

**ANALYSIS OF LIQUIDITY AND PROFITABILITY IN NEPALESE COMMERCIAL
BANKS**

**A dissertation submitted to the office of the Dean, Faculty of Management in
partial fulfilment of the requirements for the of Master's Degree**

By

ASHOK KUMAR THARU

Exam Roll No : 10893/19

Registration No: 7-2-676-5-2014

**Central Department of Management
Faculty of Management, Tribhuvan University
Kirtipur, Kathmandu
April, 2023**

CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled "*ANALYSIS OF LIQUIDITY AND PROFITABILITY IN NEPALESE COMMERCIAL BANKS*" The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor it has been proposed and presented as part of requirements for any other academic purposes.

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

Ashok Kumar Tharu

Signature:

Date of submission: April, 2023

Report of Research Committee

Mr Ashok Kumar Tharu has defined research proposal entitled "**ANALYSIS OF LIQUIDITY AND PROFITABILITY IN NEPALESE COMMERCIAL 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 Prof Dr Achyut Gyawali and submit the thesis for evaluation and Viva voce examination.

.....
 Name: Prof. Dr Achyut Gyawali
 Proposal Supervisor

Dissertation Proposal Defended Date: 7 June, 2022
--

.....
 Prof. Dr Achyut Gyawali
 Dissertation Supervisor

Dissertation Submitted Date: 29 March, 2023
--

.....
 Prof. Dr. Mahananda Chalise
 Chairperson, Research Committee

Dissertation Viva voce Date: 4 April, 2023

Approval Sheet

We have examined the dissertation entitled "*ANALYSIS OF LIQUIDITY AND PROFITABILITY IN NEPALESE COMMERCIAL BANKS*" Presented by **Ashok Kumar Tharu** for the degree of **Master of Business Studies (MBS)**. We hereby certify that the dissertation is acceptable for the award of degree.

.....

Prof. Dr Achyut Gyawali

Dissertation Supervisor

.....

Lecturer, Bhumi Raj Acharya

Internal Examiner

.....

Lecturer, Dr. Sunita Bhandari

External Examiner

.....

Prof. Dr. Mahananda Chalise

Chairperson, Research Committee

.....

Dr. Bharat Singh Thapa

Acting Head of Department,

Central Department of Management,

Date:

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ABBREVIATIONS

%	:	Percentage
ó	:	Standard Deviation
ADBL	:	Agricultural Development Bank
ANOVA	:	Analysis of Variance
CA	:	Current Assets
CL	:	Current Liabilities
CRR	:	Cash Reserve Ratio
TDP	:	Total Deposit
EBL	:	Everest Bank Limited
F Y	:	Fiscal Year
i.e.	:	That is
HBL	:	Himalyan Bank Limited
NRB	:	Nepal Rastra Bank
ROA	:	Return of Assets
ROE	:	Return of Equity
S.D	:	Standard Deviation
SPSS	:	Statistical Package for Social Science

ABSTRACT

This study investigates the Analysis of liquidity and profitability in Nepalese banks. The main objective is to explore and examine the liquidity position, profitability status, impact and relationship between liquidity and profitability of Nepalese commercial banks. The study descriptive and analytical research design has been used. Mostly secondary data have been used from the annual report statements of commercial banks in Nepal.

Correlation and regression analysis has used to examine the impact and relationship between liquidity and profitability. The ROA and ROE has use to measure profitability status and current ratio, cash reserve ratio, cash and bank balance to current deposit ratio and cash and bank balance to total deposit ratio was used to measure liquidity position. The study covers four Nepalese commercial banks i.e. ADBL, Nabil, Everest and Himalyan in Nepal over a period of past five fiscal years from 2073/74 to 2077/78. The study concluded that the CAR has positive significant relationship and CASH TO CA, CASH TO TDP and CR has positive but insignificant relationship with ROA of selected commercial banks. The CASH TO CA, CASH TO DP and CR has negative and insignificant relationship and CAR has positive but insignificant relationship with the ROE. Similarly, the CASH TO TDP and CR has shows negative impact and CASH TO CA and CAR has positively with (ROA and ROE) of selected commercial banks over the study period. The study recommends that ADBL bank should control the cost and expenses associated with bank operation to increase the profit and create new investment opportunities. NABIL Bank has recommended to increase utilization of assets that drives more profits .

Key Words: *Current Ratio, Cash Reserve Ratio, Cash and Bank Balance to Current Assets Ratio, Cash and Bank Balance to Total Deposit Ratio, Return on Assets and Return on Equity.*

CHAPTER – I

INTRODUCTION

1.1 Background of the Study

The performance of a company is significantly influenced by how its short-term assets and liabilities are managed on a daily basis. Even businesses with strong long-term forecasts and strong financial performance cannot stay solvent without effective liquidity management. Therefore, while increasing shareholder wealth still stands as a company's primary goal, maintaining the firm's liquidity is also a key goal, and as such, a company should strike equilibrium between the various interest goals. Profit growth at the expense of liquidity can cause the company significant issues, so a compromise between these two business goals must be made. A company won't last very long if it doesn't care about making a profit, but if it does, it will disregard cash, it may experience issues with insolvency or bankruptcy. Due to these factors, liquidity management should be carefully considered as it will eventually impact the firm's profitability (Adhikari, 2018).

The management of a company's present assets and current liabilities is referred to as liquidity. It is crucial in determining whether a company can successfully handle its short-term obligations. Because of how crucial it is, businesses must keep a decent portion of their assets in the form of cash on hand in order to pay their short-term debts. A balanced amount of liquidity is required for a firm's efficiency and profitability. Therefore, in order to guarantee high profitability, businesses must determine the ideal level of liquidity. There shouldn't be an excessive amount of liquidity either. Instead, it ought to stay at a manageable amount. Profitability, on the other hand, describes how much money businesses make after paying for operations and other costs. Profitability ratios are used to determine the profitability level of businesses, making it clear where the company sits in terms of profitability. Every company tries to achieve maximum profitability because it is the ultimate goal of every business to increase profitability. Since there is a strong correlation between a firm's profitability and liquidity, the firm must keep an ideal level of liquidity (Ali Khan & Ali, 2016).

The whole service sector is currently undergoing industrialization and commercialization. By managing analysis on profitability and liquidity properly, business organizations are advancing toward profit maximization. The idea of liquidity management is one that is getting a lot of attention today, especially given the present financial climate and the health of the global economy. Maintaining a high amount of liquidity in order to assure security while maximizing profit, and reach the maximum owner's net worth level possible while also achieving other corporate goals are just a few of the eye-catching corporate goals. The liquidity is a significant influencing aspect of a controllable element for making decisions and earning revenue. Decisions regarding liquidity and profitability, which are important managerial choices, can have an impact on shareholders' returns, risks, and customer pleasure (Jeevarajasingam, 2014).

A commercial firm's ability to operate successfully depends on its level of liquidity. Business should ensure that it has enough liquidity to cover its immediate responsibilities without going overboard. Lack of liquidity leads to poor credit ratings, which could ultimately lead to the company's liquidation. An extremely high level of liquidity is likewise undesirable because idle assets produce no income. Studying liquidity is crucial for both internal and external analysts due to its close link to the everyday activities of a company (Bhunias, 2012).

The quantity of capital that is accessible for investment is referred to as liquidity in the financial context. The ability of a bank to keep enough money on hand to cover its maturing commitments is known as bank liquidity. The business may have trouble paying its immediate financial obligations if the bank is unable to instantly meet cash obligations. A high number of liquid assets may have an impact on an organization's profitability and business operations. As a result, profitability and liquidity are trade-offs (Saleem & Rehman, 2011).

A bank is considered profitable when sales exceed costs. In order to operate, banks must incur expenses, which are the cost of the resources used to do so. Being profitable is the primary objective of the companies. Businesses cannot long-term compete in the market without profitability. Therefore, it is crucial to assess previous profitability, determine current profitability and predict future profitability for the

banks. Although the cash input and withdrawal, which pertain to the company's liquidity, are indicated on the cash flow statement, revenue and the income statement, which speaks about the business's profitability, expenses are disclosed. (Das, Chowdhury, Rahman, & Dey, 2015).

From the above, every shareholder is interested in a bank's liquidity status. In this study, we looked at how a bank's profitability is impacted by its liquidity. Profitability is the revenue a business generates from its activities. Profits are the primary goal of both businesses and banks. A bank's profit is calculated utilizing the interest rate difference it charges on lending it extends to customers and interest rates that it offers to customers. A number of ratios are taken into account when assessing the effect of liquidity on bank profitability.

1.2 Statement of the Problems

The efficiency of banks in receiving deposits and distributing loans should be high. An inadequate amount of liquidity can lead to serious financial issues for a bank. So maintaining the bank's liquidity position will help the company turn a healthy profit. According to reports, Nepal's commercial banks barely raise any cash for the country's industrial sectors. The ability of banks to raise money and invest it in successful companies is lacking. The efficiency of the financial statement analysis and its defects have an effect on the financial performance of the bank. It shows how inadequately liquidity management is carried out banking sectors are struggling to maintain their liquidity situations as a result of their incapacity to settle short-term debts and other financial commitments. They suffer as a result, which hurts their financial success (Shrestha & Jha, 2020).

The bank should have fast access to immediately expendable money at a reasonable cost exactly when such funds are required. (Rose, 1999) A commercial bank should have enough liquidity to mitigate both its asset-side and liability-side liquidity risks. Both insufficient and excessive liquidity suggest a concern with a commercial bank's financial soundness. Excess liquidity destroys commercial bank profitability by lowering the return on assets. Similarly, insufficient liquidity harms a bank's credit standing, leading to the forced liquidation of assets and harming the bank's reputation. As a result, commercial banks must strike a balance between profitability and

liquidity risk. The bank's financial performance suffers from a lack of strength and efficiency in financial statement analysis. Commercial banks' cash, bank balances, and cash reserves with the NRB have been fluctuating and dropping, while various deposits have been increasing; this demonstrates the bank's inefficiency in liquidity management.

The following research questions have been tried to be answered by this study:

- i. What is the status of Liquidity and profitability position of selected Nepalese commercial banks?
- ii. Is there any relationship between the Liquidity and profitability of selected Nepalese commercial banks?
- iii. Is there any effect of liquidity and profitability of selected Nepalese commercial banks?

1.3 Objectives of the Study

This study's main goal is to compare the liquidity and profitability analyses of the Adbl, Nabil, Everest, and Himalayan Nepalese banks.

The specific Objectives of the study are as follows:

- i. To assess the liquidity position and profitability position of the selected Nepalese commercial banks.
- ii. To examine the relationship between the Liquidity and profitability of selected Nepalese commercial banks.
- iii. To analyze the effect of liquidity and profitability of selected Nepalese commercial banks.

1.4 Research Hypothesis

Testing of the hypotheses is done while the investigation is being conducted. The process for testing hypotheses is as follows.

-) H1: There is a significant relationship between Current Ratio and ROA.
-) H2: There is a significant relationship between Current Ratio and ROE.
-) H3: There is a significant relationship between CR Ratio and ROA
-) H4: There is a significant relationship between CR Ratio and ROE.

-) H5: There is a significant relationship between Cash & Bank Balance To Current Assets Ratio and ROA.
-) H6: There is a significant relationship between Cash & Bank Balance To Current Assets Ratio and ROE.
-) H7: There is a significant relationship between Cash & Bank Balance To Total Deposits Ratio and ROA.
-) H8: There is a significant relationship between Cash & Bank Balance To Total Deposits Ratio and ROE.

1.5 Rationale of the study

A key factor in managerial decision-making is the appraisal of the liquidity and profitability status of Nepal's commercial banks. Every stage of an organization's operation, promotion, and expansion requires an analysis of its financial performance. The balance between earning and non-earning assets needs to be right. The goal of profitability serves as the commercial banks' constant compass. Commercial banks always make judgments that will increase shareholder value. To protect the banks from the risk of illiquidity, there should be an efficient mechanism of fund allocation. Between them, a certain level must be attained. The study considers whether or not commercial banks are aware of this situation. This study can be used to boost the subject company's financial performance. This research can aid the concerned company's financial performance. This study will be useful to academics, students, instructors, and practitioners in accounting and finance. This research also benefits shareholders, debtors, depositors, and financial institutions, so they can determine which banks are the best to work with on an unbiased basis (Budha,2021).

From the perspective of the banks' liquidity management, this study is important. In view of:

- i. This study will contribute to provide information about financial position for investor and creditor.
- ii. This study will contribute to improving investor, creditor, employee, and customer attitudes and views.

- iii. This study will assist in decision-making and the evaluation of liquidity and performance.
- iv. The forecasts for credit and liquidity will be supported by the findings of this study.
- v. This study can serve as a basis for future research.

1.6 Limitations of Study

This study investigates the elements affecting a commercial bank's liquidity condition and profitability. It's limited in some ways. Resources are scarce, and exploring research to uncover novel aspects is challenging. The two biggest obstacles are the dependability of the statistical methods used and a lack of research expertise.

The study depends on the following limitations.

- i. The study focuses on the liquidity position and profitability aspect only.
- ii. The study analysis only with the help of financial tools and very few statistical tools are used.
- iii. This study covers the five years of period (2073/74 to 2077/78).
- iv. This research focuses on quantitative analysis and ignores qualitative variables.
- v. Given that the study focuses on four banks i.e. ADBL, NABIL, EVEREST and Himalayan commercial banks in Nepal. The study's conclusion might or might not apply to other commercial banks.
- vi. All of the secondary data collected in this study are used to analyze and interpret the results.

1.7 Chapter plan

The chapters of this work are divided into five sections, as follows:

Chapter 1: This chapter provides the study's introduction. It explains the background, introduction, and statement of problem, research question, Significance of study, and limitation of study, objective of study.

Chapter 2: This chapter is focused with the literature review which includes review of theories the previous studies have been briefly discussed of some of the journals and reports have been reviewed too.

Chapter 3: This chapter describes about the Research methodology of research used for the study. This chapter covers research design, data sources, data analysis, population and sampling, and instruments for data analysis.

Chapter 4: This chapter has discussed using figures and financial tools to present and analyze data. The financial and statistical analysis connected to bank loan management. The thesis chapter also includes a summary of the study's key findings.

Chapter 5: This chapter explores the study's summary, conclusion, and implications and concludes with references and appendices.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

In any study, the previous study cannot be ignored. On this subject, we can discover several previous papers, journals, study reports, public books, manuals and thesis. To determine what other scholars have already done and what remains to be done, as well as to examine similarities and differences with the study evaluation if needed. There are numerous publications, reviews and thesis on the issue of commercial bank liquidity and profitability analyses in Nepal. The following examines the impact of liquidity on profitability on commercial bank organizational performance. This study drew resources from a variety of sources that were all closely related to the study's theme and objectives. Following that is a summary of the literature review.

2.2 Theoretical review

Anticipated Income Theory

H.V. Prochanow formulated this idea in 1944 on the basis of US commercial banks' practice of issuing term loans. This idea states that the bank will prepare the duration of loan liquidation based on the anticipated revenue of the borrower, regardless of the form and characteristics of the borrower's business. A term loan has a term that is more than one year but shorter than five years.

It is provided as a substitute for the mortgage of stock, equipment, and even real estate (security commitment). While lending this loan, the bank limits the borrower's financial actions. The bank considers security as well as the borrower's expected earnings when making a loan. So, rather than delivering a lump sum at the loan's maturity, a bank loan is repaid in installments using the borrower's future earnings.

Shift Ability Theory

H.G. Moulton proposed this hypothesis in 1915, arguing that if commercial banks continue to have a significant quantity of assets that can be transferred to other banks

for cash without serious loss. In the event of a demand, it is unnecessary to rely on maturities.

This idea states that a resource must be completely shiftable in order to, it must be directly transferrable without any capital loss when liquidity is required. This is primarily utilized for short-term market investments such as treasury bills and bills of exchange, which can be sold directly whenever banks need to raise funds.

However, in typical situations where all banks need liquidity, the shift ability theory requires all banks to purchase assets that can be transferred to the central bank, which acts as the lender of last resort.

2.3 Conceptual review

A review of the related literature is the source for the further study. It provides the strong knowledge about the related topic. The review of related literature involves the systematic identification, location and analysis of documents containing information related to the research problem.

2.3.1 Concept of Liquidity

The quantity of capital that is accessible for investment is referred to as liquidity in the financial context. Most of today's capital is credit rather than actual money. This is due to the fact that the big financial organizations that handle most investments favor borrowing money. Since interest rates are low and capital is therefore readily accessible, high liquidity denotes a large amount of capital. Why are interest rates such a crucial factor in managing liquidity? Since these rates actually determine how expensive borrowing is. Because credit is affordable due to low interest rates, firms and investors are more likely to borrow. More investments seem beneficial because the return on investment merely needs to be higher than the interest rate. High liquidity promotes economic growth in this way.

Liquidity can be considered as being available through purchased money as well as being stored on the balance sheet. The amount of liquidity is determined by the relationship between cash assets, assets that may be easily transformed into cash, and the liabilities that are due for payment. In general, different countries around the world have different definitions of what liquidity is. Because it is well known that as

the monetary sector develops or the use of monetary instruments rises, the definition of it also expands. Liquidity is the total amount of money in circulation (Bhandari, 2013).

2.3.2 Concept of Profitability

Profit is the cumulative variance between revenues and expenses, usually over the course of one year. It can't thrive if it doesn't generate enough of it. As a result, the financial management should constantly assess how profitable the company is. The profitability ratios are computed to assess the business's operational effectiveness. In addition to the administration of the business, creditors and owners are also concerned with its profitability. Creditors desire regular payments of principal and interest. The needed rate of return is what owners seek on their investment. Only when the company makes enough money is this feasible (Pandey, 2012).

Profitability is the term used to describe the Bank's net income when revenues outpace costs. Bank activities produce income, and the cost of the resources utilized to produce that income is an expense. Being profitable is the primary objective of the companies. Businesses cannot survive in the market for very long without being profitable. The organization must therefore evaluate past profitability, ascertain current profitability, and forecast future profitability. Income and expense are indicated on the income statement, which relates to the profitability of the firm, while the inflow and outflow of cash are depicted on the cash flow statement, which defines the company's liquidity (Das, Chowdhury, Rahman, & Dey, 2015).

2.3.3 Relationship between Liquidity and Profitability

Two crucial factors that reveal information about the success of any corporate entity are profitability and liquidity. Profitability and liquidity should move in tandem with one another for long-term survival and healthy growth. One of the main goals of any firm is profitability. Without being profitable, a company cannot continue, and commercial expansion is challenging. A business needs short-term money to cover its ongoing operational costs and other demands in order to turn a profit. When this short-term funding requirement is created through business operations rather than through external indebtedness, business will be more lucrative. The ability of a business to satisfy its short-term financial needs is shown by its liquidity, while its

profitability indicates the amount of profit the business has made from its operations (Ahmad, 2016).

The management of every organization should consider researching and thinking about the challenges of profitability and liquidity as their top priorities. The ability of a company to fulfill its immediate obligations is referred to as liquidity. A business firm's ability to function successfully depends on its level of liquidity. Because of its direct connection to daily business operations, both internal & external experts should conduct a study of liquidity. (Bhunja, 2010).

The terms "liquidity" and "profitability" keep coming up in relation to banks. Without liquidity, profitability is not possible. Additionally, profitability is a prerequisite for increased liquidity. Each of these is a complement to the other. But these two also compete against one another. High levels of liquidity prevent a bank from making a profit. The bank doesn't profit from the liquidity because the majority of it is kept in reserve there. The money cannot be invested by the bank. Without investment, it is impossible to hope for profitability (Budha, 2016).

2.4 Empirical review

Singh (2008) had an exploratory investigation of the financial performance of commercial banks NABIL, NIBL, and HBL. The primary goal of this study is to identify the financial weaknesses and strengths of three commercial banks: NABIL, NIBL, and HBL. The study's main focus is on the comparative financial performance of these institutions from 2060/61 to 2064/65. Based on research methods that involve the use of quantitative and qualitative models to discover, According to the liquidity research, NIBL has better overall liquidity than NABIL and HBL. The higher percentage of return on total deposit of NIBL in contrast to HBL implies that NIBL uses its entire deposit more successfully in creating profit than HBL. There is perfect positive correlation between total deposit and total investment of NABIL, NIBL & HBL. The sum of NABIL, NIBL, and HBL's total investments and deposits are perfectly correlated. There has been a change in the entire deposit, which results in changes in the total investments of NABIL, 99.7% of NIBL, and 99.6% of HBL.

Akter & Mahmud (2014) investigated relationship between liquidity and profitability in Bangladesh's banking system. Twelve banks from four different industries were considered. Determine how much a bank's liquidity can explain its profitability. Identify the relevance of the 10% significance level for the relationship between bank profitability and liquidity. Particularly, liquidity and profitability don't have a strong relationship. The banking industry as a whole has the same pattern. Government banks had unpredictable liquidity, whereas other sectors were consistent. However, there were significant variations in profitability in all sectors between these dates. In Bangladesh, Liquidity and profitability in banks across industries do not significantly correlate.

Alshatti (2015) carried out a study to investigate the impact of liquidity management on profitability in Jordanian commercial banks throughout the time period (2005–2012). Thirteen banks have been chosen to represent Jordanian commercial banks as a whole. The liquidity indicators are the investment ratio, Quick ratio, capital ratio, net credit facilities/total assets ratio, and liquid assets ratio, while the profitability proxies are return on equity (ROE) and return on assets (ROA). The Augmented Dickey Fuller (ADF) stationary test model was employed to test for a unit root in a time series of the research variables, followed by regression analysis to evaluate the hypothesis. The empirical results suggest that an increase in the fast ratio and the investment ratio of available funds has a good effect on profitability, whereas the capital ratio and the liquid assets ratio have a negative influence on the profitability of Jordanian commercial banks.

Khan and Ali (2016) examined profitability and liquidity of commercial banks in Pakistan are related. The nature and strength of links between dependent and independent variables are identified using regression and correlation. Secondary data was used the analysis for years (2008-2014). Using the current ratio, quick ratio, gross profit margin, and net profit margin. Found that Bank profitability and liquidity have a significant positive link. No variable shows a negative correlation with any of the liquidity ratios. Thus, the research found a beneficial association between liquidity and profitability.

Ibrahim, S. S. (2017) studied how liquidity affected the financial performance of Iraqi commercial banks. For the current study, five Iraqi banks from the years 2005 to 2013 were examined. Additionally, the key profitability and liquidity ratios of these institutions' annual reports were examined and computed. For Using variable are Loan deposit ratio, deposit asset ratio, deposit asset ratio and cash deposit ratio. According to the study, any rise in the aforementioned liquidity ratios will result in a rise in return on assets as well. This study suggests that maintaining a balance between liquidity and profitability may be best for Iraqi banks.

Shrestha (2018) aimed to investigate the liquidity management and profitability of Nepalese commercial banks. The study's goal is to determine the relationship between liquidity management and profitability, as well as the influence of liquidity management on profitability. The data was discovered to span the years 2012-2016 for commercial banks in Nepal. Pearson correlation analysis are used to investigate the relationship between liquidity management and profitability. The impacts of liquidity on profitability are investigated using regression analyses. The liquidity management variables include the current Reserve Ratio (CRR), Credit Deposit Ratio (CDR), and profitability, which include return on equity. (ROA). The findings show that liquidity has no substantial impact on profitability in Nepalese commercial banks.

Akhter (2018) examined the effects of profitability and liquidity on the operational effectiveness of Bangladesh's scheduled commercial banks between 2011 and 2016. The study employed secondary data from 30 Bangladeshi scheduled commercial banks. To produce a reliable result, the quantitative research used a panel data method and a variety of models, including the Feasible Generalized Least Square Model, Panel Correlated Standard Error Model, Fixed Effect Regression model with Cluster Standard Errors, and Drisc/Kraay Standard Errors models. The study finds that, using the Fixed Effect Regression Model and the Panel Correlated Standard Error estimator, respectively, liquidity and profitability together account for approximately 66.23% and 98.85% of the bank's operational efficiency. The analysis comes to the conclusion that the bank should use client deposits and borrowings to create a high-quality loan portfolio after maintaining a minimal level of liquidity in order to assure profits for its shareholders.

Ghurtskaia & Lemonjava (2018) identified patterns in the liquidity ratio and profitability ratio of banks. Liquidity ratio, net interest margin, return on equity, and return on assets were reviewed based on statistical financial data published by National Bank of Georgia, and trend findings were displayed. Additionally, regression analysis and correlation coefficient analysis were utilized to look at the link between the four above-mentioned variables. The findings indicated a positive correlation between the banks' profitability and their liquidity ratio.

Adhikari (2018) studied the thesis titled "Liquidity and Profitability of Selected Nepalese Commercial Banks" With reference to the NABIL and Nepal SBI Bank Limited Comparative Study. The purpose of this research is to investigate Nepalese commercial banks' liquidity management and profitability. Analyze the profitability ratios of the sample banks, such as return on shareholders' equity, total assets, and deposit, to evaluate the cash reserve ratio maintained by the banks and to examine the relationship between net profit and total deposit and net profit and investment. The major conclusions are that SBI bank's liquidity status is stronger than Nabil's. Nabil Bank outperforms in all sectors, and its profitability ratio is high .The growth rate, liquidity status, and risk ratios are all below average. Compared to the capital risk ratio of Nabil Bank, SBI has a good liquidity position and a low risk.

Subedi (2018) had carried out a study on Nepal's Commercial Banks' Profitability and Liquidity. This study's primary goal is to compare the analyses of the liquidity and profitability of the chosen commercial banks. The following provides examples of the findings. Since EBL's current ratio is higher than those of CBIL, NBL, RBB, and SBL, Based on the cash & bank balance to total deposit ratio, The criterion set by NRB for cash reserve ratio has been successfully met by the average cash reserve ratio of CBIL, EBL, NBL, RBB, and SBL for the entire fiscal year. The sample banks' cash and bank balance to current assets ratios vary, with NBL having a larger ratio and SBL having a lower one. RBB has a higher profitability position than CBIL, EBL, NBL, and SBL.

Mishra (2019) examined the relationship between liquidity and profitability of Nepalese commercial banks. The secondary data used in this study was taken from the annual reports of Nepalese commercial banks and the NRB for the ten fiscal years

between 2007/08 and 2017/19. The relationship between liquidity and profitability was examined using correlation and regression analysis. This article's conclusions are based on research done on the chosen banks. Thus, The results show that ADBL and NABIL are well-positioned in terms of profitability and liquidity. The financial sector can thus use the findings.

Sah & Lertjanyakit (2019) analyzed impact of liquidity management on the financial performance of Nepalese commercial banks. The study found that LR has a substantial positive relationship with market value of financial performance while CRR has a large negative correlation with it. financial performance and capital adequacy ratio are significantly inversely related; the latter is significantly inversely correlated with the former.

Pokharel & Pokharel (2019) investigated influence of liquidity on profitability in Nepalese commercial banks. Randomly selected were 5 commercial banks as a sample from of 28 commercial banks. Data was used 2010-11 to 2016-17 AD. While The IGSCA and CRR have a positive correlation with ROA, while the CRR and CBBISD have a negative correlation with ROA. It has also been noted that, with the exception of IGSCA and ROA, there is a considerable association between liquidity ratios and profitability.

Akber & Dev (2020) explored the impact of liquidity on commercial bank's profitability in the banking sector of Bangladesh. This research sampled 10 commercial banks that are listed on the Dhaka Stock Exchange in order to produce reliable results. Data collection took place between 2012 and 2019. The loan to deposit ratio, deposits to assets ratio, loan to asset ratio, and cash deposit ratio were four of the liquidity indicators used in the study. Another metric to examine the effect on profitability is return on equity (ROE) and return on asset (ROA). According to the study's findings, Bangladesh's commercial banks' profitability is not statistically significantly impacted by liquidity.

Paul, Bhowmik & Famanna (2020) investigated the impact of banks' liquidity on their profitability; in the short-term and during normal business operations (10 years). A statistical sample of forty (40) Bangladeshi commercial banks is subjected to a quantitative study. With 206 bank years of data collected to take into account all

Bangladeshi commercial banks, secondary data is utilized to analyze the performance of the last ten years (2009-2018) of the annual report of the commercial banks in Bangladesh. Thus, it can be said that, generally speaking, the profitability in Bangladesh's commercial banking sector is significantly impacted by the influence of liquidity.

Khatri (2020) attempted relationships between the liquidity and profitability of commercial banks in Nepal. Ten of the 27 commercial banks that are participated and Data collection covers between 2013 to 2019 And secondary data used to annual reports of commercial banks, as well as Bank Supervision Reports released by Nepal Rastra Bank. Found that the asset quality (AQ) has negative but significant with Return on assets (ROA) and positive from return on equity(ROE), according to Hausman test and subsequent fixed effects approach. The cash deposit ratio (CADR) shows a positive with Return on assets (ROA) and Return on equity (ROE). However, analysis shows that the credit-deposit (CDR) has a favorable but insignificant connection with (ROA) and an unfavorable but minor connection with (ROE).

Shrestha & Jha (2020) explored Liquidity's Effect on the Profitability of a Foreign Joint Venture Commercial Bank in Nepal. For the current study, a sample of 27 Nepalese commercial banks was chosen and examined during the years 2014–15 and 2018–19 AD. Correlation and regression analysis were used and numerous statistical and financial methods. As result, banks' liquidity ratios are below the mandated standard, and the LADR has a substantial impact on the ROA. The NRBTD/CRR has a negligible impact on ROE on the other two sample banks, while it has a weakly significant impact on ROA of all sample banks. HBL and EBL. ROA are significantly impacted by CACL, however NBB. ROA is not much impacted by CACL. Additionally, CACL has a sizable impact on ROE for each of the three banks. While NBB has a modest substantial impact on both the profitability index and ROA and ROE of HBL and EBL, CHTDR significantly affects both. CATA significantly affects HBL, EBL, and NBB ROA. Similar to this, CATA significantly affects ROE while EBL and NBB only have somewhat beneficial effects. The LADR significantly affects the ROE and ROA of the HBL, EBL, and NBB. The conclusions of this work, however, are supported by research done on the chosen banks.

Hakuduwal (2021) investigated the impact of bank specific factors on profitability of Nepalese commercial banks. In contrast to return on assets, which is viewed as a dependent variable, total assets, total deposits, total loans & advances, and total equity are all viewed as independent variables. The study employs the pooled least squares approach. The study uses panel data spanning seven years, from 2012 to 2018. The regression result, F-test, and t-test are utilized to analyze 112 observations from sixteen commercial banks. The study found that the profitability of Nepalese commercial banks is significantly positively impacted by total assets and total loans and advances.

Budha (2021) analyzed connects with Nepalese commercial banks' liquidity and profitability. Major goals assess the financial health, level of profitability, and connection between these factors of Nepalese commercial banks. A descriptive research approach has been used to achieve this purpose. Secondary information was gathered and used from the annual financial statements of selected banks. Data taken from the companies' annual reports and financial statements for the pertinent time served as the basis for the analysis. using correlation and regression analysis. To assess the level of profitability, the ROA, ROE, and net profit margin were employed. The study examines five Nepalese commercial banks from the 2015–16 fiscal years through the 2019–20 fiscal year, including ADBL, Nabil, NIC Asia, Mega, and Siddhartha. According to the study's findings, the CR has a substantial negative association with ROE of particular commercial banks and a large positive link with ROA and NPM. The CBBTDR has a small but considerable negative association with the ROE and NPM and a small but large positive link with the ROA. Similar to this, over the study period, the CBBCDR exhibits a negative and substantial association with the ROA, ROE, and NPM of selected commercial banks.

2.4.1 Summary of articles and theses

Author	Topic	Objectives of Research	Finding of Research
Alshatti (2015)	the effect of the liquidity management on profitability in the Jordanian commercial banks.	To conduct the effect of the liquidity management on profitability in the Jordanian commercial banks during the time period (2005–2012).	Results show that a positive effect of the increase in the quick ratio and the investment ratio of the available funds on the profitability, while there is a negative effect of the capital ratio and the liquid assets ratio on the profitability of the Jordanian commercial banks.
Khan and Ali (2016)	Impact of Liquidity on Profitability of Commercial Banks in Pakistan: An Analysis on Banking Sector in Pakistan	investigating the relationship between liquidity and profitability of commercial banks in Pakistan	The study has found that there as significant positive relationship between liquidity with profitability of the banks. None of the variable shows negative relation with all the ratios of liquidity. Hence that research indicated that liquidity has positive relationship with profitability.
Ibrahim, (2017)	The Impacts of Liquidity on Profitability in Banking Sectors of Iraq: A Case of Iraqi Commercial Banks.	To examine the influence of liquidity on the profitability of Iraqi commercial banks. Five banks based in Iraq	The study observes that any increase in liquidity ratios as above mentioned will lead return on asset to increase as well. Depending on this study it could be better for Iraqi banks to keep a balance between liquidity and profitability.
Shrestha (2018)	The Liquidity Management	To identify the relationship	The study found that liquidity does not have its significant

	and Profitability of Commercial Banks in Nepal.	between the Liquidity management and profitability and its impact on profitability.	impact on profitability in Nepalese commercial banks.
Adhikari (2018)	Liquidity and Profitability of Selected Commercial Banks of Nepal	To examine the liquidity management & profitability of Nepalese commercial banks.	The study found that liquidity position of Nabil is comparatively lower than SBI bank and Nabil bank is better in every sector and profitability ratio is good. However, liquidity position and growth rate is not satisfactory and it has average risk ratio. In the case of SBI it has its good liquidity position as well as minimum risk in comparison Nabil bank reference to capital risk ratio.
Subedi (2018)	Analysis of Liquidity and Profitability of Commercial Banks of Nepal.	To analyze the comparative study of the liquidity and profitability analysis of the selected commercial banks	The liquidity position of EBL is better than that of other sample banks, as the current ratio of EBL is higher CBIL, NBL, RBB and SBL. The average cash reserve ratio of CBIL, EBL, NBL, RBB and SBL has remained successful to meet the standard set by NRB for cash reserve ratio in all fiscal year. The profitability position of RBB is better than that of CBIL, EBL, NBL and SBL.
Ghurtskaia & Lemonjava (2018)	A Study of	To find out	As the results showed

	Relationship between Liquidity and Profitability in Georgian Banking Sector.	relationship between bank profitability and liquidity of Georgian banks form 1998-2017 year.	relationship between liquidity ratio and banks profitability is positively correlated. Besides, coefficient of determination is valid for net interest margin and liquidity in regression analyses, whereas in other cases coefficient was not valid.
Mishra (2019)	Relationship between liquidity and profitability of Nepalese commercial banks.	To examine the relationship between liquidity and profitability of Nepalese commercial banks.	The results show that ADBL and NABIL have good liquidity position and profitability position. Therefore, the results are valid for banking sector.
Sah & Lertjanyakit (2019),	liquidity management on the financial performance of Nepalese commercial banks.	To analyze of the impact of liquidity management on the financial performance of Nepalese commercial banks.	The study finds that LR has significant positive relationship with market value of financial performance, whereas CRR has significant negative relationship with market value of financial performance. CDR and LR has significant negative relationship with book value of financial performance, whereas capital adequacy ratio has positive significant relationship with book value of financial performance.
Pokharel&Pokharel (2019)	Impact of liquidity on the profitability in	To examine the impact of liquidity on profitability on	The study concluded that bank's liquidity ratios have below the prescribed standard

	the Nepalese commercial banks.	the basis of total assets.	CRR is extremely heavy than prescribed by monetary policy 2016/17. It also has reported that there is significant relationship between liquidity with profitability except between IGSCA and ROA.
Akber&Dev (2020)	Influence of Liquidity on Profitability of Commercial Bank's in Bangladesh.	To examine the impact of liquidity on commercial bank's profitability in Bangladesh.	The outcome of this paper states that the impact of liquidity on commercial bank's profitability in Bangladesh is not statistically significant.
Khatai (2020)	Impact of Liquidity on Profitability of Nepalese Commercial Banks.	To analyze the relationship between the liquidity and the profitability of commercial banks in Nepal.	The study reveals that credit-deposit (CDR) has positive but insignificant relationship with ROA and has negative and insignificant relationship with return on equity (ROE)
Paul, Bhowmik & Famanna (2020)	Impact of Liquidity on Profitability: A Study on the Commercial Banks in Bangladesh.	investigate the effect of banks' liquidity on its profitability of commercial banks in Bangladesh.	A finding of this research is that the impact of liquidity has a significant effect on the profitability in the commercial banking sector of Bangladesh.
Shrestha & Jha (2020)	Impact of Liquidity on Profitability of Joint Venture Commercial Banks in Nepal	To explore the Impact of Liquidity on Profitability in Foreign Joint Venture Commercial Bank in Nepal: with	Research concluded that bank's liquidity ratios have below the prescribed standard and negative impact ROE of NBB and have the positive impact on other two . CACL

	(With Reference to EBL, HBL and NBB	reference to HBL, EBL & NBB	has significant effect on ROA of HBL and EBL whereas there is no significant impact on ROA due to CACL in NBB. Further, CACL has significant impact on ROE on all three banks. CHTDR has significant effect on ROA and ROE of HBL and EBL whereas NBB has weak significant impact on both the profitability index.
Budha (2021)	Relationship between liquidity and profitability of Nepalese commercial banks.	To explore and examine the liquidity position, profitability status and relationship between liquidity and profitability of Nepalese commercial banks.	The study concluded that the CR has positive significant relationship with ROA and NPM and negative significant relationship with ROE of selected commercial banks. The CBBTDR has negative and insignificant relationship with the ROE and NPM and also has positive and insignificant relationship with ROA. Similarly, the CBBCDR has shows negative and significant relationship with ROA, ROE and NPM of selected commercial banks.

Source: Review of literature

2.5 Research gap

There is a gap between the current study and previous research on the profitability and liquidity of Nepalese banks. The prior investigations by Mishra(2019), Adhikari (2018) and Budha (2021) examined the connection between a commercial bank in Nepal's profitability and liquidity. Out of 27 commercial banks, a sample of 2 and 5 banks were used in the study. The research focused on the last 10 and 5 years. The results of the prior study mostly showed high profitability and liquidity positions.

Similar to this research, Khan and Ali (2016) and Pokharel & Pokharel (2019) looked at the effects of commercial banks' profitability and liquidity. The study used five years of data up until 2016/17. Which liquidity and profitability tools are used most frequently, which ones are not, and why? This information was not revealed in the prior research. The literature review of many publications, journals, and theses demonstrates that profitability and liquidity have a favorable effect on organizational performance. Profitability and liquidity contribute to commercial banks' improved organizational performance. The study's previous variables are essentially same. The previous researchers' suggestions and recommendations to enhance and improve financial decisions have been extremely helpful to the relevant banks. All of the earlier research and studies were centered on the commercial banks' credit and liquidity. There are numerous studies and research projects underway in the micro area of financial instruments, but none have examined the liquidity and profitability of the ADBL, NABIL, EVEREST, and HIMALAYAN Nepalese banks. First, the information from 2073/74 to 2077/78 are covered, which is different from past research and the present investigations. The previous study only examined the financial and statistical data of Nepal's commercial banks. The previous researcher merely described the established relationship between liquidity and profitability; it did not demonstrate how profitability affected the level of liquidity that was maintained. In order to draw the right conclusions, the bigger study's objective is to investigate the connection between profitability and liquidity using statistical and financial techniques. This study demonstrates link between profitability and liquidity in commercial bank performance.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology used to conduct the study. It covers the research design, Population and sample, data sources, data collection techniques, and research framework. The methodologies and procedures used during the entire investigation are described under research methodology. It refers to the many steps that a researcher must take in order. To achieve the purpose, this study essentially contributes to the conclusion of the real liquidity profitability situation of Adbl, Nabil, Everest, and Himalayan, commercial banks in Nepal. The research approach outlined in this chapter is used in this investigation.

3.2 Research Design

This study's primary goal is to examine the Nepalese commercial banks Adbl, Nabil, Everest, and Himalayan's liquidity and profitability. To make the data useful and assess the profitability of the two banks, some financial and statistical procedures are used. Both a descriptive and a casual research design have been utilized to fulfill the study's goals. The descriptive research design has been used to gather sufficient data and find out the truth. For this research investigation, mainly secondary data were utilized. The information is gathered from a variety of yearly reports, internet from relevant banks. As a result, this topic has created by gathering data from multiple sources, tabulating it and then using various accounting, financial, and statistical tools to assess it. Ratios for profitability and liquidity are among the financial tools. Similar to this statistical methods include regression analysis, coefficient of variation, standard deviation and arithmetic mean. The purpose of this study is to compare and determine the link between two or more variables.

3.3 Sources of Data

This investigation is based on secondary data. The data for this study was gathered from annual published reports of selected Nepalese commercial banks such as Adbl,

Nabil, Everest, and Himalayan. The statistics are collected over a five-year period (2073/74 to 2077/78). Secondary sources for data and information include annual yearly reports, past related thesis and associated reports and government entities and other published and unpublished reports and documents from diverse sources. This study's independent variable is liquidity, and the dependent variable is profitability.

3.4 Population and Sample

Population refers to the observations or units that are within the scope of the investigation. And a sample is a representative subset of the population that possesses all of the traits found in the population. In the current situation, 26 commercial banks are active in Nepal. The target market consists of every listed commercial bank in the nation. Among all the commercial banks four commercial banks are selected as a sample by reputation and work more than 10 years of bank. The samples have been follow descriptive and causal research design selections. The one government bank and others joint private commercial banks to achieve the objectives set out by analyzing the data.

3.5 Data Collection Instrument and Procedures

Data collecting is regarded as an essential component of research. Collected annual report, likes the financial statements for relevant years of selected banks. Furthermore, magazines, publications, journals and articles, as well as legitimate websites of the sampling banks and NRB, have been consulted for information. Direct usage of actual data does not aid in trustworthy analysis. As a result, To prepare them for analysis, they have been considered rechecked, reevaluated, updated, and tabulated. The meaning of data obtained in this way is little unless it is sorted and displayed methodically. For analysis, they need to be made simpler. The necessary details were collated and put into helpful tables. With unnecessary information deleted, just the information necessary for the study have been supplied in an easily understandable tabular format. The process of drawing conclusions from given data using various financial and statistical methods. Excel and SPSS were used to calculate statistical values such as mean, standard deviation, coefficient of variance, correlation, and so on.

3.6 Data Processing Procedures and Data Analysis Tools

One of the most important aspects of research is data analysis. To achieve the goal, the data is evaluated using financial, accounting, and statistical tools. The information was gathered from a variety of sources, and financial and statistical methods were employed to make the analysis more effective, convenient, dependable, and legitimate. Due to time and resource constraints, data analysis is performed based on the pattern of data available. This study use simple causal and statistical methods (correlation coefficient using Karl Person, regression, arithmetic mean and standard deviation), Similarly, financial analysis has made use of accounting procedures such as ratio analysis. The tools used in this investigation have been presented.

3.6.1 Financial Tools

In this study, the financial performance of a commercial bank is examined along with its strengths and flaws. The following financial ratios will be examined as part of the liquidity and financial situation examination of four commercial banks.

A) Liquidity Ratios

Liquidity ratios assess a company's capacity to meet short-term obligations with current and liquid assets. It is used to assess the firm's short-term financial strength and solvency. The assets of a bank can be transformed into cash to cover withdrawals of deposits and other immediate commitments. The liquidity of a bank should be checked to make sure neither it is excessively high nor low. Both liquidity conditions are unfavorable to banks.

B) Profitability Ratios

Profitability ratio is a crucial indicator of operational effectiveness. Based on goals of commercial banks is to be profitable enough to achieve a range of goals such as obtaining achieving a desired cash position, fulfilling interest obligations, avoiding unforeseen circumstances, discovering untapped possibilities for investment, and supporting growing branches and so on. In fact, the profitability ratio is the best indicator of a bank's total efficiency.

3.6.2 Statistical Tools

Measurements or equipment used in statistical analysis are gathered from a variety of references. There are different statistical methods available in statistics for analyzing data of various types. The following are the key statistical tools: to be calculated for this study:

a) Arithmetic Mean (A.M.)

When calculating the arithmetic mean, dividing the sum of all observation numbers by the whole number of observations is multiplied. In actuality, it is a value that, as is customary for all the values in the group, is presented as representing the entirety of the group among which that is a member.

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

Where,

\bar{X} = Arithmetic mean

n = Number of Observations in a sample

b) Standard Deviation

Another indicator of investment risk is the standard deviation (). It represents an absolute deviation measure. The stock's degree of risk decreases with decreasing standard deviation. Alternatively, a low standard deviation denotes a high level of observational consistency as well as series homogeneity, and vice versa. The standard deviation can be calculated using the following formula:

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

Where,

	=	Standard Deviation
X	=	Number in X-series
\bar{X}	=	Mean
n	=	Number of Observations in a sample

c) Coefficient of Variation

The coefficient variation (CV) is another relevant risk measure. The risk per unit of return is calculated by dividing the standard deviation by the expected return. When the predicted returns on two alternatives are not the same, it provides a more valid basis for comparison.

The coefficient of variation is calculated when analyzing two distributions' levels of variability. Less C.V. distributions are thought to be less variable or more consistent. A more variable or less uniform distribution has a higher C.V. It is calculated as follows.

$$CV = \frac{\sigma}{\bar{X}} \times 100\%$$

Where,

CV = Coefficient of Variation

\bar{X} = Mean

σ = Standard Deviation

d) Correlation Coefficient Analysis and Hypothesis testing

The association between two or more variables is identified and interpreted in this analysis. A change in one variable is considered to be correlated when it is accompanied by a change in another one. If an increase (reduction) in one variable is related with a decrease (increase) in the value of another variable, the connection will be negative. However, the correlation coefficient is usually between +1 and -1, Karl Pearson's.

This tool is used for measuring the intensity or the magnitude of linear relationship between two variable X and Y is usually denoted by 'r' can be obtained as:

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

Where,

R : Correlation between X and Y

n	:	Number of observations in series X and Y
X	:	Sum of observations in series X
Y	:	Sum of observations in series Y
X ²	:	Sum of square observations in series X
Y ²	:	Sum of squared observations in series Y
XY	:	Sum of product of observations in series X and Y

e) Regression Analysis

Regression analysis is a statistical approach used to determine the degree of association between a dependent and independent variable. It consists of two variables: dependent and independent variables. It establishes the type and strength of the relationship between two variables. As a result, regression is the estimation of unknown values or the prediction of one variable based on the known values of other variables. The regression line of dependent variable (Y) on independent variable (X) is given by:

$$Y = a + bX \dots \dots \dots (I)$$

Where,

a = Constant

b = regression coefficient

f) Multiple Regression Analysis

A logical extension of simple linear regression analysis is multiple regression analysis. To estimate the unknown values of a dependent variable, two or more independent variables are employed instead of a single independent variable. The underlying premise in the analysis, however, stays the same. Multiple regression is a statistical tool that estimates the value of a dependent variable based on the known values of two (more) independent variables. It appears as,

$$= a_1 + b_1X_1 + b_2X_2 + b_3X_3 + e_i.$$

Where,

= Dependent variables

X_1, X_2, X_3 = Independent variables

a_1 = Constant

b_1, b_2, b_3 = Regression Coefficients

e_i = Error term

3.7 Research Framework and Definition of Variables

A conceptual framework is an analytical tool that comes in a variety of forms and circumstances. It was used to draw conceptual distinctions and arrange concepts. A strong conceptual framework captures something actual in an easy-to-remember and apply manner. Profitability is the dependent variable, whereas liquidity is independent variable.

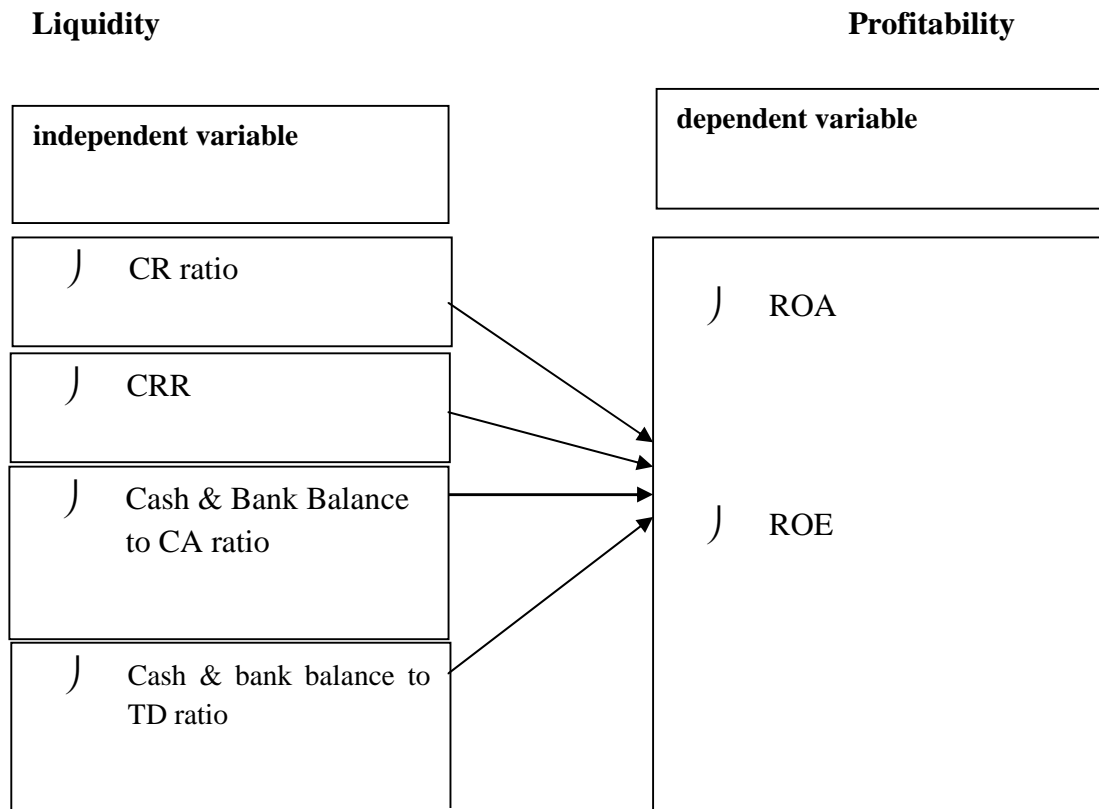


Figure 3.1: conceptual framework
Sources: Subedi (2018)

Definition of Variables

a) Current Ratio

The relationship between current assets and current liabilities is determined by the current ratio. Current assets are those that can be quickly transformed into cash, usually less than a year. Current liabilities are debts that must be paid within a short period of time, usually less than a year. Previous research, such as Adhikari (2018) and Subedi (2018), used CR as an independent variable. It appears as,

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

b) Cash Reserve Ratio

Each bank must carry out its operations in accordance with the guidelines established by Nepal Rastra Bank. (NRB). According to NRB regulations, the Cash Reserve

Ratio (CRR) is now set at 4% standard, and it indicates whether or not banks have complied with NRB criteria. Cash Reserve Ratio has been used as an independent variable in earlier research like Subedi (2018).

c) Cash and Bank Balance to Current Assets Ratio

The ratio of cash and bank balance to current assets shows how liquid a company is based on its cash and bank balance. Calculating ratio involves dividing the current assets by cash & bank balance.. Previous research, such as Adhikari (2018), Subedi (2018), and Budha (2021), used Cash and Bank Balance to Current Assets Ratio as independent variables. It is calculate as:

$$\text{Cash and bank balance to current assets ratio} = \frac{\text{Cash and Bank Balance}}{\text{Current Assets}}$$

d) Cash and Bank Balance to Total Deposit Ratio

The cash and bank balance to total deposits ratio evaluates a bank's ability to meet unexpected demand from depositors, which includes current account holders, saving depositors, call depositors, and other depositors. Calculating ratio involves dividing the cash & bank balance by the total amount of deposits. Previous research, such as Adhikari (2018) and Subedi (2018), used Cash and Bank Balance to Total Deposit Ratio as independent variables. It is written as,

$$\text{Cash and bank balance to total deposits ratio} = \frac{\text{Cash and Bank Balance}}{\text{Total Deposit}}$$

d) Return on Total Assets (ROA)

Return on total assets illustrates how assets contribute to net profit. In other words, the return on total assets ratio is a measure of a company's earning capacity and overall operational efficiency. This ratio assists management in determining the aspects that influence the firm's overall performance. ROA has been used as a dependent variable by Adhikari (2018), Shrestha (2018), Subedi (2018), Budha(2021), Pokharel and Pokhrel (2019). It is calculated as follows: ROA is calculated as follows;

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

e) Return on Equity (ROE)

Return on equity compares a company's profitability to the equity shareholders' equity. ROE assesses the profitability of a corporation in terms of return to equity shareholders. The firm's equity capital is referred to as the owners' investment. Common stock, paid-in capital, and retained earnings are all included. A higher return on equity ratio is advantageous to the owner. ROA has been used as a dependent variable by Adhikari (2018), Shrestha (2018), Subedi (2018), Budha(2021), Pokharel and Pokhrel (2019). It is calculated as follows:

$$\text{Return on Equity} = \frac{\text{Net Profit After Tax}}{\text{Shareholder's Equity}}$$

profitability and liquidity in commercial bank performance.

CHAPTER – IV

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results and discussions about the objectives of the study. The main objective of this study is to observe and analyze the relationship between liquidity and profitability position of ADBL, NABIL, EBL and HBL banks. Financial statements from the year 2073/74 with year 2077/78 have been utilized to help calculate the outcomes of the research. Data are given in tabular form and examined using well established financial ratio techniques. Regression analysis, average mean, standard deviation, coefficient of variation, and other statistical techniques have all been used to further evaluate the information. Ratio of Liquidity to deal with loan demand and deposit withdrawals, commercial banks require liquidity. Liquidity is also required in order to meet the NRB's cash reserve ratio (CRR) criteria. Banking institutions need to make sure that neither they nor their customers are experiencing a liquidity crunch. Inability to fulfill this obligation will damage your credit and cause creditors to lose faith in you. Cash-to-bank balance and current deposit ratio used to assess the bank's ability to fulfill its immediate obligations. The bank must adhere to specific liquidity and profitability requirements because a balance between liquidity and profitability should constantly be maintained.

FINANCIAL ANALYSIS

We attempt to study and assess the primary financial items relating to Adbl, NABIL, Ebl, and HBL bank's investment management and money mobilization. The following financial ratios will be examined as part of the liquidity and financial situation examination of four commercial banks. The following are the key financial ratios to be calculated for this study:

4.2 Liquidity Ratio

Liquidity ratios assess a company's capacity to meet short-term obligations with current and liquid assets. It is used to assess the firm's short-term financial strength and solvency. It is the speed at which the assets of a bank can be transformed into cash to cover withdrawals of deposits and other immediate commitments. Liquidity is also required in order to meet the NRB's cash reserve ratio (CRR) criteria. The

liquidity of a bank should be checked to make sure neither it is excessively high nor low. Both liquidity conditions are unfavorable to banks. The liquidity ratio evaluates and interprets the following ratios:

4.2.1 Current Ratio

The current ratio measures a bank's capacity to meet its current obligations. This is a broad indicator of financial institutions' liquidity position. The widely acknowledged current ratio norm is 2:1, but the exact standard varies on circumstances in the case of banks and seasonal business ratios such as 1:1.

Table 4.1 Current Ratio (times)

Year	ADBL	NABIL	EVEREST	HIMALYAN
2077/78	1.22	1.16	1.09	1.13
2076/77	1.18	1.15	1.09	1.13
2075/76	1.2	1.14	1.1	1.13
2074/75	1.2	1.16	1.11	1.14
2073/74	1.2	1.16	1.11	1.12
Mean	1.2	1.154	1.1	1.13
Sd	0.014	0.009	0.01	0.007
Cv	0.012	0.008	0.0091	0.0062

Sources : Annexure 1

The Table 4.1 presents the current ratio of ADBL, NABIL, EBL and HBL banks during 2073/74 to 2077/78. CR of ADBL is in stable trends with 1.2 times in year 2073/74 to 2075/76 and other years are in changing trends. The current ratio of ADBL has revolved between 1.18 times in year 2076/77 to 1.22 times in year 2077/78. The current ratio of NABIL also changing trends and 1.14 times in year 2075/76 to 1.16 times in year 2077/78. Similarly, the CR of EBL is also in changing trends and ranged from 1.09 times in the fiscal year 2076/77 to 1.11 times in the fiscal year 2074/75. Likewise, the ratio of HBL is in changing trends and ranged from 1.12 times in the fiscal year 2073/74 to 1.14 times in the fiscal year 2074/75. The average current ratio of ADBL, NABIL, EBL and HBL are 1.2 times, 1.15 times, 1.1 times, 1.13 times respectively.

4.2.2 Cash reserve ratio

Each bank must carry out its operations in accordance with the guidelines established by Nepal Rastra Bank. (NRB). According to NRB regulations, the Cash Reserve Ratio (CRR) is now set at 4% standard, and it indicates whether or not banks have complied with NRB criteria.

Table 4.2 Cash reserve ratio (%)

Year	ADBL	NABIL	EVEREST	HIMALYAN
2077/78	36.21	3.66	18.15	26.51
2076/77	33.98	11.2	14.43	31.39
2075/76	27.2	4.78	18.56	26.25
2074/75	29.15	10.05	17.75	23.05
2073/74	31.18	10.02	16.52	26.64
Mean	31.544	7.942	17.082	26.768
Sd	3.62	3.45	1.67	2.98
Cv	0.11	0.43	0.097	0.11

Sources : Annexure 1

The Table 4.2 depicted the cash reserve ratio of ADBL, NABIL, EBL and HBL banks during the fiscal year 2073/74 to 2077/78. The table showed that the cash reserve ratio maintained by ADBL is in changing trend for during the study period, 27.2% in the year 2075/76 from 36.21% in the year 2077/78. Likewise, the cash reserve ratio of NABIL is in fluctuating trends 3.66% in year 2077/78 from 11.2% in the year 2076/77. So on the ratio of EVEREST is also in changing trends and ranged from 14.43% in year 2076/77 to 18.56% in year 2075/76. The cash reserve ratio of HIMALYAN is also in changing trends and ranged from 23.05% in year 2074/75 to 31.39% in year 2076/77. The mean cash reserve ratio are 31.544%, 7.92%, 17.082%, and 26.06% respectively. The analysis depicted that ADBL, NABIL, EBL and HBL bank has remained successful to meet the standard set by NRB for cash reserve ratio in all fiscal year. It means that liquidity position of ADBL is more satisfactory than that of NABIL, EBL and HIMALYAN bank among the private banks the liquidity

position and HBL bank is also more satisfactory than that other private bank EBL and NABIL.

4.2.3 Cash and Bank Balance to Current Assets Ratio

The ratio of cash and bank balance to current assets shows how liquid a company is based on its cash and bank balance. Higher ratios indicate that businesses are better able to satisfy customers' daily cash needs. However, high ratios are not as preferred by businesses because they have to manage their cash and bank balance to current asset ratio in a way that prevents them from receiving interest on their deposits and maybe experiencing liquidity issues.

Table 4.3 :Cash and Bank Balance to Total Current Asset Ratio(%)

Year	ADBL	NABIL	EVEREST	HIMALYAN
2077/78	4.92	2.55	4.42	6.9
2076/77	4.86	2.05	5.72	10.87
2075/76	7.8	5.41	4.67	6.18
2074/75	8.62	5.04	7.1	7.58
2073/74	9.8	5.07	2.64	8.32
Mean	7.2	4.024	4.91	7.97
Sd	2.23	1.59	1.65	1.81
Cv	0.31	0.40	0.34	0.23

Sources : Annexure 1

The Table 4.3 shows the cash & bank balance to current assets ratio of ADBL, NABIL, EBL and HBL BANKS during the study period 2073/74 to 2077/78. The cash & bank balance with respect to the current assets of ADBL has changing trend. During the study period it is lowest 4.92% for the year 2077/78 and the highest 9.8% in the year 2073/74. Similarly, the ratio of NABIL is in changing trends 2.05% in year 2076/77 from 5.41% in year 2075/76. So on the cash & bank balance to current assets ratio of EVEREST also in changing trends 2.64% in year 2073/74 from 7.1% in year 2074/75. Likewise, the cash & bank balance to current assets ratio of HBL is in changing trends 6.9% in year 2077/78 from 10.87% in year 2076/77. The mean cash & bank balance to current assets ratio of ADBL, NABIL, EBL and HBL are 7.2%, 4.03%, 4.91% and 7.97% respectively.

4.2.4 Cash and Bank Balance to Total Deposit Ratio

To maintain its solvency and fulfill its short-term responsibilities, the banking sector also needs adequate liquidity. Therefore, the bank should have sufficient cash and bank balance relative to the overall deposit.

Table 4.4: Cash and Bank Balance to Total Deposit Ratio(%)

Year	ADBL	NABIL	EVEREST	HIMALYAN
2077/78	6.5	3.26	5.72	8.24
2076/77	5.91	2.52	7.22	12.84
2075/76	9.67	6.55	5.99	7.25
2074/75	10.77	5.9	8.71	8.82
2073/74	12.31	6.1	3.22	9.6
Mean	9.032	4.866	6.172	9.35
Sd	2.75	1.84	2.03	2.13
Cv	0.30	0.38	0.33	0.23

Sources: Annexure 1

Table 4.4 depicts the banks' cash & bank balances in relation to the total deposits they received during the study period of 2073–1974 to 2077–1978. The ratio of ADBL's cash & bank balance to total deposits is changing, ranging from 12.31% in 2073/74 to 6.5% in 2077/78. In order to achieve the cash requirement, ADBL has on average held 9.03% of the total deposit as cash & bank balance. Similar to this, the ratio of NABIL is in a trend of change, decreasing from 6.55% in 2075–2076 to 2.52% in 2076–2077. The ratio of EVEREST' cash & bank balance to total deposits is also shifting, falling to 3.22% in 2073–2074 from 8.71% in 2074–2075. Likewise, the ratio of HIMALYAN is also in changing trends 7.25% in year 2075/76 from 12.84% in year 2076/77. ADBL, NABIL, EBL, and HBL banks' respective mean cash & bank balances to total deposits are 9.032%, 4.86%, 6.17%, and 9.35.

4.3 Profitability Ratios

Profitability ratios can be used to assess the overall efficiency of financial organizations' operations. Profitability ratios are calculated and evaluated in this

context in terms of the relationship between net profit and assets. A higher ratio indicates that the bank is more efficient.

Under this topic, the profitability ratios listed below are considered.

4.3.1 Return of assets (ROA)

Return on assets serves as a justification for how many total assets contribute to net profit. Divide net profit by all of the firm's assets to get return on assets, Greater efficiency in the use of all assets is implied by better total return on assets, and inversely.

Table 4.5: Return of assets

Year	ADBL	NABIL	EVEREST	HIMALYAN
2077/78	1.59	1.71	0.89	1.68
2076/77	1.86	1.58	1.42	1.79
2075/76	2.77	2.11	1.94	2.21
2074/75	2.71	2.61	1.97	1.67
2073/74	2.15	2.69	1.72	2.19
Mean	2.216	2.14	1.588	1.908
Sd	0.52	0.51	0.45	0.27
Cv	0.23	0.24	0.28	0.14

Sources : Annexure 1

Table 4.5 shows the Return on assets ratio of ADBL in the year 2073/74, year 2074/75, FY 2075/76, year 2076/77, and year 2077/78 are 2.15%, 2.71%, 2.77%, 1.86%, and 1.59% respectively. In average return on assets of ADBL is 2.22%, standard deviation is 0.52 and coefficient of variation is 23%.

Return on assets ratio of Nabil Bank Limited in the year 2073/74, year 2074/75, year 2075/76, FY 2076/77, and year 2077/78 are 2.69%, 2.61%, 2.11%, 1.58%, and 1.71% respectively. Its mean has 2.14%, SD has 0.51 and CV is 24%.

Return on assets ratio of Everest Bank Limited in the year 2073/74, year 2074/75, year 2075/76, year 2076/77, and year 2077/78 are 1.72%, 1.97%, 1.94%, 1.42%, and 0.89% respectively. Its mean has 1.59%, SD has 0.45 and CV is 28%. The return on assets ratio of Himalyan Bank Limited in the year 2073/74, year 2074/75, year 2075/76, year 2076/77 and Year 2077/78 are 2.19%, 1.67%, 2.21%, 1.79% & 1.68% respectively. Its SD is 0.27, CV is 14%, and its mean ROA is 1.90%.

Using return on assets (ROA) the mean ROA of ADBL is highest i.e. 2.22% which clearly indicated that ADBL is more successful and the lowest is of Everest Bank Limited i.e. 1.58% which clearly indicated that EVEREST is less successful in generating profit from the investment in total assets among the sample banks. The higher return on assets the better it is doing in operation and vice-versa.

4.3.2 Return of equity(ROE)

ROE is a measure of how efficiently a business used its owners' resources. Net profit is divided by net worth to calculate it. The amount to which a company's social responsibility to its shareholders has been fulfilled can be seen in the net profit-to-equity ratio. As a result, this ratio is of great interest to both current and potential shareholders, as well as management, who are both deeply concerned.

Table 4.6 Return on Equity

Year	ADBL	NABIL	EVEREST	HIMALYAN
2077/78	11.2	15.19	8.56	14.89
2076/77	11.7	13.61	13.5	15.4
2075/76	14.78	17.76	17.33	18.34
2074/75	13	20.94	16	14.17
2073/74	11.77	22.41	16.04	21.58
Mean	12.49	17.982	14.286	16.876
Sd	1.44	3.72	3.49	3.07
Cv	0.12	0.21	0.24	0.18

Sources : Annexure 1

Table 4.6 shows how effectively the banks are able to profit by utilizing the shareholders' property. Return On Equity of ADBL in the Year 2073/74, Year 2074/75, Year 2075/76, Year 2076/77 and Year 2077/78 are 11.77%, 13%, 14.78%,

11.7%, and 11.2% respectively. ADBL average ROE was 12.49%, implying that ADBL was able to earn Rs. 12.49 in earnings from operations from the raising of Rs. 100 in shareholder stock. ADBL has a standard deviation of 1.44 and a coefficient of variation of 12%.

The return on equity ratio of Nabil Bank Limited in the Year 2073/74, Year 2074/75, Year 2075/76, Year 2076/77 and Year 2077/78 are 22.41%, 20.94%, 17.76%, 13.61% and 15.19% respectively. Its average return on equity is 17.98%, standard deviation is 3.72 and coefficient of variation is 21%.

The return on equity ratio of Everest Bank Limited in the Year 2073/74, Year 2074/75, Year 2075/76, Year 2076/77 and Year 2077/78 are 16.04%, 16%, 17.33%, 13.5%, and 8.56% respectively. In average the return on equity of Everest Bank Limited is 14.29%, standard deviation is 3.49 and coefficient of variation is 24%.

The return on equity ratio of Himalyan Bank Limited in the Year 2073/74, Year 2074/75, Year 2075/76, Year 2076/77, and Year 2077/78 are 21.58%, 14.17%, 18.34%, 15.4%, and 14.89% respectively. Its SD is 3.07, CV is 18%, and its mean return on equity is 16.88%.

Using Return On Equity (ROE) determined that Nabil Bank Limited has the greatest mean ROE 17.98%. Which clearly indicated that the shareholders of NABIL remained more satisfied and shareholders among the sample banks as NABIL generate more percentage of return from shareholders' equity than ADBL, EBL and HIMALYAN BANKS.

4.4 Correlations Analysis

Correlation is a popular statistical tool that depicts how strongly two variables are related to one another. It also provides information about the degree and direction of the relationship between two variables. The correlation coefficient is used to calculate it. The correlation coefficient spans between -1 and +1. Positive correlation occurs when one variable shifts in the same direction as another. When one variable increases, the other variable decreases in the same direction. The goal of correlation in

research is to discover the empirical relationship between independent and dependent variables.

Table 4.7 correlations matrix between variables

		CA/CL	CASH TO CA	CASH TO TDP	CR RATIO	ROA	ROE
CA/CL	Pearson correlation	1					
	Sig.(2-tailed)						
CASH TO CA	Pearson correlation	0.184	1				
	Sig.(2-tailed)	0.437					
CASH TO TDP	Pearson correlation	0.217	.995**	1			
	Sig.(2-tailed)	0.358	0.00				
CR RATIO	Pearson correlation	0.394	.602**	.619**	1		
	Sig.(2-tailed)	0.085	0.005	0.004			
ROA	Pearson correlation	.496*	0.341	0.329	0.034	1	
	Sig.(2-tailed)	0.026	0.141	0.156	0.886		
ROE	Pearson correlation	-0.183	0.012	-0.050	-0.393	.599**	1
	Sig.(2-tailed)	0.441	0.961	0.833	0.087		

Source: Calculate from SPSS Software

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

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

Tables 4.7 indicate relationship between the variables used in the research to determine the dependent on independent variables. The correlation coefficient of ROA with CA/CL is 0.496 which indicate positive relationship and statistically significant and CASH TO CA, CASH TO TDP, CASH RESERVE RATIO are 0.341, 0.329 and 0.034 respectively, which indicates there are positive relationships and statistically not significant at 5% significant level of 2- tailed test. In addition, the correlation coefficient of ROE with CA/CL, CASH TO DP, CASH RESERVE RATIO are -0.183, -0.050, -0.393 respectively, which indicates there are negative relationship, there are not statistically significant and ROE with CASH TO CA is 0.012 , which indicate positive relationship and this is not statistically significant at 1% significant level of 2- tailed test.

4.5 Regression Analysis

Statistically, regression is a technique for establishing an approximate functional link by creating a connection between the variables. The effectiveness of an association between two variables (basic regression) or several variables regression can be determined using this technique. The relationship between two variables is strong enough to derive the estimation equation. As a result, determine the estimation equation that best describes the connection.

4.5.1 The Multiple Regressions of ROA on Liquidity

The regressing ROA on liquidity variables (current ratio, cash & bank balance to TD ratio, CRR ratio, and cash & bank balance to CA ratio) on the liquidity condition of selected banks has been studied. This regression module's equation is as follows:

$$ROA = a_1 + b_1CR + b_2CBBCAR + b_3CBBTDR + b_4CRR \dots \dots \dots (i)$$

Where,

ROA = Return on Assets

CR = Current Ratio

CBBTDR = Cash and bank balance to total deposit ratio

CBBCAR = Cash and bank balance to current Assets ratio

CRR = Cash Reserve Rario

a1 = Constant

b1, b2,b3,b4 = Regression Coefficient

Table 4.8: ROA Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.721 ^a	.520	.392	.37477
a. Predictors: (Constant), CASH RESERVE RATIO, CA/CL, CASH TO CA, CASH TO TDP				

Source: Calculate from SPSS Software

The table no 4.8 describes the model summary of the regression analysis between the independent variables (CASH RESERVE RATIO, CA/CL, CASH TO CA, CASH TO TDP) and dependent variable ROA . The column R shows the multiple correlation coefficient value is 0.721, it indicates the good level of prediction. R square column present R square value , also called coefficient of determination, which tells us what percent of variability in the dependent variable accepted for by the regression on the independent variable. In above table R square is 0.520, it means that 52% Changes in ROA noted by CASH RESERVE RATIO, CA/CL, CASH TO CA, CASH TO TDP and remaining is 48% explained by other factors. Adjusted R square is comparing the explanatory power of the regression model. The adjusted R square is a modified variable of R Square that has been adjusted for no of prediction in the model. The above table shows adjusted R square is 0.392, it indicate 39.20% variation in ROA is explained by other factors, The standard error of estimate is 0.37477, indicating that the units variance of the observation value of ROA regression line is 0.37477.

Statistical Significance

In the ANOVA table, the F-ratio determines if the whole statistical model of regression fits the data. When the P Value is less than the alpha value (0.05),

independent variables are statistically more likely to predict the dependent variable than not.

Table 4.9 Analysis of Variance (ANOVA)

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.281	4	.570	4.060	.020 ^b
	Residual	2.107	15	.140		
	Total	4.388	19			
a. Dependent Variable: ROA						
b. Predictors: (Constant), CASH RESERVE RATIO, CA/CL, CASH TO CA, CASH TO TDP						
c. Correlation is significant at the 0.05 level (2-tailed)						

Source: Calculate from SPSS Software

The table no 4.9 ANOVA result shows that P value less than alpha value ($0.020 < 0.05$). It means there is significant relationship between independent variable (CA/CL, CASH TO CA, CASH TO TDP and CASH RESERVE RATIO) And Dependent Variable (ROA). The ANOVA with F- statistic of 4.060 is show the overall regression model is fit for data. The F Value proved that there is a significant relationship between independent variable and dependent variable (ROA).

Table 4.10 ROA Coefficient Matirix

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-7.716	2.821		-2.735	.015
	CA/CL	8.415	2.528	.678	3.329	.005
	CASH TO CA	.592	.392	2.906	1.508	.152

	CASH TO TDP	-.411	.334	-2.404	-1.229	.238
	CASH RESERVE RATIO	-.024	.012	-.495	-2.037	.060
a. Dependent Variable: ROA						

Source: Calculate from SPSS Software

This study sought to establish a linear regression function of the variables with ROA as the dependent variable. From the table 4.10 the study established the following regression equation.

The theoretical model regression equation: $ROA = a_1 + b_1CR + b_2CBBCAR + b_3CBBTDR + b_4CRR$

The established regression equation is: $ROA = - 7.716 + 8.415*CR + 0.592*CBBCAR - 4.11*CBBTDR - 0.24*CRR$.

Table 4.10 shows the regression result for the factors effecting profitability of selected commercial banks in Nepal in the study period. The result reveals that Cash to total deposit and Cash Reserve Ratio are negatively impact on banks return on asset with beta coefficient are 0.411 and 0.024 respectively. The Current Assets to Current Liability, Cash and bank balance to current Assets are positively related with banks return on assets and beta coefficient 8.415 and 0.592. This table shows significant value are $(0.005 < 0.05)$, $(0.152 > 0.05)$, $(0.238 > 0.05)$ and $(0.06 > 0.05)$ respectively. It means there is significant relationship between independent variable (CA/CL) with ROA but insignificant relationship between CASH TO CA, CASH TO TDP and CASH RESERVE RATIO with ROA.

4.5.2: The Multiple Regressions of ROE on Liquidity

The regressing ROE on liquidity variables (current ratio, cash & bank balance to TD ratio, CRR ratio, and cash & bank balance to CA ratio) on the liquidity condition of chosen banks has been studied. This regression module's equation is as follows:

$$ROE = a_1 + b_1CR + b_2CBBCAR + b_3CBBTDR + b_4CRR \dots\dots\dots (ii)$$

Where,

ROE = Return on Equity

ROA = Return on Assets

CR = Current Ratio

CBBTDR = Cash and bank balance to total deposit ratio

CBBCAR = Cash and bank balance to current Assets ratio

CRR = Cash Reserve Ratio

a1 = Constant

b1, b2, b3, b4 = Regression Coefficient

Table 4.11: ROE Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.736 ^a	.541	.419	2.725320450361948
a. Predictors: (Constant), CASH RESERVE RATIO, CA/CL, CASH TO CA, CASH TO TDP				

Source: Calculate from SPSS Software

The table no 4.11 describes the model summary of the regression analysis between the independent variables (CASH RESERVE RATIO, CA/CL, CASH TO CA, CASH TO TDP) and dependent variable ROE. The column R shows the multiple correlation coefficient value is 0.736, it indicates the good level of prediction. R square column present R square value, also called coefficient of determination, which tells us what percent of variability in the dependent variable accepted for by the regression on the independent variable. In above table R square is 0.541, it means that 54.10% Changes in ROE noted by CASH RESERVE RATIO, CA/CL, CASH TO CA, CASH TO TDP and remaining is 45.90% explained by other factors. Adjusted R square is comparing the explanatory power of the regression model. The adjusted R square is a modified variable of R Square that has been adjusted for no of prediction in the model. The above table shows adjusted R square is 0.419, it indicate 41.90% variation in ROE is explained by other factors, The standard error of estimate is 2.7253, indicating that the units variance of the observation value of ROE from the regression line is 2.7253.

Statistical Significance

In the ANOVA table, the F-ratio determines if the whole statistical model of regression fits the data. When the P Value is less than the alpha value (0.05), independent variables are statistically more likely to predict the dependent variable than not.

Table 4.12 Analysis of Variance (ANOVA)

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	131.388	4	32.847	4.422	.015 ^b
	Residual	111.411	15	7.427		
	Total	242.798	19			
a. Dependent Variable: ROE						
b. Predictors: (Constant), CASH RESERVE RATIO, CA/CL, CASH TO CA, CASH TO TDP						
c. Correlation is significant at the 0.05 level (2-tailed)						

Source: Calculate from SPSS Software

The table no 4.12 ANOVA result shows that P value less than alpha value ($0.015 < 0.05$). It means there is significant relationship between independent variable (CA/CL, CASH TO CA, CASH TO TDP and CASH RESERVE RATIO) And Dependent Variable (ROE). The ANOVA with F- statistic of 4.422 is show the overall regression model is fit for data. The F Value proved that there is a significant relationship between independent variable and dependent variable (ROE).

Table 4.13 ROE Coefficient Matirix

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.639	20.513		.031	.976
	CA/CL	15.376	18.383	.167	.836	.416
	CASH TO CA	9.311	2.852	6.150	3.265	.005

	CASH TO TDP	-7.478	2.428	-5.886	-3.079	.008
	CASH RESERVE RATIO	-.190	.087	-.517	-2.179	.046

a. Dependent Variable: ROE

Source: Calculate from SPSS Software

This study assesses to establish a linear regression function of the variables with ROA as the dependent variable. From the table 4.13 the study established the following regression equation.

The theoretical model regression equation: $ROA = a_1 + b_1CR + b_2CBBCAR + b_3CBBTDR + b_4CRR$

The established regression equation is: $ROA = 0.639 + 15.376*CR + 9.311*CBBCAR - 7.478*CBBTDR - 0.190*CRR$.

Table 4.13 shows the regression result for the factors effecting profitability of selected commercial banks in Nepal in the study period. The result reveals that Cash to total deposit and Cash Reserve Ratio are negatively impact on banks return on asset with beta coefficient are 7.478 and 0.190 respectively. The Current Assets to Current Liability, Cash and bank balance to current Assets are positively related with banks return on assets and beta coefficient 15.376 and 9.311. This table shows significant value are $(0.416 < 0.05)$, $(0.005 > 0.05)$, $(0.008 > 0.05)$ and $(0.46 > 0.05)$ respectively. It means there is significant relationship between independent variable (CA/CL) and CASH TO TDP with ROA but insignificant relationship between CASH TO CA and CASH RESERVE RATIO with ROA.

4.6 Major Findings of the Study

The research is concerned with analysis of liquidity and profitability in Nepalese commercial banks over different five fiscal years from FY 2073/74 to FY 2077/78. Secondary sources have been used to collect required data and information to meet the objectives of the study. The primary sources of secondary data used in the study are annual reports provided by the relevant selected commercial bank. The financial tools for data analysis in this study are the current ratio(CR), cash reserve ratio(CRR), CBB to current assets ratio(CBBCAR), CBB to total deposit ratio(CBBTDR),

Similarly the statistical tools utilized to support the result throughout the course of five year include mean, standard deviation, coefficient of variation, correlation and regression models.

The major findings of this study can be summarized as follows:

- i. According to CR analysis, The average current ratio of ADBL(1.2 times) is higher than other banks and EBL(1.1times) is lowest. Compared to other chosen banks, ADBL has a stronger position in terms of liquidity.
- II. Based on (CRR) analysis, the Cash reserve ratio of all selected commercial banks have successful to meet the standard set by NRB for cash reserve ratio in all fiscal year . ADBL(33.54%) is higher than other selected commercial banks and the liquidity position of ADBL is more satisfactory than that of NABIL, EBL and HBL **BANKS**.
- iii. According to CBBCAR analysis, HBL has a higher mean cash & bank balance to Current Assets Ratio (7.97%) than Nabil Bank Limited (4.02%). It shows the more significant the ratios, the greater their capacity to satisfy their client's daily cash obligations.
- iv. Based on the CBBTDR investigation, HBL Bank has the greatest mean cash & bank balance to total deposits proportion (9.35%) and Nabil Bank Limited has a low ratio (4.87%). It displays that Nabil Bank Limited maintains the lowest liquidity levels relative to total deposits, while HBL maintains the highest levels.
- v. According to ROA analysis, The average return on assets of ADBL (2.22%) is higher and NABIL (1.14) is lower .it means ADBL is more successful and 1.14% is less successful in generating profit from the investment in total assets among the sample banks or selected commercial banks earn on average with relates to proper utilization of assets.
- vi. From the ROE analysis, The average return on shareholders of NABIL (17.98%,) is higher and ADBL (12.49%) is lower .it means NABIL is more more satisfied, proper utilization of equity and generated more

percentage of return from shareholders' equity. the ADBL is less satisfied and not proper utilization of equity..

- vii. According to the correlations analysis, ROA with CA/CL is positive (0.496) significant relationships and CASH TO CA, CASH TO DP, CASH RESERVE RATIO are positive but insignificant relationships. Similarly, ROE with CA/CL, CASH TO DP, CASH RESERVE RATIO are negative relationship but not statistically significant and ROE with CASH TO CA is 0.012 positive (0.012) relationship but not statistically significant.
- viii. From to the multiple regression of liquidity on ROA analysis, ROA with CASH TO DP and CASH RESERVE RATIO are negatively impact with beta coefficient are 0.411 and 0.024 Respectively similarly The Current Assets to Current Liability, Cash and bank balance to current Assets are positively impact with beta coefficient 8.415 and 0.592.
- ix. According to the multiple regression of liquidity on ROE analysis, ROE with Cash to total deposit and Cash Reserve Ratio are negatively impact with beta coefficient are 7.478 and 0.190 Respectively similarly The Current Assets to Current Liability, Cash and bank balance to current Assets are positively Impact with beta coefficient 15.376 and 9.311.

4.7 Results of Hypothesis Testing

Tables 4.7 summarize the bivariable correlation matrix between the two variables. Only hypotheses with a p-value less than 0.05 are accepted. The hypothesis' acceptance shows the importance of the independent variable on the independent variable and vice versa.

- i. Hypothesis (Ho1): There is a statistically significant and positive relationship between Current Ratio and ROA..
- ii. Hypothesis (Ho2): There is not statistically significant and negative relationship between Current Ratio and ROE

- iii. Hypothesis (Ho3): There is not statistically significant and positive relationship between CR Ratio and ROA.
- iv. Hypothesis (Ho4): There is not statistically significant and negative relationship between CR Ratio and ROE
- v. Hypothesis (Ho5): There is not statistically significant and positive relationship between Cash and Bank Balance To Current Assets Ratio and ROA.
- vi. Hypothesis (Ho6): There is not statistically significant and positive relationship between Cash and Bank Balance To Current Assets Ratio and ROE
- vii. Hypothesis (Ho7): There is not statistically significant and positive relationship between Cash and Bank Balance To Total Deposits Ratio and ROA.
- viii. Hypothesis (Ho8): There is not statistically significant and negative relationship between Cash and Bank Balance to Total Deposits Ratio and ROE.

4.8 Discussion

Based on the information given by the relevant commercial banks the following are the study's discussion findings with an examination of the liquidity and profitability in Nepalese commercial banks: The study is concerned with the financial position analysis of Nepalese commercial banks such as ADBL, NBL, EBL and HBL in different fiscal year from FY 2073/74 to 2077/78 between various financial indicators. Various literatures such as journal articles and previous theses related with the study have been studied to conduct the study. Various past researchers have conducted their studies on financial performance analysis taking different financial institutions of different places/countries at different time intervals through various financial and statistical tools and techniques. Thus, the findings of the study may or may not support to the findings of the previous studies.

From the correlation analysis, ROA with CA/CL is positive significant relationships and CASH TO CA, CASH TO DP, CASH RESERVE RATIO are positive but insignificant relationships. Similarly, ROE with CA/CL, CASH TO DP, CASH

RESERVE RATIO are negative relationship but not statistically significant and ROE with CASH TO CA is positive relationship but not statistically significant. The result is consistent with the previous studies of Budha (2021), Shrestha & Jha (2020), Khan and Ali(2016), Mishra(2019). Found Liquidity of commercial banks is positively correlated with profitability. It implies bank's profitability would rise as its amount of liquidity rose. The best way for banks to increase value for their shareholders is to maintain an optimal liquidity level that will enable them to pay their short-term obligations as they become due.

The multiple regression of liquidity on ROA and ROE analysis, ROA with CASH TO DP and CASH RESERVE RATIO are negatively impact and The Current Assets to Current Liability, Cash and bank balance to current Assets are positively impact, and ROE with Cash to total deposit and Cash Reserve Ratio are negatively impact similarly The Current Assets to Current Liability, Cash and bank balance to current Assets are positively Impact. The result is consistent with the previous studies of Budha (2021), Akter and Mahmud (2014) And the CBBCDR has negative significant relationship with profitability ratios of selected commercial banks and shrestha (2018), Budha(2021) has positive impact. In the banking industry, It means more liquidity equals less profitability in the sector of banking and conversely. Profitability demonstrates the banks' successful and profitable effort to maximize value through time, whilst liquidity demonstrates is operational strength.

CHAPTER – V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Liquidity management is a broad term that refers to the systematic and scientific management of cash balances. Liquidity is defined as the portion of total assets that can be paid quickly to meet current obligations. Liquidity management refers to money and assets that can be converted into money in a short period of time. The term "independent" refers to a person who does not work for the government. Banks maintain liquidity in the form of cash & bank balances, funds on call or at short notice, investment in government instruments and other instruments that can be quickly converted into cash, as well as other forms of investments. It is such a big amount of the deposit that is due on demand. Inadequate liquidity tarnishes the organization's image, whereas excess liquidity harms profitability.

Profitability is the end result of numerous policies and initiatives. The ratio of assets to liabilities is so examined by management. Profitability ratio is a popular financial analysis technique. It is described as the systematic application of ratios to interpret financial data in order to identify strength and condition. The ratios contribute no information while being computed; they just display the relationship in a more meaningful way, allowing us to draw inferences from them additionally, in financial research and corporate performance. It assists in decision-making by forming relationships and interpreting diverse ratios. Making quantitative assessments of the firm's financial situation and performance is helpful as an analyst.

The main objective of this study is to analyze the Liquidity and profitability position of the Agriculture Development Bank (ADBL), Nabil Bank Limited (NBL), Everest Bank Limited (EBL) and Himalyan Bank Limited (HBL). However, the study of all the commercial banks is almost impossible and thus only Four banks ADBL, EBL, NBL and HBL is taken as sample. Many financial indicators, including the CR ratio, the CRR ratio, the cash & bank balance to total deposits, the cash & bank balance to current assets, ROE, ROA and others have been analyzed in order to meet the goals specified. For this study, it has use only secondary data analysis. The study has use only four commercial banks as a sample of the study. This analysis has been done

using data from a variety of secondary sources, including published financial reports from a few banks. The study covers only five years data from 2073/74 to 2077/78. The data and information gathered from many sources has been evaluated and presented, with analysis and evaluation carried out using various financial and statistical techniques. Financial tools include various liquidity and profitability ratios, while statistical tools include average, standard deviation, coefficient of variation, correlation coefficient, and regression analysis. The researcher indicates that applied quantitative research for achieving the objectives of the study. Moreover, the study will follow descriptive and causal comparative research design.

According to the study's findings, Profitability is inversely correlated with the liquidity of Nepalese commercial banks. This could be understood to mean that a bank's profits would increase as its liquidity increased. Banks can therefore boost value for shareholders by maintaining an ideal liquidity level, which ensures that the bank is able to pay short-term commitments when they become due. By doing this, it is certain that the bank won't face unforeseen expenses like stock shortages, bankruptcy fees, or opportunity costs brought on by excess liquidity. The liquidity level should not fall below the minimal require because this would result in the organization's inability to satisfy short-term obligations. After evaluating the financial data, ADBL appears to be good in terms of current ratio, but EBL appears to be the worst in terms of current ratio among the sampled banks. According to CBBCAR, Himalyan Bank Limited appears to be the most appealing, whilst Nabil Bank Limited is the least appealing. Similarly, Himalyan appears to be good, although Nabil Bank Limited has the lowest CBBTDR of the examined institutions. In terms of return on assets(ROA) ADBL Bank appears to be the most appealing commercial bank, whereas Nabil Bank Limited appears to be the least appealing But Nabil Bank limited seems attractive and ADBL is least attractive as per return on equity (ROE).

5.2 Conclusion

The study's goal was to examine Nepalese commercial banks' liquidity and profitability from 2073/74 to 2077/78 in this study Current assets, cash reserve ratio, cash and bank balance to current assets, cash and bank balance to total deposits have been taken as independent variables and ROA & ROE have been taken as dependent variable.

Using the current ratio, ADBL liquidity position is stronger compared to that of the selected sample banks, which shows a greatest potential for short-term affordability, or the willingness to fulfill short-term commitments. Current ADBL, NBL, HBL, and EBL ratios are lower than the benchmark of 2:1. Although, such benchmark is not most necessary in the banking sector, it should be better if ADBL, NBL, HBL and EBL keep such ratio to ensure the sound liquidity position.

Based on the ratio of total deposits to cash & bank balance, HBL has a higher percentage of total deposits collected in the form of cash & bank balance than other banks, which helps it to satisfy short-term liquidity needs. ADBL, NBL, EBL and HBL has remained successful to meet the standard set by NRB for cash reserve ratio in all fiscal year. To meet short-term demand or liquidity, ADBL liquidity position is more adequate than that of NBL, EBL, and HBL.

Using the ROA, ADBL profitability position is higher, while NBL is lower, when compared to the other selected banks., which clearly indicated that ADBL is more successful and NBL is less successful in generating profit from the investment in total assets among the samples As a result, it is advised that NBL boost the usage of assets that create higher earnings. As a result of the return on equity, the profitability position of NBL is better than that of ADBL, EBL and HBL. It means NBL is more satisfied of shareholders and proper utilization of equity and generated more percentage of return from shareholder's.

The multiple regression of liquidity on ROA and ROE, ROA with CASH TO DP and CASH RESERVE RATIO are negatively impact and The Current Assets to Current Liability, Cash and bank balance to current Assets are positively impact and ROE

with Cash to total deposit and Cash Reserve Ratio are negatively impact similarly The Current Assets to Current Liability, Cash and bank balance to current Assets are positively Impact. It means more liquidity equals less profitability in the sector of banking and conversely. Profitability demonstrates the banks' successful and profitable effort to maximize value through time, whilst liquidity demonstrates is operational strength.

5.3 Implications

The implications of this research mean how employee, shareholders researchers use the finding of research in their practical life as suggestion. Based on the study's findings and taking consider relevant issues, the following appropriate recommendations have been collected to make the study more valuable to the receivers and other parties. This study should be fruitful the employee, shareholders, researchers and employee who are interested to this topic.

- i. This research will provide financial advice to managers and investors on how to combine debt and equity to maximize company performance.
- ii. The bankers may develop various strategic plans to increase profitability on the basis of this study.
- iii. This study will be utilized by investors and anyone interested in investing to assess firms and determine what type of capital structure combination creates the most profit for the company.
- iv. This research will help other academics publish additional studies on financial concerns and contribute to the community's knowledge. Academicians planning to write dissertations for bachelor's and master's degree programs offered in Nepal and around the world can use the study results as a reference to back up their research.
- v. This study will assist finance managers and other finance officers in publicly traded firms in advising their management on the optimum source of money that will contribute to the company's profitability.

Implications for further research

- i. This study only reveals the relationship between liquidity and profitability position of four selected commercial banks only. Further researchers can be carried out using large sampling other commercial and development banks too.
- ii. As this study is limited to the analysis of secondary data. Future researcher can be done using primary data with more sample and questionnaire which may yield different result.
- iii. As this study cover commercial banks in Nepal, it doesn't consider financial institutions and other sector to provide a more broad based analysis. It is also recommended to research relationship between liquidity and profitability position of other financial institutions of Nepal except commercial banks.

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APPENDICES

Annexure-1

Selected Data of Sample Banks

EVEREST BANK						
year	CA/CL	CASH TO current Assets	Cash TO DEPOSIT	ROA	ROE	cash reserve ratio
2077/78	1.09	4.42	5.72	0.89	8.56	18.15
2076/77	1.09	5.72	7.22	1.42	13.5	14.43
2075/76	1.1	4.67	5.99	1.94	17.33	18.56
2074/75	1.11	7.1	8.71	1.97	16	17.75
2073/74	1.11	2.64	3.22	1.72	16.04	16.52

ADBL						
year	CA/CL	CASH TO current Assets	Cash TO DEPOSIT	ROA	ROE	cash reserve ratio
2077/78	1.22	4.92	6.5	1.59	11.2	36.21
2076/77	1.18	4.86	5.91	1.86	11.7	33.98
2075/76	1.2	7.8	9.67	2.77	14.78	27.2
2074/75	1.2	8.62	10.77	2.71	13	29.15
2073/74	1.2	9.8	12.31	2.15	11.77	31.18

Himalyan bank						
year	CA/CL	CASH TO current Assets	Cash TO DEPOSIT	ROA	ROE	cash reserve ratio
2077/78	1.13	6.9	8.24	1.68	14.89	26.51
2076/77	1.13	10.87	12.84	1.79	15.4	31.39
2075/76	1.13	6.18	7.25	2.21	18.34	26.25
2074/75	1.14	7.58	8.82	1.67	14.17	23.05
2073/74	1.12	8.32	9.6	2.19	21.58	26.64

Nabil bank						
year	CA/CL	CASH TO current Assets	Cash TO DEPOSIT	ROA	ROE	cash reserve ratio
2077/78	1.16	2.55	3.26	1.71	15.19	3.66
2076/77	1.15	2.05	2.52	1.58	13.61	11.2
2075/76	1.14	5.41	6.55	2.11	17.76	4.78
2074/75	1.16	5.04	5.9	2.61	20.94	10.05
2073/74	1.16	5.07	6.1	2.69	22.41	10.02

Source : Respected Annual Report of Banks