

**DETERMINANTS OF PROFITABILITY OF NEPALESE
DEVELOPMENT 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

Hardik Bangdel

Shanker Dev Campus

Campus Roll No.: 335/075

T.U. Regd. No.: 7-2-205-42-2005

Exam Roll No: 13374/2019

Group: Finance

Kathmandu Nepal,

December, 2024

CERTIFICATION OF AUTHORSHIP

I hereby validate that I have researched and submitted the final draft of dissertation entitled “**Determinants of Profitability of Nepalese Development Banks**”. The work of this dissertation has not 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 the information sources and literature used are cited in the reference section of the dissertation.

.....
Hardik Bangdel

REPORT OF RESEARCH COMMITTEE

Mr. Hardik Bangdel has defended research proposal entitled “**Determinants of Profitability of Nepalese Development 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 Dhruba Subedi Submit the thesis for evaluation and viva-voce examination.

.....

Dhruba Subedi

Dissertation Supervisor

Dissertation Proposal Defended Date:

.....

Dissertation Submitted Date:

.....

.....

Asso. Prof. Dr. Sajeeb Kumar Shrestha
Head, Research Department

Dissertation Viva-voce Date:

.....

APPROVAL SHEET

We, the undersigned, have examined the thesis entitled “**Determinants of Profitability of Nepalese Development Banks**” Presented by Hardik Bangdel Candidate for the degree of Master of Business Studies (MBS Semester) and conducted the Viva voce examination of the candidate. We hereby certify that the thesis is worthy of acceptance.

.....

Dhruba Subedi

Dissertation Supervisor

.....

Internal Examiner

.....

Internal Expert

.....

External Expert

.....

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

.....

Joginder Goet

Acting Campus Chief

ACKNOWLEDGEMENT

This thesis entitled “**Determinants of Profitability of Nepalese Development Banks**” has been prepared in partial fulfillment for the Degree of Master of Business Studies (MBS) under the course designed by the Faculty of Management, Tribhuvan University.

I have great satisfaction and pleasure to express my appreciation and sincerity to my thesis supervisor Mr. Dhruva Prasad Subedi of Shanker Dev Campus, TU for his excellent and effective guidance and supervision. I will remain thankful for his valuable direction useful suggestion and comments during the course of preparing this thesis, without his help this work would not have come in this form. I also would like to extend my debt of gratitude to Asso. Prof. Dr. Sajeeb Kumar Shrestha, Head of Research Department, and I owe a deep debt of gratitude to Mr. Jogindar Goet, Acting Campus Chief of Shanker Dev Campus, who provided me an opportunity to undertake this research work.

I highly appreciate to all the respective banks, NRB Library, Shanker Dev Campus Library and TU Central Library for their valuable advices and support in collecting and presenting the necessary data. I would like to take the responsibility of any possible mistakes that may have occurred in the report. I would be delighted to welcome readers for their suggestion and recommendation to improve the report.

Finally, I would like to offer my profound gratitude to my supervisor, family members, my friends, colleagues, well-wishers for their encouragement and support during the entire period of this study. With their help and support, I have been able to complete this work.

Hardik Bangdel

December, 2024

TABLE OF CONTENTS

| | |
|---|------|
| CERTIFICATION OF AUTHORSHIP | ii |
| ACKNOWLEDGEMENT | v |
| LIST OF TABLES | viii |
| LIST OF FIGURES | ix |
| ABBREVIATIONS | x |
| CHAPTER I: INTRODUCTION..... | 1 |
| 1.1 Background of the Study | 1 |
| 1.2 Profits and Profitability | 2 |
| 1.3 Statement of the Problems..... | 3 |
| 1.4 Objectives of the Study | 3 |
| 1.5 Limitation of the Study..... | 4 |
| 1.6 Rationale of the Study | 4 |
| 1.7 Organization of the Study..... | 5 |
| CHAPTER II: LITERATURE REVIEW | 6 |
| 2.1 Introduction | 6 |
| 2.2 Conceptual Review..... | 7 |
| 2.2.1 Concept of Development Bank..... | 7 |
| 2.2.2 Concept of Profitability | 7 |
| 2.3 Theoretical Review..... | 11 |
| 2.3.1 Managerial Efficiency Theory of Profit | 11 |
| 2.3.2 Innovation Theory of Profit..... | 11 |
| 2.3.3 Surplus Value Theory of Profit | 12 |
| 2.3.4 Theory of Risk and Uncertainty Bearing..... | 12 |
| 2.3.5 Monopoly & Market Power Theory | 12 |
| 2.3.6 Frictional Theory (Transaction Cost Economics)..... | 12 |
| 2.4 Empirical Review | 13 |
| 2.5 Review of Literature in Nepalese Context | 28 |
| 2.6 Research Gap..... | 44 |
| CHAPTER III: RESEARCH METHODOLOGIES | 45 |
| 3.1 Introduction | 45 |
| 3.2 Research Design | 45 |

| | |
|--|-----------|
| 3.3 Population and Sample | 46 |
| 3.4 Sources and Techniques of Data Collection..... | 47 |
| 3.4.1 Sources of Data Collection..... | 47 |
| 3.4.2 Techniques of Data Collection | 47 |
| 3.5 Data Analysis Tools | 47 |
| 3.5.1 Financial Tools | 48 |
| 3.5.2 Statistical Tools | 48 |
| 3.6 Research Framework and Definition of Variables | 48 |
| 3.6.1 Independent Variables | 49 |
| 3.6.2 Dependent Variables | 52 |
| CHAPTER IV: PRESENTATION AND DATA ANALYSIS..... | 56 |
| 4.1 Introduction | 56 |
| 4.2 Data Presentation & Analysis..... | 56 |
| 4.2.1 Descriptive Statistical Analysis of Variables | 56 |
| 4.2.2 Correlation Analysis..... | 58 |
| 4.2.3 Multiple Regression Analysis..... | 62 |
| 4.3 Discussion | 74 |
| CHAPTER V: SUMMARY, CONCLUSION & IMPLICATIONS | 76 |
| 5.1 Summary | 76 |
| 5.2 Conclusion..... | 77 |
| 5.3 Implications | 79 |
| REFERENCES | 83 |
| APPENDICES | 87 |

LIST OF TABLES

| | |
|---|----|
| Table 1: Summary of Empirical Review | 20 |
| Table 2: Summary of Review of Literature in Nepalese Context..... | 34 |
| Table 3: List of sample Development Banks | 46 |
| Table 4: Descriptive Statistics of the Variables | 56 |
| Table 5: Correlation Matrix between Variables..... | 60 |
| Table 6: ROE Model Summary | 63 |
| Table 7: Analysis of Variance (ANOVA) Table- ROE..... | 65 |
| Table 8: ROE Coefficient Matrix | 66 |
| Table 9: ROA Model Summary | 67 |
| Table 10: Analysis of Variance (ANOVA) Table- ROA..... | 68 |
| Table 11: ROA Coefficient Matrix | 69 |
| Table 12: Tobin's Q Model Summary | 71 |
| Table 13: Analysis of Variance (ANOVA) Table- Tobin's Q | 72 |
| Table 14: Tobin's Q Coefficient Matrix | 73 |

LIST OF FIGURES

| | |
|-----------------------------------|----|
| Figure 1: Research Framework..... | 49 |
|-----------------------------------|----|

ABBREVIATIONS

| | |
|-------|--|
| BC | : Bank Capital |
| BD | : Bank Deposit |
| BL | : Bank Lending |
| BS | : Bank Size |
| CAR | : Capital Adequacy Ratio |
| CRM | : Customer Relationship Management |
| EPS | : Earning Per Share |
| FOM | : Faculty of Management |
| FY | : Fiscal Year |
| GBBL | : Garima Bikas Bank Limited |
| GDP | : Gross Domestic Product |
| JBBL | : Jyoti Bikas Bank Limited |
| MNBBL | : Muktinath Bikas Bank Limited |
| NII | : Non-Interest Income |
| NIM | : Net Interest Margin |
| NPL | : Non-Performing Loan |
| NPM | : Net Profit Margin |
| NPR | : Nepalese Rupees |
| NRB | : Nepal Rastra Bank |
| OIC | : Organization of Islamic Cooperation |
| ROA | : Return on Assets |
| ROE | : Return on Equity |
| SADBL | : Shangri-la Development Bank |
| SHINE | : Shine Resunga Development Bank Limited |
| SME | : Small and Medium-Sized Enterprises |
| TU | : Tribhuvan University |

ABSTRACT

This study investigates the determinants of profitability in Nepalese development banks, focusing on the role of key factors such as bank capital, deposits, lending, size, and the CAR. Using secondary data from published financial statements and reports of selected five banks, the analysis employs correlation and regression methods to examine their impact on profitability indicators: the ROA, the ROE, and the Tobin's Q, and aims to provide a comprehensive understanding of how internal and regulatory variables impact profitability and market valuation. The findings reveal significant variability across the banks in terms of size, deposits, and lending, with substantial interdependence among these variables. CAR exhibits a negative relationship with profitability measures, suggesting that regulatory compliance may impose constraints on banks' profitability. ROA demonstrates a negative association with bank capital, deposits, lending, and size, while ROE is positively correlated with ROA, underscoring the alignment between operational efficiency and shareholder returns. Notably, Tobin's Q shows a weak relationship with these variables, indicating the influence of external market factors on market-based valuations, but positively correlates with ROE and ROA. The findings further highlight the limited explanatory power of the selected financial variables on profitability metrics, suggesting that while operational factors like bank lending marginally impact profitability, external and qualitative factors such as market conditions, customer satisfaction, and technological innovation warrant further investigation. This research underscores the need for a multidimensional approach to enhancing the performance of Nepalese development banks. Policymakers are urged to strike a balance between regulatory compliance and profitability enhancement, while banks should prioritize efficiency, optimize resource allocation, and embrace technological advancements to remain competitive.

Keywords: Profitability, Nepalese Development Banks, Bank Capital, Bank Deposits, Bank Lending, Bank Size, CAR, ROE, ROA, Tobin's Q, Correlation & Regression Analysis, Policy Implications, Operational Efficiency.

CHAPTER I: INTRODUCTION

1.1 Background of the Study

One of Nepal's vibrant industries is the banking and financial sector. They support the nation's overall development and aid in its economic expansion. In this day and age, the banking and financial industry and its significance are quite important and necessary to sustain as well. By issuing shares and taking deposits, banks and financial organizations give citizens the chance to take part in the development process. With the aid of the banking sector, it is possible to develop in the areas of agriculture, tourism, trade, and commerce. This is a means of making investments and generating job possibilities. Banks and other financial institutions are crucial for an economy's smooth operation since they act as financial intermediaries.

Financial performance is a measure of how well a bank can utilize the resources from its main line of business to create income. Any nation's financial system must include the banking sector. Thus, the economy's overall health is greatly impacted by its success or failure. The study of the factors that influence financial performance is also fascinating since it helps policy-making bodies develop the right regulatory environment when necessary and is very helpful to managers in terms of enhancing organizational performance. Bank and financial institutions contribute investment and consumption amounts in a country. These functions of the banks help to accelerate economic activity. In addition to the benefits above, the banking sector helps to reduce unemployment in a country by employing many people in their branches. In short, the banking sector plays an essential role for economies.

Banks can make significant profits by keeping a country's savings in deposit accounts and lending more of them thanks to the process of creating new money. In order to be profitable and for economies to remain stable, banks should manage their risks and assets well.

This thesis seeks to identify the determinants of profitability of Nepalese development banks. The findings in this could be utilized by academic researchers, policy makers, bank managers, investors to test the determinants of profitability.

1.2 Profits and Profitability

Banks, similar to other enterprises, generate profit when their income surpasses their expenses. The predominant source of a bank's earnings comes from the fees imposed for its services and the interest accrued on its assets. Conversely, the principal expense for a bank is the interest it pays on its liabilities. The main assets held by a bank include loans extended to individuals, corporations, and various organizations, along with the securities in its portfolio. In contrast, the primary liabilities consist of customer deposits and funds borrowed from other financial institutions or through the acquisition of commercial paper in the money market.

Profitability is defined as a business's capacity to utilize its resources to generate greater revenue than its expenditures. This concept essentially pertains to the organization's ability to earn income from its operational activities. Profitability stands as one of the four critical dimensions for assessing financial statements and the overall success of a company, alongside market prospects, solvency, and efficiency. These core principles are employed by creditors, managers, and investors to evaluate a company's performance and its potential for future growth.

The following points will elaborate more on why profitability is important for banks-

- Banks need to be profitable in order to sustain, grow, and expand over a long period of time,
- Banks need to be profitable in order to pay the depositors' interest and principal amount,
- Banks need to be profitable in order to be able to refund the deposit and invest in various sectors,
- Profits contribute to banks' capital, which in return, strengthens their ability to lend more and earn more profits,
- Profits helps in maintaining the shareholders' confidence in the bank,
- Profitability helps banks meet its regulatory capital requirements, which in return, ensures the financial stability and security in banking system

1.3 Statement of the Problems

Today's banks face significant challenges in balancing the expectations of various stakeholders, including investors, employees, depositors, and borrowers, while also adhering to the requirements set forth by government regulators regarding the soundness and efficiency of their policies, loans, and investments. The core objective of banks is to generate profit, which is achieved through the development and execution of lending strategies overseen by senior management. Effective management of liquidity, non-performing loans, and asset policies is crucial in determining the banks' profitability. Development banks, in particular, must secure a certain level of profit to thrive in a competitive landscape, ensuring compliance with the mandates established by relevant laws and regulations. Consequently, managers are tasked with making informed decisions regarding operational matters. There is a growing demand for banks to offer improved, expedited, and more tailored services. The liberalized economic policies in Nepal's banking sector have facilitated the entry of numerous private and joint venture banks, leading to intense competition that influences profitability. However, various challenges hinder banks' ability to maintain profitability, including government monetary policies, intense competition, and the prevailing political environment in the country. This study attempts to address the following issues;

- What are the factors affecting profitability of Nepalese development banks?
- Is there any relationship between Bank Capital, Bank Deposit, Bank Lending, Bank Size, and Capital Adequacy Ratio & Return on Equity, Return on Assets, and Tobin's Q?
- How does Bank Capital, Bank Deposit, Bank Lending, Bank Size, and Capital Adequacy Ratio, affects the Return on Equity, Return on Assets, and Tobin's Q?

1.4 Objectives of the Study

The general objective of this study is to examine the profitability position and its determinants factors of selected development banks in Nepal. The specific Objectives of the study are as follows:

- To identify the factors influencing the profitability of Nepalese development banks.
- To examine the relationships between the variables, such as bank capital, bank deposit, bank lending, bank size, and capital adequacy ratio & profitability

indicators, such as ROE, ROA & market value indicator such as Tobin's Q of Nepalese development banks,

- To analyze the impact of bank capital, bank deposit, bank lending, bank size, and capital adequacy ratio on the profitability measures such as ROE, ROA, and market valuation- Tobin's Q of Nepalese development banks.

1.5 Limitation of the Study

Following are the some of the limitations of this study

- It has been conducted in the limited time and resources,
- Research is based on secondary data from 2070/71 (2013-2014) to 2079/80 (2022-2023) collected from respective annual reports of banks. As such, reliability of the data is limited to the fair disclosure of data by the banks in their annual reports,
- Statistical tools used in the data analysis to draw inferences are prone to their inherent limitations considering sample size of the study,
- The study includes samples drawn from the five development banks out of the seventeen which may not be sufficient to draw inferences about the whole population sample,
- Only profitability aspects of the banks are carried under this research. Liquidity aspect of the bank and its impact on profitability has not been pursued.

1.6 Rationale of the Study

With increasing competition and regulatory changes in the banking and financial sector, understanding the factors that affect the profitability of banks has become more important for both stakeholders and policymakers. The profitability of the financial institutions plays a critical role in the overall development of economic stability and sustainable growth of Nepal. This study is relevant because it addresses the key gaps in the literature of the determinants of profitability in Nepalese development banks, with focuses on specific variables such as bank capital, bank deposit, bank lending, bank size, and capital adequacy ratio, which are commonly overlooked or inadequately analyzed and assessed in previous studies.

Given the unique landscape of Nepalese economic condition, where development banks are focused or instrumental in supporting rural development and SMEs, this study provides valuable insights into how some important variables impact the key profitability metrics. Identifying these determinants can help banks to better their strategies for profitability and long-term growth, which allows them to meet both the regulatory standards and shareholders expectation.

This study also helps regulators and banking professionals to improve their decision-making process, in order to identify the most effective strategies to enhance banks profitability. Moreover, understanding the profitability drivers is crucial for investors and stakeholders seeking to optimize their investments and forecast the future growth prospects.

1.7 Organization of the Study

This research has been organized in the manner below:

Chapter I: Introduction - The first chapter deals with introduction. This includes background, statement of problem, objectives of the study, and limitation of the study.

Chapter II: Literature Review - Different books, journal, periodicals etc. are reviewed during the study period and these are shown in this chapter.

Chapter III: Research Methodology - This chapter clarifies the nature of the whole research. It includes, research design, sources of data and collection procedure etc. similarly, data are analyzed using different tools and techniques and all of these techniques are briefly defined in this chapter.

Chapter IV: Presentation and Analysis of Data - The fourth chapter presents the data collected from different sources & its analysis and presentation.

Chapter V: Summary, Conclusion and Implications - The fifth chapter summaries the main conclusions and offers suggestions for further improvement. After completion of these five chapters, a list of literature that reviewed earlier is included alphabetically in *bibliography*. Likewise, data, information, calculation sheet etc. are incorporated in *appendix*.

CHAPTER II: LITERATURE REVIEW

2.1 Introduction

In this sector, I review the existing empirical research regarding the profitability of a bank. My purpose is to give a comprehensive overview of important findings of previous studies. Development banks, which provide long-term financing to diverse sectors in many nations, play a crucial role in fostering economic growth and development. Nonetheless, it is crucial to evaluate these banks' profitability to guarantee their efficiency and sustainability. The ability of development banks to earn returns on their investments while carrying out their social and developmental missions is assessed using profitability analysis. In this study of the literature, we'll look at the studies that have already looked at the determinants of profitability of Nepalese banks. With the help of this evaluation, policy and practice aiming at enhancing the efficiency and sustainability of development banks in Nepal will be informed and improved.

The primary objective of examining previous research is to gain insights from studies that have effectively utilized comparable concepts and methodologies in the past. Furthermore, a comprehensive review can reveal significant relationships among the diverse trends and stages within a specific research domain, enhancing one's familiarity with unique perspectives, theories, and interpretations associated with specialized terminology, while also offering a rationale for comprehending the proposed inquiry.

There have been a number of research papers on determinants of profitability of Nepalese banks. All these studies propose that the determinants of profitability for bank can be divided into two groups; internal and external factors. Internal and external factor play an important role on banks profitability. Therefore, various researchers have identified different internal (bank specific) and external (macroeconomic) factors and analyzed their effects on banks profitability in varying dimensions. Therefore, this chapter deals with the theoretical as well as empirical review of major studies related to the determinants of profitability of Nepalese banks.

2.2 Conceptual Review

2.2.1 Concept of Development Bank

Development banks provide financing for developmental projects that have economic potential. Their primary role is to offer medium and long-term funds. These banks are specifically established to promote and develop a particular sector of the economy. Their main objective is to provide medium and long-term loans for the establishment, development, and modernization of sectors such as agriculture, industry, and basic infrastructure projects.

Following the implementation of the Development Bank Act in 1996, numerous development banks have been established with active participation from the private sector. The main goals of this act are to enhance agriculture, industry, and commerce by providing credit facilities to the public. Prior to this act, there were only two development banks, namely the Agricultural Development Bank (which has since been converted into a commercial bank in 2006) and the Nepal Industrial Development Corporation, both of which were government-owned. Currently, development banks operate under the Bank and Financial Institutions Act of 2017 and hold the status of "B" class financial institutions. The necessary directives for the effective regulation of these banks are issued by the NRB, which is also the central bank of Nepal.

2.2.2 Concept of Profitability

Profit is the surplus income that a company retains after deducting expenses from its revenue. It represents the remaining earnings that can be utilized for future growth, expansion, or distributed as dividends to the entrepreneur. Essentially, profit is the anticipated accessible income after subtracting all expenses, fees, charges, and provisions from the total revenue within a specific time period. It is crucial for every organization to generate profit in order to sustain and thrive over time. Profitability, which is the ability of a business to generate more money than it spends, serves as a key indicator of its success. It signifies the business's capability to generate income through its operations. Profitability is one of the four pillars used to evaluate financial statements and overall company performance, alongside market prospects, solvency, and effectiveness. These fundamental concepts are employed by creditors, managers, and investors to assess a company's performance and growth potential. The components of profitability are

revenues and expenses. Revenues refer to the income generated by selling goods or providing services to clients, while expenses encompass various costs such as employee payroll, rent, utilities, and production-related expenses. By analyzing the relationship between revenues and expenses, profitability helps determine a company's operational efficiency and future growth prospects.

Banks, like any other business, generate profits by ensuring that their revenue surpasses their expenses. The major contributors to a bank's profits are the fees it levies for its services and the interest it earns on its assets. Conversely, the primary expenditure for a bank is the interest it pays on its liabilities. The main assets of a bank consist of the loans it extends to individuals, businesses, and other entities, as well as the securities it possesses. On the other hand, the primary liabilities of a bank include its deposits and the funds it borrows, either from other banks or by acquiring instrument like commercial paper, in the money market.

Profitability holds great importance within the banking sector due to the following reasons:

- Ensuring compliance with the regulations set by NRB, banks need to maintain a sufficient capital fund, which can be achieved through profitability.
- In order to sustain and expand their operations in the long run, banks must generate profits. This allows them to invest in new opportunities, enhance their services, and adapt to changing market conditions.
- Profitability plays a crucial role in satisfying shareholders' expectations and maintaining their trust.
- Profitability enables banks to provide interest payments to depositors, ensuring that their funds are rewarded for being held within the bank.
- By generating profits, banks can release deposits and allocate funds towards investments in various sectors. This diversification helps stimulate economic growth and development.
- Profitability serves as an indicator of the bank's performance in managing non-performing assets and non-performing loans. It allows banks to assess the extent of these issues and take appropriate measures to address them.

- Dealing with foreign exchange transactions requires profitability as it provides the necessary financial resources to facilitate international trade and manage currency fluctuations effectively.

Hakuduwal (2021), “Impact of Bank Specific Factors on Profitability of Nepalese Commercial Banks”, investigated the impact of bank-specific variables on the profitability of commercial banks in Nepal. It utilizes total assets, deposits, loans, and equity as independent variables, with return on assets (ROA) serving as the dependent variable. Through the analysis of panel data spanning from 2012 to 2018, the study reveals that both assets and loans contribute positively to profitability, whereas equity does not exhibit a significant effect, and deposits are found to negatively influence profitability.

Neupane (2020) conducted the research on “Profitability Determinants of Nepalese Commercial Banks” and the findings of the analysis indicate that the profitability of Nepalese commercial banks, as measured by the ROA, is significantly influenced by the concentration ratio, the development of the banking sector, GDP growth, inflation, and exchange rate, all in the opposite direction. However, internal factors such as bank size, capital base, deposits, loans, off-balance sheet activities, and the number of branches does not have a significant impact on bank profitability. Another indicator of bank profitability, NIM, is significantly affected only by capital adequacy, the absolute number of branches, and the inflation rate. In conclusion, this study demonstrates that the profitability of Nepalese commercial banks, as measured by the return on assets, is primarily influenced by external factors. Industry-specific factors have a high degree of impact on return on assets, while macroeconomic variables have a weaker but still significant impact on bank profitability. Furthermore, the profitability measured by the NIM is significantly influenced only by capital adequacy, the absolute number of branches, and the annual inflation rate.

Brahmaiah & Ranajee (2018) conducted a study on “Factors Influencing Profitability of Banks in India” to examine the factors influencing the profitability of Indian commercial banks considering increased globalization, intensified competition, and enhanced concentration. The dataset used in this study consists of 89 banks operating in India from 2005 to 2015. It is a balanced panel dataset, meaning that it includes data for each bank

across the entire time period. In order to measure the profitability of these banks, they use two proxies: the ROA and the ROE. Their findings reveal that the profitability of banks in India is influenced by various factors, both internal and external. Factors such as the strength of equity capital, operational efficiency, and the ratio of banking sector deposits to the GDP have a significantly positive impact on banks' profitability. On the other hand, factors like credit risk, cost of funds, non-performing assets (NPA) ratio, and consumer price index (CPI) inflation have a significantly negative influence on banks' profitability. Interestingly, they found that the size of the bank and the ratio of priority loans to total loans do not have any influence on profitability. Additionally, they observed that GDP growth and inflation have a significantly negative relationship with ROA, while inflation has a positive influence on ROE. These results highlight the complex nature of factors affecting the profitability of banks in India.

Alshatti (2016) conducted a study on “Determinants of banks’ profitability – the case of Jordan”. This study aims to examine the key factors that influenced the profitability of commercial banks in Jordan. It utilizes a balanced panel data set of these banks to identify significant variables specific to each bank. The data consists of 130 observations from thirteen banks over the period of 2005-2014. The profitability of banks is measured using the ROA and the ROE. The findings reveal that capital adequacy, capital, and leverage have a positive impact on banks' profitability, while asset quality has a negative impact. Additionally, the results suggest that well-capitalized banks with high capital adequacy are more likely to experience increased profitability in Jordan.

Petria et al., (2015), “Determinants of banks’ profitability: evidence from EU 27 banking system”, examines the primary factors affecting the profitability of banks within the EU27 during the period from 2004 to 2011. The determinants of bank profitability are categorized into two broad groups: internal factors specific to the banks and external factors related to the industry and macroeconomic environment. Researchers utilized return on average assets (ROAA) and return on average equity (ROAE) as indicators of bank profitability. The empirical results align with the anticipated outcomes. Factors such as credit and liquidity risk, management efficiency, business diversification, market concentration and competition, as well as economic growth, significantly impact bank profitability, influencing both ROAA and ROAE. Notably, a significant finding is the positive effect of competition on bank profitability within the EU27.

2.3 Theoretical Review

Economists have put out a variety of profit hypotheses to explain why business owners make the profits they do. Most theories revolve around the controversy around the role of the entrepreneur. A few of the core or fundamental concepts of profit are briefly explored as follows:

2.3.1 Managerial Efficiency Theory of Profit

The Managerial Efficiency Theory of Profit centers on how managerial aptitude, judgment, and effectiveness contribute to a company's ability to make a profit. The contributions of economists and management theorists who highlight the role that efficient management plays in a company's performance and profitability are especially linked to this theory.

There is no single creator or particular person connected to the Managerial Efficiency Theory of Profit. Rather, it is a compilation of notions and theories that different management academics, practitioners, and economists have refined and improved throughout time. The theory incorporates insights from academics who have studied the role of management in organizational success and profitability, drawing on the larger domains of economics and management.

Frederick Taylor, Alfred Chandler, and Peter Drucker are a few notable management theorists who have made significant contributions to our knowledge of managerial efficiency and its effect on profit. Each of these individuals has underlined the importance of sound management techniques in reaching organizational objectives and achieving financial success in a different way.

2.3.2 Innovation Theory of Profit

The Innovation Theory of Profit underscores the significance of innovation, technological progress, and ingenuity as pivotal factors in generating profits within an economy. This theory asserts that companies that effectively introduce novel products, processes, or ideas can attain a competitive advantage, resulting in augmented revenue and ultimately, greater profits. The Innovation Theory of Profit is frequently linked to renowned

economists such as Joseph Schumpeter. Firms that lead in introducing new products, processes, or ideas can gain a competitive advantage, disrupt markets, and ultimately achieve sustained profitability.

2.3.3 Surplus Value Theory of Profit

The Surplus Value Theory holds significant importance in Marxist economics, as it is extensively discussed in Marx's influential masterpiece, "Das Kapital." As per this theory, profit is obtained from the surplus value generated by labor. In a capitalist society, workers receive compensation for their essential labor (which encompasses the expenses for their survival), yet they generate additional value surpassing what is necessary for their mere subsistence. Marx contended that this surplus value is seized by the capitalist class as profit. According to this theory, profit is fundamentally linked to the surplus value created by labor.

2.3.4 Theory of Risk and Uncertainty Bearing

F.B. Hawley is credited with originating the concept of embracing opportunities, wherein he posited that entrepreneurs are rewarded with profit for undertaking risks. However, Professor F.H. Knight expanded upon this theory by differentiating risks into two categories: insurable and uncertain. Knight argues that the remuneration for an entrepreneur's unique responsibility in undertaking non-insurable risks and uncertainties is profit.

2.3.5 Monopoly & Market Power Theory

Monopoly and Market Power Theory are fundamental principles in the field of economics that center around the level of competition present in a market and the consequences of market structure on economic results. These concepts play a vital role in comprehending how market structures shape economic outcomes. They emphasize the significance of competition in promoting efficiency, innovation, and consumer well-being, while also acknowledging the potential adverse effects of concentrated market power.

2.3.6 Frictional Theory (Transaction Cost Economics)

Frictional Theory, also referred to as Transaction Cost Economics (TCE), was formulated by economist Oliver E. Williamson. This theory primarily examines the expenses linked to transactions within an economic framework, specifically the costs that arise from the

buying and selling of goods or services. Frictional Theory, or Transaction Cost Economics, offers valuable insights into the determinants of transaction costs and how economic entities, such as firms and individuals, strategize and structure their interactions to reduce these costs. It holds significant practical implications for comprehending the organization of economic activities and devising efficient contractual arrangements.

2.4 Empirical Review

An empirical review examines previous research studies and formulates research questions along with their corresponding answers. It is based on systematic research or observations and offers a comprehensive account of an alternative research project.

Chand (2024) carried out study on “Determinants of Bank Profitability—Do Institutions, Globalization, and Global Uncertainty Matter for Banks in Island Economies? The case of Fiji”, which investigates the factors influencing bank profitability in small developing economies, specifically focusing on Fiji, a nation in the South Pacific. The research analyzes the impact of institutional frameworks, globalization, and global uncertainties on bank profitability, in conjunction with traditional bank-specific and macroeconomic variables. Utilizing data from seven banks in Fiji spanning the years 2000 to 2021, the study applies a fixed-effect estimation approach. The findings indicate that net interest margin, non-interest income, bank size, and capital adequacy ratio are positively correlated with profitability, whereas non-performing loans and credit risk exert a negative influence. Additionally, macroeconomic indicators such as GDP growth and remittances have a favorable effect. The quality of institutions, the degree of globalization, and certain global events, including the Global Financial Crisis, also contribute positively to profitability, while the COVID-19 pandemic has a detrimental effect. This research underscores the necessity of incorporating external, institutional, and global elements to achieve a comprehensive understanding of banking dynamics in small developing economies.

Ngweshemi (2021) conducted a study on “The Analysis of Factors Affecting Bank Profitability: Evidence of Tanzania Commercial Banks” which aimed analyzing the factors that influences the profitability of private and public commercial banks in Tanzania by make use of annual time series, internal and external data for the period 2013

to 2019. The factors that directly impact a bank's profitability are primarily internal and specific to the bank itself. These variables are under the direct control of the management and have a strong and significant influence on the bank's profits. On the other hand, macroeconomic factors, which are beyond the control of the management, have not shown a significant impact on profitability.

Mishra, et al., (2021) conducted study on “Profitability in Commercial Bank – A Case Study of Nepal”. The objective of this study was to evaluate the impact, contribution, and relationship of various factors such as bank size, loans and deposits, inflation, and capital on the profitability of banks. To gather data, secondary data from 2013 to 2019 from seven commercial banks was collected, along with a survey conducted as primary data. The analysis involved correlation and regression techniques, as well as ratio analysis, to establish a significant association between the ROA, the ROE, and the NIM. The size of banks has been observed to be on an upward trend. Furthermore, the decreasing trend in standard deviation indicates that the Nepalese commercial banks have experienced lower variation in the utilization of total assets as the year's progress. There is a negative relationship between ROA and ROE with loan ratio, deposit ratio, and capital ratio, while a positive relationship exists with bank size and inflation. On the other hand, in the case of NIM, there is a positive relationship with bank size, loan ratio, deposit ratio, and inflation, while the capital ratio exhibits a negative relationship. The majority of respondents believe that the publication of financial reports significantly influences bank profitability.

Momba (2019) carried out a study on the topic of “The Determinants of Bank Profitability in Zambia” to examine the profitability of banks in Zambia from 2010-2016. The research utilizes bank-specific variables and applies a fixed effect model after conducting a Hausman test. Panel data from 17 commercial banks obtained from the Bank of Zambia is used for the analysis. The study focuses on three measures of profitability: the ROA, the ROE, and the NIM. These profitability measures are regressed on bank size, credit and liquidity risk measures, and bank efficiency. The empirical findings reveal that bank size, the ratio of loan loss provision to total assets, and total loans to assets significantly impact bank profitability, regardless of the profitability measure used. The results also indicate that banks pay more to depositors than they receive from loans, and a significant portion of their profit is derived from operational

income rather than interest-based income. Furthermore, bank efficiency is found to have a positive and significant impact on NIM only. Based on these findings, it is recommended that banks implement a policy to limit the amount of loans extended without collateral. This will help commercial banks reduce and mitigate the high risk of default observed in the study.

Al-Harbi (2019) conducted a research on the topic of “The determinants of conventional banks profitability in developing and underdeveloped OIC countries”. The findings indicate that banks' profitability is influenced by equity, foreign ownership, off-balance sheet activities, real GDP growth, real interest rate, and concentration. Moreover, the research demonstrates that the long-term profitability of banks in the countries under study is positively affected by the development of the banking sector and an increase in loans. Conversely, the study highlights that deposits have a negative impact on profitability. Additionally, the analysis reveals that GDP per capita, market capitalization, and banks' size do not have any significant influence on profitability. The author employs the ordinary least squares fixed-effects model to analyze an unbalanced panel data set comprising all conventional banks operating in OIC countries. This dataset includes 52 countries out of a total of 57, covering the period from 1989 to 2008. The analysis involves 686 banks.

Moussa. & Hdidar (2019) carried out a study on “Bank Profitability and Economic Growth: Evidence from Tunisia”. This study aims to examine the impact of economic growth on bank profitability by analyzing data from 18 banks in Tunisia between 2000 and 2017. It utilizes two indicators, namely ROA and ROE, as measures of bank profitability, while considering other bank-specific factors and economic growth as independent variables. The panel method is employed for regression analysis. The findings reveal a positive and significant effect of economic growth on bank profitability.

Kohlscheen, et al., (2018) conducted a research on “Determinants of bank profitability in emerging markets” by analyzing key determinants of bank profitability based on the evolution of balance sheets of 534 banks from 19 emerging market economies. It has been observed that elevated long-term interest rates have a positive impact on profitability, whereas higher short-term rates have a negative effect by increasing funding expenses. Additionally, during normal economic conditions, credit growth has a greater

influence on bank profitability compared to GDP growth. This suggests that the financial cycle is a more reliable predictor of bank profitability than the business cycle. Furthermore, this research reveals that an increase in sovereign risk premia significantly diminishes bank profits, highlighting the importance of credible fiscal frameworks in maintaining overall financial stability.

Papanastou (2018) carried out a study on “Determinants of bank profitability before, during and after the financial crisis of 2015 in Greece” which examines the profitability of 40 commercial banks in six Balkan countries from 2014 to 2016. To assess the impact of the 2015 Greek financial crisis on bank performance, it analyzed the pre-crisis period (2014), the crisis year (2015), and the post-crisis year (2016). Through conducting multiple cross-sectional OLS regressions, it incorporates industry-specific variables, bank-specific variables, and macroeconomic factors to evaluate the findings. This research indicates that high loan loss provisions and high cost to income ratios significantly contribute to poor profitability. Furthermore, private ownership demonstrates a significant positive effect on bank performance following the crisis, while the growth rate emerges as the most influential macroeconomic factor affecting bank profitability post-crisis.

Yüksel, et al., (2018) conducted a research on “Determinants of Profitability in the Banking Sector: An Analysis of Post-Soviet Countries” to identify the determinants of bank profitability in 13 post-Soviet countries. The fixed effects panel regression and the Generalized Method of Moments (GMM) were used to analyze annual data from 1996 to 2016 within this scope. The analysis revealed that loan amount, non-interest income, and economic growth are important indicators of profitability. Furthermore, the 2008 global mortgage crisis had a detrimental impact on bank profitability in post-Soviet countries. The estimation results indicated a positive relationship between non-interest income and economic growth with profitability. This suggests that an increase in non-interest income, such as credit card fees and commissions, positively affects the financial performance of banks and contributes to their profitability. Another finding of this study is that economic growth has a positive influence on bank profitability. Therefore, it can be concluded that higher GDP leads to higher bank profitability in post-Soviet countries. Lastly, there is a negative correlation between the loan-to-GDP ratio and bank profitability in post-Soviet countries. This implies that an increase in the ratio of total loans to GDP negatively

affects the financial performance of banks. Considering this result, it is recommended that banks in post-Soviet countries focus on increasing their non-interest income. Additionally, these banks should exercise caution and be risk-averse when lending to customers.

Antoun, et al., (2018) conducted a study on “Determinants of financial performance of banks in Central and Eastern Europe” to examine the factors influencing the financial performance of banks in Central and Eastern European Countries. They conducted a comprehensive investigation. Initially, they identified the determinants of performance by reviewing existing literature. Subsequently, they developed a financial performance index (FPI) utilizing CAMEL ratios and analyzed it in relation to the aforementioned determinants. Their analysis utilized unbalanced panel data from 2009 to 2014, sourced from the BankScope database, World Development Indicators, and the Financial Structure and Development Dataset. To conduct empirical analysis, it employed fixed-effect panel regression. The outcomes of the study indicate that bank size has a negative impact on asset quality and earnings, while business mix and inflation have a positive influence. Additionally, it found that capital adequacy and liquidity are negatively affected by bank size, but positively influenced by bank concentration and economic growth.

Karakuza (2017) conducted a research on “Bank Specific Determinants of Profitability in Turkish Banks” to examine the profitability of Turkish commercial banks during the period 2005-2014 by using bank-specific determinants to predict the following years’ profitability measured by ROA. In terms of performance measures, the correlation between the net interest income as a percentage of total operating income and profitability is positive. It is crucial for banks to lend money at a rate that exceeds their cost of capital. On the other hand, the correlation between non-interest income as a percentage of total assets and profitability is strongly positive. However, the correlation between consumer loans as a percentage of total loans and profitability is negative. The research findings suggest that although the traditional source of bank profits from lending is still vital, diversifying into non-interest income sources is important for improving bank profitability.

Habteab (2016) conducted a research on the topic of “Determinants of Financial Performance of Commercial Banks: The Case of Private Commercial Banks in Ethiopia”. The purpose of the study was to analyze the factors that determine the financial performance of private commercial banks in Ethiopia. These factors were categorized as bank-specific, macroeconomic, and industry-specific determinants over the time period from 2005/2006 to 2013/2014. The financial performance of the banks was measured by profitability indicators such as ROA, ROE, and NIM. The study utilized secondary financial data and employed multiple regression models for analysis. The empirical findings revealed that the advertisement activities, cost of capital, employee profitability, and imports were significant factors that influenced the banks' performance measured by ROA at a 1% and 5% significant level, respectively. Surprisingly, investment in IT was found to have a negative impact on return on assets at a 10% significant level. When measuring the performance of private commercial banks using NIM, it was observed that branch network and imports had a positive and significant effect at a 1% significant level. However, investment in IT and exports had a negative impact on NIM at a 5% and 1% significant level, respectively. On the other hand, ROE was positively influenced by branch network, cost of capital, exports, imports, employee profitability, and market share at 5% and 1% significant level, respectively. These results suggest that banks can enhance their profitability by efficiently utilizing their assets and taking advantage of external opportunities.

Islam & Nishiyama (2016) carried out a research on “The Determinants of Bank Profitability: Dynamic Panel Evidence from South Asian Countries”, which investigates the determinants of bank profitability in South Asia, analyzing 259 commercial banks from Bangladesh, India, Nepal, and Pakistan during 1997–2012 using the Generalized Method of Moments (GMM) estimator. The findings reveal a low level of profit persistency and a delayed impact of the global financial crisis on the region's banking sector. The study rejects the Structure-Conduct-Performance (SCP) hypothesis but highlights financial solvency and managerial efficiency as significant positive contributors to profitability. Conversely, factors such as cost of funds, liquidity, funding gap, term structure of interest rates, and economic growth negatively influence profitability, while inflation has a positive effect. Additionally, South Asian banks are characterized by operational inefficiencies in manpower.

Hossain S. & Ahamed F., (2015) carried out study on “Determinants of Bank Profitability: A Study on the Banking Sector of Bangladesh” to investigate the impact of bank-specific variables on bank profitability in Bangladesh from 2012-2016. A total of 15 well-established private commercial banks were carefully chosen based on their asset size. The data used for analysis was obtained from the Annual Reports spanning from 2012 to 2016. The regression analysis was conducted using the fixed effect model to examine the relationship between various variables. In terms of ROA, several factors were found to be significant, including two earnings variables (TIN and NII), asset quality (NPL), management efficiency (OPEX), capital strength (CAP), industry impact (SIZE), and asset structure. For Return on Equity (ROE), the earnings indicators, capital strength, and industry impact were found to have a positive relationship with ROE. However, among the statistically significant predicting variables, only NPL showed a negative relationship with ROE. In the case of NIM, TIN, OPEX, and CAP exhibited a positive relationship, while NII had a negative relationship.

Dalhatu (2015) “An Analysis of the determinants of commercial banks profitability in Sierra Leone”, investigates the factors influencing the profitability of commercial banks in Sierra Leone, utilizing a balanced panel dataset from eight selected banks over the period from 2006 to 2011. The Hausman specification test was employed to assess the suitability of the random effects model in comparison to the fixed effects model. The primary profitability metric analyzed in this study was ROA, with independent variables including CAR, expense management, bank size, total deposits, total loans and advances, total income, credit risk, real gross domestic product, and inflation. The findings indicate a positive correlation between return on assets and several factors: capital adequacy ratio, expense management, total loans and advances, total income, and real gross domestic product. Conversely, a negative correlation was observed with bank size (measured as the logarithm of total assets), total deposits, credit risk, and inflation. Notably, the analysis identified only two statistically significant variables affecting ROA: expense management and total income, while the remaining variables were deemed insignificant. The results suggest that these two variables are critical determinants of commercial banks' profitability in Sierra Leone. It is therefore recommended that banks prioritize effective expense management to mitigate high operational costs that typically diminish profits, as well as enhance their investments in securities, credit, and fee-generating activities to improve overall profitability.

Table 1 Summary of Empirical Review

| S.N | Author | Topic of Research | Objectives | Methodology | Findings |
|-----|------------------|--|---|--|--|
| 1 | Chand (2024) | Determinants of Bank Profitability—Do Institutions, Globalization, and Global Uncertainty Matter for Banks in Island Economies? The case of Fiji | To examine the impact of institutions, globalization, and global uncertainty on bank profitability in Fiji. To assess the role of bank-specific, macroeconomic, and institutional factors in determining profitability. | Fixed-effect estimation. Main variables used were bank-specific, macroeconomic, institutional, and global factors. | NIM, non-interest income, bank size, CAR, GDP growth were the positive factors; meanwhile, NPLs, credit risk, and COVID-19 pandemic were negative factors to profitability. Globalization, institutional quality, global events like Global Financial Crisis positively impacts profitability. |
| 2 | Ngweshemi (2021) | The Analysis of Factors Affecting Bank | To analyze the factors influencing the profitability | Quantitative approach using Generalized | CAR, asset quality, loan composition, and cost |

| | | | | | |
|---|---------------|--|--|--|--|
| | | Profitability: private and public commercial banks of Tanzania, and to evaluate the impact of bank-specific and macroeconomics variables on profitability. | Method of efficiency are Moments (GMM) technique | of efficiency are significant bank-specific factors, GDP and inflation were found to be non-significant. Profitability is primarily affected by bank-specific determinants under management control rather than macroeconomic factors. | |
| 3 | Mishra (2021) | Profitability in Commercial Bank – A Case Study of Nepal | To evaluate the impact, contribution, and relationship of factors such as bank size, loans, deposits, inflations, and capital on profitability, and to assess the relationship between Return on Equity, | Ratio Analysis & Correlation and Regression | ROE and ROA has a negative relationship with loan ratio, deposit ratio, and capital ratio; and positive relationship with bank size and inflation. NIM has a positive relationship |

| | | | | | | |
|---|-----------------|---|---|---|--|--|
| | | | Return on Assets, and Net Interest Margin. | | | with bank size, loan ratio, deposit ratio, and inflation; and negative relationship with capital ratio. |
| 4 | Momba (2019) | The Determinants of Bank Profitability in Zambia | To examine the determinants of bank profitability in Zambia, and to analyze the impact of bank-specific variables (bank size, credit risk, liquidity risk, efficiency) on profitability measures such as ROE, ROA, and NIM. | Fixed Effect Model with the Hausman Test for model selection. | | Bank size, loan loss provision to total assets, and total loans to assets significantly impact profitability across all measures. It is recommended to limit loans without collateral to reduce default risks. |
| 5 | Al-Harbi (2019) | The determinants of conventional banks profitability in developing and underdevelop | To investigate the determinants of profitability in conventional banks in developing and underdeveloped OIC countries, and to analyze | Ordinary Least Square (OLS) fixed-effects model | | Equity, foreign ownership, GDP growth, interest rate, banking sector development, and loans positively affect |

| | | | | | |
|---|----------------------------|---|---|--|---|
| | | ed OIC countries | the long-term and short-term factors affecting profitability. | | profitability; meanwhile, deposits negatively impact profitability. |
| 6 | Moussa (2019) | Bank Profitability and Economic Growth: Evidence from Tunisia | To examine the impact of economic growth on bank profitability in Tunisia. | Panel Regression Analysis | Economic growth has a positive and significant impact on bank profitability. |
| 7 | Kohlscheen , et al. (2018) | Determinants of bank profitability in emerging markets | To analyze key determinants of bank profitability in emerging market economies. | Balance sheet data from 534 banks across 19 emerging market economies. The variables were long-term interest rates, short-term rates, credit growth, GDP growth, sovereign risk. | Long-term interest rates positively impact profitability; short-term rates negatively affect profits. Credit growth influences profitability more than GDP growth during normal conditions. |
| 8 | Papanastou (2018) | Determinants of bank profitability before, during | To examine the determinants of bank profitability before, during, | Multiple cross-sectional OLS regressions. | High loan loss provisions and cost-income ratio negative |

| | | | | | | |
|---|-----------------------|---|--|--|--|---|
| | | and after the financial crisis of 2015 in Greece | and after the 2015 financial crisis. | the Greek financial crisis. | Industry-specific, bank-specific, and macroeconomic factors. | impacts profitability. Private ownership positively influences bank performance post-crisis. Growth rate is the most significant macroeconomic factor affecting profitability after the crisis. |
| 9 | Yüksel, et al. (2018) | Determinants of Profitability in the Banking Sector: An Analysis of Post-Soviet Countries | To identify determinants of bank profitability in 13 post-Soviet nations. To assess the effect of 2008 global mortgage crisis. | Fixed effect panel regression and Generalized Method Moments (GMM) | NII, and economic growth positively impacts the profitability. Loan-to-GDP ratio negatively affects the profitability. The 2008 global crisis reduced profitability significantly in | |

| | | | | | |
|----|------------------------|--|---|--|---|
| | | | | | post-Soviet nations. |
| 10 | Antoun, et al., (2018) | Determinants of financial performance of banks in Central and Eastern Europe | To examine the factors affecting the financial performance of banks in Central and Eastern Europe. To develop a financial performance index and CAMEL ratios. | Fixed-effect panel regression | Bank size has a negative impact on asset quality and earnings, as well as on capital adequacy and liquidity. Business mix and inflation has positive influence on bank performance. |
| 11 | Karakuza (2017) | Bank Specific Determinants of Profitability in Turkish Banks | To examine the bank-specific determinants affecting profitability in Turkish commercial banks (2005-2014) | Bank specific analysis using correlation techniques to assess profitability measures such as Return on Assets. | Positive correlation of NII with profitability; meanwhile, consumer loans negatively impacts profitability. |
| 12 | Habteab (2016) | Determinants of Financial Performance of Commercial Banks: The | To analyze bank-specific, macroeconomic, and industry-specific factors affecting the | Multiple regression models | ROA positively influenced by advertising, cost of capital, employee |

| | | |
|----|---|---|
| | Case of financial performance of Private Commercial Banks in Ethiopia | profitability, and imports, and negatively influenced by IT investment. NIM positively affected by branch networks and imports, and negatively affected by IT investment and exports. ROE positively impacted by branch network, cost of capital, exports, imports, and market share. |
| 13 | Islam & Nishiyama (2016) The Determinants of Bank Profitability: Dynamic Panel Evidence from South Asian Countries | To identify the bank-specific, industry-specific, and macroeconomic determinants of bank profitability. And, to examine the profit persistency SCP |
| | General Method Moments (GMM) estimator applied to panel data. | Low profit of persistency and delayed impact of the global financial crisis. Financial solvency, managerial efficiency, inflation positively |

| | | | | | |
|----|-------------------------|---|--|---|---|
| | | | hypotheses in South Asian banks. | | influence profitability. Cost of funds, liquidity, funding gap, term structure, economic growth negatively impacts profitability. |
| 14 | Hossain & Ahamed (2015) | Determinants of Bank Profitability: A Study on the Banking Sector of Bangladesh | To investigate the impact of bank-specific variables on profitability like ROA, ROE, & NIM of private banks of Bangladesh. | Fixed-effect regression models. | ROA is positively influenced by non-interest income, capital, size, and negatively by non-performing loans. ROE is positively influenced by earning indicators like capital and size, and negatively by NPLs. |
| 15 | Dalhatu (2015) | An Analysis of the determinants of | The study aims to evaluate how bank specific factors, such as | Hausman specification test and regression | ROA has a positive relationship with the capital |

| | | | |
|---|--------------|--|--|
| commercial banks profitability in Leone | Sierra Leone | bank capital adequacy expense management, bank size, deposits, loans, and total income, and macroeconomic factors like GDP and inflation, influence ROA. | analysis. adequacy ratio, expense management, total loans and advances, total income, and GDP. Conversely, ROA has negative relationship with bank size, total deposits, credit risks, and inflation. It recommends banks focus on prudent expense management. |
|---|--------------|--|--|

2.5 Review of Literature in Nepalese Context

Kunjeda (2024) studied the “Relationship between capital adequacy and the profitability of commercial banks in Nepal”, with a particular emphasis on one government-owned bank and one private sector bank. Employing both descriptive and causal-comparative research methodologies, the study examines various capital adequacy ratios, including the Capital to Risk-weighted Assets Ratio (CRAR), the Statutory Liquidity Ratio (SLR), and the CAR, alongside profitability metrics such as ROE, ROA, and NPM. The principal findings indicate that, although commercial banks in Nepal comply with the capital adequacy requirements set forth by the NRB, there has been a notable decline in their profitability ratios over the past ten years. The analysis reveals a weak correlation between capital adequacy and profitability, as evidenced by insignificant regression

outcomes that suggest minimal influence of capital adequacy on profitability. Specifically, ROE and NPM exhibit a weak positive correlation with capital adequacy measures, whereas ROA demonstrates a weak negative correlation. This research offers significant insights into the banking landscape of Nepal, highlighting the difficulties associated with diminishing profitability ratios and the limited effect of capital adequacy on overall profitability. The findings contribute to a more nuanced understanding of the financial performance trends within Nepalese banks, providing valuable information for policymakers and banking institutions striving to enhance capital resilience while simultaneously boosting profitability.

Prajapati (2024) has carried out a study on “Determinants of Profitability of Nepalese Commercial Banks” to examine the factors influencing profitability within Nepalese commercial banks, focusing on both internal (bank-specific) and external (macroeconomic) elements. The aim is to elucidate the impact of these factors on profitability, which is assessed through ROA and ROE. The analysis is based on secondary data spanning the fiscal years 2012/13 to 2021/22, employing descriptive and causal-comparative research methodologies, with data analysis conducted using the SPSS. The primary independent variables examined include bank size, capital adequacy, liquidity, operational management efficiency, market concentration, board size, and the number of independent directors. The findings indicate both positive and negative correlations between these variables and profitability.

Gurung & Gurung (2022) conducted a research analysis on “Factors Determining Profitability of Commercial Banks: Evidence from Nepali Banking Sector”. The analysis employs descriptive statistics, Pearson's correlation, and fixed-effect panel regression techniques. The findings indicate that both the credit-deposit ratio and economic growth have a positive effect on return on assets and net interest margins, whereas non-performing assets exert a negative influence on equity returns. The study recommends strategies for improving profitability, including increasing the volume of loans in relation to deposits, stimulating economic activities, and minimizing non-performing assets.

Magar (2022) carried out a study on “Impact of Liquidity on Profitability of Commercial Banks in Nepal” to investigate the influence of liquidity on the profitability of commercial banks in Nepal. The study encompassed a period from 2013 to 2021 and

involved five commercial banks. The analysis was conducted using secondary data obtained from bank supervision reports published by NRB and annual reports of the selected commercial banks. Liquidity was assessed using the credit to deposit ratio, asset quality, and liquidity ratio, while profitability was measured by the ROA and NIM. A regression model was employed to examine the impact of liquidity on profitability, and the data was analyzed using Software EViews 12. The results indicated that asset quality had a significant negative effect on the ROA. On the other hand, the credit to deposit ratio (CD) had a positive and significant impact on the NIM of commercial banks, while asset quality had a negative and significant impact on their NIM.

Bhatta (2022) conducted a study on “Profitability Analysis of Commercial Banks in Nepal” to investigate the profitability of selected Nepalese commercial banks over 2016/17 to 2020/21. It analyzes the relationship between profitability (measured by ROA and ROE) and key factors such as bank capital, deposits, lending, size, and CAR. Using trend, descriptive, correlation, and regression analyses, the study finds that bank-specific factors significantly influence profitability. ROA is positively correlated with deposits and CAR but negatively with capital, lending, and size. ROE shows positive correlation with deposits but negative with other factors.

Aryal (2022) conducted a study on “Determinants of Profitability of Commercial Banks in Nepal” to analyze the relationship between bank-specific variables and profitability in Nepalese commercial banks over a ten-year period from 2011/12 to 2020/21. The study employs descriptive and analytical research design, using secondary data from Nepal Rastra Bank and the selected banks. The results indicate that profitability is influenced by factors such as CAR, asset quality, operating efficiency, liquidity risk, and credit risk. The study also reveals that joint venture banks generally have higher profitability than public and private banks. Despite public banks having higher ROE, their lower asset quality and CAR make their profitability less efficient.

Sapkota (2021) carried out a research on “Profitability Analysis for Nepalese Commercial Banks”, which examines the effects of independent variables, including liquidity management, leverage, market capitalization, and operating expenses, on the performance of commercial banks in Nepal. The analysis employs ROA, ROE, and NIM as dependent variables to assess bank profitability. Findings indicate that liquidity management

exhibits a negative correlation with profitability metrics such as ROA and ROE, whereas operating expenses demonstrate a positive association with NIM, ROA, and ROE. Furthermore, market capitalization is positively linked to profitability, while leverage has a detrimental impact on both NIM and ROA. The study concludes that liquidity is a significant determinant of the performance of commercial banks in Nepal.

Chaudhary (2021) conducted a study on “Determinants of Profitability of Commercial Banks in Nepal” to examine the interplay between specific banking factors, namely capital adequacy, loan-to-total-assets ratio, and deposit-to-total-assets ratio, and the profitability of commercial banks in Nepal. Utilizing secondary data from six commercial banks spanning the fiscal years 2011/12 to 2017/18, the analysis incorporates correlation and multiple regression techniques to investigate these dynamics. The results indicate that the CAR exhibits a significant positive correlation with ROE, whereas both the deposit-to-total-assets and loan-to-total-assets ratios demonstrate a negative correlation with ROE. The study concludes that, although capital adequacy and asset ratios exert some adverse effects on profitability, the deposit-to-total-assets ratio has a positive impact on ROE.

Rai (2021) carried out a study on “Comparative Study on Profitability of Nabil Bank and Nepal SBI Bank Limited” to examine the financial performance of NABIL Bank and Nepal SBI Bank Ltd. over a seven-year timeframe, specifically from the fiscal years 2070/71 to 2076/77. The analysis is grounded in data derived from the financial statements of both institutions and employs a combination of descriptive and analytical research methodologies. The findings reveal that NABIL Bank exhibits superior profitability, evidenced by its higher average operating profit margin, net profit margin, ROA, and ROE in comparison to Nepal SBI Bank. Conversely, Nepal SBI Bank shows greater consistency in its financial performance, as reflected by its lower coefficient of variation (CV). Additionally, the study explores the correlations between profitability and several bank-specific factors, including liquidity, operating expenses, bank size, and capital.

Khadka (2020) conducted a study on “Determinants of Profitability of Commercial Banks in Nepal” to investigate the profitability of commercial banks in Nepal by exploring the correlation between bank efficiency and financial performance. The study adopts a

descriptive analytical framework, concentrating on six commercial banks and utilizing SPSS for the analysis of data. Critical factors affecting financial performance in these institutions encompass EPS, ROA, ROE, the price-to-earnings (PE) ratio, investment portfolio, and cash reserve ratio. The results reveal that the primary determinants of profitability are bank size, liquidity, investment portfolio, and cash reserve ratio.

Yadav (2020) conducted a study on “A Comparative Study on Profitability Position of Selected Commercial Banks of Nepal” to examine the internal determinants of profitability within commercial banks in Nepal, emphasizing company-specific variables including company size, profitability ratio, liquidity ratio, leverage ratio, capital adequacy ratio, capital, fixed assets, and growth rate. The study underscores the impact of these factors on bank profitability, as measured by ROA and ROE. Findings indicate that fixed assets are positively correlated with profitability, whereas variables such as company size, liquidity, capital, and growth rate exhibit a negative correlation with profitability.

Neupane (2020) has conducted a research on “Profitability Determinants of Nepalese Commercial Banks” to investigate the primary factors influencing the profitability of commercial banks in Nepal, emphasizing both internal and external elements. The study utilizes descriptive statistics, correlation analysis, and panel data regression techniques, specifically Fixed Effect and Random Effect Models, to assess the effects of various determinants on profitability. The results indicate that external factors, including concentration ratio, development of the banking sector, GDP growth, inflation, and exchange rate fluctuations, have a significant impact on profitability as measured by ROA. Conversely, internal factors such as bank size, capital structure, deposits, loans, off-balance sheet activities, and the number of branches does not exhibit a significant effect on ROA. Furthermore, profitability as gauged by NIM is predominantly influenced by capital adequacy, the total number of branches, and inflation rates.

Shrestha (2020) has carried out a research on “Determinants of Financial Performance of Nepalese Commercial Banks: Evidence from Panel Data Approach” to investigate the influence of bank-specific variables on the financial performance of commercial banks in Nepal, as assessed by ROA. The analysis employs various proxies for these bank-specific factors, which include managerial efficiency, liquidity, credit risk, asset quality, and operational efficiency. The study utilizes panel data from 17 commercial banks spanning

the fiscal years 2010/11 to 2017/18. The Breusch and Pagan Lagrangian multiplier test revealed that the Pooled Regression model was not appropriate, whereas the Hausman test indicated that the Fixed Effect model was more fitting for the data. Results from the Fixed Effect model demonstrate that managerial efficiency, asset quality, and operational efficiency significantly enhance the financial performance of Nepalese commercial banks, whereas credit risk exerts a negative effect on financial performance.

Budhathoki, et al. (2020) has conducted a research on “The Impact of Liquidity, Leverage, and Total Size on Banks’ Profitability: Evidence from Nepalese Commercial Banks” to examine how liquidity, leverage, and the overall size of banks influence the profitability of commercial banks in Nepal, as indicated by ROA, ROE, and NIM. The analysis utilizes data from all 28 commercial banks in Nepal over the period from 2010/11 to 2016/17, encompassing a total of 168 observations. To evaluate the data, three ordinary least squares (OLS) regression models are employed. The results indicate that a higher loan-to-deposit ratio, which signifies reduced liquidity, adversely impacts ROA, ROE, and NIM, although the effects on ROE and NIM are not statistically significant. Conversely, a higher equity-to-assets ratio, indicative of lower leverage, has a positive effect on ROA and NIM, while its impact on ROE is negative but not statistically significant. Additionally, the study concludes that an increase in bank size is beneficial for profitability, positively influencing all three-profitability metrics.

Bhattarai (2019) has carried out a research on “The Determinants of Profitability of Commercial Banks in Nepal” to examine the determinants influencing the profitability of commercial banks in Nepal. Utilizing secondary data from 11 banks spanning the fiscal years 2010/11 to 2016/17, the analysis encompasses a total of 77 observations. The study identifies independent variables including the credit deposit ratio, market share, liquidity, NPL, GDP, and inflation, while ROA serves as the dependent variable. The results indicate that market share, liquidity, and GDP are critical factors that significantly impact the profitability of Nepalese commercial banks.

Table 2 Summary of Review of Literature in Nepalese Context

| S.N. | Author | Topic of Research | Objectives | Methodology | Findings |
|------|------------------|--|--|--|---|
| 1 | Kunjeda (2024) | Relationship between capital adequacy and the profitability of commercial banks in Nepal | To analyze the relationship between capital adequacy and profitability in Nepalese banks, and to assess compliance with NRB's capital adequacy requirements. | Descriptive and causal-comparative methods. | Weak correlation between capital adequacy and profitability. ROE and NPM has weak positive correlation with capital adequacy. ROA has a weak negative correlation. Decline in profitability ratios despite capital adequacy compliance. |
| 2 | Prajapati (2024) | Determinants of Profitability of Nepalese Commercial Banks | To determine the impact of internal and external factors on the profitability of Nepalese commercial banks. | Descriptive and causal-comparative research design has been adopted. | Positive relationships: Market concentration, board size, operational management efficiency, and capital |

| | | | | | | |
|---|------------------------|--|---|--|--|--|
| | | | | | | adequacy with ROA. Significant impact on ROA: Bank size, capital adequacy, and operational management efficiency. |
| 3 | Gurung & Gurung (2022) | Factors Determining Profitability of Commercial Banks: Evidence from Nepali Banking Sector | To analyze the factors affecting profitability of commercial banks in Nepal, and to examine the relationship between credit-deposit ratio, economic growth, and profitability indicators. | Descriptive statistics, Pearson's correlation, and fixed-effect panel regression techniques. | | Positive effect of credit-deposit ratio and economic growth on ROA and NIM. Negative impact of non-performing assets on equity returns. Recommendations to increase loan volume, stimulate economic activities, and minimize NPAs. |
| 4 | Magar (2022) | Impact of Liquidity on | To investigate the impact of | Regression Model was used. | | Asset quality negatively |

| | | | | | |
|---|---------------|---|--|---|---|
| | | Profitability of Commercial Banks in Nepal | liquidity on the profitability of commercial banks in Nepal, and to analyze the relationship between liquidity measures (CD ratio, asset quality, liquidity ratio) and profitability (ROA, NIM). | | impacts ROA. Credit to deposit ratio positively influences NIM. Asset quality negatively affects NIM. |
| 5 | Bhatta (2022) | Profitability Analysis of Commercial Banks in Nepal | To analyze the profitability of selected Nepalese commercial banks, and to examine the impact of bank capital, deposits, lending, size, and CAR on profitability. | Trend analysis, descriptive statistics, correlation and regression were used. | ROA has a positive relationship with deposits and CAR; negative with bank capital, lending, and size. ROE has a positive relationship with deposits; negative with other variables. |
| 6 | Aryal (2022) | Determinants of | To examine the relationship | Descriptive and analytical | Joint venture banks exhibit |

| | | | | | |
|---|----------------|--|--|---------------------------------------|---|
| | | Profitability of Commercial Banks in Nepal | between bank-specific variables and the profitability of commercial banks in Nepal. To Analyze the impact of variables like capital adequacy, asset quality, operational efficiency, liquidity risk, and credit risk on profitability. | research design were used. | higher ROA, while public banks have higher ROE. Asset size and operating efficiency negatively impact both ROA and ROE. Capital adequacy ratio has a positive relationship with ROA but negative with ROE. Liquidity risk and credit risk show a negative impact on both ROA and ROE. |
| 7 | Sapkota (2021) | Profitability Analysis for Nepalese Commercial Banks | To examine the impact of independent variables (liquidity management, leverage, market capitalization, | Descriptive research design was used. | Liquidity is a significant determinant of bank performance, with higher liquidity associated with better |

| | | | | | |
|---|------------------|--|---|--------------------------------------|---|
| | | | operating expenses) on the performance of commercial banks in Nepal. To analyze the relationship between profitability indicators (ROA, ROE, NIM) and these independent variables. | | ability to meet obligations and invest. |
| 8 | Chaudhary (2021) | Determinants of Profitability of Commercial Banks in Nepal | To analyze the bank-specific factors affecting the profitability of commercial banks in Nepal. To investigate the relationship between explanatory variables (capital adequacy, loan to total assets, | Correlation and Regression analysis. | Capital adequacy has a positive relationship with ROE. Deposit to total assets has a significant positive impact on ROE. Loan to total assets and deposit to total assets have negative relationships |

| | | | | | |
|---|------------|---|---|---|--|
| | | | deposit to total assets) and profitability (ROA, ROE). | | with ROA. Capital adequacy ratio, loan to total assets, and deposit to total assets have insignificant or negative impacts on ROA and ROE. |
| 9 | Rai (2021) | Comparative Study on Profitability of Nabil Bank and Nepal SBI Bank Limited | Assess and compare the profitability of NABIL Bank and Nepal SBI Bank Ltd. using financial data, and to analyze the relationship between profitability and various bank-specific factors. | Descriptive analytical research design. | NABIL Bank outperforms Nepal SBI Bank in profitability indicators like ROA and ROE. Nepal SBI Bank is more consistent in performance with lower variability. ROA is positively related to liquidity and capital but negatively |

| | | | | | |
|----|---------------|--|---|---|---|
| | | | | | related to operating expenses. ROE is positively affected by liquidity and negatively by operating expenses, bank size, and capital. |
| 10 | Khadka (2020) | Determinants of Profitability of Commercial Banks in Nepal | Analyze the relationship between bank efficiency and profitability in Nepalese commercial banks, and to identify the key determinants of profitability for commercial banks in Nepal. | Descriptive analytical research design. | Major determinants of profitability include bank size, liquidity, investment portfolio, and cash reserve ratio. EPS, ROA, ROE, and NPM are important indicators of financial performance. |
| 11 | Yadav (2020) | A Comparative Study on Profitability Position of Selected | Investigate the determinants of profitability in banks based on internal company- | Descriptive research approach. | Fixed assets have a positive relationship with profit, while company size, |

| | | | | |
|----|------------------------|---|--|---|
| | Commercial Banks Nepal | specific of factors, and to analyze the impact of factors like company size, profitability ratios, liquidity, leverage, capital adequacy, fixed assets, and growth rate on profitability. | | liquidity, capital, and growth rate have a negative relationship with profitability. |
| 12 | Neupane (2020) | Profitability Determinants of Nepalese Commercial Banks | Examine the key determinants of profitability for Nepalese commercial banks. To assess the impact of both internal and external factors on bank profitability. | Correlation and Regression analysis. External factors such as concentration ratio, banking sector development, GDP growth, inflation, and exchange rate significantly affect ROA. Internal factors like bank size, capital base, deposits, loans, and the |

| | | | | | | |
|----|-----------------|---|---|--|---|---|
| | | | | | | number of branches does not have a significant impact on ROA. NIM is significantly influenced only by capital adequacy, the absolute number of branches, and inflation. |
| 13 | Shrestha (2020) | Determinants of Financial Performance of Nepalese Commercial Banks: Evidence from Panel Data Approach | To analyze the impact of bank-specific factors on the financial performance of Nepalese commercial banks, and to investigate the influence of managerial efficiency, liquidity, credit risk, asset quality, and operational efficiency on financial | Panel analysis. Breusch Pagan Lagrangian multiplier test to determine the appropriateness of models. Hausman test to conclude the best model (Fixed Effect model). | data and significantly impact the financial performance of Nepalese commercial banks. Managerial efficiency, asset quality, and operational efficiency have a positive impact on financial performance, | |

| | | | | | | |
|----|---------------------------|--|--|-------------------------------------|--|--|
| | | | performance. | | | while credit risk negatively impacts performance. |
| 14 | Budhathoki, et al. (2020) | The Impact of Liquidity, Leverage, and Total Size on Banks' Profitability: Evidence from Nepalese Commercial Banks | To examine the impact of liquidity, leverage, and bank size on the profitability of Nepalese commercial banks. | OLS regression models were applied. | | Higher loan-to-deposit ratios (lower liquidity) have a negative effect on ROA, ROE, and NIM, though ROE and NIM are statistically insignificant. Higher equity-to-assets ratios (lower leverage) positively impact ROA and NIM, but negatively affect ROE. Larger bank size positively affects all three profitability measures (ROA, ROE, and NIM). |

| | | | | | |
|----|---------------------|--|--|---|--|
| 15 | Bhattarai (2019) | The Determinants of Profitability of Commercial Banks in Nepal | To determine the factors affecting the profitability of Nepalese commercial banks. | Descriptive statistics, correlation and regression, Ordinary Least Square model. | Market share, liquidity, and GDP are significant factors that explain the profitability of Nepalese commercial banks. |
|----|---------------------|--|--|---|--|

2.6 Research Gap

While there has been considerable research on the factors influencing bank profitability in various global settings, there is a notable scarcity of studies that specifically investigate the distinctive features of development banks in Nepal. The prevailing literature predominantly emphasizes commercial banks, often overlooking development banks, which operate under different frameworks, regulatory stipulations, and market conditions. Furthermore, although numerous studies analyze conventional profitability metrics such as ROA and ROE, the application of Tobin's Q as a market-based profitability measure is infrequently addressed within the context of Nepalese banking institutions.

Moreover, the interplay and influence of critical factors- including Bank Capital, Bank Deposit, Bank Lending, Bank Size, and CAR- on profitability metrics have not been thoroughly explored in the Nepalese banking landscape. Previous research tends to examine these variables in isolation rather than adopting a comprehensive model that integrates both internal and regulatory factors.

This research aims to address these deficiencies by conducting a detailed analysis of the relationships and effects of these variables on profitability, with a particular emphasis on Nepalese development banks. It aspires to enhance the understanding of how these determinants interact within the local financial context, thereby contributing to both theoretical frameworks and practical insights regarding banking profitability.

CHAPTER III: RESEARCH METHODOLOGIES

3.1 Introduction

A comprehensive research methodology is essential in order to unravel the complexities of development bank profitability in Nepal. This chapter outlines the framework that has been designed to examine the profitability and determinants of selected development banks operating within Nepal's unique economic landscape. By providing a clear roadmap for data collection, analysis, and interpretation, the aim of this chapter is to ensure the reliability and validity of the study's findings. The methodology employed is crucial in addressing the research questions posed in earlier chapters and adds to the overall rigor and credibility of this investigation.

Given the significant role that development banks play in Nepal's financial landscape, it is crucial to understand the factors that influence their profitability. This understanding is vital for policy formulation, strategic decision-making, and the development of a resilient and robust financial sector. The subsequent sections of this chapter delve into the research design, population and sample selection, data collection techniques, and analytical tools used to uncover the relationship between determinants and profitability. Therefore, this chapter serves as a fundamental building block for extracting meaningful insights into the financial performance of development banks in Nepal.

3.2 Research Design

Although there are several research designs which are equally or one way or another are helpful and useful to analyze the determinants of profitability of Nepalese development banks; I will use descriptive and analytical research design in this study. My goal is to understand and describe the profitability landscape and to analyze relationships between profitability indicators and other bank specific variables, therefore; I consider these two research designs will be appropriate for this study.

The descriptive research design will allow me to provide a detailed overview of the current states of the variables such as bank capital, bank deposits, bank lending. It focuses on providing a clear picture of the data related to independent variables and dependent variables. Similarly, analytical research design goes further by examining how

independent variables relate to dependent variables or profitability. It involves processing the descriptive data to identify underlying patterns and relationships between variables.

On the one hand, descriptive research design helps to summarize trends, averages, and patterns in the data to set the foundation of the research, then on the other hand, analytical research design helps to interpret the data more deeply which offers insights into the dynamics of performance based on the key indicators. These two research designs complement each other and together these two research designs can provide both an overview and a deeper analysis of the profitability factors in Nepalese development banking sector.

3.3 Population and Sample

The population of this study is comprised of seventeen development banks of Nepal. In this study, “Purposive Sampling Method” is used, which involves deliberately selecting samples based on certain characteristics, such as working area or working scope in this case, because they are the most relevant to the research objectives. Since, I am specifically selecting five development banks, based on their working area and purpose of the research, rather than randomly, this is also known as “Judgmental Sampling Method”.

Using purposive or judgmental sampling; Muktinath Bikas Bank Limited, Jyoti Bikas Bank Limited, Garima Bikas Bank Limited, Shangri-la Development Bank Limited, and Shine Resunga Bikas Bank Limited has been selected and are considered for this research.

Table 3 List of sample Development Banks

| S.N. | Name of Development Banks | Symbol |
|------|--|--------|
| 1 | Muktinath Bikas Bank Limited | MNBBL |
| 2 | Jyoti Bikas Bank Limited | JBLB |
| 3 | Garima Bikas Bank Limited | GBBL |
| 4 | Shangri-la Development Bank Limited | SADBL |
| 5 | Shine Resunga Development Bank Limited | SHINE |

3.4 Sources and Techniques of Data Collection

3.4.1 Sources of Data Collection

The data for this specific study will primarily be sourced from secondary sources like annual reports, auditor's report, balance sheet and profit or loss account, respective websites, financial performance reports published by NRB, from which it can be ensured that a comprehensive and rigorous analysis of profitability of selected development banks will be carried out.

3.4.2 Techniques of Data Collection

The techniques of data collection for this specific study will involve thorough review and data extraction process from the already identified sources. Basically, I follow the below three techniques for data collection purpose;

- Scrutinize annual reports, auditor's reports, balance sheets, and profit and loss accounts etc. to extract relevant financial data,
- Systematically categorize and code information to facilitate the identification of key variables such as bank capital, deposit, lending activities, bank size, CAR and performance metrics such as ROA and ROE, and Tobin's Q,
- Extract real-time data from the official websites of selected banks,

A range of documents including papers, journals, dissertations, and other resources, has been resourced from the internet for inclusion in the literature review.

The researcher believes that the combination of these techniques will ensure the acquisition of accurate and up to date financial data which ensures the rigorous analysis of the profitability dynamics of the selected development banks in Nepal.

3.5 Data Analysis Tools

Different profitability measurement tools and techniques are utilized to obtain accurate results for this study purpose. The collected data is organized systematically and then analyzed using financial and statistical tools such as ratio analysis, and Karl Pearson's correlation analysis, regression analysis. These tools enable the presentation and interpretation of the data in a meaningful manner.

The data extracted from various sources such as annual report, financial highlights were processed and tabulated in various tables under different heading as per their nature. The various tools used and applied in this study are as follows;

3.5.1 Financial Tools

Financial tools play an important role in analyzing the complexities of development banks profitability. It encompasses a range of financial metrics, including but not limited to CAR, ROA, ROE, and Tobin's Q. The reason to use these specific tools is to offer a holistic view of the financial health of the selected development banks.

3.5.2 Statistical Tools

The research utilized various statistical tools to fulfill the objectives of the data gathered over several time periods. Descriptive statistics includes the calculation of maximum, minimum, mean, and standard deviation. In terms of inferential statistics, correlation and regression analyses were employed to examine the relationships between the chosen dependent and independent variables. This approach also allowed for the assessment of the influence of independent variables on the dependent variables. A multiple regression model was specifically applied to investigate the effects of the profitability status of the sampled development banks.

3.6 Research Framework and Definition of Variables

The research framework serves as the foundational structure upon which a study is constructed. It is within this framework that the entirety of the research unfolds. An effective research framework provides a logical basis for formulating testable hypotheses.

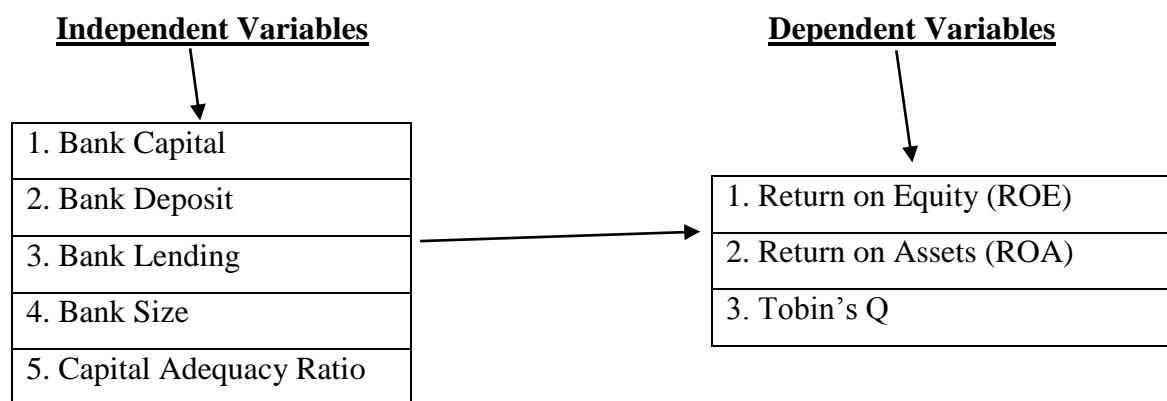
I will select ROE, ROA, and Tobin's Q as dependent variable proxies for the profitability and market valuation of the banking industry. Subsequently, the independent variables are bank specific determinants like bank capital, bank deposits, bank lending, bank size, and capital adequacy ratio.

In this thesis, the relationship between bank profitability & market valuation, as measured by ROA, ROE & Tobin's Q, and various bank-specific factors is examined. The independent variables considered include bank capital, bank deposits, bank size, bank

lending, and capital adequacy ratio. This study aims to identify how these factors influence the profitability of banks, thereby providing insights into the key drivers of financial performance within the banking sector. Understanding these relationships is crucial for bank management and policymakers to implement strategies that enhance profitability and ensure financial stability. The analysis employs quantitative methods, utilizing regression models to explore these dynamics across a sample of banks over a defined period.

Conceptual Framework and Variables of Determinants of Profitability of Nepalese Development Banks-

Figure 1: Research Framework



3.6.1 Independent Variables

The independent variable has either a positive or negative influence on the dependent variable. The independent variable is the factor that is presumed to have a direct impact on the dependent variable. This variable remains unaffected by other variables, which is why it is referred to as independent. It serves to explain an event or outcome.

As per the research framework, bank specific factors such as Bank Capital, Bank Deposits, Bank Lending, Bank Size and Capital Adequacy Ratio are considered as independent variables.

***Bank Capital**

The distinction between a bank's assets and liabilities, commonly referred to as bank capital, represents what investors perceive as the net worth or equity value of the bank.

The assets portion of bank's capital includes cash, government securities, interest earning loans whereas the liabilities portion of bank's capital includes loan loss reserves and any debt it owes. Bank Capital is the equity and retained earnings held by banks as a buffer against risks and losses, influencing a bank's financial stability and performance (Basel Committee on Banking Supervision, 2010).

For the purpose of this research, I consider bank capital as the book value of shareholders equity on a bank's balance sheet. Typical items featured in the book value of shareholders equity include common stocks, paid-in capital, preferred stocks, retained earnings, and accumulated comprehensive income.

***Bank Deposits**

Funds placed in a banking institution for its safekeeping by customers are known as bank deposits. It displays the amounts that clients have placed into different accounts. Financial institutions are willing to accept deposits from both local and foreign customers. The primary responsibility of banks is to receive these deposits. Bank deposits refers to customer funds held by banks, including savings, current, and term deposits, which act as a key resource for generating revenue through lending (Doe, 2019).

***Bank Lending**

The process of bank lending involves the provision of loans to customers, structured around both short-term and long-term repayment schedules. This process signifies the advance of funds to the borrower. Banks extend these loan facilities to clients in compliance with established guidelines and regulations. The performance of banks is influenced by the risk associated with the loans they issue. Bank lending represents the loans and advances extended by banks to customers, crucial for driving interest income and profitability (Brown, 2021).

***Bank Size**

Bank size refers to the comprehensive extent or magnitude and capacity of a bank's operational activities and financial assets. It serves as a general metric that reflects the significance and impact of a bank within the broader financial ecosystem. The most common approach to quantify bank size is by looking at the bank's total assets, which is often used as the primary indicator of a bank size, and for the purpose of this thesis, I will

consider the same, that means total assets as bank size. Bank size is measured by total assets or market share, it reflects a bank's capacity to generate economies of scale and profitability (Rao & Singh, 2022).

The size of a bank serves as a metric for its ability to provide credit, mitigate risks, and engage effectively within the financial marketplace. Generally, larger banks possess greater resources, extensive networks, and wider client demographics, all of which can influence their operational methodologies, strategic approaches, profitability and overall performance.

***Capital Adequacy Ratio**

Capital Adequacy Ratio (CAR) is a regulatory measure which analyzes a bank's capital adequacy in relation to its risk-weighted assets. It ensures that banks maintain a minimum level of capital required to absorb the potential losses it may incur in future. Capital adequacy ratio is the ratio of a bank's capital to its risk-weighted assets, ensuring its solvency and ability to withstand financial shocks (Basel III Guidelines, 2011).

$$\text{Capital Adequacy Ratio (CAR)} = \frac{\text{Tier I Capital} + \text{Tier II Capital}}{\text{Risk-Weighted Assets}} \times 100$$

Here, *Tier I Capital* consists the most stable or permanent nature of capital, including common equity and retained earnings also known as the primary funding source of the bank. It is the bank's core capital. Similarly, *Tier II Capital* includes less permanent nature of capital, like revaluation reserves, general provisions, subordinated debts etc. It is the bank's supplementary capital. *Tier II Capital* is also considered less reliable than *Tier I Capital* because it is more difficult to accurately calculate and more difficult to liquidate.

Risk weighted assets takes into consideration the different levels of risk associated with different types of assets held by bank. Loans provided to governments may have a lower risk weight than loans provided to private individuals or corporations.

As per the Basel Accords, a bank has to maintain the minimum CAR requirements to be able to continue their operations even in adverse economic situation. A bank has to

maintain a certain level of cash or liquid assets as a ratio of its risk-weighted assets. Basel Accords are international banking regulations that ensure banks have enough capital on hand, both to meet their obligations and absorb any unexpected losses. These are set by the “Basel Committee on Bank Supervision”.

Few of the key points relating to CAR are;

- Regulatory bodies set the minimum CAR requirements that banks must meet.
- CAR takes the riskiness of bank’s assets into consideration. Assets with the higher risk require more capital to be held against them.
- Tier I Capital is considered the most reliable form of capital. Higher proportion of Tier I Capital in the overall capital structure contributes to greater financial stability.

3.6.2 Dependent Variables

The variable being tested and measured in an experiment is known as a dependent variable, and it depends on independent variables.

ROA and ROE are the most common measure of profitability for both the banking sector and non-banking sector. ROA is an indicator of operational performance and efficiency whereas ROE is an indicator of efficiency of organization in using shareholders’ capital to generate profits. As Nepalese economy is often considered as volatile market, both ROA and ROE shall be considered for evaluating profitability of Nepalese banks. In addition to these two, Tobin’s Q will also be considered in this study as dependent variable to get the holistic picture of banks’ profitability.

***Return on Assets (ROA)**

ROA is one of the financial indicators that measure the profitability of a company or financial institution in relation to its total assets. ROA shows how efficiently a company is using its assets to generate profit. ROA indicates the efficiency of a bank in utilizing its assets to generate net income, a key measure of operational performance (Johnson, 2019).

$$\text{Return on Assets (ROA)} = \frac{\text{Net Income}}{\text{Total Assets}} \times 100$$

It is a key indicator of the bank's effectiveness in generating profits from its assets. Higher ROA indicates that the bank is efficient in managing its assets and generating high profits. Lower ROA indicates that the bank is facing challenges in managing its assets and generating low profits.

Comparing ROA to industry benchmarks and tracking changes in the ratio over time provides insight into a bank's financial performance and efficiency.

***Return on Equity (ROE)**

ROE is a financial indicator that measures the profitability of a company or financial institution in relation to its shareholders' equity. ROE indicates how well a company is using its equity capital to generate profit. ROE measures the profitability of a bank relative to shareholders' equity, indicating how efficiently equity is used to generate profits (Adams & Clark, 2020).

$$\text{Return on Equity (ROE)} = \frac{\text{Net Income}}{\text{Shareholders' Equity}} \times 100$$

A higher ROE indicates that the development bank is effectively using its equity capital to generate profits. This reflects strong financial performance and effective management of the banks. A lower ROE may mean that it is difficult to generate profits using its equity. This may be due to factors such as low profitability, high costs or inefficient use of capital.

***Tobin's Q**

Tobin's Q, also known as Q Ratio, invented in 1966 by Nicholas Kaldor and popularized by James Tobin, measures the relationship between market valuation and intrinsic value. Tobin's Q estimates whether a business or aggregate market is relatively overvalued or undervalued. It relies on the concepts of market value and replacement value, where it is calculated by dividing the market value of the company by its assets' replacement cost. Tobin's Q ratio is a ratio comparing a firm's market value to the replacement cost of its assets, used as a proxy for market valuation and profitability (Tobin, 1969).

$$\text{Tobin's Q} = \frac{\text{Total Market Value of the Firm}}{\text{Total Asset Value of the Firm}}$$

And, since the replacement cost of total assets is difficult to estimate, another simplified version of the formula is often used by analysts to estimate Tobin's Q. It is as follows:

$$\text{Tobin's Q} = \frac{\text{Market Value of Equity}}{\text{Book Value of Equity}}$$

Where,

Market Value of Equity = Share Price × Number of Outstanding Shares (Diluted Shares)

Book Value of Equity = Total Assets – Total Liabilities

Market value of equity or market cap, is calculated by multiplying the latest closing share price of a company by its total number of diluted shares outstanding. Market value per share fluctuates based on the current conditions and certain forward-looking factors, such as investor sentiment, and the market perception towards company fundamentals. External factors like current market conditions and the economic outlook can also cause a company's share price to fluctuate. Similarly, book value of equity or shareholders' equity, is the amount of cash remaining, for common shareholders, once a company's assets have been sold off and if existing liabilities were paid down with the sale proceeds.

In this research context, Tobin's Q provides a market-based perspective on the valuation of Nepalese development banks, which complements traditional profitability measures like ROE and ROA, which in turn, provides a holistic perspective on bank performance and profitability, reflecting investors' confidence and future growth potential, making it relevant to this thesis. While ROE and ROA focus on operational efficiency and profitability from an internal perspective, Tobin's Q highlights the market's assessment of that profitability. By integrating Tobin's Q with traditional or operational profitability measures like ROE and ROA, it will help us to understand how both internal factors and market perception determine the profitability and sustainability of development banks.

Tobin's Q reflects how effectively a bank is using its resources. If $Q > 1$, the market values the bank's assets higher than their book value, indicating positive investor sentiment, possibly driven by expectation of future profitability and growth. Q Ratio, greater than 1, means that the market believes the bank is efficiently utilizing its resources

and has solid growth prospects. Investors reward efficient banks with higher market valuations, showing a link between operational efficiency and market confidence. On the other hand, a Q Ratio less than 1, suggests that even if the bank is profitable, there are concerns about its sustainability or future profitability, suggesting that the market perceives risk or inefficiencies not captured by operational metrics.

CHAPTER IV: PRESENTATION AND DATA ANALYSIS

4.1 Introduction

In this chapter, findings and description of the research's goals are thoroughly covered. Tables are used to present the data related to this research. This chapter includes descriptive statistics, correlation matrix, regression analysis, data interpretation, and discussion.

4.2 Data Presentation & Analysis

4.2.1 Descriptive Statistical Analysis of Variables

Descriptive statistical analysis of variables is also known as the measure of central tendency and dispersion. The descriptive statistics of independent and dependent variables for selected development banks in Nepal for the fiscal year 2070-2071 (2013-2014) to 2079-2080 (2022-2023) is presented on the below table to measure the mean, median, maximum value, minimum value and standard deviation of different variables.

Table 4 Descriptive Statistics of the Variables

| Variables | Mean | S. D. | Minimum | Maximum |
|-----------|----------|----------|---------|---------|
| BC | 3059.26 | 2227.04 | 448 | 9363 |
| BD | 31733.78 | 27315.54 | 4015 | 116450 |
| BL | 26716.76 | 22666.26 | 3458 | 94457 |
| BS | 37001.34 | 31395.06 | 4612 | 131611 |
| CAR | 14.51 | 3.37 | 11.2 | 30.6 |
| ROE | 14.69 | 5.06 | 5.22 | 26.86 |
| ROA | 1.58 | 0.64 | 0.41 | 2.91 |
| Tobin's Q | 2.73 | 1.63 | 1.1 | 10.93 |

N = 50

Source: Annual Reports from (2013-2014 to 2022-2023)

Calculated and extracted from SPSS Statistical Software

The descriptive statistics presented above in Table 4, provide an overview of key financial parameters, focusing on variables like BC, BD, BL, BS, CAR, ROE, ROA, and Tobin's Q.

Bank Capital with a Mean of NPR 3059.26 million, and with a standard deviation of NPR 2227.04 million, shows there is a high variation in capital among selected development banks, from a minimum of bank capital of NPR 448 million to a maximum of bank capital of NPR 9363 million. The huge difference or range of bank capital suggests significant differences in capital structures, which could influence ROE and ROA. Generally, banks with higher capital have more financial strengths to pursue profitable lending opportunity, which in turns, enhance both profitability and market-based measure.

Bank deposit with a wide range from NPR 4015 million to NPR 116450 million, and a higher standard deviation of NPR 27315.54 million, indicates substantial variation in banks' deposit levels, which might be due to their size and different operational efficiencies across development banks.

Bank Lending has a mean value of NPR 26716.76 million, with a minimum of NPR 3458 million and maximum of NPR 94457 million. Bank Lending is a critical driver of bank profitability, such as ROE and ROA, and can also affect market-based measures like Tobin's Q.

The average bank size is NPR 37001.34 million, with a large spread from NPR 4612 million to NPR 131611 million, which shows a substantial difference between small and large size development banks.

The mean value of CAR is 14.51%, with a low standard deviation of 3.37%, which indicates relatively consistent regulatory capital adequacy across banks. A higher CAR might indicate a well-capitalized bank, which could enhance profitability and market valuation.

The average ROE is 14.69%, with a significant range from 5.22% to 26.86%. This indicates that some banks are delivering strong returns on its equity shareholders, while other banks are underperforming.

The mean ROA is 1.58%, with a relatively small variation from 0.41% to 2.91%.

The average Tobin's Q is 2.73, with a range from 1.1 to 10.93, which indicates a wide variation in market valuation relative to its book value. The large variation or gap between Tobin's Q suggests that some banks are highly valued by the market ($Q > 1$), possibly due to investors' expectations of future growth and profitability.

The large variation in deposit, lending, and size shows that larger banks may have a larger deposit base, allowing them to lend more, which is a direct and important driver of banks' profitability. Lending growth is typically associated with higher ROE and ROA, but only if the lending is managed efficiently. Large lending portfolios can also impact Tobin's Q by influencing market perceptions of growth potential.

A relatively stable CAR across the banks suggests that the regulatory requirements are met. But, banks with higher CARs may signal better capitalization, which contributes to ROE and ROA, due to better risk management. And, also potentially boosting Tobin's Q by attracting investors and market confidence.

The substantial range of ROE and ROA indicates that some banks are significantly outperforming others. Banks with higher ROE and ROA will likely see a positive impact on Tobin's Q, as market valuations reflect profitability.

Banks with higher Tobin's Q are viewed favorably by investors, which may correlate with stronger ROE and ROA. A high Tobin's Q suggests that investors expect these banks to continue generating high profitability in the future.

Larger in size, and better capitalized banks with efficient lending practices tend to exhibit higher profitability (ROE and ROA), which is also reflected in stronger market valuations (Tobin's Q). Both internal and market-based measures are crucial for understanding the profitability of development banks, where Tobin's Q provides a useful indicator of future profitability expectations based on investors sentiment.

4.2.2 Correlation Analysis

In the context of assessing the profitability of development banks in Nepal, correlation analysis serves as a vital instrument for exploring the connections among various

financial variables and profitability indicators. The primary objective of this analysis is to ascertain both the strength and direction of the relationships among diverse financial metrics, including bank capital, bank deposit, bank lending, and profitability indicators such as Return on Assets, Return on Equity and market-based measure such as Tobin's Q.

Correlation analysis involves the computation of coefficients that express the extent to which two variables move together. The Pearson correlation coefficient is frequently utilized to evaluate linear relationships between continuous variables, provided that the data are normally distributed. In instances where the data are not normally distributed or when dealing with ordinal data, Spearman's rank correlation coefficient is a suitable alternative.

The values of correlation coefficients range from -1 to 1, with figures approaching 1 or -1 signifying a robust relationship, while values near 0 indicate a weak or nonexistent relationship. Positive correlations imply that an increase in one variable is associated with an increase in another, whereas negative correlations reflect an inverse relationship.

It is essential to understand that correlation does not equate to causation; a notable correlation between two variables does not inherently suggest that one variable cause change in the other. Furthermore, correlation analysis is sensitive to the influence of outliers and predominantly captures linear relationships. Therefore, while correlation analysis provides significant insights into the relationship between various financial metrics and profitability, it should be complemented by additional analytical approaches to provide a thorough assessment of the profitability of development banks in Nepal.

Table 5 Correlation Matrix between Variables

| Variables | BC | BD | BL | BS | CAR | ROE | ROA | Tobin's Q |
|-----------|--------|--------|--------|--------|--------|-------|-------|-----------|
| BC | 1 | | | | | | | |
| BD | .961* | 1 | | | | | | |
| BL | .966* | .999* | 1 | | | | | |
| BS | .969* | .998* | .999* | 1 | | | | |
| CAR | -0.178 | -.328* | -.323* | -.320* | 1 | | | |
| ROE | -.286* | -0.242 | -0.239 | -0.248 | -0.192 | 1 | | |
| ROA | -.617* | -.625* | -.623* | -.629* | 0.187 | .844* | 1 | |
| Tobin's Q | -0.115 | -0.045 | -0.043 | -0.051 | -0.233 | .704* | .512* | 1 |

Footnote: * Significant at 0.05 level

**Significant at 0.01 level

Source: Calculated and extracted from SPSS Software

Correlation between Dependent Variables and Independent Variables

The above Table 5, provides correlation matrix between various financial variables provides key insights into the relationship between profitability and market-based measures (ROA, ROE & Tobin's Q) and other financial indicators like BC, BD, BS & CAR.

Strong, positive and significant correlation of Bank Capital with Bank Deposit (0.961), Bank Lending (0.966), and Bank Size (0.969) suggests that banks with larger capital tend to have large deposits, lend more, and generally have a larger asset size. On the other hand, Bank Capital, having negative but significant correlation with ROE (-0.286), and ROA (-0.617) indicates that banks with larger capital is less efficient in generating returns on equity and has lower asset efficiencies. Similarly, having negative or weak correlation with Tobin's Q (-0.115) indicates the market does not seem to value significantly when the Bank Capital is large, which suggests market or investor perceptions are based on other factors other than capital.

Bank Deposit, having strong and significant and positive correlation with Bank Lending (0.999), and Bank Size (0.998), suggests banks with larger deposit size tend to have

higher lending capacity. Banks Deposit's significant and negative correlation with ROA (-0.625) indicates that banks with higher deposits might not be efficient in generating returns on assets. Similar to Bank Capital, the market does not seem to weigh deposits highly when assessing future growth potential.

Both Bank Lending and Bank Size show near-perfect significant correlations with Bank Deposit (0.999) and with each other (0.999), which indicates these variables move together very closely in Nepalese development banks. Significant and negative correlation with ROA (-0.623 for Bank Lending and -0.629 for Bank Size) suggest that banks with larger size and higher lending capacity does not necessarily generate higher asset returns. Similarly, significant but negative correlation with Tobin's Q (-0.043 and -0.051) suggests higher lending and large bank size does not significantly improve the investors' confidence or how market values the banks.

Capital Adequacy Ratio has a significant but negative relation with Bank Deposit (-0.328), Bank Lending (-0.323), and Bank Size (-0.320), indicates banks maintaining higher capital are more conservative which will limit their ability in acquiring large deposits, has more conservative approach in lending practices, possibly due to regulatory requirements. CAR has also negative relation with Bank Capital (-0.178) and ROE (-0.192) but it is not significant, which suggests capital adequacy level does not have a meaningful impact on its capital and return on equity. Having weak positive but statistically insignificant relation with ROA (0.187), indicates that there is a slight tendency for banks with higher capital adequacy to have better return on assets, but the relation is not strong or significant enough to draw any conclusions.

ROE has negative and insignificant relation with Bank Deposit (-0.242), Bank Lending (-0.239), and Bank Size (-0.248), which indicates these variables do not have strong and significant impact on return on equity. Similarly, ROE has negative but significant relation with Bank Capital (-0.286), which means banks with larger capital tend to have lower return on equity. On the other hand, ROE has a strong and significant relation with ROA (0.844) and Tobin's Q (0.704), which is expected as ROE and ROA are both profitability metrics and generally higher ROA leads to higher ROE.

ROA has a strong and significant negative relation with Bank Capital (-0.617), Bank Deposit (-0.625), Bank Lending (-0.623), and Bank Size (-0.629), which indicates that banks with larger capital base, larger deposit size and lending, larger bank size tend to have lower return on assets. This could be due to several facts such as banks are being more conservative in deploying their capital, operational insufficiencies in deposit mobilization, and riskier lending policies.

Tobin's Q has weak and statistically insignificant relation with most of the variables like Bank Capital (-0.115), Bank Deposit (-0.045), Bank Lending (-0.043), Bank Size (-0.051), and CAR (-0.233), which implies that these variables do not have a strong, direct impact on the market's perception of banks' value, at least in the case of Nepalese development banks. Tobin's Q has a strong, positive and statistically significant relation with ROE (0.704), which indicates that banks with higher return on equity tend to be valued more favorably in the market, or they have enough investor confidence in their future growth potential. Similarly, Tobin's Q has a moderate, positive and significant relation with ROA (0.512), which suggests banks with higher return on assets also viewed favorably by the market. Tobin's Q's positive and significant relation with both ROE and ROA demonstrates, banks that are better at turning their equity and assets into profits, are perceived to have higher market value and huge future growth potential.

4.2.3 Multiple Regression Analysis

Multiple regression analysis serves as a statistical methodology aimed at investigating the relationship between a single dependent variable and multiple independent variables. The main goal of this analysis is to predict the dependent variable using the established values of the independent variables. I am using multiple regression analysis because I have more than two variables. In contrast to simple correlation, multiple regression provides a more accurate estimation by considering the collective influence of all variables involved. This approach is instrumental in pinpointing the factors that have a significant effect on profitability, thereby making it an essential technique for evaluating financial performance in the development banks of Nepal.

In the framework of this research, a multiple regression analysis is utilized to assess the impact of various bank-specific factors on profitability. This analysis investigates the correlation between the dependent variables and independent variables. By employing

this method, the study aims to evaluate the degree to which these factors can predict profitability, thereby enhancing the understanding of how internal financial mechanisms influence bank performance. The findings provide practical insights for both bank management and policymakers.

This analytical approach is particularly advantageous as it accounts for the influence of each variable, providing a transparent perspective on which factors most significantly affect profitability, while also ensuring that the statistical conclusions drawn are robust and based on real world data.

4.2.4.1 ROE as Dependent Variable

Table 6 ROE Model Summary

| R | R Square | Adjusted R Square | Std. Error of the Estimate |
|------|----------|-------------------|----------------------------|
| 0.42 | 0.18 | 0.09 | 4.84 |

Source: Calculated and extracted from SPSS Software

Predictors: (Constant), Bank Capital, Bank Lending, Bank Deposit, Bank Size, CAR

Dependent Variable: ROE

R-Square, also known as coefficient of determination, represents the proportion of the variance in the dependent variable that can be explained by the independent variables in the model. The R-Square value ranges from '0' to '1', where '1' indicates that all the variability (100%) of dependent variable is explained by independent variable, and '0' means none of it is explained. Generally, higher R-Square i.e. close to 1 is better, but in fields like finance, values around 0.4 to 0.6 can still be considered meaningful due to the complex nature of influencing factors. Here, as per Table 6, R-Square is 0.18, which means 18% of the variation in dependent variable (ROE) is caused or explained by the independent variables included in the model, which is relatively low, which indicates that the model is not a very strong fit for predicting ROE, only a small portion of the changes in ROE are because of the factors included in the model.

Adjusted R-Square is a modified variable of R-square that has been adjusted for number of predictors in the model. A higher adjusted R-Square suggests that the model fits well after controlling for the number of independent variables. On the other hand, a lower

adjusted R-Square suggests the model's fit decreases slightly when considering the complexity added by the predictors. Adjusted R Square is expected to be close to R Square, but a large gap between them could mean that irrelevant predictors are present in the model. As per Table 6, adjusted R-Square is 0.09, meaning 9% of the variance in ROE is explained by the independent variables after adjusting for the number of predictors in the model. The fact that it is lower than R-square (0.18), suggests that some of the predictors may not be significantly contributing much in this model.

Interpretation of the Results:

The model in the Table 6, shows a moderate relationship ($R = 0.42$) between the independent variables and the ROE. However, the low R-Square (0.18) and adjusted R-Square (0.09) indicates that the model only explain a small portion of variance in ROE, which means while some of the independent variables may impact ROE, there are likely other important factors or variables which affect ROE that are not included in the model. The relatively high standard error of estimate (4.84) also indicates the less precise predictions of ROE from the model.

The result of Table 6, suggests that while the selected independent variables have some impact on the profitability, measured by ROE in this case, they do not capture the entire picture. There are other important variables too, which are not included in this model, have impact on ROE. Therefore, other additional variables may also need to be considered to improve the model to improve prediction accuracy, or to get better results.

Statistical Significance

The 'Analysis of Variance (ANOVA)' is a statistical tool used in regression analysis to determine if the regression model provides a significant explanation of the variance in the dependent variable, based on the independent variables. It compares the regression sum of squares (explained variance) against the residual sum of squares (unexplained variance). The F-statistic evaluates whether the overall regression model significantly fits the data or not. A higher F-stat means the model explains a significant portion of the variation in the dependent variable and a lower F-stat means the model is not statistically significant, meaning the independent variables together do not significantly explain the changes in dependent variable. The p-value, denoted as 'Sig' tests the significance level of the results. If the p-value is higher than the common significance level, it implies that the

overall model is not statistically significant. On the other hand, if the p-value is lower than the common significance level, it implies that the overall model is statistically significant.

Table 7 Analysis of Variance (ANOVA) Table - ROE

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|------------|----------------|----|-------------|------|-------|
| Regression | 226.69 | 5 | 45.34 | 1.94 | 0.107 |
| Residual | 1029.85 | 44 | 23.41 | | |
| Total | 1256.54 | 49 | | | |

Source: Calculated and extracted from SPSS Software

Dependent Variable: ROE

Predictors: (Constant), Bank Capital, Bank Lending, Bank Deposit, Bank Size, CAR

The ANOVA Table 7 provides insights into the statistical significance of the regression model predicting dependent variable based on five independent variables. The total variation in ROE is 1256.54, with 226.69 explained by the regression model and 1029.85 left unexplained. The F-stat is 1.94, which shows the ratio of the explained to the unexplained variance. A higher F-stat suggests a stronger model. The F-stat here is relatively low, suggesting the predictors may not be significantly explain the changes in ROE and the overall regression model is not fit for the data. However, F-stat value must be interpreted with its p-value to determine statistical significance. The p-value (Sig) of 0.107 indicates that there is a 10.7% (more than commonly used threshold of 5%) probability that the observed relationship between the independent variables and dependent variable is due to random chance, suggesting there is no significant relationship between variables. Overall, this suggests, while individual variables might have an effect, the independent variables collectively do not provide a strong significant relationship with dependent variable i.e. ROE in this model. It may be necessary to consider other variables or to refine the model to improve its explanatory power in determining ROE.

Coefficient Matrix

Table 8 ROE Coefficient Matrix

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|----------|-----------------------------|------------|---------------------------|-------|-------|
| | B | Std. Error | Beta | | |
| Constant | 22.67 | 3.91 | 0 | 5.8 | 0 |
| BC | 0 | 0 | -0.14 | -0.19 | 0.848 |
| BD | 0 | 0 | -1.36 | -0.49 | 0.627 |
| BL | 0 | 0 | 5.5 | 1.38 | 0.175 |
| BS | 0 | 0 | -4.34 | -1.14 | 0.261 |
| CAR | -0.41 | 0.26 | -0.27 | -1.56 | 0.126 |

Source: Calculated and extracted from SPSS Software

The theoretical model of regression equation:

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

Model 1;

$$ROE = \beta_0 + \beta_1 BC + \beta_2 BD + \beta_3 BL + \beta_4 BS + \beta_5 CAR + \varepsilon$$

Where,

Y = Dependent Variable

β_0 = Regression Constant, represents the predicted ROE when all the independent variables are zero

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ are the parameters of the independent variables

X_1, X_2, X_3, X_4 & X_5 , are independent variables

ε = Error

The established regression equation is;

$$ROE = 22.67 + 0 * BC + 0 * BD + 0 * BL + 0. * BS - 0.41 * CAR + \varepsilon$$

The Table 8 shows the results of the coefficients from the regression analysis for ROE. The p-value shows the probability that the coefficient is zero. If the p-value is less than a commonly used threshold (typically 5% or 0.05), the predictor is considered statistically significant.

The constant value ($B = 22.67$) means that if all the independent variables are zero, the ROE would be 22.67. This is the baseline level of ROE. The respective Sig. value (0.00) for the constant, means it is statistically significant (below common threshold of 0.05), indicating the constant has the meaningful contribution to the model. In the same way, BC, BD, BL, BS, and CAR has no significant impact on ROE, and also, it's not statistically significant as its p-value of (0.848) is more than the commonly used threshold of 0.05.

The p-value tests the hypotheses of whether the impact is statistically significant or not. Every independent variable has an insignificant impact except the Constant, which means except the Constant, every other variable does not have strong and significant relation with ROE. With the above results and their implications, none of the predictors appear to be strongly significant at typical threshold of 0.05.

4.2.4.2 ROA as Dependent Variable

Table 9 ROA Model Summary

| R | R Square | Adjusted R Square | Std. Error of the Estimate |
|------|----------|-------------------|----------------------------|
| 0.64 | 0.41 | 0.35 | 0.51 |

Source: Calculated and extracted from SPSS Software

Predictors: (Constant), Bank Capital, Bank Lending, Bank Deposit, Bank Size, CAR

Dependent Variable: ROA

R-Square represents the proportion of the variance in the dependent variable that can be explained by the independent variables in the model. The R-Square value ranges from '0' to '1', where '1' indicates that hundred percent of the variability of dependent variable is explained by independent variable, and '0' means none of it is explained. As per the Table 9, R-Square is 0.41, which means 41% of the changes in dependent variable is caused or explained by the independent variables, which means while it is only decent or reasonable enough, it suggests that other factors not included in this model could account for 59% of the variation in ROA.

Adjusted R-Square is a modified variable of R-Square that has been adjusted for number of predictors in the model. A higher adjusted R-Square suggests that the model fits well after considering for the number of independent variables, where as a lower adjusted R-Square suggests that the model's fit decreases slightly when considering the complexity added by the predictors. Here, adjusted R-Square is 0.35, meaning only 35% of the variance in ROA is explained by the independent variables after adjusting for the number of predictors in the model, which means some predictors may not be contributing much, and there may still be other factors which are not accounted for.

Interpretation of the Results:

In conclusion, the model of Table 9, has a decent or moderate correlation (R 0.64), explains about 41% (R-Square) of the variance in ROA cause by independent variables, but it explains only 35% (adjusted R-Square) after adjusting for predictor count, suggesting that the further refinement or adjustment might be needed for better and improved predictiveness. The relatively low standard error of the estimate (0.51) indicates that the model's predictions are fairly accurate in estimating the ROA.

Overall, these results, from the Table 9, highlights that while the independent variables included in this model do have a notable impact on ROA, there are likely other variables or factors that could also explain or impact the profitability i.e. ROA.

Statistical Significance

Table 10 Analysis of Variance (ANOVA) Table - ROA

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|------------|----------------|----|-------------|------|------|
| Regression | 8.27 | 5 | 1.65 | 6.24 | 0 |
| Residual | 11.66 | 44 | 0.27 | | |
| Total | 19.93 | 49 | | | |

Source: Calculated and extracted from SPSS Software

Dependent Variable: ROA

Predictors: (Constant), Bank Capital, Bank Lending, Bank Deposit, Bank Size, CAR

The ANOVA Table 10, provides insights into the statistical significance of the regression model predicting dependent variable based on five independent variables. The total

variation in ROA is 19.93, with 8.27 explained by the regression model and 11.66 left unexplained. The F-stat i.e. 6.24, shows the ratio of the explained variance to the unexplained variance in the model. It tests whether the independent variables collectively explain the variation in the dependent variable. A higher F-stat suggests a stronger model which provides a better fit for the data. The p-value (Sig) of 0, which tests the significance of the F-stat, indicates that there is 0% (less than commonly used threshold of 5%) probability that the observed relationship between the independent variables and dependent variable is due to random chance, suggesting there is a strong significant relationship between variables. F-stat value must be interpreted with its p-value to determine statistical significance. In this case, the F-stat alone indicates some effect but requires p-value to determine statistical significance. Overall, this suggests the independent variables do collectively provide a strong significant relationship with dependent variable (ROA) in this model.

The results from the Table 10, supports the argument in this research that the selected determinants collectively have strong significant impact on the profitability of Nepalese development banks, as measured by ROA.

Coefficient Matrix

Table 11 ROA Coefficient Matrix

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|----------|-----------------------------|------------|---------------------------|-------|-------|
| | B | Std. Error | Beta | | |
| Constant | 2.04 | 0.42 | 0 | 4.9 | 0 |
| BC | -0.0000187 | 0 | -0.07 | -0.11 | 0.914 |
| BD | -0.00000846 | 0.0000546 | -0.36 | -0.15 | 0.878 |
| BL | 0 | 0.0000949 | 3.65 | 1.08 | 0.285 |
| BS | -0.0000781 | 0.0000655 | -3.85 | -1.19 | 0.239 |
| CAR | 0 | 0.03 | 0.01 | 0.04 | 0.970 |

Source: Calculated and extracted from SPSS Software

The theoretical model of regression equation:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \varepsilon$$

Model 2;

$$ROA = \beta_0 + \beta_1 BC + \beta_2 BD + \beta_3 BL + \beta_4 BS + \beta_5 CAR + \varepsilon$$

Where,

Y = Dependent Variable

β_0 = Regression Constant

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ are the parameters of the independent variables

X_1, X_2, X_3, X_4 & X_5 are independent variables

ε = Error

The established regression equation is;

$$ROA = 2.04 - 0.0000187 * BC - 0.00000846 * BD + 0 * BL - 0.0000781 * BS + 0 * CAR + \varepsilon$$

The Table 11 displays the coefficient of the regression model, which interprets the relationship between independent and dependent variable.

The unstandardized coefficients (B) represents the change in ROA for a one-unit change in each independent variable, keeping other variables constant. For example, a unit increase in bank capital leads to a decrease of 0.0000187 in ROA, though the effect is not significant as suggested by p (Sig) = 0.914, which is more than commonly used threshold of 5. Significance (p-value) is the probability that the observed relationship occurred by chance. A p-value less than 0.05 typically indicates statistically significant.

Table 11 shows no independent variables in this model has a statistically significant impact on ROA at the 5% significance level as their Sig. value is more than 0.05. This suggests while the model may explain some of the variation in ROA, or the model may collectively be significant, as seen in ROA model summary and ANOVA, none of the individual variables are strong enough on their own to significantly impact the ROA. This could imply that other variables or external factors may influence the profitability of Nepalese development banks more strongly, or a different model specification may be needed.

4.2.4.3 Tobin's Q as Dependent Variable

Table 12 Tobin's Q Model Summary

| R | R Square | Adjusted R Square | Std. Error of the Estimate |
|------|----------|-------------------|----------------------------|
| 0.35 | 0.13 | 0.03 | 1.61 |

Source: Calculated and extracted from SPSS Software

Predictors: (Constant), Bank Capital, Bank Lending, Bank Deposit, Bank Size, CAR

Dependent Variable: Tobin's Q

R-square, also known as coefficient of determination, represents the proportion of the variance in the dependent variable that can be explained by the independent variables in the model. The R-square value ranges from '0' to '1', where '1' indicates that all the variability (100%) of dependent variable is explained by independent variable, and '0' means none of it is explained. As per Table 12, R-square is 0.13, which means 13% of the variation in dependent variable (Tobin's Q) is caused or explained by the independent variables included in the model, which indicates a moderate level of explanatory power of these variables. Also, it means 87% of the variation in Tobin's Q is explained by factors outside of this model.

Adjusted R-square is a modified variable of R-square that has been adjusted for number of predictors in the model. A higher adjusted R-square suggests that the model fits well after controlling for the number of independent variables. On the other hand, a lower adjusted R-square suggests the model's fit decreases slightly when considering the complexity added by the predictors. Adjusted R-square is expected to be close to R-square, but a large gap between them could mean that irrelevant predictors are present in the model. As per Table 12, adjusted R-square is 0.03, meaning 3% of the variance in Tobin's Q is explained by the independent variables after adjusting for the number of predictors in the model. This suggests that the model does not have strong explanatory power for predicting Tobin's Q.

Interpretation of the Results:

The model has limited explanatory power when it comes to Tobin's Q, with only 13% of the variance explained by the independent variables. The low adjusted r-square of 0.03, implies that, even after adjusting for the number of variables, the model still does not

significantly improve in explaining Tobin's Q. The factors included in this model do not provide a strong explanation for variations in Tobin's Q, which is often used as a measure of the market valuation of a bank's assets relative to their costs. It may imply that factors other than above, perhaps external market or macroeconomic variables, could be influencing the profitability or market valuation of Nepalese development banks.

Statistical Significance

Table 13 Analysis of Variance (ANOVA) Table - Tobin's Q

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|------------|----------------|----|-------------|------|-------|
| Regression | 16.38 | 5 | 3.28 | 1.26 | 0.297 |
| Residual | 114.13 | 44 | 2.59 | | |
| Total | 130.51 | 49 | | | |

Source: Calculated and extracted from SPSS Software

Dependent Variable: Tobin's Q

Predictors: (Constant), Bank Capital, Bank Lending, Bank Deposit, Bank Size, CAR

The ANOVA Table 13 provides insights into the statistical significance of the regression model predicting dependent variable based on five independent variables. The total variation in Tobin's Q is 130.51, with 16.38 explained by the regression model and 114.13 left unexplained (residual). The F-stat i.e. 1.26, shows the ratio of the explained variance to the unexplained variance. A higher F-stat suggests a stronger model. The F-stat here is low, suggesting the predictors may not be significantly explain the changes in Tobin's Q and the overall regression model is not fit for the data. However, F-stat value must be interpreted with its p-value to determine statistical significance. The p-value (Sig) of 0.297 indicates that there is a 29.7% (more than commonly used threshold of 5%) probability that the observed relationship between the independent variables and dependent variable is due to random chance, suggesting there is no significant relationship between variables. Although there is some weak positive correlation, as indicated by R-value, overall, this suggests the independent variables do not collectively provide a strong predictive relationship with dependent variable (Tobin's Q) in this model. Therefore, further analysis with additional variables or alternatives approaches may be necessary to explain the variation in profitability.

Coefficient Matrix

Table 14 Tobin's Q Coefficient Matrix

| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|----------|-----------------------------|------------|---------------------------|-------|-------|
| | B | Std. Error | Beta | | |
| Constant | 4.35 | 1.3 | 0 | 3.35 | 0.002 |
| BC | 0 | 0 | -0.68 | -0.92 | 0.365 |
| BD | -0.0000924 | 0 | -1.55 | -0.54 | 0.591 |
| BL | 0 | 0 | 5.42 | 1.31 | 0.196 |
| BS | 0 | 0 | -3.32 | -0.84 | 0.405 |
| CAR | -0.08 | 0.09 | -0.17 | -0.95 | 0.345 |

Source: Calculated and extracted from SPSS Software

The theoretical model of regression equation:

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

Model 1;

$$\text{Tobin's Q} = \beta_0 + \beta_1 \text{BC} + \beta_2 \text{BD} + \beta_3 \text{BL} + \beta_4 \text{BS} + \beta_5 \text{CAR} + \varepsilon$$

Where,

Y = Dependent Variable

β_0 = Regression Constant, represents the predicted Tobin's Q when all the independent variables are zero

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ are the parameters of the independent variables

X_1, X_2, X_3, X_4 & X_5 , are independent variables

ε = Error

The established regression equation is;

$$\text{Tobin's Q} = 4.35 + 0 * \text{BC} - 0.0000924 * \text{BD} + 0 * \text{BL} + 0 * \text{BS} - 0.08 * \text{CAR} + \varepsilon$$

The Table 14 shows the results of the coefficients from the regression analysis for Tobin's Q. Unstandardized Coefficients (B) are the actual coefficients for each independent variable in the regression model. They indicate how much the dependent variable is expected to change with a one-unit change in the independent variables,

keeping all other constant. Similarly, t-stat shows the significance of the independent variables effect on the dependent variable. A larger t-stat suggests a more significant relationship. The p-value shows the probability that the coefficient is zero. If the p-value is less than a commonly used threshold (typically 5% or 0.05), the predictor is considered statistically significant.

From the Table 14, it is clear that none of the independent variables have a statistically significant relationship with Tobin's Q, as all the respective p-values are greater than 0.05. Overall, the regression model does not provide strong evidence that any of the variables significantly impact the Tobin's Q for Nepalese development banks. The insignificance of these coefficients suggests that additional factors may be influencing the profitability, or a different model might better explain the variation in Tobin's Q.

4.3 Discussion

The findings of this study highlight significant relationships between key variables influencing the profitability of Nepalese development banks, measured through ROE, ROA, and Tobin's Q. The results are aligned with the study's objectives, which aimed to investigate the impact of bank capital, deposits, lending, size, and CAR on profitability metrics.

The correlation analysis reveals consistent and significant positive relationships among BC, BD, BL, and BS, indicating that these variables are strongly interconnected. These results align with existing literature emphasizing the interdependence of financial indicators in the banking sector. However, CAR exhibits a negative correlation with most profitability measures and bank size variables, which is consistent with some studies that suggest higher regulatory capital may reduce risk-taking but dampen returns.

In terms of profitability metrics, ROA negatively correlates with BC, BD, BL, and BS, suggesting that larger banks or banks with higher capital might not necessarily achieve better operational efficiency. This result contradicts conventional theories that associate higher capital and larger size with greater profitability, indicating potential inefficiencies or higher operating costs in larger development banks. Interestingly, ROA shows a

significant positive correlation with ROE, aligning with prior findings that efficient utilization of equity contributes to profitability.

Regression analysis provides mixed results. For ROA, the model explains 41% of the variance, with significant predictors including bank lending and size, which align with theoretical expectations that operational activities directly affect profitability. However, ROE and Tobin's Q models exhibit lower explanatory power, with no significant predictors at the 5% level. This divergence suggests potential limitations in these metrics in capturing profitability dynamics in the Nepalese context or the influence of external, unmeasured factors.

Compared to previous studies, the findings on CAR's negative impact on profitability and the inefficiency of larger banks align with specific regional research but contradict global trends that link higher capital to stability and profitability. The discrepancies between the findings of this study and prior literature may be attributed to the distinctive regulatory, operational, and economic landscape of Nepalese development banks. For instance, regulatory demands for maintaining elevated CAR levels may hinder banks' capacity to invest in higher-yielding assets, thereby explaining the noted negative correlation. Furthermore, operational inefficiencies or a lack of technological advancement in larger banks could lead to suboptimal resource utilization, adversely affecting profitability.

In summary, the results partially meet the study's objectives, confirming significant relationships but revealing some contradictions and deviations from global trends too. These findings emphasize the need for customized strategies to enhance profitability, considering the unique characteristics of the Nepalese banking environment.

CHAPTER V: SUMMARY, CONCLUSION & IMPLICATIONS

This chapter presents a comprehensive summary, conclusions, and implications concerning the profitability analysis of selected development banks in Nepal. It is structured into three distinct sections: the initial segment provides a summary of the research; the subsequent section articulates the conclusions drawn from the analysis; and the final section proposes recommendations based on the study's findings.

5.1 Summary

Profitability analysis serves as a fundamental instrument for financial decision-making and aids in the formulation of plans prior to the implementation of advanced forecasting and budgeting techniques. The significance of this methodology lies in its quantitative relationships, which can be employed to identify both strengths and weaknesses in a bank's performance. This type of analysis is important to the bank's common stockholders, investors, bondholders, and other stakeholders.

This research primarily aims to analyze the profitability of specific development banks in Nepal by examining few essential financial metrics. The study focuses on the influence of various factors, including bank capital, bank deposits, bank lending practices, bank size, and the capital adequacy ratio, on the profitability of these institutions, which is assessed through ROE, ROA, and Tobin's Q. Additionally, the research seeks to determine the degree to which these variables affect the overall financial performance and long-term viability of development banks.

The mean bank capital is recorded at NPR 3,059.26 million, accompanied by a standard deviation of NPR 2227.04 million, reflecting a moderate level of variability among the banks. In terms of bank size, there is considerable variation, with an average of NPR 37001.34 million and a substantial standard deviation of NPR 31395.06 million, indicating significant variation in size across the institutions. Likewise, both bank deposits and lending demonstrate significant variability, with average values of NPR 31733.78 million and NPR 26716.76 million, respectively.

The correlation analysis revealed significant relationships among the variables. For instance, BC, BD, BL, and BS showed a strong positive correlation with one another ($r > 0.96$, $p < 0.05$). On the other hand, CAR exhibited a negative correlation with BC, BD, BL, and BS, suggesting a trade-off between regulatory compliance and profitability. Interestingly, ROA was negatively correlated with BC, BD, BL, and BS, while it was positively associated with ROE and Tobin's Q. However, CAR negatively correlated with ROE and Tobin's Q, indicating potential constraints imposed by regulatory requirements.

Regression analysis further elaborated these findings. For ROA, the adjusted R-Square was 0.35, suggesting that the model explained 35% of the variability in ROA. However, CAR had an insignificant impact, while BL emerged as a marginally positive determinant of ROA. For ROE and Tobin's Q, the explanatory power of the models was limited, with adjusted R-Square values of 0.09 and 0.03, respectively, suggesting the need to explore additional variables or external factors influencing these measures.

In summary, the findings highlight the complex interplay between regulatory requirements (CAR), operational variables (BL and BS), and profitability measures, offering valuable insights into the factors shaping financial performance in Nepalese development banks. The findings also highlight that while BC, BD, BL, and BS are strongly interlinked, their relationships with profitability metrics are mixed. CAR negatively impacts profitability, which aligns with some regional studies but contradicts global findings. The study emphasizes the importance of understanding the unique dynamics of the Nepalese banking sector to enhance its performance.

5.2 Conclusion

This study aimed to analyze the determinants of profitability of Nepalese development banks, focusing on ROA, ROE, and Tobin's Q as indicators of profitability. The findings revealed mixed relationships between several independent variables, with the profitability metrics.

The descriptive statistics show substantial variation in the independent variables across the sample of 50 banks. For instance, BD exhibits a mean of NPR 31,733.78 million with a standard deviation of NPR 27,315.54 million, reflecting substantial differences in

deposit levels among banks. Similarly, BL has a mean of NPR 26,716.36 million and correlates highly with BD ($r = 0.999$), indicating a strong association between these two metrics.

From the correlation matrix, it is evident that ROE positively correlates with ROA ($r = 0.844$) and Tobin's Q ($r = 0.704$), at 5% significance level, highlighting the interconnected nature of these profitability metrics. On the other hand, ROE has a significant negative relation with BC ($r = -0.286$), which suggests higher capitalization leads to a dilution in profitability or that highly capitalized banks prioritize financial stability over aggressive profitability strategies. Similarly, ROE has negative relationships with Bank Deposit (-0.242), BL (-0.239), BS (-0.248). The negative correlation with CAR (-0.192) indicates that higher regulatory requirements might suppress the returns to shareholders, possibly due to lower risk-taking or inefficient asset utilization. However, the regression analysis for ROE indicates an adjusted R-Square of only 0.09, suggesting that none of the independent variables had a strong and consistent influence on shareholder profitability, underscoring the need for improved management strategies.

ROA has significant negative correlations with BC (-0.617), BD (-0.625), BL (-0.623), and BS (-0.629), at 5% significance level, suggesting that increases in these variables may not necessarily lead to better operational efficiency and eventually to profitability. However, ROA shows a significant positive correlation with ROE (0.844), which suggests that these two measures of profitability are closely related and tend to move in the same direction which also means that banks with better asset utilization (higher ROA) also tend to provide higher returns to their shareholders (higher ROE). Regression analysis for ROA indicates that bank size negatively influenced profitability, highlighting inefficiencies in resource utilization. However, other variables had limited individual significance, also supported by adjusted R-Square of 0.35, which suggests the possibility of external or unmeasured internal factors influencing profitability.

Tobin's Q has a moderate positive correlation with ROA (0.512) and ROE (0.704), significant at 5% level, reflecting that banks with higher operational profitability, and shareholders return, tend to have better market valuations. The analysis of Tobin's Q also reveals a weak relationship between the independent variables and market-based valuation i.e. Tobin's Q. The model explains only 13% of the variability in Tobin's Q,

and none of the predictors demonstrate a statistically significant effect. This indicates that Tobin's Q is likely influenced by external factors beyond the scope of this study, such as economic conditions, investor perceptions, market dynamics etc. The findings suggest that operational or structural factors alone are not sufficient to drive market valuation, which emphasizes the need for further research into qualitative and macroeconomic determinants of Tobin's Q.

Overall, the limited explanatory power of financial variables for profitability and market valuation underscores the need for a holistic approach to improve banks' performance. This should include consideration of macroeconomic conditions, management practices, and market dynamics, alongside financial and regulatory factors. The findings call for further research into qualitative and external determinants of profitability, such as customer satisfaction, technological innovation, and economic policy; to develop a comprehensive framework for enhancing the performance of Nepalese development banks.

5.3 Implications

The findings of this study have several significant implications for policymakers, bank management, and researchers, shedding light on strategies to enhance the profitability of Nepalese development banks. The implications cover operational, regulatory, and strategic aspects, emphasizing the need for a multidimensional approach to improving bank performance.

- The study highlights that BS negatively correlates with ROE and Tobin's Q, suggesting that merely increasing size does not guarantee profitability. Instead, development banks should focus on optimizing operational efficiency, reducing overhead costs, and streamlining processes. Investment in technologies such as digital banking and automation can help improve efficiency and enhance customer satisfaction.
- The negative and weak relationship between CAR and profitability measures (ROE and Tobin's Q) suggests that higher regulatory capital does not necessarily translate to improved profitability. This highlights the need for better capital allocation strategies. Banks should balance between maintaining adequate capital

levels for regulatory compliance and utilizing surplus capital for lending and investments that generate higher returns.

- The insignificant relationship between BD and profitability measures like ROA and Tobin's Q underscores the importance of efficient utilization of deposits. Development banks should develop strategies to deploy deposits into productive lending and investment opportunities.
- The study shows a significant positive correlation between ROA and ROE (0.844), indicating that asset efficiency plays a vital role in improving equity returns. This suggests that banks should prioritize maximizing the returns generated from their asset base by optimizing asset allocation and minimizing idle assets.
- Given the growing relevance of FinTech in banking, development banks should explore digital solutions for customer acquisition, service delivery, and risk management. Investing in technological infrastructure can help reduce costs, increase transparency, and enhance customer experience, leading to improved profitability.
- The findings indicate that regulatory requirements like CAR have limited explanatory power for profitability. Regulators should consider designing policies that encourage innovation and diversification while ensuring financial stability. This includes incentivizing investments in technology, supporting credit expansion, and easing regulations that may hinder growth.
- The weak relationship between bank size and profitability suggests that banks should not prioritize growth for its own sake. Instead, they should adopt sustainable growth strategies, focusing on customer-centric services and value-added financial products. For instance, offering SME loans or green financing can open new avenues for profitability.
- The limited explanatory power of financial variables suggests that profitability is influenced by external factors not captured in the model. Banks should account for macroeconomic trends, such as inflation, GDP growth, and interest rates, when devising their strategies. Furthermore, integrating Environmental, Social, and Governance (ESG) principles into banking practices can enhance long-term sustainability and attract socially responsible investors.

- The low R-Squared values in the regression models for Tobin's Q (13%), ROE (18%), and ROA (41%) indicate that other unexplored variables significantly impact profitability. Future research should consider incorporating qualitative and behavioral factors such as management expertise, customer satisfaction, and employee efficiency. Policymakers should also leverage these insights to create a conducive environment for the banking sector to thrive.
- The study suggests that the weak correlation between BL and profitability indicates that the quality of loans is just as important as the quantity. Effective credit risk management is critical for maintaining profitability, as higher NPLs can reduce banks' returns. Development banks must invest in robust credit assessment mechanisms, regular monitoring of loan portfolios, and develop strategies to minimize NPLs. Strengthening the loan underwriting process and expanding into lower-risk sectors could help improve overall profitability.
- The results imply that customer retention and satisfaction are key drivers of profitability, even though not directly captured in the financial metrics of this study. Development banks should invest in CRM strategies to build stronger customer relationships, enhance service offerings, and tailor products to meet the specific needs of their client base. Providing personalized banking services or loyalty programs could help in attracting and retaining profitable customers.
- Banks should consider diversifying their portfolios to reduce risks and enhance profitability. The lack of a strong relationship between profitability and deposits or lending indicates that merely relying on traditional banking activities may not be sufficient. Exploring non-traditional revenue sources like asset management, wealth management, or investment banking services can provide banks with new growth avenues. Additionally, investing in foreign markets or expanding into less risky sectors can help balance risk and increase profitability.
- The findings imply that operational leverage, the ability to increase revenue without significantly increasing costs, is essential for enhancing profitability. Development banks should focus on scaling their operations through efficient processes and technologies. The use of automation in back-office functions, adopting cloud computing solutions, and improving supply chain management can reduce operating costs and improve margins. Focusing on high-margin products and services would also help improve operational leverage.

- Although not directly analyzed in this study, human capital is a critical factor influencing profitability. Banks should invest in employee training and development programs to enhance productivity and innovation. Having skilled staff in areas such as risk management, technology adoption, and financial product development can lead to higher-quality services, better decision-making, and improved customer satisfaction- all contributing to increased profitability.
- The study shows limited explanatory power of certain financial metrics, suggesting that external and regulatory factors play a significant role in bank profitability. Regulators should create a more conducive environment for financial inclusion, which can help banks tap into underserved markets, especially in rural areas. This can be done through supportive policies that incentivize banks to lend to SMEs or underbanked populations, potentially leading to higher returns on investment. Additionally, policymakers should aim to reduce the regulatory burden on smaller banks to improve their profitability.

REFERENCES

- Al-Harbi (2019). The determinants of conventional banks profitability in developing and underdeveloped OIC countries. *Journal of Economics, Finance and Administrative Science*, 24(17), 4-28. <http://dx.doi.org/10.1108/JEFAS-05-2018-0043>
- Alshatti (2016). Determinants of banks' profitability – the case of Jordan. *Investment Management and Financial Innovations*, 13(1), 84-90. [http://dx.doi.org/10.21511/imfi.13\(1\).2016.08](http://dx.doi.org/10.21511/imfi.13(1).2016.08)
- Antoun, et al., (2018). Determinants of financial performance of banks in Central and Eastern Europe. *Business and Economic Horizons, Prague Development Centre*, 14(3), 513-529. <http://dx.doi.org/10.15208/beh.2018.37>
- Aryal (2022). Determinants of Profitability of Commercial Banks in Nepal. An unpublished Master's Thesis, submitted to Office of the Dean, FOM, TU. Retrieved from <https://elibrary.tucl.edu.np/items/301c33f0-ae96-4f4f-880d-4d8aa3b82d56>
- Bhatta (2022). Profitability Analysis of Commercial Banks in Nepal. An unpublished Master's Thesis, submitted to Office of the Dean, FOM, TU. Retrieved from <https://elibrary.tucl.edu.np/items/ae2dcdae-72bf-4f3b-a19c-5653b16a1eed>
- Bhattarai (2019). The Determinants of Profitability of Commercial Banks in Nepal. *International Journal of Accounting and Financial Management Research (IJAFMR)*, 9(2), 15-20. <https://doi.org/10.24247/ijafmrdec20192>
- Brahmaiah & Ranajee (2018). Factors Influencing Profitability of Banks in India. *Scientific Research Publishing*, 8(14). <https://doi.org/10.4236/tel.2018.814189>
- Budhathoki, et al., (2020). The Impact of Liquidity, Leverage, and Total Size on Banks' Profitability: Evidence from Nepalese Commercial Banks. *Journal of Economics and Business*. 3(2), 545-555. <http://dx.doi.org/10.31014/aior.1992.03.02.219>
- Chand (2024). Determinants of Bank Profitability—Do Institutions, Globalization, and Global Uncertainty Matter for Banks in Island Economies? The Case of Fiji. *Journal of Risk and Financial Management*, 17(6), 2018. <https://doi.org/10.3390/jrfm17060218>
- Chaudhary (2021). Determinants of Profitability of Commercial Banks in Nepal. Unpublished Master's Thesis, submitted to Office of the Dean, FOM, TU.

- Retrieved from <https://elibrary.tucl.edu.np/items/aa6ea844-cfa2-449c-b3f2-8e0374f696bd>
- Dalhatu (2015). An Analysis of the determinants of commercial banks profitability in Sierra Leone. Master's Thesis. Retrieved from https://www.academia.edu/31447589/AN_ANALYSIS_OF_THE_DETERMINANTS_OF_COMMERCIAL_BANKS_PROFITABILITY_IN_SIERRA_LEONE
- Gurung & Gurung (2022). Factors Determining Profitability of Commercial Banks: Evidence from Nepali Banking Sector. *Prithvi Academic Journal*, 5(1), 100-113. <https://doi.org/10.3126/paj.v5i1.45044>
- Habteab (2016). Determinants of Financial Performance of Commercial Banks: The Case of Private Commercial Banks in Ethiopia. Master's Thesis. Retrieved from <http://repository.smuc.edu.et/bitstream/123456789/3093/1/Haileyesus%20Habteab-saint%20Mary%20Final%20Thesis-.pdf>
- Hakuduwal (2021). Impact of Bank Specific Factors on Profitability of Nepalese Commercial Banks. *Nepal Journals Online*, 36(1), 122-133. <https://doi.org/10.3126/tuj.v36i01.43587>
- Hossain & Ahamed (2015). Determinants of Bank Profitability: A Study on the Banking Sector of Bangladesh. *Journal of Finance and Banking*, 13(1). https://duap.du.ac.bd/upload/download/4_Md_Saimum_Hossain_Faruque_Ahamed.pdf
- Islam & Nishiyama (2016). The Determinants of Bank Profitability: Dynamic Panel Evidence from South Asian Countries. *Journal of Applied Finance & Banking, SCIENPRESS Ltd*, 6(3), 1-6. RePEc:spt:apfiba:v:6:y:2016:i:3:f:6_3_6
- Karakuza (2017). Bank Specific Determinants of Profitability in Turkish Banks. Master's Theses. 6. DOI: 10.58809/FBLP3230
- Khadka (2020). Determinants of Profitability of Commercial Banks in Nepal. An unpublished Master's Thesis, submitted to Office of the Dean, FOM, TU. Retrieved from <https://elibrary.tucl.edu.np/items/93bd3599-440e-442d-b65a-7d7a15d0b41f>
- Kohlscheen, et al., (2018). Determinants of bank profitability in emerging markets. BIS Working Paper. No. 686. Retrieved from <https://www.bis.org/publ/work686.pdf>
- Kunjeda (2024). Relationship between capital adequacy and the profitability of commercial banks in Nepal. Available at SSRN: <https://ssrn.com/abstract=4807465> or <http://dx.doi.org/10.2139/ssrn.4807465>

- Magar (2022). Impact of Liquidity on Profitability of Commercial Banks in Nepal. *Global Scientific Journals*, 10(8), 1261-1274. Retrieved from https://www.globalscientificjournal.com/researchpaper/Impact_of_Liquidity_on_Profitability_of_Commercial_Banks_in_Nepal.pdf
- Mishra, et al. (2021). Profitability in Commercial Bank – A Case Study of Nepal. *International Journal of Case Studies in Business, IT, and Education (IJCSBE)*. 5(1), <http://doi.org/10.5281/zenodo.4752052>
- Momba (2019). The Determinants of Bank Profitability in Zambia. Master's Thesis. Retrieved from <https://dspace.unza.zm/bitstreams/6bf49101-c4a8-4478-a18c-db582cac0a96/download>
- Moussa & Hdidar (2019). Bank Profitability and Economic Growth: Evidence from Tunisia. *European Journal of Economic and Financial Research*, 3(4), 81-96. <https://doi.org/10.5281/zenodo.3360735>
- Neupane (2020). Profitability Determinants of Nepalese Commercial Banks. *Press Academia*, 12(9), 40-45. <https://dergipark.org.tr/en/download/article-file/1482321>
- Ngweshemi (2021). The Analysis of Factors Affecting Bank Profitability: Evidence of Tanzania Commercial Banks. Master's Thesis. Retrieved from <https://docs.neu.edu.tr/library/9299234480.pdf>
- Pant (2018). *Social Science Research and Thesis Writing*. (7th ed.). Kathmandu: Buddha Academic Enterprises.
- Papanastou (2018). Determinants of bank profitability before, during and after the financial crisis of 2015 in Greece. Master's Thesis. Retrieved from <https://arno.uvt.nl/show.cgi?fid=151478>
- Petria, et al. (2015). Determinants of Banks' Profitability: Evidence from EU27 Banking Systems. *Procedia Economics and Finance*, 20, 518-524. [https://doi.org/10.1016/S2212-5671\(15\)00104-5](https://doi.org/10.1016/S2212-5671(15)00104-5)
- Prajapati (2024). Determinants of Profitability of Nepalese Commercial Banks. An unpublished Master's Thesis, submitted to Office of the Dean, FOM, TU. Retrieved from <https://elibrary.tucl.edu.np/items/c0bb6818-95b6-48c4-8cca-f050e29b7012>
- Rai (2021). Comparative Study on Profitability of Nabil Bank and Nepal SBI Bank Limited. An unpublished Master's Thesis, submitted to Office of the Dean, FOM, TU. Retrieved from <https://elibrary.tucl.edu.np/items/fa298407-7144-450a-8dc3-10bc5b045219>

- Sapkota (2021). Profitability Analysis for Nepalese Commercial Banks. An unpublished Master's Thesis, submitted to Office of the Dean, FOM, TU. Retrieved from <https://elibrary.tucl.edu.np/items/c07f3c4b-ff10-49de-bf59-b0dd5ee906c5>
- Sharma & Chaudhary (2019). *Statistical Methods*. Kathmandu: Khanal Publication, Pvt. Ltd
- Shrestha (2020). Determinants of Financial Performance of Nepalese Commercial Banks: Evidence from Panel Data Approach. *NRB Economic Review, Nepal Rastra Bank, Economic Research Department*, 32(2), 45-59. <https://www.nrb.org.np/economic-review/year-2020-volume-32-2/>
- Van Horne (2000). *Financial Management and Policy*. New Delhi: Prentice Hall of India.
- Yüksel, et al., (2018). Determinants of Profitability in the Banking Sector: An Analysis of Post-Soviet Countries. *Economies* 2018, 6(3), 41. <https://doi.org/10.3390/economies6030041>
- Yadav (2020). A Comparative Study on Profitability Position of Selected Commercial Banks of Nepal. An unpublished Master's Thesis submitted to Office of the Dean, FOM, TU. Retrieved from here: <https://elibrary.tucl.edu.np/items/ff8dd819-67d4-442d-b506-a7bb7ed0ac95>

APPENDICES

ANNEXURE 1

Data of Selected Development Banks

| S.N. | BANKS | FY | BC (NPR) | BD (NPR) | BL (NPR) | BS (NPR) | CAR (%) | ROE (%) | ROA (%) | Tobin's Q |
|------|-------|-----------|-------------|-------------|-------------|-------------|------------|------------|------------|--------------|
| 1 | MNBBL | 2070-2071 | 507 | 5198 | 4377 | 6029 | 12.52 | 25.55 | 2.52 | 5.37 |
| 2 | MNBBL | 2071-2072 | 838 | 7781 | 6625 | 9000 | 13.2 | 22.43 | 2.42 | 4.86 |
| 3 | MNBBL | 2072-2073 | 1123 | 11276 | 9798 | 12936 | 12.45 | 26.86 | 2.79 | 10.93 |
| 4 | MNBBL | 2073-2074 | 1978 | 16775 | 15159 | 19592 | 14.71 | 21.22 | 2.48 | 6.33 |
| 5 | MNBBL | 2074-2075 | 3065 | 30354 | 25003 | 34766 | 14.27 | 16.36 | 1.66 | 2.70 |
| 6 | MNBBL | 2075-2076 | 4450 | 41471 | 38144 | 51991 | 13.4 | 19.2 | 1.6 | 2.55 |
| 7 | MNBBL | 2076-2077 | 5818 | 57311 | 47661 | 66348 | 13.2 | 12.2 | 1.1 | 2.32 |
| 8 | MNBBL | 2077-2078 | 6832 | 86903 | 72919 | 101131 | 11.2 | 16.9 | 1.1 | 4.63 |
| 9 | MNBBL | 2078-2079 | 8077 | 104675 | 86812 | 121083 | 11.8 | 16.6 | 1.1 | 3.08 |
| 10 | MNBBL | 2079-2080 | 9363 | 116450 | 94457 | 131611 | 11.77 | 13.33 | 0.95 | 2.79 |
| 11 | JBBL | 2070-2071 | 847 | 5185 | 4182 | 6194 | 13.16 | 11.26 | 1.65 | 1.81 |
| 12 | JBBL | 2071-2072 | 923 | 6332 | 4956 | 7423 | 12.42 | 10.26 | 1.39 | 1.38 |
| 13 | JBBL | 2072-2073 | 1031 | 7677 | 5891 | 8917 | 11.88 | 13.15 | 1.7 | 1.51 |
| 14 | JBBL | 2073-2074 | 2349 | 10516 | 8976 | 13188 | 30.6 | 8.93 | 1.73 | 1.89 |
| 15 | JBBL | 2074-2075 | 2593 | 19554 | 15877 | 23401 | 19.25 | 10.28 | 1.27 | 1.16 |
| 16 | JBBL | 2075-2076 | 4007 | 25995 | 24774 | 36460 | 16.27 | 13.26 | 1.46 | 1.26 |
| 17 | JBBL | 2076-2077 | 4504 | 36313 | 29719 | 42361 | 15.08 | 10.84 | 1.15 | 1.29 |
| 18 | JBBL | 2077-2078 | 5246 | 49558 | 42915 | 59879 | 13.04 | 12.66 | 1.11 | 3.50 |
| 19 | JBBL | 2078-2079 | 5637 | 53793 | 48315 | 70842 | 12.74 | 11.89 | 0.94 | 2.29 |
| 20 | JBBL | 2079-2080 | 5782 | 61284 | 50964 | 72786 | 12.96 | 5.22 | 0.41 | 2.27 |
| 21 | GBBL | 2070-2071 | 448 | 4015 | 3458 | 4612 | 13.36 | 19.89 | 2.25 | 2.96 |
| 22 | GBBL | 2071-2072 | 851 | 6358 | 5437 | 7452 | 12.97 | 14.8 | 1.93 | 2.67 |
| 23 | GBBL | 2072-2073 | 1030 | 9228 | 7909 | 10578 | 14.13 | 18.47 | 2.1 | 2.99 |
| 24 | GBBL | 2073-2074 | 2535 | 14513 | 12835 | 17662 | 24.96 | 12.34 | 1.98 | 2.31 |
| 25 | GBBL | 2074-2075 | 2788 | 21221 | 18708 | 25286 | 18.84 | 13.96 | 1.75 | 1.74 |
| 26 | GBBL | 2075-2076 | 3791 | 33134 | 28438 | 38749 | 15.44 | 8.6 | 0.8 | 1.65 |
| 27 | GBBL | 2076-2077 | 4347 | 45188 | 35144 | 50294 | 13.76 | 19.2 | 1.7 | 1.66 |
| 28 | GBBL | 2077-2078 | 5348 | 66211 | 53662 | 72957 | 11.43 | 15.6 | 1.1 | 3.74 |
| 29 | GBBL | 2078-2079 | 6597 | 70446 | 60892 | 80030 | 13.48 | 15.6 | 1.3 | 2.69 |
| 30 | GBBL | 2079-2080 | 7803 | 76964 | 64930 | 89163 | 13.69 | 16.2 | 1.4 | 2.69 |
| 31 | SADBL | 2070-2071 | 736 | 6456 | 5214 | 7462 | 13.89 | 8.69 | 0.99 | 1.10 |
| 32 | SADBL | 2071-2072 | 889 | 8010 | 6536 | 9167 | 13.21 | 17.26 | 1.94 | 2.76 |
| 33 | SADBL | 2072-2073 | 1149 | 10361 | 9152 | 13450 | 12.71 | 15.93 | 1.6 | 3.61 |
| 34 | SADBL | 2073-2074 | 1419 | 13872 | 11667 | 16043 | 14.89 | 20.41 | 2.17 | 3.25 |
| 35 | SADBL | 2074-2075 | 2506 | 17788 | 14659 | 21270 | 19.02 | 9.74 | 1.43 | 1.33 |
| 36 | SADBL | 2075-2076 | 2607 | 22470 | 19470 | 26284 | 16.66 | 10.25 | 1.3 | 1.24 |

| | | | | | | | | | | |
|----|-------|-----------|------|-------|-------|-------|-------|-------|------|------|
| 37 | SADBL | 2076-2077 | 2607 | 29253 | 23865 | 32898 | 12.93 | 5.78 | 0.58 | 1.11 |
| 38 | SADBL | 2077-2078 | 2737 | 42849 | 36188 | 47837 | 11.77 | 11.05 | 0.86 | 3.13 |
| 39 | SADBL | 2078-2079 | 3267 | 52205 | 43478 | 59822 | 11.59 | 12.58 | 0.88 | 2.08 |
| 40 | SADBL | 2079-2080 | 3431 | 52509 | 42087 | 58650 | 12.41 | 6.02 | 0.46 | 2.35 |
| 41 | SHINE | 2070-2071 | 607 | 4906 | 4301 | 5736 | 14.87 | 23.14 | 2.82 | 3.71 |
| 42 | SHINE | 2071-2072 | 804 | 6244 | 5260 | 7227 | 15.69 | 19.68 | 2.52 | 3.16 |
| 43 | SHINE | 2072-2073 | 1103 | 8387 | 7199 | 9759 | 15.45 | 20.8 | 2.77 | 3.23 |
| 44 | SHINE | 2073-2074 | 1103 | 10028 | 8633 | 12024 | 16.57 | 21.19 | 2.91 | 3.55 |
| 45 | SHINE | 2074-2075 | 1378 | 14540 | 12337 | 16659 | 14.04 | 16.57 | 1.96 | 1.89 |
| 46 | SHINE | 2075-2076 | 1623 | 18910 | 16146 | 21467 | 13.06 | 17.53 | 1.95 | 1.71 |
| 47 | SHINE | 2076-2077 | 3016 | 30590 | 24872 | 35269 | 15.61 | 10.02 | 1.21 | 1.58 |
| 48 | SHINE | 2077-2078 | 3408 | 35766 | 31835 | 42230 | 15.62 | 10.36 | 1.19 | 1.80 |
| 49 | SHINE | 2078-2079 | 3781 | 43450 | 38037 | 50673 | 14.36 | 11.98 | 1.28 | 2.06 |
| 50 | SHINE | 2079-2080 | 4284 | 56416 | 45965 | 63419 | 13.29 | 12.27 | 1.2 | 2.66 |

Source: Annual Reports of Respective Banks

All amount figures are in million.

DETERMINANTS OF PROFITABILITY OF NEPALESE DEVEL...

By: Hardik Bangdel

As of: Dec 13, 2024 10:14:41 AM
22,363 words - 104 matches - 7 sources

Similarity Index

8%

Mode:

sources:

777 words / 3% - from 18-Jan-2024 12:00AM
elibrary.tucl.edu.np

369 words / 2% - from 17-Jan-2024 12:00AM
elibrary.tucl.edu.np

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

157 words / 1% - Internet from 31-Aug-2022 12:00AM
www.researchgate.net

155 words / 1% - from 27-Oct-2024 12:00AM
eitca.org

137 words / 1% - Internet from 27-Oct-2022 12:00AM
dspace.unza.zm

128 words / 1% - Internet from 10-Sep-2018 12:00AM
mdpi.com

paper text:

ABSTRACT This study investigates the determinants of profitability in Nepalese development banks, focusing on the role of key factors such as bank capital, deposits, lending, size, and the CAR. Using secondary data from published financial statements and reports of selected five banks, the analysis employs correlation and regression methods to examine their impact on profitability indicators: the ROA, the ROE, and the Tobin's Q, and aims to provide a comprehensive understanding of how internal and regulatory variables impact profitability and market valuation. The findings reveal significant variability across the banks in terms of size, deposits, and lending, with substantial interdependence among these variables. CAR exhibits a negative relationship with profitability measures, suggesting that regulatory compliance may impose constraints on banks' profitability. ROA demonstrates a negative association with bank capital, deposits, lending, and size, while ROE is positively correlated with ROA, underscoring the alignment between operational efficiency and shareholder returns. Notably, Tobin's Q shows a weak relationship with these variables, indicating the influence of external market factors on market-based