

**IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY OF
DEVELOPMENT BANKS IN NEPAL**

A Dissertation submitted to the Office the Dean, Faculty of Management in
partial fulfilment of the requirements for the Master of Business Studies
(MBS)

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June, 2024

CERTIFICATE OF AUTHORSHIP

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

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We, the undersigned have examined the thesis entitled “**Impact of Capital Structure on Profitability of Development Banks in Nepal**” presented by Samita Mishra, a candidate for the degree of Master of Business Studies (MBS Semester) and conducted the viva voce examination of the candidate. We hereby certify that the thesis acceptable for the award of degree.

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ACKNOWLEDGEMENTS

This study entitled “**Impact of Capital Structure on Profitability of Development Banks in Nepal**” has been conducted to satisfy the partial requirements for the degree of Master of Business Studies, Tribhuvan University. A study of this kind would not have been possible without the help of all those who contributed in diverse ways towards its success. Without the continued emotional support provided by my family, I may have not reached the end of this journey. During my studies there were times when work commitments and intermittent stress made me believe that I would not be able to see this journey through. It was during these times, and many others, that their words of encouragement and confidence in my ability gave me the motivation to persist. No words of thanks can adequately express the depth of my appreciation. I would like to extend my immense gratitude to my supervisor Pitamber Lamichhane for his valuable supervision and guidance in completing this study. I cannot express the extent to which his patience and understanding allowed me to reach the end of this journey. His encouragement, support, and, above all, his prompt, constructive and greatly appreciated criticism and feedback, were invaluable to the research, writing, and completion of this study. I am grateful to Asso. Dr Prof. Krishna Prasad Acharya, Campus Chief, and Asso. Prof. Dr. Sajeeb Kumar Shrestha, Research Committee Head, for timely supervision and guidance to complete this work.

I gratefully acknowledge the staff members of all the teachers of Shanker Dev Campus, Kathmandu who provided the assistance to make the dissertation report possible. I would like to express my sincere thanks to my parents, family members and friends who always encouraged and inspired me continuously in whatever way it is possible.

Samita Mishra

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ABBREVIATIONS

AM:	Arithmetic mean
CADR:	Cash deposit ratio
CV:	Coefficient of Variation
D/E:	Debt Equity Ratio
F&D:	Fixed Deposit
FIs:	Financial Institutions
FY:	Fiscal Year
LTDR:	Long Term Debt Ratio
NRB:	Nepal Rastra Bank
ROA:	Return on Asset
ROE:	Return on Equity
SD:	Standard Deviation
SE:	Stock Exchange
STDR:	Short Term Debt Ratio
TA:	Total Assets
TDR:	Total Debt Ratio
TDTE:	Total Debt to Total Equity

ABSTRACT

This study is examined the impact of capital structure on profitability of development banks in Nepal. The main objectives of this study are to assess the capital structure and profitability of development banks in Nepal, to examine the relationship between capital structure and profitability of development banks in Nepal, and to analyze the impact of capital structure on profitability of development banks in Nepal. Debt/equity ratio, Long-term debt ratio, Short-term debt ratio and Total Debt ratio are the independent variables and ROA and ROE are the dependent variable in this study. Mean, standard deviation, correlation and multiple regression analysis are taken to present data. The major finding of this study The Long-Term Debt Ratio (LTDR) has a significant negative impact on ROA, as evidenced by its unstandardized coefficient. This suggests that an increase in the reliance on long-term debt is associated with a decrease in ROA. On the other hand, the Short-Term Debt Ratio (STDR) and Total Debt Ratio (TDR) have positive and significant impacts on ROA. Return on Assets (ROA) and Return on Equity (ROE) exhibit a strong negative correlation of ROA increases, ROE tends to decrease, and vice versa. This relationship implies that higher returns on assets may not necessarily translate into higher returns on equity, indicating potential differences in the companies' capital structures or financial leverage. The Debt/Equity Ratio (D/E) is positively correlated with ROA and negatively correlated with ROE. This suggests that companies with higher debt-to-equity ratios tend to have higher returns on assets but lower returns on equity, reinforcing the notion that higher financial leverage influences these performance metrics differently.

Keywords: *Capital Structure, Long-Term Debt Ratio, Return on Assets, Return on Equity, Total debt.*

CHAPTER- I

INTRODUCTION

1.1 Background of the study

Capital structure is a part of the financial structure and refers to the proportion of the various long-term sources of financing. Its focus is on creating a suitable variety of funding sources in terms of relative quantity and proportion. Debt and equity securities make up a company's capital structure, which is how the business finances its assets. Given its impact on a company's profitability, capital structure decisions are among the most significant and critical ones for any kind of organization (Birru, 2016). The decision has significance due to the need of optimizing business returns and its influence on the firm's capacity to navigate its competitive landscape (Abor, 2005). For the banking sector as a whole, the relationship between capital structure and financial performance is crucial. Because of their low proportion of equity capital to total assets, the banking sector is particularly vulnerable to fluctuations in financial leverage (AL- Kayed et al., 2014). Furthermore, banks' capital structures are subject to strict regulations. Determining the firm's ideal capital structure is a crucial consideration when making decisions on capital structure (Chandra & Sharma, 2015).

Capital structure is primarily interested in how the company chooses to split its cash flows into two main parts: a fixed part that is set aside to satisfy debt capital commitments and a residual part that is owned by equity owners. Different definitions of capital structure have been given by different writers. Any business organization's ability to continue operating and provide returns to stakeholders depends on its choice of capital structure (Akintoye, 2008).

Capital structure is primarily interested in how the company chooses to split its cash flows into two main parts: a fixed part that is set aside to satisfy debt capital commitments and a residual part that is owned by equity owners. Therefore, capital structure refers to the distribution of cash obtained from different sources and often divided into debt and equity. It can be described as the percentage of total capital that will be invested in a corporation over an extended period of time, divided between equity and debt. The quantitative

component is the focus of capital structure. An organization's capital structure decision is determined by the ratio of these securities to one another (Gerestenberg, 2019).

Several empirical studies from the United States and other developed markets find firm capital structure is correlated with the following attributes of the firm: size, tangibility, profitability, growth, tax shield, and risk level of the firm. Numerous research projects have been undertaken to examine the connection between performance and financial leverage. Akintoye (2008) and Dare & Sola (2010) found a positive correlation between capital structure and performance, while Iorpev & Kwanum (2012) found a negative correlation. However, some research has not discovered any connection between performance and capital structure (Prahathan & Rajan 2011). This approach facilitates the identification of the ways in which capital structure linkages vary throughout enterprises at various leverage distribution quintiles. Because the Nigerian capital market is biased towards equity methods of financing, which comes with a higher cost of capital and significant financing constraints for firms, raising funds on the market has consistently shown to be difficult (Kolawole, Ijaiya, Sanni & Aina, 2019). Investor withdrawals have been observed, which has resulted in a decline in the price of stocks, particularly bank stocks (Abubakar, Jagongo, Almadi & Muktar, 2014).

Since interest is the primary source of income for deposit money institutions, this study aims to further the conversation by taking the net interest margin variable into consideration and improving upon earlier research. The research gaps that this study appropriately considered are a result of the significant yet neglected field that prior studies had discovered. The findings of this research are crucial for policy makers because they will provide financial managers in banks with guidance on how to resolve their quandaries regarding investment strategy (Onoja & Ovayioza, 2015). Thirdly, the relative significance of capital structure determinant variables at various leverage distribution points for a firm can be assessed by this study. These findings have commercial implications and could lead to a change in bank lending (borrowing) policies in Sri Lanka and other similar emerging markets (Wellalage, 2015). We used the instrumental variables technique to address a potential endogeneity issue. It was discovered that asset tangibility and average industry leverage were useful tools for leverage in ROA specification. The same U-shaped

correlation between leverage and ROA was seen by us. The results for TFP and EBIT margin criteria are less clear because it appears that we were unable to locate reliable instruments (Iavorskyi, 2013). In order to identify the driving forces behind, the researcher looks at a large range of linear regressions in our investigation, which culminates in a model that includes the most important variables influencing changes in capital structure. We have improved our regression framework, which can serve as the basis for a lot of future research (Seferiadis, 2012).

In the context of manufacturing companies in Nepal, the concept of capital structure pertains to the strategic blend of debt and equity utilized to finance operational needs and investments. Setting up and maintaining industrial facilities, buying raw materials, and covering other operating costs frequently require large sums of financing from development banks. Reaching an ideal capital structure is essential since it affects the cost of capital and, in turn, the financial stability of the business. For these manufacturing companies, analyzing financial performance effectively means closely examining important parameters including debt management, liquidity measurements, profitability ratios, and operational efficiency. Evaluating the industry's competitiveness and market performance also adds to a thorough grasp of a company's entire financial situation. Achieving sustained growth and profitability over an extended period of time in Nepal's manufacturing sector requires careful attention to operational effectiveness and balancing debt and equity.

1.2 Problem Statement

Decisions relating to financing the assets of a firm are very crucial in every business and the finance manager is often caught in the dilemma of what the optimum proportion of debt and equity should be. In general, the firm's assets should be financed with an appropriate ratio of debt to equity capital. Typically, capital structures are created with equity shareholders' interests in mind. As a result, a portion of the long-term capital may be raised as a loan in the form of a bond or debenture by paying a fixed yearly charge, as opposed to collecting the entire fund from shareholders. Even though the business views these payments as expenses, this financing strategy is used to better serve the interests of common shareholders. A company's market value is maximized by its capital structure; that is, in a company with a

well-designed capital structure, the total value of the shareholders' ownership interests and claims are maximized. Capital structure depicts systems in which equity as well as debt are employed for funding the firm's activities to yield optimum returns for the stakeholders to maximize firm's returns given a level of risk (Dada & Ghazali, 2016).

Capital structure maximizes the company's market price of share by increasing earnings per share of the ordinary shareholders. Additionally, it enhances the stockholders' dividend receipts. The company's capacity to identify fresh, wealth-generating investment opportunities is enhanced by its capital structure. Appropriate capital gearing also boosts debt providers' confidence. Capital structure raises the nation's investment and growth rate by giving the company more chances to make future investments that will generate wealth. Numerous research studies have been conducted to examine the correlation between financial leverage and performance. According to some research, capital structure and performance are positively correlated (Akintoye 2008; Dare & Sola, 2010, & Tayyaba, 2013).

Kerim, Alaji, and Guiltless (2019) inspected the impact of capital structure on Benefit of Nigerian recorded protections firms from 2013 to 2017 utilizing auxiliary information from 15 recorded protections companies 75 perceptions. The findings revealed that short-term obligations had a considerable detrimental effect on productivity. Even so, long-term commitment has a crucially beneficial effect. Furthermore, Premium development contributes positively to benefit. The above discussion demonstrates how important it is to consider managing capital structure administration and its impact on bank execution as well as protections business execution. Despite the fact that many discoveries are made in foreign contexts. None of them used later knowledge to establish the Nepali context. A company typically uses two sources of funding: ROE and ROA. Since a new business has not yet established its creditworthiness in the market, it is unable to get the necessary capital and must instead rely solely on equity shares, the most basic kind of capital structure. Once the market has established its creditworthiness, its capital structure progressively gets more intricate. in order for the current study to close the gap in the insurance sector. The study's goals looked at how capital structure affected Nepali insurance companies' financial performance. (Pradhan, 2016).

In order to examine the connection between capital structure and company esteem in Bangladesh, Chowdhury & Chowdhury (2010) used unique proportions for capital structure decisions and share cost as a mediator for esteem. The compelling conclusion suggests that, in order to maximize shareholder wealth, the perfect balance between obligation and value must be maintained, even though taking a toll on capital has a negative association with this decision and should be minimized. It also seems that altering the composition of the capital structure at different phases of the company's life can increase its display value. However, as finance managers might use this requirement to develop optimum capital structures in order to arrange to maximize shareholder profits, it appears to have important approach suggestions for them. In agreement with Utami and Inanga (2012), businesses at different phases of their life cycle exhibit a variety of traits, particularly with regard to data asymmetry. Compared to develop firms, development firms exhibit greater data asymmetry. Since established and more seasoned businesses are typically more sought after by regulators and are far more well-known to investors, they should have less data asymmetry challenges. This theory identified a relationship between capital structure and the organization of the organization. According to this theory, the phases of birth and growth are typical of a more effective use of responsibility than value. The developing enterprises lower their debt levels, which then climb again in the decreasing plan.

In arrange to assess how the company has done over the past few a long time in terms of its income spoken to in rate terms, firm development was measured as the rate alter in income amid the ponder period (Abdullahi & Suleiman, 2020). The trade-off theory forecasts a negative relationship between business development and use since growing firms prefer internally generated capital. The research findings provide evidence to support the hypothesis that firms with higher development rates have a greater need for working capital, and that short-term obligations are strongly correlated with company development. This is likely to occur domestically since companies may be willing to take on long-term debt when there is a possibility for a profitable endeavour, particularly when their internal funding source is constrained (Ezeani, 2019).

Salim and Yadav (2012) have found that company financial performance ROA, ROE and EPS, adversely influence on long term debt ratio (LTD), short term debt ratio (STD) and total debt ratio (TD), while growth positively effects on financial performance for all the sectors in Malaysia. Therefore, this study was conducted to smack the gap. This study stated the following research questions.

- i. What is the capital structure and profitability of development banks in Nepal?
- ii. What is the relationship between capital structures and profitability of development banks in Nepal?
- iii. How has the impact of capital structure on profitability of development banks in Nepal?

1.3 Objectives of the Study

The main objective of this study is to analyze the capital structure of Nepalese Development Banks. The specific objectives of this study are as follows:

- i. To assess the capital structure and profitability of development banks in Nepal.
- ii. To examine the relationship between capital structures and profitability of development banks in Nepal.
- iii. To analyze the impact of capital structure on profitability of development banks in Nepal.

1.4 Rationale of the Study

The project's outcomes will enable a reevaluation based on capital structure analysis to determine how Nepal's development banks' equity, debt, and assets are related to one another. This problem will make it easier to assess how development banks' assets, liabilities, and equity affect their return on assets (ROA) and return on shareholder equity (ROE). This study will attempt to determine how debt affects the assets of development banks in Nepal, how equity affects those assets, and how asset dependencies on debt and equity of those development banks are determined.

1.5 Limitations of the Study

Every study has its own limitations, so it was also not be free from that. This study was conducted for the partial fulfillment of Master Degree in Business Studies (MBS), so it possesses some limitations of its own kind. This study covers the time duration of ten years financial statement from F/Y 2013/14 to 2022/23 for the purpose of analysis of profitability position.

- i. The accuracy of the study is based on the data and the various published documents of selected banks only because it ensures accurate comprehensive findings, it is often recommended to combine data from multiple sources.
- ii. The data is used from the secondary sources because of accessibility, cost effectiveness, historical perspectives, large sample size and comparative analysis.
- iii. This study has concentrated only in the capital structure and profitability measurement of MNBBL, GBBL, JBBL, KSBBL and MBBL among 17 Nepalese Development banks because these banks are top level of development banks in Nepal.
- iv. This study is not applicable to all banks since it is concerned to development five banks.
- v. This study is only based on profit, so few measurement tools will be applied because the selection of measurement tools in a study depends on the specifics research objectives, available data, and context of the research topics. It should carefully consider the relevant metrics to ensure a comprehensive and accurate analysis.

CHAPTER II

LITERATURE REVIEWS

2.1 Introduction

Capital structure is a part of the financial structure and refers to the proportion of the various long-term sources of financing. It is concerned with making the array of the sources of the funds in a proper manner, which is in relative magnitude and proportion. The capital structure of a company is made up of debt and equity securities that comprise a firm's financing of its assets. Capital structure decisions are among the most important and crucial decisions for any business because of their effect on the performance of firms (Birru, 2016). It is important because of the need to maximize returns of the firms, and because of the impact, such a decision has on the firm's ability to deal with its competitive environment (Abor, 2005). The relationship between capital structure and financial performance is considerable importance to all banking industry. The banking industry is especially sensitive to changes in financial leverage due to their low level of equity capital to total assets (AL-Kayed et al., 2014). In addition, the capital structure of banks is highly regulated. One of the important issues during the capital structure decision-making is to deal with the determination of optimal capital structure of the firm (Chandra & Sharma, 2015).

Capital structure is essentially concerned with how the firm decides to divide its cash flows into two broad components, a fixed component that is earmarked to meet the obligations toward debt capital and a residual component that belongs to equity shareholders. Various authors have defined capital structure in different ways. The capital structure decision is critical for any business organization's continued existence in order to return to stakeholders (Akintoye, 2008).

Capital structure is essentially concerned with how the firm decides to divide its cash flows into two broad components, a fixed component that is earmarked to meet the obligations toward debt capital and a residual component that belongs to equity shareholders'. Hence capital structure implies the composition of funds raised from various sources broadly

classified as debt and equity. It may be defined as the proportion of debt and equity in the total capital that will remain invested in a business over a long period of time. Capital structure is concerned with the quantitative aspect. A decision about the proportion among these types of

Securities refers to the capital structure decision of an enterprise (Gerestenberg, 2019). Some studies found a positive relationship between capital structure and performance (Akintoye 2008; Dare & Sola 2010) whereas others found a negative relationship (Iorpev & Kwanum, 2012). Nonetheless, some studies have found no link between capital structure and performance (Prahathan & Rajan 2011). This method helps to identify how capital structure relationships differ across firms at different quintiles of the leverage distribution. Raising funds on Nigerian capital market has continuously remained an issue because the capital market is tilted towards equity sources of finance with its attendant higher cost of capital and serious financing constraint on corporations (Kolawoleet al. 2019). It is detected that investors tend to pull out their share investment which led to declining stock prices in particular bank stocks (Abubakaret al. 2014).

2.2 Theoretical Review

Increasing the wealth of a company's owners or shareholders is one of its main goals. The price at which the company's outstanding shares are currently trading essentially represents the wealth of its shareholders. In order to achieve this goal, the management of the company must make wise financing choices about the best capital structure, with the ultimate goal of lowering its cost of capital (Goyal, 2013). This section of the study explores theories related to the investigation of capital structure, including the Modigliani and Miller Model Theory, Net Income Theory, Net Operating Theory, and Traditional Theory.

2.2.1 Net Income Theory

Net income theory posits that a firm's value can be increased by reducing its total cost of capital through increased debt. According to the net income approach, an increase in financial leverage leads to a decrease in the weighted average cost of capital, which in turn leads to an increase in firm value and stock market price. The net income valuation theory is based on three important assumptions. First, we assume that there are no taxes. Second, it

assumes that the cost of debt is lower than the cost of equity. The cost of equity capital adjustment study finds that the use of debt does not change investors' risk perception. This means that introducing debt or changing debt has no impact on the cost of debt or cost of equity. The underlying implications of the three assumptions in net income theory suggest that neither the cost of debt nor the cost of equity changes as the leverage ratio changes. The weighted average cost of capital tends to decline as the proportion of lower-cost financing sources, or debt, increases in the capital structure. This reduction contributes to an overall increase in the overall value of the company. As a result, if the cost of debt and equity is held constant, an increased use of debt or an increase in debt will increase shareholder returns and lead to an increase in the market value of existing equity (Pandey, 1992). According to net income theory, financial leverage is an important variable in a company's capital structure. A judicious mix of debt and equity allows a company to achieve the highest total cost of capital, which in turn maximizes the market price per share. If there is no debt or financial leverage is zero, the total cost of capital is equal to the equity capital. The weighted average cost of capital will fall. Capital structure policy involves a trade-off between risk and return. An increase in the use of debt increases the risk to a company's profits, but it also increases the expected return on equity. Higher risk tends to lower stock prices, but higher expected returns have the opposite effect. An optimal capital structure ensures a balance between risk and return and maximizes the stock price. Additionally, an optimal capital structure minimizes a company's total cost of capital.

2.2.2 Net Operating Theory

Net operating income (NOI) serves as a calculation basis for evaluating the profitability of income-producing real estate investments. NOI is determined by subtracting all reasonably necessary operating expenses from the income received from the property. This is a pre-tax measure that excludes loan principal and interest payments, capital expenditures, and depreciation. This ratio is commonly used in the real estate industry, but is referred to as earnings before interest and taxes in other industries. An alternative theory to capital structure is the net operating income theory, which is in stark contrast to the net income theory. According to this theory, decisions regarding a company's capital structure have no relevance. Changes in leverage are assumed not to affect the overall value of the company,

the market price of the stock, or the overall cost of capital. The degree of leverage is considered independently of these financial factors.

2.2.3 The Modigliani and Miller Model Theory

The Modigliani and Miller (MM) theory contains three basic theses. First, we assume that the total cost of capital (K_0) and the value of the firm (V) depend on the capital structure. According to MM theory, the cost of capital and firm value remains constant across all leverage levels. The total amount is determined by capitalizing the expected operational savings using a discount rate appropriate to the risk category. The second theory of MM theory states that the cost of equity (K_e) corresponds to the capitalization rate of the pure equity stream increased by the financial risk premium. This premium is equal to the difference between the pure equity capitalization rate (K_e) and (K_i) multiplied by the debt-to-equity ratio. Basically, K_e increases to precisely balance the use of more economical sources of funding, represented by debt. The third sentence of Modigliani and Miller's theory states that the regulatory unit for investment purposes remains completely independent of the structure of the investment. The theory that the weighted average cost of capital remains constant regardless of capital structure.

2.2.4 Traditional Theory

The traditional theory, also called the intermediate theory, takes a middle ground between the net income theory and the net operating income theory and incorporates certain aspects of both. Similar to the net income theory, it assumes that the cost of capital and the total value of the firm are not independent of the capital structure. However, this differs from the net income theory because it does not follow the idea that firm value necessarily increases regardless of the degree of leverage. Consistent with net operating income theory, traditional theory recognizes that above a certain level of leverage increases the total cost of capital, thereby decreasing the overall value of the firm. However, it departs from the net operating income theory because it does not claim that the weighted average cost of capital is constant across all debt levels. The essence of traditional leverage and valuation theory is that judicious use of debt-to-equity ratios can increase a company's overall value and, as a result,

reduce its overall cost of capital. This view is based on the belief that debt is a relatively cheap source of capital compared to common equity. Adjusting leverage allows relatively low-cost sources of financing to replace more expensive alternatives, especially by incorporating more debt than equity. This, of course, leads to lower overall capital costs. Further increases in debt ratios increase financial risk and prompt investors to seek higher equity ratios. However, this increase in equity ratios may not be large enough to offset the benefits of more economical debt. Fundamentally, the benefits of using debt capital are so great that even after taking into account higher equity ratios, there is still an advantage to using cheaper sources of financing. However, if debt continues to rise, two effects can occur. First, increased financial risk significantly increases capital adequacy ratios, making the company riskier to creditors demanding higher returns. This leads to an increase in the cost of debt. Above a certain threshold, the use of debt leads to an increase in the weighted average cost of capital (WACC), leading to a decrease in enterprise value. Therefore, using debt to some extent has a positive impact on corporate value. Furthermore, the use of debt has negative effects. At this particular debt-to-equity ratio, the capital structure is considered optimal.

2.3 Empirical Review

The researcher can perform the research more satisfactorily by looking at previous research. This review's main goal is to examine related ideas that have already been looked into by other researchers in a fresh way. To maximize the efficacy of this study, a variety of academic journals, theses, scholarly articles, and related publications will be consulted. The literature review provides insightful direction for this investigation.

Sthapit and Maharjan (2012) assessed the profitability position of NABIL and SCBN, measure the liquidity position of NABIL and SCBN, and investigate the relationship between liquidity and profitability of NABIL and SCBN. LFCLR, LFTDR, NRBTDR, CHTDR, and CBTDR were the independent variables, and ROA was the dependent variable. For analysis, the study used multiple regression, t-test, and descriptive statistics. The findings showed that while CHTDR had a favourable and substantial influence, LFTDR and NRBTDR had a negative and significant impact on SCBN's ROA. On the other hand, NABIL's profitability

was not significantly impacted by liquidity ratios. Thus, the analysis came to the conclusion that SCBN's liquidity performance outperformed NABIL's.

Xuezhi and Pastory (2015) examined the profitability position of commercial banks, focusing on the case of Tanzania. The research examines the profitability of development banks in Tanzania from 2000 to 2009, using case studies from National Microfinance Bank (NMB), National Bank of Commerce (NBC), and CRDB. Indicators like return on average assets, net interest income on average assets, and non-interest expense on average assets are used to evaluate the profitability of commercial banks. To find out if there is a significant difference in the profitability of development banks, panel secondary data from Tanzania National Commercial Bank, CRDB, and National Microfinance Bank over a ten-year period was used. An ANOVA test was then performed. Additionally, we looked into how asset quality, liquidity, and capital adequacy affected development banks' profitability using a regression model. There were no appreciable variations in development banks' profitability, according to the survey's findings. With the exception of the amount of non-performing loans, which had a negative effect on profitability, the regression model showed that asset quality and liquidity had a positive impact on profitability. Furthermore, it was discovered that capital sufficiency had a detrimental effect on profitability. The analysis verified that the development bank's profitability is consistent and satisfies regulatory standards set by the Bank of Tanzania (BOT).

Shubita and Alsawalhah (2015) analyzed the impact of capital structure on the profitability of industrial companies listed on the Amman Stock Exchange over a six-year period (2004-2009). Multiple regression analysis and correlation analysis were employed in the study, and the sample comprised his 39 enterprises. The findings demonstrated a strong inverse link between debt and profitability. This implies that a rise in debt is linked to a fall in a company's profitability, i.e., a rise in debt is correlated with a decline in profitability. Additionally, the findings demonstrated that profitability is increased by control variables like size and sales growth.

Adhikari (2015) assessed the liquidity and profitability situation of banks, analyzing

profitability ratios such as return on shareholders' equity, total assets, and deposits of sampled banks. The research also evaluated the cash reserve ratio (CRR) maintained by banks and examined the relationship between net profit and total deposits, as well as net profit and investments. Using secondary data from sources including Nepal Stock Exchange Limited, economic surveys, and annual reports of the sampled commercial banks, the study concentrated on three commercial banks. For analysis, statistical and financial methods were used. Compared to SBI bank, Nabil had a poorer liquidity position, and its investment in government securities as a percentage of current assets was higher. In terms of investments to total deposits and government securities to total working funds, Nabil Bank led the way, although its ratio of shares and debentures to total working funds was lower. When it came to profitability, Nabil outperformed SBI bank in terms of returns on total working capital as well as loans and advances. Nonetheless, Nabil's overall interest paid on total working capital was less than SBI Bank's. Nabil showed more capital risk but lower credit and liquidity risk when risk ratios were analyzed compared to SBI Bank. According to trend research, Nabil appeared to be in a stronger position than SBI bank since its ratios of loans and advances to total deposits and total investment to total deposits were higher. It was mentioned that SBI Bank had a strong liquidity position.

Nirajini and Priya (2016) analyzed the capital structure and financial performance, examining the financial years from 2006 to 2010 for listed trading companies in Sri Lanka. The study's data was taken from the sample companies' annual reports, and multiple regression and correlation analysis were used for analysis. The results showed that capital structure and financial performance were positively correlated. This study demonstrates that a company's capital structure has a major effect on its financial performance and that long-term debt, the leverage ratio, and gross profit margin (GPM) are all connected with net profit margin (NPM) and return on capital employed. At the significant level of 0.05 and 0.1, it was also demonstrated that there is a relationship between return on equity (ROE), return on assets (ROA), and return on equity (ROE).

Pradhan (2016) investigated the impact of liquidity on the performance of Nepalese commercial banks, using return on equity (ROE) and return on assets (ROA) as dependent

variables, and investment ratio, liquidity ratio, capital ratio, and quick ratio as independent variables. The study found that the capital ratio and ROE had a positive link, whereas the quick ratio and liquidity ratio had a negative correlation with both ROE and ROA. The empirical data showed that there is a conflicting link between a firm's financial performance and its liquidity risk. Thus, the goal of the study was to determine how liquidity affected Nepal's commercial banks' profitability.

Arabahmadi (2017) investigated the relationship between capital structure and profitability by analyzing information from 1999 to 2008 regarding 252 non-financial businesses listed on the Tehran Stock Exchange. This study found a positive correlation between return on equity and short-term debt, which is in line with earlier ideas. This indicates that while interest rates are low, there is a positive correlation between short-term debt and profitability. Conversely, a company's profitability will drop if it decides to take on more long-term debt.

Raja and Dave (2018) examined the profitability is intricately linked with capital structure, making capital structure decisions a significant concern for firms of any type and size. They emphasize the critical importance of choosing an appropriate combination of debt and equity for finance managers. The study's objective is to analyze the impact of capital structure on profitability, with Return on Equity (ROE) serving as the dependent variable. Independent variables include derived measures of short-term debt, long-term debt, and total liability. The study's sample comprises BSE – 100 companies, analyzed over a 5-year period from 2007 to 2012. The researchers employed regression analysis (OLS) to quantify the magnitude of each variable's impact on profitability. The findings suggest that financing a firm through debt has a negative effect on its profitability. Additionally, the study highlights the importance for firms to adopt the right combination of long-term and short-term debt.

Yegon et al. (2018) investigated the impact of capital structure on the profitability of a sample of banks in Kenya. Consequently, it was shown that there was a negative association between long-term debt and profitability and a positive correlation between short-term debt and profitability. It's interesting to note that this study did not discover any connection between profitability and total debt. These findings, according to the authors, validate the

static trade-off theory. This study does, however, have certain drawbacks. One such restriction is the small sample size of 11 individuals, which is typical of research conducted in underdeveloped nations. The findings' practical ramifications are only mentioned in reference to static trade-off theory. This study acknowledges that, even in cases when certain features of the theories are only partially supported, the existing theories on capital structure have a role in the decision-making process. Because capital structure decisions are intricate and multifaceted, it can be challenging to take into account all pertinent information, particularly when restricted rationality is present. The authors point out that in order to fully explore this intricacy, in-depth case study observations of the financing decisions made over time by specific institutions are helpful.

Pangeni (2018) examined the liquidity position and profitability status, as well as the relationship between liquidity and profitability in Nepalese commercial banks. The study used secondary data that was taken out of Nepalese commercial banks' annual reports and adopted a descriptive research design. Regression and correlation analysis were performed to investigate the relationship between profitability and liquidity. Metrics including net profit margin, return on equity (ROE), and return on assets (ROA) were used in the study to evaluate the profitability status. Indicators such as the current ratio, the ratio of cash and bank balance to total deposit, and the ratio of cash and bank balance to current deposit were used to gauge liquidity status. During the previous ten fiscal years, from 2007/08 to 2019/17, ten Nepalese commercial banks ADBL, Everest, Himalayan, Nepal SBI, Nepal Investment, Nabil, Laxmi, Global IME, Kumari, and Prime Commercial Banks—were included in the analysis. The results showed that, among the chosen Nepalese commercial banks over the given time frame, liquidity and profitability had a positive and substantial association. It's crucial to remember that the study's findings, which showed that ADBL and NABIL have strong liquidity positions and profitable operations, are based on a certain group of institutions.

Khalifa (2019) analyzed the impact of capital structure on financial performance using two main sets of variables. Capital structure is represented by variables including short-term debt, long-term debt, total debt, and debt-to-equity ratio, while profitability is evaluated using

proxies such as return on assets (ROA) and return on equity (ROE). Dimensions. This study used secondary data from publicly available financial reports to examine a sample of thirty U.S. energy companies over a nine-year period from 2005 to 2013. Using Smart PLS (partial least squares) version 3 for data analysis, multiple regression showed that the independent variables predicted 34% and 10% of ROA and ROE, respectively. In particular, only sales had a substantial negative impact on ROE, but total debt had a considerable negative impact on both ROE and ROA. Conversely, short-term debt enhanced return on equity. The results of the correlations between profitability, total asset size, debt-to-equity ratio, and long-term debt were either negligible or inconsistent. This study recognizes the constraints of a small sample size and suggests that future research look at larger sample sizes over longer time periods and incorporate more independent factors like concentration and taxation.

Agarwal (2019) evaluated the profitability of public and private sector banks, recognizing profitability as a primary objective for all business ventures. The primary objective of the study was to evaluate these banks' financial standing using important profitability metrics, such as operational profits, net interest margin, return on equity, and return on assets. The study's analysis of data from 2005 to 2017 showed that private sector banks performed more profitably than their public sector rivals. Due to the growing amount of non-performing assets they had to deal with, public sector banks saw negative returns on their assets in recent years, which caused their overall profitability to decline.

Pokharel (2019) examined the liquidity management and profitability positions of commercial banks, employing various statistical and financial tools. The average profitability of commercial banks was found to be mostly zigzag, while the banks' liquidity ratios showed signs of instability. The study came to the conclusion that banks' liquidity ratios fell short of the required benchmarks. Moreover, it indicated that the Cash Reserve Ratio (CRR) was higher than the limit specified by the 2016–17 monetary policy. The investment in government securities, cash and bank balance to total deposit (CBBISD), and return on assets (ROA) were found to positively correlate with CRR in the study. On the other hand, there was an inverse correlation between ROA and CRR and CBBISD. In terms of liquidity, all other ratios (CRR, CBBISD, and Investment in Government Securities to Current Assets

(IGSCA)) shown positive correlations with Return on Equity (ROE), with the exception of the Current Ratio (CR), which displayed an adverse association with ROE. With the exception of the association between IGSCA and ROA, the research also revealed a substantial relationship between liquidity ratios and profitability.

Javed et al. (2020) analyzed the impact of capital structure on the performance of 63 companies listed on Karachi Stock Exchange. This study was carried out over a five-year period, from 2007 to 2011, and data was gathered through State Bank of Pakistan balance sheet examination. Researchers looked into the relationship between capital expenditures (DTA, EQA, LDA) and company performance (ROA, ROE, and ROS) using a fixed effects model as a pooled regression model. The association was found to exist, however its direction was not entirely clear from the results. With return on assets (ROA) as the dependent variable, capital structure positively affected company performance. In contrast, the debt-to-asset ratio (DTA), equity-to-equity ratio (EQA), and long-term debt-to-asset ratio (LDA) all have positive influences when return on equity (ROE) is utilized as the dependent variable. Revealed a detrimental impact that was evident. LDA had a positive impact on return on sales (ROS), however DTA and EQA had a negative association with ROS when ROS was taken into account as the dependent variable. This study shows that managers must exercise caution when deciding on a company's capital structure and concludes that capital structure affects firm performance.

Timilsina (2020) investigated the determinants of capital structure in Nepalese commercial banks, focusing on 17 development banks with 112 observations over the period from 2011/12 to 2017/18. The study used return on assets, bank size, assets tangibility, assets growth, and liquidity as independent factors, and total debt to total equity and total debt to total assets as dependent variables. The annual reports of the institutions that were sampled served as the source of the data. The study employed regression modelling and the computation of Pearson's correlation coefficients to evaluate the influence and importance of bank-specific variables on the capital structure of Nepalese development banks. The results showed that bank size and asset tangibility correlated positively with total debt to total assets, while return on assets, asset growth, and liquidity correlated negatively with total debt to

total assets. In a similar vein, the ratio of total debt to total equity showed negative connections with return on assets, bank size, assets tangibility, assets growth, and liquidity. These findings suggested that lower total debt to total equity and total debt to total assets were linked to stronger asset growth, return on assets, and liquidity. On the other hand, a larger bank and more tangible assets were associated with a greater ratio of total debt to total assets. The study came to the conclusion that the most important elements influencing the capital structure of Nepalese development banks were return on assets, bank size, and the tangibility of assets; the least important factors were assets growth and liquidity.

Jaish (2020) examined the relationship between capital structure and the financial performance of Nepalese insurance companies. Return on assets and earnings per share were the dependent factors, and size, liquidity, tangibility, equity to total assets ratio, and total debt ratio were the independent variables. The study used data taken from the annual reports of listed insurance companies in Nepal to analyze the basic structure of capital and financial performance using a descriptive and casual comparative research design. 84 observations from 14 insurance firms during 2013–14 and 2018–19 were included in the study. Regression analysis was used to evaluate the effect on financial performance metrics, namely earnings per share and return on assets. The findings showed that insurance businesses performed better financially when their debt ratios were higher. Within the industry, a rise in equity, size, and liquidity was linked to a decline in return on assets, but an increase in debt ratio and tangibility was linked to an increase in return on assets. While equity, size, and liquidity ratio had a negative effect on earnings per share, tangibility and the debt ratio had a favorable impact. The main finding of the study indicated that the financial performance of insurance businesses in Nepal is significantly influenced by a number of characteristics, including size, liquidity, tangibility, leverage, equity to total assets ratio, and leverage. In order to improve their financial performance, insurance companies in Nepal were advised to raise their total debt ratio and tangible assets while decreasing equity, firm size, and liquidity ratio.

Bhatt and Jain (2020) analyzed the correlation between the capital structure and profitability of commercial banks in Nepal. Using financial data from NRB BI Statistics and the Bank Supervision Report for the years 2010 to 2019, the study concentrated on 17 Nepalese development banks. Profitability was measured by return on equity, and capital structure was

represented by deposits, long- and short-term debt, and the ratio of total debt to assets. As additional control variables, bank size and asset growth were taken into account. Explanatory capital structure variables accounted for more than 40% of bank performance as determined by return on equity, according to the data. Return on equity showed an insignificantly negative association with short-term debt and total debt, but an insignificantly positive link with long-term debt and deposits, according to the study. Profitability showed a statistically significant positive correlation with bank size across all regression models, suggesting that larger banks often provided higher returns to shareholders.

Shrestha and Jha (2020) examined the liquidity on profitability of foreign joint venture commercial banks in Nepal, specifically focusing on HBL, EBL, and NBB chosen from a sample of 17 development banks in Nepal. The study, which used information taken from the annual reports and accounts of the chosen banks, spanned the years 2014–15–2018–19 AD. The study sought to determine whether there was a cause-and-effect link between liquidity and profitability metrics by using regression analysis and correlation. In contrast to the erratic pattern seen in liquidity ratios, the study found that the average profitability of development banks fluctuated. The investigation found that the banks' liquidity ratios did not meet required levels. Remarkably, for HBL, EBL, and NBB, the Liquidity Asset to Deposit Ratio (LADR) significantly affected both Return on Equity (ROE) and Return on Assets (ROA). For every sample bank, the Cash Reserve Ratio (CRR) and Net Receivables to Total Deposit Ratio (NRBTDR) demonstrated a marginal but noteworthy influence on ROA. NRBTDR/CRR, however, had a favorable effect on the other two and a bad effect on NBB's ROE. While it had no discernible effect on NBB, the Cash and Cash Equivalents to Total Deposit Ratio (CACL) had a major influence on ROA for HBL and EBL. On the other hand, CACL significantly affected ROE for each of the three banks. While it had less of an effect on NBB, the Current Holdings of Tradable Debt to Total Deposit Ratio (CHTDR) had a major influence on ROA and ROE for HBL and EBL. Additionally, ROA and ROE for all were significantly impacted by the Current Assets to Total Assets Ratio (CATA). The study recognizes its limitations, including the inability to generalize the findings to non-quoted banks and its exclusive emphasis on foreign joint venture commercial banks in Nepal, even though the results are significant for the designated institutions and industry.

Kathi (2020) analyzed the impact of liquidity on the profitability of Nepalese commercial banks, focusing on ten out of twenty-seven listed commercial banks over the period from 2013 to 2019. The study made use of secondary data taken from the Nepal Rastra Bank's (NRB) Bank Supervision Reports as well as the annual reports of the chosen commercial banks. Indicators of liquidity such as asset quality, cash-deposit ratio, and credit-deposit ratio were taken into account, while return on equity (ROE) and return on assets (ROA) were used as stand-ins for profitability. The results of the Hausman test and the fixed effects approach showed that asset quality was positively and significantly correlated with ROE but negatively and significantly correlated with ROA. There was a slight but favorable correlation between ROA and ROE and the Cash Deposit Ratio (CADR). On the other hand, there was a negative and negligible correlation between the Credit-Deposit Ratio (CDR) and ROE, and a positive but insignificant correlation with ROA. The study's conclusions help to clarify the intricate relationship that exists between profitability and liquidity indicators in the context of Nepalese commercial banks.

Nicolae (2021) examined the determinants of bank profitability, focusing on evidence from the EU 27 banking system during the period 2004-2011. In order to determine the primary drivers of banks' profitability, the study divided the elements into two broad categories: those that are distinctive to individual banks (internal factors) and those that are industry- and macroeconomic-specific (external factors). The results of the empirical study aligned with the expected outcomes, indicating that bank profitability was heavily impacted by factors such as economic growth, market concentration/competition, business diversification, management efficiency, credit and liquidity risk, and return on average equity (ROE). The study notably brought attention to the beneficial effects of competition on bank profitability in the EU27.

Shrestha (2021) analyzed the portfolio behavior of commercial banks in Nepal, delving into various aspects such as investment portfolio, liability portfolio, and assets portfolio. The study demonstrated a pattern of investments in government assets, national saving bonds, debentures, and corporate shares by carefully examining the individual investment portfolios of Nepalese domestic banks. The study also looked at the variables affecting bank loan

supply and demand. The study found dependencies on total deposits, bank rates, lending rates, dummy factors, and lagged variables in terms of credit supply. Concurrently, it was believed that variables such as national income, lending rates, rates on Treasury bills, and other pertinent factors would affect the demand for bank credit.

Kukaj et al. (2022) analyzed the financial performance of domestic and foreign banks in the banking sector of Kosovo for the period 2008-2018. Over a ten-year period, the study examined the financial reports of both domestic and foreign banks and gleaned insights from them. The aim of this study was to determine whether Kosovo's foreign-owned banks are more profitable than those that are locally owned. To comprehend earlier conclusions and approaches applied in related study fields, the researchers studied the body of existing literature. The STATA software program was used to process the data using GMM modelling, fixed effects, random effects, Hausman-Taylor regression, and linear regression. All independent variables (profit margin, return on equity, and the ratio of net sales to net assets) were significant at the 5% statistical confidence level, according to the major findings based on the empirical results. The study revealed that the profit margin and return on equity of commercial banks in Kosovo positively influence the return on equity. Conversely, an increase in the ratio of net sales to net assets negatively impacts the return on equity. This paper's practical value lies in its comprehensive examination of Kosovo's commercial banks' profitability and its capacity to identify the most lucrative domestic and foreign-owned banks through comparative analysis. Comprises figuring out the capital bank.

Alshantti (2022) investigated the impact of bank liquidity management on the profitability of commercial banks in Jordan. Return on equity (ROE) and return on assets (ROA) were the dependent variables, while the independent variables that were taken into consideration were investment ratio, quick ratio, capital ratio, net credit facilities to total assets, and liquidity ratio. Regression analysis tools were employed together with the development of hypotheses. The findings indicate that return on equity, which is a measure of profitability, is impacted negatively by other variables but favorably by investment and quick ratio. Similarly, return on assets, a measure of profitability, exhibited a negative correlation with other factors but a positive link with both the durability rate and the investment rate.

Sudha (2022) analyzed the deposit mobilization of commercial banks, focusing on AXIS LTD and CUB LTD. Given the importance of deposit mobilization to banking operations, the study's objective was to evaluate the growth and trend of deposit mobilization for both banks between 2011–2012 and 2020–2021. Three different deposit kinds were taken into account in the evaluation: term, savings, and demand deposits. Information was gathered from the official websites of AXIS LTD and CUB LTD regarding the total deposits they mobilized in India over the designated period. For data analysis, descriptive statistics such as mean, standard deviation, coefficient of variation, and compound annual growth rate (CAGR) were used. The results showed that, for both AXIS LTD and CUB LTD in India, the mobilization of all kinds of deposits increased significantly throughout the given time frame.

Xio and Zhang (2023) investigated the impact of capital strength and tangibility on the financial performance of banks and insurance companies listed on the Colombo Stock Exchange in Sri Lanka. Return on equity (ROE) and return on assets (ROA) were the dependent variables, whereas size, debt-to-assets ratio, and total assets were the independent factors. Tools for the analysis included regression modelling, average, coefficient variation, and correlation. To ascertain the relationship and impact of variables, regression and correlation analyses were conducted using the Statistical Package for the Social Sciences (SPSS). The study's findings demonstrated a strong correlation between financial performance, tangibility, and capital intensity.

Hajisaaaid (2023) analyzed the correlation between capital structure and profitability in Saudi Arabia's basic materials sector from 2009 to 2018. Regression analysis, fixed effects models, random effects models, and Hausman tests were among the statistical methods employed. The independent variables are the total debt-to-total-assets ratio (DA), the long-term debt-to-total-assets ratio (LDA), and the short-term debt-to-total-assets ratio (SDA). Return on equity (ROE) is chosen as the dependent variable. The findings demonstrated a negative correlation between return on equity (ROE) and short-term debt to total assets (SDA). Additionally, there is a positive association found between profitability and total debt (DA), but a negative correlation between long-term debt to total assets (LDA) and return on equity (ROE).

Francisca (2023) examined the capital structure was undertaken within the financial and manufacturing sectors, focusing on evidence from oil firms in Nigeria. Particularly, the research focused on performance metrics like Return on Equity (ROE) and Return on Assets (ROA). Notably, the study neglected to take into account how important retained earnings are in determining the market value and profitability of a company. The study underscored the significance of an ideal capital structure mix in augmenting a firm's operational efficacy and augmenting its competitive edge. The study examined the effect of capital structure on the performance, market value, and profit-generating efficiency of companies in the oil and gas sector using the PGM/ARDL approach to investigate individual effects. The results demonstrated a strong relationship between market value, retained earnings, capital structure, and long-term performance. It was found that companies in the oil and gas industry, in particular, frequently used short-term loans to fund their operations and business ventures. Furthermore, a positive association between capital structure and retained earnings was found, indicating that companies with higher rates of earnings retention are likely to have faster growth potential. Moreover, a negative correlation was observed among market value, performance measures, retained earnings, and long-term debt. The study's findings were consistent with pertinent Modigliani and Miller (MM) 1963 capital structure principles as well as trade-off theory and pecking order theory.

Gofe and Asfaw (2023) analyzed the factors influencing capital structure decisions of commercial banks in Ethiopia. The aim of this study was to evaluate the current research status and pinpoint any gaps in order to guide future investigations. Owing to the restricted quantity of research and restricted availability of established databases, the present review predominantly employed open search engines and databases to locate 11 pertinent publications that were periodically published. Scientific research was involved. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework was utilized to guide the analysis whilst a variety of keywords were employed to discover papers. The study procedure included inclusion and exclusion criteria, and several parameters were used to conduct descriptive analyses. To find important writers and works, citation analysis was also done. This finding implies that the variables looked at in the study and earlier

research differ, and the study's citations were scarce. Research on a variety of variables has produced inconsistent findings with respect to the theory underlying the variables influencing Ethiopian commercial banks' decisions about capital structure. The current body of banking research falls short in providing a thorough analysis of banks' capital structure, including how they make this decision and what factors affect how they finance their operations. Confusion is present. In order to deepen our understanding of this field, this study suggests a thorough examination of the capital structure decisions made by banks and the identification of pertinent variables.

Luitel (2023) investigated the influence of macroeconomic variables on the profitability of Nepalese commercial banks, utilizing return on assets and return on equity as dependent variables. The money supply, interest rate, GDP, exchange rate, unemployment rate, and inflation were the independent variables. The study's foundation was secondary data—128 observations from 2013–14 to 2020–21—obtained from 16 commercial banks. Reports from the Ministry of Finance, yearly reports from a subset of commercial banks, and Banking and Financial Statistics released by Nepal Rastra Bank were among the data sources. Regression models and correlation coefficients were used in the analysis to determine the importance and effect of macroeconomic variables on the profitability of commercial banks in Nepal. The results showed that the exchange rate had a negative effect on return on equity as well as return on assets, indicating that a rise in the exchange rate causes these profitability metrics to decline. Both return on equity and return on assets showed a positive correlation with interest rates, suggesting that better returns are associated with rising interest rates. Furthermore, return on equity and return on assets were negatively impacted by money supply, suggesting that a rise in money supply results in a fall in these profitability metrics. The study also showed that return on equity and return on assets were negatively impacted by the unemployment rate, indicating that a rise in the unemployment rate is associated with a decline in these profitability indicators for Nepalese commercial banks.

Rai (2023) examined the impact of recapitalization on the performance of Nepalese commercial banks, utilizing return on assets and return on equity as dependent variables.

Bank deposits, bank size, liquidity, capital investment ratio, and capital adequacy ratio were among the independent factors. Secondary data from 26 commercial banks with 208 observations from 2013–14 to 2020–21 served as the foundation for this study. Reports from the Ministry of Finance, yearly reports from a subset of commercial banks, and Banking and Financial Statistics released by Nepal Rastra Bank were among the data sources. Regression models and correlation coefficients were used to assess the importance of recapitalization and its effects on the banks' operating results. The results showed that capital adequacy ratio positively affects return on assets, implying that a greater capital adequacy ratio translates into a higher return on assets. On the other hand, liquidity was found to have an adverse effect on return on equity and return on assets, suggesting that higher liquidity levels are associated with lower performance indicators. Additionally, the return on equity and return on assets were positively impacted by bank size, indicating that larger banks yield higher returns. However, return on equity and return on assets were negatively impacted by the capital investment ratio, indicating that a rise in the capital investment ratio is associated with a fall in these performance metrics. The study also showed that bank deposits positively impacted return on equity and return on assets, suggesting that higher bank deposits translate into better profits for Nepalese commercial banks.

Neupane (2023) examined the determinants of profitability in Nepalese development banks. Descriptive statistics were used in the study to illustrate the profitability of banks in Nepal as well as the factors that affect it. Furthermore, the study computed correlation coefficients to evaluate the relationship between several profitability measures and their determinants. The research used a panel data regression model that included both Fixed Effect Model and Random Effect Model to get deeper into the factors and how they affected profitability. The investigation revealed that the development of the banking sector, GDP growth, inflation, exchange rate, concentration ratio, and other factors all had a significant and opposite impact on the profitability of Nepalese development banks as determined by Return on Assets (ROA). Internal variables that affect ROA, such as bank size, capital base, loans, deposits, off-balance sheet activities, and branch count, did not, however, show a discernible effect. The study revealed that the only factors that significantly impacted Net Interest Margin (NIM), another profitability metric, were capital adequacy, the total number of branches, and

the rate of inflation. The study came to the conclusion that while macroeconomic variables have a smaller but still considerable impact on the profitability of Nepalese development banks, external factors particularly those peculiar to the industry had a major impact on ROA.

Huong (2023) analyzed impact of capital structure on the profitability of plastic and packaging companies listed on the Vietnam Stock Exchange. The goal of the study is to identify the capital structure that influences profitability by building on earlier research on the subject. Quantitative research methods (linear regression methods) and statistical methods (description, inductive and interpretive approaches). The author has determined that the following two independent factors, which together define a capital structure that significantly influences an organization's profitability: (1) the short-term debt ratio (STD); and (2) the long-term debt ratio (LTL).

Konak and Turkoglu (2024) examined the effects of the capital structure variables (financial leverage, long-term Liabilities/ total assets, short-term Liabilities /total assets, and equity/total assets) on firm performance measures (return on assets, return on equity, and Tobin's q). This way, panel data analysis was used to create forecasts using information from 17 businesses that kept their data consistent over the specified period. This sector's dominant position in Turkey's production activities, its significant impact on other industries, and its strategic importance for the country's economy are the main drivers supporting its research. After applying fundamental assumption tests to evaluate the validity of the models presented in the research, the Huber, Sicker, and White resistive estimator was utilized to get more consistent results. The results show that in all three models, the Equity/Total Assets Ratio exhibits statistically significant values. It was discovered that the effects of other parameters on performance measures were negligible. As a result, even while it is acknowledged that there is a connection between the capital structure preferences of the companies and their performance requirements, it has been proposed that market players may nevertheless take this information set into consideration when making decisions.

Eberechukwu and Egbunike (2024) examined the effect of capital structure on financial

performance of listed deposit money banks in Nigeria. In this study, the ex post facto research design was used. Thirteen (13) quoted deposit money banks in Nigeria that were listed on the Nigeria Stock Exchange in 2023 made up the research population. Using the census approach, the total population served as the sample size. Sources of data for this research were the publicly available financial reports of banks that were quoted between 2018 and 2021. With the usage of Stata13 software, multiple regression and Pearson correlation were employed for data analysis. The study found that debt capital had a positive and significant impact on listed deposit money banks' net profit margins on the Nigerian Exchange Group, and that equity capital had a positive and large impact on these same banks' net profit margins. The study found that capital structure has a statistically significant and beneficial impact on the financial performance of Nigerian listed deposit money institutions. Pecking order theory and agency theory reinforce the study's recommendation that deposit money bank management try to finance their operations with debt and equity. Lastly, industry standards and best practices for capital structure management should be taken into account by deposit money bank management.

Kadhafi et al. (2024) assessed the influence of capital structure on financial performance of five selected commercial banks in Rwanda. Time series data from 2010 to 2019 from five significant commercial banks in Rwanda were used in the study. Debt to equity ratio and debt to asset were used to analyze capital structure, and return on equity, return on asset, and net interest margin were used to measure financial performance. Contrary to what the static trade-off theory of capital structure would predict, the results showed an unstable up-and-down (fluctuation) movement in capital structure, suggesting that there was no intended optimum debt to equity ratio (leverage ratio) that any banks aimed to reach. Furthermore, there were fluctuations in the financial performance of all five banks, indicating a fairly risky investment climate. The two primary ratios in Bank of Kigali and Equity Bank, the debt to equity ratio and the return on equity ratio, have demonstrated time and again that stronger returns to investors are associated with higher levels of leverage in both BK and Equity. In contrast to BPR Atlas Mara, the two ratios—ROE and D/E—had a negative association. The results demonstrated that the Modigliani and Miller irrelevancy hypothesis of capital structure is false because there is no correlation between Return on Asset, Net Interest

Margin, and Debt to Equity in any bank's ratio. This means that the bank finance managers can create and alter their capital structure to achieve the appropriate level of leverage without affecting the bank's financial performance.

Jing et al. (2024) investigated the relationship between the profitability and liability structure of commercial banks within six Asia-Pacific countries (China, India, Australia, Japan, South Korea, and Singapore), by analyzing annual data from bank focus for 691 banks from 2013 to 2022. This study's main goal is to investigate how banks' liability structures which emphasize interbank borrowing, bond issuance, and passive liabilities affect key profitability metrics including return on equity (ROE) and Tier 1 ratio (T1R). In addition to Hausman testing, panel data analysis is used in this study. Our research reveals the contributions that bond issuance and passive liabilities make to fortifying banks' core capital and boosting their profitability. Furthermore, how bank lending and deposit services affect capital and profitability in both developed and developing Asia-Pacific countries. The report makes useful recommendations for the banking industry, highlighting the necessity of better liability management in order to increase profitability. These suggestions offer a strong basis for sector-wide strategic planning and policy, supported by extensive empirical research and robustness tests.

2.4 Research Gap

Previous research has primarily aimed at determining the optimal capital structure or the desired level of profitability for companies. However, these studies often overlook the relationship between capital structure and profitability. To fill this gap, the current study focuses on examining how capital structure influences profitability, taking into account both the composition of the capital structure and the bank's overall profitability. Unlike prior studies that have considered various factors, this research distinctively uses return on assets (ROA) and return on equity (ROE) as dependent variables. The goal is to assess how the makeup of the capital structure impacts the financial health of the bank and the wealth of its shareholders.

Research on this topic is scarce in the context of Nepal. This study aims to address the

existing research gap by analyzing the profitability of five selected banks, focusing primarily on development banks established at different times. The analysis is confined to data from a five-year period, which may impact the accuracy of the results. To evaluate the profitability of these banks, various ratios and trend analyses are used. Additionally, statistical techniques such as mean, correlation, and regression analysis are employed to assess the risk and the effect of capital structure on profitability within a specific development bank.

Therefore, from both an academic and policy standpoint, this research holds significant value for a wide audience, including individuals, academics, professors, students, and business professionals. I am confident that this study will be a useful resource for those involved in similar topics in the future.

CHAPTER III

RESEARCH METHODOLOGY

The research methodology provides a structured approach to tackling research problems with defined objectives. This study primarily aims to evaluate the impact of capital structure on the profitability of selected development banks, specifically MNBBL, GBBL, MBBL, KSBBL, and JBBL. The methodology includes several key components: the research design, the identification of the population and sample, data sources, data collection procedures, and the tools and techniques used for data analysis.

3.1 Research Design

To achieve the objective of this study, descriptive as well as causal comparative research study has been used. The descriptive research design had been adopted for fact finding and searching adequate information. It is a type of survey which is generally conducted to assess the opinions, behaviors and characteristics of a given population and to describe the situation and event occurring at present. Since this study is done for evaluation of capital structure and profitability position of MNBBL, GBBL, MBBL, KSBBL and JBBL.

3.2 Population and Sample, and Sampling Design

The total population of this study is comprised of 17 Development banks of Nepal (NRB, 2023), which are currently in earning high profit. Due to this, the research has taken these 5 banks taken as a sample. Only ten years data taken i.e 2013/14 to 2022/23 in this study. Using judgmental sampling method Muktinath Bikas Bank Limited, Garima Bikas Bank Ltd, Mahalaxmi Bikas Bank Limited, Kamana Sewa Bikas Bank Limited and Jyoti Bikas Bank Limited are considered. The selected five banks are taken as sample study in this research.

3.3 Nature and Sources of Data, Instrument of Data Collection

The secondary data is essentially the study's main focus. The balance sheet, profit and loss account, annual report, auditor's reports, relevant website, unpublished or published theses, bank financial performance, newspaper, journal, magazines, etc. are the sources of the secondary data. The financial performance reports, publications, journals, references, annual reports, and corresponding websites of the banks that provide the data used in this study will all be taken into consideration for the necessary observation. Additional data is gathered from many agencies and institutions, including the Ministry of Finance, the Nepal Stock Exchange, and the NRB. In a similar vein, a variety of statistics and information are obtained for mandatory observations from a variety of sources, including economic journals, periodicals, bulletins, magazines, and a range of public and unpublished reports and papers. Some review materials are mainly collected from central library, TU Kirtipur, Shanker Dev Campus.

3.4 Methods of Analysis

Under this, various profitability measurement tools and techniques are applied to gain the fact result. The data which are collected and arranged in a systematic form are analyzed and presented through financial and statistical tools via ratio analysis and Karl Pearson's correlation coefficient and regression analysis were used to present data.

3.4.1 Financial Tools

Ratio analysis is a powerful and often used tool in financial analysis. Any two components of a financial statement can have their ratios calculated to show the mathematical relationship

between them. A ratio in the context of finance indicates the quantitative or numerical relationship between two variables. Ratios are an essential tool for evaluating business success since they simplify large amounts of financial data, allow for qualitative evaluations, and are easy to use. There are many ratios available to examine and analyze an organization's or companies financial performance. However, only relevant and meaningful ratios are analyzed for our particular goal. A few crucial ratios to consider while assessing the performance of the business are:

3.4.2. Statistical Tools

A crucial role is played by statistical tools in company operations. In the corporate sector, every performance should be calculated to determine the precise profit or loss. These are a few common mathematical tools used in daily life. The statistical tools listed below can be used to interpret data.

1. Arithmetic Mean

The process of adding up each numerical value in a series and dividing the result by the total number of items yields the arithmetic mean. In statistical analysis, this statistical instrument functions as a basic measure. To calculate it, first add up the numbers in the set, and then divide the total by the number of numbers in the series.

$$\bar{X} = \frac{\sum x}{n}$$

Where,

\bar{X} = Arithmetic Mean

$\sum X$ = Sum of Elements

n = Number of Observation

2. Standard Deviation

The standard deviation, which is calculated as the square root of the variance, is a statistical measure used to evaluate how dispersed a dataset is with respect to its mean. It quantifies the degree of dispersion within the dataset by computing the square root of the variance and quantifying the variation of each data point from the mean. Increased deviation in the dataset is shown by larger distances between data points and the mean; this leads to a wider

distribution of the data and a higher standard deviation.

$$S D = \sqrt{\frac{\Sigma(X-\bar{X})^2}{n}}$$

3. Coefficients of Variation

Coefficients of variation (CV) are a standardized measure of dispersion of a probability distribution or frequency distribution. They are calculated as the ratio of the standard deviation to the mean, typically expressed as a percentage. This measure is particularly useful for comparing the degree of variation between different datasets, even if the means are significantly different from one another. By providing a relative measure of variability, the coefficient of variation allows for a more meaningful comparison of the spread of data across different scales or units. It is widely used in fields such as finance, economics, and various branches of science to assess the relative risk or variability inherent in different datasets.

$$\text{Coefficients of variation (CV)} = \frac{S.D}{\bar{X}} * 100$$

4. Coefficient of Correlation

The correlation coefficient is a statistical metric used to quantify the strength of the connection between the relative changes of two variables. It serves as a valuable statistical instrument for assessing the degree of linear correlation between these variables. The predominant method for gauging the correlation between two variables is through "Karl Pearson's coefficient of correlation." "If the values of the variables are directly proportional then the correlation is said to be positive. On the other hand, if the values of the variables are inversely proportional, then the correlation is said to be negative. The correlation coefficient always remains within the limit of +1 to -1. The correlation coefficients (r) between two variables X and Y can be obtained by using following formula."

$$r = \frac{n\Sigma XY - \Sigma X, EY}{\sqrt{n\Sigma X^2 - (\Sigma X)^2} \sqrt{n\Sigma Y^2 - (\Sigma Y)^2}}$$

Where,

r = the correlation coefficient between two variables of X and Y

Proprieties

- a) It lies between -1 and +1
- b) If $r = +1$, then there is perfect positive correlation.
- c) If $r = -1$, then there is perfect negative correlation.
- d) If $r = 0$, then there is no correlation.
- e) If $r = 0.7$ to 0.99 (or- 0.7 to -0.99) then there is high degree positive or negative correlation.

4. Multiple Regression Analysis

Multiple regression analysis is a statistical technique used to understand the relationship between one dependent variable and two or more independent variables. This method extends simple linear regression by incorporating multiple predictors, allowing for a more comprehensive analysis of how various factors influence the outcome. By estimating the coefficients of each independent variable, multiple regression provides insights into the relative impact and significance of each predictor while controlling for the presence of other variables. This approach is widely used in various fields, such as economics, finance, social sciences, and biological sciences, to model complex relationships and make predictions based on multiple factors.

Study Model

$$\text{Profitability (Y)} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Where,

X_1 = Debt/ Equity Ratio

X_2 = Long-Term Debt Ratio

X_3 = Short-Term Debt Ratio (STDR)

X_4 = Total Debt Ratio

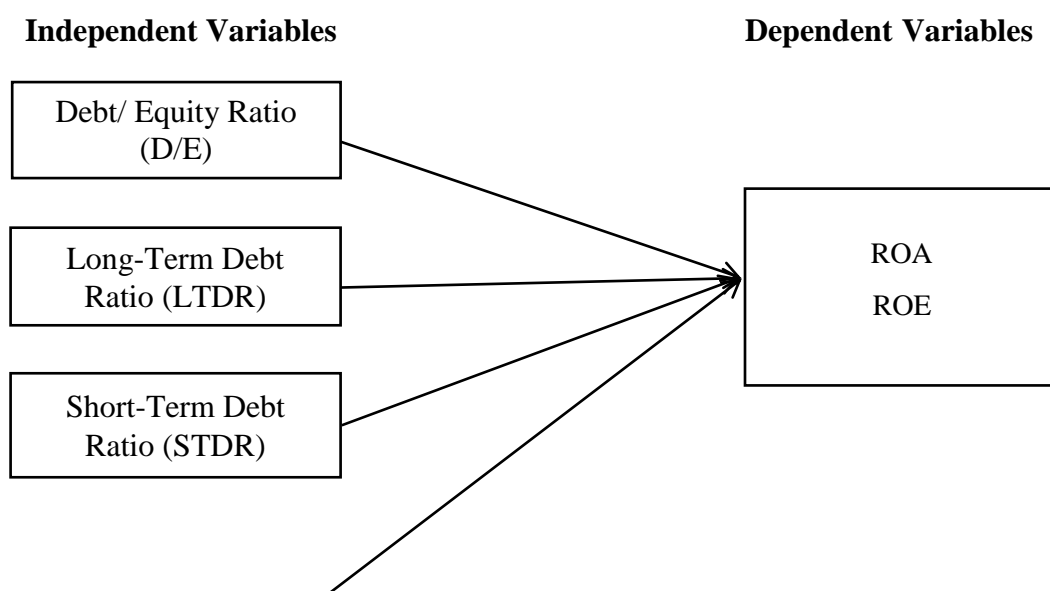
3.5 Research Framework and Definition of Variables

3.5.1 Conceptual Framework

The conceptual framework for this research is depicted graphically to illustrate the variables selected. To understand the impact of capital structure on the profitability of development

banks in Nepal, a robust conceptual framework that integrates financial theories and empirical insights is essential. This framework should include several key components. Firstly, it should consider the composition of the capital structure, focusing on the mix of equity and debt financing used by development banks. The balance between debt and equity affects financial risk and the cost of capital, which subsequently influences profitability measures such as return on assets (ROA) and return on equity (ROE). Secondly, the framework should account for macroeconomic factors that may mediate this relationship, such as interest rate fluctuations, inflation, and economic growth trends specific to Nepal. These external factors can affect borrowing costs and the demand for banking services, thereby impacting profitability.

Furthermore, the framework should consider institutional factors within the banking sector, such as regulatory requirements for capital adequacy ratios and risk management practices. These regulations influence how development banks structure their capital and manage risks, which in turn affects profitability. Additionally, organizational characteristics like size, asset quality, and operational efficiency also play a significant role in determining how effectively development banks utilize their capital structure to maximize profitability. By integrating these elements, a comprehensive conceptual framework can offer valuable insights into the complex relationship between capital structure and profitability in Nepalese development banks, enhancing both theoretical understanding and practical policy applications. The framework is illustrated below:



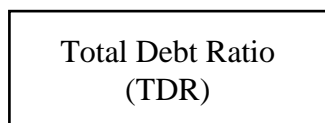


Figure: The Conceptual Framework

Source: Bhatta and Jain (2020)

3.5.2 Definition of Variables

A variable in research is essentially a person, place, object, or phenomenon that you are attempting to quantify in some way. The simplest way to comprehend the distinction between a dependent and independent variable is to consider what the words tell us about the variable in question.

i. Debt / Equity Ratio

The Debt/Equity (D/E) Ratio is calculated by dividing a company's total liabilities by its shareholder equity. These numbers are available on the balance sheet of a company's financial statements. The ratio is used to evaluate a company's financial leverage. The debt/equity ratio is also referred to as a risk or gearing ratio. The formula for calculating the D/E ratio is: The balance sheet requires total shareholder equity to equal assets minus liabilities, which is a rearranged version of the balance sheet equation ($\text{Assets} = \text{Liabilities} + \text{Shareholder Equity}$). These balance sheet categories may contain individual accounts that would not normally be considered "debt" or "equity" in the traditional sense of a loan or the book value of an asset. Because the ratio can be distorted by retained earnings/losses, intangible assets, and pension plan adjustments, further research is usually needed to understand a company's true leverage. Because of the ambiguity of some of the accounts in the primary balance sheet categories, analysts and investors will often modify the D/E ratio to be more useful and easier to compare between different stocks. Analysis of the D/E ratio can also be improved by including short-term leverage ratios, profit performance, and growth expectations.

$$\text{Debt} - \text{Equity Ratio} = \frac{\text{Total debt}}{\text{Total Equity}}$$

ii. Long-Term Debt Ratio

The long-term debt to total assets ratio is a measurement representing the percentage of corporation's assets financed with loans or other debt obligation lasting more than one. This ratio provides a general measure of the long-term financial position of a company, including its ability to meet financial requirements for outstanding loans. If a business has a high long-term debt to assets ratio, it suggests the business has a relatively high degree of risk, and eventually it may not be able to repay its debts. This makes lenders more skeptical about loaning the business money and investors leier about buying shares. In contrast, if a business has a low long-term debt to assets ratio, it can signify the relative strength of the business. However, the assertions an analyst can make based on this ratio vary based on the company's industry as well as other factors, and for this reason, analysts tend to compare these numbers between companies from the same industry.

$$\text{Long} - \text{term Debt to Total Assets Ratio} = \frac{\text{Long term debt}}{\text{Total assets}}$$

iii. Short-Term Debt Ratio

The short-term debt to total assets ratio is a measurement representing the percentage of corporation's assets financed with loans or other debt obligation lasting less than one. This ratio provides a general measure of the short-term financial position of a company.

$$\text{Short} - \text{term Debt to Total Assets Ratio} = \frac{\text{Short term debt}}{\text{Total assets}}$$

iv. Total Debt Ratio

Total debt to total assets is a leverage ratio that defines the total amount of debt relative to assets. This metric enables comparisons of leverage to be made across different companies. The higher the ratio, the higher the degree of leverages (DOLs) and, consequently, financial risk. The total debt to total assets is a broad ratio that includes long-term and short-term debt (borrowings maturing within one year), as well as all assets – tangible and intangible. Total debt to total assets is a measure of the company's assets that are financed by debt, rather than equity. This leverage ratio shows how a company has grown and acquired its assets over

time. Investors use the ratio to not only evaluate whether the company has enough funds to meet its current debt obligations, but to also assess whether the company can pay a return on their investment. Creditors use the ratio to see how much debt the company already has and if the company has the ability to repay its debt, which will determine whether additional loans will be extended to the firm.

$$DebtRatio = \frac{Total\ debt}{Total\ assets} \times 100$$

v. Return on Equity

The return on equity is the amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

$$ROE = \frac{NPAT}{Total\ equity} \times 100$$

vi. Return on Assets

Return on asset is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. Calculated by dividing a company's annual earnings by its total assets, ROA is displayed as a percentage. Sometimes this is referred to as 'return on investment'

$$ROA = \frac{NPAT}{Total\ assets} \times 100$$

CHAPTER IV RESULTS AND DISCUSSION

In this chapter, the gathered data undergo analysis and interpretation in accordance with the methodology outlined in the preceding chapter. The study's results are derived from the financial statements spanning from FY 2012/13 to FY 2021/22. The presentation of data takes the form of tables and diagrams, and the analysis is facilitated through the utilization of financial ratios. Additionally, statistical techniques including mean, standard deviation, and coefficient of variation, correlation coefficient, and regression are applied to scrutinize the data.

4.1 Results

The capital structure on profitability of development banks in Nepal plays a crucial role in determining their financial performance. The capital structure refers to the mix of debt and equity financing used by a company to fund its operations and investments. In the context of Nepalese development banks, factors such as the availability of credit, interest rates, and regulatory environments influence their choices in capital structure. The analysis of capital

structure involves assessing the proportion of debt and equity in the bank's capital, understanding the cost of capital, and evaluating the risk associated with the chosen structure. Capital structure on profitability of development banks in Nepal involves examining various financial metrics to gauge their profitability, liquidity, and solvency. Common financial ratios, such as return on equity (ROE), return on assets (ROA), and debt-to-equity ratio, provide insights into how efficiently the banks utilize its resources and manage its debts. Given the dynamic economic landscape in Nepal, with factors like political stability and infrastructure development influencing the banking sector, a comprehensive profitability analysis can aid stakeholders in making informed decisions. Understanding the interplay between capital structures on profitability is essential for these banks to sustain growth, manage risks, and contribute to the overall economic development of Nepal.

Return on Assets

Return on total assets (ROA) explains the relationship of total assets to generating net profit. Return on total assets is computed by dividing net profit. Higher return on total assets indicates the higher efficiency in the utilization of total assets and vice-versa.

Table 2

Return on Total Assets (ROA)

Fiscal Year	MNBBL	GBBL	MBBL	JBBL	KSBBL
2013/14	1.24	2.03	0.83	0.20	1.14
2014/15	1.03	2.15	1.10	1.40	1.02
2015/16	1.43	1.36	1.31	1.42	2.15
2016/17	1.57	2.04	1.25	1.28	1.05
2017/18	2.01	2.12	1.37	1.49	1.50
2018/19	2.48	2.02	1.54	1.69	1.84
2019/20	2.36	2.71	1.97	1.66	2.64
2020/21	2.11	2.77	1.94	1.67	2.61
2021/22	1.46	1.86	1.17	0.95	1.71
2022/23	0.87	1.59	0.70	1.17	1.22

Mean	1.66	2.07	1.32	1.29	1.69
SD	0.58	0.43	0.43	0.43	0.61
CV	34.89%	20.96%	31.62%	33.33%	36.28%

Source: Annual Report

Table 2 shows that the return on assets ratio of selected banks for last ten consecutive years. The provided table presents the Return on Total Assets (ROA) for five banks (MNBBL, GBBL, MBBL, JBBL, and KSBBL) over a ten-year period from fiscal year 2013/14 to 2022/23. ROA is a crucial financial metric that indicates the efficiency with which a bank generates profits from its total assets. Let's analyze the table and its implications in detail.

Starting with MNBBL, the ROA ranges from 1.24 in 2013/14 to 2.48 in 2018/19, with a mean ROA of 1.66. This bank experienced fluctuations in performance, with a decrease in ROA observed in the later years of the period, dropping to 0.87 in 2022/23.

GBBL consistently maintains a strong ROA performance, with values ranging from 2.03 to 2.77 over the period. The mean ROA for GBBL is the highest among the banks at 2.07, indicating efficient asset utilization and profitability. The standard deviation (SD) of 0.43 and coefficient of variation (CV) of 20.96% highlight the stability and consistency in GBBL's ROA performance.

MBBL and JBBL exhibit moderate ROA values over the years, with mean ROAs of 1.32 and 1.29, respectively. MBBL shows a notable increase in ROA towards the latter part of the period, reaching 1.97 in 2019/20. JBBL's ROA also fluctuates, with a range of 0.20 to 1.69. Both banks have similar SDs and CVs, indicating moderate variability in their ROA performance.

KSBBL demonstrates significant variability in ROA, ranging from 1.02 in 2014/15 to 2.64 in 2019/20. The mean ROA for KSBBL is 1.69, with a relatively high SD of 0.61 and CV of 36.28%. This suggests higher risk and fluctuation in KSBBL's profitability compared to other banks in the dataset.

Comparing the banks' performance, GBBL stands out as the top performer in terms of ROA,

consistently maintaining high profitability levels with low variability. This indicates effective management of assets and operations. MNBBL also shows competitive performance overall, albeit with more variability in recent years. MBBL and JBBL exhibit moderate performance with some fluctuations, while KSBBL's performance is characterized by higher variability and risk.

In conclusion, analyzing ROA trends among these banks provides insights into their financial health, operational efficiency, and risk profiles. Banks with higher and more stable ROA levels (like GBBL) are likely to be more attractive to investors and demonstrate effective asset management. Conversely, banks with lower or more volatile ROA levels may face challenges in sustaining profitability and managing risks effectively. Understanding these trends can inform investment decisions, risk assessments, and strategic planning within the banking sector. Further analysis integrating additional financial metrics and contextual factors would enhance the depth of understanding and facilitate more comprehensive comparisons and insights into the performance dynamics of these banks over time.

Return on Equity (ROE)

The Return on Equity (ROE) is a metric that gauges a company's efficiency in utilizing the capital invested by its owners. Computed by dividing after-tax profit by shareholder equity, this ratio offers insights into the company's ability to fulfill its social responsibility to its stakeholders. It holds considerable relevance for both existing and prospective shareholders, serving as a crucial factor for management deliberations. The ratio signifies the extent to which the company can generate profits in relation to the equity provided by its owners, making it a pivotal measure for assessing financial performance and responsibility to shareholders.

Table 3

Return on Equity (ROE)

Fiscal Year	MNBBL	GBBL	MBBL	JBBL	KSBBL
2013/14	30.98	13.97	15.02	2.31	28.36
2014/15	33.08	16.10	20.31	14.87	26.38
2015/16	30.39	11.68	20.81	15.42	26.27

2016/17	22.04	22.21	18.87	16.08	21.69
2017/18	24.22	13.60	19.24	16.08	16.71
2018/19	25.49	11.81	14.80	13.58	11.48
2019/20	19.24	19.34	14.07	15.81	11.24
2020/21	18.28	14.78	16.20	12.97	16.31
2021/22	13.39	11.70	10.44	8.18	13.16
2022/23	7.47	11.20	6.26	11.32	8.62
Mean	22.47	14.11	15.77	12.21	18.47
SD	8.13	3.26	4.57	4.29	6.48
CV	36.16%	23.12%	28.99%	35.17%	37.02%

Source: Annual Report

Table 3 indicate the effectiveness of banks in profit generation through the utilization of shareholders' assets. The table presents the Return on Equity (ROE) for five different banks (MNBBL, GBBL, MBBL, JBBL, and KSBBL) over a span of ten fiscal years from 2013/14 to 2022/23. Return on Equity is a financial metric that measures a company's profitability by revealing how much profit a company generates with the money shareholders have invested.

For instance, MNBBL started with a robust ROE of 30.98% in 2013/14, which then declined over the years to just 7.47% by 2022/23. Similarly, GBBL exhibited fluctuations in ROE, peaking at 22.21% in 2016/17 and dropping to 11.20% in 2022/23. On the other hand, MBBL maintained a relatively stable ROE, hovering around 15% throughout the period, with a peak of 20.81% in 2015/16. JBBL and KSBBL experienced variations in ROE, with JBBL showing a declining trend from 2013/14 to 2022/23, and KSBBL demonstrating a mix of peaks and troughs over the years.

Analyzing the mean and standard deviation (SD) of ROE for each bank reveals interesting insights. The mean ROE for MNBBL over the period is 22.47%, with a relatively high SD of 8.13%, indicating considerable variability in its performance year over year. In contrast, GBBL has a lower mean ROE of 14.11% but a more stable performance, as reflected by its lower SD of 3.26%. MBBL, JBBL, and KSBBL also show varying levels of mean ROE and SD, highlighting different degrees of stability or volatility in their financial performance.

The coefficient of variation (CV) further elucidates the relative volatility of ROE across banks. A higher CV signifies greater variability relative to the mean. For instance, MNBBL and KSBBL exhibit the highest CVs among the banks, at 36.16% and 37.02%, respectively, indicating substantial fluctuations in their ROE compared to their mean performance. On the other hand, GBBL shows a lower CV of 23.12%, suggesting a more consistent performance relative to its mean ROE. It's essential to delve deeper into the reasons behind these fluctuations in ROE for each bank. Factors such as changes in interest rates, economic conditions, industry competition, operational efficiencies, and strategic decisions can all impact a bank's profitability and, consequently, its ROE. For example, a bank may experience a decline in ROE due to increased operating expenses or higher loan loss provisions during economic downturns. Conversely, effective cost management, robust asset quality, and successful revenue diversification strategies can bolster ROE.

Furthermore, analyzing trends in ROE can help stakeholders, including investors, regulators, and management, assess a bank's financial health and performance trajectory. Consistent decline or volatility in ROE might raise concerns about a bank's operational efficiency, risk management practices, or market competitiveness. Conversely, sustained or improving ROE could signal effective management practices and strategic initiatives.

In conclusion, the table provides a comprehensive overview of the ROE performance of five banks over a ten-year period, revealing both the variability and trends in their profitability. Further analysis and contextual understanding of the underlying factors driving these variations are crucial for stakeholders seeking to make informed decisions about investments, risk assessments, and strategic directions related to these banks.

4.1.1 Capital Structure on Profitability

The capital structure of development banks can have a significant impact on their profitability and overall financial performance. Development banks, like other financial institutions, rely on a mix of debt and equity to fund their operations and investments. The composition of this capital structure influences factors such as cost of capital, financial risk, and return on equity (ROE). Debt financing typically carries lower costs compared to equity

due to tax benefits, but it also introduces financial leverage and risk. Excessive debt can increase interest expenses and financial vulnerability, potentially reducing profitability during economic downturns. Therefore, development banks must strike a balance in their capital structure to optimize profitability while managing financial risk effectively.

Additionally, a well-managed capital structure contributes to the overall financial health and resilience of development banks, supporting their mission of fostering economic development and growth. Capital structure on profitability of development banks in Nepal involves examining various financial ratios D/E ratio, LTDR, STDR and TDR. Common financial ratios, such as return on equity (ROE) and return on assets (ROA) provide insights into how efficiently the company utilizes its resources and manages its debts.

Debt/Equity Ratio

The debt/equity ratio is a crucial financial metric used to assess the capital structure and financial leverage of development banks. This ratio measures the proportion of a bank's financing that is provided by debt relative to equity. A higher debt/equity ratio indicates that the bank is relying more on borrowed funds to finance its operations and investments, which can amplify returns but also increase financial risk. Development banks must strike a balance in their debt/equity ratio to optimize profitability and manage risk effectively. Too much debt can lead to higher interest expenses, increased financial vulnerability, and potentially lower profitability during economic downturns. Conversely, too little debt may limit growth opportunities and hinder the bank's ability to leverage its equity effectively. By carefully managing the debt/equity ratio based on market conditions, regulatory requirements, and strategic objectives, development banks can optimize their capital structure to support sustainable growth and financial resilience.

Table 4

Debt/Equity Ratio (D/E Ratio)

Fiscal Year	MNBBL	GBBL	MBBL	JBBL	KSBBL
2013/14	7.33	8.40	9.54	8.75	9.80
2014/15	8.62	7.69	10.42	12.34	11.61
2015/16	5.04	7.30	7.01	8.76	43.76
2016/17	3.82	8.89	6.42	16.55	32.07
2017/18	2.07	6.60	5.36	9.57	16.79
2018/19	2.35	8.33	5.45	9.65	38.06
2019/20	8.87	8.80	6.17	5.06	12.51
2020/21	10.98	7.73	6.45	9.19	2.36
2021/22	3.27	6.53	6.34	6.78	59.73
2022/23	2.53	4.53	3.23	5.13	32.39
Mean	5.57	7.47	6.64	9.18	25.91
SD	3.13	1.33	2.05	3.40	18.17
CV	56.17%	17.81%	30.92%	37.07%	70.13%

Source: Annual Report 2013/14 – 2022/23

Table 4 presents the Debt/Equity Ratio (D/E Ratio) for five development banks (MNBBL, GBBL, MBBL, JBBL, KSBBL) over a span of ten fiscal years from 2013/14 to 2022/23. The D/E ratio is a critical financial indicator that measures the proportion of a bank's financing that comes from debt relative to equity. A higher D/E ratio signifies higher financial leverage, indicating that the bank relies more on borrowed funds than its own capital to finance its operations and investments.

Analyzing the data, we observe significant variations in the D/E ratios across the banks and over time. For example, MNBBL started with a D/E ratio of 7.33 in 2013/14, which declined to 2.53 by 2022/23. This indicates a shift towards a more conservative capital structure with lower reliance on debt financing over the years. In contrast, KSBBL exhibited a much higher D/E ratio, starting at 9.80 in 2013/14 and peaking at 59.73 in 2021/22, before decreasing to 32.39 in 2022/23. This suggests that KSBBL has been highly leveraged, relying heavily on debt to finance its operations.

Examining the mean and standard deviation (SD) of the D/E ratios provides insights into the average levels and variability of financial leverage across the banks. The mean D/E ratio for MNBBL over the period is 5.57, with a relatively high SD of 3.13, indicating considerable variability in its capital structure. GBBL has a lower mean D/E ratio of 7.47 and a lower SD of 1.33, reflecting a more stable financing approach. MBBL, JBBL, and KSBBL also show varying levels of mean D/E ratios and SD, highlighting different degrees of financial leverage and capital structure management practices.

The coefficient of variation (CV) further underscores the relative variability of D/E ratios across banks. A higher CV signifies greater variability relative to the mean D/E ratio. Notably, KSBBL exhibits the highest CV of 70.13%, indicating significant fluctuations in its capital structure over the years. This variability in D/E ratios underscores the importance of effective capital structure management and risk mitigation strategies for development banks, as excessive leverage can amplify financial risks and impact profitability.

In summary, Table 4 provides a comprehensive overview of the Debt/Equity Ratios for five development banks over a ten-year period. The data highlights the dynamic nature of capital structure management and its implications for financial leverage, risk, and profitability. Further analysis and interpretation of these trends are essential for stakeholders seeking to understand and optimize the financial health and resilience of development banks amidst evolving market conditions and regulatory requirements. Effective capital structure management is critical for supporting sustainable growth and value creation in the banking sector.

Long-Term Debt Ratio

The Long-Term Debt Ratio is a financial metric that assesses the proportion of a company's total assets that are financed by long-term debt. In the context of development banks, the Long-Term Debt Ratio reflects the extent to which these institutions rely on long-term borrowing to support their operations and investments. A higher Long-Term Debt Ratio indicates a greater reliance on debt financing for funding, which can have implications for

financial risk and stability. Development banks must carefully manage their Long-Term Debt Ratio to ensure a sustainable capital structure and mitigate potential risks associated with excessive debt. Monitoring changes in the Long-Term Debt Ratio over time can provide insights into the bank's financing strategies, liquidity position, and overall financial health, enabling effective decision-making and risk management by stakeholders. Optimal management of the Long-Term Debt Ratio is essential for maintaining financial resilience and supporting the long-term growth and stability of development banks.

Table 5
Long-Term Debt Ratio

Fiscal Year	MNBBL	GBBL	MBBL	JBBL	KSBBL
2013/14	6.69	7.58	6.13	18.72	13.44
2014/15	7.53	11.35	8.41	21.66	11.63
2015/16	9.38	6.33	7.10	11.24	14.82
2016/17	12.46	7.68	9.03	9.23	16.25
2017/18	5.28	5.39	9.87	9.87	2.72
2018/19	8.64	9.95	8.97	12.64	11.07
2019/20	5.47	7.94	6.70	8.65	5.90
2020/21	3.80	4.20	9.51	11.06	3.24
2021/22	10.49	8.75	6.86	11.58	2.00
2022/23	3.42	5.98	3.08	11.68	2.55
Mean	7.32	7.51	7.57	12.63	8.37
SD	2.95	2.15	2.04	4.22	5.62
CV	40.26%	28.16%	26.97%	33.37%	67.16%

Source: Annual Report 2013/14 – 2022/23

Table 5 presents the Long-Term Debt Ratio for five development banks (MNBBL, GBBL, MBBL, JBBL, KSBBL) over a ten-year period from 2013/14 to 2022/23. The Long-Term Debt Ratio measures the percentage of a bank's total assets that are financed by long-term debt, providing insights into the bank's reliance on long-term borrowing for financing its operations and investments. Analyzing the data reveals notable variations in the Long-Term Debt Ratios across banks and over time. For example, JBBL consistently exhibits the highest Long-Term Debt Ratios among the banks, with ratios ranging from 9.23% to 21.66% over the years, indicating a significant reliance on long-term debt financing. In contrast, KSBBL consistently maintains lower Long-Term Debt Ratios, ranging from 2.00% to 16.25%, reflecting a more conservative financing approach with less reliance on long-term borrowing.

Examining the mean and standard deviation (SD) of the Long-Term Debt Ratios provides further insights into the average levels and variability of long-term debt financing across the banks. The mean Long-Term Debt Ratio for JBBL is notably higher at 12.63%, compared to other banks like KSBBL with a mean ratio of 8.37%. This suggests that JBBL has a higher proportion of long-term debt relative to its total assets compared to other banks in the group. The coefficient of variation (CV) underscores the relative variability of Long-Term Debt Ratios across banks, with KSBBL exhibiting the highest CV of 67.16%, indicating significant fluctuations in its Long-Term Debt Ratio over the years. This variability highlights the importance of effective debt management and capital structure strategies for development banks to maintain financial stability and optimize funding sources.

Analyzing changes in the Long-Term Debt Ratio over time can offer insights into the financing strategies and financial health of development banks. For instance, fluctuations in the Long-Term Debt Ratio may be influenced by changes in interest rates, market conditions, regulatory requirements, and strategic decisions related to capital structure. A higher Long-Term Debt Ratio can enhance leverage and potentially amplify returns but also increase financial risk and interest expenses. Conversely, a lower Long-Term Debt Ratio may indicate a more conservative financing approach aimed at reducing financial risk and maintaining

liquidity. Overall, effective management of the Long-Term Debt Ratio is crucial for development banks to balance financial leverage, optimize funding costs, and support sustainable growth and stability in the dynamic banking environment.

Short-Term Debt Ratio

The Short-Term Debt Ratio is a financial metric that assesses the proportion of a company's total assets that are financed by short-term debt, typically with a maturity of one year or less. In the context of development banks, the Short-Term Debt Ratio provides insights into the bank's reliance on short-term borrowing to support its operations and liquidity needs. A higher Short-Term Debt Ratio indicates greater dependency on short-term debt financing, which can be riskier due to the need for frequent refinancing and potential liquidity challenges. Development banks must carefully manage their Short-Term Debt Ratio to ensure adequate liquidity and mitigate the risks associated with short-term debt, such as interest rate fluctuations and rollover risk. Monitoring changes in the Short-Term Debt Ratio over time is essential for assessing the bank's financial stability, liquidity position, and ability to meet short-term obligations effectively. Optimal management of the Short-Term Debt Ratio is critical for maintaining financial resilience and supporting sustainable operations in the banking sector.

Table 6

Short-Term Debt Ratio

Fiscal Year	MNBBL	GBBL	MBBL	JBBL	KSBBL
2013/14	75.61	91.13	49.62	78.01	54.43
2014/15	72.90	91.20	49.55	76.20	57.84
2015/16	72.55	86.78	65.54	75.56	56.11
2016/17	62.84	89.02	78.39	74.31	48.32
2017/18	69.02	90.96	72.14	81.85	56.17
2018/19	75.59	88.37	77.27	83.52	61.47
2019/20	80.90	94.16	85.87	86.59	66.45
2020/21	78.24	91.52	86.17	90.39	70.11
2021/22	77.59	84.84	81.14	87.85	55.58
2022/23	84.36	92.50	91.25	91.81	71.27
Mean	74.96	90.05	73.70	82.60	59.77
SD	6.10	2.79	14.66	6.42	7.41

CV	8.132%	3.10%	19.89%	7.77%	12.39%
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Source: Annual Report 2013/14 – 2022/23

Table 6 presents the Short-Term Debt Ratio for five development banks (MNBBL, GBBL, MBBL, JBBL, KSBBL) over a period of ten fiscal years from 2013/14 to 2022/23. The Short-Term Debt Ratio represents the percentage of a bank's total assets that are financed by short-term debt, typically with a maturity of one year or less. Analyzing the data reveals varying levels of reliance on short-term borrowing across the banks and over time. For instance, KSBBL consistently exhibits a lower Short-Term Debt Ratio compared to other banks, ranging from around 48% to 71% over the years. This indicates that KSBBL maintains a relatively conservative approach with less dependency on short-term borrowing to fund its operations and liquidity needs. Conversely, MNBBL and MBBL demonstrate higher Short-Term Debt Ratios, ranging from approximately 62% to 85%, suggesting a greater reliance on short-term debt financing.

Examining the mean and standard deviation (SD) of the Short-Term Debt Ratios provides insights into the average levels and variability of short-term debt financing across the banks. The mean Short-Term Debt Ratio for JBBL is notably higher at 82.60%, compared to other banks like KSBBL with a mean ratio of 59.77%. This suggests that JBBL relies more heavily on short-term borrowing to support its liquidity requirements. The coefficient of variation (CV) further underscores the relative variability of Short-Term Debt Ratios across banks, with MBBL exhibiting the highest CV of 19.89%, indicating significant fluctuations in its reliance on short-term debt over the years. This variability highlights the importance of effective liquidity management and financial risk mitigation strategies for development banks, especially those with higher Short-Term Debt Ratios, to ensure stability and resilience in their financing activities.

Analyzing changes in the Short-Term Debt Ratio over time can offer insights into the liquidity position and financial health of development banks. Fluctuations in the Short-Term Debt Ratio may be influenced by factors such as changes in interest rates, market conditions, regulatory requirements, and strategic decisions related to funding sources. A higher Short-

Term Debt Ratio can indicate increased liquidity risk and dependency on short-term financing, potentially exposing the bank to challenges during periods of economic uncertainty or disruptions in credit markets. Conversely, a lower Short-Term Debt Ratio may reflect a more conservative approach aimed at maintaining liquidity buffers and reducing exposure to short-term funding risks. Overall, effective management of the Short-Term Debt Ratio is crucial for development banks to optimize liquidity management, maintain financial stability, and support sustainable operations in a dynamic banking environment.

Total Debt Ratio

The Total Debt Ratio is a financial metric that assesses the proportion of a company's total assets that are financed by debt, including both short-term and long-term debt. In the context of development banks, the Total Debt Ratio provides insights into the bank's overall leverage and financial risk. A higher Total Debt Ratio indicates a greater reliance on debt financing to fund its operations and investments, which can increase financial leverage and potentially amplify returns but also expose the bank to higher financial risk and interest expenses. Development banks must carefully manage their Total Debt Ratio to strike a balance between leveraging debt for growth opportunities and maintaining financial stability. Monitoring changes in the Total Debt Ratio over time is essential for assessing the bank's capital structure, liquidity position, and overall financial health. Effective management of the Total Debt Ratio is critical for supporting sustainable growth and resilience in the banking sector while ensuring prudent risk management practices.

Table 7

Total Debt Equity

Fiscal Year	MNBBL	GBBL	MBBL	JBBL	KSBBL
2013/14	8.10	9.77	9.79	19.40	20.38
2014/15	10.27	12.44	12.12	22.97	20.63
2015/16	15.16	10.40	10.89	16.54	32.16
2016/17	15.98	11.46	14.23	26.28	36.27
2017/18	8.55	9.67	13.25	14.85	33.54
2018/19	9.43	12.31	13.26	15.11	29.98
2019/20	19.98	14.46	15.96	18.41	37.15

2020/21	19.04	12.99	15.18	22.17	26.89
2021/22	19.32	15.12	17.32	22.32	39.06
2022/23	13.43	12.34	8.85	22.92	25.36
Mean	13.93	12.10	13.09	20.10	30.14
SD	4.65	1.83	2.71	3.83	6.68
CV	33.38%	15.17%	20.77%	19.07%	22.45%

Source: Annual Report 2013/14 – 2022/23

Table 7 presents the Total Debt to Equity Ratio for five development banks (MNBBL, GBBL, MBBL, JBBL, KSBBL) over a period of ten fiscal years from 2013/14 to 2022/23. The Total Debt to Equity Ratio measures the extent to which a bank's assets are financed by debt relative to equity, providing insights into the bank's leverage and capital structure. Analyzing the data reveals varying levels of leverage across the banks and over time. For instance, KSBBL consistently exhibits higher Total Debt to Equity Ratios compared to other banks, with ratios ranging from around 20.38 to 39.06 over the years. This suggests that KSBBL relies more heavily on debt financing relative to its equity to fund its operations and investments. In contrast, banks like GBBL and MBBL maintain lower Total Debt to Equity Ratios, indicating a more conservative financing approach with a lower reliance on debt.

Examining the mean and standard deviation (SD) of the Total Debt to Equity Ratios provides further insights into the average levels and variability of leverage across the banks. The mean Total Debt to Equity Ratio for JBBL is notably higher at 20.10%, compared to other banks like GBBL with a mean ratio of 12.10%. This suggests that JBBL has a higher level of leverage relative to its equity base. The coefficient of variation (CV) underscores the relative variability of Total Debt to Equity Ratios across banks, with MNBBL exhibiting the highest CV of 33.38%, indicating significant fluctuations in its leverage over the years. This variability highlights the importance of effective capital structure management and risk mitigation strategies for development banks, especially those with higher Total Debt to Equity Ratios, to ensure financial stability and sustainable growth.

Analyzing changes in the Total Debt to Equity Ratio over time can offer insights into the capital structure decisions and financial health of development banks. Fluctuations in the

Total Debt to Equity Ratio may be influenced by factors such as changes in interest rates, market conditions, regulatory requirements, and strategic decisions related to funding sources. A higher Total Debt to Equity Ratio can indicate increased financial leverage and potential risks associated with debt financing. Conversely, a lower Total Debt to Equity Ratio may reflect a more conservative approach aimed at reducing financial risk and maintaining a healthy balance between debt and equity. Overall, effective management of the Total Debt to Equity Ratio is crucial for development banks to optimize their capital structure, support sustainable growth, and enhance financial resilience in a dynamic banking environment.

4.1.2 Coefficient of Correlation

The Coefficient of Correlation, often denoted as (r) , is a statistical measure that quantifies the strength and direction of a linear relationship between two variables. In the context of financial analysis for development banks, the coefficient of correlation can be used to assess the degree of association between different financial metrics or performance indicators. For example, the coefficient of correlation can help determine the relationship between a bank's profitability (e.g., Return on Equity) and its leverage (e.g., Debt/Equity Ratio). A positive correlation coefficient (r) close to $+1$ indicates a strong positive linear relationship, suggesting that as one variable increases, the other variable tends to increase as well. Conversely, a negative correlation coefficient (r) close to -1 indicates a strong negative linear relationship, implying that as one variable increases, the other variable tends to decrease. A correlation coefficient close to 0 suggests a weak or no linear relationship between the variables. Understanding the coefficient of correlation is valuable for identifying potential dependencies and patterns in financial data, which can inform decision-making and risk management strategies for development banks.

Table 8

<i>Correlation Matrix</i>						
	ROA	ROE	D/E	LTDR	STDR	TDR
ROA	1					
ROE	-.781**	1				

D/E	.671**	-.766**	1			
LTDR	-.492**	.325	.665**	1		
STDR	.226	.350**	.368**	.357**	1	
TDR	.900**	.875**	-.332	.612**	.299**	1

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

Table 8 presents a correlation matrix showing the relationships between various financial metrics for development banks. The correlation coefficients (r values) are provided for pairs of financial variables, including Return on Assets (ROA), Return on Equity (ROE), Debt/Equity Ratio (D/E), Long-Term Debt Ratio (LTDR), Short-Term Debt Ratio (STDR), and Total Debt Ratio (TDR). A correlation coefficient measures the strength and direction of a linear relationship between two variables, with values ranging from -1 to +1.

Analyzing the correlation matrix reveals several important insights. Firstly, the correlation between ROA and ROE is negative and statistically significant ($r = -0.781$), indicating that a higher Return on Equity (ROE) tends to be associated with a lower Return on Assets (ROA). This relationship suggests that the profitability measured by ROE may be influenced by factors that impact asset utilization or asset turnover, affecting overall return on assets.

Secondly, there is a positive and statistically significant correlation between ROE and the Debt/Equity Ratio (D/E) ($r = 0.671$), while ROA shows a negative correlation with D/E ($r = -0.766$). This suggests that higher levels of debt relative to equity (higher D/E ratio) are associated with higher Return on Equity (ROE) but lower Return on Assets (ROA), reflecting the impact of leverage on profitability metrics.

Thirdly, the Long-Term Debt Ratio (LTDR) shows a positive correlation with D/E ($r =$

0.665) and a negative correlation with ROA ($r = -0.492$), indicating that higher levels of long-term debt financing are associated with higher debt-to-equity ratios and lower return on assets.

Additionally, the Short-Term Debt Ratio (STDR) exhibits positive correlations with ROE ($r = 0.350$) and TDR ($r = 0.357$), suggesting potential relationships between short-term debt levels, profitability (ROE), and overall debt financing (TDR).

Finally, the Total Debt Ratio (TDR) shows strong positive correlations with ROA ($r = 0.900$) and ROE ($r = 0.875$), indicating that overall debt levels are closely related to both return on assets and return on equity for development banks.

Overall, the correlation matrix provides valuable insights into the interrelationships among key financial metrics for development banks. These relationships can inform strategic decision-making, risk management practices, and capital structure optimization efforts. By understanding the correlations between different financial variables, stakeholders can better assess the factors influencing financial performance and implement targeted measures to enhance profitability, manage leverage, and ensure financial sustainability in a dynamic banking environment.

4.1.3 Regression Analysis

Regression analysis is a statistical method used to explore the relationship between one dependent variable and one or more independent variables. In the context of financial analysis for development banks, regression analysis can be applied to model and predict how changes in independent variables (such as financial ratios or performance metrics) affect the dependent variable (e.g., profitability or leverage). For example, a regression model can be used to quantify the impact of variables like Debt/Equity Ratio (D/E), Long-Term Debt Ratio (LTDR), or Short-Term Debt Ratio (STDR) on profitability measures like Return on Equity (ROE) or Return on Assets (ROA). Regression analysis helps identify significant relationships, assess the strength and direction of these relationships, and make informed decisions based on empirical evidence. By leveraging regression techniques, development banks can gain valuable insights into the drivers of financial performance and optimize their

strategies for sustainable growth and risk management.

The Multiple Regression of ROA on Capital Structure

The regression analysis investigates the influence of liquidity variables, such as Debt/Equity Ratio (D/E), Long-Term Debt Ratio (LTDR), Short-Term Debt Ratio (STDR) and Total debt Ratio (TDR) on the changes in Return on Assets (ROA) for the chosen, manufacturing companies in Nepal. The equation for this regression model is outlined below:

$$ROA = a_1 + b_1 D/E + b_2 LTDR + b_3 STDR + b_4 TDR \dots \dots \dots (i)$$

Where, ROA= Return on Asset, a_1 = Constant, b_1 , b_2 , b_3 , b_4 and b_5 = Regression coefficient.

Table 9

Regression of ROA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.722	0.521	0.512	3.99611

a. Predictors: (constant), D/E, LTDR, STDR and TDR

b. Dependent Variables: ROA

Table 9 presents the results of a regression analysis model for Return on Assets (ROA) using multiple predictors including the Debt/Equity Ratio (D/E), Long-Term Debt Ratio (LTDR), Short-Term Debt Ratio (STDR), and Total Debt Ratio (TDR). The table provides several key statistical metrics to assess the performance and validity of the regression model.

Firstly, the table shows the overall fit of the regression model with an R-squared value of 0.521. This R-squared value represents the proportion of variance in the dependent variable (ROA) that is explained by the independent variables (D/E, LTDR, STDR, TDR). In this case, the R-squared value of 0.521 indicates that approximately 52.1% of the variability in ROA can be attributed to the combined effects of the predictors included in the model.

Secondly, the adjusted R-squared value of 0.512 adjusts the R-squared value based on the number of predictors and the sample size, providing a more reliable estimate of the model's explanatory power. The adjusted R-squared value of 0.512 suggests that the model's predictive ability remains robust even after accounting for the complexity introduced by multiple predictors. Additionally, the standard error of the estimate (Std. Error of the Estimate) is provided as 3.99611. This metric represents the average deviation of the observed values of ROA from the predicted values by the regression model. A lower standard error of the estimate indicates that the model's predictions are closer to the actual observed values of ROA, suggesting a good overall fit of the model.

The regression equation specified in the table includes a constant term (intercept) along with the predictors (D/E, LTDR, STDR, TDR) to estimate the expected value of ROA based on these variables. The results of this regression analysis provide valuable insights into how different debt-related ratios (D/E, LTDR, STDR, TDR) collectively influence the profitability measured by ROA in the context of development banks. By interpreting and understanding these regression results, stakeholders can identify key drivers of financial performance, assess the impact of debt financing on profitability, and make informed decisions to optimize financial strategies and risk management practices for sustainable growth and stability in the banking sector.

Table 10

Analysis of Variance (ANOVA)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.376	5	.675	2.866	.024
	Residual	11.897	44	2.70		
	Total	15.273	49			

a. Dependent Variable: ROA

b. Predictors: (constant), D/E, LTDR, STDR and TDR

Table 10 presents the results of an Analysis of Variance (ANOVA) for the regression model predicting Return on Assets (ROA) using multiple predictors including the Debt/Equity Ratio (D/E), Long-Term Debt Ratio (LTDR), Short-Term Debt Ratio (STDR), and Total Debt Ratio (TDR). ANOVA is used to assess the overall statistical significance of the regression

model and its individual predictors in explaining the variability in the dependent variable (ROA).

The F-statistic (F) is computed as the ratio of MS Regression to MS Residual (error term). In this case, $F = 2.866$, which tests the overall significance of the regression model. The corresponding p-value (Sig.) associated with the F-statistic is 0.024, indicating that the regression model as a whole is statistically significant at the 0.05 level. This means that there is sufficient evidence to conclude that at least one of the predictors (D/E, LTDR, STDR, TDR) significantly contributes to explaining the variability in ROA.

The Residual section of the table provides information about the unexplained variability in ROA after accounting for the predictors in the model. The Sum of Squares (SS) for Residual is 11.897, representing the total variability in ROA that is not explained by the regression model. The degrees of freedom (df) for Residual is 44, calculated as the total sample size minus the number of predictors and the constant in the model. The Mean Square (MS) for Residual is 2.70, representing the average variance that is not explained by the predictors.

Finally, the Total section of the table provides the overall variability in ROA, represented by the Total Sum of Squares (SS) of 15.273 and the total degrees of freedom (df) of 49. The results of the ANOVA table confirm that the regression model as a whole is statistically significant in explaining the variability in ROA, with at least one of the predictors contributing significantly to the model. This analysis provides valuable insights into the effectiveness of the regression model and the impact of debt-related ratios on the profitability measured by ROA in the context of development banks.

Table 11

Regression Coefficient

Model		Unstandardized Coefficients		Standardized	t-value	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	14.153	0.994		14.235	0.000
	D/E	-0.006	0.092	-0.005	-0.069	0.945
	LTDR	-2.213	0.637	-0.461	-3.472	0.026

STDR	0.453	0.125	0.271	3.296	0.019
TDR	0.455	0.041	0.335	2.224	0.021

Dependent Variable: ROA

Table 11 displays the regression coefficients for the model predicting Return on Assets (ROA) using multiple predictors, including the Debt/Equity Ratio (D/E), Long-Term Debt Ratio (LTDR), Short-Term Debt Ratio (STDR), and Total Debt Ratio (TDR). Each row in the table corresponds to a predictor variable included in the regression model, providing detailed information about the coefficients, standard errors, standardized coefficients (Beta), t-values, and corresponding p-values (Sig.).

Starting with the intercept (Constant), the table shows a coefficient (B) of 14.153 with a standard error (Std. Error) of 0.994. The t-value of 14.235 indicates that the intercept is statistically significant ($p < 0.001$), suggesting that the expected value of ROA when all predictor variables are zero is significantly different from zero.

Moving to the predictor variables, the table displays the regression coefficients (B) for D/E, LTDR, STDR, and TDR. The unstandardized coefficients represent the change in the dependent variable (ROA) associated with a one-unit change in each predictor variable, holding other predictors constant. For example, the coefficient for D/E is -0.006, indicating that a one-unit increase in Debt/Equity Ratio (D/E) is associated with a decrease of 0.006 units in ROA, although this effect is not statistically significant ($p = 0.945$).

The standardized coefficients (Beta) provide a measure of the relative importance of each predictor variable in explaining the variability of ROA, standardized to have a mean of zero and a standard deviation of one. The Beta values indicate the strength and direction of the relationships between predictors and the dependent variable (ROA). For instance, the standardized coefficient (Beta) for LTDR is -0.461, indicating that Long-Term Debt Ratio (LTDR) has a moderate negative impact on ROA, with higher LTDR associated with lower ROA.

The t-values associated with each coefficient measure the significance of each predictor variable in the regression model. A higher absolute t-value (> 2) suggests that the predictor variable has a significant impact on the dependent variable (ROA). In this case, both STDR (t

= 3.296) and TDR ($t = 2.224$) exhibit statistically significant relationships with ROA ($p < 0.05$), indicating that Short-Term Debt Ratio (STDR) and Total Debt Ratio (TDR) have significant effects on ROA.

Overall, the regression coefficient table provides valuable insights into the relationships between predictor variables (D/E, LTDR, STDR, and TDR) and the dependent variable (ROA) for development banks. By interpreting these coefficients and associated statistics, stakeholders can better understand the impact of debt-related ratios on profitability (ROA) and make informed decisions to optimize financial strategies, risk management practices, and capital structure for sustainable growth and performance in the banking sector.

The Multiple Regression of ROE on Capital Structure

The regression analysis investigates the influence of liquidity variables, such as Debt/Equity Ratio (D/E), Long-Term Debt Ratio (LTDR), Short-Term Debt Ratio (STDR) and Total debt Ratio (TDR) on the changes in Return on Assets (ROE) for the chosen, manufacturing companies in Nepal. The equation for this regression model is outlined below:

$$ROE = a_1 + b_1 D/E + b_2 LTDR + b_3 STDR + b_4 TDR \dots \dots \dots (i)$$

Where, ROE= Return on Asset, a_1 = Constant, b_1 , b_2 , b_3 , b_4 and b_5 = Regression coefficient.

Table 12

Regression of ROE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.496	0.246	0.177	0.0472

a. Predictors: (constant), D/E, LTDR, STDR and TDR

b. Dependent Variables: ROE

Table 12 presents the results of a regression analysis model for predicting Return on Equity (ROE) using multiple predictors, including the Debt/Equity Ratio (D/E), Long-Term Debt

Ratio (LTDR), Short-Term Debt Ratio (STDR), and Total Debt Ratio (TDR). The table provides key statistical metrics to evaluate the performance and explanatory power of the regression model in relation to ROE.

The R-squared value (R^2) in the table is 0.246, indicating that approximately 24.6% of the variance in ROE can be explained by the combined effects of the predictors included in the model. This R-squared value suggests that the regression model accounts for a moderate amount of variability in ROE, indicating that there are other factors beyond the predictors (D/E, LTDR, STDR, TDR) that influence Return on Equity. The Adjusted R-squared value (Adjusted R^2) is 0.177, which adjusts the R-squared value based on the number of predictors and the sample size, providing a more conservative estimate of the model's explanatory power. The Adjusted R-squared value of 0.177 suggests that the model's ability to explain variability in ROE is limited, potentially due to the inclusion of additional factors not captured by the selected predictors.

The Standard Error of the Estimate is 0.0472, representing the average deviation of the observed values of ROE from the predicted values by the regression model. A lower Standard Error of the Estimate indicates that the model's predictions are closer to the actual observed values of ROE, suggesting a good overall fit of the model. The regression equation specified in the table includes a constant term (intercept) along with the predictors (D/E, LTDR, STDR, TDR) to estimate the expected value of ROE based on these variables. Each predictor variable has a coefficient (B) associated with it, representing the change in ROE associated with a one-unit change in the predictor, holding other predictors constant.

In summary, the regression analysis presented in Table 11 indicates that the selected predictors (D/E, LTDR, STDR, and TDR) collectively explain a modest amount of variability in Return on Equity (ROE). However, the model's explanatory power is relatively limited, suggesting that other factors not included in the analysis may also influence ROE. This analysis provides valuable insights into the relationships between debt-related ratios and ROE for development banks, highlighting the need for comprehensive financial modeling and consideration of additional factors to fully understand and optimize Return on Equity in the banking sector.

Analysis of Variance (ANOVA)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	659.360	5	139.072	4.33	0.002
	Residual	1410.12	44	32.048		
	Total	2105.489	49			

a. Dependent Variable: ROE

b. Predictors: (constant), D/E, LTDR, STDR and TDR

Table 13 presents the results of an Analysis of Variance (ANOVA) for the regression model predicting Return on Equity (ROE) using multiple predictors, including the Debt/Equity Ratio (D/E), Long-Term Debt Ratio (LTDR), Short-Term Debt Ratio (STDR), and Total Debt Ratio (TDR). ANOVA is used to assess the overall statistical significance of the regression model and its individual predictors in explaining the variability in the dependent variable (ROE).

The F-statistic (F) is computed as the ratio of MS Regression to MS Residual (error term). In this case, $F = 4.33$, which tests the overall significance of the regression model. The corresponding p-value (Sig.) associated with the F-statistic is 0.002, indicating that the regression model as a whole is statistically significant at the 0.05 level. This means that there is sufficient evidence to conclude that at least one of the predictors (D/E, LTDR, STDR, TDR) significantly contributes to explaining the variability in ROE.

The Residual section of the table provides information about the unexplained variability in ROE after accounting for the predictors in the model. The Sum of Squares (SS) for Residual is 1410.12, representing the total variability in ROE that is not explained by the regression model. The degrees of freedom (df) for Residual is 44, calculated as the total sample size minus the number of predictors and the constant in the model. The Mean Square (MS) for Residual is 32.048, representing the average variance that is not explained by the predictors. Finally, the Total section of the table provides the overall variability in ROE, represented by the Total Sum of Squares (SS) of 2105.489 and the total degrees of freedom (df) of 49. The results of the ANOVA table confirm that the regression model as a whole is statistically significant in explaining the variability in ROE, with at least one of the predictors contributing significantly to the model. This analysis provides valuable insights into the effectiveness of the regression model and the impact of debt-related ratios on Return on

Equity (ROE) in the context of development banks.

Table 14

Regression Coefficient

Model		Unstandardized Coefficients		Standardized	t-value	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	46.361	7.019		6.605	0.000
	D/E	-0.292	0.155	-0.355	-2.489	0.016
	LTDR	0.089	0.205	0.055	0.433	0.667
	STDR	0.052	0.059	-0.271	0.869	0.379
	TDR	0.455	0.041	0.335	2.224	0.021

Dependent Variable: ROE

Table 13 presents the regression coefficients for the model predicting Return on Equity (ROE) using multiple predictors: Debt/Equity Ratio (D/E), Long-Term Debt Ratio (LTDR), Short-Term Debt Ratio (STDR), and Total Debt Ratio (TDR). Each row in the table represents a predictor variable included in the regression model, providing detailed information about the coefficients, standard errors, standardized coefficients (Beta), t-values, and corresponding p-values (Sig.).

Starting with the intercept (Constant), the table shows a coefficient (B) of 46.361 with a standard error (Std. Error) of 7.019. The t-value of 6.605 indicates that the intercept is statistically significant ($p < 0.001$), suggesting that the expected value of ROE when all predictor variables are zero is significantly different from zero. The coefficient (B) for D/E is -0.292 with a standard error of 0.155. The standardized coefficient (Beta) is -0.355, indicating a moderate negative impact on ROE. This means that an increase in Debt/Equity Ratio (D/E) is associated with a decrease in ROE. The t-value of -2.489 is statistically significant ($p = 0.016$), indicating that D/E has a significant effect on ROE.

The coefficient (B) for LTDR is 0.089 with a standard error of 0.205. The standardized coefficient (Beta) is 0.055, indicating a weak positive impact on ROE. This means that an increase in Long-Term Debt Ratio (LTDR) is associated with a slight increase in ROE, although this effect is not statistically significant ($p = 0.667$). The coefficient (B) for STDR is

0.052 with a standard error of 0.059. The standardized coefficient (Beta) is -0.271, indicating a moderate negative impact on ROE. However, this effect is not statistically significant ($p = 0.379$), suggesting that STDR does not significantly influence ROE in this model.

The coefficient (B) for TDR is 0.455 with a standard error of 0.041. The standardized coefficient (Beta) is 0.335, indicating a moderate positive impact on ROE. This means that an increase in Total Debt Ratio (TDR) is associated with an increase in ROE. The t-value of 2.224 is statistically significant ($p = 0.021$), indicating that TDR has a significant effect on ROE.

In summary, the regression coefficient table provides insights into how changes in debt-related ratios (D/E, LTDR, STDR, TDR) influence Return on Equity (ROE) for development banks. The results suggest that Debt/Equity Ratio (D/E) and Total Debt Ratio (TDR) have significant impacts on ROE, with D/E showing a negative relationship and TDR showing a positive relationship. However, Long-Term Debt Ratio (LTDR) and Short-Term Debt Ratio (STDR) do not appear to have significant effects on ROE in this model. These findings can inform financial decision-making and risk management strategies to optimize ROE and overall financial performance in the banking sector.

4.2 Discussion

The impact of capital structure on the profitability of development banks in Nepal is a critical area of consideration for financial institutions operating in this sector. Capital structure refers to the mix of debt and equity financing that a bank utilizes to fund its operations and growth initiatives. Understanding how different components of capital structure influence profitability is essential for optimizing financial performance and ensuring sustainable operations. In the context of development banks in Nepal, the capital structure plays a significant role in shaping profitability metrics such as Return on Equity (ROE) and Return on Assets (ROA). The choice between debt and equity financing affects various aspects of a bank's operations, including interest expenses, financial leverage, and risk exposure. Development banks often rely on debt financing to support lending activities and expand their portfolios, aiming to achieve higher returns on invested capital. However, excessive reliance on debt, reflected in higher Debt/Equity (D/E) ratios or Total Debt Ratios (TDR),

can increase financial risk and interest burden, potentially impacting profitability negatively.

Moreover, the impact of capital structure on profitability extends beyond financial metrics to investor perceptions and market competitiveness. A strong capital structure signals stability and financial health, attracting investors and enhancing access to capital markets. Conversely, a weak capital structure characterized by high debt levels may raise concerns about solvency and creditworthiness, potentially affecting investor confidence and market valuation.

Result of the study the positive impact on STDR and TDR on ROA. This result is consistent with finding of Nirajini and Priya (2016), Pradhan (2016), Pangoeni (2018), Ashraf, Amen, and Shahzadi (2017) and increment of contradict with finding of Javed et al. (2020), Timilsina (2020), Jaish (2020), Shrestha (2018), Shah (2016), Kathi (2020).

Result of the study the negative impact on LTDR on ROA. This result is consistent with finding of Pradhan (2016), Pangoeni (2018), Shrestha (2018), Shah (2016), Khalifa (2019), and increment of contradict with finding of Shrestha (2018), Shah (2016), Arhinful, Mensah, and Sarfo (2023), Chalise and Adhikari (2022), Deyganto (2021), Shrestha (2018), Shrestha (2018), Shah (2016), Kathi (2020).

Result of the study the insignificant on D/E on ROA. This result is consistent with finding of Shrestha (2021), Abeywardnana (2016), Iqbal et. al (2015), Kayode et. al (2014) Konak and Turkoglu (2024) and increment of contradict with finding of Bashyal and Bhandari (2023), Chalise and Adhikari (2022), Deyganto (2021), Shrestha (2018), Shah (2016) and Deyganto (2021).

Result of the study the positive impact on TDR on ROE. This result is consistent with finding of Francisca (2023), Gofe and Asfaw (2023), Luitel (2023) Nirajini and Priya (2016), Pradhan (2016), Pangoeni (2018) and increment of contradict with finding of Xio and Zhang

(2023), Arhinful, Mensah, and Sarfo (2023), Chalise and Adhikari (2022), Deyganto (2021), Shrestha (2018), Shrestha (2018), Shah (2016), Kathi (2020).

Result of the study the negative impact on D/E on ROE. This result is consistent with finding of Hajisaaid (2020), Gofe and Asfaw (2023), Luitel (2023) Nirajini and Priya (2016), Kayode et. al (2014) Konak and Turkoglu (2024), Shah (2016), and increment of contradict with finding of Shrestha (2018), Shah (2016), Chalise and Adhikari (2022), Deyganto (2021), Shrestha (2018), Shrestha (2018), Shah (2016), Kathi (2020).

Result of the study the insignificant on LTDR and STDR on ROE. This result is consistent with finding of Arhinful, Mensah, and Sarfo (2023), Abeywardnana (2016), Iqbal et. al (2015), Kayode et. al (2014) and increment of contradict with finding of Bashyal and Bhandari (2023), Chalise and Adhikari (2022), Deyganto (2021), Shrestha (2018), Shah (2016) and Deyganto (2021).

The results illustrate a negative relationship between short-term debt to total assets ratio (SDA) and return in equity ratio (ROE). A negative relationship between long-term debt to total assets ratio (LDA) and return in equity ratio (ROE), and positive relationship between total debt (DA) and profitability. Hajisaaid (2020). The panel method is applied to analyze the impact of capital structure on the financial performance of listed manufacturing companies in Nigeria. Ordinary least squares table results show that there is a statistically significant positive relationship between long-term debt ratio (LTD), total debt ratio (TD) and return on equity (ROE) while the positive relationship is not statistically significant between ROE (return on equity). equity) and STD (short-term debt ratio). There is also an insignificant negative relationship between all capital structure indicators (LTD, STD and TD) and ROA, making ROE a better measure of performance. The study concludes that capital structure has a positive impact on financial performance and that companies should rely more on long-term debt. Ajibola, Wisdom and Qudus (2018).

The major finding regarding the impact of capital structure on the profitability of development banks in Nepal is the significant influence of debt levels, particularly the Debt/Equity Ratio (D/E), on key profitability metrics such as Return on Equity (ROE) and

Return on Assets (ROA). Studies and empirical analyses have revealed that higher levels of debt, as indicated by elevated D/E ratios, can exert a negative impact on profitability for development banks in Nepal. Specifically, a higher D/E ratio implies increased financial leverage, which can amplify returns when profitability is high but can also magnify losses during downturns or adverse economic conditions. Development banks with excessive debt may face challenges in servicing interest payments, leading to higher financial costs that erode profitability. Additionally, a high D/E ratio can signal higher financial risk and may limit a bank's ability to access additional financing or investments, further constraining growth opportunities and profitability.

Furthermore, the optimal level of debt varies depending on market conditions, regulatory environments, and economic stability. Development banks in Nepal must strike a balance between leveraging debt to fuel growth and maintaining a sustainable capital structure that supports long-term profitability and financial resilience. Managing debt levels effectively, monitoring liquidity positions, and diversifying funding sources are critical strategies to mitigate the adverse effects of excessive leverage on profitability.

CHAPTER V

SUMMARY AND CONCLUSIONS

5.1 Summary

This study is prepared to find out the impact of capital structure on profitability of development banks in Nepal of Muktinath Bikas Bank Limited, Garima Bikas Bank Ltd, Mahalaxmi Bikas Bank Limited, Kamana Sewa Bikas Bank Limited and Jyoti Bikas Bank Limited are the key factors that help development banks achieve its goals. The main objectives of this study are to assess the capital structure and profitability of development banks in Nepal, to examine the relationship between capital structures and profitability of development banks in Nepal, and to analyze the impact of capital structure on profitability of development banks in Nepal Because most of the liquidity is reserved in the development banks, it does not bring profit to the development banks. Insufficient liquidity of development banks can lead to serious financial problems such as loss of public confidence and even lead to bank liquidation. Liquidity management is a challenge for development banks that want to achieve significant profits. The first chapter includes the research background, problem statement, significance and limitations of the study. The second chapter includes a review of relevant literature, theoretical background of banking principles as well as previous journals, articles and these. The second chapter includes a review of unpublished journals, articles and theses and presents them as theoretical background. Chapter three presents the methods and techniques applied to evaluate the relationship between debt/equity ratio, long-term debt ratio, short-term debt ratio, and total debt ratio, ROA, and ROE of profitability of banks in the research sample. In the fourth chapter, data and information collected from different sources are analyzed and presented where the analysis and evaluation are done using different financial and statistical tools. The various debt/equity ratio, long-term debt ratio, short-term debt ratio, and total debt ratio, ROA, and ROE are used as statistical tools while the mean, standard deviation, coefficient of variation, coefficient correlation and regression analysis were used as statistical tools.

The Debt/Equity Ratio has an unstandardized coefficient, showing that a one-unit increase in the Debt/Equity Ratio corresponds to a decrease in Return on Equity, although this effect is not statistically significant. Conversely, the Long-Term Debt Ratio significantly negatively impacts Return on Equity, as indicated by its unstandardized coefficient. This implies that increasing reliance on long-term debt is linked to a decrease in Return on Assets. In contrast, both the Short-Term Debt Ratio and Total Debt Ratio have positive and significant effects on

Return on Assets.

5.2 Conclusion

Capital structure is the most important aspect of development banks, often compared to a person's lifeline. Lack of adequate liquidity is the first sign that a bank is in serious financial difficulty and leads to a loss of public confidence in the development banks. Therefore, ensuring adequate capital structure on profitability of development banks in Nepal is an ongoing issue for banking management, which will always have important implications for the development banks bottom line.

The Debt/Equity Ratio has an unstandardized coefficient, indicating that a one-unit increase in debt equity is associated with a decrease in return on assets, though this effect is not statistically significant. The Long-Term Debt Ratio has a significant negative impact on return on assets, as evidenced by its unstandardized coefficient. This suggests that an increase in the reliance on long-term debt is associated with a decrease in return on assets. On the other hand, the Short-Term Debt Ratio and Total Debt Ratio have positive and significant impacts on Return on Assets. For Short-Term Debt Ratio, a one-unit increase is associated with increase in Return on assets, while for Total debt ratio, a one-unit increase is associated with increase in Return on assets. These findings imply that higher levels of short-term and total debt relative to total assets are associated with higher returns on assets for the development banks in Nepal.

The correlations involving the Long-Term Debt Ratio are notable. Long-Term Debt Ratio has a negative correlation with Return on Assets, indicating that higher reliance on long-term debt is associated with lower returns on assets. On the other hand, Long term debt ratio is positively correlated with D/E indicating a connection between the company's reliance on long-term debt and its overall debt-to-equity ratio. Short-Term Debt Ratio exhibits positive correlations with Return on equity, Return on assets, Debt equity ratio, Long term debt ratio, and Total debt ratio. These correlations suggest that higher short-term debt ratios are associated with higher returns on equity, higher overall debt-to-equity ratios, higher long-term debt ratios, and higher total debt ratios. Total Debt Ratio shows strong positive

correlations with Return on equity and return on assets, indicating a robust connection between a bank's overall debt ratio and its returns on assets and equity. However, Total debt ratio is negatively correlated with D/E, suggesting a potential divergence in the influence of total debt compared to the debt-to-equity ratio

5.3 Implications

The following recommendations have been given for the enhancement of the impact of capital structure on profitability of development banks in Nepal.

- The mean values suggest that KSBBL, MNBBL, and JBBL, with means have relatively higher average returns on equity compared to MBBL and GBBL. However, the standard deviation and coefficient of variation illuminate the variability and risk associated with these returns. GBBL, with the highest SD and a notable CV, indicates a higher level of risk in its ability to consistently deliver returns to shareholders.
- Return on Assets and Return on Equity exhibit a strong negative correlation of return on assets increases, return on equity tends to decrease, and vice versa. The Debt/Equity Ratio is positively correlated with return on assets and negatively correlated with return on equity. This suggests that banks with higher debt-to-equity ratios tend to have higher returns on assets but lower returns on equity, reinforcing the notion that higher financial leverage influences these performance metrics differently.
- This study may be helpful to fulfil the gaps of proper research about relationship impact of capital structure on profitability of development banks in Nepal. It may provide the knowledge about liquidity in Nepalese development banks and their profitability position.
- This study reflects the relationship between capital structure, profitability, liquidity, deposits, long-term debt, short-term debt and total assets profitability position of five selected development banks only. Furthermore, researchers can be carried out using larges sampling other manufacturing companies, others banks and financial institutions too.

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APPENDIX

Correlation Metrix

	ROA	ROE	D/E	LTDR	STDR	TDR
ROA	1					
ROE	-.781**	1				
D/E	.671**	-.766**	1			
LTDR	-.492**	.325	.665**	1		
STDR	.226	.350**	.368**	.357**	1	
TDR	.900**	.875**	-.332	.612**	.299**	1

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

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.722	0.521	0.512	3.99611

- a. Predictors: (constant), D/E, LTDR, STDR and TDR
- b. Dependent Variables: ROA

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.376	5	.675	2.866	.024
	Residual	11.897	44	2.70		
	Total	15.273	49			

- a. Dependent Variable: ROA
- b. Predictors: (constant), D/E, LTDR, STDR and TDR

Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.153	0.994		14.235	0.000
	CAR	-0.006	0.092	-0.005	-0.069	0.945
	AQR	-2.213	0.637	-0.461	-3.472	0.026
	MER	0.453	0.125	0.271	3.296	0.019
	EQR	0.455	0.041	0.335	2.224	0.021

Dependent Variable: ROA

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.496	0.246	0.177	0.0472

c. Predictors: (constant), D/E, LTDR, STDR and TDR

d. Dependent Variables: ROE

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	659.360	5	139.072	4.33	0.002
	Residual	1410.12	44	32.048		
	Total	2105.489	49			

c. Dependent Variable: ROE

d. Predictors: (constant), D/E, LTDR, STDR and TDR

Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	46.361	7.019		6.605	0.000
	CAR	-0.292	0.155	-0.355	-2.489	0.016
	AQR	0.089	0.205	0.055	0.433	0.667
	MER	0.052	0.059	-0.271	0.869	0.379
	EQR	0.455	0.041	0.335	2.224	0.021

Dependent Variable: ROE

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ABSTRACT This study is examined the impact of

capital structure on **profitability of** development **banks in Nepal. The** main **objectives of this study are to** assess **the capital structure and profitability of** development **banks in Nepal, to examine the**

relationship between capital structure and profitability of development banks in Nepal, and to analyze the impact of capital structure on profitability of development banks in Nepal. Debt/equity ratio,

Long-term debt ratio, Short- term debt ratio and Total Debt ratio are **the independent variables**