THE DETERMINANTS OF FINANCIAL PERFORMANCE OF NEPALESE COMMERCIAL BANKS

A Dissertation Submitted to the Office of the Dean, Faculty of Management in partial fulfillment of the requirements for the Master's Degree

By

Saroj Lamichhane

Exam Roll No.: 6230/18

T.U. Registration No.: 7-2-788-55-2012

Campus Roll No.: 751/074

Shanker Dev Campus

Kathmandu, Nepal

June, 2024

CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled **"The Determinants of Financial Performance of Nepalese Commercial Banks"**. The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor it has been proposed and presented as part of requirements for any other academic purposes.

The assistance and cooperation that I have received during this research work has been acknowledged. In addition, I declare that all information sources and literature used are cited in the reference section of this dissertation.

.....

Saroj Lamichhane

Date: June, 2024

REPORT OF RESEARCH COMMITTEE

Mr. Saroj Lamichhane has defended research proposal entitled **"The Determinants of Financial Performance of Nepalese Commercial Banks"** successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestion and guidelines of supervisor Asso. Prof. Dr. Kapil Khanal and submit the thesis for evaluation and viva-voce examination.

….....

Asso. Prof. Dr. Kapil Khanal

Dissertation Supervisor

Dissertation Proposal Defended Date:

.....

Dissertation Submitted Date:

.....

.....

Asso. Prof. Dr. Sajeeb Kumar Shrestha

Chairperson, Research Committee

Dissertation Viva-voce Date:

.....

APPROVAL SHEET

We hereby certify that the thesis is worthy of acceptance. We have examined the dissertation entitled **"The Determinants of Financial Performance of Nepalese Commercial Banks"** presented by Mr. Saroj Lamichhane for the degree of Master of Business Studies (MBS). We hereby certify that the dissertation is acceptable for the award of degree.

_____

Asso. Prof. Dr. Kapil Khanal
Dissertation Supervisor

_____

Internal Examiner

_____

Internal Expert

_____

External Expert

_____

Asso. Prof. Dr. Sajeeb Kumar Shrestha
Chairperson, Research Committee

_____

Asso. Prof. Dr. Krishna Prasad Acharya

Campus Chief

.Date: … June, 2024

ACKNOWLEDGMENTS

I would like to forward my deepest gratitude to Asso. Prof. Dr. Kapil Khanal of Shanker Dev Campus who supports me with her invaluable scholarly supervision, constructive comments and suggestions that allow me to furnish this thesis report in this final format.

I would like to pay my sincere thanks to Asso. Prof. Dr. Sajeeb Kumar Shrestha, Head of Research Department and Asso. Prof. Krishna Prasad Acharya, Campus Chief of Shanker Dev Campus. Besides, I would also like to thank to other respected teachers of Shanker Dev Campus and all the staff of this campus for their help in providing me various kinds of suggestions, information and comments.

Further, my deep regard to known and unknown individual who helped to collect the data at preliminary stage of this dissertation writing.

It is the matter of my immense pleasure to express my deep sense of gratitude and heartfelt respect to my parents for their affection, inspiration and incredible support to precede my academic career.

Saroj Lamichhane

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

A.D.	:	Anno Domini
B.S.	:	Bikram Sambat
BFIs	:	Bank and Financial Institutions
CDR	:	Credit Deposit Ratio
RBBL	:	Rastriya Banijya Bank Limited
FY	:	Fiscal Year
MBL	:	Machhapuchchhre Bank Limited
No.	:	Number
NPA	:	Non-performing Assets
NRB	:	Nepal Rastra Bank
ROA	:	Return on Assets
ROE	:	Return on Equity
S.D.	:	Standard Deviation
T.U.	:	Tribhuvan University
NBL	:	Nepal Bank Limited
Nabil	:	Nabil Bank Limited
NSBI	:	Nepal SBI Bank Limited
NICA	:	NIC Asia Bank Limited
CAR	:	Capital Adequacy Ratio
CRR	:	Cash Reserve Ratio
IILA	:	Interest Income to Loan and Advance
IEDB	:	Interest Earning to Deposit and Borrowing

ABSTRACT

Bank is a financial institution which collects deposit from general public and advancing loan to borrowers with the aim of earning profit. Profit of the bank is influenced by various internal and external economic factor. The main objective of study is to analyze examine and interpret the financial position of sample commercial bank with the help of ratio analysis and other relevant financial and statistical tools. It is focused to examine relationship between internal factor and bank's profitability and to analyze the impact of internal factor on bank's profitability.

This study is based on descriptive and causal relationship research design. Moreover, the study attempts to examine the relationship between dependent and independent variable, and the cash reserve ratio (CRR), capital adequacy ratio (CAR), non-performing assets (NPA), credit deposit ratio (CDR), interest income to loan and advance (IILA) and interest expenses to deposit and borrowing (IEDB) towards profitability and return on assets and return on equity are taken as dependent variable. Six banks selected are selected for the study among 20 commercial bank of Nepal. This study covers the period of 10 years from FY 2013/14 to 2022/23. Ratio analysis is taken as financial tools and mean, standard deviation, coefficient of correlation and regression analysis are taken as statistical tools to analysis of data and interpret the result.

The result found, NPA is significantly positive, CDR is significantly negative, IILA is insignificantly negative and IEDB is significantly negative relationship with profitability. Similarly, the analysis found, ROA is insignificantly positive, CRR and CDR significantly negative, NPA and IEDB insignificantly negative and IILA is significantly positive impact on ROA. Similarly, CAR, CDR and IILA is significantly negative, CRR and NPA insignificantly positive and IEDB is insignificantly negative impact on ROE. The result found relatively similar result with previous findings, so the result is taken as consistent result.

Keywords: Profitability, ROA, ROE, CAR, CRR, NPA, CDR, IILA and IEDB.

CHAPTER I

INTRODUCTION

1.1 Background of the study

A bank is an institution that accepts deposits in various accounts and makes loans of various types. A bank is a financial entity that deals with money and credit. It accepts public deposits, makes the fund available to those in need, and facilitates the transfer of funds from one location to another. In fact, a modern bank serves so many different functions that it is difficult to provide a precise and general definition.

The phrase commercial bank refers to a financial institution that accepts deposits and provides various banking and financial services. Both individuals and companies can use these services from commercial banks. Mortgages, auto loans, business loans, and personal loans are just a few of the loans that commercial banks provide and earn interest on. Banks obtain the funds necessary to make these loans from customer deposits. Commercial banks offer basic banking services and products to the general public, including individuals and corporations. A few of the most important services that commercial banks offer to their retail clients are highlighted in the following table. These financial institutions have typically been housed in buildings where consumers visit teller windows and automated teller machines (ATMs) to conduct ordinary banking transactions. The majority of banks now enable their clients to perform the majority of their in-person services—such as transfers, deposits, and bill payments—online thanks to the development of internet technology (Kagan, 2024).

A bank is a type of financial institution that is authorized to issue loans and take savings and checking deposits. In addition, banks offer related services like currency exchange, safe deposit boxes, certificates of deposit (CDs), and individual retirement accounts (IRAs). Retail banks, corporate or commercial banks, and investment banks are just a few of the different kinds of banks. Banks have been around at least since the fourteenth century. They offer a secure location for customers and company owners to store their cash as well as a source of loans for individual and commercial needs. The banks then use the deposited funds to create loans and charge interest on those loans (Barone, 2023).

The commercial bank's obligations are Oversee a group of Relationship Managers in order to expand the commercial banking customers' clientele, which consists of mid-cap, big corporations, and/or SMEs involved in the construction, wholesale and retail, manufacturing, and trading industries, as well as real estate development. Create and carry out commercial activities to strengthen client relationships for Relationship Managers. Team members' performance should be tracked and monitored, problem areas should be found, and appropriate coaching and direction should be given. In the areas of hiring, training, motivation, and retention, act as a people manager. serve as the bank's first line of defense against operational risks such as credit risk, financial crime risk, and other risks. Work together with product partners such as Treasury, Transaction Banking, and Trade Services, to deepen client relationships (Read & Gill, 1989).

Banks, as providers of financial services, offer a safe place for you to store your money. Consequently, they play a crucial role in the economy by providing essential services to businesses and consumers. The banking sector is essential to economic functioning. A bank is a financial institution authorized to accept deposits and extend credit. It facilitates credit opportunities by offering short-term deposits in return for long-term loans for purposes such as business ventures, car purchases, and home mortgages. This process generates market liquidity, which in turn produces income and sustains the supply chain (The Economic Times, 2024).

According to Nepal Rastra Bank (2023), commercial banks, classified as "A" class banks, are the largest in terms of asset size, range of activities, number of branches, and economic impact among all categories of BFIs. While most of these banks have domestic private investment, some also receive investment from the government and foreign companies. Commercial banks in Nepal are broadly divided into two groups based on ownership and control: public (government) and private (public) banks. As of mid-July 2023, there are 3 public (state-owned) banks and 17 private (public) banks. Among the public banks, the Government of Nepal (GoN) holds 99.97 percent of the equity shares in Rastriya Banijya Bank Limited, and 51 percent of the equity shares in both Nepal Bank Limited (NBL) and Agricultural Development Bank Limited (ADBL). Private banks in Nepal can be further categorized into domestically owned banks and foreign joint venture banks. Public equity ownership is mandated by Section 9, Sub-section 1 of the Bank and Financial Institution Act (BAFIA), 2073, which requires banks to issue at least 30 percent of their share capital to the general public.

According to Nepal Rastra Bank (2023), the number of commercial banks has decreased in recent years due to the consolidation policy (merger and acquisition policy), a significant increase in minimum capital requirements, and the expansion of bank branches. This has led to a notable rise in access and business volume. Total deposits in commercial banks grew from Rs. 4,442.42 billion in FY 2021/22 to Rs. 5,086.24 billion in FY 2022/23. Deposits in public (state-owned) banks rose by 23.33 percent, while private (non-state-owned) banks saw an increase of 10.35 percent. Similarly, loans and advances by commercial banks increased to Rs. 4,265.57 billion as of mid-July 2023, up from Rs. 4,153.45 billion in mid-July 2022, marking a 2.70 percent rise. Public banks' loans and advances grew by 4.41 percent, and those of private banks by 2.42 percent. The total assets of commercial banks increased by 6.72 percent, reaching Rs. 6,180.51 billion, compared to Rs. 5,791.58 billion the previous year. Assets in public banks grew by 14.34 percent, while private banks saw a 5.43 percent increase. As of mid-July 2023, commercial banks employed 45,610 individuals, with private banks employing about 83 percent and public banks about 17 percent. The total number of branches of regulated Banks and Financial Institutions (BFIs), including Commercial Banks, Development Banks, and Finance Companies, reached 6,461, with microfinance branches totaling 5,128. The number of local levels without commercial bank branches decreased to 1. As of mid-July 2023, there were 51,177,923 deposit accounts and 1,845,213 loan accounts in BFIs. Branchless banking centers and customers numbered 1,319 and 320,749, respectively. Additionally, the number of mobile banking customers, internet banking customers, ATMs, debit cards, credit cards, and prepaid cards reached 21,363,989; 1,856,195; 4,855; 12,245,485; 283,772; and 137,120, respectively. The population per branch served by A, B, and C class BFIs was 4,514, while considering all BFI categories, it was 2,517, down from 2,532 the previous year.

Bank profitability is a crucial indicator of a bank's performance, reflecting the return a bank can generate from its resources by producing and selling services. It measures how well a bank performs by comparing its income to its expenses. Banks primarily make a profit through service fees and interest earned from assets, while their main expense is the interest paid on liabilities. Various studies have explored bank performance to identify factors that cause differences in profitability among banks. These studies typically fall into several categories. One category examines the link between bank earnings and different aspects of operational performance. Another focuses on the relationship between bank earnings and balance sheet structure.

Additionally, some research investigates the impact of regulatory, macroeconomic, or structural factors on overall bank performance. The term "bank structure" often refers to the characteristics of individual institutions. Characteristics such as portfolio composition, and the scale and scope of operations, can affect the cost of producing financial services. Market structure, indicated by the relative size and number of firms, can influence local competition levels, thereby affecting the quality, quantity, and price of financial services available to customers. External determinants of bank profitability include factors beyond a bank's control, influenced by external events rather than the bank's own decisions and policies (Shrestha, 2022).

1.2 Problem statement

Numerous banks have been observed to be growing their branch networks, reaching out to isolated regions in rural towns. However, it is well understood that only excellent financial performance and sound governance can sustain such expansion. Nepalese banks are currently up against fierce competition in the market as they work to grow their loan portfolios, although many of them lack efficient credit management. Given that depositor deposits account for more than 85% of their obligation, this is a severe problem. (Shrestha, 2022) looked at five Nepalese commercial banks' performance from 2011 to 2021. The empirical results of this study indicate that while non-interest revenue has a negative association with bank profitability, bank-specific factors, including loans intensity, credit risk, and cost, have positive and significant impacts on bank performance.

The findings indicate that the impact of size was not consistent across the range of metrics used during the study period. Based on empirical evidence, it appears that size negatively affects return on average equity (ROE), whereas return on average assets (ROA) is positively impacted by size. Regarding the influence of macroeconomic indicators, the findings indicate that all factors have no discernible effect on bank profitability, with the exception of inflation, which exhibits a negative correlation with the profitability of Bangladeshi banks. It is discovered that the majority of Nepalese commercial banks grant loan requests without doing thorough examinations. Increased loan defaults and non-performing loans could result from this. Thus, the existing procedures for credit risk management are not adequate to compete with the existing financial and economic challenges in Nepal.

Here, an effort has been made to investigate the bank-specific variables that affect Nepal's commercial banks' financial performance. The research questions are:

1. What is are the factors of determinant of profitability Nepalese Commercial bank?
2. Is there any relationship between profitability determinants i.e. (CAR, NPA, CDR, LQ, INTL and IEDB) and profitability of Nepalese commercial bank?
3. What is the impact of profitability determinants i.e. (CAR, NPA, CDR, LQ, INTL and IEDB) on profitability of Nepalese commercial bank?

These queries are based on the critical analysis and brief literature study presented in this subsection. Even though the study will answer some of these questions, you are free to ask as many as you like.

1.3 Objectives of the Study

The main objective of this study is to explore factors that influence the financial performance of commercial banks in Nepal. The specific objectives are mentioned below:

1. To identify the factors of determinant of profitability Nepalese Commercial bank.
2. To examine relationship between profitability determinants i.e. (CAR, NPA, CDR, LQ, INTL and IEDB) and profitability of Nepalese commercial bank.
3. To analyze the impact of profitability determinants i.e. (CAR, NPA, CDR, LQ, INTL and IEDB) on profitability of Nepalese commercial bank.

1.4 Hypothesis

Five metrics were utilized in this study to measure bank performance. The chosen metrics for assessing managerial skill, liquidity, credit to deposit, non-performing loan, and capital adequacy ratios. The following hypothesis is proposed for the study:

H_1: There is significance relationship between profitability and capital adequacy ratio (CAR) of selected commercial bank.

H_2: There is significance relationship between profitability and non-performing loan (NPA) ratio of selected commercial bank.

H_3: There is significance relationship between profitability and credit to deposit ratio (CDR) of selected commercial bank.

H_4: There is significance relationship between liquidity (LQ) and profitability of selected commercial bank.

H_5: There is significance relationship between interest income to loan and advance (INTL) and profitability of selected commercial bank.

H_6: There is significance relationship between interest expenses to deposit and borrowing (IEDB) and profitability of selected commercial bank.

1.5 Rationale of the Study

The study is beneficial to clients who use banking services. Many clients want a guaranteed return in addition to deposit security. Understanding the positions of various commercial banks is aided by this study. In addition, the analysis assists in determining which banks are in a falling, stable, or improving position.

A lot of individuals are looking for markets to invest in these days. If investors are looking for a bigger return in a shorter amount of time, buying shares of commercial banks can be challenging as well. This study helps investors make predictions about future investments because it also illustrates how banks have changed throughout time. The analysis helps the management team and BOD come up with ideas for moving forward. The group is able to see what has to be improved upon, what should be prioritized, and how to proceed with future planning. The study also sheds light on the variables that influence a certain bank's performance, which contributes to the banks' continued stability in terms of performance.

1.6 Limitations of the Study

Only six internal factors—the capital adequacy ratio, non-performing assets, credit deposit ratio, interest income to total loan and advancing, and interest expenses to total deposit and borrowing—were used as financial indicators in this study to assess the financial performance. External elements that appear to be crucial for understanding bank performance, but are not included in the

study, include interest rates, inflation rates, and the gross domestic product. The following are the limitations of the study:

1. Of the 20 commercial banks, the study only looks at a sample size of six.
2. This study does not include macroeconomic factors such as GDP, inflation, market interest rate, etc.
3. Because academic research projects are generally time-sensitive, it may not be feasible to conduct a thorough investigation of the subject matter.
4. This study is based on secondary data mainly the major (key) ratios published by commercial banks. Hence reliability of results depends on the reliability of secondary data as well.

CHAPTER II

LITERATURE REVIEW

By conducting a thorough review of pertinent literature linked to this study, the overall concept and view of the determinants of financial performance was streamlined in this chapter. This allowed us to understand the relative strengths and weaknesses of the selected banks as well as the opportunities and threats they face in the dynamic environment.

2.1 Theoretical Review

2.1.1 Concept of Financial Performance

The foundation of financial decisions can be characterized as financial performance. An enterprise's financial performance has a direct impact on its growth and development, and when accurate facts and figures are sorted out, an enterprise's financial performance is accurate. A company's employees, bondholders, investors, trade creditors, and management are only a few of its numerous stakeholders. Monitoring a company's financial performance is of importance to all groups. A company's ability to create income and manage its assets, obligations, and stakeholders' and investors' financial interests is measured by its financial performance (Will, 2022).

According to Gopinathan (2009), financial ratio analysis, which examines the fundamentals of a business or institution and assesses a variety of performance-related factors, can help investors identify better investment opportunities. Moreover, has it been documented that the assessment of an organization's performance has been centered on its operational efficacy and efficiency, potentially impacting the company's longevity directly based on the empirical outcome? One study (Nadia, 2016) clarified that a company's higher efficiency does not always translate into greater effectiveness.

According to (Nadia, 2016), a company's short-term creditors, such as suppliers of goods on credit and commercial banks offering short-term loans, are mostly concerned with learning if the business can fulfill its present or short-term obligations when they become due. India's public sector banks' profitability record was examined by Selvakumar and Kathiravan (2009). An essential component of the entire economic system is the banking system. It is crucial for mobilizing the country's savings, allocating them toward high-priority investments, and improving

the use of resources that are already available. If money lending is the same thing as banking, then banking is maybe as old as civilization. But contemporary banking is not the same as simple lending. It is intended for more complex and sophisticated users. A bank's function is more formative and intentional in a developing economy than it is in an established one. in a developing nation where people's financial practices have not advanced. It becomes difficult to mobilize the nation's resources and establish and propagate banking practices. Because they serve as a conduit between those with and those in need of financing, banks are essential.

2.1.2 Profitability Analysis

Making money is one of a company's main goals when it first starts out. Essentially, the goal of any business owner is to make more money for their enterprise than they spend. It follows that a thorough analysis of profit is crucial to evaluating the expansion of your company, and this much is certain. On the other hand, the true image of your company's earnings is revealed by the subtleties that are hidden beneath different financial statistics. Analyzing your profits—basically, the amount of capital left over after all expenses is deducted—will help you monitor the success of your company. By using profitability analysis, businesses can increase their profits. Consequently, this leads to optimizing the prospects available to the business to sustain growth in a very dynamic, competitive, and lively market. In the end, profitability analysis gives decision-makers a clearer view of the business by assisting firms in identifying growth prospects, fast- or slow-moving stock items, market trends, etc (Tally Soulution, 2021). One of the key metrics by which funders can assess the success of the institutions is the profitability of financial institutions. Financial performance is influenced by a number of variables. Several factors include Gross Domestic Product, Liquidity, Asset Quality, Management Efficiency, and Capital Adequacy. Therefore, banks should concentrate on the elements that are likely to effect profitability and the degree of their influence in order to assure solid financial performance (Gautam, 2018).

a. Return on Assets

A financial ratio known as return on assets (ROA) shows how lucrative a business is in comparison to its total assets. ROA is a useful metric for investors, analysts, and corporate management to assess how well a business uses its resources to turn a profit. A measure of a company's profitability

in relation to its total assets is called return on assets. Management, analysts, and investors can use return on assets (ROA) to assess how well a company uses its resources to turn a profit. Using the net income and average assets of a corporation, the ROA measure is often stated as a percentage.

A company's ability to manage its balance sheet profitably is demonstrated by a higher return on assets (ROA); conversely, a lower ROA suggests that there is still opportunity for improvement. A company's return on assets (ROA) can be computed by dividing its net income by the sum of its assets. Because they would have similar asset bases, it is always preferable to compare the ROA of businesses in the same industry (Bhandari, 2023).

b. Return on equity

The financial performance metric known as return on equity (ROE) is computed by dividing net income by shareholders' equity. ROE is referred to as the return on net assets since shareholders' equity is calculated by deducting debt from assets. ROE is regarded as a measure of a company's profitability and profit-generating efficiency. A company's management is more effective at producing revenue and growth from its equity financing the higher the ROE. The ratio of a company's net income to the equity held by its shareholders is called return on equity, or ROE. A company's profitability and the efficiency with which it makes profits are measured by its return on equity (ROE). An organization is more successful at turning equity financing into profits if its ROE is higher. Divide net income by shareholders' equity to get return on equity (ROE). Any corporation that has both positive net income and equity can calculate return on equity (ROE), which is represented as a percentage. Before dividends to common shareholders are deducted, net income is computed, followed by dividends to preferred shareholders and interest to lenders (Bhandari, 2023).

2.1.3 Determinants of profitability

Due to the intense rivalry of the globalization period, many businesses have come to understand the significance of financial success in supporting industry sustainability. Without a doubt, both internal and external factors have an impact on a company's profitability. Internal factors primarily relate to the company's capacity for cost- and productivity-cutting, while external factors include

the state of the economy, governmental regulations, exchange rates, GDP, unemployment rate, and other factors that are always regarded as critical elements (Bhandari, 2023).

Macro environmental factors

A macroeconomic factor is any pattern, trait, or circumstance that arises from, or is associated with, a broader part of an economy as opposed to a specific population. A notable economic, environmental, or geopolitical event that has a substantial impact on the regional or national economy could be the characteristic. Any element that influences the direction or path of a particular large-scale economy can be classified as a macroeconomic factor. For instance, monetary policies and other rules have the potential to have significant global repercussions in addition to having an impact on state and national economies. Macroeconomic factors include things like unemployment rates, GDP, national income, and inflation. States, businesses, and consumers all closely monitor these economic performance measures. In the study of macroeconomics, there is a great deal of research on the correlation between different macroeconomic parameters (CFI Team, 2022).

Firm specific factor

Business Microenvironmental Factors The elements directly affecting a business's performance and ability to make decisions are referred to as its microenvironment. They consist of rival businesses, clients, suppliers, and the general public (CFI Team, 2022).

a. Capital adequacy ratio

A bank's financial strength is determined by calculating the capital adequacy ratio (CAR), also called the capital to risk-weighted assets ratio, utilizing both its capital and assets. It is employed to safeguard depositors and advance the global financial systems' efficiency and stability. The capital of a bank is divided by its risk-weighted assets to get the capital adequacy ratio. Two layers of capital are utilized to compute the capital adequacy ratio. Tier-1 capital, also known as core capital, is made up of the bank's audited revenue reserves, ordinary share capital, equity capital, and intangible assets. These reserves are what the bank has on hand to support it throughout normal riskier transactions like lending, trading, and investing. With tier-one capital, a bank can sustain losses without having to shut down. Unaudited retained earnings, unaudited reserves, and general

loss reserves make up Tier-2 capital. In the event that a business closes down or goes through a liquidation, this capital covers losses. Tier-2 capital is thought to be less safe than Tier-1 capital. The capital adequacy ratio of a bank is computed by multiplying the sum of the two capital tiers by risk-weighted assets. A bank's loans are examined, the risk is assessed, and a weight is subsequently assigned to produce risk-weighted assets (Beers, 2024).

b. Cash reserve ratio

The percentage of reservable liabilities that commercial banks are required to retain rather than lend to or invest in is known as the reserve ratio. This criterion is set by the central bank of the nation, the Nepal Rastra Bank in Nepal. Another name for it is the cash reserve ratio. The reserve requirement, which is frequently used interchangeably with the reserve ratio, refers to the minimum quantity of reserves that a bank must retain. The Regulation Department of the Nepal Rastra Bank Board sets the reserve ratio. In addition to requiring banks to submit regular reports to the Nepal Rastra Bank, the Regulation department established a set of uniform reserve criteria for all depository institutions with transaction accounts (Subedi, 2022).

c. Non-performing loan

A loan that is in default because the borrower hasn't paid the agreed-upon payments for a predetermined amount of time is known as a nonperforming loan (NPL). "No payment" is generally understood to mean making no principal or interest payments, while the precise components of nonperforming status can differ based on the terms of the individual loan. A loan in which the borrower is in default and hasn't made any scheduled principle or interest payments for a predetermined amount of time is known as a nonperforming loan (NPL). If a commercial debt is 90 days past due, the lender considers it nonperforming. When payments are highly unpredictable, the Nepal Rastra Bank classifies debts that are fewer than ninety days past due as nonperforming. NPLs, however, lack a definition or standard. To free up cash and/or concentrate on making loans that generate revenue, some banks choose to sell non-performing loans (NPLs) to investors or other banks (Niraula, 2023).

d. Credit to deposit

A bank's liquidity is evaluated using the credit-to-deposit ratio (CDR), which is calculated by dividing its total loans by its total deposits over the same time period. A percentage is used to represent the CDR. The bank could not have adequate liquidity to meet any unforeseen funding requests if the ratio is excessively high. On the other hand, the bank could not be making as much money as it could if the ratio is too low. By contrasting the total loans made by a bank with the total deposits made over the same time period, the credit-to-deposit ratio is used to evaluate a bank's liquidity. Divide the entire number of loans made by a bank by the total amount of deposits made during the same time period to find the loan-to-deposit ratio.

e. Interest income to total loan and advance

The difference between a bank's interest-bearing asset revenue and its interest-bearing liability expenses is known as net interest income, which is a metric of financial performance. Securities, mortgages, and all types of personal and business loans make up the assets of a conventional bank. Interest-bearing customer deposits make up the liabilities. Net interest income is the amount of money that is left over after paying interest on deposits and the interest earned on assets. The income obtained from fund investments made throughout the study period is displayed by the interest income to total loan advance ratio.

f. Interest expenses to total deposit and borrowing

An entity's cost for borrowed funds is called an interest expenditure. One non-operating item that appears on the income statement is interest expense. It stands for interest that is due on all loans, bonds, convertible debt, and credit lines. It is essentially computed as the interest rate multiplied by the debt's outstanding principal. The interest expenditure shown on the income statement does not reflect the whole amount of interest paid over the period covered by the financial statements; rather, it represents interest accrued during that period. While interest costs are tax deductible for businesses, an individual's situation may vary depending on their jurisdiction and the reason for the borrowing. (Subedi, 2022).

2.2 Empirical Review

Review of journal and articles

Priharta and Gani (2024) examined the factors that influence bank profitability using empirical data from state-owned banks in the Republic of Indonesia. Bank BUMN (State-Owned Enterprises) was a participant in the study. Data panel regression analysis with the Random Effect Model was used for the analysis. The following was validated by our findings. According to Mode 1 of the partial tests, ROA was significantly impacted negatively by CAR, significantly positively by NPL, significantly negatively by FOREX, significantly positively by BIR, and significantly positively by SIZE. A substantial effect with a coefficient of determination of 88.71% was found by simultaneous testing. Model 2 applied to partial tets revealed that ROE was significantly impacted by CAR in a positive way, NPL in a negative way, FOREX in a negative way, BIR in a positive way, and SIZE in an insignificant way in a positive way. A substantial effect with a coefficient of determination of 76.04% was found by simultaneous testing.

Through the use of the Generalized Method of Moments Estimation, Paukmongkol (2024) examined the factors that influence bank profitability in Thailand. The purpose of this study was to use the System GMM Estimator method to estimate the factors that influence the profitability of banks registered in Thailand. Bank data for the years 2010–2020. Three measures are used to assess profitability: net interest margin (NIM), return on equity (ROE), and return on assets (ROA) (NIM). The factors that determine a bank's profitability are unique to that bank. Economic and industry-specific factors pertaining to banking. The findings demonstrated that while asset quality and operating expenses have a negative impact on profitability, banks see a decrease in profitability when their asset sizes increase. Conversely, the gross domestic product, inflation, and capital adequacy all contributed to the increase in bank profits.

Ratnasari and Nirmala (2024) looked into the variables affecting return on assets in five traditional commercial banks between 2015 and 2022. The purpose of this study is to examine, using a dynamic panel data technique, the relationship between financial inclusion and the banking sector's performance, as measured by return on assets, in eleven Arab nations between 2012 and 2019. In addition to financial inclusion and technological indicators, our analysis also incorporates banking and macroeconomic data. The study found that bank-specific factors have a greater impact on profitability than do economic considerations. The findings indicate that the profitability of the banking industry is positively and significantly impacted by the bank's assets, solvency, credit

growth, rate of economic expansion, and rate of inflation. However, changes in the interbank lending rate and nonperforming loan portfolio have no impact on return on assets. The study finds little indication that the density of bank branches and the distribution of automated teller machines (ATMs) have a substantial impact on return on assets when it comes to indices of financial inclusion and technologies.

Alshammari, Majeed, Mahdi and Hasan (2024) analyzed The Impact of Determinants of Commercial Banks' Profitability on Banking Sustainability. Given the speed at which the banking industry and its technologies are evolving, the factors that determine profitability are among those that have an impact on the performance of commercial banks and, consequently, their sustainability. In and of themselves, these factors have become a challenge for banks. As a result, the study used GDP and inflation as two external variables in order to uncover the factors that determine profitability and how they affect the sustainability of banks. The growth of deposits and loans are two internal determinants of the gross domestic product. Using the statistical program EViews V9 and the Panel Data application, the research was applied to a sample of commercial banks listed on the Iraq Stock Exchange, represented by the selection of banks, namely Baghdad, Iraqi Commercial, Middle East, Investment, Iraqi National, Credit, Sumer Commercial, and the Iraqi Gulf, for the period 2005–2021. The objective of the study was to evaluate and measure the independent variable (determinants) and the dependent variable (banking sustainability), represented by market value added and earnings per share. The three models—aggregative regression, fixed effects, and random effects—were used to guide the analysis. This analysis revealed that, at a significance level of 5% and 10%, the factors have a significant impact on banking sustainability metrics. Indicators of banking sustainability were highlighted in the study's conclusion, which underscored the necessity of supporting Iraq's banking industry. A feeble and unstable banking system fosters unrest and eventually results in a financial crisis that has a detrimental impact on all other economic sectors.

Mengstie, Mosisa and Mosisa (2024) explored Impact of working capital management on profitability of private commercial banks in Ethiopia. For commercial banks to remain profitable, working capital management is a crucial financial management choice. This study aims to investigate how working capital management affects the profitability of commercial banks. The study made use of secondary data from five Ethiopian private commercial banks' audited financial

statements for the years 2011 to 2020. Convenience played a role in choosing the banks. The effect of the current ratio, bank size, loans and advances to total asset ratio, current liabilities to total assets ratio, and current ratio on profitability was assessed using the financial data provided by the banks. Descriptive and inferential statistics were used by the researchers. The Stata data processing package was used to analyze the data. The effect of working capital management on the profitability of commercial banks is investigated using an econometric model. Using a random effect model, the findings showed that the ratio of loans and advances to total assets as well as bank size had a major effect on the profitability of banks. It was discovered that the current ratio, the current asset-to-total asset ratio, and the current liabilities-to-total asset ratio had no effect on the profitability of banks. The management of working capital is a critical component in determining the profitability of banks, hence variables impacting the profitability of commercial banks should receive careful consideration.

Thiong'o, Matata, and Kamau (2024) examined the Loan Portfolio Growth and Financial Performance of Commercial banks in Kenya. Loans comprise the single largest asset for commercial banks. Bank managers concentrate on expanding the quantity of loans the bank makes in order to increase the bank's assets. This study's main goal was to assess how growing loan portfolios affected Kenya's commercial banks' financial performance. Regression research design was employed in the study. The 44 commercial banks in Kenya made up the population of interest. Thirty-one commercial banks made up the sample. The study's five-year timeframe was from 2011 to 2015. In the analysis, multiple-linear regression was also employed. According to the study, Kenyan commercial banks' financial performance suffered when their loan portfolios grew.

It was discovered that loan expansion had a negative impact on commercial banks' financial performance in the years that followed. According to this study, Kenyan commercial banks' financial performance was positively impacted by the caliber of their bank assets. The impact of liquidity management, however, was little. According to the study, capital adequacy improved commercial banks' financial performance. Adequacy of capital had a major impact. The study came to the conclusion that the financial performance of commercial banks was significantly impacted negatively by a bank's loan portfolio growth. According to the report, commercial banks should strategically implement their plans for growing their loan portfolios in order to reduce the issue of loan losses in the years to come.

Orando, Nyangau, and Maobe (2024) examined the Effect of asset quality on financial performance of listed commercial banks in Kenya. The study's main goal was to determine how Kenyan listed commercial banks' financial performance was impacted by different aspects of their dividend policies. The primary goal of the study was to investigate how asset quality affected the listed commercial banks' financial performance. The Bird in Hand theory provided support for the investigation. The study's design was descriptive. The twelve Kenyan listed commercial banks were the study's target group. In order to choose a sample size of 11 firms, the study used random sampling. For five years (2017 to 2022), secondary data was gathered utilizing data sheet forms from published annual reports. Descriptive statistics (mean, standard deviation) and inferential statistics (correlation, simple and multiple regression analysis) were used in the data analysis process. The study found a substantial, favorable, and robust relationship between Kenya's listed commercial banks' financial performance and asset quality. The study also found a direct and significant relationship between asset quality and the financial performance of Kenyan commercial banks. As a result, Kenyan listed commercial banks' financial performance improved as a result of improved asset quality. The study found that the financial performance of Kenya's listed commercial banks was significantly, favorably, and correlated with asset quality. The study also found a direct and significant correlation between asset quality and the financial performance of Kenyan commercial banks. As a result, Kenyan listed commercial banks' financial performance improved as a result of improved asset quality. According to the report, listed commercial banks should use more valuable collateral facilities and stricter lending requirements to improve the quality of their assets, particularly those whose quality was below average. This will lower their risk of loan loss and/or default.

Magoma, Mbwambo, Sallwa and Mwasha (2022) explained Financial Performance of Listed Commercial Banks in Tanzania: A CAMEL MODEL Approach. The study's main objective was to examine the financial results of seven commercial banks that were listed and traded on the Dar es Salaam Stock Exchange (DSE) throughout a five-year period, from 2016 to 2020. To thoroughly evaluate the financial stability of these listed banks, the CAMEL model was applied. The letters CAMEL stand for capital adequacy, asset quality, earning quality, efficiency of management, and liquidity. To determine the cause-and-effect relationship between the response variable (bank

performance) and the explanatory variables (capital adequacy, asset quality, management efficiency, earning quality, and liquidity) of commercial banks listed at Tanzania's DSE, an explanatory research design was fully utilized. Annual reports and audited financial statements served as the source of secondary data. Pre-regression analysis was carried out using the Durbin-Watson and multicollinearity tests. Finally, linear regression analysis and correlation were performed. The results show that capital sufficiency and managerial effectiveness have the biggest effects on Tanzanian commercial banks listed on the DSE.

Ally (2022) studied on the title Influence of macro-Economic factors on financial performance of commercial banks in Tanzania. This study was designed to determine the influence of macro-economic factors on financial performance of commercial banks in Tanzania. The study aimed to accomplish the following goals: (i) evaluate the impact of interest rates on Tanzanian commercial banks' financial performance; (ii) ascertain the impact of inflation rates on Tanzanian commercial banks' financial performance; and (iii) ascertain the impact of exchange rates on Tanzanian commercial banks' financial performance. Secondary sources were used in the data collection. The study used an explanatory and descriptive research design to explain the relationship between the financial performance of commercial banks and the macroeconomic variables mentioned, as well as the trend of the interest rates, inflation rate, and exchange rate over a ten-year period from 2010 to 2019. Following the entry of the study's data into an Excel spreadsheet, a descriptive and correlational analysis was carried out. According to the study, there is a significant 74.99% negative association between interest rate and return on assets according to the correlation analysis. This indicates that an increase in return on assets causes the interest rate to drop by 74.99%. Furthermore, the results of the correlation study between the inflation rate and return on assets show a 59.22% positive association. Additionally, the study demonstrated that a 65.52% negative association was found between the exchange rate and return on assets. The study came to the conclusion that the financial performance of commercial banks is influenced by the interest rate, inflation rate, and exchange rate. The study suggested that in order to prevent a decline in commercial banks' financial performance, the government should keep up its policies protecting them from rising inflation and, finally, from fluctuations in exchange rates. For the latter, the lending interest rate should be maintained.

Antoun, Coskun and Georgievski (2018) studied on the title Determinants of financial performance of banks in Central and Eastern Europe. The purpose of this research is to examine the macroeconomic, industry-specific, and bank-specific factors that influence the financial performance of banks in the countries of Central and Eastern Europe. In order to achieve this, we first identified the performance-affecting elements using data from the literature. Based on CAMEL ratios, we created a financial performance index (FPI) and then applied the calculated index to the previously indicated factors. We used imbalanced panel data for the analysis, which came from the Financial Structure and Development Dataset, World Development Indicators, and Bankscope database, and covered the years 2009–2014. We used fixed-effect panel regression to do an empirical analysis. Our findings imply that scale has a detrimental impact on banks' asset quality and earnings, whereas business mix and inflation have a beneficial impact. Size was found to have a negative impact on capital adequacy and liquidity, while bank concentration and economic growth had a beneficial impact.

Islam, Sarker, Rahman, Sultana, and Prodhan (2017) examined the Determinants of profitability of commercial banks in Bangladesh. The paper examined the profitability determinants of private commercial banks of Bangladesh for the year 2014 and 2015. All 11 of Bangladesh's private commercial banks' annual data for the years 2014 and 2015 were used in the study. For the purpose of testing the hypothesis and identifying the important drivers of profitability, multiple regression analyses were performed. The study's empirical results indicated that there was no significant relationship between the profitability and the size of the asset and the Net Interest Margin ratio. However, out of all the variables, the effect of nonperforming loans to total loans (NPL) on profitability was found to be the most significant. Moreover, investment activities have a beneficial effect on return on equity (ROE), particularly when it comes to private sector shares and debentures. The results also indicated that these banks were more lucrative since they engaged in a variety of banking activities, including investment activities. Although diversified banking operations are desirable, there may be an increase in risk if these operations involve a larger percentage of volatile trading activity as opposed to low-risk revenue sources like commissions and fees. In order to increase the stability and strength of the banking industry, policy should be oriented in a way that improves the efficiency and resilience of financial institutions.

Review of previous thesis

Prajapati (2024) studied ‘Determinants of Profitability of Nepalese Commercial Banks’ is secondary data-based research study. Understanding the influence and degree of macroeconomic (external) and bank-specific (internal) factors on the profitability of Nepal's commercial banks is the primary goal of this study. The bank's size, capital sufficiency, liquidity, effectiveness of operations management, market concentration, board size, and number of independent directors are the chosen independent variables. The purpose of the study is to determine whether or not these independent variables significantly affect profitability, or ROA and ROE, the dependent variable. This study has employed the convenience sampling method and is quantitative in character. Information pertaining to the aforementioned variables has been taken into account for the fiscal years 2012–13 and 2021–22 in Nepal. To meet the goals of this study, a descriptive and causal comparative research design has been used. The Statistical Package for Social Sciences (SPSS) has been used in the research for these methodologies. The study shows that there is a positive correlation between return on assets and market concentration, board size, operations management effectiveness, and capital adequacy ratio, and a negative correlation between return on assets and bank size, liquidity, number of independent directors, GDP, and inflation. The capital adequacy ratio, bank size, and the effectiveness of operations management are the variables that have the most effects on the return on assets. Furthermore, there is a positive correlation between return on equity and market concentration, operations management effectiveness, the number of independent directors, GDP, and inflation, and a negative correlation between return on equity and bank size, capital adequacy ratio, liquidity, and board size. The efficiency of operations management is one of these factors that significantly affects return on equity.

Magar (2024) investigated on Non-Performing Assets and Profitability Analysis of Nepalese Commercial Banks. The level of non-performing assets (NPA) in Nepalese banking system is very alarming. It is commonly known that banks and other financial institutions in Nepal are dealing with an increase in non-performing assets and a growing unmanageability problem on a daily basis. This study looks at Nepalese commercial banks' non-performing assets and profitability assessments. This study's primary goals are to evaluate the factors that contribute to non-performing assets and profitability, investigate the relationship between these factors and profitability, and research the impact of non-performing assets on profitability. The following are considered independent variables: non-performing assets (NPA), capital adequacy ratio (CAR), total assets (TA), non-performing loan (NPL), and total loan to total deposit ratio (TLTDR). The

dependent variables are Return on Equity (ROE) and Return on Assets (ROA). Data were presented using multiple regression analysis, correlation, mean, standard deviation, and regression analysis. The study's main discovery was that there is a 0.135 correlation between ROA and ROE, indicating a weak but favorable relationship. Interestingly, there is a statistically significant negative association between TLTDR and ROE. Likewise, there is a negative association between TLTDR and CAR. Furthermore, there is a strong positive association between NPL and CAR. Regression analysis shows that while TLTDR and NPL are not significant with ROA, NPA, TA, and CAR are significant variables. While TLTDR and NPL are not significant with ROE, NPA, TA, and CAR are significant variables.

Shrestha (2020) investigated the Determinants of financial performance of Nepalese commercial banks: Evidence from panel data approach. This article examines the effects of bank-specific factors on the financial performance of commercial banks in Nepal. Return on assets (ROA) is a metric used to evaluate financial performance. Similar to this, bank-specific elements are proxied by managerial efficiency (ME), liquidity (LIQ), credit risk (CR), assets quality (AQ), and operational efficiency (OE). Panel data from 17 commercial banks covering the years 2010–11–2017–18 were used in this study. The Hausman test determined that the Fixed Effect model is more appropriate than the Random Effect model, and the Breusch and Pagan Lagrangian multiplier test demonstrated that the Pooled Regression model is not acceptable. This study shows, using the Fixed Effect model, that bank-specific factors significantly affect the financial performance of commercial banks in Nepal. In conclusion, this research indicates that while CR has a detrimental effect on the financial performance of Nepalese commercial banks, ME, AQ, and OE have a considerable beneficial impact.

2.3 Research gap

This study differs from other research in that its goal is to examine how profitability determinants affect bank profitability. The profitability of the bank is the dependent variable, and the independent variables are the interest income to loan and advance (IILA), non-performing assets (NPA), cash reserve ratio (CRR), capital adequacy ratio (CAR), interest expenses to deposit and borrowing (IEDB), and non-performing assets (NPA). Using the most recent ten-year financial data from 2013–14 to 2022–23, this study was conducted. This research was carried out as part of the comparative analysis of six sample commercial banks. The research design used for this study

is a descriptive causal association study. Every bank's primary tool for assessing its financial performance is financial analysis. This study used regression analysis and correlation to examine the effect of internal factors on profitability. As a result, stakeholders' primary concern is learning about the bank's financial situation. Leading commercial banks, such as sample banks, have a major influence on the growth of the national economy. Annual variations in the nation's environment result in shifting financial performance. Therefore, from an academic and policy standpoint, this study is beneficial to all interested parties, including scholars, students, teachers, stakeholders, members of civil society, businesspeople, and the government.

CHAPTER III

RESEARCH METHODOLOGY

The process of gathering data and information, then analyzing and interpreting it with the use of various facts and figures is known as research methodology. It also discusses data analysis tools. It motivates the researcher and ensures that they stay on course from choosing the topic to researching to making recommendations.

3.1 Research Design

A cross-sectional study is seen to be more suitable than a longitudinal study given the time and budget constraints. The study also looks at how the cash reserve ratio (CRR), capital adequacy ratio (CAR), non-performing assets (NPA), credit deposit ratio (CDR), interest income to loan and advance (IILA), and interest expenses to deposit and borrowing (IEDB) relate to profitability. Other relationships it looks at include these. A scientific approach known as descriptive causal connection research design entails watching and characterizing a subject's behavior without exerting any kind of control over it. This study uses a descriptive research approach in an attempt to explain the link between the dependent and independent variables. Data from the commercial bank's ten-year collection period is tabulated. Additionally, analysis using various statistical and financial tools has been done to determine the required outcome.

3.2 Population and Sample, and Sample Design

There are twenty commercial banks in operation in the nation as of April 2024. However, examining all of the data pertaining to 20 commercial banks is not feasible. As a result, a sample of six banks has been selected from the total of 20 institutions. Samples were selected using the convenience sampling technique. Rastriya Banijya Bank Ltd., Nepal Bank Ltd., Nabil Bank Ltd., Nepal SBI Bank Ltd., Machhapuchhre Bank Ltd., and NIC Asia Bank Ltd. are the banks that make up the sample. The ownership structure of the sample banks is the deciding factor. Two banks come from investments made by the government, two come from the private sector, and two come from joint ventures.

3.3 Nature and Sources of Data, and Instrument of Data Collection

The relevant secondary data was mostly sourced from the annual reports of certain commercial banks, which were sourced from Nepal Rastra Bank's (NRB) databases. Additional sources included a variety of studies and reports from the central libraries of Tribhuvan University and Pokhara University, as well as papers from master's theses, journals, and magazines. This study only covers specific subjects, like the deposits these banks raise, loans and advances, investments, liquidity, asset management, and profitability during the course of the ten-year period from 2013–14 to 2022–23.

3.4 Methods of Analysis

The information is gathered through secondary data sources. We sourced the example banks' ten-year fiscal financial statements from publications and their official website. For the data analysis, a variety of statistical and financial tools have been employed. Utilizing financial parameters, the effect of deposit mobilization on profitability has been investigated. Analytical statistical methods like the mean and the coefficient of correlation between various variables have been employed for the analysis.

3.4.1 Ratio Analysis

A ratio is a mathematical connection that exists between two quantities. In financial statement analysis, ratios are used to evaluate the overall financial health of a company. When making investment decisions, a company's performance can be compared to industry norms using ratio analysis. A single ratio cannot reveal the whole story. An explanation of the key ratios employed in this study is provided below.

3.4.2 Statistical Tools

In this study, various statistical tools have been used to present and analyze the data for achieving the objectives. Following statistical tools has been used for the analysis of the data:

a. Mean ($\bar{X}$)

It is computed using the relationship that follows.

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

Where,

$\bar{X}$ = Arithmetic Mean

n = Total number of Observation

b. Standard Deviation

It is calculate as:

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum(X-\bar{X})^2}{n}}$$

Where,

$\bar{X}$ = Arithmetic Mean return

X = Set of Observation

n = Total number of Observation

c. Correlation Analysis

One statistical method for characterizing how closely one variable is related to another linearly is correlation analysis. Single and multiple correlations have both been used in the study. The profitability variables and deposit mobilization factors have a determined and interpreted correlation coefficient.

d. Multiple Regression Analysis

In the sense that two or more independent variables are used to predict the value of a dependent variable, multiple regression analysis is an extension of simple regression. Stated differently, multiple regression analysis employs two or more independent variables in lieu of a single independent variable to predict the value of a dependent variable. Return on equity (ROE), return on assets (ROA), non-performing assets (NPA), credit deposit ratio (CDR), cash reserve ratio (CRR), capital adequacy ratio (CAR), interest income to loan and advance (IILA), and interest expenses to deposit and borrow (IEDB) are the independent variables in the study.

Regression model.

$Y= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$

Where

Y= Profitability (ROA/ROE)

β_0 =Constant

$\beta_1 - \beta_5$ =Intercepts of independent variables

X_1 =Cash reserve ratio

X_2 =Capital adequacy ratio

X_3= Non-performing loan ratio

X_4= Credit to deposit ratio

X_5= Interest income to loan and advance

X_6= Interest expenses to deposit and borrowing

ε = Standard error term

3.6 Research Framework and Definition of Variables

After reviewing earlier research from numerous academics over a range of time periods, the study has identified a theoretical framework that can be summarized as follows:

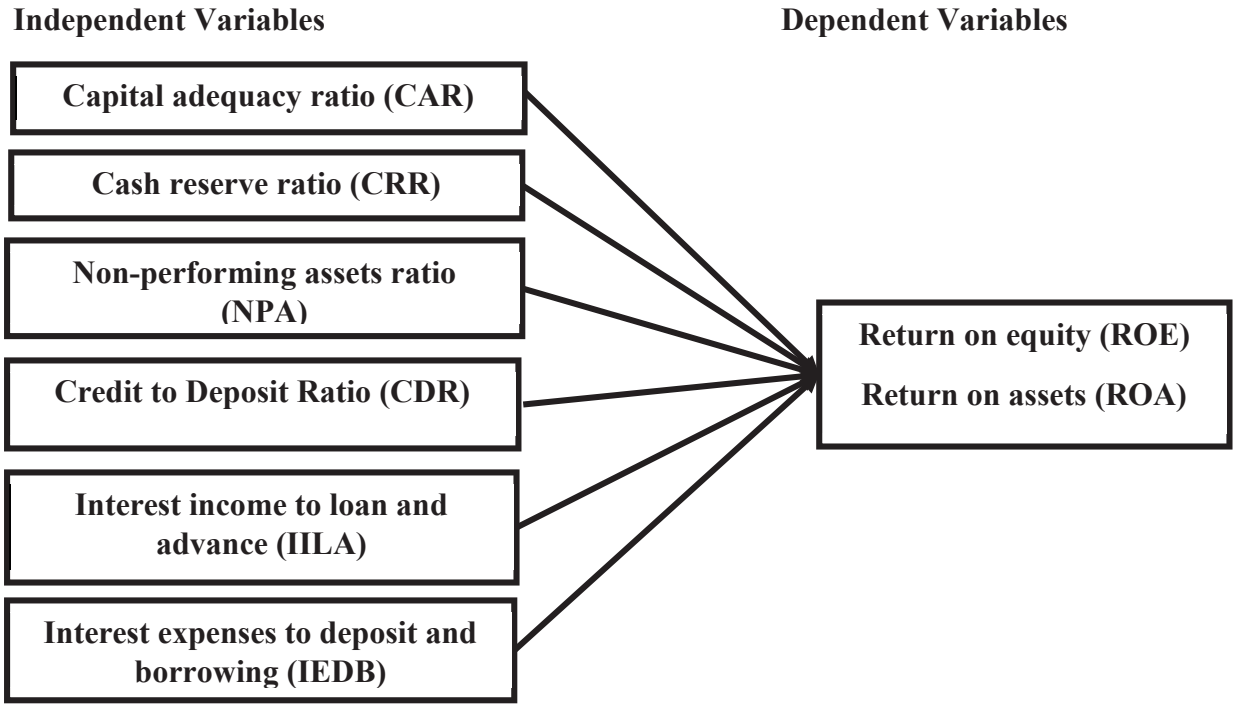

Figure 1 Research Framework

3.6.1 Definition of Variables

A. Dependent Variables

A variable whose value is reliant on an independent variable is called a dependent variable. What is being measured in an experiment or assessed in a mathematical calculation is known as the dependent variable. The result variable is another name for the dependent variable.

a. Return on Assets

A financial ratio known as return on assets (ROA) shows how lucrative a business is in comparison to its total assets. ROA is a useful metric for investors, analysts, and corporate management to assess how well a business uses its resources to turn a profit. The stronger the return on assets (ROA) ratio, the more money the company may make on a given investment. Put simply, more asset efficiency is indicated by a higher ROA.

b. Return on Equity

The financial performance metric known as return on equity (ROE) is computed by dividing net income by shareholders' equity. ROE is referred to as the return on net assets since shareholders' equity is calculated by deducting debt from assets. ROE is regarded as a measure of a company's profitability and profit-generating efficiency. A company's management is more effective at producing revenue and growth from its equity financing the higher the ROE.

B. Independent Variable

In an experimental study, an independent variable is one that is varied or manipulated in order to examine its effects. It is independent of all other study factors, which is why it is termed such.

a. Capital adequacy ratio

A bank's financial strength is determined by calculating the capital adequacy ratio (CAR), also called the capital to risk-weighted assets ratio, utilizing both its capital and assets. It is employed to safeguard depositors and advance the global financial systems' efficiency and stability.

b. Cash reserve ratio

The percentage of reservable liabilities that commercial banks are required to retain rather than lend to or invest in is known as the reserve ratio. This criterion is set by the central bank of the nation, the Nepal Rastra Bank in Nepal. Another name for it is the cash reserve ratio.

c. Non-performing loan

A loan that is in default because the borrower hasn't paid the agreed-upon payments for a predetermined amount of time is known as a nonperforming loan (NPL). If a commercial debt is 90 days past due, the lender considers it nonperforming. (Niraula, 2023).

d. Credit to deposit

A bank's liquidity is evaluated using the credit-to-deposit ratio (CDR), which is calculated by dividing its total loans by its total deposits over the same time period. A percentage is used to represent the CDR. The bank could not have adequate liquidity to meet any unforeseen funding requests if the ratio is excessively high. (Subedi, 2022).

e. Interest income to total loan and advance

The difference between a bank's interest-bearing asset revenue and its interest-bearing liability expenses is known as net interest income, which is a metric of financial performance. Securities, mortgages, and all types of personal and business loans make up the assets of a conventional bank. (Shrestha, 2022).

f. Interest expenses to total deposit and borrowing

An entity's cost for borrowed funds is called an interest expenditure. One non-operating item that appears on the income statement is interest expense. It stands for interest that is due on all loans, bonds, convertible debt, and credit lines. It is essentially computed as the interest rate multiplied by the debt's outstanding principal. (Subedi, 2022).

CHAPTER IV

RESULTS AND DISCUSSION

The chapter covers data analysis using a range of statistical and financial tools. The bulk of the chapter consists of the data's presentation and interpretation.

4.1 Results

The study examines profitability factors and how they affect the bottom lines of commercial banks in Nepal. The factors that have determined Nepalese commercial banks' profitability and profitability status during the past ten years have been examined. Statistical tools like as mean, standard deviation, coefficient of variation, and others have also been employed to enhance the analysis of deposit mobilization and profitability.

4.1.1 Descriptive Statistics

The mobilization of deposits and how it affects commercial banks' profitability are covered in this section. The cash reserve ratio (CRR), capital adequacy ratio (CAR), non-performing assets (NPA), credit deposit ratio (CDR), interest income to loan and advance (IILA), and interest expenses to deposit and borrowing (IEDB) are used to measure the financial performance of commercial banks in Nepal. Return on equity (ROE) and return on assets (ROA) are used to measure profitability.

Table 3

Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Deviation
ROA (%)	60	0.01	3.22	1.54	0.61
ROE (%)	60	6.26	76.95	17.60	11.37
CAR (%)	60	4.55	17.01	12.81	2.32
CRR (%)	60	3.05	33.39	16.02	9.07
NPA (%)	60	0.10	6.38	1.86	1.58
CDR (%)	60	56.73	98.58	79.80	9.34
IILA (%)	60	6.99	14.36	10.17	1.71
IEDB (%)	60	1.24	8.79	4.62	1.97

Source: Analysis

Table 3 shows descriptive statistics of six sampled commercial banks over ten different years from FY 2013/14 to FY 2022/23 AD. There were sixty observations (N) in all for the variable. According to descriptive statistics, the ROA runs from 0.01 percentage to 3.22 percentage, with a mean of 1.54 percentage and a standard deviation of 0.61 percentage. This suggests that there is a 0.61 percentage difference in the ROA number on either side. The ROE ranges from 6.26 percentage to 76.95 percentage, with a mean of 17.60 percentage and a standard deviation of 11.37 percentage. This suggests that there is an 11.37 percentage difference in the ROE number on either side. Additionally, the CRR runs from 3.05 % to 33.39 percentage, with a mean of 16.02 percentage and a standard deviation of 9.07 percentage. This suggests that the CRR value may differ by 9.05 percentage points on either side. Comparably, the CAR's ranges from 4.55 % to 17.01 percentage, with a mean of 12.81 percentage and a standard deviation of 2.32 percentage. This suggests that the CAR value may differ by 2.32 percentage on either side. In a similar vein, the NPA has a range of 0.10 percentage to 6.38 percentage and a mean of 1.86 percentage with a standard deviation of 1.57 percentage. This suggests that there is a 1.86 percentage range in the NPA value on both sides. Comparably, the CDR has a mean of 79.80 percent, a standard deviation of 9.34 percent, and a range of 56.73 to 98.58 percent. This suggests that there is a 9.34 percentage difference in the CDR value on either side. Similar to this, the IILA has a mean of 10.17 percent, a standard deviation of 1.71 percent, and a range of 6.99 to 14.36 percent. This suggests that the IILA value may differ by 1.71 percentage on either side. The IEDB varies from 1.24 percentage to 8.79 percentage, with a mean of 4.62 percentage and a standard deviation of 1.97 percentage.

This suggests that the IEDB value may differ by 1.97 percentage on either side. Additionally, the ROA runs from 1.19 percentage to 3.25 percentage, with a mean of 2.06 percentage and a standard deviation of 0.50 percentage. This suggests that the ROA figure may differ by 0.50 percent on either side. The mean of the ROE is 19.25 percentage with standard deviation of 6.49 percentage and ranges from 8.90 percentage to 32.78 percentage. This implies that value of ROE can vary on both sides by 6.49 percentage.

4.1.2 Correlation Analysis

Seven variables have been identified by the investigation. Whether there is a positive or negative relationship between two variables, correlation analysis entails examining and quantifying the degree of that association. The correlation analysis is used to determine the relationship between the cash reserve ratio (CRR), capital adequacy ratio (CAR), non-performing assets (NPA), credit deposit ratio (CDR), interest income to loan and advance (IILA), and interest expenses to deposit and borrowing (IEDB). Return on equity (ROE) and return on assets (ROA) are used to measure profitability. It also indicates whether the relationship is significant or not.

Table 4

Correlation Among Variable with ROE

Variables	ROE	CAR	CRR	NPA	CDR	IILA	IEDB
ROE	1						
CAR	-0.529**	1					

	0.000						
CRR	-0.065	0.201	1				
	0.624	0.124					
NPA	0.491**	-0.567**	-0.102	1			
	0.000	0.000	0.439				
CDR	-0.568**	0.577**	0.162	-0.664**	1		
	0.000	0.000	0.217	0.000			
IILA	-0.248	0.152	0.148	-0.135	0.302*	1	
	0.056	0.248	0.260	0.305	0.019		
IEDB	-0.364**	0.355**	0.382**	-0.478**	0.517**	0.570**	1
	0.004	0.005	0.003	0.000	0.000	0.000	

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

Table 4 explains the correlation between various factors affecting profitability and profitability of commercial banks in Nepal. The association between the dependent variable, ROE, and the independent variables, CAR, CRR, NPA, CDR, IILA, and IEDB, is displayed in the table. The findings demonstrate the considerable negative association between ROE and CAR, insignificantly negative CRR, significantly positive NPA, significantly negative CDR, insignificantly negative IILA, and significantly negative IEDB.

Table 5

Correlation Among Variable with ROA

Variables	ROA	CAR	CRR	NPA	CDR	IILA	IEDB
ROA	1						
CAR	-0.065	1					

	0.624						
CRR	-0.219	0.201	1				
	0.092	0.124					
NPA	0.108	-0.567**	-0.102	1			
	0.411	0.000	0.439				
CDR	-0.243	0.577**	0.162	-0.664**	1		
	0.061	0.000	0.217	0.000			
IILA	-0.127	0.152	0.148	-0.135	0.302*	1	
	0.335	0.248	0.260	0.305	0.019		
IEDB	-0.273*	0.355**	0.382**	-0.478**	0.517**	0.570**	1
	0.035	0.005	0.003	0.000	0.000	0.000	

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

Table 5 explains the correlation between various factors affecting profitability and profitability of commercial banks in Nepal. The association between the dependent variable, ROA, and the independent variables, CAR, CRR, NPA, CDR, IILA, and IEDB, is displayed in the table. According to the results, there is a substantial negative link between ROA and CAR, CRR, NPA, CDR, IILA, and IEDB. Conversely, the relationship between ROA and CDR is insignificantly negative.

4.1.3 Regression Analysis

Whereas a single independent variable is used in basic regression analysis to estimate the values of a dependent variable, two or more independent variables are utilized in coefficient analysis to estimate the values of dependent variables. Understanding the relative movement of the variable is aided by multiple regression analysis.

Table 6

Regression Model for ROE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.636[a]	0.404	0.337	9.25529

a. Predictors: (Constant), IEDB, CAR, CRR, IILA, NPA, CDR

Table 6 shows the model summary for the regression analysis between the ROE and CAR, CRR, NPA, CDR, IILA and IEDB of sampled commercial banks in Nepal. The R square is 0.404, indicating that the model's explanatory power demonstrates that the six variables—CAR, CRR, NPA, CDR, IILA, and IEDB—account for 40.4 percent of the changes in ROE in the four commercial banks that were sampled. The remaining percentage can be attributed to factors that were left out of the model. When the constant variable is removed from the regression model, the corrected R square % is 33.70, indicating that the model's explanatory power is very low or nonexistent. Furthermore, a moderately positive association (r = 0.636) has been found between the ROE and CAR, CRR, NPA, CDR, IILA, and IEDB. As a result, the ROE increases with increases in CAR, CRR, NPA, CDR, IILA, and IEDB and vice versa. The standard error of estimates shows the average deviation from the linear of best among the variables under investigation.

Table 7

Coefficient for ROE

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	68.37	16.36		4.18	0.00
	CAR	-1.39	0.67	-0.28	-2.06	0.03
	CRR	0.10	0.15	0.08	0.67	0.41
	NPA	0.81	1.13	0.11	0.71	0.48
	CDR	-0.36	0.19	-0.30	-1.89	0.04
	IILA	-0.62	0.89	-0.09	-0.69	0.04
	IEDB	-0.19	0.93	-0.03	-0.20	0.84

a. Dependent Variable: ROE

Table 5 represents the regression coefficient of ROE on CAR, CRR, NPA, CDR, IILA and IEDB of sampled commercial banks during FY 2013/14 to FY 2022/23 AD. The regression line for ROE, the constant is 68.37, CAR is -1.39, CRR is 0.10, NPA is 0.81, CDR is -0.36 and IILA is -0.62 and IEDB is -0.19 times responsible for the change a point of ROE.

The regression model/line is given by following equation:

Y_{ROE} = 68.37–1.39 CAR + 0.10 CRR+ 0.81 NPA - 0.36 CDR - 0.62 IILA -0.19 IEDB

Hypothesis Test

H_1: There is significant positive relationship between ROE and capital adequacy ratio.

With a capital adequacy ratio (CAR) of -1.39, a change of 1 percentage in ROE corresponds to a change of 1.39 percentages in the CAR. The regression model indicates that the t-statistics are significant at the 5-percentage level. The null hypothesis has been rejected or accepted, showing that ROE is not significantly impacted by the capital adequacy ratio.

H_2: There is significant positive relationship between ROE and cash reserve ratio.

A one percentage change in ROE is correlated with a 0.10 percentage change in the cash reserve ratio, according to a coefficient of cash reserve ratio (CRR) of 0.10. The regression model indicates that the t-statistics are not significant at the 5-percentage level. Since the null hypothesis has either accepted or rejected the alternative hypothesis, it may be concluded that ROE is not significantly impacted by the liquidity ratio.

H_3: There is significant positive relationship between ROE and non-performing assets ratio.

A 1 percentage change in ROE is correlated with a 0.81 percentage change in the non-performing assets ratio (NPA), which has a correlation of 0.81. The regression model indicates that the t-statistics are not significant at the 5-percentage level. The null hypothesis indicates that the non-performing assets ratio has no effect on ROE, rejecting or accepting the alternative hypothesis.

H_4: There is significant positive relationship between ROE and credit to deposit ratio.

A one percentage change in ROE is equivalent to a 0.36 percentage change in the credit to total deposit ratio according to the coefficient of credit to deposit ratio (CDR) of 0.36. The regression model indicates that the t-statistics are significant at the 5-percentage level. It is clear from the acceptance or rejection of the alternative hypothesis that ROE is not significantly impacted by the credit to deposit ratio.

H_5: *There is significant positive relationship between ROE and interest income to loan and advance ratio.*

A one percentage change in ROE is correlated with a 0.62 percentage change in the interest income to loan and advance ratio, according to the coefficient of interest income to loan and advance ratio (IILA) of 0.62. The regression model indicates that the t-statistics are significant at the 5-percentage level. It is clear from the acceptance or rejection of the alternative hypothesis that ROE is not significantly impacted by the interest revenue to loan and advance ratio.

H_6: *There is significant positive relationship between ROE and interest income to loan and advance ratio.*

A one percentage change in ROE is correlated with a 0.19 percentage change in the interest expenditures to deposit and borrowing ratio, according to the coefficient of interest expenses to deposit and borrowing ratio (IEDB) of 0.19. The regression model indicates that the t-statistics are not significant at the 5-percentage level. The null hypothesis has been accepted or rejected, suggesting that the interest income to loan and advance ratio has no effect on return on equity.

Table 8

Hypothesis Summary Table

Hypothesis	Sig.	Result	Explanation
H_1	0.03	Rejected	P-value is lower than 0.05, at 0.03. This shows that CAR has insignificant impact on ROE.
H_2	0.41	Accepted	P-value is higher than 0.05, at 0.41. This shows that CRR has insignificant impact on ROE.
H_3	0.48	Rejected	P-value is higher than 0.05, at 0.48. This shows that NPA has insignificant impact on ROE.

H_4	0.04	Accepted	P-value is lower than 0.05, at 0.04. This shows that CDR has significant impact on ROE.
H_5	0.04	Accepted	P-value of IILA is 0.04, the value is below 0.05. This shows how IILA and ROE are significant.
H_6	0.84	Rejected	P-value is higher than 0.05, at 0.84. This shows that IEDB has insignificant impact on ROE.

Table 9

Regression Model for ROA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.357[a]	0.127	0.029	0.59872

a. Predictors: (Constant), IEDB, CAR, CRR, IILA, NPA, CDR

Table 9 shows the model summary for the regression analysis between the ROA and CAR, CRR, NPA, CDR, IILA and IEDB of sampled commercial banks in Nepal. The six variables—CAR, CRR, NPA, CDR, IILA, and IEDB—account for 12.7 percent of the changes in ROA in the four commercial banks that were sampled, according to the model's explanatory power, which is indicated by the R square of 0.127. Other factors that were left out of the model can account for the remaining percentage. With the constant variable removed from the regression model, the corrected R square was 2.9 percent, indicating very little or nonexistent explanatory power for the model. Furthermore, a low degree of positive correlation between the ROA and CAR, CRR, NPA, CDR, IILA, and IEDB is indicated by the coefficient for R, which is 0.357. Thus, increase in CAR, CRR, NPA, CDR, IILA and IEDB increase the ROA and vice versa. The standard error of estimates shows the average deviation from the linear of best among the variables under investigation.

Table 10

Coefficient for ROA

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.86	1.06		2.70	0.01
	CAR	0.03	0.04	0.13	0.76	0.45
	CRR	-0.01	0.01	-0.14	-0.99	0.03

NPA	-0.04	0.07	-0.11	-0.58	0.56
CDR	-0.02	0.01	-0.28	-1.45	0.05
IILA	0.02	0.06	0.06	0.39	0.02
IEDB	-0.07	0.06	-0.21	-1.07	0.29

a. Dependent Variable: ROA

Table 10 represents the regression coefficient of ROA on CAR, CRR, NPA, CDR, IILA and IEDB of sampled commercial banks during FY 2013/14 to FY 2022/23 AD. The regression line for ROA, the constant is 2.86, CAR is 0.03, CRR is -0.01, NPA is -0.04, CDR is -0.02 and IILA is 0.02 and IEDB is -0.07 times responsible for the change a point of ROA.

The regression model/line is given by following equation:

Y_{ROA} = 2.86 + 0.03 CAR - 0.01 CRR- 0.04 NPA - 0.02 CDR + 0.02 IILA -0.07 IEDB

Hypothesis Test

H_1: There is significant positive relationship between ROA and capital adequacy ratio.

With a 0.03 percentage change in the capital adequacy ratio (CAR), a 1 percentage change in ROA is correlated with a 0.03 percentage change in the CAR. The regression model indicates that the t-statistics are not significant at the 5-percentage level. It is clear from the rejection of the alternative hypothesis and acceptance of the null hypothesis that ROA is not significantly impacted by the capital adequacy ratio.

H_2: There is significant positive relationship between ROA and cash reserve ratio.

A one percentage change in ROA is correlated with a 0.01 percentage change in the cash reserve ratio, according to a coefficient of cash reserve ratio (CRR) of 0.01. The regression model indicates that the t-statistics are significant at the 5-percentage level. Given that the null hypothesis has been accepted or rejected, the alternative hypothesis suggests that ROA is not significantly impacted by the liquidity ratio.

H_3: There is significant positive relationship between ROA and non-performing assets ratio.

A one percentage change in ROA is correlated with a 0.04 percentage change in the non-performing assets ratio (NPA), which has a coefficient of non-performing assets ratio (NPA) of

0.04. The regression model indicates that the t-statistics are not significant at the 5-percentage level. The null hypothesis indicates that the non-performing assets ratio has little effect on ROA, rejecting or accepting the alternative hypothesis.

H_4*: There is significant positive relationship between ROA and credit to deposit ratio.*

A one percentage change in ROA is equivalent to a 0.02 percentage change in the credit to total deposit ratio, given that the coefficient of credit to deposit ratio (CDR) is 0.02. The regression model indicates that the t-statistics are significant at the 5-percentage level. It is clear from the acceptance or rejection of the alternative hypothesis that ROA is not much impacted by the credit to deposit ratio.

H_5*: There is significant positive relationship between ROA and interest income to loan and advance ratio.*

A one percentage change in ROA is correlated with a 0.02 percentage change in the interest income to loan and advance ratio, according to a coefficient of interest income to loan and advance ratio (IILA) of 0.02. The regression model indicates that the t-statistics are significant at the 5-percentage level. It is clear from the acceptance or rejection of the alternative hypothesis that ROA is not significantly impacted by the interest revenue to loan and advance ratio.

H_6*: There is significant positive relationship between ROA and interest income to loan and advance ratio.*

A change of 1 percentage in ROA is correlated with a change of 0.07 percentage in the interest expenditures to deposit and borrowing ratio, according to the coefficient of interest expenses to deposit and borrowing ratio (IEDB) of 0.07. The regression model indicates that the t-statistics are not significant at the 5-percentage level. Given that the null hypothesis has been accepted and the alternative hypothesis has been rejected, it can be concluded that ROA is not significantly impacted by the interest revenue to loan and advance ratio.

Table 11

Hypothesis Summary Table

Hypothesis	Sig.	Result	Explanation
H_1	0.45	Rejected	P-value is greater than 0.05, at 0. 45. This shows that CAR has insignificant impact on ROA.
H_2	0.03	Accepted	P-value is lower than 0.05, at 0.03. This shows that CRR has significant impact on ROA.
H_3	0.56	Rejected	P-value is higher than 0.05, at 0.56. This shows that NPA has insignificant impact on ROA.
H_4	0.05	Accepted	P-value is lower than 0.05, at 0.02. This shows that CDR has significant impact on ROA.
H_5	0.02	Accepted	P-value of IILA is 0.02, the value is below 0.05. This shows how IILA and ROA are significant.
H_6	0.29	Rejected	P-value is higher than 0.05, at 0.29. This shows that IEDB has insignificant impact on ROA.

4.2 Discussion

Finding the elements that influence Nepalese commercial banks' profitability was the study's primary goal. The capital adequacy ratio (CAR), non-performing assets (NPA), capital adequacy ratio (CDR), liquidity ratio (LQ), interest income to total loan and advance (IILA), and interest expenses to total deposit and borrowing (IEDB) were discovered to have an impact on the profit of commercial banks.

Examining the relationship between Nepalese commercial banks' profitability and profitability factors, such as CAR, NPA, CDR, LQ, INTL, and IEDB, is another goal. According to the study, there are significant negative relationships between profitability and CAR, insignificantly negative CRR, significantly positive NPA, significantly negative CDR, insignificantly negative IILA, and significantly negative IEDB. NPA, TA, and CAR are important variables that are correlated with profitability in Magar (2024), however TLTDR and NPL are not correlated with ROA. While TLTDR and NPL are not significant with ROE, NPA, TA, and CAR are significant variables. The capital adequacy ratio as of Prajapati (2024) is significantly correlated with the return on assets. Moreover, there exists negative relationship between, capital adequacy ratio and liquidity with profitability. The result found similar result with previous findings, so the result is taken as consistent result.

The ultimate goal is to examine how Nepalese commercial banks' profitability is affected by profitability drivers, such as CAR, NPA, CDR, LQ, INTL, and IEDB. According to the findings,

IILA has a significantly positive impact on ROA, CRR and CDR significantly negative, NPA and IEDB insignificantly negative, and ROA is insignificantly positively impacted by CRR and CDR. In a similar vein, the effects of CRR and NPA on ROE are marginally positive, IEDB on ROE is marginally negative, and CAR, CDR, and IILA on ROE are strongly negative. According to Priharta and Gani's (2024) research, ROA was significantly impacted negatively by CAR, negatively by NPL, and positively by BIR. According to Paukmongkol (2024), operating expenses, asset quality, and bank profitability are all adversely impacted. However, capital sufficiency and inflation have a very favorable effect on profitability. According to Magoma, Mbwambo, Sallwa, and Mwasha (2022), capital sufficiency and managerial effectiveness have an impact. Thiong'o, Matata, and Kamau (2024) discovered that while capital sufficiency had a good impact on financial performance, liquidity management had a negligible effect. The quality of bank assets had a positive effect. Asset quality and financial performance were determined to have a substantial, positive, and significant link by Orando, Nyangau, and Maobe (2024). The impact of asset quality on the financial performance of commercial banks was substantial and immediate. Antoun, Coskun and Georgievski (2018) found asset quality and earnings of banks are negatively affected by size, and positively affected by business mix and inflation. Capital adequacy and liquidity were found to be negatively affected by size and positively affected by bank profitability. Islam, Sarker, Rahman, Sultana and Prodhan (2017) found impact of nonperforming loans to total loans (NPL) on profitability is significant positive. The result found similar result with previous findings, so the result is taken as consistent result.

CHAPTER V

SUMMARY, CONCLUSION AND IMPLICATION

5.1 Summary

A bank is a type of financial entity that seeks to make money by taking deposits from the general public and lending money to borrowers. Numerous internal and external economic factors affect the bank's profit. The macroeconomic environment and internal factors are management performance, assets management, liquidity management, risk management, and legal compliance. The impact of internal factors on bank profitability was the exclusive subject of this investigation. Using ratio analysis and other pertinent financial and statistical methods, the study's primary goal is to assess, analyze, and understand the sample commercial bank's financial situation. Its main objectives are to investigate the connection between internal factors and bank profitability and to assess how internal factors affect profitability.

Research on causal relationships and descriptive relationships is the basis of this work. Additionally, the study looks at the relationship between the dependent and independent variables; the dependent variables are the return on equity and assets as well as the cash reserve ratio (CRR), capital adequacy ratio (CAR), non-performing assets (NPA), credit deposit ratio (CDR), interest income to loan and advance (IILA), and interest expenses to deposit and borrowing (IEDB) as they relate to profitability. The secondary data used in this study was obtained from relevant banks and organizations, including Nepal Rastra Bank, Nepal Stock Exchange Limited, and Central Bureau of Statistics. Additionally, a variety of facts and information are gathered from websites, periodicals, journals, magazines, and the internet. Out of Nepal's twenty commercial banks, six are chosen for the study. Using a stratified random sampling technique, financial statements from the last ten years were selected as a sample for the comparative study of financial performance. Of these, two are owned by the government, two are joint ventures, and the other two are privately held banks. The ten-year timeframe covered by this study is from FY 2013–14 to FY 2022–23. While mean, standard deviation, coefficient of correlation, and regression analysis are considered statistical tools for data analysis and result interpretation, ratio analysis is considered a financial instrument.

The association between NPA and profitability was found to be significantly positive, CDR to be significantly negative, IILA to be insignificantly negative, and IEDB to be significantly negative. Similarly, the analysis discovered that IILA has a significantly beneficial impact on ROA, NPA and IEDB have an insignificantly negative impact, and CRR and CDR have a significantly negative impact. In a similar vein, the effects of CRR and NPA on ROE are marginally positive, IEDB on ROE is marginally negative, and CAR, CDR, and IILA on ROE are strongly negative. The results are regarded as consistent because they were found to be reasonably similar to earlier findings.

From the above comparison of result and empirical review discussion, bank profitability is influenced by microeconomic variable like cash reserve ratio, capital adequacy ratio, non-performing assets, credit deposit ratio, interest income to loan and advance and interest expenses to deposit and borrowing etc. So, bank management must keep close eyes to macroeconomic variables to make business decision and strategy.

5.2 Conclusion

The ability of an entity to turn a profit is referred to as profitability. When total revenue in a reporting period is more than total expenses, profitability is achieved. The study examines profitability factors and how they affect the bottom lines of commercial banks in Nepal. The factors that have determined Nepalese commercial banks' profitability and profitability status during the past ten years have been examined. In terms of profitability, the profit margin of Nepalese commercial banks is rising, however bank profitability is trending in different directions. According to descriptive statistics, the ROA has a mean percentage of 1.54% and a standard deviation of 0.61 percentage. With a standard deviation of 11.37 percentage, the ROE has a mean of 17.60 percentage.

The link between profitability and NPA, CDR, IILA, and IEDB was shown to be considerably positive, significantly negative, and insignificantly negative, respectively, non this study. According to the findings, IILA has a significantly positive impact on ROA, CRR and CDR significantly negative, NPA and IEDB insignificantly negative, and ROA is insignificantly positively impacted by CRR and CDR. In a similar vein, the effects of CRR and NPA on ROE are

marginally positive, IEDB on ROE is marginally negative, and CAR, CDR, and IILA on ROE are strongly negative.

From the above review and discussion, it should conclude that, performance of the commercial banks is influenced by internal factor such as capital adequacy ratio, cash reserve ratio, interest oncome to loan and advance ratio, credit to deposit ratio, interest expenses to total deposit and borrowing etc. So, bank manger most study to make business plan and strategy management. In comparison with previous findings the analysis is consistent with similar result.

5.3 Implications

Based on the findings from the empirical analysis, the study offers the following implications through which they can work to improve finance company's management practice and to have effective role in increasing profitability of finance company. It also includes recommendations.

Managerial Implication

1. Managers should pay more attention to maintain effective CAR its optimum ratio positively enhances profitability while over ratio leads to underutilized its assets and under ratio face higher risk in the marketplace.
2. Managers should make different management strategy to increase the ROE.
3. Stakeholders should get information about components effects to the ROA.
4. Managers and employee of the finance company should make strategy to reduce NPL.
5. Managers should know CAR and make a management strategy to maintain in its requirement level.
6. Bank should focus on non-interest-bearing deposit or low cost borrowing to enhance profitability.
7. Managers should get information about factor affecting profitability of the company.

This study was to empirically investigate the factors that determine the bank’s performance in Nepal, considering the variables (capital adequacy, non-performing loan, cash reserve, interest income to loan and advance, interest expenses to deposit and borrowing) where it was neutralizing the impact of other variables.

Scope for further study

The researcher reviewed a number of theoretical and previous empirical studies related to the determinants of performance using financial tools and statistical tools where it was neutralizing to other quantitative test like hypothesis, t test and z test. Further researcher should do research on determinant of profitability on banking industry and insurance company and also consider various variables net interest margin, efficiency ratio, loan loss provision ratio.

References

Ally, A. R. (2022). Influence of macro-Economic factors on financial performance of commercial banks in Tanzania. *International Journal Economic and Finance*, *14*(1), 74-92.

Alshammari, S. H., Majeed, Z. K., Mahdi, R. A. A., & Hasan, M. F. (2024). The Impact of Determinants of Commercial Banks' Profitability on Banking Sustainability. *European Journal of Science, Innovation and Technology, 4*(2), 330-349. Retrieved from https://www.ejsit-journal.com/index.php/ejsit/article/view/421

Antoun, R., Coskun, A., & Georgievski, B. (2018). Determinants of financial performance of banks in Central and Eastern Europe. *Business and Economic Horizons, 14*(3), 513-529.

Barone, A. (2023, March 28). Meaning of Bank. Retrieved from Investopedia: https://www.investopedia.com/terms/b/bank.asp

Beers, B. (2024, April 28). *What Does a High Capital Adequacy Ratio Indicate?* Retrieved from Investopedia: https://www.investopedia.com/ask/answers/040115/what-does-it-mean-when-company-has-high-capital-adequacy-ratio.asp

Belcaid, K., & Al-Faryan, M. A. S. (2024). Determinants of Bank Profitability in the Context of Financial Liberalization: Evidence from Morocco. *Business Perspectives and Research, 12*(1), 164-180.

Bhandarai, K. (2023). *Determinant of profitability of Nepalese finance company.* Kritipur, Kathmandu: Unpublished dissertation, Central Department of Management, TU.

CFI Team. (2022, December 7). *Macroeconomic Factor.* Retrieved from Corporate finance institute: https://corporatefinanceinstitute.com/resources/economics/macro economic-factor/

Islam, M. A., Sarker, M. N. I., Rahman, M., Sultana, A., & Prodhan, A. S. (2017). Determinants of profitability of commercial banks in Bangladesh. *International Journal of Banking and Financial Law, 1*(1), 1-11.

Kagan, J. (2024, April 3). *How Do Commercial Banks Work, and Why Do They Matter?* Retrieved from Investopedia: https://www.investopedia.com/terms/c/commercial bank.asp

Magar, R. T. (2024). Non-Performing Assets and Profitability Analysis of Nepalese Commercial Banks (Doctoral dissertation, Faculty of Management).

Magoma, A., Mbwambo, H., Sallwa, A., & Mwasha, N. (2022). Financial Performance of Listed Commercial Banks in Tanzania: A CAMEL MODEL Approach. *African journal of applied research, 8*(1), 228-239.

Mengstie, B., Mosisa, T. & Mosisa, T. (2024). Impact of working capital management on profitability of private commercial banks in Ethiopia. *Journal of Innovation and Entrepreneurship, 13*(1), 23.

Niraula, S. (2023). *Determinants of financial performance of commercial banks in Nepal*. Putalisadak, Kathmandu: Unpublished dissertation, Shankerdev Campus.

Orando., N. O., Nyangau, A., Maobe, A. (2024). Effect of asset quality on financial performance of listed commercial banks in Kenya. *International Academic Journal of Economics and Finance, 4*(1), 404-419.

Paukmongkol, W. (2024). Determinants of Bank Profitability in Thailand by Generalized Method of Moments Estimation. *Asia Social Issues, 17*(1), e260597-e260597.

Prajapati, R. (2024). *Determinants of Profitability of Nepalese Commercial Banks* (Doctoral dissertation, Faculty of Management). Shankerdev Campus, Putalisadak

Priharta, A., & Gani, N. A. (2024). Determinants of bank profitability: Empirical evidence from Republic of Indonesia state-owned banks. *Contaduría y Administración, 69*(3), 453.

Ratnasari, D., & Nirmala, T. (2024). Factors Affecting Return on Assets in 5 Conventional Commercial Banks in 2015-2022. *International Journal of Social Science, Education, Communication and Economics (SINOMICS JOURNAL), 2*(6), 1827-1838.

Read, E, & Gill, E. K. (1989). *Commercial banking (4 th ed.).* NJ, USA: Englewood cliffs.

Shrestha, P. M. (2020). Determinants of financial performance of Nepalese commercial banks: Evidence from panel data approach. *NRB Economic review, 32*(2), 45-59.

Shrestha, R. (2022). *Determinant of profitability of Nepalese commercial bank*. Putalisadak, Kathmandu: Unpublished Dissertation, Shankerdev Campus.

Subedi, S. (2022). *Determinant of profitability of Nepalese commercial bank.* Pokhara, Kaski: Unpublished dissertation, Prithivi Narayan Campus.

Tally Soulution. (2021, Dec 13). *Profitability Analysis*. Retrieved from Tally solutions: https://tallysolutions.com/accounting/profitability-analysis/

Thiong'o, P. K., Matata, D. K., & Kamau, D. C. G. (2024). Loan Portfolio Growth and Financial Performance of Commercial banks in Kenya. *Ease African finance journal 3*(1) 27-47.

Will, K. (2022, June 1). *Financial Performance: Definition, How it Works, and Example.* Retrieved from Investopedia: https://www.investopedia.com/terms/f/financial performance.asp

Appendix I

Rastriya Banijya Bank Limited (in%)

FY	ROA	ROE	CAR	CRR	NPA	CDR	Int Inc to Loan and Adv	Int Exp to Dep and Borw.
2013/14	1.47	76.95	4.62	19.38	6.38	56.73	9.1	2.04
2014/15	3.22	65.32	10.16	14.48	5.38	61.05	8.23	1.53
2015/16	1.42	24.24	10.46	14.09	4.25	58.46	8.32	1.27
2016/17	1.6	26.33	10.39	9.60	3.77	69.30	7.78	1.24
2017/18	1.42	19.18	11.47	8.29	4.75	71.38	9.2	1.76
2018/19	2.23	23.37	13.39	6.44	4.59	77.15	8.97	2.29
2019/20	1.64	19.33	12.64	7.32	4.08	67.16	9.63	3.3
2020/21	1.1	11.93	13.46	3.54	3.23	73.62	6.99	2.97
2021/22	1.3	14.02	13.29	7.32	2.99	84.90	7.93	4.72
2022/23	0.91	7.23	12.92	6.98	2.72	76.94	10.27	5.71

Nepal Bank Limited (in %)

FY	ROA	ROE	CAR	CRR	NPA	CDR	Int Inc to Loan and Adv	Int Exp to Dep and Borw.
2013/14	0.92	19.49	4.55	9.6	5.12	59.45	12.16	3.6
2014/15	0.55	13.00	7.49	11.55	3.98	68.45	9.59	3.1
2015/16	2.79	7.07	10.2	17.46	3.11	71.05	9.86	2.49
2016/17	2.78	23.85	14.47	18.81	3.32	79.17	9.73	2.52
2017/18	2.41	23.57	11.27	9.05	3.37	75.68	12.22	2.15
2018/19	1.68	14.03	16.8	28.73	2.64	78.14	11.23	4.35
2019/20	0.01	8.87	17.01	29.54	2.47	72.25	11.16	5.17
2020/21	1.43	9.36	16.8	26.81	2.05	82.76	8.78	4.21
2021/22	1.21	8.51	15.05	22.98	1.83	81.81	9.59	5.48
2022/23	1.23	9.55	13.74	33.39	2.85	90.05	14.09	7.49

Machhapuchhre Bank Limited (in%)

FY	ROA	ROE	CAR	CRR	NPA	CDR	Int Inc to Loan and Adv	Int Exp to Dep and Borw.
2013/14	1.12	14.05	10.63	26.28	1.78	79.56	9.6	4.63
2014/15	1.26	15.44	12.24	27.36	0.64	78.77	8.93	2.97
2015/16	1.51	16.82	12.36	24.52	0.55	84.59	7.9	3.13
2016/17	1.89	15.03	16.82	26.29	0.38	88.47	9.87	4.76
2017/18	1.47	12.07	15.36	25.26	0.44	89.78	12.09	6.93
2018/19	1.61	15.1	12.79	23.7	0.37	87	12.96	7.16
2019/20	1.02	10.92	13.09	23.83	0.52	88.56	11.76	7.02
2020/21	1.02	12.09	12.06	27.08	0.62	86.53	9.35	4.91
2021/22	0.94	11.64	13.36	21.4	1.04	86.32	11.39	6.74
2022/23	0.87	10.06	13.58	29.43	2.26	81.35	14.36	8.79

NIC Asia Bank Limited (in %)

FY	ROA	ROE	CAR	CRR	NPA	CDR	Int Inc to Loan and Adv	Int Exp to Dep and Borw.
2013/14	1.71	15.93	14.05	26.86	2.33	82.93	10.45	5.99
2014/15	1.21	13.05	12.49	28.91	1.57	81.03	8.31	5.12
2015/16	1.51	16.5	12.44	23.79	1.79	85.62	7.77	4.41
2016/17	1.64	16.84	13.83	25.8	2.03	83.7	9.1	5.61
2017/18	0.97	12.09	12.24	24.45	1.1	86.3	10.12	6.53
2018/19	1.56	22.73	13.32	26.05	0.46	84.55	11.74	6.71
2019/20	1.32	19.26	13.5	27.09	0.75	85.75	10.39	6.21
2020/21	1.09	17.09	12.47	20.65	0.5	87.58	8.06	4.81
2021/22	1.2	18.43	13.38	20.3	0.53	89.85	10.82	7.41
2022/23	1.23	16.39	13.36	22.23	0.88	86.17	12.67	8.39

Nabil Bank Limited (in %)

FY	ROA	ROE	CAR	CRR	NPA	CDR	Int Inc to Loan and Adv	Int Exp to Dep and Borw.
2013/14	2.89	27.97	11.24	11.32	2.23	74.55	10.16	4.96
2014/15	2.06	22.73	11.57	14.15	1.82	64.43	8.50	5.39
2015/16	2.32	25.61	11.73	6.77	1.14	79.49	8.08	4.35
2016/17	2.69	22.41	12.42	10.02	0.80	65.38	9.44	5.77
2017/18	2.61	20.94	13.00	10.05	0.55	82.66	11.36	7.84
2018/19	2.11	17.76	12.50	4.78	0.74	81.96	11.41	2.69
2019/20	1.56	13.61	13.07	11.20	0.98	79.72	10.98	2.56
2020/21	1.71	15.19	12.77	3.66	0.84	89.84	9.37	1.65
2021/22	1.20	9.78	13.09	4.13	1.62	92.49	10.28	2.15
2022/23	2.89	27.97	11.24	11.32	2.23	74.55	10.16	4.96

Nepal SBI Bank Limited (in %)

FY	ROA	ROE	CAR	CRR	NPA	CDR	Int Inc to Loan and Adv	Int Exp to Dep and Borw.
2013/14	1.50	22.85	13.28	9.32	0.26	65.54	9.55	4.02
2014/15	1.64	17.08	14.03	10.92	0.19	78.29	9.65	3.37
2015/16	1.59	17.46	13.49	8.33	0.14	72.90	8.53	2.22
2016/17	1.57	14.87	15.71	10.04	0.10	78.07	9.51	3.40
2017/18	1.97	15.81	15.15	7.18	0.20	89.60	11.49	5.62
2018/19	1.94	16.20	14.12	6.65	0.20	90.52	12.72	6.49
2019/20	1.17	10.44	15.55	8.89	0.23	85.50	12.10	6.40
2020/21	0.70	6.26	13.86	3.22	0.23	98.58	8.87	5.13
2021/22	1.07	9.57	13.25	3.05	0.15	92.37	9.81	6.08
2022/23	1.06	10.77	12.58	4.06	2.43	81.42	12.32	7.38

DETERMINANTS OF FINANCIAL PERFORMANCE OF NEPALE...

By: Saroj Lamichhane

As of: Jun 5, 2024 12:34:12 PM
14,151 words - 76 matches - 9 sources

Similarity Index
9%

Mode: Summary Report

sources:

238 words / 2% - from 21-Jan-2024 12:00AM
elibrary.tucl.edu.np

292 words / 2% - from 16-Apr-2024 12:00AM
www.himalkhabar.com

139 words / 1% - from 17-Jan-2024 12:00AM
elibrary.tucl.edu.np

83 words / 1% - from 17-Feb-2024 12:00AM
elibrary.tucl.edu.np

175 words / 1% - from 29-Jun-2023 12:00AM
dspace.daffodilvarsity.edu.bd

119 words / 1% - Internet from 21-Nov-2009 12:00AM
www.nrb.org.np

96 words / 1% - from 06-May-2024 12:00AM
ejsit-journal.com

86 words / 1% - Internet from 17-Nov-2020 12:00AM
www.researchgate.net

84 words / 1% - Internet from 19-Feb-2019 12:00AM
etheses.saurashtrauniversity.edu

paper text:

ABSTRACT Bank is a financial institution which collects deposit from general public and advancing loan to borrowers with the aim of earning profit. Profit of the bank is influenced by various internal and external economic factor.

The main objective of study is to analyze examine and interpret the financial position of sample commercial bank with

the help of ratio analysis and other relevant financial and statistical tools. It is focused to examine relationship between internal factor and bank's profitability and to analyze the impact of internal factor on bank's profitability. This study is