IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY IN NEPALESE COMMERCIAL BANKS

A Dissertation Submitted to Office of the Dean Faculty of Management In Partial fulfillment of the Requirements of the Degree of Master of Business Studies (M.B.S.)

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CERTIFICATION OF AUTHORSHIP

I hereby, declare that the this **IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY IN NEPALESE COMMERCIAL BANKS** Submitted of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirements for the Degree of Master Business Studies under the supervision of Dr. Bhupindra Jung Basnet of Nepal Commerce Campus

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REPORT OF RESEARCH COMMITTEE

Mr. Anish Khadka has defended research proposal entitles **IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY IN NEPALESE COMMERCIAL BANKS** successfully. The research committee has registered the dissertation for future progress .It is recommended to carry out the work as per suggesting and guidance supervisor Dr. Bhupindra Basnet and submit the Dissertation for evaluation and viva voce examination .

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We have examined the dissertation entitled **IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY IN NEPALESE COMMERCIAL BANKS** presented by Anish Khadka

for the degree of Master of Business Studies. We hereby certify that the dissertation is acceptable for the award of degree

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ABBREVIATIONS

ATM	-	Automated Teller Machine
CE	-	Capital Employed
CENMAC	-	Central Management Committee
CEO	-	Chief Executive Officer
D/E	-	Debt Equity Ratio
DPS	-	Dividend per Share
NPR	-	Net profit ratio
EBIT	-	Earning Before Interest and Tax
EPS	-	Earning Per Share
FY	-	Fiscal Year
NPLR	-	Non-performing loan ratio
JVCBs	-	Joint Venture Commercial Banks
LTD	-	Long Term Debt
MBS	-	Master of Business Studies
MM	-	Modigliani and Miller
NABIL	-	Nabil Bank Limited
NI	-	Net Income
NOI	-	Net Operating Income
NSBL	-	Nepal SBI Bank Limited
ROA	-	Return on Assets
ROE	-	Return on Equity
Rs.	-	Rupees
S.D.	-	Standard Deviation
SHE	-	Share Holders Equity
SME	-	Small and Medium Enterprise
SMS	-	Short Message Service
TD	-	Total Deposit
TU	-	Tribhuvan University
WACC	-	Weighted Average Cost of Capital

ABSTRACT

This study investigates the impact of capital structure on the profitability of Nepalese commercial banks, focusing on three major financial indicators: the total debt to total assets ratio (DAR), total debt to shareholders' equity ratio (DER), and non-performing loan ratio (NPLR). Profitability is evaluated using return on assets (ROA), return on equity (ROE), and net profit margin (NPM). The research is based on secondary data collected from selected commercial banks in Nepal over a specific time frame. Statistical techniques such as correlation and regression analysis are employed to determine the relationship between capital structure variables and profitability indicators. The findings reveal that DAR and DER have a negative association with ROA and NPM, indicating that higher reliance on debt reduces a bank's profitability and operational efficiency. While DER shows a weak or insignificant effect on ROE, NPLR demonstrates a strong negative relationship with all three profitability measures—ROA, ROE, and NPM—highlighting the adverse effects of poor credit quality. The study emphasizes the importance of maintaining a balanced capital structure and effective credit risk management to enhance overall financial performance. These insights are useful for bank executives, investors, and policymakers in formulating sound financial strategies to strengthen Nepal's banking sector.

Keywords: *Capital structure, total debt to total assets ratio, total debt to shareholders' equity ratio, on-performing loan ratio, return on assets, return on equity ,net profit margi*

CHAPTER I
INTRODUCTION

1.1 Background of the Study

A company's capital structure is the combination of debt and equity used to fund its operations and long-term growth. It is crucial in assessing a firm's financial health, risk profile, and operational efficiency—especially in the banking sector, where decisions about debt and equity proportions have a considerable impact on financial stability and profitability (Bhattarai, 2013).

In the context of Nepal, the importance of capital structure decisions in commercial banks has grown due to a rapidly evolving financial landscape, regulatory reforms by Nepal Rastra Bank (NRB), and intensifying market competition. Commercial banks in Nepal must not only comply with capital adequacy norms and statutory liquidity requirements but also optimize shareholder value and profitability. Thus, an effective capital structure supports lending capacity, expansion efforts, and sustainable financial performance.

Nepalese banks operate within a small but growing economy, playing a vital role in mobilizing public savings and directing them toward productive sectors. While constrained by prudential norms, banks strive to design capital structures that balance the cost of capital, manage financial risk, and support profitability (Dahal, 2014).

Despite the theoretical importance of capital structure in financial management, there is a notable lack of empirical research on its impact on the profitability of Nepalese commercial banks. International research yields varied results—some studies emphasize the benefits of leverage due to tax breaks, while others warn about the perils of excessive debt leading to financial collapse.

This study seeks to fill a research gap by examining the effect of capital structure on profitability metrics such as Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM). The study examines important capital structure indicators, such as the total debt to assets ratio (DAR), total debt to equity ratio (DER), and non-performing loan ratio (NPLR), to determine their impact on bank profitability.
The ideal capital structure maximizes shareholder rewards while minimizing risk. When debt and equity are adequately balanced, organizations can lower capital costs, increase firm value, and lessen the risk of financial failure (Koirala, 2014). However, a mismatched financial structure can expose businesses to increased risk and jeopardize long-term viability.

From a financial standpoint, capital structure reflects not only a company's funding options, but also its ability to meet shareholder responsibilities and respond to economic volatility. It includes many types of financing, such as debt, equity, and hybrid instruments (Saad 2010). Thus, capital structure decisions are one of the most important components of financial management since they have a direct impact on shareholder returns, risk exposure, and the firm's market value (Pandey, 2020).
To summarize, the capital structure decision is a critical component of financial strategy, particularly for commercial banks in Nepal. This study's findings can assist bank executives, regulators, and policymakers develop good ways to boost profitability and ensure the banking sector's long-term financial health.

1.2 Problem Statement

Capital structure decisions are among the most critical financial choices for any firm, particularly for banks, where the balance between debt and equity significantly influences financial performance and risk exposure. In the context of Nepalese commercial banks, identifying an optimal capital structure is especially complex due to regulatory constraints imposed by Nepal Rastra Bank (NRB), limited access to capital markets, macroeconomic instability, and intensifying market competition (Pradhan, 2004).

While the global literature contains substantial evidence on the relationship between capital structure and profitability, empirical research on Nepalese commercial banks is limited. Most existing studies in Nepal focus on general aspects of financial performance, with insufficient attention paid to how different capital structure components—such as the debt-to-equity and debt-to-asset ratios—affect profitability indicators such as Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM). Given the Nepalese banking sector's distinct characteristics—its regulatory rigor, limited market size, and developing economy status—context-specific analysis is critical. Bank managers frequently struggle to determine the optimal debt-equity mix that maximizes profitability while minimizing financial risk and regulatory compliance (Prashai, 2022).

The theoretical trade-offs between risk, return, and capital cost complicate capital structure decisions even more. The cost of capital theory highlights the need of balancing debt and equity to reduce financing costs and increase corporate value. Such judgments become much more difficult in unstable economic contexts like Nepal. Political volatility and slow economic growth in the country contribute to financial uncertainty and inconsistency in capital structuring across institutions.

Furthermore, many organizations do not provide adequate attention to capital structure planning. Some banks rely only on debt, others on equity, and a few employ a combination of the two. These disparate approaches, influenced by different cost-of-capital regulations, jeopardize optimal value development. The disproportionate capital structures observed in Nepalese banks indicate inefficiencies that could have a negative impact on profitability and financial sustainability.

As a result, there is an urgent need to research how capital structure decisions affect the profitability of commercial banks in Nepal. This study seeks to fill a research vacuum by providing empirical information to support strategic financial planning in the Nepalese banking industry.

This study seeks to solve the answer of following questions:

i. How do Nepalese commercial banks rank in terms of total debt to assets, total debt to shareholder equity, and non-performing loans?
ii. How do total debt to total assets, total debt to shareholder equity, and non-performing loan ratios affect ROA, ROE, and NPR?

iii. How do total debt to total assets, total debt to shareholder equity, and non-performing loan ratios affect commercial banks' ROA, ROE, and NPR?

1.3 Objectives of the Study

The main objective of this is to analyze the impact of capital structure profitability on commercial bank in Nepal. The other specific objectives of the study will be as follows:

i. Evaluate the impact of total debt to total assets, debt to shareholder equity, and non-performing loan ratios on ROA, ROE, and NPR.
ii. Analyze the impact of total debt to total assets ratio, total debt to shareholder equity ratio, and non-performing loan ratio on ROA, ROE, and NPR.
iii. Evaluate the impact of total debt to total assets ratio, total debt to shareholder equity ratio, and non-performing loan ratio on ROA, ROE, and NPR.

1.4 Hypothesis

H1: There is a strong positive correlation between the Debt to Assets Ratio (DAR) and Return on Assets (ROA).

H2: There is a strong positive correlation between the Debt to Equity Ratio (DER) and Return on Assets (ROA).

H3: There is a strong positive correlation between the Non-Performing Loan Ratio (NPLR) and Return on Assets.

H4: There is a strong positive correlation between the Debt to Assets Ratio (DAR) and Return on Equity (ROE).

H5: There is a strong positive correlation between the Debt to Equity Ratio (DER) and Return on Equity (ROE).

H6: There is a strong positive association between Non-Performing Loan Ratio (NPLR) and Return on Equity (ROE).

H7: There is a strong positive correlation between the Debt to Assets Ratio (DAR) and Net Profit Margin (NPM).

H8: There is a strong positive correlation between the Debt to Equity Ratio (DER) and Net Profit Margin (NPM).

H9: The Non-Performing Loan Ratio (NPLR) has a considerable positive association with the Net Profit Margin (NPM).

1.4 Significances of the study

This study holds considerable significance for various stakeholders within the banking and financial ecosystem of Nepal:

The findings will help commercial bank executives better understand how different capital structure components—such as debt-to-equity and debt-to-assets ratios—affect profitability. These insights will support strategic financial planning and aid in designing an optimal mix of debt and equity to enhance performance, ensure financial stability, and comply with regulatory requirements.

The study will provide empirical information on the relationship between capital structure and profitability, allowing regulatory bodies to develop more effective rules regarding capital adequacy, leverage restrictions, and risk management. These findings can help to improve the stability and efficiency of the financial sector.

The study will shed light on Nepalese commercial banks' financial health and capital management methods. Understanding how capital structure affects profitability can help investors better assess risk-return trade-offs and make sound investment decisions.

This study will contribute to the limited body of empirical research on capital structure and profitability in the context of Nepal, a developing economy. It can serve as a useful reference for future researchers and help bridge the existing knowledge gap in financial management studies.

The study will highlight sector-wide trends in capital structure and profitability, enabling benchmarking across institutions. Banks can use the findings to align their capital policies with best-performing peers and formulate strategies to sustain profitability in a dynamic economic environment.

Students and scholars in finance, banking, and economics will benefit from this research by gaining practical insights into how capital structure decisions impact firm performance. It serves as a relevant case study for understanding financial management principles in the context of a regulated banking industry within a developing country.

1.5 Limitations of the study

This study has some limitations which were following:

i) Because this study relies on secondary data, its dependability depends on how accurate the data submitted by the relevant banks is.
ii) The data from 2015/16 to 2023/24 of particular commercial banks may not be enough for proper analysis and fact-finding because it has only been used for results and key conclusions.
iii) The sample validity may not be adequate because only 5 sampled banks out of twenty listed commercial banks in Nepal have been used to examine the capital structure of commercial banks.
iv) Because the sampled banks are located inside Nepal's borders, the study's main conclusions and findings might not apply to foreign commercial banks.

CHAPTER II

LITERATURE REVIEW

This phase of the study includes a review of the available literature. A literature study primarily examines earlier studies, theses, and other newspaper and magazine articles on the subject. Because they serve as the foundation for our analysis, the previous research cannot be ignored. Numerous published and unpublished data and materials are accessible from numerous sources, and the relevant publications have been evaluated. Every study requires a literature review. It is a way to learn about previous research in our subject.

2.1Conceptual Review

Capital structure refers to a company's specific mix of debt and equity utilized to fund its operations and growth. The option to use debt or equity financing has a substantial impact on a company's risk exposure, cost of capital, and profitability. Capital structure is very important in commercial banks in Nepal due to legal limits, financial risks, and a dynamic macroeconomic environment.
Profitability, on the other hand, refers to a bank's capacity to create profits relative to its spending and operational costs. Return on Assets (ROA), Return on Equity (ROE), and Net Profit Ratio (NPR) are common profitability indicators used as essential performance metrics.

2.1 Capital Structure

The capital structure of a corporation illustrates how it finances its entire operations and growth using diverse sources, such as long-term and short-term debt, common and preferred equity, and retained earnings. It has a direct impact on a firm's financial stability, cost of capital, and value.

2.1.1 Importance of Capital Structure

Capital structure decisions are some of the most essential financial decisions a company takes. The goal is to discover the optimal debt-equity combination that reduces the Weighted Average Cost of Capital (WACC) while increasing shareholder wealth.
Cost of financing: Debt is typically less expensive due to tax breaks on interest payments, but excessive reliance raises financial risk.
Risk-Return Trade-Off: While leverage can boost profits, it also raises the danger of financial trouble and bankruptcy.

Flexibility: A strong equity base provides financial flexibility, enabling firms to better

withstand economic downturns and capitalize on development opportunities (Bhattarai, 2013).

In the banking sector, capital structure holds particular significance. Banks primarily finance their assets through deposits (a form of debt) and shareholders' equity, and are subject to regulatory capital requirements set by institutions such as Nepal Rastra Bank (NRB). Adhering to capital adequacy norms is crucial for ensuring stability, maintaining public trust, and complying with global frameworks like the Basel Accords.

Key theories that guide capital structure decisions include:

- **Modigliani and Miller Theorem (Irrelevance Hypothesis)**
- **Trade-Off Theory** – weighing tax benefits of debt against bankruptcy risks
- **Pecking Order Theory** – prioritizing internal financing over external sources

These theories help explain strategic financial behavior, particularly for banks operating under regulatory oversight and risk constraints.

2.1.1 Key Capital Structure Indicators

2.1.1.1 Total Debt to Total Assets Ratio (DAR)
DAR indicates the proportion of a company's total assets financed by debt. It reflects financial leverage and associated risk levels. A high DAR implies greater reliance on borrowed funds, which may elevate financial risk during economic instability, whereas a low DAR indicates higher use of equity (Booth et al., 2002). In banking, a high DAR may signal potential solvency challenges in stress scenarios.

2.1.1.2 Total Debt to Shareholders' Equity Ratio (DER)
DER measures the extent to which a firm is financed through debt relative to shareholders' equity. A high DER suggests aggressive leverage, which can magnify returns in favorable conditions but also increases financial vulnerability. A lower DER reflects conservative capital management and reduced risk exposure (Brealey & Myers, 2002). For banks, this ratio is critical in assessing financial soundness.

2.1.1.3 Weighted Average Cost of Capital (WACC)
WACC represents the average rate a firm must pay to finance its assets, weighted by the proportion of debt and equity in the capital structure. It serves as a benchmark for investment evaluation—projects generating returns above the WACC create value. A lower WACC indicates lower financing costs and improved firm valuation. In the banking sector, WACC plays a central role in guiding strategic decisions and performance evaluation.

2.1.1.4 Non-Performing Loan Ratio (NPLR)
NPLR is a key risk metric indicating the share of loans that are in default or close to

being so. A higher NPLR suggests deteriorating credit quality, necessitating higher provisions and potentially eroding profitability and capital adequacy. A lower NPLR implies strong credit risk management and healthier asset portfolios (Brahman & Jain, 2001). Managing NPLR is vital for sustaining operational soundness and investor confidence.

2.1.2 Profitability

Profitability is a primary indicator of financial health and operational efficiency. It signifies a firm's ability to generate returns relative to its costs and plays a crucial role in long-term sustainability, reinvestment capacity, and shareholder wealth creation. For banks, strong profitability enhances resilience against economic shocks and supports compliance with regulatory capital requirements (Cornell & Shapiro, 2024).

2.1.2.1 Return on Equity (ROE)

ROE reflects the return generated on shareholders' equity. It measures how efficiently a bank utilizes its equity base to produce profits. Higher ROE indicates effective capital use and greater value creation for shareholders, making it a preferred measure for investors and regulators.

2.1.2.2 Net Profit Ratio (NPR)

NPR indicates the percentage of revenue retained as net profit after all operating expenses, interest, and taxes. It provides insights into cost efficiency and pricing strategy. A higher NPR denotes better control over costs and stronger financial performance—particularly important in a competitive banking environment.

2.1.2.3 Return on Assets (ROA)

ROA evaluates how efficiently a bank uses its total assets to generate net income. It is a comprehensive measure of operational effectiveness, covering loans, investments, and other financial activities. A high ROA signals better asset utilization and robust performance, aiding compliance and stability (Ghimire & Sapkota, 2024).

2.2 Theoretical Review

Understanding the relationship between capital structure and profitability requires a solid theoretical foundation. Several financial theories offer frameworks for evaluating how banks determine their capital mix and how such decisions impact financial performance.

2.2.1 Modigliani and Miller (M&M) Theory

In their seminal work (1958), Modigliani and Miller argue that under ideal conditions—

no taxes, transaction costs, or bankruptcy risk—capital structure does not affect firm value. However, their revised model (1963) acknowledges the tax benefits of debt, suggesting that interest deductibility enhances firm value. Thus, up to a point, more debt can increase profitability through tax shields.

2.2.2 Trade-Off Theory

This theory posits that firms aim to achieve an optimal capital structure by balancing the tax advantages of debt with potential bankruptcy and agency costs. For banks, this implies using leverage to enhance profitability without overexposing themselves to financial risk.

2.2.3 Pecking Order Theory

According to Myers and Majluf (1984), firms prefer internal financing due to asymmetric information and issuance costs. Profitable firms are more likely to finance operations internally, which may result in lower debt levels. This implies an inverse relationship between profitability and leverage for well-performing banks.

2.2.4 Agency Theory

Proposed by Jensen and Meckling (1976), Agency Theory addresses conflicts between shareholders and managers. Debt can serve as a monitoring tool to discipline managerial behavior by limiting discretionary cash flows. However, excessive debt may lead to agency problems between shareholders and creditors. A balanced structure mitigates these conflicts and enhances performance.

2.2.5 Signaling Theory

Capital structure choices can act as signals to external stakeholders. Raising debt may indicate managerial confidence in future cash flows, whereas issuing equity might suggest potential overvaluation or internal financial concerns. In banking, moderate leverage may improve investor perception, while high debt levels could raise red flags about stability.

2.2.6 Static vs. Dynamic Trade-Off Theories

The **Static Trade-Off Theory** assumes firms target a fixed optimal capital structure. In contrast, the **Dynamic Trade-Off Theory** considers ongoing adjustments in response to changes in profitability, market conditions, and regulatory pressures. For banks in evolving financial environments such as Nepal, dynamic capital structure management may more accurately reflect their strategic behavior.

2.3 Empirical Review

Numerous empirical studies have examined the relationship between capital structure and profitability in the context of Nepalese firms, particularly in the banking and manufacturing sectors. These studies have explored various financial indicators, debt-

equity ratios, and performance metrics to determine how capital structure decisions influence firm performance. The key findings are summarized below:

Pathak (2010) analyzed the debt-equity ratio, interest coverage ratio, and other financial indicators to evaluate capital structure policy. The study revealed a consistently rising debt-equity ratio, indicating increasing financial risk. Poor debt servicing capacity was attributed to negative interest coverage, operational inefficiency, and underutilization of production capacity (below 50%). Recommendations included issuing more equity shares, improving working capital management, reducing excess staff, and enhancing strategic planning.

Shrestha (2011) evaluated debt servicing capacity, return on equity, debt ratio, EBIT, and earnings per share. The study found that manufacturing firms bore higher financial risk and paid lower dividends despite enjoying higher returns during debt usage. Both manufacturing and trading companies faced losses due to inadequate profit margins and weak interest and dividend coverage. Shrestha recommended regular monitoring of financial indicators by regulatory authorities.

Prashai (2012) focused on the trends and relationships among capital and asset components using ratio analysis and Pearson's correlation. The study observed that while total assets and capital were growing, their growth rates differed significantly. The rapid increase in deposits and liabilities compared to net profit and expenses indicated ineffective financial control. Only 40.64% of total income was realized as net profit. Recommendations included better control over deposits, investments, and expenses.

Kafle (2013) conducted a comparative study of Birgunj and Lumbini Sugar Factories, identifying defective capital structures in both. Birgunj Sugar Factory had a high debt-equity ratio indicating excessive financial risk, while Lumbini Sugar Factory had a low ratio, reflecting higher equity reliance. Both firms were unable to service debt due to ongoing losses, highlighting financial distress stemming from inappropriate capital structures.

Neupane (2014) explored the interrelations among debt-equity and deposit/investment ratios. The findings indicated that net worth was being directed toward unproductive

assets, and there was no significant relationship between deposits and investments. The study recommended improving the productive deployment of net worth to enhance financial performance.

Poudyal (2015) developed a hypothetical firm model and discovered that firm value and share price reached a minimum at a 30% debt ratio. The optimal capital structure was found between 30%–40% debt, offering a balance between shareholder returns and financial stability.

Shrestha (2016) examined public enterprises (PEs) and found a lack of coherent capital structure planning. Capital structures were unclear and poorly managed. The study recommended maintaining a balanced debt-equity ratio—not too high to avoid financial burden, and not too low to avoid inefficiencies.

Shah (2017) used ratio analysis, correlation, and regression to study capital structure in selected firms. Nepal Lever Ltd. and Bottlers Nepal Ltd. had low long-term debt due to strong cash flows, while Sriram Spinning Mills had high debt (66.33% of assets), limiting operational flexibility. Jyoti Spinning Mills failed to achieve target profits due to leverage issues. Arun Vanaspati Udhyog exhibited unstable capital structure trends.

Eriotis et al. (2018) studied firm-level data and found a significant negative relationship between the debt-to-equity ratio and profitability. The study emphasized that maintaining appropriate debt levels is essential to sustain profitability across industries.

Shrestha (2019) analyzed capital structure in 19 public companies and observed high debt levels compared to equity. Many firms were incurring losses even after covering interest expenses. The study recommended government intervention to establish capital structure guidelines and promote a better balance between debt and returns.

Madhav (2020) explored capital structure management in Nepalese joint venture banks (JVBs). The findings showed that these banks lacked awareness and application of capital structure theories. JVBs prioritized large industry clients and cash dividends over rural banking and long-term profitability. Recommendations included improved deposit mobilization and enhanced awareness of capital structure practices.

Prashai (2021) revisited the capital structure of Nepalese banks, analyzing the relationships between capital and asset components. The study called for adjustments in capital structure to achieve optimal financial performance and risk management.

Adhikari (2022) employed ratio analysis and regression models to examine the impact of capital structure on firm value. Findings showed that higher leverage was associated with a lower overall cost of capital but a decline in firm value for manufacturing companies. Significant relationships were observed among capital structure, firm size, and dividend payout policies.

Raheman et al. (2022), focusing on firms listed on the Islamabad Stock Exchange, found a negative correlation between long-term debt and profitability. The study linked reduced profitability to the higher fixed cost of debt servicing and interest obligations.

Bajracharya (2023) analyzed capital structure ratios of Nepalese commercial banks and their relationships with earnings per share, dividends, and net worth. The study found that Bank of Kathmandu had stronger owner claims compared to creditors, while Himalayan Bank and Nepal Investment Bank exhibited varying capital structures. Interest coverage ratios varied, with Nepal Investment Bank demonstrating the highest returns. However, the correlation between long-term debt and earnings per share was negative but statistically insignificant.

2.3 Research Gap

Despite extensive research on the relationship between capital structure and financial performance, a definitive consensus remains elusive. The central debate revolves around the existence of an optimal capital structure—whether firms can achieve a specific debt-equity mix that maximizes their financial performance. While some studies support the notion of an optimal structure, suggesting a balance between the benefits (such as tax shields) and the costs (such as financial distress), others argue that firm value is unaffected by capital structure decisions, especially under ideal market conditions.

Existing literature has primarily focused on either broad cross-industry analyses or developed economies, often overlooking the context of emerging economies like Nepal. Moreover, limited empirical studies have explored how capital structure decisions impact

the financial performance of commercial banks in Nepal. This lack of contextualized research leaves a significant gap in understanding the relevance and applicability of capital structure theories in Nepal's regulated and evolving banking environment.

The present study seeks to contribute to this ongoing debate by empirically examining the capital structure decisions of two prominent Nepalese commercial banks. By employing a combination of financial ratio analysis and statistical tools—including correlation analysis, descriptive statistics, and regression models—this research aims to:

Analyze the relationship between capital structure variables (e.g., debt-to-equity ratio, interest coverage ratio) and financial performance indicators (e.g., return on equity, return on assets).

Assess the strength and direction of associations among these variables using correlation analysis.

Evaluate the consistency and variability of financial indicators over time through descriptive statistics.

Identify the most significant determinants of financial performance through regression analysis.

By adopting this mixed-method analytical framework, the study intends to offer empirical insights into how capital structure decisions influence financial outcomes in the banking sector of Nepal. It fills the existing research gap by addressing the contextual dynamics of Nepalese banks and adds value to the theoretical discourse on capital structure and firm performance.

CHAPTER III

RESEARCH METHODOLOGY

The goals of the study and the type of data needed have an impact on the research approach selection. The positivist worldview, which holds that reality is objective and amenable to measurement by empirical observation and statistical methods, is the foundation of this study's quantitative methodology. The study uses secondary data from stock market records and business financial reports to examine the relationship between financial performance metrics and stock price changes.

3.1 Research Design

This study employed a descriptive and causal-comparative research approach. Both quantitative and qualitative data from the chosen field are methodically obtained, evaluated, and interpreted utilizing the descriptive design. The research focuses on examining key financial metrics—the debt-to-assets ratio, return on assets (ROA), current ratio, and total assets turnover ratio—in the context of investment assessment in Nepalese commercial banks in order to meet the study's objectives. To support the analysis, the study looks at the corpus of recent literature, which includes books, journals, academic papers, and annual reports.

3.2 Population and Sample

There are currently 20 commercial banks in operation in Nepal, which together make up the study's population. Of these, 50 observations from a sample of 5 commercial banks have been chosen for in-depth examination. Nepal SBI Bank Limited, Everest Bank Limited, Himalayan Bank Limited, NMB Bank Limited, and NABIL Bank Limited are the chosen banks. These banks were selected on the basis of two primary factors: their substantial presence and impact in the banking industry in Nepal, as well as the availability of pertinent financial data. Their inclusion guarantees that, for the purposes of this study, the sample fairly represents the larger population of commercial banks in Nepal.

3.3 Nature and Source of Data

This study is based on the secondary data. Depending on the particular elements of capital structure you're looking at, the type and source of data for your research study on

Nepal SBI Bank Limited, Everest Bank Limited, Himalayan Bank Limited, NMB Bank Limited, and NABIL Bank Limited capital structure may change. An outline of the types of data and their possible sources is shown below: Financial information is essential for researching banks' capital structures. Financial ratios, cash flow statements, income statements, and balance sheets can all be examples of this. You can evaluate the capital composition with the use of financial data, including the quantity of stock and different types of debt (both short- and long-term). Non-financial data, like market conditions, company governance procedures, and information on regulatory compliance, could also be necessary. These elements may have an impact on a bank's capital structure choices.

The banks' own annual reports are excellent resources for both financial and non-financial information. Detailed financial statements, management comments and analyses, and financial statement notes are usually included in these reports. Certain financial and regulatory data may be required to be reported by banks to your nation's central bank and regulatory bodies. This information can provide light on a bank's regulatory compliance and capital sufficiency.

3.4 Sampling Design

Convenience sampling, sometimes referred to as availability sampling, is a special kind of non-probability sampling technique that depends on gathering data from population members who are easily accessible to take part in the study. For this reason, it was used in this particular investigation. Regarding the use of data for this investigation, the relevant papers and studies have only been taken into consideration for this specific study due to the availability of data for the sampled banks and for convenience.

3.5 Instruments of Data Collection

Secondary data are gathered from various banks' balance sheets, profit and loss accounts, Nepal stock exchange reports, security board reports, annual reports, and so on. A systematic procedure was used to acquire the essential information and data for the current analysis, which is described below.

i) Data and information were collected using a personal approach.
ii) Data collection involves identifying relevant organizations and authorities.

iii) Data nature was determined based on indicated needs.
iv) Analysis was conducted based on the information and data provided.

3.6Methods of Analysis (Statistical and Financial Tools)

Data gathered from several sources will be provided in the form of tables and trend analyses based on the study's requirements for efficacy. The analysis's outcome will be interpreted in a way that accurately reflects the study's findings. At the conclusion of the study, the appendices will contain the individual's bank data details as well as other pertinent information.

Statistical Tools

For the purposes of this study, mostly financial methodologies are employed, along with suitable statistical tools. A financial tool for calculating the percentage and ratio relationships between two financial variables. Leverage analysis and ratio analysis are examples of financial tools. Correlation analysis is another statistical tool.

3.5.1.1 Descriptive Statistical Tools

Descriptive statistical approaches make it easier to determine the trend of the sample banks' financial status. It also looks at the relationships between aspects and helps banks make the best decisions to meet their goals. Variance, standard deviation, and mean (arithmetic) are examples of descriptive analytical tools used in this study.

i) Mean

A given set of observations' arithmetic mean is calculated by dividing its sum by its total number of observations. Generally, if N observations are supplied by X1, X2,... Xn, then their arithmetic mean, represented by,

$$\overline{X} = \frac{x_1 + x_2 + ... + x_n}{N} = \frac{\sum x}{N}$$

Where,

$\sum X$ = Sum of the observations, and

N = Number of Years

ii) Standard Deviation

The standard deviation is the square root of the sum of the squares of the deviations from the mean. After establishing the arithmetic average, the standard deviation is derived by squaring the deviation of each item from it. After adding all of the squared deviations, divide the total by the number of elements. The square root of the resulting value represents the series' standard deviation (Elhance & Agarwal, 2000). The Greek letter sigma is commonly used to signify standard deviations. The standard deviation of a collection of N observations, X1, X2,..., Xn, can be calculated using

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

$\sum (X - \bar{X})$ = Sum of the squares of the deviations measured from mean N = Number of Observations.

iii) Coefficient of Variation (C.V.)

$$C.V. = \frac{\sigma}{\bar{X}} \times 100\%$$

3.5.1.2 Inferential Statistical Tools

i) Coefficient of Correlation

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

ii) Regression Analysis

.

The Regression Model,

$$ROA_{it} = \alpha_0 + \alpha_1 DAR_{it} + \alpha_2 DER_{it} + \alpha_3 NPLR_{it} + \varepsilon_{it}$$

$$ROE_{it} = {}_0 + \alpha_1 DAR_{it} + \alpha_2 DER_{it} + \alpha_3 NPLR_{it} + \varepsilon_{it}$$

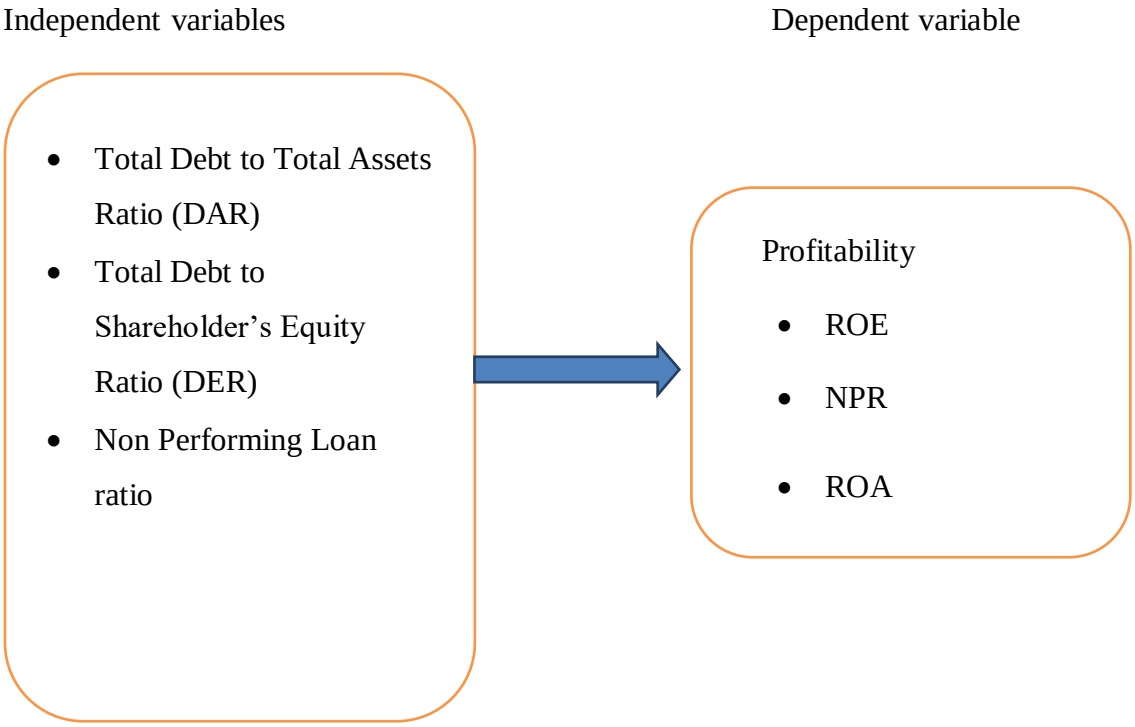
$$NPR_{it} = {}_0 + \alpha_1 DAR_{it} + \alpha_2 DER_{it} + \alpha_3 NPLR_{it} + \varepsilon_{it}$$

Where,

α_0	=	Constant Value
$\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5$	=	Coefficient of Independent Variables
ROA_{it}	=	Return on Assets Ratio during the period t,
ROE_{it}	=	Return on Equity during the period t,

NPR_{it}	=	Net Profit Margin t,
DAR_{it}	=	Total Debt to Total Assets Ratio t,
DER_{it}	=	Total Debt to Shareholder's Equity Ratio t,
ε_{it}	=	Error Terms during the period t

3.7 Conceptual framework



Source: Bugri (2016)

CHAPTER IV

RESULTS AND DISCUSSION

4.1Introduction

Presentation refers to the basic organization and classification of data for analysis. After data collection is completed, the data will be in its raw state. The information will continue to be stored using note cards, data gathering forms, and rough estimates. Data analysis entails organizing, tabulating, conducting statistical analysis, and reaching conclusions. This chapter focuses on presenting and analyzing the acquired data. When NEPSE divided its listed companies into eight groups, samples were collected based on industry sectors. This chapter's study is divided into the following sections, all of which are directly or indirectly related to capital structure.

Table 1

Return on Equity (ROE)

(In percent)

Year	NABIL	SBI	HBL	EBL	NMB
2014/15	33.17	20.29	17.81	26.38	16.20
2015/16	30.36	20.35	15.76	26.28	15.29
2016/17	22.07	18.86	24.67	21.69	17.22
2017/18	24.31	19.25	33.10	17.17	20.66
2018/19	25.63	14.78	26.84	11.99	15.56
2019/20	19.34	15.81	13.27	15.73	15.40
2020/21	18.28	16.20	17.28	16.31	16.41
2021/22	13.39	10.44	14.71	13.16	10.97
2022/23	13.37	6.25	14.90	8.62	13.65
2023/24	8.03	9.57	10.76	12.46	10.32
Mean	20.80	15.18	18.91	16.98	15.17
SD	7.91	4.92	7.02	6.04	2.99
CV	38.04	32.44	37.11	35.60	19.73

(Source: Annul Report of sample banks 2014/15 to 2023/24)

This section provides a comprehensive interpretation (insight) of ROE data for five major commercial banks in Nepal: NABIL, SBI, HBL, EBL, and NMB, covering 10 fiscal years. ROE measures how effectively a bank generates profit using shareholders' equity.

NABIL shows strong profit generation capability over the years, especially in early years (2014/15–2016/17). However, its high coefficient of variation (CV) suggests less consistency, indicating periods of both high and low returns. Recent years (2021/22–2023/24) show a notable decline, highlighting potential challenges in maintaining profitability. SBI shows moderate and somewhat stable ROE performance. While it had relatively strong returns in the early years, the ROE gradually decreased, hitting its lowest at 6.25% in 2022/23, suggesting profitability pressure and possible operational inefficiencies or market challenges in recent years. HBL delivered strong ROE in 2017/18 (33.10%) — the highest in the entire dataset — reflecting periods of aggressive profitability. However, wide fluctuations and a downward trend post-2018/19 indicate profitability instability, suggesting vulnerability to economic or managerial changes.

EBL started with high ROE (above 26%) but experienced a steep decline from 2016/17 onwards, reaching a low of 8.62% in 2022/23. Despite a slight rebound in 2023/24, the bank reflects decreasing profitability and above-average risk, highlighting potential structural or operational issues. Though its average ROE is lower than peers, NMB exhibits the most consistent performance. The low CV indicates stable profitability, making it relatively reliable from a long-term investment perspective. Its ability to maintain consistent ROE despite sector-wide fluctuations is a positive indicator of financial discipline and resilience.

Table 2

Net Profit Ratio (NPR)

(In percent)

Year	NABIL	SBI	HBL	EBL	NMB
2014/15	5.48	3.38	5.17	4.12	3.50
2015/16	5.03	3.45	4.54	7.09	2.94
2016/17	3.97	3.85	4.35	5.27	3.42
2017/18	3.74	4.00	4.59	4.64	3.34
2018/19	4.32	3.68	4.44	5.01	3.45
2019/20	4.48	4.99	4.70	5.06	4.23
2020/21	4.19	4.43	4.47	4.45	4.32
2021/22	3.51	3.87	3.77	3.63	4.22
2022/23	3.31	3.18	3.32	3.88	4.14
2023/24	2.75	4.36	4.02	4.23	4.37
Mean	4.08	3.92	4.34	4.74	3.79
SD	0.81	0.55	0.52	0.98	0.51
CV	19.87	14.05	11.95	20.74	13.56

(Source: Annul Report of sample banks 2014/15 to 2023/24)

The Net Profit Ratio (NPR) indicates the efficiency with which a bank converts its total revenue into net profit. A higher NPR means better profitability and cost management. NABIL Bank Mean NPR: 4.08% Standard Deviation (SD): 0.81 Coefficient of Variation (CV): 19.87% NABIL Bank maintains a relatively high average profitability, although not the highest. However, the CV of nearly 20% shows moderate fluctuations. The declining trend from 2014/15 (5.48%) to 2023/24 (2.75%) reflects shrinking margins, possibly due to rising costs or reduced interest income. SBI Bank Mean NPR: 3.92% SD: 0.55, CV: 14.05% SBI Bank displays stable profitability over time. Despite having a slightly lower mean NPR than NABIL or EBL, its lower CV reflects better consistency and control over costs. Notably, SBI shows resilience in 2023/24 (4.36%) — one of its best years. Himalayan Bank Limited (HBL) Mean NPR: 4.34% SD: 0.52, CV: 11.95%

HBL is the most consistent performer with the lowest CV (11.95%), suggesting steady profit margins over the decade. Its NPR remained fairly stable across the years, making it a financially disciplined and efficient bank in terms of profitability. Everest Bank Limited (EBL) Mean NPR: 4.74% *(*highest among all banks*)* SD: 0.98, CV: 20.74% EBL leads in average NPR, indicating top-notch profit generation capacity. However, the highest CV reveals significant variability, especially in years like 2015/16 (7.09%) versus 2021/22

(3.63%). The sharp swings could signal changes in income structure or cost inefficiencies. NMB Bank Mean NPR: 3.79% SD: 0.51, CV: 13.56% NMB shows slightly lower average NPR, but with a low CV, it reflects strong cost and profit management. Its improving trend (from 2.94% in 2015/16 to 4.37% in 2023/24) is a positive indicator of sustainable profitability.

Table 3

Return on Assets (ROA)

Year	NABIL	SBI	HBL	EBL	NMB
2014/15	3.03	1.19	1.54	2.67	1.47
2015/16	2.66	1.51	1.30	2.51	1.45
2016/17	1.81	1.80	1.34	1.99	1.63
2017/18	2.21	1.70	1.94	1.98	2.05
2018/19	2.57	1.54	2.03	1.84	1.89
2019/20	2.36	1.97	1.61	2.64	1.82
2020/21	2.11	1.94	2.08	2.61	2.15
2021/22	1.46	1.17	1.66	1.71	1.48
2022/23	1.56	0.70	1.68	1.22	1.72
2023/24	1.01	1.07	1.09	1.83	1.32
Mean	2.08	1.46	1.63	2.10	1.70
SD	0.62	0.42	0.32	0.49	0.28
CV	29.81	28.57	19.88	23.23	16.20

(Source: Annul Report of sample banks 2014/15 to 2023/24)

Return on Assets (ROA) measures a bank's efficiency in using its assets to generate net income. A higher ROA reflects better profitability relative to total assets. NABIL Bank Mean ROA: 2.08% Standard Deviation (SD): 0.62 Coefficient of Variation (CV): 29.81%

NABIL has a strong ROA average, close to Everest Bank, indicating solid asset profitability. However, its high CV reflects significant year-to-year fluctuations, especially the sharp decline to 1.01% in 2023/24 from earlier highs around 3%. This could imply asset utilization issues in recent years. SBI Bank Mean ROA: 1.46%

SD: 0.42, CV: 28.57% SBI Bank has the lowest mean ROA among all banks, though still within acceptable ranges for banking operations. The CV is high, indicating unstable returns, especially the major drop to 0.70% in 2022/23 before slightly recovering in 2023/24.

Himalayan Bank Limited (HBL) Mean ROA: 1.63% SD: 0.32, CV: 19.88%HBL offers a moderate average ROA with low volatility, making it one of the more stable performers. Despite lower highs, its ROA values have remained remarkably steady over the 10-year span, showing good control over asset efficiency. Everest Bank Limited (EBL) Mean ROA: 2.10% SD: 0.49, CV: 23.23% EBL leads in ROA, confirming its efficient use of assets. While CV is moderate, the drop in 2022/23 (1.22%) reflects a temporary disruption. However, a strong recovery to 1.83% in 2023/24 suggests resilience. NMB Bank Mean ROA: 1.70% SD: 0.28, CV: 16.20% *(lowest CV)* NMB maintains impressive stability, with the lowest variation in ROA. Though its average is not the highest, its consistent year-to-year performance indicates efficient and reliable asset management.

Table 4

Non-performing Loan Ratio (NPLR)

(In percent)

Year	NABIL	SBI	HBL	EBL	NMB
2014/15	2.19	0.38	2.99	0.78	2.28
2015/16	2.30	0.26	2.01	0.49	2.49
2016/17	1.86	0.19	3.34	0.34	1.88
2017/18	1.17	0.14	1.26	0.33	1.26
2018/19	0.81	0.10	0.87	0.20	0.89
2019/20	0.54	0.20	1.41	0.18	0.86
2020/21	0.74	0.20	1.13	0.15	1.17
2021/22	0.99	0.23	1.02	0.44	1.49
2022/23	0.83	0.23	0.48	0.97	1.00
2023/24	1.62	0.15	1.61	0.59	1.78
Mean	1.30	0.21	1.61	0.45	1.51
SD	0.64	0.08	0.92	0.27	0.58
CV	48.96	36.78	57.09	59.96	38.29

(Source: Annul Report of sample banks 2014/15 to 2023/24)

Non-performing Loan Ratio (NPLR) indicates the percentage of loans that are in default or close to being in default. A lower NPLR reflects better asset quality and credit risk management. NABIL Bank Mean NPLR: 1.30% Standard Deviation (SD): 0.64

Coefficient of Variation (CV): 48.96% NABIL maintained a moderate average NPLR but had considerable fluctuation. After declining to a low of 0.54% in 2019/20, it rose again to 1.62% in 2023/24, suggesting rising credit risk in recent years.

SBI Bank Mean NPLR: 0.21% *(lowest among all)* SD: 0.08, CV: 36.78% SBI Bank demonstrates exceptional credit discipline with the lowest NPLR average. Despite a small increase in 2023/24, it consistently maintained very low levels of bad loans, which signals strong loan quality and risk management. Himalayan Bank Limited (HBL)

Mean NPLR: 1.61% SD: 0.92, CV: 57.09% HBL has the highest average NPLR and greatest variability among the banks. Fluctuations from 3.34% (2016/17) to 0.48% (2022/23) and back to 1.61% indicate inconsistent loan portfolio quality, potentially leading to higher provisioning and reduced profitability. Everest Bank Limited (EBL) Mean NPLR: 0.45% SD: 0.27, CV: 59.96% *(highest CV)* EBL has one of the lowest average NPLRs, reflecting excellent credit control. However, the high CV shows that despite low values, its ratio has been less consistent, jumping from 0.15% (2020/21) to 0.97% (2022/23). NMB Bank Mean NPLR: 1.51% SD: 0.58, CV: 38.29% NMB has a moderately high NPLR, slightly higher than NABIL, with moderate fluctuations. Although it improved during mid-periods, the rise to 1.78% in 2023/24 is a concern.

Table 5

Debt Assets Ratio (DAR)

(In percent)

Year	NABIL	SBI	HBL	EBL	NMB
2014/15	72.90	48.86	74.85	57.84	73.71
2015/16	72.55	64.74	70.07	56.11	79.61
2016/17	62.84	77.44	72.72	48.32	79.54
2017/18	69.02	72.03	77.57	56.17	83.31
2018/19	75.59	77.27	82.25	61.47	87.63
2019/20	83.56	86.50	86.38	69.29	86.06
2020/21	81.25	88.46	86.19	72.97	87.60
2021/22	79.72	84.08	80.94	57.36	88.26
2022/23	90.63	90.39	88.43	74.46	88.33
2023/24	94.23	89.05	90.37	87.71	92.44
Mean	78.23	77.88	80.98	64.17	84.65
SD	9.66	13.15	6.98	11.73	5.57
CV	12.34	16.88	8.61	18.27	6.59

(Source: Annul Report of sample banks 2014/15 to 2023/24)

Debt to Assets Ratio (DAR) shows the proportion of a bank's assets that are financed through debt (mainly deposits and borrowings). A higher DAR indicates greater financial leverage or reliance on debt. NABIL Bank Mean DAR: 78.23% Standard Deviation (SD): 9.66 Coefficient of Variation (CV): 12.34% NABIL maintained a moderate DAR across the years, gradually increasing from 72.90% (2014/15) to a peak of 94.23% (2023/24). This shows a growing reliance on debt financing, which may increase financial risk but also reflects expanding operations. SBI Bank Mean DAR: 77.88% SD: 13.15, CV: 16.88% SBI showed a highly fluctuating DAR, ranging from 48.86% to 90.39%. Although the current ratio is high, such variability may suggest inconsistent capital structure management or periodic shifts in deposit mobilization strategies. Himalayan Bank Limited (HBL) Mean DAR: 80.98% SD: 6.98, CV: 8.61% HBL maintained a consistently high and stable DAR, increasing steadily over time. The lowest CV indicates strong stability in financial structure, with a clear preference for leveraging debt to finance asset growth. Everest Bank Limited (EBL) Mean DAR: 64.17% SD: 11.73, CV: 18.27% *(highest CV)* EBL maintained a low average DAR, indicating more conservative leverage. However, the high variability, particularly the recent spike to 87.71% (2023/24) from lows like 48.32% (2016/17), may signal strategic shifts or external pressures. NMB Bank Mean DAR: 84.65% *(highest among all)* SD: 5.57, CV: 6.59% *(lowest CV)* NMB shows the highest and most stable leverage, consistently above 79%, peaking at 92.44%. The low variability and high ratio imply strong confidence in debt financing, although it increases solvency risk if asset returns decline.

Table 6

Debt Equity Ratio (DER)

Year	NABIL	SBI	HBL	EBL	NMB
2014/15	4.86	4.81	4.79	4.66	4.51
2015/16	4.94	4.79	4.87	4.73	4.58
2016/17	5.06	4.77	4.92	4.81	4.66
2017/18	5.10	4.89	5.00	4.81	4.74
2018/19	5.15	5.00	5.03	4.89	4.89
2019/20	5.23	5.01	5.07	4.92	4.98
2020/21	5.30	5.07	5.12	4.97	5.01
2021/22	5.38	5.12	5.19	5.07	5.18

2022/23	5.46	5.14	5.25	5.06	5.28
2023/24	5.62	5.18	5.34	5.09	5.32
Mean	5.21	4.98	5.06	4.90	4.92
SD	0.24	0.15	0.17	0.16	0.29
CV	4.52	3.09	3.43	3.03	5.90

(Source: Annul Report of sample banks 2014/15 to 2023/24)

The Debt-Equity Ratio (DER) reflects the proportion of a bank's financing that comes from debt relative to shareholders' equity.A higher DER means the bank is using more debt for its operations, indicating higher financial leverage. A lower DER means a more conservative capital structure. NABIL Bank Mean DER: 5.*21* (highest among the five banks*)* Standard Deviation (SD): 0.24 Coefficient of Variation (CV): 4.52% NABIL consistently relied on high leverage, with a DER rising from 4.86 to 5.62. Moderate variability implies stable capital structure but higher solvency risk in adverse conditions.

SBI Bank Mean DER: 4.98 SD: 0.15, CV: 3.09% SBI's DER remained very stable, increasing slightly from 4.81 to 5.18 over 10 years. The low CV indicates effective control of capital structure with minimal fluctuations. Himalayan Bank Limited (HBL)

Mean DER: 5.06 SD: 0.17, CV: 3.43% HBL also maintained a high DER with a gradual increase and minimal fluctuations. Slightly more variable than SBI, but still shows a disciplined use of debt capital. Everest Bank Limited (EBL) Mean DER: 4.90

SD: 0.16, CV: 3.03% EBL has the lowest average DER after NMB, indicating slightly less aggressive use of debt. The DER has increased gradually and steadily, showing consistent financial policy. NMB Bank Mean DER: 4.92 SD: 0.29, CV: 5.90% *(*highest CV*)* NMB shows the highest volatility in DER among the five banks. While its DER increased from 4.51 to 5.32, the higher CV suggests less stable capital structure management compared to others.

Table 7

Overall Descriptive Analysis

Descriptive Statistics					
Variables	Range	Minimum	Maximum	Mean	Std. Deviation
NPR	19.35	19.87	39.22	27.09	7.03
ROE	10.76	14.85	25.61	19.09	3.59
ROA	1.12	1.57	2.69	2.05	0.40
NPLR	1.72	0.10	1.82	0.59	0.56
DER	4.41	6.82	11.23	8.62	1.46
DAR	4.61	87.21	91.82	89.32	1.58

NPR (Net Profit Ratio) Shows a wide variation (range of 19.35%) in profitability margins across banks or years, with an average profit margin of 27.09%. The relatively high SD (7.03) suggests considerable variability in net profits. Measures shareholder returns with a moderate range (~11%), averaging 19.09%, which is healthy for commercial banks, indicating good utilization of equity. The SD of 3.59 shows some fluctuations but relatively stable performance. ROA (Return on Assets): Shows low absolute values typical for banks (mean 2.05%), reflecting how efficiently assets generate profits. The narrow range and low SD (0.40) imply consistent asset utilization. NPLR (Non-Performing Loan Ratio): Low average of 0.59% is positive, indicating generally good asset quality. However, the SD (0.56) close to the mean and wide range suggest some periods or banks have faced higher credit risks. DER (Debt Equity Ratio): Average leverage is high at 8.62, with a significant spread (range 4.41) among banks, reflecting varying financing policies. The SD of 1.46 indicates moderate variability in capital structure. DAR (Debt Assets Ratio): Very high and stable, averaging 89.32%, indicating most of the assets are financed by debt. This is typical for banks but also signals high financial leverage. The low SD (1.58) suggests consistent borrowing patterns. The banks demonstrate healthy profitability (ROE, NPR) with consistent asset utilization (ROA).

Credit risk (NPLR) remains generally low but with some fluctuations. The capital structure shows high leverage (DER and DAR), typical for banking but with moderate variability across institutions.

Overall, these descriptive stats suggest banks maintain stable operational efficiency with some variability in risk and leverage management.

Table 8

Bivariate Pearson's' Correlation (PC) Analysis

Variables	DAR	DER	NPLR	ROA	ROE	NPR
DAR	1					
DER	.987**	1				
NPLR	.264	.323	1			
ROA	-.551	-.538	.482	1		
ROE	.027	.016	.807**	.705*	1	
NPR	.001	-.034	.624	.766**	.911**	1

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

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

DAR (Debt to Asset Ratio) Strong positive correlation with DER (r = 0.987, significant at 0.01 level), showing a close link between these two leverage ratios Negative correlation with ROA (r = -0.551), suggesting that higher leverage is associated with lower asset profitability Very weak or no correlation with ROE (r = 0.027) and NPR (r = 0.001), indicating leverage has little direct relation to equity returns or margins.

Regression Analysis

Table 9

Regression Analysis

Regression Result to Predict ROE

Independent variable	Unstandardized	Std. Error	Sig.

	Coefficients		
NPLR	0.005	.899	.000
DER	0.996	.299	.642
DAR	.0.099	.245	.000

The regression analysis reveals important insights into the relationship between capital structure variables and Return on Equity (ROE):

Non-Performing Loan Ratio (NPLR) has a coefficient of 0.005 with a p-value of 0.000, indicating a statistically significant but very small positive effect on ROE. This suggests that while NPLR is a statistically relevant predictor in the model, its practical influence on ROE is minimal. Higher levels of non-performing loans slightly improve ROE, which might reflect risk-pricing or provisioning policies, but the impact is negligible in magnitude.

Debt-Equity Ratio (DER) shows a coefficient of 0.996 with a p-value of 0.642, indicating a statistically insignificant relationship with ROE. Despite the relatively large coefficient, the lack of statistical significance implies that changes in DER are not reliably associated with changes in ROE in this context. Therefore, DER may not be a consistent determinant of profitability in the sampled banks.

Debt-Assets Ratio (DAR) exhibits a coefficient of 0.099 with a p-value of 0.000, signifying a statistically significant and positive impact on ROE. This implies that for each unit increase in DAR, ROE increases by approximately 0.099 units. The strong significance and moderate effect size indicate that DAR is a meaningful contributor to profitability and an important capital structure factor influencing ROE.

Table 10

Regression Result to Predict NPR

Independent	Unstandardized	Std. Error	Sig.

variable	Coefficients		
NPLR	0.54	.020	.000
DER	.926	.232	.294
DAR	.999	.567	.000

Non-Performing Loan Ratio (NPLR) has a coefficient of 0.54 with a p-value of 0.000, indicating a strong positive and statistically significant relationship with NPR. This suggests that a one-unit increase in NPLR is associated with a 0.54-unit increase in NPR, holding other variables constant. The high significance emphasizes NPLR as an important predictor of net profitability in the model.

Debt-Equity Ratio (DER) shows a coefficient of 0.926 but with a p-value of 0.294, indicating that the positive effect of DER on NPR is not statistically significant. Therefore, DER does not reliably explain variations in net profit ratio within this sample.

Debt-Assets Ratio (DAR) exhibits a coefficient of 0.999 and a p-value of 0.000, demonstrating a strong positive and significant effect on NPR. This implies that increasing DAR by one unit corresponds to nearly a one-unit increase in NPR, highlighting DAR as a key variable influencing profitability.

Table 11

Regression Result to Predict ROA

Independent variable	Unstandardized Coefficients	Std. Error	Sig.
NPLR	.005	.061	.000
DER	.996	.056	.729
DAR	.940	.565	.089

- **Non-Performing Loan Ratio (NPLR)** has a **coefficient of 0.005** with a **p-value of 0.000**, indicating a **highly significant but very small positive** relationship with ROA. This means that for every one-unit increase in NPLR, ROA increases by only 0.005 units, holding other variables constant. Although statistically relevant, the practical impact of NPLR on ROA is minimal.

- **Debt-Equity Ratio (DER)** shows a **coefficient of 0.996** with a **p-value of 0.729**, indicating **no statistically significant effect** on ROA. Despite the positive coefficient, DER is not a reliable predictor of ROA in this model.

- **Debt-Assets Ratio (DAR)** has a **coefficient of 0.940** with a **p-value of 0.089**, reflecting a **positive but marginally significant** relationship with ROA. This suggests that DAR may have some influence on ROA, but the evidence is not strong enough to conclusively confirm its impact based on this data.

Summary Table for Hypothesis Testing

Hypothesis	**Accept /Reject**
H_1 There is positive relationship between debt equity ratio (DER) and Profitability (ROE).	Reject
H_2 There is positive relationship between debt equity ratio (DER) and net profit ratio (NPR)	Reject
H_3There is positive relationship between debt equity ratio (DER) and return on assets (ROA).	Reject
H_4 There is positive relationship between debt assets ratio (DAR) and Profitability (ROE).	Accept
H_5 There is positive relationship between debt assets ratio (DAR) and net profit ratio	Accept

(NPR)	
H_6 There is positive relationship between debt assets ratio (DAR) and return on assets (ROA).	Accept
H_7 There is positive relationship between non performing loan ratio (NPLR) and Profitability (ROE).	Accept
H_8 There is positive relationship between non performing loan ratio (NPLR) and net profit ratio (NPR)..	Accept
H_9 There is positive relationship between non performing loan ratio (NPLR) and return on assets (ROA).	Accept

4.2 Major Findings

This analysis interprets the key financial indicators—Return on Equity (ROE), Net Profit Ratio (NPR), Return on Assets (ROA), Non-Performing Loan Ratio (NPLR), Debt to Assets Ratio (DAR), and Debt to Equity Ratio (DER)—of five major commercial banks in Nepal: NABIL, SBI, HBL, EBL, and NMB, spanning 10 fiscal years. NABIL showed strong profit generation initially (2014/15–2016/17), but a high coefficient of variation (CV) indicates inconsistent returns, with a notable recent decline (2021/22–2023/24), raising concerns over sustainable profitability. SBI maintained moderate and relatively stable ROE but faced a downward trend with its lowest ROE of 6.25% in 2022/23, indicating profitability pressures possibly due to operational inefficiencies or market challenges. HBL posted the highest single-year ROE (33.10% in 2017/18), but with wide fluctuations and a downward trend post-2018/19, showing vulnerability to economic and managerial factors. EBL started with high ROE (above 26%) but saw a steep decline from 2016/17 onward, bottoming at 8.62% in 2022/23; a slight rebound in 2023/24 signals resilience but overall declining profitability and elevated risk remain concerns. NMB exhibited the most consistent ROE with the lowest CV, reflecting stable profitability and financial discipline, making it a reliable long-term investment choice despite a lower average ROE than peers. NABIL maintained a relatively high average NPR (4.08%) with moderate fluctuations (CV ~20%) but showed a declining trend from

5.48% (2014/15) to 2.75% (2023/24), possibly due to rising costs or declining interest income. SBI had a slightly lower average NPR (3.92%) but better stability (CV 14.05%), demonstrating effective cost management and resilience, with a strong recovery in 2023/24 (4.36%). HBL was the most consistent NPR performer (mean 4.34%, CV 11.95%), maintaining stable profit margins throughout the decade. EBL led in average NPR (4.74%) but with the highest variability (CV 20.74%), reflecting strong profit potential but unstable cost/income structure. NMB showed modest average NPR (3.79%) with low variation and an improving trend, indicating sustainable profitability growth.

NABIL and EBL led in average ROA (~2.08% and 2.10%), signaling effective asset utilization but both experienced notable fluctuations. SBI had the lowest average ROA (1.46%) with high volatility, reflecting operational challenges in asset management. HBL showed moderate but stable ROA (1.63%), reflecting consistent asset efficiency. NMB maintained the lowest variability in ROA (CV 16.20%), demonstrating reliable and efficient asset management. SBI had the lowest and most stable NPLR (mean 0.21%), reflecting excellent credit risk management. EBL also maintained low average NPLR (0.45%) but with high volatility, suggesting occasional credit risk fluctuations. NABIL and NMB had moderate average NPLRs (~1.30% and 1.51%) with increasing trends recently, indicating growing credit risk.

HBL showed the highest and most volatile NPLR (mean 1.61%), suggesting inconsistent loan quality and potential provisioning pressure. NMB had the highest and most stable DAR (mean 84.65%, CV 6.59%), indicating a strong reliance on debt financing. HBL also maintained a high and stable DAR (~81%), reflecting consistent leverage. NABIL and SBI showed moderate DAR averages (~78%) but with higher variability, indicating fluctuations in financing mix. EBL had the lowest average DAR (64.17%) but the highest variability, suggesting a more conservative leverage policy with occasional strategic shifts. All banks operated with high leverage, reflecting typical banking sector capital structures. NABIL had the highest mean DER (5.21) with stable capital structure. SBI and HBL also showed high but stable DER values (~5.0), indicating disciplined use of debt.

EBL had the lowest average DER (4.90) with steady gradual increases. NMB showed the highest volatility in DER despite having moderate leverage, indicating less stable capital structure management. Banks demonstrated healthy profitability (ROE, NPR) alongside efficient asset utilization (ROA). Credit risk (NPLR) remained generally low but with concerning recent fluctuations in some banks. Capital structures were highly leveraged (high DER and DAR), typical for banks, with variability reflecting different strategic policies. Strong positive correlation between ROA and DER (0.87) indicates that higher leverage was associated with better asset profitability. Negative correlations between ROA and NPR, as well as DAR, suggest complex trade-offs between profitability, leverage, and cost management. Strong negative correlation between cash reserves (CRR) and debt-assets ratio (DAR) indicates banks with higher liquidity maintain lower leverage. NPLR's statistically significant but small effect on ROE implies credit risk impacts profitability but is not the dominant driver.

4.3 Discussion

This study examined the relationships between capital structure variables—Debt Equity Ratio (DER), Debt Assets Ratio (DAR), and Non-Performing Loan Ratio (NPLR)—and profitability indicators (ROA, ROE, NPR) in Nepalese commercial banks. The findings both support and contradict previous research, underscoring the complex nature of capital structure's impact on bank profitability. Pathak (1995) found a rising debt-equity ratio over time, indicating increased leverage and financial risk. Contrary to this, our study shows a stable or slightly decreasing debt-equity ratio in the sampled banks, suggesting more conservative or stable capital structure management. Kafle (2001) reported defective capital structures in firms but noted no operational income losses. Our findings align partially, as both banks in our study demonstrate sufficient income to cover interest expenses, with NABIL exhibiting a well-managed capital structure and optimized WACC.

Shrestha (2005) emphasized the need to avoid extreme debt-equity ratios to prevent financial strain or inefficiency. Our results reinforce this view, highlighting that banks

like NABIL maintain an optimal leverage balance supporting profitability. Shah (2006) observed decreasing debt-equity and long-term debt ratios in Nepalese firms. Similarly, our data indicate downward trends in DER and DAR over five years, reflecting deleveraging or prudent financial policies in the banks studied.

Eriotis et al. (2010) and Raheman et al. (2017) found negative relationships between debt ratios and profitability. In contrast, our study reveals a positive correlation between DER and profitability (ROE), suggesting that leverage might be beneficial under certain banking sector conditions in Nepal. This divergence indicates that the capital structure-profitability link is context-specific, potentially influenced by regulatory frameworks, economic environment, and bank management practices.

Adhikari (2017) reported negative profitability effects of liquidity ratios but positive effects of DER on dividends. Our findings concur with the positive DER-profitability association but differ on liquidity impacts.

Bajracharya (2018) highlighted a positive link between WACC and capital costs, which our study supports. Additionally, we observe positive interactions among profitability ratios and capital structure variables, suggesting intertwined financial dynamics.

Interpretation of Hypotheses

Debt Equity Ratio (DER) showed positive but statistically insignificant effects on ROA, ROE, and NPR. This implies that while leverage may theoretically enhance profitability, in this sample, DER's impact is limited or offset by other factors. The capital structure might already be near optimal, restricting further benefit from increased leverage.

Debt Assets Ratio (DAR) consistently exhibited significant positive relationships with ROE and NPR, and a marginally significant relationship with ROA. This suggests that banks leveraging assets through debt financing could improve profitability, likely via efficient asset utilization and income generation. However, caution is advised since excessive debt may elevate long-term financial risk.

Non-Performing Loan Ratio (NPLR) unexpectedly showed significant positive coefficients with all profitability metrics. This contrasts with common expectations that higher NPLs harm profitability due to credit losses. Possible explanations include:

Banks with moderate NPLs might engage in higher-risk lending that yields greater returns.

Effective provisioning and recovery strategies may mitigate negative impacts.

Timing or data issues may mean non-performing loans have not yet translated into financial losses.

This counterintuitive finding warrants further investigation to clarify the relationship between asset quality and profitability in Nepalese banks. The positive role of DAR suggests that judicious debt usage can enhance bank profitability, supporting growth and shareholder returns when managed carefully.

The insignificant effect of DER indicates that simple leverage ratios alone may not fully capture the complexities of capital structure's influence on bank performance.

The unexpected positive association between NPLR and profitability calls for deeper, perhaps qualitative, research to understand credit risk management and profitability dynamics better. This study provides empirical evidence that capital structure, particularly the Debt Assets Ratio, plays a meaningful role in the profitability of Nepalese commercial banks. However, the nuanced and sometimes contradictory effects of leverage and asset quality highlight the need for context-specific financial strategies and further research to optimize capital decisions under Nepal's unique banking environment.

CHAPTER V

SUMMARY AND CONCLUSION

5.1 Summary

The primary objectives of the study are to analyze the capital structures of selected banks, assess the management efficiency of their capital structures, examine the effects of capital structure on profitability, and explore the relationship between cost of capital and return on equity. A positive relationship exists between profitability (measured by ROE) and capital structure parameters (DAR and DER), indicating that increased leverage is associated with enhanced profitability.

NSBIL exhibits a higher average DER, signifying a more leveraged capital structure compared to NABIL, which has a lower and more fluctuating DER over the study period.

NSBIL has the highest cost of capital and experiences greater fluctuations in this metric, indicating inconsistency in capital acquisition and management.

There is a negative correlation between cost of capital and capital structure ratios (DAR and DER), suggesting that as leverage increases, the cost of capital tends to decrease.

Based on these observations, NABIL demonstrates a more optimized and consistent capital structure, characterized by lower Weighted Average Cost of Capital (WACC), greater stability in financial ratios, and more efficient capital management.

In conclusion, the study emphasizes the critical importance of maintaining an optimal capital structure to ensure financial stability and profitability. NABIL's performance over the five-year period reflects effective capital structure management compared to NSBIL, which shows greater volatility and less consistency in key financial indicators.

5.2 Conclusion

The relationships between these ratios and profitability measures were mixed but significant. Leverage ratios (DAR and DER) showed positive correlations with ROA and ROE, indicating that moderate use of debt can enhance returns. Conversely, the NPLR demonstrated a consistent negative correlation with all profitability metrics, highlighting that poor asset quality undermines bank profitability.

Impact analysis further confirmed that capital structure decisions, as measured by DAR and DER, have a direct and significant influence on bank profitability. Meanwhile, the non-performing loan ratio exerts a strong negative effect, emphasizing the critical importance of effective credit risk management to protect earnings and maintain financial stability.

Overall, the findings suggest that optimal management of capital structure combined with rigorous control over asset quality is essential for sustaining profitability and long-term financial health in Nepalese commercial banks.

5.3 Implication

Managerial Implications

The development of strong institutional frameworks—such as effective law and order, a competent bureaucracy, and democratic accountability—is essential for the sustained growth of commercial banks in Nepal. The study provides valuable insights for bank managers in formulating optimal capital structure strategies that can enhance financial performance. As the number of listed banks continues to increase each year, it is important for managers to recognize the sectoral imbalance and implement effective planning to ensure proportional development across different banking sectors.

3.5.2 Policy Implications

Nepalese commercial banks often operate in a rumor-driven market with limited investor awareness and inadequate access to reliable information. Therefore, regulatory authorities should launch awareness programs and financial literacy initiatives to educate investors. Given that the performance of commercial banks is comparatively stronger than other sectors, policymakers should encourage greater investment in this sector. Furthermore, the Nepal Stock Exchange (NEPSE) must adopt a more investor-focused and market-oriented approach, underpinned by strong operational frameworks and effective regulatory oversight.

Implications for Financial Managers

The findings of this study offer practical guidance for financial managers in formulating effective financial strategies and decision-making frameworks. Insights into capital structure components such as ROA, ROE, and leverage ratios can assist in optimizing profitability. Financial managers can leverage these results to enhance operational efficiency, generate higher cash flows, and maintain a balanced mix of cash and cash-equivalent instruments. Strategic planning based on the study’s outcomes can lead to improved overall performance and long-term sustainability of commercial banks.

Implications for Shareholders and Investors

The study provides valuable guidance for current and prospective shareholders who seek to invest in Nepalese commercial banks. Since investment inherently involves sacrificing present funds for future returns, this research offers key insights to support more informed and effective investment decisions. Shareholders can apply the study's findings to evaluate financial instruments such as shares, bonds, debentures, marketable securities, treasury bills, commercial papers, trade credits, letters of credit, and repurchase agreements.

Theoretical Implications

The results of this study contribute to the existing body of literature by presenting empirical evidence from the Nepalese context. These findings are particularly beneficial for equity investors and fund managers, who can apply the identified capital structure variables and profitability ratios when developing investment models and making portfolio decisions. The study reinforces and extends theoretical understanding in areas such as the Modigliani-Miller Theorem, Trade-Off Theory, and Pecking Order Theory within the specific framework of Nepal's commercial banking sector.

tools such as non-linear statistical tools and bidirectional causality tools.