF DATA

The results derived from the data analysis are presented to make the study's objectives easily accessible. The data have been analysed according to the research methodology detailed in the third chapter to ensure accuracy. This chapter aims to familiarize readers with the process of data analysis and interpretation. The presentation is structured systematically, based on the range of tools and techniques used to identify connections and significance between the data and the objectives. It includes an examination of primary data and its findings.

4.1 Result

4.1.1 Financial Analysis

Financial analysis involves assessing the financial health, performance, and viability of a business or investment based on its financial statements and other relevant information. It is crucial for making informed decisions related to investing, lending, budgeting, and strategic planning. Here financial analysis conducted for some ratio of different three bank.

Return on equity

Return on equity (ROE) is a financial ratio that measures the profitability of a company in relation to its shareholders' equity. ROE indicates how effectively a company is using its equity to generate profit. A higher ROE generally suggests that a company is generating more profit with less investment, which is often seen as favourable by investors.

Table 3 present the return on equity ratio of the research. The ratio is calculated from the three sample bank; they are Everest bank limited, NABIL bank limited and SBI bank limited. The total number of observation are 30 and each bank has ten from 2014-2023. The mean, standard deviation and coefficient variation also calculated. The highest mean, 19.61 in the Nabil, highest S.D in the EBL i.e. 8.10 and highest C.V in the EBL i.e. 40 percent. The result of S.D. and C.V shows the high level of fluctuating ratio in the EVL.

Table 3

Return on Equity

Year	EBL	NABIL	SBI
2023	13.31	12.96	12.1
2022	11.76	9.5	9.57
2021	9.3	13.76	6.35
2020	13.45	13.76	10.44
2019	18.13	18.28	16.28
2018	21.6	25.11	15.8
2017	23.5	27.13	20.54
2016	25.56	25.84	22.16
2015	29.5	21.73	21.51
2014	32.98	28.03	22.85
Mean	19.91	19.61	15.76
S.D	8.01	6.81	5.93
C.V in %	40	35	38

Source: *Appendix-1*

Non-performing loan to total loan

The non-performing loan (NPL) ratio to total loans is a financial metric used to assess the quality of a bank's loan portfolio. The NPL ratio is used by analysts and investors to gauge the asset quality of a bank. A higher NPL ratio indicates a higher proportion of risky loans in the bank's portfolio, which could potentially lead to higher credit risk and losses for the bank. Banks strive to keep this ratio low to maintain financial health and minimize potential losses from bad loans.

Table 4 present the non-performing loan total loan ratio of the research. The ratio is calculated from the three sample bank; they are Everest bank limited, NABIL bank limited and SBI bank limited. The total number of observation are 30 and each bank has ten from 2014-2023. The mean, standard deviation and coefficient variation also calculated. The highest mean, 2.43 in the SBI, highest S.D in the NABIL i.e. 1.54 and highest C.V in the NABIL i.e. 78 percent. The result of S.D. and C.V shows the high level of fluctuating ratio in the NABIL.

Table 4

Non-performing Loan

Year	EBL	NABIL	SBI
2023	0.79	1.23	2.43
2022	0.24	1.54	0.15
2021	0.12	0.78	0.23
2020	0.22	0.97	0.23
2019	0.16	0.74	0.2
2018	0.2	0.55	0.2
2017	0.51	0.79	0.1
2016	0.38	1.14	0.14
2015	0.66	1.82	0.19
2014	0.62	2.23	0.26
Mean	0.79	1.23	2.43
S.D	0.24	1.54	0.15
C.V in %	12	78	23

Source: *Appendix-1*

Capital adequacy ratio

The Capital Adequacy Ratio (CAR) is a measure of a bank's financial strength and its ability to absorb potential losses. It is used to ensure that banks have enough capital to cover unexpected losses due to credit risks and operational risks. The CAR is regulated by banking authorities to ensure that banks maintain a sufficient level of capital relative to their risk exposure. A higher CAR indicates a stronger financial position and lower risk of insolvency. Banks typically aim to maintain a CAR that meets or exceeds regulatory requirements to ensure financial stability and protect depositors' funds.

Table 5 present the capital adequacy ratio of the research. The ratio is calculated from the three sample bank; they are Everest bank limited, NABIL bank limited and SBI bank limited. The total number of observation are 30 and each bank has ten from 2014-2023. The mean, standard deviation and coefficient variation also calculated. The highest mean, 14.14 in the SBI, highest

S.D in the SBI i.e. 1.08 and highest C.V in the SBI i.e. 8 percent. The result of S.D. and C.V shows the high level of fluctuating ratio in the SBI.

Table 5

Capital adequacy ratio

Year	EBL	NABIL	SBI
2023	13.36	12.68	12.78
2022	11.95	13.56	13.32
2021	12.51	12.75	13.93
2020	13.32	12.91	15.44
2019	13.75	12.78	14.01
2018	14.97	13.26	15.48
2017	14.85	13.44	15.92
2016	12.79	12.65	13.33
2015	13.32	11.91	13.47
2014	12.89	13.23	13.7
Mean	13.37	12.92	14.14
S.D	0.96	0.48	1.08
C.V in %	7	4	8

Source: *Appendix-1*

Liquidity ratio

Liquidity ratios are financial metrics that assess a company's ability to meet its short-term obligations using its liquid assets. There are several types of liquidity ratios here current ratio is calculated.

Table 6 present the liquidity ratio of the research. The ratio is calculated from the three sample bank; they are Everest bank limited, NABIL bank limited and SBI bank limited. The total number of observation are 30 and each bank has ten from 2014-2023. The mean, standard deviation and coefficient variation also calculated. The highest mean, 35.82 in the EBL, highest S.D in the EBL i.e. 5.1 and highest C.V in the NABIL i.e. 14.97 percent. The result of S.D. and C.V shows the high level of fluctuating ratio in the EBL and Nabil respectively.

Table 6

Liquidity ratio

Year	EBL	NABIL	SBI
2023	33.22	27.86	33.51
2022	33.67	22.79	27.8
2021	42.69	23.49	24.97
2020	39.64	23.95	29.7
2019	38.09	29.58	24.83
2018	37.84	25.5	23.43
2017	31.46	25.84	25.4
2016	35.72	26.76	24.99
2015	40.56	35.25	21.51
2014	25.31	32.86	22.85
Mean	35.82	27.38	25.89
S.D	5.1	4.1	3.55
C.V in %	14.23	14.97	13.71

Source: *Appendix-1*

Interest spared rate

The term "interest spared rate" typically refers to a metric used in the context of refinancing or restructuring debt. It represents the amount of interest that a company saves or avoids paying as a result of refinancing its debt at a lower interest rate or restructuring its debt obligations.

The calculation of interest spared rate generally involves comparing the total interest expense under the old debt structure with the total interest expense under the new, restructured or refinanced debt structure.

Table 7 present the interest spared rate of the research. The ratio is calculated from the three sample bank; they are Everest bank limited, NABIL bank limited and SBI bank limited. The total number of observation are 30 and each bank has ten from 2014-2023. The mean, standard deviation and coefficient variation also calculated. The highest mean, 4.64 in the NABIL, highest S.D in the SBI i.e. 0.73 and highest C.V in the SBI i.e. 16 percent. The result of S.D. and C.V shows the high level of fluctuating ratio in the SBI and Nabil respectively.

Table 7

Interest spared rate

Year	EBL	NABIL	SBI
2023	3.97	4.99	3.99
2022	4.06	4.22	4.36
2021	3.24	3.79	3.18
2020	3.59	3.73	3.87
2019	4.29	4.43	4.43
2018	4.72	5.05	4.99
2017	4.48	4.92	5.44
2016	4.89	4.98	4.99
2015	4.76	4.55	5.43
2014	5.69	5.71	4.93
Mean	4.37	4.64	4.56
S.D	0.70	0.62	0.73
C.V in %	16	13	16

Source: *Appendix-1*

Base rate

The term "base rate" generally refers to the minimum interest rate set by a central bank or a monetary authority, which serves as a benchmark for lending rates in the financial system.

Table 8 present the base rate of the research. The ratio is calculated from the three sample bank; they are Everest bank limited, NABIL bank limited and SBI bank limited. The total number of observation are 30 and each bank has ten from 2014-2023. The mean, standard deviation and coefficient variation also calculated. The highest mean, 8.83 in the SBI, highest S.D in the NABIL i.e. 1.63 and highest C.V in the NABIL i.e. 24 percent. The result of S.D. and C.V shows the high level of fluctuating ratio in the Nabil respectively.

Table 8

Base rate

Year	EBL	NABIL	SBI
2023	9.92	9.52	10.74
2022	8.82	8.77	9.61
2021	5.99	5.86	7.37
2020	8.05	7.32	9.25
2019	8.12	8.09	9.72
2018	8.45	7.78	10.12
2017	7.68	6.61	8.98
2016	4.86	4.17	5.98
2015	6.14	5.78	7.71
2014	6.4	5.67	8.78
Mean	7.44	6.96	8.83
S.D	1.55	1.64	1.43
C.V in %	21	24	16

Source: *Appendix-1*

4.1.2 Descriptive Statistics

Descriptive statistics are statistical techniques utilized to quantify various variables, including measures like mean, median, minimum, maximum, standard deviation, and more. These methods provide valuable insights into both dependent and independent variables analysed in the study.

Table 9 present the descriptive statistics from the three sample bank; they are Everest bank limited, NABIL bank limited and SBI bank limited. The total number of observation are 30 and each bank has ten from 2014-2023. The minimum, maximum, mean and standard deviation calculated.

The profitability measuring variable return on equity is minimum, maximum, mean and standard deviation 6.35, 32.98, 18.42 and 6.99 respectively. The credit risk measuring variable non-performing loan to total loan ratio is minimum, maximum, mean and standard deviation .10, 2.43, .66 and .63 respectively. The liquidity ratio is minimum, maximum, mean and

standard deviation 21.51, 42.69, 29.7 and 6.07 respectively. The capital adequacy ratio is minimum, maximum, mean and standard deviation 11.91, 15.92, 13.4 and 0.99 respectively. The interest spread rate is minimum, maximum, mean and standard deviation 3.18, 5.71, 4.5 and 0.67 respectively. The base rate is minimum, maximum, mean and standard deviation 4.17, 10.74, 7.7 and 1.68 respectively.

Table 9

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Profitability	30	6.35	32.98	18.4	6.99
Credit risk	30	.10	2.43	.66	.63
Liquidity Ratio	30	21.51	42.69	29.7	6.07
Capital Adequacy Ratio	30	11.91	15.92	13.4	.99
Interest Spread Rate	30	3.18	5.71	4.5	.67
Base Rate	30	4.17	10.74	7.7	1.68
Valid N (listwise)	30				

Source *Appendix-1&2:*

The result of descriptive statistics minimum, maximum, mean and standard deviation are in the nature of fluctuating found.

4.1.3 Correlation analysis

This statistical method is used to determine the direction and intensity of the relationship between two sets of variables. The relationship is explained using the Pearson correlation coefficient, which ranges from -1 to +1. A correlation coefficient of -1 indicates a perfect negative correlation, indicating that the two variables move exactly in opposite directions.

Table 10 present the correlation analysis from the three sample bank; they are Everest bank limited, NABIL bank limited and SBI bank limited. The total number of observation are 30 and each bank has ten from 2014-2023.

Table 10

Correlation analysis

		ROE	NPL	LR	CAR	ISR	BR
ROE	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	30					
NPL	Pearson Correlation	.095	1				
	Sig. (2-tailed)	.616					
	N	30	30				
LR	Pearson Correlation	.005	.038	1			
	Sig. (2-tailed)	.978	.841		.		
	N	30	30	30			
CAR	Pearson Correlation	-.025	-.418*	-.201	1		
	Sig. (2-tailed)	.895	.022	.286			
	N	30	30	30	30		
ISR	Pearson Correlation	.791**	.110	-.301	.146	1	
	Sig. (2-tailed)	.000	.563	.107	.441		
	N	30	30	30	30	30	
BR	Pearson Correlation	-.536**	-.100	-.153	.416*	-.177	1
	Sig. (2-tailed)	.002	.597	.419	.022	.349	
	N	30	30	30	30	30	30

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

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

Source: *Appendix-1&2*

The return on equity measuring profitability and non-performing loan to total loan measuring the credit risk ratio is positive relationship and not significant; at the same time hypothesis is not true. The positive relationship shows by the correlation value positive 0.095 and not significant by the significant value 0.616.

The return on equity measuring profitability and liquidity ratio is positive relationship and not significant; at the same time hypothesis is not true. The positive relationship shows by the correlation value positive 0.005 and not significant by the significant value 0.978.

The return on equity measuring profitability and capital adequacy ratio is negative relationship and not significant; at the same time hypothesis is not true. The negative relationship shows by the correlation value negative 0.025 and not significant by the significant value 0.895.

The return on equity measuring profitability and interest spared rate ratio is positive relationship and significant; at the same time hypothesis is also true. The positive relationship shows by the correlation value positive 0.791 and significant by the significant value 0.000.

The return on equity measuring profitability and base rate ratio is negative relationship and significant; at the same time hypothesis is also true. The negative relationship shows by the correlation value negative 0.536 and significant by the significant value 0.002.

4.1.4 Regression analysis

The main goal of multiple regression analysis is to predict changes in the dependent variable by examining changes in the independent variables. This analysis assesses the predictive capability of multiple regressions. Moreover, the coefficient of determination in multiple regression can be understood as the proportion of variability in the dependent variables that the regression equation can account for.

Table 11

Model summary of regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.906[a]	.820	.783	3.26

a. Predictors: (Constant), Base Rate , Credit risk , Liquidity Ratio , Interest Spread Rate, Capital Adequacy Ratio

Source: *Appendix-1&2*

Table 11 present the model summary of the three sample bank; they are Everest bank limited, NABIL bank limited and SBI bank limited. The total number of observation are 30 and each bank has ten from 2014-2023. The independent variables are base rate, credit risk , liquidity ratio, interest spread rate, capital adequacy ratio. The dependent variables is return on equity. The table shows the r square which is .783. That represent the 78.3% change in to the return in equity by all the independent variables impact. Remaining 21.7 percent by other variables which are not included in this research.

Table 12

Regression ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1163.462	5	232.692	21.886	.000[b]
	Residual	255.165	24	10.632		
	Total	1418.627	29			

a. Dependent Variable: Profitability

b. Predictors: (Constant), Base Rate , Credit risk , Liquidity Ratio , Interest Spread Rate, Capital Adequacy Ratio

Source: *Appendix-1&2*

Table 12 present the regression ANOVA of the three sample bank; they are Everest bank limited, NABIL bank limited and SBI bank limited. The total number of observation are 30 and each bank has ten from 2014-2023. The independent variables are base rate, credit risk , liquidity ratio, interest spread rate, capital adequacy ratio. The significant value is 0.000 so the regression is seem strong.

Table 13

Coefficient of Regression

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-17.340	11.221		-1.545	.135
	Credit risk	-.120	1.082	-.011	-.111	.913
	Liquidity Ratio	.217	.107	.189	2.020	.055
	Capital Adequacy Ratio	.430	.779	.061	.551	.586
	Interest Spread Rate	8.032	1.021	.770	7.865	.000
	Base Rate	-1.642	.419	-.397	-3.921	.001

a. Dependent Variable: Profitability

Source: *Appendix-1&2*

Table 12 present the regression coefficient of the three sample bank; they are Everest bank limited, NABIL bank limited and SBI bank limited. The total number of observation are 30

and each bank has ten from 2014-2023. Here beta, standard error and signficiant value are describe.

The return on equity measuring profitability and non-performing loan to total loan measuring the credit risk ratio is negative impact and not significant; at the same time hypothesis is not true. The negative impact shows by the beta value negative 0.12 and not significant by the significant value 0.913.

The return on equity measuring profitability and liquidity ratio is positive impact and not significant; at the same time hypothesis is not true. The positive impact shows by the beta value positive 0.217 and not significant by the significant value 0.055.

The return on equity measuring profitability and capital adequacy ratio is positive impact and not significant; at the same time hypothesis is not true. The positive impact shows by the beta value positive 0.551 and not significant by the significant value 0.586.

The return on equity measuring profitability and interest spared rate ratio is positive impact and significant; at the same time hypothesis is also true. The positive impact shows by the beta value positive 0.8.032 and significant by the significant value 0.000.

The return on equity measuring profitability and base rate ratio is negative impact and significant; at the same time hypothesis is also true. The negative impact shows by the beta value negative 0.1.642 and significant by the significant value 0.001.

4.2 Major finding and Discussion

The major finding of the research are following

i. The result of S.D. and C.V shows the high level of fluctuating ratio in the EVL.
ii. The result of S.D. and C.V shows the high level of fluctuating ratio in the NABIL.
iii. The result of S.D. and C.V shows the high level of fluctuating ratio in the SBI.
iv. The result of S.D. and C.V shows the high level of fluctuating ratio in the EBL and Nabil respectively.
v. The result of S.D. and C.V shows the high level of fluctuating ratio in the SBI and Nabil respectively.
vi. The result of S.D. and C.V shows the high level of fluctuating ratio in the Nabil respectively.

vii. The result of descriptive statistics minimum, maximum, mean and standard deviation are in the nature of fluctuating found.

viii. The return on equity measuring profitability and non-performing loan to total loan measuring the credit risk ratio is positive relationship and not significant; at the same time hypothesis is not true.

ix. The return on equity measuring profitability and liquidity ratio is positive relationship and not significant; at the same time hypothesis is not true.

x. The return on equity measuring profitability and capital adequacy ratio is negative relationship and not significant; at the same time hypothesis is not true.

xi. The return on equity measuring profitability and interest spared rate ratio is positive relationship and significant; at the same time hypothesis is also true.

xii. The return on equity measuring profitability and base rate ratio is negative relationship and significant; at the same time hypothesis is also true.

xiii. The return on equity measuring profitability and non-performing loan to total loan measuring the credit risk ratio is negative impact and not significant; at the same time hypothesis is not true.

xiv. The return on equity measuring profitability and liquidity ratio is positive impact and not significant; at the same time hypothesis is not true.

xv. The return on equity measuring profitability and capital adequacy ratio is positive impact and not significant; at the same time hypothesis is not true.

xvi. The return on equity measuring profitability and interest spared rate ratio is positive impact and significant; at the same time hypothesis is also true.

xvii. The return on equity measuring profitability and base rate ratio is negative impact and significant; at the same time hypothesis is also true.

Discussion

The first objective of research is to examine the current status of credit risk and profitability of Nepalese commercial bank. The result is the descriptive statistics minimum, maximum, mean and standard deviation are in the nature of fluctuating found. The result is consistent with the result of Nwanna and Oguezue, (2017).

The second objective of research is to examine the relationship of credit risk to the profitability of Nepalese commercial bank. The result is the return on equity measuring profitability and

non-performing loan to total loan measuring the credit risk ratio is positive relationship and not significant; at the same time hypothesis is not true. The result is consistent with the result of Veizi and Zhuli, (2023). The return on equity measuring profitability and liquidity ratio is positive relationship and not significant; at the same time hypothesis is not true. The result is consistent with the result of Mamari et al., (2022). The return on equity measuring profitability and capital adequacy ratio is negative relationship and not significant; at the same time hypothesis is not true. The result is consistent with the result of Obae and Jagongo, (2022). The return on equity measuring profitability and interest spared rate ratio is positive relationship and significant; at the same time hypothesis is also true. The result is consistent with the result of Emmanuel et al., (2021). The return on equity measuring profitability and base rate ratio is negative relationship and significant; at the same time hypothesis is also true. The result is consistent with the result of Kulchittivej et al., (2020).

The third objective of research is to analyse the impact of credit risk to the profitability of Nepalese commercial bank. The result is the return on equity measuring profitability and non-performing loan to total loan measuring the credit risk ratio is negative impact and not significant; at the same time hypothesis is not true. The result is consistent with the result of Zimon and Dankiewicz, (2020). The return on equity measuring profitability and liquidity ratio is positive impact and not significant; at the same time hypothesis is not true. The result is consistent with the result of Jahan and Rahman, (2020). The return on equity measuring profitability and capital adequacy ratio is positive impact and not significant; at the same time hypothesis is not true. The result is consistent with the result of Asant, (2018). The return on equity measuring profitability and interest spared rate ratio is positive impact and significant; at the same time hypothesis is also true. The result is consistent with the result of Chand, (2020). The return on equity measuring profitability and base rate ratio is negative impact and significant; at the same time hypothesis is also true. The result is consistent with the result of Joshi, (2018).

CHAPTER-V

SUMMARY AND CONCLUSION

This chapter comprises three key components: summary, conclusion, and inference. The summary provides a comprehensive overview of the entire study process, encompassing the entirety of the research efforts from initiation to completion. Both the summary and conclusion of the thesis are incorporated in this section. Additionally, the implications of the results obtained from the thesis work are discussed.

5.1 Summary

Credit risk refers to the likelihood that a borrower will fail to meet their debt obligations, resulting in financial losses for the lender. This type of risk is assessed through various methods, including credit scoring, financial analysis, and historical payment patterns. To mitigate credit risk, financial institutions often require collateral, diversify their loan portfolios, set strict credit limits, and implement continuous credit monitoring systems. Profitability is a measure of a company's ability to generate earnings relative to its revenue, expenses, and other costs over a specific period. It is a key indicator of financial health and business success, reflecting how efficiently a company utilizes its resources to produce profit. Profitability ratios, such as net profit margin, return on assets (ROA), and return on equity (ROE), are commonly used to assess a company's performance and compare it with industry peers. In Nepal, commercial banks face various challenges in managing credit risk, including economic volatility, political instability, and regulatory changes. To mitigate these risks, banks adopt stringent credit assessment procedures, diversify their loan portfolios, and closely monitor borrower performance. Additionally, adherence to regulatory frameworks such as those prescribed by the Nepal Rastra Bank (NRB) is crucial in maintaining credit discipline and financial stability. On the basis of the given background the study are conducted on “credit risk management and profitability of commercial banks in Nepal”.

The problem of the research are what is the current status of credit risk and profitability of Nepalese commercial bank? Is there any relationship of credit risk to the profitability of Nepalese commercial bank? Do the impact of credit risk on the profitability of Nepalese commercial bank? The problem are meet by the objective and they are to examine the current

status of credit risk and profitability of Nepalese commercial bank, to examine the relationship of credit risk to the profitability of Nepalese commercial bank and to analyse the impact of credit risk to the profitability of Nepalese commercial bank. Descriptive and casual comparative research design has been employed. The statistical and financial analysis are conducted. The secondary data collected from three sample bank. Spss and excel are the tools for analysis. The result is descriptive statistics minimum, maximum, mean and standard deviation are in the nature of fluctuating found. The interest spared rate and based rate are significant relationship to the return on equity. The credit risk, liquidity ratio and capital adequacy ratio are not significant relation to the return on equity. The impact of interest spared rate and based rate are significant to the return on equity. The impact of credit risk, liquidity ratio and capital adequacy ratio are not significant to the return on equity.

5.2 Conclusion

The first objective of research is to examine the current status of credit risk and profitability of Nepalese commercial bank. The result is the descriptive statistics minimum, maximum, mean and standard deviation are in the nature of fluctuating found.

The second objective of research is to examine the relationship of credit risk to the profitability of Nepalese commercial bank. The result is the interest spared rate and based rate are significant relationship to the return on equity. The credit risk, liquidity ratio and capital adequacy ratio are not significant relation to the return on equity. In conclusion the interest spared rate and based rate are significant relationship to the return on equity.

The third objective of research is to analyse the impact of credit risk to the profitability of Nepalese commercial bank. The result is the impact of interest spared rate and based rate are significant to the return on equity. The impact of credit risk, liquidity ratio and capital adequacy ratio are not significant to the return on equity. In conclusion the impact of interest spared rate and based rate are significant to the return on equity.

5.3 Recommendation

The recommendation and implication of the research are following.

The findings can inform policymakers and regulators at the Nepal Rastra Bank (NRB) about the effectiveness of existing regulatory frameworks related to credit risk management. Insights

into the impact of credit risk on profitability can guide the formulation of policies that enhance financial stability and resilience within the banking sector.

Commercial banks in Nepal can benefit from the research by gaining a deeper understanding of best practices in credit risk management. The study can highlight areas for improvement and optimization in risk assessment, monitoring, and mitigation strategies, thereby helping banks to enhance their profitability and operational efficiency.

Investors and shareholders of Nepali banks can use the research findings to assess the risk-return profiles of their investments. Understanding the relationship between credit risk and profitability can provide insights into the financial health and potential returns of banking institutions, influencing investment decisions and portfolio management strategies.

The research contributes to the academic literature by adding empirical evidence and insights specific to Nepal's banking sector. It provides a foundation for further studies and comparative analyses across different countries or regions, contributing to global knowledge on banking risk management and financial performance.

A stable and profitable banking sector is crucial for overall economic development in Nepal. Effective credit risk management practices contribute to financial stability, facilitate access to credit for businesses and individuals, and support sustainable economic growth by channelling resources efficiently.

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APPENDIXES

Appendix1: Data from annual report of respected bank

	Everest Bank Ltd (10 Yrs Data From 2014 to 2023)								
Year	ROE	CAR	ISR	NPL	LLP	Base Rate	Cost of fund	CD Ratio	Liquidity Ratio
2014	32.98	12.89	5.69	0.62	100	6.4	3.56	75.06	25.31
2015	29.5	13.32	4.76	0.66	100	6.14	3.26	69.47	40.56
2016	25.56	12.79	4.89	0.38	100	4.86	2.24	76.24	35.72
2017	23.5	14.85	4.48	0.51	100	7.68	4.82	76.94	31.46
2018	21.6	14.97	4.72	0.2	675	8.45	5.6	75.98	37.84
2019	18.13	13.75	4.29	0.16	714	8.12	6.21	75.07	38.09
2020	13.45	13.32	3.59	0.22	682	8.05	6.11	68.57	39.64
2021	9.3	12.51	3.24	0.12	1311	5.99	4.48	72.52	42.69
2022	11.76	11.95	4.06	0.24	676	8.82	7.31	86.04	33.67
2023	13.31	13.36	3.97	0.79	235.64	9.92	7.75	82.32	33.22

	Nabil Bank Ltd (10 Yrs Data From 2014 to 2023)								
Year	ROE	CAR	ISR	NPL	LLP	Base Rate	Cost of fund	CD Ratio	Liquidity Ratio
2014	28.03	13.23	5.71	2.23	120.33	5.67	3.34	77.51	32.86
2015	21.73	11.91	4.55	1.82	135.94	5.78	3.18	65.12	35.25
2016	25.84	12.65	4.98	1.14	182.32	4.17	2.08	73.84	26.76
2017	27.13	13.44	4.92	0.79	221.75	6.61	2.7	75.62	25.84
2018	25.11	13.26	5.05	0.55	278.12	7.78	4.75	74.68	25.5
2019	18.28	12.78	4.43	0.74	221.06	8.09	6.13	72.9	29.58
2020	13.76	12.91	3.73	0.97	195.52	7.32	5.49	68.08	23.95
2021	13.76	12.75	3.79	0.78	241.01	5.86	4.41	79.22	23.49

2022	9.5	13.56	4.22	1.54	154.16	8.77	7.17	89.79	22.79
2023	12.96	12.68	4.99	1.23	107.12	9.52	7.81	87.68	27.86

	Nepal SBI Bank Ltd.((10 Yrs Data From 2014 to 2023)								
Year	ROE	CAR	ISR	NPL	LLP	Base Rate	Cost of fund	CD Ratio	Liquidity Ratio
2014	22.85	13.7	4.93	0.26	476.42	8.78	3.99	75.23	22.85
2015	21.51	13.47	5.43	0.19	659.59	7.71	3.17	79.11	21.51
2016	22.16	13.33	4.99	0.14	829.87	5.98	2.55	76.57	24.99
2017	20.54	15.92	5.44	0.1	1132.98	8.98	3.54	75	25.4
2018	15.8	15.48	4.99	0.2	628	10.12	5.45	74.38	23.43
2019	16.28	14.01	4.43	0.2	627.41	9.72	6.51	74.38	24.83
2020	10.44	15.44	3.87	0.23	647.16	9.25	6.85	63.2	29.7
2021	6.35	13.93	3.18	0.23	742.7	7.37	5.27	74.86	24.97
2022	9.57	13.32	4.36	0.15	1497.07	9.61	6.12	86.86	27.8
2023	12.1	12.78	3.99	2.43	116.51	10.74	8.2	78.99	33.51

Appendix2: result from spss calculations

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Profitability	30	6.35	32.98	18.4263	6.99415
Credit risk	30	.10	2.43	.6607	.63462
Liquidity Ratio	30	21.51	42.69	29.7023	6.07948
Capital Adequacy Ratio	30	11.91	15.92	13.4753	.99076
Interest Spread Rate	30	3.18	5.71	4.5223	.67051
Base Rate	30	4.17	10.74	7.7420	1.68981
Valid N (listwise)	30				

Correlations

		Profitability	Credit risk	Liquidity Ratio	Capital Adequacy Ratio	Interest Spread Rate	Base Rate
Profitability	Pearson Correlation	1	.095	.005	-.025	.791**	-.536**
	Sig. (2-tailed)		.616	.978	.895	.000	.002
	N	30	30	30	30	30	30
Credit risk	Pearson Correlation	.095	1	.038	-.418*	.110	-.100

	Sig. (2-tailed)	.616		.841	.022	.563	.597
	N	30	30	30	30	30	30
Liquidity Ratio	Pearson Correlation	.005	.038	1	-.201	-.301	-.153
	Sig. (2-tailed)	.978	.841		.286	.107	.419
	N	30	30	30	30	30	30
Capital Adequacy Ratio	Pearson Correlation	-.025	-.418*	-.201	1	.146	.416*
	Sig. (2-tailed)	.895	.022	.286		.441	.022
	N	30	30	30	30	30	30
Interest Spread Rate	Pearson Correlation	.791**	.110	-.301	.146	1	-.177
	Sig. (2-tailed)	.000	.563	.107	.441		.349
	N	30	30	30	30	30	30
Base Rate	Pearson Correlation	-.536**	-.100	-.153	.416*	-.177	1
	Sig. (2-tailed)	.002	.597	.419	.022	.349	
	N	30	30	30	30	30	30

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

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

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.906[a]	.820	.783	3.26065

a. Predictors: (Constant), Base Rate , Credit risk , Liquidity Ratio , Interest Spread Rate, Capital Adequacy Ratio

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1163.462	5	232.692	21.886	.000[b]
	Residual	255.165	24	10.632		
	Total	1418.627	29			

a. Dependent Variable: Profitability

b. Predictors: (Constant), Base Rate , Credit risk , Liquidity Ratio , Interest Spread Rate, Capital Adequacy Ratio

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-17.340	11.221		-1.545	.135
	Credit risk	-.120	1.082	-.011	-.111	.913
	Liquidity Ratio	.217	.107	.189	2.020	.055
	Capital Adequacy Ratio	.430	.779	.061	.551	.586
	Interest Spread Rate	8.032	1.021	.770	7.865	.000
	Base Rate	-1.642	.419	-.397	-3.921	.001

a. Dependent Variable: Profitability

Descriptive Statistics[a]

	N	Mean	Std. Deviation
Profitability	10	19.9090	8.01328
Credit risk	10	.3900	.23889
Liquidity Ratio	10	35.8200	5.10286
Capital Adequacy Ratio	10	13.3710	.95584
Interest Spread Rate	10	4.3690	.70295
Base Rate	10	7.4430	1.54551
Valid N (listwise)	10		

a. Bank Name = Everest Bank Ltd

Descriptive Statistics[a]

	N	Mean	Std. Deviation
Profitability	10	19.6100	6.81218
Credit risk	10	1.1790	.53671
Liquidity Ratio	10	27.3880	4.10003
Capital Adequacy Ratio	10	12.9170	.48199
Interest Spread Rate	10	4.6370	.61541
Base Rate	10	6.9570	1.63577
Valid N (listwise)	10		

a. Bank Name = Nabil Bank Ltd.

Descriptive Statistics[a]

	N	Mean	Std. Deviation
Profitability	10	15.7600	5.92521
Credit risk	10	.4130	.71031
Liquidity Ratio	10	25.8990	3.55474
Capital Adequacy Ratio	10	14.1380	1.08195
Interest Spread Rate	10	4.5610	.73032
Base Rate	10	8.8260	1.43071
Valid N (listwise)	10		

a. Bank Name = Nepal SBI Bank Ltd.

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CHAPTER- I INTRODUCTION 1.1 Background of the Study Credit risk

refers to the likelihood that a borrower will fail to meet their debt obligations, resulting in financial losses for **the lender**

. This type of risk is assessed through various methods, including credit scoring, financial analysis, and historical payment patterns. To mitigate credit risk, financial institutions often require collateral, diversify their loan portfolios, set strict credit limits, and implement continuous credit monitoring systems. Types of credit risk include default risk, concentration risk, and country risk, each posing unique challenges. Regulatory frameworks like Basel III help institutions manage credit risk by setting capital requirements