FACTORS INFLUENCING THE PROFITABILITY OF NEPALESE DEVELOPMENT BANKS

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

By

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CERTIFICATE OF AUTHORSHIP

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

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Nabina Dawadi

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REPORT OF RESEARCH COMMITTEE

Mrs. Nabina Dawadi has defended research proposal entitled **"Factors Influencing the Profitability of Nepalese Development Banks"** successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestions and guidance of supervisor Pitamber Lamichhane and submit the thesis for evaluation and viva voce examination.

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APPROVAL - SHEET

We, the undersigned have examined the thesis entitled **"Factors Influencing the Profitability of Nepalese Development Banks"** presented by Nabina Dawadi, a candidate for the degree of Master of Business Studies (MBS Semester) and conducted the viva voce examination of the candidate of the candidate. We hereby certify that the thesis acceptable for the award of degree.

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Nabina Dawadi
Researcher

TABLE OF CONTENTS

LIST OF THE TABLES

LIST OF THE FIGURES

ABBREVIATIONS

AGM: Annual General Meeting
ATM : Automated Teller Machine
BAFIA: Bank and Financial Institution Act
CADR: Cash deposit ratio
CAPM: Capital Assets Pricing Model
CAR : Capital Adequacy Ratio
CATAR: Current assets to total assets ratio
CC : Cash Credit
CDR: Credit deposit ratio
CHTDR: Cash in hand to total deposit ratio
CV : Coefficient of Variation
D/E: Debt Equity Ratio
DTOR: Debtor Turnover Ratio
EBIT: Earnings before Interest and Tax
EPS : Earning Per Share
F&D : Fixed Deposit
FIs : Financial Institutions
GBBL: Garima Bikas Bank Limited
IBC : Inward Bill Collection
Incl : Including
JBBL: Jyoti Bikas Bank Limited
JVBs : Joint Venture Banks
KSBBL: Kamana Sewa Bikas Bank Limited
L & A: Loan and Advance
LACLR: Liquid assets to current liabilities ratio
LADR: Loan and advances to deposit ratio
LC : Letter of Credit
LDTA: Long Term Debt to Total Assets
MBBL: Mahalaxmi Bikas Bank Ltd

MNBBL: Mukatinath Bikas Bank Ltd

MPS : Market Price Per share

NEPSE: Nepal Stock Exchange

NIM : Net Interest Margin

NPA : Non-performing Assets

NPAT: Net Profit after Tax

NPL : Non-performing Loan

NRB : Nepal Rastra Bank

NRBTDR: NRB balances to total deposit ratio

OTC : Over the Counter

ROA : Return on Asset

ROE : Return on Equity

SD : Standard Deviation

SEBON: Security Exchange Board of Nepal

SML : Security Market Line

STDTA: Short Term Debt to Total Assets

TA: Total Assets

TDTA: Total Debt to Total Assets

TDTE: Total Debt to Total Equity

WACC: Weighted Average Cost of Capital

ABSTRACT

Profitability is a crucial aspect influencing the growth and sustainability of banks, and effectively managing the trade-off between liquidity and profitability is a paramount concern. This research focuses on assessing the profitability status of Nepalese development banks, exploring their liquidity positions, and investigating the relationship between liquidity and profitability. The study adopts a descriptive research approach, utilizing secondary data extracted from the annual reports of development banks in Nepal and the Nepal Rastra Bank. The analysis employs correlation and regression techniques, using Return on Assets (ROA) and Return on Equity (ROE) to gauge profitability, while Cash in Hand to Total Deposit Ratio (CHTDR), Loan and Advance to Total Deposit Ratio (LATDR), NRB Balance to Total Deposit Ratio (NRBTDR), Liquid Assets to Current Liability Ratio (LACLR), and Current Assets to Total Assets Ratio (CATAR) are used to assess liquidity and profitability positions. The study spans a decade, covering five Nepalese development banks (MNBBL, GBBL, MBBL, JBBL, and KSBBL) from the fiscal year 2012/13 to 2021/22. Results indicate that LATDR exhibits an insignificant relationship with ROA. Conversely, CHTDR, NRBTDR, and CATAR demonstrate significant relationships with ROA, The findings suggest a positive and significant relationship between liquidity, deposits, loans and advances, and profitability across Nepalese development banks during the study period.

Keywords: Profitability, ROA, LATDR, Nepalese development bank

CHAPTER I
INTRODUCTION

1.1 Background of the study

The banking industry is one of the dynamic industries in Nepal. They form the backbone of development and contribute to the economic growth of the country. Banking and its importance are of great value at this time. Banks give people the opportunity to participate in the development process by issuing shares and accepting deposits. The focus of the study on the banking industry in Nepal could encompass a variety of aspects, given its dynamic nature and crucial role in economic development. A bank is a type of financial institution that has a significant impact on the development of a country. It promotes business, industrial and commercial development, all of which can strengthen the country's economy. Collecting household savings from different economic sectors is essentially the responsibility of the banking industry. Even the most remote regions of the country are now served by the banking industry, which has significantly fueled the expansion of the national economy. Banks have helped the economy prosper by investing capital in small businesses through extensive financing programs.

A development bank functions akin to a dynamic entity, responding to its socio-economic surroundings. Its success hinges on its adept response to this environment. Kheradjou has entrusted development banks with crucial responsibilities, asserting that they play a pivotal role in addressing socio-economic requirements. Their primary objective is to fulfill the developmental needs of the economy, and their effectiveness is closely tied to the positive economic growth (Kheradjou, 2018). A development bank possesses the capacity to foster entrepreneurial endeavors, involving the creation of investment proposals and the encouragement of others to translate these proposals into tangible realities, spanning from conceptualization to implementation. Essentially, a development bank is well-equipped to assume such a role. However, venturing into business establishment entails numerous potential costs and risks that development banks cannot overlook. To navigate these challenges judiciously, development banks must possess the essential financial strength, technical expertise, and managerial skills required for effective banking activities. According to the author, a development bank serves as an entity responsible for advancing industrial enterprises throughout the entire process, from inception to completion, acknowledging the inherent costs and risks involved in this developmental journey.

Hardward and Upton's (2014) profitability is the likelihood that a given investment can earn a profit from its use. Malik (2016) profit is one of the most important goals of financial management because one of the goals of financial management is to maximize the owner's wealth and profit is a very

important factor determines the performance of the 'business'. Weston & Brigham (2019) state that "for financial management, profit is a test of efficiency and a measure of control, for owners it is a measure of the value of their investment, for Debt is a margin of safety, which for governments is a measure of the value of their investment." A measure of taxability and the basis of legislative action and for the country, profit is an indicator of economic progress, national income generated and rising standards of living", while profit is the profit. The variables used to measure profitability are return on assets (ROA) and return on equity (ROE). ROA and ROE will still be the dependent variables used to evaluate the bank's profitability. ROA measures how effectively companies use their business assets to generate profits. Independent variables include revenue, operating expenses, interest expenses, capital investment, taxes, liquidity, bank capital, bad debt, etc.

The research delves into the dynamic nature of the banking sector and its multifaceted impact on the country's economic landscape. Additionally, the study examines the role of development banks in responding to socio-economic requirements, emphasizing their pivotal position in fostering entrepreneurial endeavors and addressing developmental needs. The profitability aspect is explored, considering it as a key indicator of effective business operation and a measure of financial success. The profit situation of some development banks is related to Muktinath Bikas Bank Limited, Garima Bikas Bank Limited and Mahalaxmi Bikas Bank Limited.

1.2 Problem Statement

Nepal's open and permissive economic approach toward the banking sector has attracted a multitude of private and joint venture banks, fostering intense competition among them. This heightened competition directly impacts the profitability of banks. Various factors pose challenges to the profitability of development banks, including the government's monetary policies, intense inter-bank competition, strikes, and the country's political landscape. The banking industry has become highly intricate, undergoing significant changes that bring both risks and opportunities, directly influencing bank operations. Consequently, the future is anticipated to be more captivating and demanding than the present (Nicolae, 2015). Banking efficiency is crucial for a bank's ability to generate sustainable profits, maintaining its operations, and delivering satisfactory returns to investors. The banking industry, experiencing rapid growth and substantial reforms, has seen gradual success despite persistent challenges. A comprehensive study is imperative to thoroughly assess the performance of Nepal's development banking sector (Jha, 2014). Internal and external factors significantly impact the profitability of development banks.

Financial performance can be defined as the measure of the results of a company's policies and operations in monetary terms. To evaluate the overall financial condition of a company, the income statement and balance sheet are important reports because the income statement reflects the operating efficiency of the company. Company and the balance sheet show the company's net worth. Financial performance can be assessed using the following key metrics, which are important in assessing current financial performance and situation. These are descriptive and analytical measures of financial health and performance (Adam, 2014). Gautam (2018) founded that positive relation of return on asset with capital adequacy ratio of Nepalese development banks. In the competitive business environment, every business organization should be more concerned about factors affecting their financial performance.

According to Bhattrai (2017), the size of a bank significantly influences the profitability of development banks in Nepal, demonstrating a positive impact. The financial sector, closely intertwined with trade and industry, faced substantial challenges. Social security and labor issues resulted in a decline in investment in the manufacturing sector, impacting profitability. Profitability is crucial for a bank's survival in a competitive market, contingent on appropriate and secure investments. The surge in bad assets and debts further negatively affects the profits of development banks. The global financial crisis of 2007-08 had an adverse impact on the profitability of Nepali development banks. Murerwa (2015) identified various factors influencing bank profitability, with both internal and external variables playing pivotal roles. Internal variables, within the control of the bank's management, are influenced by managerial decisions and performance. External variables, on the other hand, result from the broader macroeconomic environment in which the bank operates.

The specific factors influencing the profitability performance of development banks in Nepal include internal aspects that can be managed through timely and appropriate decisions by the management. Drivers, however, are external factors beyond the management's control, requiring adjustments in operations to cope. Internal factors such as capital adequacy, loans to total assets, and deposits to total assets all impact a bank's profitability. Although an in-depth study of the actual factors affecting bank profitability in Nepal is lacking, recent changes and trends in the Nepali banking sector, including liquidity issues, mergers and acquisitions, and diminishing foreign exchange reserves, have adversely affected the profitability of development banks. The ongoing Covid-19 pandemic has further impacted the business environment and Nepal's economy. There is a significant influx of money into the market, but projects are less viable and there is less investment. In the current situation, there is a difference between deposit funds and investment funds of banks. Therefore, introducing a new bank is more about sharing the cake than injecting capital or new technology as the Nepali market seems almost protected. Very few growth banks consistently generate profits, pleasing their shareholders and providing them with satisfactory returns. This has

attracted potential customers to deposit money in banks because there are very few areas where profitable investments can be made and investors are still not ready to accept risks. They don't start investing in other areas. Although Development banks are making satisfactory profit; they have low volume loans, advances in relation to deposit. They are found to be poor deposit mobilization; they are not able to utilize the funds in efficient way in income generating purpose. The poor liquidity position is another evil of the Development banks. This study aims to find out the areas of difference between the selected banks in terms of deposit collection, resource mobilization, liquidity and others which are listed in the following research questions:

i. What is the profitability position of the sample development banks in Nepal?

ii. What is the relationship between factors of profitability and their relationship with return of assets (ROA) of development banks in Nepal?

iii. What is the impact of profitability factors on ROA of development banks in Nepal?

1.3 Objectives of study

The specific objective of this study is based on above statement of problems and research questions

1. To assess and analyze the profitability position of the selected sample development banks in Nepal.
2. ii. To examine the relationship between various factors influencing profitability and their correlation with the return on assets (ROA) of development banks in Nepal.
3. iii. To investigate and determine the impact of factors affecting profitability on the return on assets (ROA) of development banks in Nepal.

1.4 Rationale of the study

This study is based on the profitability of developed banks compared to MNBBL, GBBL, JBBL, KSBBL and MBBL; it evaluates the profitability ratio of banks using various tools that can form a guide for future researchers of listed banks. Many factors related to profitability are evaluated in this study, helping to point out the main causes of profitability. This research has academic and practical significance. The results are also useful for those associated with these banks, including management, shareholders, the public (depositors, potential customers, investors) and policymakers.

Profit can be defined as the ability of a given investment to earn a profit from its use. Profitability is a variable factor such as temperature and humidity during the day. An accountant and/or analyst's definition of profitability may even involve a meteorologist's temperature reading and humidity study. A day's wealth is recorded so that the outlook can be predicted. To a large extent, profitability

is considered one of the main criteria for assessing the success of management in maximizing profits or minimizing losses, as the case may be. This study is mainly important for shareholders, depositors and other creditors in determining the efficiency of their capital utilization. It makes it possible to monitor various issues related to the profitability of banks. Each individual as well as other researchers will have good reference sources for this research results. This research is especially important for long-term investors who want to invest for the long term in Muktinath Bikas Bank Limited, Garima Bikas Bank Ltd, Mahalaxmi Bikas Bank Limited, Jyoti Bikas Bank Limited and Kamana Sewa Bikas Bank.

1.5 Limitations of the study

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 2012/13 to 2021/22 for the purpose of analysis of profitability position.

i. This study has concentrated only in the profitability measurement of MNBBL, GBBL, JBBL, KSBBL and MBBL among Development banks of Nepal.
ii. Among the profitability indicators of banks, this study has taken only Return of Assets to measure the profitability.
iii. This study is not applicable to all banks since it is concerned to development five banks.
iv. The data is used from the secondary sources because of accessibility, cost effectiveness, historical perspectives, large sample size and comparative analysis.

CHAPTER II
LITERATURE REVIEW

2.1 Introduction

Development banks are the banking sector component of Nepal's financial sector. The role and importance of development banks is much greater. It is an institution that accepts deposits, offers business loans, and provides related services. Developed banks also allow many types of deposit accounts, such as checking accounts, savings accounts, and term accounts. These institutions are for-profit and owned by a group of individuals, although some may be members of the Federal Reserve. While development banks provide services to individuals, they are primarily concerned with accepting deposits and lending to businesses. Development banks are a type of financial intermediary and a type of bank. Development banks are also known as business banking.

Profit is the main measure of any business. Profit is the financial benefit realized when the amount of revenue earned from a business exceeds the costs, expenses, and taxes necessary to maintain the business. Any profits earned belong to the business owner, who can decide whether or not to spend on the business. The term “profitability” refers to a company's ability to generate profits.

Development banks are “B” financial institutions. On the basis of geographical scope and level of operations, development banks are of three types: a) 1 to 3 districts, b) 4 to 10 districts and c) national. As per NRB regulations, the new paid-up capital requirement for these development banks is NRs 500 million, NRs 1.2 billion and NRs 2.5 billion respectively, up from NRs 100 million, NRs 200 million and NRs 640 million respectively. Currently there are 17 development banks in Nepal.

The term “profitability” is made up of two words “profit” and “capacity”. There are two main concepts related to the word profit: economics and accounting. According to Adam Smith, the father of economics, "Profit is the money left over after paying all wages in the economy, including

payments to corporate officers, owners, partners, and farmers." people as well as what we call today work and rent. on the unimproved value of land, such as return on capital. According to the mathematics of book capital, “book” profit The bottom line of such companies consists of two elements, the profit representing the economic rent on the land value and the return on capital. However, we do not even have the slightest idea about the proportion of profits The “accounting” profit that each of these economic factors represents. For this reason, it is a confusing reality that “accounting” or “entrepreneurial” profits are not “economic” profits. Accounting profit is a mathematical balance, the result of successively subtracting many different cost items from total income. Profit is the surplus remaining after deducting total expenses from total income and is the basis for calculating taxes and paying dividends. This is the most famous measure of business success.

Bank profitability can be affected by certain factors grouped into internal and external factors. Some of these factors may have a positive impact on a bank's profits while others may have a negative impact. Internal factors are those that bank managers can control; They are also influenced by the policies and decisions of the bank management. So, they basically reflect differences regarding the policies and decisions of the bank management regarding capital utilization, capital, liquidity and cost management. Therefore, the impact of internal factors on bank profitability can be analyzed by examining the balance sheet and income statement of the respective development bank (Rama & Tekeste, 2012).

2.2Theoretical Review

The main objective of development banks is to manage liquidity by maintaining the good health of the financial system. There are many different measurement criteria for banks to control risks caused by unmanaged liquidity (Shipho, 2017). However, banks have many ways to manage liquidity risk. Theories of effective liquidity management have been integrated so that organizations can standardize their performance (Khokhar, 2015). Liquidity management theories help prevent problems related to lack of liquidity and also monitor liquid assets with prudential measures. The theoretical examination of bank profitability often involves examining various theoretical and conceptual frameworks involved in understanding and explaining bank profitability. Below are some theoretical aspects commonly considered in the literature.

2.2.1 Traditional Banking Theories

Traditional banking theories, such as the structure-conduct-performance (SCP)paradigm, focus on how market structure affect the bank behavior and performance. This theory suggests that a higher level of competition in the banking sector leads to decreased profit due to reduced market power

and pricing abilities. Conversely, in less competitive market, banks may enjoy higher profit margin. Adam Smith Often regarded as the father of modern economics, Smith's work, particularly in "The Wealth of Nations" (1776), laid the foundation for classical economic thought. His emphasis on the invisible hand and the role of self-interest in economic activities influenced early theories of banking. Alfred Marshall: Marshall's work, especially "Principles of Economics" (1890), contributed to neoclassical economics. His ideas on supply and demand, utility, and marginal analysis influenced the understanding of banking within the broader economic context. John Maynard Keynes: Keynes' "The General Theory of Employment, Interest, and Money" (1936) revolutionized economic thought during the 20th century. Keynesian economics emphasized the role of government intervention in managing economic cycles, including through monetary policy and central banking.

2.2.2 Efficiency Theories

Efficiency theories, such as the efficient market hypothesis (EMH) and the resource-based view (RBV), analyze the impact of operational efficiency on bank profitability. EMH suggest the banks superior information processing and operational efficiencies will outperform less efficient banks. RAV emphasizes that banks, strategic allocation of resources, capabilities, and unique assets (such as technology, human capital, or customer relationships) play a crucial role in influencing profitability.

2.2.3. Risk Management Theories

Various theories address the relationship between risk management and bank profitability. For example, the Risk-Return Tradeoff theory suggests that banks achieving higher return must undertake higher risks. (Some as the Agency Theory, examine the alignment of interests between bank stakeholders, managers, and depositors) to ensure prudent risk-taking and profitability.

2.2.4 Market Power Theories

Market power theories explore the influence of a banks market share and market dominance on profitability**.** The Structure-Conduct-Performance (SCP) paradigm mentioned earlier falls under this category. Other theories, such as the, market power hypothesis and the market share stability hypothesis, explore the positive relationship between market poer and bank profitability.

2.2.5 Macroeconomics Theories

Macroeconomics factors, such as interest rates, inflation, GDP growth, and monetary policy, can significantly impact bank profitability. The Monetary Policy Transmission Theory focuses on the relationship- between central bank polices, interest rates, and bank profitability. Economics theories

like the business cycle theory explore how the macroeconomics environment affects credit demand, loan quality, and ultimately, bank profitability. Theses theoretical perspectives are the combined and applied in empirical studies to gain insights into the profitability position of banks. It is important to note that the actual profitability of banks is influenced by a wide range of factors, both internal and external, and vary across different banking systems, regions, and time periods. John Maynard Keynes: As mentioned earlier, Keynes' "The General Theory of Employment, Interest, and Money" (1936) revolutionized macroeconomic thought. His work emphasized the importance of aggregate demand and the role of government in managing economic fluctuations. Post-Keynesian economics extends Keynesian ideas and explores issues such as income distribution, growth, and financial instability.

2.3. Empirical Review

Reviewing previous studies helps the researcher to carry out the research work satisfactorily. The main reason for this review is to use the same concept that was studied by the previous researcher in a new way. Many journals, theses, radical articles and similar articles on similar topics will be considered to make this research fruitful. The literature review provided guidelines for this study.

2.3.1. Review of journal and articles

Sudha (2022) analyzed the comparative examination of deposit mobilization among commercial banks was conducted. The mobilization of deposits stands as a crucial facet of banking operations, with the banking industry in India now considering the mobilization of savings through diverse deposit schemes as its primary task. The primary function of commercial banks is the acceptance of deposits, making deposit mobilization a fundamental innovation in contemporary Indian banking. The investigation encompasses three types of deposits: demand deposits, savings deposits, and term deposits. The data on total deposits mobilized by AXIS LTD and CUB LTD companies in India from 2011-2012 to 2020-2021 was gathered from the official websites of the respective banks. Descriptive statistics, including mean, standard deviation, coefficient of variance, and compound annual growth rate (CAGR), were computed to analyze the time series data. The findings indicate a noteworthy growth in the mobilization of all types of deposits for both AXIS LTD and CUB LTD in India over the specified period.

Singh (2021) examined the effect of branch expansion factors, including government policy, population growth, branch location, and branch office rent, on deposit mobilization within the context of Development Banks. The research employed a descriptive and explanatory research design, utilizing a quantitative research method due to constraints such as limited time, cost, and the need to enhance data reliability, minimize judgment bias, and validate the study. The study focused

on Bank employees in Bahir Dar district, employing purposive sampling to select branches and head offices. Primary data was collected through a structured questionnaire survey involving 283 bank service employees in various positions. Descriptive, correlational, and regression analyses were conducted using the Statistical Package for the Social Sciences (SPSS.20). Results revealed that government policy emerged as the most significant factor influencing the deposit mobilization of development banks, followed by population growth, geographical location, and branch rent. Branch points occupied the fourth position. The relationship between these independent variables and the dependent variable was found to be significant, indicating a close connection between bank deposit growth and branch expansion. However, the study's scope, limited to specific banks in Bahir Dar district, may constrain the generalizability of the results to the entire banking industry in the country. As a recommendation, the researcher suggests further studies encompassing diverse branches, districts, and banks across Ethiopia, examining various geographical areas and service sectors to corroborate or refine the study's conclusions.

Kukaj et. al (2020) examined the financial performance of domestic and foreign banks, in the banking sector of Kosovo over the period 2008-2018. To evaluate the financial performance of Kosovo banks, both domestic and foreign, we analyzed the financial evaluation of these banks for 10 years (2008-2018) and then wrote financial reports. Design/Methodology/Approach: To answer the research question of whether foreign-owned banks in Kosovo are more profitable than domestically-owned banks, we first review the literature to find out whether What different authors have found in recent research in this area as well as the methods and models used in data collection, processing and analysis. Data processing of the above reports is performed using STATA software, including linear regression methods, fixed effects, random effects, Hausman Taylor regression and GMM models. The main conclusions are based on the experimental results of this study; We conclude that all independent variables (return on equity, net sales/net assets ratio, profit margin ratio) are statistically significant at statistical confidence level 5 %. Return on equity and profit margin have a positive impact on increasing the return on assets of commercial banks in Kosovo, while increasing the ratio of net sales to assets net has a negative impact on return on assets. Practical significance: This article will provide a detailed analysis of the profitability of commercial banks in Kosovo and, through comparative analysis, determine which bank is more profitable, the foreign-owned bank or the have domestic capital.

Shrestha (2021) analyzed the portfolio behavior of commercial banks in Nepal has made remarkable efforts to examine various portfolio behavior of commercial bank in Nepal such as investment portfolio, liability portfolio, assets portfolio etc. According to her, commercial bank investments are analyzed individually; Nepalese domestic banks are observed investing in government securities, national savings bonds, corporate bonds and stocks. Based on this study, it appears that the supply

of bank credit should depend on total deposits, lending rates, discount rates, lagged variables, and dummy variables.

Shrestha & Jha (2020) analyzed the profitability position of commercial banks in Nepal. LADR, NRBTDR, LACL, CATAR and CHTDR are the independent variable and ROA and ROE are the dependent variables are used in this review. Regression model was used to present data. According to the study's findings, ROA and ROE are significantly impacted by LADR. While NRBTDR/CRR has a positive impact on two sample banks and a negative impact on NBB's ROE, its impact on ROA of all sample banks is weakly significant. While CACL has no discernible effect on ROA in NBB, it has a major impact on ROA in HBL and EBL. Furthermore, ROE at each of the three banks is significantly impacted by CACL. While NBB has a weakly significant impact on both the profitability index, CHTDR significantly affects the ROA and ROE of HBL and EBL. Significant effects of CATA are seen in ROA in HBL, EBL, and NBB. In a similar vein, CATA significantly affects ROE while having a negligible positive impact on EBL.

Timilsina (2020) investigated the managing investment portfolio. However, we face challenges in managing our investment portfolio, especially during economic downturns like ours. A rational investor wants to diversify his investments across different asset classes to minimize risk and earn a reasonable rate of return. Commercial banks continue to reduce deposit interest rates. Many depositors face increasing risks of not being able to repay their deposits. Many depositors are at increasing risk of not being able to repay their deposits due to the mismanagement of some banks and financial institutions as well as the accumulation of huge bad assets in the country. Very few depositors of cooperative societies lost their deposits as some of these cooperatives closed down due to public deposit repayment obligations. During times of crisis, investors must strive to minimize risk and at least earn a reasonable rate of return on their total investment. Investing in stocks can generate dividend income as well as capital gains in the form of bonus shares and rights shares until the investor retains the capital gain and thus sells it on the stock market. Because stock investment returns fluctuate within a very wide range, it is difficult for investors to balance risk and return in their stock portfolio. In fact, equity investors should invest for a reasonable length of time to manage risk.

KABA (2019) analyzed the study with the main objective to determine the effect of advertising and publicity, effect of bank branch, effect of exchange rate, inflation, loan and advances, money supply and nominal gross domestic product on CB’s deposit growth. Secondary data is used for analysis. Ratio scales are used to measure independent and dependent variables. The research results show that no assumptions of CLRM are violated. The regression results show that changes in branches, exchange rates, loans and advances and nominal GDP have a positive and statistically significant impact on bank deposit growth and that advertising has a positive and statistically significant impact on bank deposit growth. positive but not statistically significant impact on bank deposit growth. On

the other hand, the average annual inflation rate and changes in money supply have a negative but statistically significant impact on bank deposit growth.

Agarwal (2019) examined the Profitability of Indian Public and Private Sector Banks: Comparative Study Profitability is the main objective of any business enterprise. The financial health of any business can be measured by its profits, and business organizations cannot survive without profits. Considering the significance of improving profitability of the banking sector in recent years, this study aims to examine the profitability of Indian public and private sector banks by uses four ratios: return on assets, return on equity, net interest margin, and operating margin. profit. The results of the analysis conducted for the period 2005-2017 show that private sector banks have better profits than public sector banks. Public sector banks with increasing amounts of non-performing assets have in recent years suffered negative returns on assets, denting their profits.

Adhikari (2019) assess the evaluating the financial performance of Nepal Bank Ltd. The study's findings indicate that the bank's investment portfolio has not been efficiently managed to maximize returns, and the operational efficiency, as evidenced by operational losses, is deemed unsatisfactory. The study recommends that the bank enhance the efficiency of its investment portfolio. Furthermore, it suggests that the bank should strive to mobilize its resources effectively by generating new business and service ideas. This approach is expected to contribute to the optimal utilization of idle resources and foster the economic development of the country. The study primarily focuses on the utilization and mobilization of funds and resources within Nepal Bank Ltd. Specifically, it emphasizes the deposit collection, as well as the disbursement of funds in the form of loans and advances. As such, the key areas of investigation encompass the uses and sources of funds, as well as the trends in income and expenses within the bank.

Pangani (2018) determine the comparative study on profitability analysis of Rastriya Banijay Bank and Nepal Bank Ltd. It compares and evaluates the profitability and financial performance of Rastriya Banijay Bank and Nepal Bank Ltd. It analyzes income and expenses. It analyzes trends in a bank's costs and profits. It offers suggestions and recommendations to improve the overall profitability of banks and provides insights to stakeholders. We can conclude that RBB's net profit margin, return on total assets and net operating profit margin are relatively better than NBL. This also demonstrates that on average, RBB's profitability position was better than NBL's during the study period. RBB's return on equity and return on capital employed are higher than NBL. This shows RBB's strength in mobilizing equity capital to generate profits. RBB's performance is better than NBL. It shows NBL's inability to generate operating profits. This ratio shows that NBL has a high operating efficiency coefficient compared to RBB, which indicates the poor operating efficiency of NBL.

Pradhan (2018) examined the study on investment policy of NBL has tried to find out to what mainly has been able to utilized mobilized deposits. The research primarily relied on secondary data and

employed various statistical tools, including correlation coefficient to assess the relationship between deposits and loans and advances, as well as ratio analysis to compare factors such as loans, advances, deposits, liquidity status, and profitability conditions of the bank. However, a significant surge in deposits results in only a marginal increase in loans and advances. The study also reveals that only 2.98% of funds were invested in the priority sector in 2034 B.S., signifying a challenge in resource mobilization for the bank. The author recommends that banks should focus more on investing in the agricultural sector and emphasizes the importance of clear lending policies. Additionally, the author suggests that banks should consider investing in riskier areas to boost profits, explore increasing deposit interest rates, and reduce loans and advances.

Kapadi (2017) examined the comparative study on the performance of NABIL Bank Ltd and Standard Chartered Bank Limited using a descriptive analysis method. The primary aim was to analyze the financial performance of both banks, encompassing assessments of liquidity, operating capital structure, and profitability ratios. The study delved into the development of deposits, loans, and advances for NABIL and SCBNL banks, evaluating aspects such as liquidity, profitability, capital structure performance, and capital adequacy. The research suggested measures and recommendations based on the financial performance findings of NABIL and SCBNL banks. The total debt-to-equity ratio indicated that foreign claims exceeded owners' claims on bank assets for both banks, with NABIL bank appearing to be more indebted than SCBNL. The ratio of total debt to total assets consistently exceeded 88 for both banks, suggesting an overly-oriented capital structure. NABIL bank utilized slightly more financial debt than SCBNL. The long-term debt to total assets ratio for NABIL Bank was higher than average, indicating a greater reliance on long-term debt compared to SCBNL. The long-term debt to net worth ratio fluctuated for both banks. The proportion of foreign capital and equity in the total capitalization of NABIL Bank exceeded that of SCBNL, indicating a more aggressive strategy with a higher risk and return policy. NABIL bank's fixed assets to net worth ratio was higher on average than SCBNL, but both banks showed minimal equity investment in fixed assets, a common trend in various financial institutions.

Lama (2017) analyzed the profitability of Nabil Bank Ltd. with comparison to other J/V Banks. The study scrutinized the overall profitability of the J/V banking industry, focusing on a specific sample bank. It evaluated the historical growth in profitability for both Nabil Bank and the broader joint venture banking sector over the preceding five years. Additionally, the research confirmed the relative profit position of Nabil Bank when compared to other joint venture banks. Among the banks analyzed, Nabil Bank secured the second-highest net profit and earnings per share (EPS), trailing behind SCBNL. HBL, EBL, and NSBI followed in the respective order. SCBNL exhibited the most favorable profitability ratio. Nabil Bank demonstrated effective asset utilization for income generation, successfully mobilizing total deposits with a moderate credit quality. Considering

overall efficiency in asset mobilization, profitability ratios, loan quality, and market performance, Nabil Bank claimed the second position, with SCBNL securing the top position among other joint venture banks. Notably, Nabil Bank not only performed well above industry standards but also outperformed all companies operating in the joint venture banking sector in Nepal. The results showed that Nabil Bank has consistently demonstrated a high potential for revenue generation in the past and present, surpassing industry benchmarks and outperforming other joint venture banks in various profitability indicators within the country.

Gautam (2016) analyzed the comparative study on financial performance of Standard Chartered Bank Limited and Nepal Bangladesh Bank Limited, focusing on their current capital structure and financial conditions. The study aimed to assess the impact of these factors on profitability and debt service in joint venture development banks. To achieve these objectives, Gautam employed various financial, statistical, and accounting tools. Specifically, Nepal Bangladesh Bank Limited (NBBL) held an average price-to-earnings (P/E) ratio of 6.27 times, suggesting an anticipated decline. Additionally, NBBL exhibited an average financial leverage of 3.73 times, signifying a higher level of financial risk. Moreover, the Return on Equity (ROE) for joint venture banks, such as Standard Chartered Bank Limited (SCBL) and NBBL, averaged 37.36% and 2.75%, respectively. The research findings revealed that the sampled joint venture enterprises utilized high debt ratios to mobilize assets, where a higher ratio indicated that foreign claims on the bank's total assets exceeded the owner's claim.

Nicolae (2015) examined the determinants of banks' profitability, focusing on evidence from the banking systems of the European Union (EU27) during the period 2004-2011. The research aimed to identify and analyze the primary factors influencing banks' profitability, categorizing them into two main groups: bank-specific (internal) factors and industry-specific and macroeconomic (external) factors. The empirical findings aligned with the anticipated outcomes, revealing that factors such as credit and liquidity risk, management efficiency, business diversification, market concentration/competition, and economic growth significantly impact bank profitability, both in terms of Return on Assets (ROA) and Return on Equity (ROE). Notably, a noteworthy and valuable result highlighted in the study is the positive influence of competition on bank profitability within the EU27.

Kukaj (2014) examined the comparative study of domestic and foreign banks in Kosovo, the purpose of this study is to compare the financial performance of domestic and foreign banks in the banking sector of Kosovo over the period 2008-2018. To evaluate the financial performance of Kosovo banks, both domestic and foreign, we analyzed the financial evaluation of the banks for 10 years (2008-2018) and then wrote financial reports. Design/Methodology/Approach: To answer the research question of whether foreign-owned banks in Kosovo are more profitable than domestically-owned banks, we first review the literature to find out whether What different authors have found

in recent research in this field as well as the methods and models used in data collection, processing and analysis. Data processing of the above reports is performed using STATA software, including linear regression methods, fixed effects, random effects, Hausman Taylor regression and GMM models. The main conclusions are based on the experimental results of this study; Study conclude that all independent variables (return on equity, net sales/net assets ratio, profit margin ratio) are statistically significant at statistical confidence level 5 %. Return on equity and profit margin have a positive impact on increasing the return on assets of development banks in Kosovo, while increasing the ratio of net sales to assets net has a negative impact on return on assets. Practical significance. This article will provide a detailed analysis of the profitability of development banks in Kosovo and, through comparative analysis, determine which bank is more profitable, the foreign-owned bank or the have domestic capital.

Dahal (2014) made on comparative study of the profitability analysis and evaluates profits and financial situation. It evaluates the impact of deposits on profits. It evaluates the impact of loans and advances on profits. It analyzes trends in a bank's revenue and expenses, costs and profits. It offers practical suggestions, recommendations and ideas to enhance competitiveness and strength. HBL's liquidity situation is relatively not better than NSBI Bank. It has the lowest overall liquidity, cash and bank balance to total deposit ratio. HBL bank's liquidity indicators show that Himalayan bank's stabilization policy has not created enough liquidity and bank balance, while NSBI bank has poor deposit collection ability compared to HBL. NSBI bank's profitability is relatively not better than HBL. The bank is moderately positioned in aggregate compared to other banks through trend analysis which shows better deposit collection status, loan status, investment status and net profit position of HBL compared to NSBI Bank, except in the case of EPS. Because the EPS trend value of HBL bank is decreasing.

Xuezhi et.al (2012) assess the commercial banks profitability position focuses on assessing commercial banks' profitability by utilizing metrics such as return on average assets, net interest income relative to average assets, and non-interest expenses compared to average assets. The study relies on a secondary panel dataset spanning ten years, featuring National Commercial Bank, CRDB, and National Microfinance Bank of Tanzania. To explore potential differences in profitability, an ANOVA test is employed. Following this, a regression model is applied to examine the impact of capital adequacy, liquidity, and asset quality on development banks' profitability. The findings indicate no significant differences in profits among development banks. In the context of the regression model, it should be noted that liquidity and asset quality have a positive impact on profitability, except for the level of bad debt which has a negative impact on profitability. Profitability. Additionally, capital adequacy has a negative impact on profitability. The study confirms that the profits of development banks are stable and meet the regulatory requirements of the Bank of Tanzania (BOT).

Bank assets are another bank-specific variable that affects bank profitability. Bank assets include liquid assets, credit portfolios, fixed assets and other investments. The quality of the loan portfolio determines the bank's profitability. Loan portfolio quality has a direct impact on bank profits. The highest risk that banks face is loss due to default. Bad debt ratio is the best indicator of asset quality. This ratio reflects the bank's ability to maintain risk in repaying customer loans. After granting credit, the bank must monitor the use of credit as well as the debtor's ability and compliance in fulfilling his obligations, because if the debtor does not pay, it will reduce the bank's profits.

Table 1

Summary of review of articles

Author	Title	Objective	Method Ology	Findings
Osuma Godswill, Ikpefan Aileman, Romanus Osabohien, Ndigwe Chiisomand Nkwodimmah Pascal (2018)	Working Capital management andbank performance: empirical research of ten deposit money banks in Nigeria	To examine how the profitability of banks can be enhanced through the working capital management	Panel fixed effect, Panel random effect and the pooled OLS for thetwo model	Working capital management has significant effect on the profitability of selected banks and the ROA is better measureof bank profitability.

Hoang Lan Le, KieuTrang Vu,ThiBich Ngoc Le, Ngoc Khanh DUand Manh Dung Tran(2018)	Impact of working capital management onfinancial performance s: the case of Vietnam	To investigate theimpact of workingcapital management on financial performance	Correlati on analysis Regressi on analysis	Working capital management positively impacts the financial performance of firmsin the sample.
Puspa Raj Ojha(2019)	Working capital management andits impact on profitability of Pukar International Co. Ltd	To" report the results of an investigation of therelative importanceof working capital management"	Pearson' s correlati onand descripti ve analysis	Positive correlation "between profitability and current ratio. Moreover, the current ratio and firms size has significant effect on firm's profitability".
E. Louw, John H. Hall and RudraP.Pradh an(2019)	The relationship between working capital management and profitability: Evidence from South Africa n Retail an dConstruction firms.	To examine "the long- run relationship between working capital management and profitability of South African firms in the retail and construction industries over theperiod 2004-2015".	Cointegrat ion technique, Granger casually test	"Long run relationship betweenworking capital management and the profitability of a firm in most of the cases. Presence of both unidirectional and bidirectional causality between working capital management and profitabilitywas found. Working capital managementhas a greater impact on the profitability of retail firms than construction firms".
Pitri Raj Adhikari (2020)	Working capital management andcorporate profitability: Empirical	To fill the gap regarding the working capital management of manufacturing	Pearson's correlatio n, ordinary least square regression	Inventory conversion period,payable deferral period and cash conversion cycle are inversely related with the profitability of manufacturing

	Evidence fro mNepalese ManufacturingSector	firms in context of Nepal by providing empirical evidence	and binary logistic regression	firms, whereas receivable conversion period, debt ratio and current ratio are positivelyrelated
Thiago Alvarez,Luca Sensini, Maria Vazquez (2020)	Working capital management and profitability: evidence from anemergent economy.	Impact of working capital management on theprofitability of Argentine manufacturing Firms	Fixed effect regression model	"Positive and statistically significant relationship between all the components ofworking capital and profitability". Leverage has shown a statistically negative relationship to profitability.
U Rohini, k Malarkodi andDr. P Vanitha (2020)	Working capital management anditsimpact on financial performance	To maximize the productivity and profit in employment of capital To enhance the efficiency of working capital or profitability.	Ratio analysis, working capital turnover and account receivable	The ratio analysis of the company is not satisfactory.
Himanshu Seth, Saurabh Chadha, Namita Ruparel, Puneet Kumar Arora and Satyendra Kumar Sharma (2020)	Working capital management efficiency of Indian manufacturing exporters	To empirically investigate the relationship between working capital management efficiency and exogenous variables of the Indian manufacturing sector along with its sub-industries that re involved in export activities	Panel regression(fixed effects)	Significant relation of leverage, net fixed asset ratio, profitability, asset turnover ratio, total asset growth rate and productivity with cash conversion cycle.

Abdul and Parameshwara (2022)	"Relationship between working capital management and profitability of Indian automobile manufacturers"	"To measure the extent of relationship between working capital management and profitability. To suggest thathaving more working capital will make automobile manufacturing companies more profitable."	Multiple backwardstep regression	Cash and "other current assets had a negative influence on profitability in Hyundai MotorIndia Ltd., but inventories hada positive impact on profitability in Force Motors. The impact of current liabilities on the current asset turnover ratio was favorable at Toyota Kirloskar Motor Pvt. Ltd."
Maad. Q.Aldubhani, Jitian Wang, Tingting Gongand Ramzi Ali Maudhan (2022)	Impact of working capital management on profitability: evidence from listed companiesin Qatar	To find out the effect of working capital management policies on profitability of manufacturing companies	Multiple regression analysis	"Companies with shorter receivables collection period and cash conversion cycles are more profitable. Longer inventory turnover periods and account payable payment periods are related to higher profitability of firms".
Bhadrappa	Working capital	To find out and	Assessing	The company has to maintain

Haralay ya (2022)	management i nHyundai Showroom Bidar	calculate the overall working capital management in selected four-Wheeler Companyand to analyze and evaluate the financial performance of selected compani es.	running capital, consideri ng working cycles	more current assets than current liabilities to have a better working capital. Thestock turnover ratio is exceptionally high which indicates higher risk out of stock position. Similarly the company should maintain working management controls in place.
Ademiju (2022)	“Working capital 'management andfinancial performance o flisted commercial banks in Nigeria”	To examine” the effect of working capital management and financial performance of listed commercial banks in Nigeria”	Descriptiv e analysis, correlatio n analysis and regression analysis	“Receivable turnover, payable turnover and inventory turnover had positive effects on financial performance of deposit money banks listed at NSE. Cash conversion cycle has an insignificant and inverse relationship on financial performance of deposit money banks listed at NSE”.
Sabina Tamang (2015)	Working Capital Management of Nepal Bank Limited	To analyze the current assets and current liabilities of NBL To evaluate the liquidity position. To assess the effect of working capital on profitability of bank.	Ratio analysis correlati on	The working capital of bank isin increasing trend. The bank has enough liquidityto remain solvent. The cash and bank balance todeposit ratio is fluctuating

Saroj Khanal (2017)	A study on working capital management ofJanata Bank Limited	To study and evaluate the size and structure of working capital, to assess the utilization of working capital ofsample banks, to analyze the financing of working capital bythe banks and to examine the relationship between working capital and profitability	Ratio analysis, standard deviation, coefficien t of variation, coefficien t of correlatio n, t-statistics	The "level of current assets is satisfactory. The amount of net working capital of JBNL is increasing" over the review period. It has positive net working capital. The current ratio and net working capitalto total assets ratio is fluctuating.
Sashi Shrestha (2017)	A case study onworking capital management ofEverest Bank Limited	To" analyze the current assets and liabilities of the bank, to examine the effect of working capital onprofitability "of the bank and to	Ratio analysis and correlatio n	The net working capital is fluctuating. The current ratiois also fluctuating but is satisfactory. The cash and bank balance to current asset ratio is also fluctuating.

		evaluate the liquidity positionof the bank		
Oshina Rawal (2021)	Working capital management and profitability: A study on Nepal Telecom	To analyze the liquidity position ,to analyze the working capital position and to analyze the relationship between working capital and profitability	Correlation coefficient technique and regression analysis	There is low degree of positive correlation betweenROA and Working Capital Turnover Ratio. There is low degree of negative correlation betweencurrent ratio and ROA.

2.4. Research Gap

Many researchers have studied the profitability of development banks in Nepal from a comparative perspective, but none of them looked at public, private or joint venture banks. Instead, they only analyze revenue, costs, and the impact of bad debt on profitability. Previous studies mainly focused on various costs, such as currency costs, deposits, borrowing costs, and operating, administrative and non-administrative costs. The relationship between loans, advances and total deposits was a mystery to the previous researcher. The research on this topic is very limited in the Nepali context. This study aims to fill the gap of previous research on profitability analysis of these three banks by mainly focusing on selected development banks established at different times. Only ten years of data were included in this study, which may have led to inaccurate results. Different ratios and trend analysis were used in this study to evaluate the profitability of the three banks. To determine the risk and relationship between loans, advances and deposits with a particular development bank, statistical methods such as averaging and correlation are also used.

Therefore, both from an academic and policy perspective, this research has proven to benefit all interested parties, individuals, scholars, professors, students and entrepreneurs. I hope this research will be useful to others on a related topic in the future.

CHAPTER III
RESEARCH METHODOLOGY

3.1. Research design

To achieve the objective of this study, descriptive as well as causal and 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 profitability position of MNBBL, GBBL, MBBL, KSBBL and JBBL.

3.2. Population and sample

The total population of this study is comprised of 17 Development banks of Nepal (NRB, 2022), which are currently in earning high profit. Due to this, the research has taken these 5 banks taken as a sample. 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

The study basically focuses on the secondary data. The secondary data are taken from annual report, auditor's reports, balance sheet, profit and loss account, respective website, unpublished / published thesis, financial performance of banks, newspaper, journal, magazines etc.

This research is based on various data which are published by banks, their financial

performance reports, articles, journals, references, annual reports and respective websites will be considered for the needed observation. Supplementary information is collected from different institution and authorities like NRB, Nepal stock exchange and Ministry of finance. Similarly, diverse data and information are gathered for required observations from economic journals, periodicals, bulletins, magazines, and a range of published and unpublished reports and documents from multiple sources.

3.4. Data processing procedure

Firstly, data were extracted from the annual reports of the bank and put them in a sheet. Then data were entered into the spreadsheet to work out the financial ratios and prepare necessary figures, according to the need and requirement of this study. For this purpose, gathered data have been processed using computer programs like Microsoft Excel, Microsoft Word.

3.5. Method 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.

3.6.1. Financial tools

A potent and widely utilized financial analysis tool is ratio analysis. Ratios can be computed for any two elements within financial statements, representing the mathematical relationship between them. In financial terms, a ratio denotes the numerical or quantitative connection between two variables. Ratios play a crucial role in condensing extensive financial data, facilitating qualitative assessments, and are considered a paramount indicator for assessing business performance. Numerous ratios exist for scrutinizing and interpreting the financial performance of an enterprise or firm. However, for our specific objective, only pertinent and significant ratios are examined. Some of the important ratios for evaluating the company's performance are:

Profitability ratio

For a company to endure and prosper in the long term, it is imperative to generate profits. Earning an ample profit is essential not only to sustain business operations but also to attract investment for expansion. Moreover, profitability is instrumental in meeting social responsibilities by contributing to the welfare of society. Profitability ratios are employed to gauge the operational effectiveness of the company. Profitability ratios are the highlight of the business activity so any business organization should maximize their profitability performance. To meet the objective of the study, following calculation are done regarding profitability performance:

Total interest earned to total outside assets ratio = $\frac{\text{Total Outside Assets}}{\text{Net Profit}}$

Return on risky assets = $\frac{\text{Net Profit}}{\text{Total Risky Assets}}$

Return on shareholder's ratio = $\frac{\text{Net Profit}}{\text{Shareholder's Fund}}$

Return on Total Assets Ratio = $\frac{\text{Net Profit}}{\text{Total Assets}}$

Liquidity ratio

Liquidity ratios are employed to assess a company's capacity to fulfill short-term obligations, representing a comparison between these obligations and the available short-term resources. These ratios are computed to evaluate banks' capability to address their short-term commitments, particularly those expected to mature within a brief period. The study utilizes various ratios to ascertain the liquidity positions of the three listed Development banks.

Cash and Bank Balance (excluding money at call) to current Deposit Ratio

$= \frac{\text{Cash and Bank Balance(exc M/C)}}{\text{Total Current Deposits}}$

Cash and Bank Balance (including money at call) to current Deposit Ratio

$= \frac{\text{Cash and Bank Balance(inc M/C)}}{\text{Total Current Deposits(exc fixed deposit)}}$

Cash and Bank Balance (including money at call) to Total Deposit Ratio

$= \frac{\text{Cash and Bank Balance(inc M/C)}}{\text{Total Deposits}}$

Fixed Deposit to Total Deposit = $\frac{\text{Fixed Deposits}}{\text{Total Deposits}}$

Saving Deposit to Total Deposit = $\frac{\text{Saving Deposits}}{\text{Total Deposits}}$

NRB Balance to Total Deposit = $\frac{\text{NRB Balance}}{\text{Total Deposits}}$

Turnover ratios (activity ratios /utilization ratios)

Turnover ratios, also referred to as utilization ratios or activity ratios, serve as metrics to assess how efficiently a firm manages and utilizes its assets. These ratios gauge the effectiveness of the firm in leveraging its investments and economic resources. The primary purpose of investments is to generate profitable sales, and in the case of banks, they produce and sell loans, advances, and other financial innovations. A high turnover ratio signifies effective managerial resource utilization, indicating a sound profitability position for the bank. Conversely, a low ratio suggests inadequate resource utilization. However, an excessively high ratio may not be favorable, as it could stem from insufficient liquidity. The formula for calculating turnover ratios is:

Loans and advance (Including Bills P&D) to Total Deposit Ratio

$= \frac{\text{Loan and Advances (inc.Bills P\&}D)}{\text{Total Deposits}}$

Investments to Total Deposit Ratio = $\frac{\text{Investment}}{\text{Total Deposits}}$

Total outside Assets to Total Deposit Ratio = $\frac{\text{Total Outside Assets}}{\text{Total Deposits}}$

Loans and Advances (Including Bills P&D) to Total Assets Ratio

$= \frac{\text{Loan and Advances (inc.Bills P\&}D)}{\text{Total Assets}}$

Total Income Generating Assets to Total Assets Ratio

$= \frac{\text{Total Income Generating Assets}}{\text{Total Assets}}$

Total Income Generating Assets to Total Debt Ratio

$= \frac{\text{Total Income Generating Assets}}{\text{Total Debt}}$

Leverage ratio (capital structure ratios)

Leverage or capital structure ratios are used to judge the long-term financial position

of the firm. Debt is riskier from the firm's point of view. The firm has legal obligation to pay interest to debt holders irrespective of the profit made or losses incurred by the firm. The formula to measure leverage ratio is:

$$\text{Long term debt to Shareholder's Fund Ratio} = \frac{\text{Long Term Debit}}{\text{Shareholder's Fund}}$$

$$\text{Total debt to Shareholder's Fund Ratio} = \frac{\text{Total Debit}}{\text{Shareholder's Fund}}$$

$$\text{Total debt to Total Assets Ratio} = \frac{\text{Total Debit}}{\text{Total Assets}}$$

Capital Adequacy Ratios

The capital adequacy ratio serves as a measure to determine whether a firm has maintained an adequate level of capital. Simply put, it aids in evaluating whether the existing capital is sufficient or if reforms are necessary. This ratio is scrutinized to ensure the long-term safety and stability of the firm. Both overcapitalization and undercapitalization can negatively impact the profitability of the firm. Excessive capital may remain idle, while insufficient capital may hinder the firm's ability to seize opportunities in potentially profitable sectors. Consequently, central banks have directed Development banks to uphold an adequate capital ratio. The formula to measure capital adequacy of the banks is:

$$\text{Shareholder's fund to Total Deposit Ratio} = \frac{\text{Shareholder's Fund}}{\text{Total Deposits}}$$

$$\text{Shareholder's fund to Total Risky Assets Ratio} = \frac{\text{Shareholder's Fund}}{\text{Total Risky Assets}}$$

$$\text{Shareholder's fund to Total Assets Ratio} = \frac{\text{Shareholder's Fund}}{\text{Total Assets}}$$

3.6.2. Statistical tools

Statistical tools perform very important role in business activity. Each and every performance should be calculated in business world to know the exact profit/loss. Here are some mathematical tools which are widely in practice.

The following mentioned statically tools well be used interpret data.

1. **Arithmetic Mean**

Arithmetic mean is the number which is obtained by adding the various numbers of all the items of a series and dividing the total by the number of items. Arithmetic mean is a useful tool in statistical analysis. The arithmetic mean is the simplest and most widely used measure of a mean, or average. It simply involves taking the sum of a group of numbers, then dividing that sum by the count of the numbers used in the series.

$\bar{X} = \frac{\Sigma \times}{N}$

Where,

$\bar{X}$ = Arithmetic Mean

$\sum X$ = Sum of Elements

N = Number of Observation

2. Standard Deviation

The standard deviation is a statistical metric assessing the spread of a dataset in relation to its mean, computed as the square root of the variance. By measuring the variation of each data point from the mean and calculating the square root of the variance, it quantifies the extent of dispersion within the dataset. Greater distances of data points from the mean indicate increased deviation in the dataset, resulting in a wider spread of data and subsequently a higher standard deviation.

$$S.D = \sqrt{\frac{\Sigma(X - \overline{X})^2}{N}}$$

3. Coefficients of variation

Standard deviation is the absolute measure of dispersion. The relative measure of dispersing based on the standard deviation is known as the measurement of coefficient of standard deviation. The percentage of measure of co efficient of s.d is called coefficient of variation less c.v is more uniformity and consistency vice versa. Only standard deviation is not appropriate to compare two pairs of variables but cv is capable to compare two variables independently in terms of their variability. It is calculated as under.

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

4. Coefficient of correlation

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.

5. Multiple Regression Analysis

The prevalent form of linear regression, known as multiple linear regression, is employed to elucidate the association between a single continuous dependent variable and two or more independent variables. These independent variables may take the form of either continuous or categorical variables. Multiple linear regression, often referred to as MLR, is a statistical method that utilizes multiple explanatory variables to forecast the outcome of a response variable. The primary objective of multiple linear regression is to formulate a model that represents the linear connection between the explanatory (independent) variables and the response (dependent) variable.

$yi=\beta 0+\beta 1xi1+\beta 2xi2+...+\beta pxip$

Where, for i = n observation

yi =dependent variable

xi =explanatory variables

β0 =y-intercept (constant term)

βp =slope coefficients for each explanatory variable.

Study Model

Profitability (ROA) (Y)= β0+ **X1** β1+ **X2** β2+ **X3** β3+ **X4** β4+ **X5** β5+e

Where,

X1= Liquid assets to current liabilities ratios

X2= NRB Balance to total deposit ratio

X3= Cash in hand to total deposit ratio

X4= Loan and advances to deposits ratio

X5= Current assets to total assets ratio

3.7 Research Framework and Definition of Variables

3.7.1 Conceptual Framework

The conceptual framework of this research is presented in graphic from which reflects the variables selected in research. It is presented below:

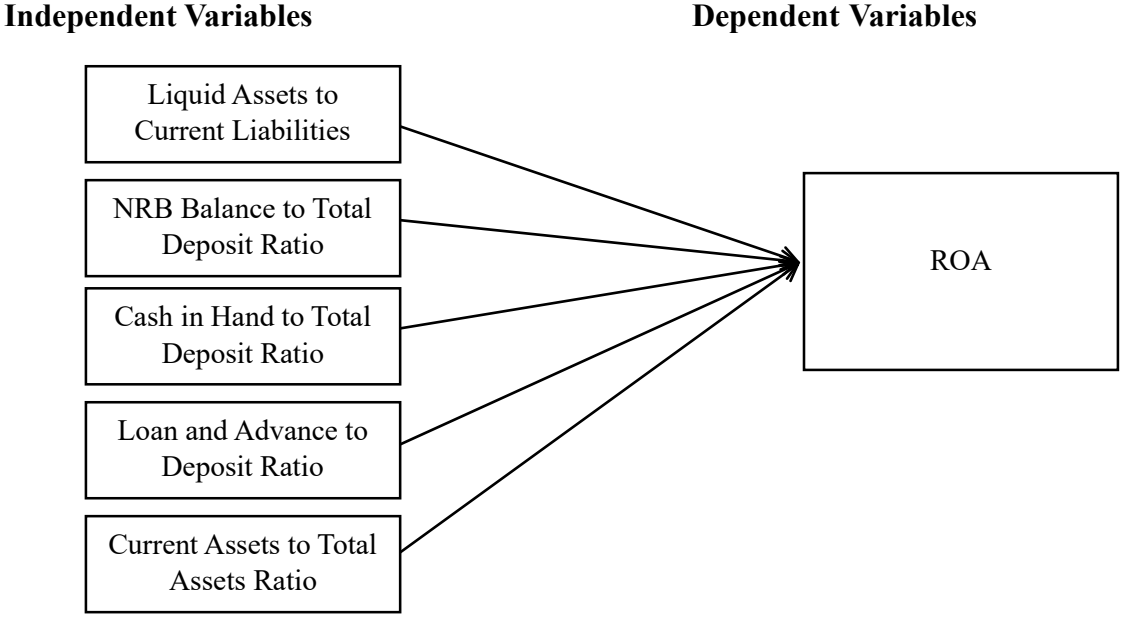

Figure3.1: Conceptual Framework of the Study

Source: Shrestha and Jha (2020)

3.7.2 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.

Independent Variables

In experimental research, an independent variable is one that you manipulate, control, or modify to investigate its effects. It is referred to be "independent" since it is unaffected by any other factors in the research. They are as follows:

1 Financial Ratio

Under the financial tool, mainly capital structure and profitability of the banks have been measured.

Liquidity

Liquidity means the ability to meet financial or short-term obligations as they come due. Liquidity in Commercial Bank means the bank's ability to finance all its contractual obligations when due, and these obligations can include lending, investment and withdrawal of deposits and maturity of liabilities, which happen in the normal course of the Bank actions.

Liquidity also deals the ability to finance the increase in assets and meet liabilities when they due fall without any unexpected losses, and so the efficient management of liquidity in the bank help to make sure that the bank is able to meet the incurred cash, which are usually uncertain and subject to external factors and to the behavior of other agents.

The ability to meet financial or short-term obligations as they become due is referred to as liquidity. Liquidity in a commercial bank refers to the bank's capacity to fund all of its contractual obligations when they are due, which can include lending, investing,

withdrawing deposits, and maturing liabilities, all of which occur in the usual course of business. Liquidity also refers to the bank's ability to fund asset growth and meet liabilities as they become due without incurring unexpected losses, and thus efficient liquidity management in the bank helps

to ensure that the bank is able to meet incurred cash, which is often uncertain and subject to external factors as well as the behavior of other agents.

Liquid assets to Current liability ratio (LACLR):

Liquid assets to current liability ratio (LACLR) indicates that the ratio total liquid assets on current liabilities such as Sum of Current Deposits, Saving Deposits, Bills payables and Creditors as per given in balance sheets of the commercial banks. Higher ratio shows the higher liquidity position of the banks that is beneficial for new investment opportunity. The formula as follows:

A greater ratio indicates that banks have more liquidity, which is advantageous for new investment opportunities.

$$\text{LACLR} = \frac{Liquid\ assets}{current\ liabilities}$$

Where,

Liquid assets = cash in hand + money at call and short notice

Current liabilities = Due to BFI + due to NRB+ Derivatives financial institution + current deposit + saving deposit+ bills payable + income tax payable

NRB balance to total deposit ratio (NRBTDR):

NRB balance to total deposit ratio (NRBTDR) indicates the amount deposited in Nepal Rastra Bank and total deposits collected by the commercial banks. Higher ratio means that there is a high liquidity position in the banks. The formula is as follows:

$$\text{NRBTDR} = \frac{NRB\ Balance}{Total\ deposit\ ratio} \times 100\%$$

Cash in hand to total deposit ratio (CHTDR):

Cash in hand to total deposit ratio (CHTDR) shows the ratio of cash in hand on total deposits per given in balance sheets of the commercial banks. Higher ratio shows the higher liquidity position of the banks that gives more useful for new investment opportunity. The formula is as follows:

$$\text{CBTDR} = \frac{cash\ in\ hand}{total\ deposit} \times 100\%$$

Loan and advance to total deposit ratio (LTDR):

The loan and advance to deposit ratio (LATDR) is used to analyze a bank's liquidity by comparing a bank's total loans to its total deposits for the same period. A higher ratio indicates a bank's greater liquidity position, which is more advantageous for new investment opportunities. The loan-to-deposit ratio is a percentage figure. If the ratio is excessively high, the bank may not have enough liquidity to fulfill any unexpected funding needs. If the ratio is too low, the bank may not be making as much money as it could. Following is the formula:

$$\text{LTDR} = \frac{Loan\ and\ advance}{total\ deposit} 100\%$$

Current assets to total assets ratio (CATAR)

The current assets to total assets ratio (CATAR) measures the amount of total funds invested in working capital and sheds light on the relevance of a company's current assets. It's worth noting how much of that portion of total assets is taken up by current assets, as current assets are primarily responsible for forming working capital and also contribute to growing liquidity. The current assets to total deposit ratio is the ratio of current assets to total assets (CATAR). The following is the formula.

$$\text{CATAR} = \frac{Current\ assets}{Total\ assets} 100\%$$

Where,

Current assets = cash and cash equivalent + NRB balance + derivative financial instrument + placement with bank & financial institutions + other trading assets

Profitability Ratio

Profitability ratios constitute a category of financial measures employed to evaluate a company's capacity to produce earnings in comparison to its incurred expenses. In the context of most of these ratios, a higher value compared to a competitor's ratio or a previous period's ratio suggests positive performance and success for the company.

a. Earnings per share

Earnings per share (EPS) acts as a gauge of a company's profitability, representing the share of the company's profit designated for each outstanding share of common stock. Regarded as a pivotal factor, EPS significantly influences a share's price and is a crucial element in computing the price-to-earnings valuation ratio.

$$E\ P\ S\ = \frac{NPAT - dividend\ paid\ on\ preference\ share}{number\ of\ common\ outstanding\ share}$$

b. 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'

$$R\ O\ A\ = \frac{NPAT}{Total\ assets} \times 100$$

CHAPTER IV
RESULTS AND DISCUSSION

In this chapter, the collected data is subjected to analysis and interpretation, following the methodology delineated in the previous section. Moreover, statistical techniques such as mean, standard deviation, coefficient of variation, correlation coefficient, and regression are employed to scrutinize and interpret the data.

4.1 Results

Results indicates the various profitability ratios that mirror the operating efficiency of the bank has been conducted. Profitability ratios play a significant role in gauging the overall operational efficiency of financial institutions, with a higher ratio indicating superior efficiency for the bank.

Return on Assets (ROA)

Table 4.1

Return on Total Assets (ROA)

Fiscal Year	MNBBL	GBBL	MBBL	JBBL	KSBBL
2012/13	1.24	2.03	0.83	0.20	1.14
2013/14	1.03	2.15	1.10	1.40	1.02
2014/15	1.43	1.36	1.31	1.42	2.15
2015/16	1.57	2.04	1.25	1.28	1.05
2016/17	2.01	2.12	1.37	1.49	1.50
2017/18	2.48	2.02	1.54	1.69	1.84
2018/19	2.36	2.71	1.97	1.66	2.64
2019/20	2.11	2.77	1.94	1.67	2.61
2020/21	1.46	1.86	1.17	0.95	1.71
2021/22	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

Return on total assets 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.

The provided data presents the return on assets (ROA) ratios for five selected banks over the past ten consecutive years. Notably, MNBBL's average ROA is 1.66%, with a standard deviation of 0.58 and a coefficient of variation of 34.89%. For GBBL, the average ROA is 2.07%, with a standard deviation of 0.43 and a coefficient of variation of 20.96%. MBBL bank limited has an average ROA of 1.32%, a standard deviation of 0.42, and a coefficient of variation of 31.62%. JBBL bank limited shows an average ROA of 1.29%, a standard deviation of 0.45, and a coefficient of variation of 33.33%. KSBBL has an average ROA of 1.69%, a standard deviation of 0.61, and a coefficient of variation of 36.28%.

Comparing the sampled banks, GBBL exhibits the highest average ROA at 2.07%, while JBBL Bank Limited has the lowest at 1.29%. The data suggests that a higher ROA indicates better operational performance, and vice versa. Furthermore, KSBBL demonstrates the highest coefficient of variation (CV) at 36.28%, signifying greater fluctuations in ROA, while GBBL has the lowest CV at 20.96%, indicating more consistency in ROA.

4.1.1 Liquidity Ratio

Development banks require liquidity to address loan demand and accommodate deposit withdrawals. Additionally, liquidity is essential to adhere to the cash reserve ratio requirements mandated by the NRB. It is imperative for development banks to manage their liquidity effectively, avoiding both shortages and excesses. Failing to fulfill this obligation may lead to a tarnished credit image and a decline in creditors' confidence.

Liquid Assets to Current liability Ratio (LACLR)

Liquid assets to current liabilities ratio are calculated to know the ability of the firm and to meet the short-term obligation quickly without considering the realization of stock and prepaid expenses. It depicts the link between short-term assets and short-term liabilities.

Table 4.3

Liquid Assets to Current Liability Ratio (LACLR)

Fiscal Year	MNBBL	GBBL	MBBL	JBBL	KSBBL
2012/13	7.33	8.40	9.54	8.75	9.80
2013/14	8.62	7.69	10.42	12.34	11.61
2014/15	5.04	7.30	7.01	8.76	43.76
2015/16	3.82	8.89	6.42	16.55	32.07
2016/17	2.07	6.60	5.36	9.57	16.79
2017/18	2.35	8.33	5.45	9.65	38.06
2018/19	8.87	8.80	6.17	5.06	12.51
2019/20	10.98	7.73.	6.45	9.19	2.36
2020/21	3.27	6.53	6.34	6.78	59.73
2021/22	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

Table 4.3 provides descriptive statistics, including mean, standard deviation, and coefficient of variation (CV), for the liquid assets to current liabilities ratio of selected banks over the past ten consecutive years. Nabil Bank Limited shows a fluctuating trend in this ratio, ranging from its peak at 10.98 percent in FY 2019/20 to its lowest point at 2.07 percent in FY 2016/17. On average, Muktinath Bikas Bank Limited maintains a 5.57 percent ratio of liquid assets to meet current liabilities, with a standard deviation of 3.13 and a coefficient of variation of 56.17 percent.

Similarly, Global Bank Limited (GBBL) exhibits a fluctuating trend in the liquid assets to current liabilities ratio, reaching its peak at 8.89 percent in FY 2014/15 and hitting its lowest point at 4.53 percent in FY 2021/22. On average, GBBL maintains a 7.47 percent ratio of liquid assets to fulfill current liabilities, with a standard deviation of 1.33 and a coefficient of variation of 17.81 percent.

The liquid assets to current liabilities of MBBL bank limited was fluctuating trend. The liquid assets to current liabilities ratio of MBBL bank limited in the FY 2012/13, FY 2013/14, FY 2014/15, FY 2015/16, FY 2016/17, FY 2017/18, FY2018/19, FY2019/20, FY2020/21 and FY2021/22 are 9.54 percent, 10.42 percent, 7.01 percent, 6.42 percent, 5.36 percent, 5.45 percent, 6.17 percent, 6.45 percent, 6.34 percent and 3.23 percent respectively. The ratio peaked at 10.42 percent in the fiscal year 2013/14 and reached its lowest point at 3.23 percent in the fiscal year 2021/22. On average, MBBL Bank Limited maintained 6.64 percent of liquid assets to fulfill current liabilities. The standard deviation is 2.05, with a coefficient of variation standing at 30.92 percent.

The liquid assets to current liabilities ratio of JBBL Bank Limited demonstrates a fluctuating trend, ranging from its peak at 16.55 percent in FY 2015/16 to its lowest point at 5.13 percent in FY 2021/22. On average, JBBL Bank Limited maintains 9.18 percent of liquid assets to meet current liabilities, with a standard deviation of 3.40 and a coefficient of variation of 37.07 percent.

Similarly, KSBBL's liquid assets to current liabilities ratio exhibits a fluctuating trend, reaching its peak at 59.73 percent in FY 2020/21 and its lowest point at 2.36 percent in FY 2019/20. On average, KSBBL maintains 25.91 percent of liquid assets to fulfill current liabilities, with a standard deviation of 18.17 and a coefficient of variation of 70.13 percent.

Comparing the five sampled banks based on the liquid assets to current liabilities ratio, KSBBL has the highest average at 25.91 percent, while MNBBL has the lowest at 5.57 percent. A higher ratio indicates better operational performance, and vice versa. Notably, KSBBL Bank Limited has the highest coefficient of variation (CV) at 70.13 percent, indicating a high degree of fluctuation in the ratio, while GBBL has the lowest CV at 17.81 percent, suggesting greater consistency in the ratio.

NRB Balance to Total Deposit Ratio (NRBTDR)

NRB balance to total deposit ratio are calculated to know the NRB balance of each bank from its total deposit of banks. It is also known as cash reserve ratio (CRR).

Table 4.4

NRB Balance to Total Deposit Ratio (NRBTDR)

Fiscal Year	MNBBL	GBBL	MBBL	JBBL	KSBBL
2012/13	6.69	7.58	6.13	18.72	13.44
2013/14	7.53	11.35	8.41	21.66	11.63
2014/15	9.38	6.33	7.10	11.24	14.82
2015/16	12.46	7.68	9.03	9.23	16.25
2016/17	5.28	5.39	9.87	9.87	2.72
2017/18	8.64	9.95	8.97	12.64	11.07
2018/19	5.47	7.94	6.70	8.65	5.90
2019/20	3.80	4.20	9.51	11.06	3.24
2020/21	10.49	8.75	6.86	11.58	2.00
2021/22	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

Table 4.4 presents the NRB balance to the total deposit ratio for selected banks over the past ten consecutive years, showcasing fluctuating trends in these ratios.

For Nabil Bank Limited, the ratio fluctuates from its peak at 12.46 percent in FY 2015/16 to its lowest point at 3.42 percent in FY 2021/22. On average, Nabil Bank Limited maintains 7.32 percent of the total deposit as NRB balance, with a standard deviation of 2.95 and a coefficient of variation of 40.26 percent.

Similarly, Global Bank Limited (GBBL) exhibits a fluctuating trend, with the highest ratio recorded at 11.35 percent in FY 2013/14 and the lowest at 4.2 percent in FY 2019/20. On average, GBBL maintains 7.51 percent of the total deposit as NRB balance, with a standard deviation of 2.15 and a coefficient of variation of 28.61 percent.

Muktinath Bikas Bank Limited (MBBL) shows fluctuations in its NRB balance to total deposit ratio, reaching its highest point at 9.87 percent in FY 2016/17 and its lowest at 3.08 percent in FY 2021/22. On average, MBBL maintains a ratio of 7.57 percent, with a standard deviation of 2.04 and a coefficient of variation of 26.97 percent.

GBBL Bank Limited exhibits a fluctuating trend in its NRB balance to total deposit ratio, with the highest recorded at 21.66 percent in FY 2013/14 and the lowest at 9.23 percent in FY 2015/16. On average, GBBL Bank Limited maintains a ratio of 12.63 percent, with a standard deviation of 4.22 and a coefficient of variation of 33.37 percent.

Kailash Bikas Bank Limited (KSBBL) displays a fluctuating trend, with the highest ratio at 16.25 percent in FY 2015/16 and the lowest at 2 percent in FY 2020/21. On average, KSBBL maintains a ratio of 8.37 percent, with a standard deviation of 5.62 and a coefficient of variation of 67.16 percent.

Comparing the five sampled banks based on the NRB balance to total deposit ratio (NRBTDR), it can be concluded that the average NRBTDR of JBBL bank limited is the highest at 12.63 percent, while the lowest is of MNBBL at 7.32 percent. KSBBL has the highest coefficient of variation (C.V.) at 67.16 percent, indicating high fluctuation in NRBTDR, and MBBL bank limited has the lowest CV at 26.97 percent, indicating more consistency in NRBTDR.

Cash in hand to Total Deposit Ratio (CHTDR)

Liquidity is essential in the banking sector to safeguard its solvency and fulfill short-term obligations and liabilities. Therefore, banks should maintain an ample amount of cash and bank balances relative to the total deposit.

Table 4.5

Cash in Hand to Total Deposit Ratio (CHTDR)

Fiscal Year	MNBBL	GBBL	MBBL	JBBL	KSBBL
2012/13	1.91	4.75	2.23	2.03	1.42
2013/14	1.79	4.39	2.10	2.33	1.74
2014/15	1.95	4.05	2.80	1.84	1.33
2015/16	1.75	3.80	3.40	2.23	1.37
2016/17	1.49	3.81	2.76	2.30	1.43
2017/18	1.38	3.70	2.43	2.33	1.27
2018/19	4.67	3.75	2.82	2.87	1.51
2019/20	1.57	2.83	2.60	2.50	1.21
2020/21	1.41	2.73	2.42	2.84	1.24
2021/22	1.38	2.58	1.80	2.54	1.25
Mean	1.93	3.64	2.54	2.38	1.38
SD	0.99	0.72	0.45	0.33	0.16
CV	51.19%	19.79%	17.63%	13.66%	11.69%

Source: Annual Report

Table 4.5 presents the cash in hand to total deposit ratio for selected banks over the fiscal years from 2012/13 to 2021/22, revealing fluctuations in these ratios.

For Nabil Bank Limited, the cash in hand to total deposit ratio fluctuates from its peak at 4.67 percent in FY 2018/19 to its lowest values of 1.38 percent in both FY 2021/22 and FY 2017/18. On average, Nabil Bank Limited maintains 1.93 percent of the total deposit as cash in hand to meet cash requirements, with a standard deviation of 0.99 and a coefficient of variation of 51.19 percent.

Similarly, Global Bank Limited (GBBL) displays a fluctuating trend, with the highest ratio recorded at 4.75 percent in FY 2012/13 and the lowest value at 2.58 percent in FY 2021/22. On average, GBBL maintains 3.64 percent of the total deposit as cash in hand to meet cash requirements, with a standard deviation of 0.72 and a coefficient of variation of 19.79 percent.

Muktinath Bikas Bank Limited (MBBL) demonstrates fluctuations in its cash in hand to total deposit ratio, reaching its peak at 3.40 percent in FY 2015/16 and its lowest point at 1.80 percent in FY 2021/22. On average, MBBL maintains a ratio of 2.54 percent, with a standard deviation of 0.45 and a coefficient of variation of 17.63 percent.

JBBL Bank Limited's cash in hand to total deposit ratio exhibits a fluctuating trend, with the highest recorded at 2.87 percent in FY 2018/19 and the lowest at 1.84 percent in FY 2014/15. On average, JBBL Bank Limited maintains 2.38 percent of the total deposit as cash in hand to meet cash requirements, with a standard deviation of 0.33 and a coefficient of variation of 13.66 percent.

Similarly, Kailash Bikas Bank Limited (KSBBL) displays a fluctuating trend in its cash in hand to total deposit ratio, with the highest recorded at 1.74 percent in FY 2013/14 and the lowest at 1.21 percent in FY 2019/20. On average, KSBBL maintains 1.38 percent of the total deposit as cash in hand to meet cash requirements, with a standard deviation of 0.16 and a coefficient of variation of 11.69 percent.

Comparing the five sampled banks in terms of the cash in hand to total deposit ratio, it can be inferred that GBBL maintains the highest percentage of total deposits in the form of cash and bank balance, surpassing other banks, in order to address immediate cash requirements.

Loan and Advance to Total Deposit Ratio (LATDR)

To make an appropriate profit, a development bank should not keep its all collected fund as cash and bank balance but they should be invested as loan and advances to the customers. In the present study, loan and advances represent local and foreign bills discounted and purchased loans, cash credit and overdraft in local currency and inconvertible foreign currency.

Table 4.6

Loan and Advance to Total Deposit Ratio (LATDR)

Fiscal Year	MNBBL	GBBL	MBBL	JBBL	KSBBL
2012/13	75.61	91.13	49.62	78.01	54.43
2013/14	72.90	91.20	49.55	76.20	57.84
2014/15	72.55	86.78	65.54	75.56	56.11
2015/16	62.84	89.02	78.39	74.31	48.32
2016/17	69.02	90.96	72.14	81.85	56.17
2017/18	75.59	88.37	77.27	83.52	61.47
2018/19	80.90	94.16	85.87	86.59	66.45
2019/20	78.24	91.52	86.17	90.39	70.11
2020/21	77.59	84.84	81.14	87.85	55.58
2021/22	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%

Source: Annual Report

Table 4.6 outlines the Loan and Advance to Total Deposit ratio of selected banks over the last ten consecutive years.

- Nabil Bank Limited (MNBBL) exhibits a fluctuating trend in its Loan and Advance to Total Deposit ratio, with the highest ratio at 84.36 percent in FY 2021/22 and the lowest at 69.02 percent in FY 2016/17. On average, MNBBL provides 74.96 percent of the total deposit as loans and advances, with a standard deviation of 6.1 and a coefficient of variation of 8.13 percent.

- Global Bank Limited (GBBL) also displays a fluctuating trend in its Loan and Advance to Total Deposit ratio, reaching the highest ratio at 92.5 percent in FY 2021/22 and the lowest at 84.84 percent in FY 2020/21. On average, GBBL provides 90.05 percent of the total deposit as loans and advances, with a standard deviation of 2.79 and a coefficient of variation of 3.10 percent.

Similarly, Muktinath Bikas Bank Limited (MBBL) demonstrates a fluctuating trend in its Loan and Advance to Total Deposit ratio, recording the highest ratio at 91.25 percent in FY 2021/22 and the lowest at 49.55 percent in FY 2013/14. On average, MBBL provides 73.70 percent of the total deposit as loans and advances, with a standard deviation of 14.66 and a coefficient of variation of 19.89 percent.

The Loan and Advance to Total Deposit ratio (LADR) of JBBL Bank Limited displays a fluctuating trend, reaching its highest ratio at 91.81 percent in FY 2021/22 and the lowest at 74.31 percent in FY 2015/16. On average, JBBL Bank Limited provides 82.60 percent of the total deposit as loans and advances, with a standard deviation of 6.42 and a coefficient of variation of 7.77 percent.

Similarly, KSBBL's LADR exhibits a fluctuating trend, recording the highest ratio at 71.27 percent in FY 2021/22 and the lowest at 48.32 percent in FY 2015/16. On average, KSBBL provides 59.77 percent of the total deposit as loans and advances, with a standard deviation of 7.41 and a coefficient of variation of 12.39 percent.

Comparing the five sampled banks based on LADR, it is concluded that the average LADR of GBBL is the highest at 90.05 percent, while KSBBL has the lowest at 59.77 percent. A higher LADR indicates better operational performance, and vice versa. Notably, MBBL Bank Limited has the highest coefficient of variation (CV) at 19.89 percent, suggesting a high degree of fluctuation in LADR, whereas GBBL has the lowest CV at 3.10 percent, indicating greater consistency in LADR.

Current Assets to total Assets Ratio (CATAR)

Current assets to total deposit ratio are computed to know the how much of current assets available from total assets. Current assets are used to meets the short-term liabilities.

Table 4.7

Current Assets to Assets Ratio (CATAR)

Fiscal Year	MNBBL	GBBL	MBBL	JBBL	KSBBL
2012/13	8.10	9.77	9.79	19.40	20.38
2013/14	10.27	12.44	12.12	22.97	20.63
2014/15	15.16	10.40	10.89	16.54	32.16
2015/16	15.98	11.46	14.23	26.28	36.27
2016/17	8.55	9.67	13.25	14.85	33.54
2017/18	9.43	12.31	13.26	15.11	29.98
2018/19	19.98	14.46	15.96	18.41	37.15
2019/20	19.04	12.99	15.18	22.17	26.89
2020/21	19.32	15.12	17.32	22.32	39.06
2021/22	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

Table 4.7 presents the Current Assets to Total Assets Ratio (CATAR) of selected banks over the last ten consecutive years:

Muktinath Bikas Bank Limited (MNBBL):

- The CATAR for MNBBL fluctuated over the years, ranging from 8.10 percent to 19.98 percent.

- The average CATAR for MNBBL is 13.93 percent, with a standard deviation of 4.65 and a coefficient of variation of 33.38 percent.

Global Bank Limited (GBBL):

- GBBL's CATAR exhibited variations, ranging from 9.67 percent to 15.12 percent.

- On average, GBBL maintained a CATAR of 12.10 percent, with a standard deviation of 1.83 and a coefficient of variation of 15.17 percent.

Machhapuchchhre Bank Limited (MBBL):

- MBBL's CATAR displayed fluctuations, reaching the highest at 17.32 percent and the lowest at 8.85 percent.

- On average, MBBL maintained a CATAR of 13.09 percent, with a standard deviation of 2.71 and a coefficient of variation of 20.77 percent.

Janata Bank Nepal Limited (JBBL):

- JBBL's CATAR fluctuated, with values ranging from 14.85 percent to 26.28 percent.

- The average CATAR for JBBL is 20.10 percent, with a standard deviation of 3.83 and a coefficient of variation of 19.07 percent.

Kumari Bank Limited (KSBBL):

- KSBBL's CATAR exhibited variations, ranging from 20.38 percent to 39.06 percent.

- On average, KSBBL maintained a CATAR of 30.14 percent, with a standard deviation of 6.68 and a coefficient of variation of 22.45 percent.

Comparing the five sampled banks based on CATAR, it is concluded that the average CATAR of KSBBL is the highest at 30.14 percent, while GBBL has the lowest at 12.10 percent. A higher CATAR indicates better operational performance, and vice versa. Notably, MNBBL Bank Limited has the highest coefficient of variation (CV) at 33.38 percent, suggesting a high degree of fluctuation in CATAR, whereas GBBL has the lowest CV at 15.17 percent, indicating greater consistency in CATAR.

4.1.3 Coefficient of Correlation (r)

The coefficient of correlation indicates the connection between two or more variables, assessing whether they are positively or negatively correlated. In this context, Karl Pearson's correlation coefficient is utilized to identify and examine the association between liquidity and profitability. The analysis utilizes the correlation coefficient to determine the strength and direction of the linear relationship between these variables.

Table 4.8

Correlation Matix

	ROA	CHTDR	LADR	NRBTDR	LACLR	CATAR
ROA	1					
CHTDR	.245	1				
LATDR	.250	.588**	1			
NRBTDR	-.277	.008	.115	1		
LACLR	.017	-.328*	-.505**	.035	1	
CATAR	.061	-.446**	-.471**	.140	.710**	1

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

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

Table 4.8 outlines the correlations between various liquidity variables (LATDR, NRBTDR, LACLR, CATAR, and CHTDR) and profitability variables (return on assets and return on equity). The analysis of correlations reveals specific relationships between these variables.

In detail, CHTDR shows a positive correlation, albeit statistically insignificant, with ROA (correlation coefficient = 0.245) and a negative, yet insignificant, correlation with ROE (correlation coefficient = -0.163). LATDR demonstrates a positive, yet insignificant, correlation with ROA (correlation coefficient = 0.25) and a significant negative correlation with ROE (correlation coefficient = -0.446). NRBTDR exhibits a negative, yet insignificant, correlation with ROA (correlation coefficient = -0.277) and a positive, but insignificant, correlation with ROE (correlation coefficient = 0.80). LACLR indicates a positive, but insignificant, correlation with both ROA (correlation coefficient = 0.017) and ROE (correlation coefficient = 0.005).

Lastly, the correlation coefficient between CATAR and ROA is 0.061, signifying a positive yet insignificant relationship. The correlation coefficient between CATAR and ROE is -0.101, indicating a negative but insignificant relationship.

4.1.4 Regression Analysis

Regression analysis, a statistical technique used to explore relationships between variables by establishing an estimated functional relationship, proves invaluable in assessing the strength of connections among two or more variables. In the context of Multiple Regression analysis of Return on Assets (ROA) on Liquidity, this method delves into the impact of liquidity variables, including Liquid Assets to Current Liability Ratio (LACLR), NRB Balance to Total Deposit Ratio (NRBTDR), Cash in Hand to Total Deposit Ratio (CHTDR), Loan and Advance to Deposit Ratio (LATDR), and Current Assets to Total Assets Ratio (CATAR), on the fluctuations in Return on Assets (ROA) for the selected banks.

The equation for this regression model is outlined below:

ROA= a 1 + b 1LACLR+ b 2NRBTDR + b 3CHTDR +b4LATDR +b5CATAR..... (i)

Where, ROA= Return on Asset, a 1= Constant, b 1, b 2, b 3, b4 and b5 = Regression coefficient

Table 4.9

Regression of ROA ON Liquidity Position

Model Summary

Model	R	R square	Adjusted R Square	Std. Error of the Estimate
1	.4701	.221	.423	.5199

a. Predictors: (Constant), LATDR, NRBTDR, LACLR, CATAR and CHTDR

The table shows that total variation of the ROA that explained by independent variable i.e. LATDR, NRBTDR, LACLR, CATAR and CHTDR. R is the correlation coefficient which measure the degree of association between dependent and independent variable. R is 0.4701 which shows that there is low degree of positive correlation between dependent and independent variable. The value of coefficient of multiple Determinations (R^2) is 0.2210. it indicates that 22.10 percent of total variation in ROA is explained by independent variables i.e. LATDR, NRBTDR, LACLR, CATAR and CHTDR and remaining is explained by other variables. The standard error of estimate is 0.51999. It indicates that 52 percent is variation between actual and estimated value.

Analysis of Variance (ANOVA) Table

Model	Sun of Square	df	Mean of Square	F	Significance F

Regression	3.376	5	0.675	2.497	0.044
Residual	11.897	44	0.270		
Total	15.237	49			

a. Dependent Variable: ROA

b. Predictors: (Constant), LATDR, NRBTDR, LACLR, CATAR and CHTDR

The table shows that the value of F is 0.04 at 5 percent level of significance, the value is less than 0.05 which indicates that the overall model is reasonably fit and there is a statistically significant association between ROA and independent variable (liquidity).

Coefficients Table

Model		Unstandardized Coefficients		Standardized Coefficients	T value	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.512	0.645		0.793	0.432
	CHTDR	0.156	0.100	0.269	1.560	0.026
	LATDR	0.009	0.008	0.206	3.672	0.014
	NRBTDR	-0.042	0.019	-0.320	-2.206	0.133
	LACLR	-0.001	0.010	-0.015	-0.074	0.941
	CATAR	0.023	0.014	0.331	1.632	0.010

(b) Dependent Variable: (ROA)

The table presented provides a summary of the coefficients obtained from a regression analysis, which appears to be a multiple linear regression model. This type of analysis is commonly used in statistics to examine the relationship between a dependent variable and several independent variables. In this case, the dependent variable is referred to as ROA, which is not listed in the table but is mentioned in parentheses at the bottom. ROA likely stands for return on assets, a financial metric used to evaluate a company's profitability.

The table summarizes coefficients derived from a multiple linear regression model, indicating the relationships between the dependent variable ROA (likely representing return on assets) and various independent variables, including CHTDR, LATDR, NRBTDR, LACLR, and CATAR. These coefficients represent the estimated impact of each independent variable on ROA without standardization and after standardizing all variables. Notably, a one-unit increase in CHTDR corresponds to a 0.156-unit increase in ROA. Standardization facilitates comparing variables on the same scale, with Beta values reflecting the relative importance of each variable. A Beta value of 0.331 for CATAR suggests a stronger impact on ROA. The t values and associated p-values assess the statistical significance of coefficients. For instance, NRBTDR, with a t value of -2.206 and a p-value less than 0.05, may be statistically significant in explaining ROA variations. While the table provides valuable insights, a comprehensive interpretation would require additional information on the model's goodness of fit and contextual details.In summary, this table provides valuable information about the coefficients of a multiple linear regression model, allowing us to assess the relationships between the listed independent variables CHTDR, LATDR, NRBTDR, LACLR, CATAR and the dependent variable ROA. The standardized coefficients and p-values help determine the strength and significance of these relationships. However, it's important to note that additional information, such as the model's goodness of fit and the context of the analysis, would be needed to fully interpret the results and draw meaningful conclusions.

4.2 Discussion

The data analysis reveals several key findings regarding the financial performance and relationships between different variables for the sampled banks. Notably, KSBBL stands out with the highest average current to current liabilities ratio, indicating a robust financial position in terms of short-term obligations, while MNBBL exhibits the lowest. Similarly, JBBL holds the highest NRB balance to total deposit ratio, showcasing a significant balance relative to total deposits, whereas MNBBL has the lowest. The average cash to total deposits ratio is highest for GBBL, indicating a larger amount of cash held in comparison to total deposits, while KSBBL has the

lowest. In terms of loan and advance to total deposit ratio, GBBL maintains the highest, signifying a greater proportion of loans and advances relative to total deposits, while KSBBL has the lowest. In terms of return on assets (ROA), GBBL achieves the highest average, reflecting a superior return in proportion to its assets, while MBBL records the lowest. The correlation coefficients between ROA and various liquidity variables, such as CHTDR, LACAR, LATDR, and CATAR, suggest positive relationships, although they are not statistically significant. Additionally, the correlation coefficients between ROA and NRBTDR, as well as ROE and NRBTDR, indicate negative and positive relationships, respectively, but these associations are not statistically significant. These findings contribute valuable insights into the financial dynamics and performance indicators of the sampled banks.

The multiple regression analysis of Return on Assets (ROA) and liquidity variables (CHTDR, LATDR, NRBTDR, CATAR, and LACLR) provides valuable insights into the relationships between these variables for the five sampled banks. The standardized coefficients and p-values help gauge the strength and statistical significance of these relationships. It is crucial to consider additional factors, such as model fit and the broader context of the analysis, for a comprehensive interpretation of the results.

The study underscores the interconnectedness between deposit profitability, loans and advances among the selected banks in the sample. These banks effectively manage their liquidity positions, although certain liquidity indices exhibit both positive and negative correlations with profitability indices. Maintaining optimal liquidity levels is emphasized, as banks are required to strategically invest in various types of loans and advances for optimal returns. The fluctuation in banks' profitability is attributed to variations in liquidity indicators and external factors, yet all banks strive to enhance their profits annually. This aligns with findings from previous studies, such as Shrestha & Jha (2020) and Bwacha & Xi (2018).

The analysis indicates an insignificant relationship between LATDR and ROA, suggesting that LATDR does not significantly impact ROA. This finding is consistent

with results supported by Kathi (2020). Similarly, the study finds an insignificant relationship between LACLR and ROA, aligning with Stapit & Maharjan's (2012) observations. In the banking sector, the inverse relationship between liquidity and profitability is highlighted, where higher liquidity implies lower profit and vice versa. Liquidity serves as an indicator of operational strength for banks, while profitability reflects efficient and effective value maximization over time.

CHAPTER V
SUMMARY AND CONCLUSION

5.1 Summary

This study aims to investigate the impact of liquidity on the profitability of MNBBL, GBBL, MBBL, JBBL, and KSBBL, recognizing liquidity, deposits, loans and advances, and current earning assets as pivotal factors influencing a bank's success. The research underscores the delicate balance banks must strike between liquidity and profitability, highlighting the challenge of managing liquidity effectively to achieve substantial profits. The first chapter introduces the research background, problem statement, significance, and limitations. The second chapter delves into relevant literature, providing a theoretical foundation for banking principles and incorporating insights from previous journals, articles, and theses. Chapter 3 outlines the applied methods and techniques to assess the relationship between liquidity, deposits, loans and advances, and bank profitability. In the fourth chapter, data collected from various sources are analyzed using financial and statistical tools, including liquidity ratios, deposit, loan, advance, and profit ratios, mean, standard deviation, coefficient of variation, correlation coefficient, and regression analysis.

The findings indicate that KSBBL and JBBL exhibit high liquidity, presenting opportunities for substantial new investments. GBBL demonstrates significant capital resources to pay creditors, particularly evident in its liquidity for Cash in Hand to Total Deposit Ratio (CHTDR). KSBBL maintains a larger amount of liquid assets to support its asset base, as reflected in the Current Assets to Total Assets Ratio (CATAR). GBBL optimally utilizes total deposits to generate higher returns, evident in its Loan and Advance to Total Deposit Ratio (LATDR). JBBL effectively controls inflation, as indicated by its high Cash in Hand to Total Deposit Ratio (CHTDR). Correlation analysis establishes positive correlations between Return on Assets (ROA) and CHTDR,

LATDR, LACLR, and CATAR, while a negative correlation is observed with NRBTDR. Furthermore, NRBTDR and LACLR are positively correlated, while CHTDR, LATDR, and CATAR exhibit negative correlations. These findings contribute to a comprehensive understanding of the intricate relationship between liquidity and profitability in the context of the sampled banks.

5.2 Conclusion

In conclusion, liquidity stands as a vital lifeline for banking institutions, and its adequacy is paramount in preserving a bank's financial stability and public confidence. The study affirms that managing liquidity remains a continual challenge for bank management, with profound implications for the institution's overall financial performance. The findings underscore the essential role of liquidity in operations, emphasizing that effective liquidity management is crucial for the sustained maximization of value over time.

Among the sampled banks, KSBBL exhibits notable fluctuations in liquidity indicators such as LACLR, NRBTDR, and CATAR, while MNBBL, GBBL, MBBL, and JBBL demonstrate comparatively more stable trends. JBBL, however, displays higher volatility in CHTDR and LADR when contrasted with other banks in the sample.

Examining profitability indicators, KSBBL's Return on Assets (ROA) emerges as the most volatile, while GBBL, MNBBL, JBBL, and MBBL display lower volatility. MNBBL experiences a marginal decrease in ROA over the study periods.

Correlation analysis reveals that the relationships between ROA and liquidity indicators, including CHTDR, LADR, LACLR, and CATAR, are positive but statistically insignificant, indicating that these independent variables do not significantly impact ROA. The negative yet insignificant correlation with NRBTDR suggests no significant relationship. Overall, the study establishes connections between the dependent variable (ROA) and independent variables (LADR, CHTDR, NRBTDR, LACLR, and CATAR), contributing valuable insights into the complex dynamics between liquidity and profitability in the context of the sampled banks.

5.3 Implications

Specific Recommendations for Selected Banks' Liquidity and Profitability Enhancement:

MNBBL:

- MNBBL should focus on improving its liquidity position, as the average liquidity ratio is comparatively lower than that of other examined development banks.
- It is recommended for MNBBL to enhance its cash-to-total deposits ratio to align with industry standards and strengthen its liquidity position.

KSBBL:

- KSBBL should maintain an adequate cash-to-total deposits ratio, as the current average is lower than that of selected development banks.
- To improve its overall financial health, KSBBL is advised to increase its loan and advances-to-total deposits ratio to align with industry benchmarks.
- Given that the average NRBTDR of MNBBL is lower than that of other development banks, KSBBL should ensure a sufficient NRB balance-to-total deposit ratio.

GBBL:

- To maintain a robust financial position, GBBL is recommended to uphold an appropriate ratio of liquid assets to total deposits, aligning with industry standards.
- JBBL, with a lower average ROA among selected development banks, is advised to explore opportunities to increase the utilization of more profitable assets.

General Recommendations:**

- The study contributes valuable insights into the relationship between liquidity and profitability in Nepalese development banks. Further research could explore other development banks and commercial banks, providing a more comprehensive understanding of liquidity-profitability dynamics.

In summary, these specific recommendations aim to guide MNBBL, KSBBL, and GBBL in enhancing their liquidity and profitability positions, contributing to the overall

financial strength and stability of the selected banks. The study underscores the importance of maintaining optimal liquidity ratios and leveraging profitable assets to achieve sustained financial success.

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APPENDICES

Appendix I

Mahalaxmi Bikas Bank Limited

Fiscal Year	CRR	ROA	LAT DR	ROE	CBB TDR	CBB CDR	cash and bank balance	total deposit	current deposit	net profit	equity
2021/22	3.22	0.7	95.58	6.25	1.79	25.43	1910254794	106238466851	7509073963	963479143	15400071110
2020/21	8.89	1.17	85.5	10.44	2.42	47.37	2673038605	110445872817	5642279943	1543348770	14781851324
2019/20	6.65	1.94	90.52	16.2	2.60	47.19	2546967726	97924444003	5397107408	2292524396	14154449362
2018/19	7.18	1.97	89.6	15.81	2.81	33.28	2374354666	84269219565	7133103928	2023511124	12801103793
2017/18	10.04	1.57	78.07	14.85	2.45	31.98	1984553390	80818815835	6205371596	1564688746	10539742841
2016/17	8.33	1.59	72.9	19.25	2.75	32.53	1799377270	65213519724	5531334474	1331881801	6920462451
2015/16	10.92	1.64	78.39	18.87	3.39	36.40	1753912290	51628221954	4818048457	1065436141	5645914521
2014/15	9.32	1.51	65.54	20.35	2.80	37.10	1527028783	54492993606	4115406375	922984007	4535798670
2013/14	9.58	1.19	49.55	20.31	2.09	24.60	1239453119	59125729453	5037126566	771471129	3798957417
2012/13	9.16	0.83	49.62	15.02	2.22	31.41	1186755022	53337264193	3777858754	480105493	3197458863

Appendix II

Garima Bikas Bank Limited

Year	CRR	ROA	LATDR	ROE	CBBTDR	CBBCDR	cash and bank balance	total deposit	current deposit	net profit	equity
2021/22	36.21	1.59	92.93	11.2	2.57	15.32	4194902166	162814930677	27372923916	3527536906	31505117739
2019/21	33.98	1.86	85.84	11.7	2.72	18.74	3914278855	143628524817	20885876466	3331737575	28471221997
2019/20	27.2	2.77	93.62	14.71	2.82	19.22	3361603828	118884923356	17484157605	4191590635	28489965777
2018/19	29.15	2.71	95.64	13.01	3.74	31.34	3903860922	104178959617	12454132369	3442323796	26458304686
2017/18	31.18	2.15	92.9	10.87	3.71	30.50	3694234763	99515339449	12108302531	2565220197	23594331698
2016/17	23.33	2.32	95.46	13.6	3.80	26.49	3327910591	87387154947	12558579011	2464683088	18127314682
2014/15	28.74	3.12	93.77	21.66	3.8	28.50	2927338487	77035056186	10268496849	3490268417	16111012226
2014/15	30.43	1.76	94.8	10.09	4.05	31.13	2671955715	65898412646	8580489944	1520806289	15076248711
2013/14	32.27	2.97	100.81	16.1	4.38	30.80	2389295181	54477651530	7757016421	2289319963	14222913579
2012/13	36.65	2.9	104.06	13.97	4.75	48.31	2057014070	43264087394	4257773388	1839924770	13172827932

Appendix III

Kamana Sewa Bikas Bank Limited

Year	CRR	ROA	LATDR	ROE	CBBTDR	CBBCDR	cash and bank balance	total deposit	current deposit	net profit	equity
2021/22	7.53	1.22	71.27	8.623	1.24	5.28	1092804548	87564219683	20664199505	1398835199	16222118151
2020/21	14.49	1.71	56.75	13.16	1.23	6.53	1175754169	95020841249	17997841866	1987390942	15102495274
2019/20	7.52	2.61	70.11	16.31	1.21	6.87	920032580	75731527432	13383872446	2434664521	14927074559
2018/19	18.91	2.61	66.45	15.73	1.51	6.6	1014367636	67061046522	15198420680	2189898090	13925502179
2017/18	19.71	1.84	62.2	11.98	1.27	6.53	811609528	63872885452	12422300151	1421596136	11864025316
2016/17	7.98	1.98	56.88	17.18	1.43	5.83	799366056	55727178456	13690280642	1292494632	7524175186
2015/16	24.03	1.99	48.92	21.69	1.37	4.87	785636090	57286482037	16125878269	1290025348	5948554654
2014/15	21.18	2.51	56.87	26.27	1.32	4.98	613768499	46298532040	12315435764	1336589187	5088090898
2013/14	16.43	2.67	58.63	26.38	1.74	5.17	687680696	39466453239	13282342895	1217940754	4617574225
2012/13	22.4	2.8	55.13	28.36	1.41	4.50	509677917	35965630744	11317217357	1168967497	4122168959

Appendix IV

Muktinath Bikas Bank Limited

Year	CRR	ROA	LATDR	ROE	CBBTDR	CBBCDR	cash and bank balance	total deposit	current deposit	net profit	equity
2021/22	3.66	1.71	89.84	13.37	1.44	10.53	3234149797	223474470361	30686643937	4527552838	33858105545
2020/21	11.2	1.58	79.72	13.39	1.40	14.7	2682979459	190806469972	18235155943	3463240822	25855658567
2019/20	4.78	2.11	81.96	18.28	1.57	14.26	2566035682	162953999572	17986690530	4238853581	23188612393
2018/19	10.05	2.61	82.66	19.34	4.67	36.34	6297188921	134810669677	17325806590	3981892950	20586357305
2017/18	10.02	2.69	65.38	25.86	1.37	9.66	1637483131	118896156802	16946016377	3645279751	14094834782
2016/17	6.77	2.32	70.49	24.35	1.48	10.10	1640632219	110267271749	16237275994	2823461039	11595025719
2015/16	14.15	2.06	64.43	22.04	1.75	14.16	1820201446	103957095808	12848379756	2098162781	9519511394
2014/15	11.32	2.89	74.55	30.39	1.94	15.37	1468154377	75360769196	9545929798	2331372560	7671239218
2013/14	9.32	3.25	74.9	33.2	1.79	15.68	1140212319	63506102707	7271123319	2226686260	6707095734
2012/13	8.6	2.8	77.91	31.05	1.91	15.98	1050668504	54905676208	6572215166	1693491387	5453639845

Appendix V

Jyoti Bikas Bank Limited

Year	CRR	ROA	LATDR	ROE	CBBTDR	CBBCDR	cash and bank balance	total deposit	current deposit	net profit	equity
2021/22	5.66	1.17	96.69	11.32	2.54	42.70	4183569620	164489285837	9795395294	2711073708	23943774455
2020/21	5.93	0.95	92.31	8.181	2.84	44.69	3745462626	131660368354	8379148670	1712776521	20935385243
2019/20	4.19	1.67	94.61	12.97	2.50	43.14	2452131879	97892301967	5683120598	2257276027	17403014259
2018/19	6.68	1.65	90.46	11.24	2.86	50.30	2409717758	83970867219	4790516782	1853792753	16489809301
2017/18	7.72	1.69	85.5	13.81	2.32	34.68	1703496402	73224062599	4911254694	1467347467	10627149417
2016/17	10.81	1.49	84.07	16.25	2.30	55.85	1491151855	64781463622	2669761217	1115064628	6861159508
2015/16	13.32	1.21	75.32	15.2	2.22	56.09	817585058	36722917654	1457615709	500989608	3296446968
2014/15	13.72	1.36	76.73	14.57	1.83	56.49	497747548	27087258036	881062491	409922982	2812950241
2013/14	23.35	1.43	76.2	14.87	2.32	77.82	516770350	22185526928	664005726	360393624	2424079891
2012/13	18.91	0.28	78.01	2.307	2.02	53.16	323939422	15982555058	609309051	52224442	2263686167