LIQUIDITY MANAGEMENT AND PROFITABILITY ANALYSIS OF NEPALESE COMMERCIAL BANKS

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

By

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CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitle **"LIQUIDITY MANAGEMENT AND PROFITABILITY ANALYSIS OF NEPALESE COMMERCIAL BANKS"**. The work of this dissertation has not been submitted previously for the purpose of conferral of any degree's 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 references section of the dissertation.

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Alisha Timilsina

Date

REPORT OF RESEARCH COMMITTEE

Ms. Alisha Timilsina has defended research proposal entitled **"LIQUIDITY MANAGEMENT AND PROFITABILITY ANALYSIS OF NEPALESE COMMERCIAL BANKS"** successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestion and guidelines of supervisor Indra Bahadur Bohara Submit the thesis for evaluation and viva-voce examination.

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APPROVAL SHEET

We, the undersigned, have examined the thesis entitled entitled **"LIQUIDITY MANAGEMENT AND PROFITABILITY ANALYSIS OF NEPALESE COMMERCIAL BANKS"** Presented by Alisha Timilsina Candidate for the degree of Master of Business Studies (MBS Semester) and conducted the Viva voce examination of the candidate. We hereby certify that the thesis is worthy of acceptance.

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ABBREVIATIONS

ADBL	:	Agricultural Development Bank Limited
B.S	:	Bikram Sambat
CB	:	Commercial Banks
CEO	:	Chief Executives Officer
CV	:	Coefficient of Variation
DPR	:	Dividend Payout Ratio
DPS	:	Dividend per Share
EBL	:	Everest Bank Limited
EPS	:	Earning Per Share
GBIME	:	Global IME Bank Limited
MBS	:	Master of Business Studies
MPS	:	Market Price Per Share
NEPSE	:	Nepal Stock Exchange
NFRS	:	Nepal Financial Reporting Standard
NFRS	:	Nepal Financial Reporting Standard
NRB	:	Nepal Rastra Bank
P. E	:	Probable Error
PER	:	Price Earning Ratio
ROA	:	Return on Assets
ROE	:	Return on Equity
SD	:	Standard Deviation
SEBON	:	Securites Board of Nepal
TU	:	Tribhuvan University

ABSTRACTS

This study examines the liquidity management and profitability analysis of commercial banks of Nepal over the period of 2017/18 to 2021/22. This study examines the relationship between liquidity management and profitability in the context of Nepalese commercial banks, with a focus on two leading institutions: Nabil Bank and Nepal SBI Bank (NSBI). Liquidity management, a critical aspect of banking operations, involves maintaining an optimal balance between liquid assets and liabilities to ensure the bank's ability to meet short-term obligations without compromising profitability. The analysis explores how these banks navigate the trade-off between liquidity and profitability, considering factors such as liquidity ratios, return on assets (ROA), and return on equity (ROE). By employing quantitative methods, the study assesses the impact of liquidity management practices on the financial performance of Nabil and NSBI over a specified period. The findings revealed that effective liquidity management is pivotal in enhancing profitability, though it often requires careful balancing to avoid excessive liquidity that could otherwise dampen returns. This research contributes to the broader understanding of banking sector dynamics in Nepal and offers practical insights for policymakers and bank management in optimizing liquidity for sustainable profitability.

Keywords: Liquidity, Profitability, ROE, ROA

CHAPTER- I

INTRODUCTION

1.1 Background of the Study

A bank's ability to deploy resources from its main business and produce income is measured subjectively by its financial performance. Additionally, the phrase is employed as a broad indicator of a company's overall financial health during a certain time frame. Financial performance is a tool used by analysts and investors to evaluate companies in the same industry or to compare industries or sectors overall.

One financial institution that is essential to economic growth is a bank. Banks take deposits and issue different debt products, such debentures, to borrow money. In essence, it lends to deficit units that are in need of funds and takes deposits from surplus units who have extra cash. Credit substitution is the technical term for this function. The financial institution must have effective management that mobilizes the bank's resources in the right way, capital that is used as a resource to provide the service, a sufficient amount of revenue that will surpass operating expenses, a system that will protect the business's assets, and a sufficient financial position to carry out these activities effectively.

The financial sector is essential to economic expansion and industrialization because it channels capital, offers an effective financial system, treats investors with courtesy, and makes the most use of available resources. In any economy, the banking industry plays a key role in these areas. The banking industry is crucial for directing capital to businesses and promoting stability and progress in the financial and economic spheres (Brigham & Hoston, 2000).

A strong banking industry can absorb significant financial crises in the economy and offer a foundation for fortifying the nation's economic structure. For all parties involved, including owners, investors, debtors, creditors, depositors, bank managers, regulators, and the government, bank financial success is crucial. Banks benefit from the difference between the rate they pay for deposits and the rate they earn or get from borrowers because they receive interest on their loans. By putting their money into short-term assets

like T-Bills, banks may also generate interest revenue. But banks also make money from fees they charge for their goods and services, such as overdraft fees, asset management advice, ATM fees, interest and fees on credit cards (Khadka, 2012).

Financial success can be measured in a variety of ways, but all metrics should be considered together. You can employ line items like cash flow from operations, interest income, and operating income. Additionally, the investor or analyst could want to examine financial documents more closely in order to find the spread rate or any reducing debt. A financial institution's total financial performance may be presented logically and structurally through financial analysis. It also aids in decision-making and evaluation for corporate operations. Ratio analysis is the most common and sensible framework in financial analysis that supports stakeholders in the corporate world. . There are a few categories that correspond to the same region of financial institutions under the financial ratio analysis method. corporate stakeholders so attempt to focus on obtaining a comprehensive corporate picture through the examination of profitability, liquidity, assets management, and solvency ratios. These ratios highlight risk avoidance and profit-raising elements in addition to aiding in the decision-making process. Quantitative information from bank trade activity and other sources is required to compute this ratio.

It defines ratio analysis as the quantitative examination of data found in the financial accounts of a business. Line items in financial statements such as the cash flow, income, and balance sheets serve as the foundation for ratio analysis. The ratios of one or more things to another or to a combination of items are then computed. A company's operational and financial performance, including its efficiency, liquidity, profitability, and solvency, can be assessed using ratio analysis. To determine if these ratios are becoming better or getting worse, the trend of these ratios over time is examined. Ratios are also compared amongst businesses in the same industry to see how they compare and to get a sense of how much they are worth. Ratio analysis is essential to fundamental analysis (Thapa, 2017).

Depositors, bondholders, investors, staff, regulators, and management are just a few of the numerous parties involved in a bank. Every organization is interested in following a bank's financial performance for different reasons. How successfully a business makes money and handles its assets, obligations, and stakeholders' financial interests is

determined by its financial performance. The use of audited financial accounts provides a basic analysis of financial performance. The Statement of Profit or Loss account, Statement of Financial Position, and Statement of Cash Flows are the three main parts of financial statements that are used to analyze financial performance (Singh, 2018).

An organization's financial balances are shown in snapshot form on the balance sheet. It gives a summary of the bank's asset and liability management performance. The balance sheet provides analysts with information on long-term vs short-term loans and deposits. Additionally, they can discover the type of assets the business possesses and the proportion of assets supported by liabilities as opposed to shareholder equity (Thapa, 2017).

An overview of the year's operations is given in the income statement. Sales or revenues appear first on the income statement, while net income appears last. The income statement, often known as the profit and loss statement, shows the gross profit margin, operational profit margin, net profit margin, and cost of goods sold. Additionally, it offers a summary of the total number of shares in circulation and a comparison with the previous year's performance (Bringham and Houston, 2000).

The Statement of Financial Position and the Statement of Profit or Loss are combined to form the cash flow statement. Because it reconciles net income and cash flow, the cash flow statement is regarded by some experts as the most significant financial statement. Analysts may view the amount spent by the business on capital expenditures, dividends, and stock repurchases here. The source and purposes of cash flow from business, investments, and finance are also provided. A company's financial performance is frequently assessed using its whole set of financial statements. A company's financial performance shouldn't be determined by a single metric (Alton & Wheelock, 2007).
Decision-makers may evaluate the outcomes of business strategy and operations in objective monetary terms thanks to the financial performance of the company. The ratios are typically used to assess an organization's financial success. It is anticipated that a well-planned and executed financial management system would favorably impact the development of a company's value (Varshney, 2013).

1.1.1 Profile of Organization

Nabil Bank Limited

In 1984, Nabil Bank Limited was established under the name Nepal Arab Bank Limited. A new era in Nepal's banking sector is being ushered in by the joint venture bank with Dubai Bank Limited under the Technical Service Agreement (TSA). Nabil was founded with the intention of providing contemporary banking services that are up to international standards to a range of societal segments. With 248 locations nationwide and more than 200 foreign correspondent banking relationships, Nabil Bank now offers a comprehensive variety of commercial banking services. Binod Chaudhary, a Nepalese millionaire, acquired the controlling stake in the Dubai government in 1995.

Through its previous advancements and various stages in the banking sector, Nabil has demonstrated that it has accomplished two things of which it can be proud: first, it has a sizable clientele and receptive stakeholders; second, it has been successful in establishing a strong market position, for which the Nabil Team is responsible. Following its merger with Nepal Bangladesh Bank, it has grown to become one of the biggest banks in terms of capital and services. Promoters own 60% of the banks' current capital of Rs. 27,056,998,400, while the general public owns 40%. (www.nabilbank.com)

Nepal SBI Bank Limited

Through a Memorandum of Understanding signed on July 17, 1992, three institutional promoters—State Bank of India (SBI), Employees Provident Fund, and Agricultural Development Bank of Nepal—sponsored Nepal SBI Bank Ltd. (NSBL), the first Indo-Nepal joint venture in the financial sector. With an authorized capital of Rs. 12 crores and a license from Nepal Rastra Bank on July 6, 1993, NSBL was registered as a Public Limited Company at the Office of the Company Registrar on April 28, 1993, under Regn. No. 17-049/50. Beginning on July 7, 1993, NSBL operated with a single, fully functional office at Durbar Marg in Kathmandu, employing eighteen people. As of 07.16.2023, there are 923 employees working at NSBL throughout 93 branches and 23 extensions. 7 Provincial Offices, 1 Intouch outlet & a Corporate Office (www.nsbi.com.np).

On April 26, 2006, Nepal Rastra Bank awarded NSBL a new license under the Banks & Financial Institutions Act, 2063, designating it as a "A" class licensed institution. Rs. 1500.00 crore is the authorized capital, while Rs. 895.62 crore is the paid-up capital. The

Employees Provident Fund owns 15% of the Bank's entire share capital, while the general public owns the remaining 55% of the shares owned by State Bank of India (SBI) (www.nsbi.com.np).

1.2 Problem Statement

The most significant organizations for financial resource allocation, savings, and mobilization are commercial banks. They are therefore a significant phenomena in economic growth and development because of their responsibilities. The ability, breadth, and prospects of banks to mobilize financial resources and allocate them to profitable ventures must be recognized in the performance of this task. The banking industry is quite sensitive at the moment as a larger portion of their earnings comes from credit (loans) extended to their clients (Thapa, 2017).

The practice of valuing an organization's policies and operations in terms of money is known as financial performance. The firm's profitability, liquidity, or leverage all show these outcomes. Decision-makers may assess the outcomes of business strategy and operations in unbiased monetary terms by analyzing a company's financial performance. The ratios are typically used to assess an organization's financial success. It is anticipated that a well planned and executed financial management system would favorably impact the development of a company's value. Our study's objective is to evaluate the performance or financial stability of Nepal's commercial banks. Since the 2018–19 financial sector reforms, Nepal's commercial banks have seen significant technical and regulatory changes. Due to regulatory restrictions, technical and financial innovation, the entry of major international banks into the retail banking market, and the difficulties posed by the recent financial crisis, Nepali banks are facing increased competition and growing prices. The performance of Nepal's commercial banks was significantly impacted by these modifications. Bank profitability and efficiency have been the main topics of studies on bank performance in Nepal. The methodology and sample coverage of this study differ from those of previous studies. The importance of analyzing the business sector's financial performance for a number of reasons serves as the study's driving force. First, given the growing number of financial institutions seeking to do business successfully and efficiently, financial performance is a critical component. Second, governments, regulators, managers, and investors are worried about how well

banks convert their costly inputs into a range of financial goods and services in a financial market that is changing quickly and becoming more international. According to the researcher, most commercial banks have issues with liquidity management, capital adequacy, asset quality, management capacity, and earning capacity. These issues result in poor performance and make it impossible for the banks to provide loans to their various clients. For this reason, the researcher plans to look into the banks' capital adequacy, asset quality, asset management, and earning efficiency. Third, financial performance measures are crucial components of the banking industry that allow us to separate banks that have the potential to survive and thrive from those that may have issues.

Prior to financial reforms, commercial banks had financial performance issues for many years. A high percentage of non-performing loans was the reason for many commercial banks going bankrupt. In the beginning, Nepal's banking industry, and commercial banks in particular, faced numerous challenges, including a lack of funding, unstable political conditions, a shortage of qualified human capital, and socioeconomic disaster. A high percentage of nonperforming loans also had an impact on the bank's profitability, which in turn had an impact on the commercial banking industry's ability to operate efficiently. Given that banks are highly indebted, trust in the financial system is largely dependent on their performance and stability. The whole financial system may be significantly impacted by a single bank's financial issues. Consequently, without knowing what factors influence financial performance or profit,

- How profitable and liquid are Nepalese commercial banks at the moment?
- Is there a connection between Nepalese commercial banks' profitability and liquidity management?
- Does the profitability situation of Nepalese commercial banks get affected by liquidity management?

1.3 Objectives of the Study

The following are the study's precise goals.

- To evaluate Nepalese commercial banks' profitability and liquidity status.
- To investigate the connection between Nepalese commercial banks' profitability and liquidity management.
- To examine how Nepalese commercial banks' profitability is affected by liquidity.

1.4 Rationale of the Study

By lending money to investors and the business sector, banks play a role in a nation's development.

- The commercial bank's profit planning benefits from this study. It makes an effort to investigate and evaluate the suitability of the bank's profit planning system.
- With the aid of optimal resource usage, the financial performance analysis method greatly enhances an organization's profitability and overall financial performance. Financial analysis is a part of an overall process and is an area in which finance function plays major role. It is now an important responsibility of financial manager while activities of those require an accounting background
- Understanding of economic data, business concepts, and mathematics will be applied to provide recommendations that are applicable and realistic.
- Analysis of financial performance aids in preparedness planning for a certain time frame. For management, financial success is essential. The most crucial metric for assessing management effectiveness is profit, which is something that every business must control.

1.5 Limitations of the Study

The following are the study's shortcomings.

- The study solely uses secondary data; original data is not used.
- Only five years of data, from 2017–18 to 2021–2022, are covered in the study.
- The yearly report of the sample banks is the sole source of secondary data.

- There are several determining factors of financial performance of banks which is only bank specific factor that has been considered in this study.
- The research analyzes data using a small number of instruments, such as statistical and financial tools.
- The study uses descriptive research design.
- The study is conducted for the partial fulfillment of the requirement of master's degree.

CHAPTER-II

LITERATURE REVIEW

The examination of pertinent theoretical and empirical literature on the factors influencing bank lending behavior is the main objective of this chapter. The study's framework was developed by this literature evaluation, which also made it evident where there was a gap in the literature that aided in the development of the study's research hypotheses.

2.1 Theoretical Review

A survey of some of the current literature on profit planning principles is the focus of this chapter. Numerous books, journals, and articles pertaining to this subject have been evaluated in this context. The conceptual framework of the study is covered in the first section of the chapter, while the review of earlier papers, journals, and dissertations is covered in the second (Panta, 2017).

2.1.1 Concept of Financial Analysis

The process of accurately establishing the link between the balance sheet items and the profit and loss account in order to determine the firm's financial strengths and weaknesses is known as financial analysis. It can be done by the company's management or by parties outside the company. The principal number in the financial statement and any noteworthy relationships are the main focus of the financial analysis. Since they are in charge of the overall effective and efficient use of the firm's resources and financial situation, the management of the company is often interested in every facet of the financial analysis. For the financial analysis, both vertical and horizontal analysis might be performed. The Financial balance sheets and profit and loss accounts for a specific time period are the only components of vertical analysis, sometimes referred to as static analysis. Similarly, a variety of statements about the number of years are examined and studied in the horizontal analysis. It is sometimes referred to as dynamic analysis, because it tracks how the company's position or trend has changed over time. The financial indicators of Himalayan Bank Limited, Nepal Investment Bank Limited, and Agricultural Development Bank Limited for the fiscal years 2017–18–2021/22 have been determined

in this paper using the horizontal analysis method. The following are the steps in the analyzing process.

- Choosing the data that is pertinent to the choice.
- The way the chosen data is arranged to emphasize the important connection between the financial metrics.
- Interpretation and deduction of findings and inferences.

In order to assess a business's financial performance, an analyst has to know specific corporate criteria that reveal the quantitative relationship and the company's position. Ratio analysis is the most popular and successful financial analysis method. The relationship between two accounting figures, stated mathematically, or the numerical relationship between two variables, expressed as (i) a percentage, (ii) a fraction, or (iii) a proportion of numbers, is measured by the financial ratio. The methodical use of financial data to identify a company's strengths and weaknesses, as well as its past performance and present financial status, is known as ratio analysis. After calculating several ratios, we must compare the results to a certain benchmark and draw conclusions. Weston and Brigham categorized the comparison into five categories: (i) the liquidity ratio, (ii) the leverage ratio, (iii) the activity ratio, (iv) the profitability ratio, and (v) the growth ratio. The following ratios are examined in this study. 1. The ratio of profitability 2. Ratio of Liquidity 3. Ratio of Efficiency 4. The ratio of capital structure to investment.

2.1.2 Concept of Financial Performance Analysis

These statements, which compare financial reports about an organization, are referred to as financial performance analysis. It is the end result of the physical and accounting labor completed on a quarterly, half-yearly, or annual basis during the accounting period (Bernstein & Wild, 2000). Monetary terminology are used to produce financial statements. The statement difference from the prior quarter, month, or year is the subject of performance analysis. The term "Quarterly Financial Analysis Statements" refers to interim financial performance analyses, which are conducted for a shorter time frame, often a quarter.

Corporate law requires the auditor to present the performance analysis statements to the annual general meeting of shareholders in order to provide a "true and fair view" of the company's affairs. The auditor prepares these statements for reporting to the board of

directors and shareholders as part of their stewardship function. The balance statement must have the profit and loss account as an appendix, and the auditor's report—including any separate, special, or supplemental reports—must be attached (Bernstein & Wild, 2000).

Performance is a key component of an organization, and without a precise and well-defined notion of a performance assessment technique, the idea of performance analysis may not be comprehensive and useful. It claimed that comparing a company's present ratio to its prior ratio is the simplest method of assessing its success. It indicates the course of change and shows whether the company's financial performance has been better, worse, or stayed the same over time (Bernstein & Wild, 2000).

2.1.3. Performance Evaluation of Banking Sector

In the domains of finance and management, the idea of financial performance and the study of how to quantify it are highly developed. A well-considered method called CAMEL rating has been used extensively recently to assess the performance of financial organizations, particularly banks. This rating has been determined up to this point by Nepal Rastra Bank, often known as the Central Bank, which is the regulating agency. The CAMEL framework, which analyzes and assesses the five essential aspects of banking operations, is used to measure the financial performance of the banking industry. The CAMEL framework is now being used in the research to assess banks' performance.

State-owned development banks (SCBs), government-owned development financial institutions (DFIs), domestic private development banks (PCBs), and foreign development banks (FCBs) are the four types of banks that are the subject of this review.

a. Capital Adequacy (C)

A bank's capital adequacy, which is often expressed as a ratio of its shareholders' fund to total assets, is a gauge of its financial health. The ratio shows how well-equipped a bank is to handle unforeseen losses. The bank's financial stability is positively correlated with this ratio (Cheney & Mosses, 2000).

b. Asset Quality (A)

One crucial indicator of a bank's strength is its asset quality. For analytical purposes, the ratio of advances and non-performing loans as a percentage of total advances is taken into account. To gauge the degree of asset deployment in earning assets, the ratio of total loans and advances to total assets is also used.

c. Management Quality (M)

Certain ratios can be used to gauge a bank's management's effectiveness and capability. The ratios of total loans and advances to total deposits, interest expenditures to total deposits, and operational expenses to total assets are taken into consideration in order to represent the potential dynamics of management efficiency (Crossee, 2012).

d. Earnings Ability (E)

The research used two ratios to evaluate the banks' profits capacity. The first ratio is called "ROA," or net income to total assets. Interest income to total assets is the second ratio. The two ratios show a negative correlation with the bank's collapse risk and a positive correlation with its financial success.

e. Liquidity (L)

This research uses two ratios to evaluate the banks' degree of liquidity. Total liquid assets divided by total assets is the first. Liquid assets to client deposits is the second ratio.

2.1.4 Long Range and Short Range Performance Plan

Profit plans are created in two varieties: tactical (short-range) and strategic (long-range). The latter is for a brief period of time, while the former has a time horizon of two to twenty years. Long-term planning is an image of additional summary data. Due to the executive committee's provisional commitments throughout organizational planning seasons, a portion of this plan is more or less informal. The following element, which is broken down by year, is part of the formal long-term performance plan (Ghimire, 2017).

- Income statement
- Balance Sheet
- Capital Expenditure Plan
- Personnel Requirements
- Research Plan and
- Long Range Market Penetration Plan

As a result, the long-term performance plan addresses every important aspect of the expected activity, including sales, costs, R&D, capital expenditure, cash, profit, and ROI. The short-term tactical performance plan displays the outcomes, which are mainly yearly, broken down by months, responsibilities, and products. These yearly summaries should be created for an organization in order to give a broad overview of the short-term profit plan and a basic grasp of the profit plan. These two profit strategies may be created by the companies for every facet of their business (Crossee, 2012).

If the executive instruments are received and the planning is participative, the manager of each responsibility center will start working on the development of a strategic and tactical profit plan right away. The financial function should typically set the broad format, level of information, and other pertinent format and procedural criteria, primarily for the plan's aggregate. The centers must coordinate all of these operations in accordance with the organizational framework (Cheney & Moses, 2000).

A comprehensive business planning approach also includes the creation of long-term performance planning in addition to short-term performance planning. Long-term planning is necessary to keep the yearly earnings at a rising level. Growth in sales volume, rising return on capital investment, and effective organization are all long-term factors that are typically used to determine a company's final level of success (Alton & Wheelock, 2007).

2.1.5 Performance Reports

An essential component of an all-inclusive PPC system is performance reporting. The degree to which the organization's intended goals and objectives are met is greatly influenced by its phase of a complete PPC program. Performance reports address the PPC control element. The action required to ensure that the goals, plans, policies, and standards are being followed is known as the control function of management. One of the most important tools for management to successfully carry out its control role is a performance report (Crossee, 2012).

The organization presents internal reports, owner reports, and special external reports in a unique way. Internal report groups include performance reports. It typically follows a set format and is made once a month. These reports are intended to help management with

internal control. Essentially, reports' real outcomes are contrasted with their objectives and financial plans. Since these reports are created to identify both efficient and inefficient performance, they frequently highlight issues that need further attention (Thapa, 2017).

Features of Performance Reports

It is crucial to have a thorough performance report. Communicating performance measurement, actual outcomes, and associated deviations is the primary goal of performance reports. Performance reports provide managers with crucial information on operational efficiency. Performance summaries ought to be:

1. Adapted to the controllability emphasis and organizational structure (i.e., responsibility centers).
2. Developed to put the management by exception idea into practice.
3. Repetitive and pertaining to a brief time frame.
4. Made adjustments to meet the needs of the main users.
5. Reports just the most important facts and is easy to grasp.
6. Precise and intended to identify important differences.
7. Ready and currently on time.
8. Tonally constructive.

Aspects of Performance Reports

There are a number of behavioral and technological aspects that influence how different managers interpret their performance reports. One crucial element is how well the performance reports support users' management and decision-making requirements. Reports that provide a thorough and easily comprehensible overview of all operational elements and highlight significant occurrences are required by top management. Both summary and comprehensive statistics on daily operations are required by middle management. Likewise, reports for lower-level management must be clear, concise, and restricted to topics that directly affect the supervisor's operational duties (Crossee, 2012).

Performance report design and preparation need careful consideration of the following: names and headers should be informative; technical jargon should be avoided; and the data should be easily identified by the column heading and side caption. Tabulations should be avoided; reports shouldn't be overly lengthy or complicated. According to Thapa (2017), performance reports must to be pertinent and reasonably standardized.

Performance reports have to be promptly accessible. Monthly performance reports are commonly utilized in the company to achieve a realistic balance between the expenses of thorough reporting and quick reporting (Thapa, 2017).

2.1.6 Financial Ratio

A. Ratio of Liquidity Liquidity ratios are used to assess a company's capacity to fulfill immediate commitments. It gauges how quickly businesses turn their assets into cash to cover withdrawals from deposits and other ongoing commitments. The study makes use of a variety of liquidity ratio kinds.

I. Ratio of Current

It describes the connection between a company's current assets and current obligations, which also serves as a gauge of the company's short-term solvency. Cash and bank balances, loan and advance amounts, overdrafts, discounted investments in government securities, money at call or short notice, and other interest receivables are all considered current assets. Current liabilities also include tax provisions, dividends payable, bills payable, staff bonuses, short-term loans, deposits, and other obligations.

II. Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance are the most liquid current assets of a firm, Cash and bank balance to total deposit ratio measures the percentage of most liquid assets to pay depositors immediately. This ratio is computed dividing the amount of cash and bank balance by the total deposits. Where, total deposit consists of deposit on current account, saving account, fixed account and other deposits.

III. Cash and Bank Balance to Current Asset Ratio

This ratio calculates the proportion of liquid assets—such as cash and bank balances—among a company's current assets. The cash balance, cash with the NRB, and balances with other commercial banks are all included in the cash and bank balance. A higher ratio indicates a firm's greater ability to satisfy cash demand. This ratio is computed by dividing the total current assets by the cash and bank balance.

IV. Government Securities Investment to Current Assets Ratio

The percentage of current assets allocated to government securities, treasury bills, and development bonds is determined using this ratio. This ratio may be computed by dividing the entire quantity of current assets by the amount invested in government securities. It looks like this:

B. Ratio of Asset Management

The asset management ratio shows how well the chosen banks have allocated and managed their scarce resources. Under the asset management ratio, the following financial ratios pertaining to investment policy are computed, and these computations provide interpretations.

I. The ratio of loans and advances to total deposits

The goal of this ratio is to determine how well the chosen banks and finance businesses are using their total collection/deposits on loans and advances in order to turn a profit. A higher ratio, which is calculated by dividing the total number of loans and advances by the total number of deposits, indicates better advances.

II. Total Investment to Total Deposit Ratio

Investment is one of the major sources of earning income. This ratio indicates how properly firm's deposits have been invested on government securities and shares and debentures of other companies. This ratio can be computed dividing total amount of investment by total amount deposit collection.

III. Loan and Advances to Total Assets Working Fund Ratio

This ratio indicates the ability of selected banks and finance companies in terms of earning high profit from loan and advances. Loan and advances to total assets ratio can be obtained dividing loan and advance amount by total assets.

IV. Investment on Government Securities to Total Assets Ratio

Investment on government securities to total assets ratio shows how much part of total investment is there on government securities in percentage.

V. Investment on Share and Debentures to Total Assets Ratio

Investment on shares and debenture to total assets ratio shows the investment of banks and finance companies on the shares and debentures of other companies in terms of total assets. This ratio can be obtained dividing on shares and debenture by total assets.

C. Profitability Ratio

Profitability ratios are used to indicate and measure the overall efficiency of a firm in term of profit and financial position and performance of any institution. For better financial performance, profitability ratios of firm should be higher.

I. Return on Loans and Advances

Return on loan and advances ratio shows how efficiently the banks and the finance companies have utilized their resources to earn good return from provided loan and advances. This ratio is computed by dividing net profit (loss) by the total amount of loan and advances.

II. Return on Total Assets (Total Working Fund)

Return on assets ratio measures the profitability position of the selected banks and finance companies in comparison with total assets of those selected firms. It is calculated by dividing return or net profit (loss) by total working fund or total assets.

D. Risk Ratio

Risk is uncertainty in business transaction and investment management. If a firm bears risk and uncertainty, the profitability and effectiveness of the firm should increase. This ratio checks the degree of risk involved in the various financial operations. For this study, following risk ratios are used to analyze and interpret the financial data and investment policy.

I. Liquidity Risk Ratio

The liquidity risk of the bank defines its liquidity need for deposit. The cash and bank balance are the most liquid assets and they are considered as banks liquidity sources and deposit, as the liquidity needs. The ratio of cash and bank balance to total deposit is the indicator of bank liquidity needed. The risk will be low if funds are kept idle as cash and bank balance but this reduces profitability. If bank flow loans, profitability increases as well as risk. Thus higher liquidity ratio indicates less risk and less profitable bank and vice-versa. This ratio is calculated by dividing cash and bank balance to total deposit.

II. Credit Risk Ratio

Credit risk ratio helps to check the probability of loan non-repayment or the possibility of loan to go into default. Credit risk ratio is calculated in percentage dividing total loan and advances by total assets.

2.1.7 User of Financial Analysis

The goals of every firm's financial analysis determine the significance of the study. The fact found by the analysis is seen differently by various organizations related to the topic. Management of an enterprise makes important decisions about operating policies, investment, firm value, internal financial control system, and bargaining strategy for funds from external sources based on the interpretation of facts and relationships regarding managerial performance, corporate efficiency, financial strengths and weaknesses, and credit worthiness (Singh, 2018). The following is a list of the parties who gain from the findings or conclusions of the financial performance analysis:

Top Management: It is the overall duty of top management to ensure that the company's resources are employed as effectively and efficiently as possible and that its financial situation is solid. Predicting the future requires a grasp of the past. Top management can therefore gauge the success. Otherwise, a company's operations assess the performance of individuals, review the internal audit system, and establish the relative efficiency of different divisions, goods, and processes.

Creditors: The creditors are able to ascertain the borrower's financial stability and ability to fulfill their obligations. Trade creditors want the company to settle their claims as quickly as possible. On the other hand, long-term debt providers are worried about the company's long-term viability and solvency. A reputable bank can determine whether or not the borrower still has the ability to repay the principle and make interest payments on schedule by examining their accounts.

Shareholders: The company's earnings are the top concern for the investors who have put money into its shares. They can assess the management's effectiveness and decide whether any changes are necessary. Choosing whether to purchase, sell, or keep onto shares is in the best interests of shareholders in major corporations. Investors will

purchase shares if the company is performing exceptionally well, but they will only plan to keep the shares if the performance is sufficient. But they are hurried to sell the shares in case of poor performance.

2.2 Empirical Review of Cash, Banks and Profitability

Numerous research on various facets of commercial banks have been carried out. The findings of earlier research on the many facets of banks are pertinent to current investigation. Therefore, the research from earlier papers, journals, and theses is examined in this context.

From 2005–06 to 2008–09, Britto and Palamalai (2010) assessed the financial performance of a few Indian commercial banks. 16 commercial banks—11 from the public sector and 5 from the private sector—are included in the research, and financial ratios are used to analyze the banks' financial performance. The study demonstrates that during the study period, private sector banks' financial performance was comparatively superior to that of public sector banks. Additionally, using panel data estimations, namely the Fixed Effect and Random Effect models, the study looks at how liquidity, solvency, and efficiency affect the profitability of the chosen Indian commercial banks. The panel data estimations' empirical findings showed that the solvency and liquidity ratios as well as the turnover ratio

A research titled "An Evaluation of Financial Performance of Commercial Banks" was carried out by Pintoo (2011). In every economy, banks constitute a significant component of the financial system. The financial performance of Bahrain's commercial banks is assessed in this research. Eight commercial banks during the years 2005–2010 served as the basis for this investigation. The Central Bank of Bahrain website, investor's guide, newspaper, bank newsletters, and the public annual reports and websites of the individual banks provided the data utilized in this study. To ascertain the link between various financial metrics, researchers have employed regression analysis, correlation analysis, and t-tests. The study's findings suggest that profitability affects financial leverage and capital sufficiency, however it did not confirm A research titled "An Evaluation of Financial Performance of Commercial Banks" was carried out by Pintoo (2011). In every economy, banks constitute a significant component of the financial system. The financial

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According to a research by Karim and Alam (2015), banks are crucial to the economic growth of every country. A significant portion of the money supply in circulation is under their control. Since private commercial banks make up the majority of the banking industry in Bangladesh, the purpose of this study is to evaluate the performance of five private sector banks that are listed on the Dhaka and Chittagong stock exchanges. The major financial ratios used in this study are return on equity (ROE), return on assets (ROA), net interest margin (NIM), credit growth, credit concentration, non-performing loan position, liquidity gap analysis, and liquidity ratio.

The financial performance of the chosen banks has been assessed using three indicators: economic-based performance as defined by economic value add, market-based performance as evaluated by Tobin's Q model (price/book ratio), and internal-based performance as measured by return on assets. In order to understand the effects of bank size, credit risk, operational efficiency, and asset management on financial performance as measured by the three indicators, as well as to develop a good-fit regression model to forecast these banks' future financial performance, multiple regression analysis was used to analyze annual time series data from 2008–2012 of the chosen banks from their respective audited annual reports (secondary data). According to statistics, the hypothesis asserts that the financial performance of Bangladeshi commercial banks is significantly influenced by bank size, credit risk, operational efficiency, and asset management.

Kobika (2017) carried out research to observe a CAMEL application. Comparing the financial performance of governmental and private sector banks is the aim of this study. The banking industry in emerging nations differs from that in industrialized nations. The banking industry in Sri Lanka is essential to the country's economy, and commercial

banks in particular are significant players in this industry. State and private commercial banks are the two categories of commercial banks found in Sri Lanka. The latter can be further classified as local or international commercial banks. This research compares public and private commercial banks' financial performance using the Capital Adequacy, Assets Quality, Sri Lanka's 2013–2017 Management Soundness, Earnings, Liquidity (CAMEL) assessment system. Using a variety of statistical techniques, several studies are carried out in various nations to compare the banking industry's financial performance. One of the quantitative methods utilized in this study to assess the financial performance of banks is the CAMEL rating system, which is popular in today's society. In order to compete and thrive in the modern world, state banks should concentrate on improving their financial performance. Private commercial banks should likewise strive to meet their financial performance goals in order to ensure their long-term viability.

According to Balachandran (2018), an organization's financial analysis offers a comprehensive picture of its performance metrics, including both past and present performance. Because it demonstrates how an organization operates and where it is headed, this study is crucial for both management and external parties involved in the company. It is used for evaluating market risk, processing bond ratings, determining credit worthiness, and evaluating business excellence. The primary goal of the analysis is to ascertain the bank's financial performance. An understanding of a bank's performance may be gained via the examination and interpretation of ratios.

A research by Elshaday, Kenenisa, and Mohammed (2018) looked at the factors that affect Ethiopia's private commercial banks' financial performance. For eight private banks that have been in business for more than a decade, the study examines secondary data. Out of the sixteen private commercial banks that are presently operating in Ethiopia's banking sector, these banks were selected. The national bank report, bank annual reports, and minutes are the sources of the data used in this study. The random effect model is used to assess correlation and multiple linear regressions of panel data for the eight banks from 2007 to 2016. Data analysis was conducted using EViews 9. The dependent variables that have been chosen are return on equity and return on assets, while non The independent variables were bank size, leverage ratio, credit interest income ratio, loan loss provision ratio, capital adequacy ratio, -performing loan, and operation cost efficiency. The findings indicate that the bank's size (SIZE), credit interest income (CIR),

and capital adequacy ratio (CAR) all positively and statistically significantly impact financial performance. The financial performance of banks is negatively and statistically significantly impacted by non-performing loans (NPLs), loan loss provision (LLP), leverage ratio (LR), and operational cost efficiency (OCE). According to the report, Ethiopian commercial banks should control loan loss, reduce expenses, and set their leverage ratio as high as possible in order to increase profitability.

An investigation of various empirical techniques for the performance of the top 5 banks in the United Arab Emirates (initially) in comparison to international banks was carried out by Ravichandran and Ahmad (2018). The UAE-based banks are rated according to their performance after a comparative ratio study. The methodology can be used as a pedagogical benchmarking exercise in or outside of the classroom at the undergraduate and graduate levels, and it can also be a significant input for research studies on performance analysis. The results of this approach are significant in light of the recent banking and financial crisis.

According to a 2019 research by Leonard on "Liquidity Risk Management and Self-Paced A/L Management," the amount of liquidity you have or can obtain must be in proportion to the amount of liquidity you believe you could require. The total of your present liabilities that you may lose plus the additional assets you need to fund determines how much liquidity you need. The quantity of cash you may require, or liquidity risk, depends greatly on the circumstances. Without scenario analysis, it is impossible to measure liquidity wisely. In certain situations, sources are more or less accessible than in others.

Faran (2019) carried out a study on the Kingdom of Bahrain's financial sector, which actively promotes economic expansion. In 2018, it made up 27% of Bahrain's GDP. The bank's financial performance may be used to assess the health of an economy. Its monetary activities and policies determine its financial performance. Examining the financial performance of the banks in the Kingdom of Bahrain using a case study methodology is the research's goal. Secondary data was gathered from the bank's annual audited report for the years 2011 through 2018 in order to assess the performance of the institution. It focuses on two key metrics: liquidity and profitability. Since the depositors and stockholders both aim to optimize their return on investment, Return on equity and return on assets are the variables used to quantify profitability, while loan to asset and

loan to deposit are used to assess liquidity. As is clear from earlier research, ratio analysis is being employed to measure this. The study employed descriptive statistics, correlation, and percentage analysis. The findings showed that return on equity and return on asset had a negative association with loan to asset and a positive correlation with return on asset.

Dey (2020) conducted research to examine the financial performance of private listed commercial banks in Bangladesh in terms of profitability. The study is based on cross-section data of annual financial statements of 15 listed commercial banks for the period 2008-2019. Five determinants have been chosen for this study. The Correlation matrix shows that profitability, asset quality, operating performance, bank size and liquidity position are related positively but profitability and capital adequacy are related negatively. Step-wise regression method is followed to show the cause-effect relationship of the variables. This method identifies three models and automatically eliminates the insignificant variables following three steps and finally select model 3. This model is the best combination of the variables under analysis that most describes the profitability. It considers asset quality, operating performance and bank sizes significant determinants of profitability. On the other hand, liquidity position has positive but insignificant effect on profitability.

Liquidity risk, according to David and Monte (2020), is the inability of the asset owner to recoup the entire asset's value upon planned sale. The ability of a bank to fulfill its responsibilities under typical business circumstances is known as bank liquidity. Additionally, it highlighted the diversification of obligation management to lower liquidity risk, including CDs, Eurodollars, securitization, subordinated debt, and demand deposits and interbank time. Lender of last resort: An organization like the central bank can create currency or "high powered money" at its own discretion to help institutions that are having trouble with liquidity, to generate enough base money to counteract the public's desire to switch to cash during a crisis, and to postpone an institution's legal insolvency. He came to the conclusion that banking is prone to liquidity problems because of the

Ayaz (2021) carried out an investigation into "Analysis of Financial Performance of Private Banks in Pakistan, Analysis of Financial Sector issued by State bank of Pakistan"

. The top 10 private commercial banks in Pakistan make up the sample size. To solve the problem, we employed regression analysis and correlation techniques. ROA has a negative association with bank size and operational efficiency, but the assets management ratio has a positive link. In contrast, interest income has a negative relationship with asset management and operational efficiency, whereas bank size has a positive relationship with interest income. financial system, friendly treatment of investors, and efficient use of resources. In any economy, the banking industry plays a key role in these areas. The banking industry is crucial in directing capital to businesses and helping to. A strong banking industry can absorb significant economic financial crises and offer a platform for bolstering the nation's economic structure. Since gaining independence, the banking industry in Pakistan has experienced significant changes. Initially, Pakistan's banking industry experienced several challenges, including a lack of funding, unstable political conditions, a shortage of qualified human capital, and socioeconomic disasters, all of which had an impact on the industry's ability to operate effectively. In order to encourage private sector banks, the State Bank of Pakistan introduced the SBP Act in 1956. This, together with the 1992 privatization, encouraged both domestic and foreign investors to establish private sector banks and financial institutions. The banking industry in Pakistan now consists of 44 banks with 9,399 branches and assets of Rs. 11,778.6 billion. comprising four specialized banks, twenty-three domestic private banks, twelve foreign private banks, and five public sector banks. Currently, private sector banks own over 80% of the financial assets.

Ghimire (2022) The research "Liquidity Management in Nepalese Banks" highlights the need of preserving sufficient liquidity to cover short-term obligations and prevent financial crisis. It offers a thorough summary of the methods of liquidity management in Nepalese commercial banks. According to the report, banks use a variety of liquidity management techniques, such as keeping enough cash reserves, controlling the maturity profile of assets and liabilities, and abiding by the rules established by the Nepal Rastra Bank (NRB). Additionally, the study evaluates the effect of liquidity management on bank profitability using important profitability indicators including Return on Equity (ROE), Return on Assets (ROA), and Net Interest Margin (NIM). Despite recognizing the possible trade-offs, the researcher's empirical data demonstrates a favorable relationship between improved bank profitability and efficient liquidity management procedures. The study offers useful insights into strategic liquidity management and its function in

attaining sustained profitability in the banking industry of Nepal via case studies and comparative analysis.

2.2.2 Review of Previous Works

Shakya (2014) examined the NSBIBL and EBL ratios over a five-year period, ending with the fiscal year 2014–15. Here, the ratio of NSBIBL is larger in certain situations while the liquidity position of EBL is somewhat stronger in others. It comes to the conclusion that these two banks have a healthy liquidity situation. Compared to EBL, NBBL makes greater use of its resources in revenue-generating activities. They are trending downward, although EBL's return or net worth ratio is superior to NSBIBL's, as is the interest generated relative to total assets. Both banks are heavily leveraged, and it appears that EBL's overall profitability situation is superior to NSBIBL's.

Kathayat (2015examined the financial strengths and weaknesses of NIB and NABIL as well as their operational effectiveness, stability, and profitability. Simple statistical analysis and return to investors' analysis are employed as techniques in the study. He discovered that although NABIL has used more debt than NIB, NIB has a superior liquidity situation. In terms of ROA, NABIL's profitability ratio is superior to NIB's, while NABIL's EPS and DPS are superior to NIB's. Total debt and net profit for both banks, etc., are positively correlated.

Silpakar (2016) evaluated Nepal's commercial banks' profitability and liquidity status. SCBL has the greatest average net profit. SCBL is the most efficient in terms of net profit margin. Simple statistical analysis and return to investor analysis are the methods employed in this study. The study' main conclusions are that, out of the sample banks, SCBL has the most liquid assets. The liquidity status of NIBL is the most satisfactory in terms of the cash reserve ratio.

Sharma (2017) examined the liquidity positions of Nepal SBI Bank Limited, Nepal Bangladesh Bank Limited, and Everest Bank Limited in order to compare the banks' overall financial performance, assess their profitability, and gauge how well they manage their assets. He has used simple statistical analysis, return to investors analysis, and ratio analysis in his studies. The results showed that the NSBIBL's total investment to total deposit ratio is quite low. Therefore, it ought to make better use of its whole deposit for

investing purposes. The return on shareholder equity for NSBIBL has been declining. Therefore, it ought to make better use of the equity held by shareholders. NBBL's profitability statistics indicate that the bank's profit is trending downward. Thus,

Shakya (2017) "Financial Performance Analysis of the Selected Joint Venture Banks" was the subject of the study. The study's primary goals are to compare the financial strengths and weaknesses of the chosen banks, evaluate the liquidity and profitability of the banks that were sampled, and highlight different facets of these banks' financial performance during the previous five years. The primary source of information used in the research was secondary data. The study's conclusions show that the NB bank has a stronger liquidity position based on the examination of the liquidity ratio. Despite having a worse liquidity position, NBL and NABIL may nonetheless pay their present obligations. NB Bank has a superior return on investment, interest earned relative to total assets, and commission and discount earned relative to staff expenditures.

Adhikari (2018) studied the liquidity and profitability of the sampled banks, assessed the trends of deposit utilization toward total investment and loan & advances and their projections for the next five years, assessed the growth ratios of loan & advances and total investment with respect to growth ratios of total deposit and net profit, and examined the various investment risks. The study was titled "Financial Performance Analysis of Nepal Bangladesh Bank Limited and other Joint Venture Banks (Himalayan Bank Limited and Nepal SBI Bank Limited)". Secondary data served as the foundation for the investigation. According to the study's findings, NBBL's liquidity situation is not superior to that of HBL and NSBL. In terms of its balance sheet operations, NBBL is in a stronger position. The NBBL ratios exhibit significant volatility, indicating that the organization has not adhered to a consistent policy. When it comes to off-balance sheet transactions, NBBL is not superior. Additionally, the NBBL ratios vary greatly. In the OBS transaction, NBBL holds a modest holding. Comparatively speaking, NBBL's profitability position is superior to NSBL's but not superior to HBL's. Given the kind and state of its assets, deposit liabilities, and other corporate obligations, NBBL has not kept enough capital on hand. NBBL's net profit, lending, investment, and deposit collecting positions are all worse than NSBL's, but not better than HBL's.

Kandel (2019), carried out a study to highlight different aspects of Nepal Bangladesh Bank's and Nepal SBI Bank Ltd.'s financial performance, analyze financial performance

using the right financial tools, and demonstrate the reasons behind changes in the two banks' cash positions. To accomplish these goals, the researcher used a variety of financial and statistical tools. The primary source of information used in the research was secondary data. According to the examination of these commercial banks' liquidity positions, NSBI has a higher average current ratio than NBB. Consequently, SBI's liquidity situation is in a normal state. According to a review of these two banks' turnover, NBB outperforms SBI in areas of.

Sharma (2020) carried out a study to look at the financial situation, liquidity, and profitability of the banks that were sampled. It also looked at the trend of total deposits, total investments, loans, advances, net worth, net profit, earnings per share, and market value (per share of these banks for the next five years). It also looked at the financial strengths and weaknesses of the banks in question and provided recommendations for improving performance. In order to conduct a comparative analysis of the financial performance of Himalayan Bank Limited and Nabil Bank Limited, he mostly employed secondary data and financial instruments. According to the researcher's results, neither bank was able to maintain the traditional 2:1 ratio. The evaluation of

Koirala (2021) examined the two banks' financial results. In order to compare the financial performances of NABIL and SCBNL, this study employed both statistical and financial methods, including analysis. The study's main conclusion was that SCBNL has effectively managed its long-term funds, deposits, and assets to increase earnings. Although NABIL Bank's liquidity situation is positive, it frequently appears excessive. It is suggested that SCBNL strengthen its liquidity position while reducing its excessive nonperforming assets and investing in current assets that generate income, such as Treasury bills.

2.3 Research Gap

All of the aforementioned studies focused primarily on analyzing the bank's financial performance. The study demonstrates how liquid assets and net profit are related, as well as how keeping cash and bank balances affects the chosen bank's net profit. Additionally, the study concentrates on the several profitability and liquidity ratios that accurately characterize the commercial banks' financial performance analysis. Comprehensive and up-to-date information on financial performance analysis in Nepalese commercial banks

is provided by this study. This will be used as a reference for future research of this kind. Based on the study conducted thus far, it is apparent which bank is operating better than the other. A comparative analysis of the liquidity position has also been completed.

In studies done before either liquidity position or the profitability position and financial performance analysis explored, but this study compares the financial indictor, position and performance analysis of commercial banks. Since the study is unique, it ought to serve as the basis for future investigations into sample bank patterns. The research is able to present the newest and full information regarding the financial performance analysis of banks called Agricultural Development Bank Limited, Nepal Investment Bank Limited and Himalayan Bank Limited. Numerous studies on the same subject—the financial performance study of Nepal's commercial banks—are available. This study aims to learn from them. Nonetheless, the researcher will fill in the gaps by examining pertinent data and information from 2014–15. These banks are leading commercial banks by which we can find for the perfect comparison between highly growing banks rather than rapidly growing new banks.

CHAPTER-III

RESEARCH METHODOLOGY

The study's research technique is covered in this chapter. A thorough discussion of the research design, demographic and sample, data sources, and data analysis techniques has been undertaken in order to address the research topic and achieve the study's goals. The study uses the research methods outlined in this chapter to achieve the purpose.

3.1 Research Design

The rational and methodical planning and guidance of a research project is known as a research design. For the researcher, study design is similar to a blueprint. Descriptive and causal comparisons of research designs comprise the research design used in this study. In order to conduct a fact-finding operation and gather sufficient information on the factors influencing the lending behavior of Nepali commercial banks, the descriptive study design has been modified. The directions, magnitudes, and forms of the observed association between various dependent and independent variables have been established through the use of causal comparative study design (Adhikari, 2017).

3.2 Population and Sample, and Sampling Design

Up till the fiscal year, Nepal has 20 commercial banks in operation. As of January 2024, 19 of the 20 commercial banks are now listed on the Nepal Stock Exchange (NEPSE). The government of Nepal owns the unlisted bank, Rastriya Banijya Bank (RBB). The study's population consists of these 20 commercial banks. Nabil Bank Limited and Nepal SBI Bank Limited were selected as a sample from the population using the convenience sampling approach.

3.3 Data Collection Procedure

The reports that the banks publish at their separate annual general meetings and the websites of the relevant institutions are the primary sources of secondary data, as previously mentioned in the chapters. Additionally, the Nepal Rastra Bank's non-bank regulatory section publishes non-bank financial statistics from which some of the pertinent data is also gathered.

3.4 Methods of Analysis

Numerous accounting, statistical, and financial methods have been employed in this study in order to meet its goals. The data will be analyzed based on the available data pattern. In this study, analytical statistical methods like simple regression and Karl Person's coefficient of correlation are used with the resources and instruments at hand. The diverse computed outcomes derived from accounting, financial, and statistical instruments are compiled under several headings. The results are then interpreted by comparing them to one another.

3.4.1 Financial Tools

An organization's success may be evaluated using a variety of financial instruments. By appropriately creating linkages between the components of the income statement and the balance sheet, financial instruments essentially assist in identifying the firm's financial strengths and weaknesses. The company's capacity to satisfy short-term commitments is shown by the liquidity ratios, which assess the liquidity situation and short-term solvency. It gauges how quickly businesses turn their assets into cash to cover withdrawals from deposits and other urgent needs. This is a fast indicator of the company's financial health and liquidity. These studies use a variety of liquidity ratios, which are described below:

i) Cash Reserve Ratio (CRR)

A rule known as the Cash Reserve Ratio establishes the minimum reserves that banks are required to maintain in relation to client deposits. These reserves, which are intended to meet demand, are often in the form of fiat money that is kept with a central bank or in a bank vault (vault cash). Sometimes employed as a monetary policy instrument, the CRR affects interest rates, borrowing, and the nation's economy. Western central banks prefer to execute their monetary policy through open market operations since they have few surplus reserves. When an organization has more reserves than is necessary, it is considered to have excess reserves. To sustain liquidity, the NRB instructed commercial banks to hold 5.5% of their deposits as CRR. Weekly maintenance is performed. If banks

It is maintained on a weekly basis. If banks fail to maintain a minimum of CRR, it is liable to pay penalty and even bears vulnerable conditions towards liquidity crunch.

$$\text{Cash Reserve Ratio} = \frac{\text{Cash balance in NRB}}{\text{Local Currency Deposit} - \text{Margin Deposit}}$$

Since we are unable to access and locate the daily deposit amount in the yearly report, we are unable to compare the cash reserve ratio, which was mandated by the NRB to be 4% in 2018–19 on average of the bank's weekly total deposits. Therefore, if we compute it using the amount from the year-end balance sheet, it will provide inaccurate information or mislead others.

ii) Cash and Bank Balance to Total Assets Ratio

The ratio of cash and bank balance to total assets indicates the proportion of cash and bank balance to total assets, which are the most liquid current assets of a company. It can be shown as

$$\text{Cash and Bank Balance to Total Assets Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Total Assets}}$$

iii) Investment on Securities to Total Asset Ratio

This ratio is used to find the percentage of total assets invested on government securities, treasury bills and development bonds. It can be mentioned as:

$$\text{Investment on Securities to Total Asset Ratio} = \frac{\text{Investmnet in Government Securites}}{\text{Total Assets}}$$

Where, Investment on securities involves treasury bills and development bonds etc.

iv) NRB Balance to Total Asset Ratio

NRB has made the commercial banks to deposit certain fund of the commercial bank in the central bank which is changing time to time as the demand of the time. The ratio is calculated as followed:

$$\text{NRB balance to total Assets Ratio} = \frac{\text{NRB Deposit}}{\text{Total Assets}}$$

v) Statutory Liquidity Reserve (SLR)

SRL is the minimum proportion of deposits that a commercial bank must hold in the form of gold, liquid cash, or other securities. A certain percentage of banks' net demand and time obligations must be held in liquid assets, such as cash, gold, Treasury bonds, and other authorized securities, in addition to the Cash Reserve Ratio (CRR). Every other Friday, banks are required to submit their SLR maintenance to the NRB. Failure to maintain SLR as required might result in fines.

$$\text{Statutory Liquidity Reserve Ratio (SLR)} = \frac{\text{Liqudity Reserve}}{\text{Total Assets}}$$

vi) Credit Capital Deposit Ratio

This ratio is computed to determine how well the chosen banks are using all of their loans and advances to generate profit. A higher ratio indicates better use of total capital and deposits. By dividing loans and advances by total deposits and capital, this ratio may be calculated and shown as follows:

$$\text{Credit Capital Deposit Ratio (CCD)} = \frac{\text{Credit or Loan}}{\text{Deposit+Capital}}$$

vii) Purchase Liabilities to Total Assets Ratio

The purchase liabilities to total assets ratio is an indicator of a company's financial leverage. It tells you the percentage of a company's total assets that were financed by creditors. In other words, it is the *total* amount of a company's liabilities divided by the total amount of the company's assets.

$$\text{Purchase Liabilities to Total Assets Ratio} = \frac{\text{Amount of Borrowings}}{\text{Total Assets}}$$

Profitability Ratios

Profitability ratios are very helpful to measure the overall efficiency of operations of a firm. It is a true indication of the financial performance of each and every business organization. Here profitability ratios are calculated and evaluated in terms of the relationship between net profit and assets (Thapa, 2017). Profitability of the firms can be presented through the following different ways:

i) Return on Loan and Advances Ratio

Return on loan and advances ratio shows how efficiently the banks have utilized their resources to earn good return from provided loan and advances. This ratio is computed dividing net profit (loss) by the total amount of loan and advances and can be mentioned as,

$$\text{Reuturn on Loan and Advances Ratio} = \frac{\text{Net Profit (Loss)}}{\text{Loan and Advances}}$$

ii) Return on Equity Ratio (ROE)

ROE illustrates the connection between net income and shareholders' funds since shareholders are entitled to the remaining earnings. The ability of the company to generate net income per rupee of shareholders' funds is shown by this ratio. Analyzing how well the money provided by shareholders has been used is the primary goal of calculating this ratio. Both current and potential future shareholders are quite interested in

this ratio, and management, which is in charge of maximizing the welfare of the owners, is also very concerned about it. The following formula may be used to calculate this ratio:

$$\text{ROE} = \frac{\text{Net income}}{\text{Shareshold er's equity}} \times 100\%$$

iii) Net Interest Margin (NIM)

The difference between interest revenue earned by banks and other financial institutions and interest paid to depositors in relation to the size of their interest-earning assets is known as the net interest margin, or NIM. The financial institution's earnings from loans and other assets for a given period, less interest paid on borrowed money, are often stated as a percentage of the average amount of assets from which the institution made revenue during that period. It's computed as

$$\text{NIM} = \frac{\text{Interest Income}}{\text{Loan + Securities}} - \frac{\text{Interest Expenses}}{\text{(Deposit+ Borrowing)- Current Deposit}}$$

iv) Non Net Interest Margin (NNIM)

Non Net interest margin (NNIM) is a measure of the difference between the non-interest income and non-interest expenses of banks or other financial institutions with the total assets. It is calculated as

$$\text{Non-Net Interest Margin (NNIM)} = \frac{\text{Non Interest Income- Non Interest Expenses}}{\text{Total Assets}}$$

v) Return on total assets (ROA)

Return on total assets or simply return on assets, measures the productivity of the assets. It is measured in terms of relationship between net profit and assets. "This ratio judges the effectiveness in using the total fund supplied by the owners and creditors. Higher ratio shows the higher return on the assets used in the business thereby, indicating effective use of resources available and vice-versa (Singh, 2018). ROA is calculated as under;

$$\text{Return on assets (ROA)} = \frac{\text{Net income}}{\text{Total assets}}$$

vi) Earning per share (EPS)

The ratio used to evaluate the availability of total profits per share is earnings per share. For equity owners evaluating the return on equity shares, this ratio is crucial. A higher EPS indicates stronger business success. The likelihood of additional dividend and bonus shares is increased by the rising trend of EPS. EPS merely indicates the amount that "theoretically" belongs to common shareholders. It doesn't disclose how much of the

profits are kept in the company or how much is distributed as dividends to the shareholders. It is computed as follows:

$$\text{Earnings per share (EPS)} = \frac{\text{Net income}}{\text{No. of share outstanding}}$$

3.4.2 Statistical Tools

To meet the objectives of the study statistical tools are equally important. It helps us to analyze the relationship between two or more variables. In this research, Simple analytical tools are used such as coefficient of determination, probable error, standard deviation, Karl Pearson's coefficient of correlation; trend analysis adopted which are as follows:

i. Mean

The mean, also referred to as the average, is the most commonly used measure for summarizing a dataset with a single value. It is calculated by summing up all the values in the dataset and dividing the total by the number of observations. If the observed values for the sampled periods are X_t, and the total number of periods is N, the mean is expressed as:

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

Where, $\sum X$=sum of the variable 'X'

N=No of observation

ii. Standard Deviation (σ)

The standard deviation is an important and widely used measure of dispersion. The measurement of the scatterings of the mass of figure in a series about an average is known as dispersion. The greater the value of dispersion, greater the standard deviation. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series; a large standard deviation means just the opposites it is denoted by the letterσ(Silwal, 2018).

$$\text{S.D } (\sigma) = \sqrt{\frac{1}{N}\sum (X - \overline{X})^2}$$

Where,

N = Number of observations

X = Expected return of the historical data

iii. Coefficient of corrélation (r)

The association between two or more variables has been analyzed, found, and interpreted using this statistical method. It determines if there is a positive or negative correlation between two or more variables. A statistical tool examines how those factors relate to one another and assists the chosen banks in determining the best investment strategy for deposit collecting, profit maximization, and capital mobilization through loan and advance provision (Silwal, 2018).

For the purpose of decision-making, interpretation is based on following term:

- When r = 1, there is perfect positive correlation.
- When r = -1, there is perfect negative correlation.
- When r = 0, there is no correlation.

Karl Pearson's Correlation coefficient(r) can be obtained as:

$$r = \frac{n\sum xy - (\sum x) \times (\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} \times \sqrt{n(\sum y^2) - (\sum y)^2}}$$

Where,

n = number of observations in series X and Y

$\sum$ X = sum of observations in series X

$\sum$ Y = sum of observations in series Y

$\sum$ X^2 =sum of squared observations in series X

$\sum$ Y^2 = sum of squared observations in series Y

$\sum$ XY = sum of the product of observations in series X and Y

iv. Probable Error (P.E)

Probable error is measured for testing the reliability of an observed value of correlation coefficient. It is computed to find the extent to which it is dependable. If correlation coefficient is greater than 6 times P.E the observed value of r is said to be significant, otherwise nothing can be concluded with certainty. But if the calculated (r) is less than the P.E correlation is not at all significant. It is calculated by using following formula:

$$\text{Probable Error (P.E.)} = 0.6745 \times \frac{1 - r^2}{\sqrt{n}}$$

Where,

P.E. (r) = Probable error of correlation coefficient

r = Correlation coefficient

n = Number of observations

v) Regression Analysis

The statistical method known as regression is used to estimate or predict one variable based on the other factors and to ascertain the statistical connection between two or more variables. To put it another way, regression is the statistical method that allows one variable's unknown value to be estimated or forecasted based on the known value of another variable. assuming a close relationship between the two variables. By using the provided value of one variable, we may estimate the value of another. For instance, we may determine the amount of production needed to reach a specific sales target if we know that production and sales are strongly associated. Regression therefore calculates the average likely change.Thus regression determines the average probable change in one variable based on a certain amount of change in another (Silwal, 2018).

In symbolically, it is defined as:

$\sum e^2_1 = \sum(Y - \hat{Y})^2$

This is called the least square if

$\sum e^2_1 = \sum(Y - \hat{Y})^2 = 0$ which best fits all the data.

taking the first derivative of this expression with respect to "a" and "b" gives two equations which are called the normal equations.

i.e. $= \frac{\partial\sum(Y - \hat{Y})2}{\partial a} =$ minimum and $\frac{\partial\sum(Y - \hat{Y})2}{\partial b} = 0$

gives,

$\sum Y = na + b\sum X$

$\sum XY = a\sum X + b\sum X^2$

3.5 Regression Model

Basically, the variables under study are financial performance analysis of commercial banks in Nepal. As a proxy of profitability, ROA and ROE have been considered; the study is oriented toward analyzing the effect of these independent variables on the return. Therefore, the basic relationship functions are expressed as follows:

$Y= a+bx$.....i

$ROA=\beta_0 + \beta_1 CRR_{it} + \beta_2 ITA_{it} +\beta_3 NRB\ TA_{it} +\varepsilon_{it}$

$ROE=\beta_0 + \beta_1 CRR_{it} + \beta_2 ITTA_{it} +\beta_3 NRB\ TA_{it} +\varepsilon_{it}$

The regression equation to be estimated has therefore been specified as,

$Y = \beta_0 + \beta\ Xit + \varepsilon it$

Where Y is the dependent variable; β_0 is constant; β is the coefficient of explanatory variables; X it is the vector of explanatory variables, and it is the error term. Adapting this basic model, following models are estimated.

ROA_{it} represents Return on assets of bank i in year t;

ROE_{it} represents Return on Equity of bank i in year t;

NIM_{it} represents Net Interest Margin of bank i in year t;

CRR_{it} represents cash reserve ratio of bank i in year t;

IT_{it} represents investment to total assets of banks i in year t;

NRB to TA_{it} represents NRB to TA of bank i in year t;

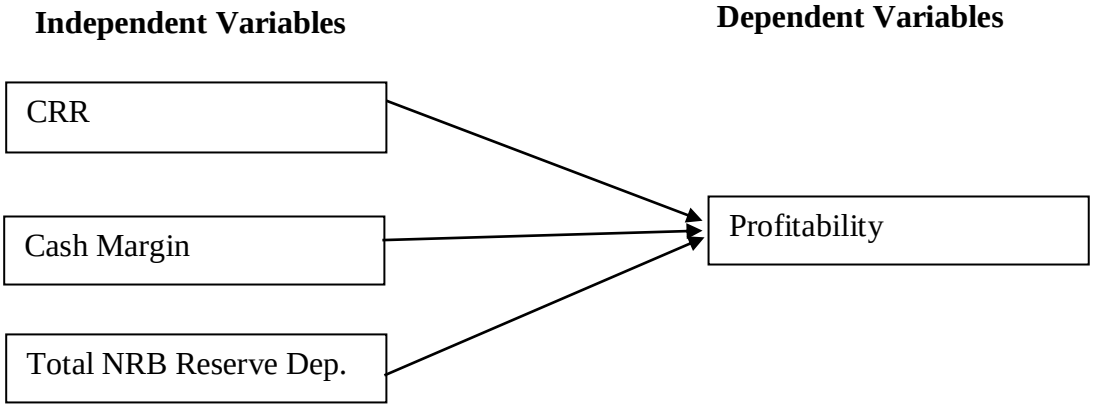
B_0 is the Intercept (constant); β_1, β_2 and β_3 represent the corresponding slope which addresses the impact coefficients.

3.6 Research Framework and Definition of Variables

Dependent and in Independent variables to study impact of liquidity and profitability have been presented in following theoretical framework. The conceptual framework is developed from the theoretical and literature review and presented in the following diagram. The component of the diagram has described while describe tools of analysis 3.4.1.

Figure 1

Research Framework



(Source: Thapa, K. (2020). Commercial bank management. Kathmandu: Januka Publication)

Figure 1s shows the relationship between dependent variables profitability (ROA, ROE and NIM) and independent bank specific variables. Banks specific variables are natural cash reserve ratio (CRR), cash to total assets, investment to total assets, NRB to total Deposit. These are the determinants of bank liquidity and profitability analysis of Banks.

i CRR : It is a mandatory requirement for banks to hold a certain percentage of their total deposits in reserve, in the form of cash, with the central bank. This reserve is maintained to ensure the liquidity and stability of the financial system and to control the money supply in the economy.

The formula for calculating CRR is:

$$\text{Cash Reserve Ratio} = \frac{\text{Cash balance in NRB}}{\text{Local Currency Deposit} - \text{Margin Deposit}} \text{ X } 100$$

ii The cash margin: often referred to as the cash coverage ratio, is a financial metric used to assess a company's ability to cover its short-term obligations with its cash and cash equivalents. It measures the proportion of cash available relative to the company's current liabilities, giving insight into its liquidity position.

The formula for calculating the cash coverage ratio is:

$$\text{Cash Coverage Ratio} = \frac{\text{Cash and Cash Equivalents+Marketable Securities}}{\text{Current Liabilities}}$$

iii. Total NRB Reserve Deposit: The Total NRB Reserve Deposit Ratio refers to the reserve requirement set by the Nepal Rastra Bank (NRB), which is the central bank of Nepal. This ratio mandates the amount of reserves that commercial banks must hold in relation to their total deposits. The reserves are usually held in the form of cash or deposits with the NRB. It is calculated as,

$$\text{Total NRB Reserve Dep.} = \frac{\text{Total Deposit Held by Bank at NRB}}{\text{Total Deposit}} \times 100$$

iv. Profitability Ratios ; Profitability ratios are financial criteria used to evaluate a company's ability to generate profit relative to its revenue, assets, equity, or other financial standard. These ratios help assess how efficiently a company is operating and how well it is using its resources to generate earnings. ROE, ROI, NIM etc are the ratio which shows the profitability in terms of assets, equity, and interest. Definition and calculation are mention above.

3.7 Variables

To measure, observe, or analyze the relationships between different components of the study is called variables. Variables are classified into different types, such as independent variables and dependent Variables

Dependent Variables: The important aspect of the study is to analyze an impact of credit risk on the return or profitability. Therefore, dependent variables are the proxies of profitability. Among the different aspects of profitability, ROA, ROE, NIM, Return on Loans and Advance, NIM and EPS have been considered.

Independent Variables: To analyze an impact of credit risk on the return or profitability, as independent variables, CRR, Cash and Bank Balance to Total Assets, Investment to total assets, NRB to total assets, Liquidity reserve and total assets, credit or loan deposit ratio, amount of borrowings to total assets.

CHAPTER-IV

RESULT AND DISCUSSION

This chapter measures the many aspects of liquidity by presenting and analyzing data gathered from multiple sources. It comprises in-depth data interpretation and analysis that yields tangible outcomes. Numerous calculations conducted for research purposes are included in this chapter. This chapter is divided into three sections: presentation, analysis, and key results in order to make the study efficient, accurate, and simple to comprehend.

4.1 Analysis of Liquidity Position

This chapter measures the many aspects of liquidity by presenting and analyzing data gathered from multiple sources. It comprises in-depth data interpretation and analysis that yields tangible outcomes. Numerous calculations conducted for research purposes are included in this chapter. This chapter is divided into three sections: presentation, analysis, and key results in order to make the study efficient, accurate, and simple to comprehend.

4.1.1 Cash Reserve Ratio

All banks are required to maintain a specific percentage of cash on hand as deposits with the RBI, known as the cash reserve ratio. The NRB sets this proportion, which the central bank itself occasionally modifies. The main aim is to provide some sort of liquid cash against depositors' money so that the bank does not run out of cash to meet depositors' requirements.

Table 1

Cash Reserve Ratio

Year	**NABIL (%)**	**NSBI(in %)**
2017/18	30.32	19.2
2018/19	28.74	12.0
2019/20	26.64	7.2
2020/21	26.64	10.5
2021/22	23.05	8.2
Mean	27.08	11.42
S.D.	2.73	4.74

(Source: Appendix I)

The greatest cash reserve ratios for NABIL and NSBI are 30.32% and 19.20%, respectively, according to Table 1, which displays the cash reserve ratio (total cash balance at NRB to total deposit) over the five-year study period. Similarly, NABIL and NSBI have the lowest cash reserve ratios, at 23.05% and 7.20%, respectively. The average cash reserve ratio for NABIL is 27.08%, more than the 11.42% for NSBI. This indicates that, on average, NABIL has maintained a larger cash reserve ratio than NABIL. This indicates that NABIL's liquidity position is more stable. Both banks have kept their CRRs over the NRB's required threshold. Having an excess reserve bank, however, prevents investment in the productive sector, which has a negative impact on Profitability

4.1.2 Cash and Bank Balance to Total Assets

This ratio calculates the proportion of liquid assets—such as cash and bank balances—among a company's total assets. The ratio of cash and bank balance to total assets indicates the proportion of cash and bank balance to total assets, which are the most liquid current assets of a company. It is calculable as

$$\text{Cash and Bank Balance to Total Assets Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Total Assets}}$$

Table 2

Cash and Bank Balance to Total Assets

Year	**NABIL (in %)**	**NSBI (in %)**
2017/18	4.31	15.38
2018/19	5.48	16.05
2019/20	8.23	11.03
2020/21	7.21	8.64
2021/22	7.54	10.41
Mean	6.55	12.30
S.D	1.61	3.25

(Source: Appendix II)

The average cash and bank balance to total assets ratios for NABIL and NSBI are 6.55% and 12.30%, respectively, as shown in Table 2. Similarly, NABIL and NSBI have the lowest ratios of cash and bank balance to total assets, at 4.31% and 8.64%, respectively. This shows that NSBI has higher capacity of meeting cash demand.

4.1.3 Investment on Securities to Total assets

The percentage of total assets allocated to government securities, treasury bills, and development bonds is determined using this ratio. The government securities investment as a percentage of the sample banks' total assets is displayed in the following table.

$$\text{Investment on Securities to Total Asset Ratio} = \frac{\text{Investmnet in Government Securites}}{\text{Total Assets}}$$

Where, Investment on securities involves treasury bills and development bonds etc.

Table 3

Investment on securities to Total Assets

Year	**NABIL (in %)**	**NSBI (in %)**
2017/18	11.66	6.95
2018/19	12.04	5.58
2019/20	9.41	7.01
2020/21	8.61	8.74
2021/22	6.73	7.15
Mean	9.69	7.09
S.D	2.20	1.12

(Source: Appendix III)

According to Table 3, NABIL and NSBI have the greatest securities investment to total assets ratios (4.3), at 12.04% and 8.74%, respectively. Likewise, the sample banks' average securities investment to total asset ratios are 9.69% and 7.09%, respectively. According to the table, NABIL's standard deviation of securities investments relative to total assets is 2.20%, greater than NSBI's 1.12%. This demonstrates that, out of its overall assets, NABIL has made enough investments in securities to sustain liquidity.

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4.1.4 NRB Reserve to Total Assets

NRB has made the commercial banks to deposit certain fund of the commercial bank in the central bank which is changing time to time as the demand of the time. The ratio is calculated as followed:

$$\text{NRB Resreve to total Assets Ratio} = \frac{\text{NRB Deposit}}{\text{Total Assets}}$$

Table 4

NRB Reserve to Total Assets

Year	NABIL(in %)	NSBI (in %)
2017/18	2.86	10.16
2018/19	3.72	12.13
2019/20	5.76	6.93
2020/21	5.19	5.15
2021/22	5.19	6.62
Mean	4.54	8.20
S.D	1.21	2.86

(Source: Appendix IV)

Table 4 shows that the highest ratio of NRB balances to total assets of NABIL and NSBI are 5.76 and 12.13 percent respectively. Similarly the lowest NRB balance to total assets The sample banks' respective ratios are 2.86% and 5.15%. The average NRB balance to total assets ratio for NSBI is 8.20%, greater than the 4.54% ratio for NABIL. This indicates that, on average, NSBI has maintained a greater NRB balance to total assets than NABIL.

4.1.5 Statutory Liquidity Reserve (SLR

SRL is the minimum proportion of deposits that a commercial bank must hold in the form of gold, liquid cash, or other securities. A certain percentage of banks' net demand and time obligations must be held in liquid assets, such as cash, gold, Treasury bonds, and other authorized securities, in addition to the Cash Reserve Ratio (CRR). Every other Friday, banks are required to submit their SLR maintenance to the NRB. Failure to maintain SLR as required might result in fines.

$$\text{Statutory Liquidity Reserve Ratio (SLR)} = \frac{\text{Liqudity Reserve}}{\text{Total Assets}}$$

Table 5

Statutory Liquidity Reserve

Year	NABIL (in %)	NSBI (in %)
2017/18	17.86	19.70
2018/19	14.74	13.72
2019/20	17.18	19.96
2020/21	9.99	18.05
2021/22	8.78	16.43
Mean	13.71	17.57
S.D	4.14	2.58

(Source: Appendix V)

According to Table 5, NABIL and NSBI have the highest SLR ratios, at 17.86 and 19.96 percent, respectively. Similarly, NABIL and NSBI have the lowest SRLratios, with 8.78 and 13.72 percent, respectively. The mean value of credit capital deposit ratio of NABIL is 13.71 which is lower than that of NSBI which is 17.57.

4.1.6 Credit Capital Deposit Ratio (CCD)

This ratio is calculated to find out how successfully the selected banks are utilizing their total loan and advances for the purpose of earning profit. Greater ratio shows the better utilization of total deposits and capital. This ratio can be obtained dividing loan and advances by total deposits and capital which can be shown as,

$$\text{Credit Capital Deposit Ratio (CCD)} = \frac{\text{Credit or Loan}}{\text{Deposit+Capital}}$$

Table 6

Credit Capital Deposit Ratio

Year	NABIL (in %)	NSBI (in %)
2017/18	71.82	71.9
2018/19	73.57	72.8
2019/20	79.12	76.8
2020/21	83.59	77.6
2021/22	88.31	74.71
Mean	79.28	74.76
S.D	6.86	2.46

(Source: Appendix VI)

According to Table 6, NABIL and NSBI have the greatest credit capital deposit ratios, at 88.31 and 77.6 percent, respectively. Similarly, NABIL and NSBI have the lowest credit capital deposit ratios, with 71.82% and 71.9 percent, respectively. The average NABIL credit capital deposit ratio is 79.28, higher than the NSBI's 74.76.

4.2 Analysis of Profitability

Return on Loan and Advances, Return on Equity Ratio (ROE), Net Interest Margin Ratio, Non Net Interest Margin Ratio, Return on Assets, and Earnings per Share (EPS) have all been used to illustrate and assess the profitability of the sample banks.

4.2.1 Return on Loan and Advances

Commercial banks' net profit is reliant on advances and loans. Therefore, calculating the return on total loans and advances is crucial to determining the banks' financial health. It's computed as

$$\text{Reuturn on Loan and Advances Ratio} = \frac{\text{Net Profit (Loss)}}{\text{Loan and Advances}}$$

Table 7

Return on Loan and Advances

Year	**NABIL (in %)**	**NSBI (in %)**
2017/18	2.30	4.01
2018/19	2.06	3.63
2019/20	2.01	2.90
2020/21	2.80	2.93
2021/22	2.81	2.92
Mean	2.40	3.28
S.D	0.39	0.51

(Source: Appendix VII)

According to Table 7, NABIL and NSBI have the greatest return on loan and advances ratios, at 2.81% and 4.01%, respectively. Likewise, the sample banks' lowest return on loan and advance ratios are 2.01% and 2.90%, respectively.

4.2.2 Non Net Interest Margin Ratio

The difference between the interest revenue earned by banks and other financial institutions and the interest given to depositors in relation to the value of their interest-earning assets is known as the non-net interest margin, or NIM. The financial institution's earnings from loans and other assets for a given period, less interest paid on borrowed money, are often stated as a percentage of the average amount of assets from which the institution made revenue during that period. It's computed as

$$\text{NIM} = \frac{\text{Interest Income}}{\text{Loan + Securities}} - \frac{\text{Interest Expenses}}{\text{(Deposit+ Borrowing)- Current Deposit}}$$

Table 8

Non Net Interest Margin Ratio

Year	**NABIL (in %)**	**NSBI (in %)**
2017/18	6.10	6.5
2018/19	5.65	5.75
2019/20	5.93	5.45
2020/21	5.24	6.10
2021/22	4.90	4.95
Mean	5.56	5.75
S.D	0.49	0.59

(Source: Appendix VIII)

According to Table 8, NABIL and NSBI have the biggest non-net interest margins, at 6.10 and 6.50 percent, respectively. Similarly, NABIL and NSBI have the lowest non-net interest margins, at 4.90 and 4.95 percent, respectively. NABIL's average non-net interest margin is 5.56 percent, which is little less than NSBI's 5.75 percent.

4.2.3 Return on Total Equity Capital

The link between net income and shareholders' funds is illustrated by ROE. The ability of the company to generate net income per rupee of shareholders' funds is shown by this ratio. Analyzing how well the money provided by shareholders has been used is the primary goal of calculating this ratio. Both current and potential future shareholders are quite interested in this ratio, and management, which is in charge of maximizing the welfare of the owners, is also very concerned about it. The following formula may be used to calculate this ratio:

$$\text{ROE} = \frac{\text{Net income}}{\text{Shareshold er's equity}} \times 100\%$$

Table 9

Return on Equity Capital

Year	**NABIL (in %)**	**NSBI (in %)**
2017/18	16.85	24.47
2018/19	17.06	20.0
2019/20	24.53	15.66
2020/21	21.22	16.65
2021/22	14.17	14.71
Mean	18.89	18.30
S.D	3.93	3.99

(Source: Appendix IX)

Table 9 demonstrates that throughout the course of the five-year research period, NABIL and NSBI had the greatest returns on total equity capital ratios, at 24.53% and 24.470%, respectively. Similarly, NABIL and NSBI retain the lowest return on total equity capital ratios, at 14.17% and 14.71%, respectively. The average mean ratio of 18.89% for NABIL is higher than 18.30% for NSBI. This demonstrates that NABIL has produced net income by using the funds of its shareholders.

4.2.4 Non Net Interest Margin Ratio

The difference between interest revenue earned by banks and other financial institutions and interest paid to depositors in relation to the size of their interest-earning assets is known as the net interest margin, or NIM. Typically, it is stated as a percentage of the financial institution's earnings from loans and other assets during a given time period, less interest paid on borrowed money, divided by the average value of the assets from which it generated revenue during that time. It's computed as

$$\text{NIM} = \frac{\text{Interest Income}}{\text{Loan + Securities}} - \frac{\text{Interest Expenses}}{\text{(Deposit+ Borrowing)- Current Deposit}}$$

Table 10

Non Net Interest Margin Ratio

Year	**NABIL (in %)**	**NSBI (in %)**
2017/18	(18.74)	(0.01)
2018/19	(17.52)	(0.02)
2019/20	(10.12)	(0.01)
2020/21	(11.46)	(0.02)
2021/22	(5.76)	(0.07)
Total	(63.60)	(0.13)
Mean	(12.72)	(0.03)
SD	5.39	0.03

(Source: Appendix X)

It is evident from Table 10 that NABIL and NSBI have the biggest non-net interest margins, at 5.76 and 0.01 respectively. Similarly, NABIL and NSBI have the lowest non-net interest margins, with 18.74 and 0.07, respectively. NABIL and NSBI have respective mean values of 12.72 and 0.03.

4.2.5 Return on Assets

The productivity of the assets is gauged by return on total assets, or simply return on assets. The link between net profit and assets is used to measure it.This ratio evaluates how well the owners' and creditors' combined funds are being used. Effective utilization of available resources is shown by a greater ratio, which also reflects a higher return on assets used in the firm (Singh, 2018). ROA is computed as follows:

$$\text{Return on assets (ROA)} = \frac{\text{Net income}}{\text{Total assets}}$$

Table 11

Return on Assets (ROA)

Year	**NABIL (in %)**	**NSBI (in %)**
2017/18	1.30	2.25
2018/19	1.34	1.88
2019/20	1.94	1.97
2020/21	2.03	2.06
2021/22	1.67	2.13
Mean	1.66	2.06
S.D	0.33	0.14

(Source: Appendix XI)

Table 11 demonstrates that during the course of the five-year research period, NABIL and NSBI had the greatest return on total assets ratios, at 2.03% and 2.25%, respectively. Similarly, NABIL and NSBI have the lowest return on total assets ratios, at 1.30 percent and 1.88%, respectively. The average mean ratio of 1.66% for NABIL is less than the 2.06% for NSBI.

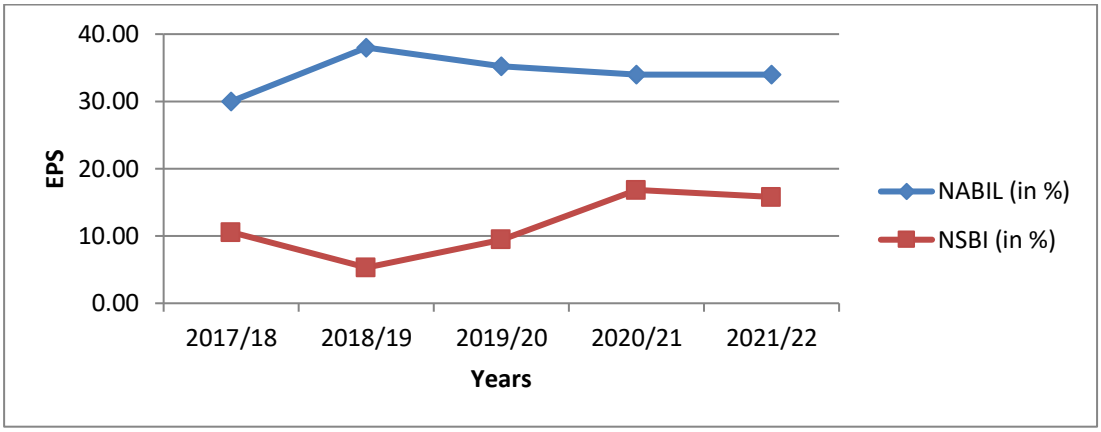
4.2.6 Earnings per Share (EPS)

The ratio used to evaluate the availability of total profits per share is earnings per share. For equity owners evaluating the return on equity shares, this ratio is crucial. A higher EPS indicates stronger business success. The likelihood of additional dividend and bonus shares is increased by the rising trend of EPS. EPS merely indicates the amount that "theoretically" belongs to common shareholders. It doesn't disclose how much of the profits are kept in the company or how much is distributed as dividends to the shareholders. It is computed as follows:

$$\text{Earnings per share (EPS)} = \frac{\text{Net income}}{\text{No. of share outstanding}}$$

Figure 2

Earnings per Share



(Source: Annual Report of NABIL and NSBI)

Figure 2 illustrates how earnings per share enable us to compare the ability of various businesses to generate profit per share. It demonstrates that during the course of the five-year research period, NABIL's EPS peaked at Rs. 43.03% in FY 2019–20 and fell to Rs. 23.13% in FY 2021–2022. In the same way, NSBI's best earnings per share were Rs. 40.67% in FY 2017–18 and its lowest were Rs. 29.30% in FY 2019–20. NABIL's average mean ratio of EPS during the study period was Rs. 33.55%, which is somewhat higher than NSBI's Rs. 29.30.

4.3 Statistical Analysis

Under this topic following statistical tools are calculated

4.3.1 Correlation Coefficient between Different Ratios

The association between cash reserve ratio, return on equity, investment to total assets, NRB to total assets, non-net interest margin, and net interest margin is determined using Karl Pearson's coefficient of correlation. Microsoft Excel calculates the coefficient of correlation directly, and Standard Error (S.E.) is used to calculate the Probable Error (P.Er). The reliability and significance test of the correlation coefficient are assessed using the probable error.

i) Analysis of Correlation Coefficient between Cash reserve Ratio and Return on Equity (ROE)

The degree of correlation between liquidity and profitability is measured by the correlation coefficient between the cash reserve ratio and return on equity. Justifying

whether or not there is a substantial correlation between the profit and the cash reserve ratio is the primary goal of this analysis.

Table 12

Correlation Coefficient between CRR and ROE

	Base of evaluation				
Banks	**R**	**r^2**	**PEr**	**6*PEr**	**Remarks**
NABIL	0.13	0.02	0.018	0.11	Significant
NSBI	0.97	0.94	0.018	0.1085	Significant

(Source: Appendix XIII and XIV)

The degree of association between NABIL and NSBI's CRR and ROE is seen in Table 12. The aforementioned banks have respective correlation coefficients (r) of 0.13 and 0.97. It indicates a favorable correlation between NABIL and NSBI's CRR and ROE. The NABIL and NSBI correlation coefficient values are higher than the 6PEr value. Therefore, there is a substantial link between the variables. There is a considerable connection between the CRR and ROE of NSBI and NABIL, as indicated by the fact that the correlation coefficient value, 6PEr, is less than the value of r for both companies.

ii) Analysis of Correlation Coefficient between Cash reserve Ratio and Net Interest Margin (NIM)

Table 13

Correlation Coefficient between CRR and NIM

Banks	**Base of evaluation**				**Remarks**
	R	**r^2**	**PEr**	**6*PEr**	
NABIL	0.58	0.33	0.202	1.212	Insignificant
NSBI	0.83	0.69	0.093	0.56	Significant

(Source: Appendix XIII and XIV)

The degree to which liquidity and profitability are related is indicated by the correlation coefficient between the cash reserve ratio and net interest margin, as shown in Table 13. Justifying whether or not there is a substantial correlation between the cash reserve ratio and the NIM is the primary goal of this analysis.

iii) Analysis of Correlation Coefficient between Cash reserve Ratio and ROA

The degree of correlation between liquidity and profitability is measured by the correlation coefficient between the cash reserve ratio and return on assets. Justifying whether or not there is a substantial correlation between the profit and the cash reserve ratio is the primary goal of this analysis.

Table 14

Correlation Coefficient between CRR and ROA

Banks	**Base of evaluation**				**Remarks**
	R	**r^2**	**PEr**	**6*PEr**	
NABIL	-0.55	0.31	0.208	1.249	Insignificant
NSBI	0.56	0.32	0.205	1.230	Insignificant

(Source: Appendix XIII and XIV)

Table 14 shows the level of correlation between NABIL and NSBI's CRR and ROA. The aforementioned banks have respective correlation coefficients (r) of -0.55 and -0.56. It indicates a negative correlation between NABIL and NSBI's CRR and ROA.

iv) Correlation Coefficient between Investments to Total Assets and ROA

Table 15

Correlation coefficient between Investments to Total Assets and ROA

Banks	**Base of evaluation**				**Remarks**
	R	**r^2**	**PEr**	**6*PEr**	
NABIL	-0.23	0.05	0.2865	1.719	Insignificant
NSBI	0.40	0.16	0.2533	1.5203	Insignificant

(Source: Appendix XIII and XIV)

The degree of association between investments to total assets and ROA for NSBI and NABIL is seen in Table 15. The aforementioned banks have respective correlation coefficients (r) of -0.23 and 0.40. It indicates a negative and positive correlation between NABIL and NSBI's investments to total assets and ROA.

v) Correlation coefficient between Investments to Total Assets and ROE

Table 16

Correlation coefficient between Investments to Total Assets and ROE

	Base of evaluation				
Banks	**R**	**r^2**	**PEr**	**6*PEr**	**Remarks**
NABIL	0.04	0.0016	0.30	1.80	Insignificant
NSBI	-0.34	0.12	0.2654	1.59	Insignificant

(Source: Appendix XIII and XIV)

Table 16 shows the extent to which investments to total assets and NABIL and NSBI ROE are correlated. The aforementioned banks have respective correlation coefficients (r) of 0.04 and -0.34. It indicates that there is little correlation between NABIL and NSBI's investments in total assets and ROE.

vi) Correlation Coefficient between Investments to Total Assets and ROE

Table 17

Correlation coefficient between Investments to Total Assets and ROE

Banks	**Base of evaluation**				**Remarks**
	R	**r^2**	**PEr**	**6*PEr**	
NABIL	0.80	0.64	0.1085	0.6515	Significant
NSBI	0.47	0.22	0.2352	1.4117	Insignificant

(Source: Appendix XIII and XIV)

Table 17 shows the extent to which investments to total assets and NABIL and NSBI ROE are correlated. The aforementioned banks have respective correlation coefficients (r) of -0.55 and -0.56. It indicates that there is a strong and negligible correlation between NABIL and NSBI's investments to total assets and ROE.

vii) Correlation Coefficient between NRB to Total Assets and ROA

Table 18

Correlation Coefficient between NRB to Total Assets and ROA

Banks	**Base of evaluation**				**Remarks**
	R	**r^2**	**PEr**	**6*PEr**	
NABIL	0.90	0.81	0.0573	0.3439	Significant
NSBI	-0.19	0.03	0.2926	1.7556	Insignificant

(Source: Appendix XIII and XIV)

Table 18 shows how closely NRB to Total Assets and ROA of NABIL and NSBI are correlated. The aforementioned banks have respective correlation coefficients (r) of -0.90 and -0.19. This indicates a positive and negative correlation between NABIL and NSBI's NRB to Total Assets and ROA, respectively.

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viii) Correlation Coefficient between NRB to Total Assets and ROE

Table 19

Correlation Coefficient between NRB to Total Assets and ROE

Banks	**Base of evaluation**				**Remarks**
	R	**r^2**	**PEr**	**6*PEr**	
NABIL	0.52	0.27	0.2202	1.3213	Insignificant
NSBI	0.72	0.52	0.1480	0.8688	Insignificant

(Source: Appendix XIII and XIV)

Table 19 shows how closely NRB to Total Assets and ROE of NABIL and NSBI are correlated. The aforementioned banks have respective correlation coefficients (r) of 0.52 and -0.72. It indicates a negative correlation between the ROE of NABIL and NSBI and the NRB to Total Assets.

ix) Correlation Coefficient between NRB to Total Assets and ROA

Table 20

Correlation Coefficient between NRB to Total Assets and ROA

Banks	**Base of evaluation**				**Remarks**
	R	**r^2**	**PEr**	**6*PEr**	
NABIL	-0.49	0.24	0.2293	1.3755	Insignificant
NSBI	0.30	0.09	0.2746	1.6470	Insignificant

(Source: Appendix XIII and XIV)

Table 20 shows how closely NRB to Total Assets and ROA of NABIL and NSBI are correlated. The aforementioned banks have respective correlation coefficients (r) of --0.49 and 0.30. It indicates a negative correlation between the ROA of NABIL and NSBI and the NRB to Total Assets.

4.4 Regression Analysis

The following table shows the results of a regression study between the independent factors CRR, Investment to Total Assets, and NRB to Total Assets of two banks, NSBI and NABIL, and the dependent variables ROE, ROA, and NIM:

Table 21

Regression Analysis of NABIL

Dependent variable	**Constant**	**Independent variables**									**Model summary**		
		CRR			**Inv to TA**			**NRB to TA**					
		β_1	**T**	**Sig**	**β_2**	**T**	**Sig**	**β_3**	**t**	**Sig**	**R^2**	**F**	**Sig**
ROE	-63.90	-0.25	-1.10	0.009	1.56	6.84	0.047	1.54	13.38	0.047	0.99	64.96	.091
ROA	-0.55	0.17	0.11	0.006	1.01	0.67	0.009	0.43	0.56	0.007	0.78	1.16	0.58
NIM	-2.40	-1.02	-1.84	0.026	1.26	2.26	0.032	1.10	3.91	0.016	0.97	10.70	.22

Source: SPSS Calculation

Table 21 shows that for NABIL, a one-unit increase in the investment-to-total-assets ratio causes a 1.56-unit gain in ROE, but a one-unit increase in CRR causes a -0.25-unit decrease in ROE. In a similar vein, ROE increases by 1.54 units for every unit change in NRB to total assets. Changes in CRR, investment-to-total-assets, and NRB-to-total-assets ratios also have an impact on ROA and NIM. The p-value determines the importance of these associations; a value ≤ 0.05 denotes significance.

With a p-value of 0.047, the correlation between CRR and ROE is significant. However, given its p-value of 0.045, the correlation between ROE and investment-to-total-assets is negligible. With a p-value of 0.05, the correlation between ROE and NRB-to-total-assets is significant. Since their p-values are greater than 0.05, all correlations between ROA and CRR, investment-to-total-assets, and NRB-to-total-assets are negligible. also, because p-values are higher than 0.05, the correlations between CRR, investment-to-total-assets, and NRB-to-total-assets and NIM are also not significant.

Table 22

Regression Analysis of NSBI

Dependent Variable	Constant	Independent variables									Model summary		
		CRR			Inv to TA			NRB to TA					
		β_1	T	Sig	β_2	t	Sig	β_3	t	Sig	R^2	F	Sig
ROE	2.40	-1.02	1.84	0.026	1.26	2.26	0.032	1.10	3.91	0.016	0.97	10.70	0.22
ROA	3.38	1.63	1.25	0.009	0.15	0.20	0.043	1.64	1.05	0.048	0.90	2.84	0.41
NIM	4.33	-1.91	-2.12	0.017	1.96	3.72	0.028	-2.99	-2.77	0.022	0.95	6.31	0.28

Source: SPSS Calculation

Table 22 shows that for NSBI, ROE changes by -1.02 units for every unit rise in CRR. In a similar vein, ROE increases 1.26 units for every unit increase in the investment-to-total-assets ratio and 1.10 units for every unit increase in the NRB-to-total-assets ratio. Furthermore, as the table illustrates, changes in CRR, investment-to-total-assets, and NRB-to-total-assets have an impact on ROA and NIM.

The p-value determines the importance of the associations in the analysis; a value of 0.05 or less denotes significance. The p-value for CRR and ROE is 0.032, indicating a strong correlation. Similarly, with a p-value of 0.026, the correlation between ROE and investment-to-total-assets is significant. On the other hand, the p-value of 0.16 indicates that the association between ROE and NRB-to-total-assets is not significant. The correlation between ROA and CRR is substantial ($p = 0.043$), but the correlation between ROA and investment-to-total-assets is negligible ($p = 0.047$). However, with a p-value of 0.048, there is a strong correlation between ROA and NRB-to-total-assets. Finally, because their p-values are more than 0.05, CRR, investment-to-total-assets, and NRB-to-total-assets all exhibit significant correlations with NIM.

4.5 Discussion

A thorough grasp of the financial health and performance of Nepalese commercial banks is offered by the research on their profitability and liquidity, which focuses on NABIL and NSBI in particular. This subject centered on accomplishing the goals of the research;

• To evaluate Nepalese commercial banks' profitability and liquidity status.

• To investigate the connection between Nepalese commercial banks' profitability and liquidity management.

• To examine how liquidity affects Nepalese commercial banks' profitability.

The study has used descriptive and causal comparison of research designs by using secondary data of five fiscal years from FY 2017/18 to FY 2021/22. Out of 20 commercial banks the study has took NABIL and NSBI as sample for the study. The study has used statistical and financial tools to analyze the data. The analysis reveals several key insights:

Cash Reserve Ratio (CRR)

According to the current study, NABIL maintains a higher average CRR than NSBI, indicating improved compliance with legal standards as well as the possibility of larger investment and profitability. Similar results have been found in earlier studies, which show that banks with greater CRRs typically have better liquidity management and regulatory compliance, which frequently boosts profitability (Kashyap, Rajan, & Stein, 2002).

Current Study on Liquidity Position: NSBI has a stronger liquidity position than NABIL, as evidenced by its greater NRB balance to total assets ratio. Prior Research: According to earlier research, maintaining high liquidity ratios is crucial for operational stability and efficient cash demand management (Berger & Bouwman, 2009). Excessive liquidity, however, can occasionally result in poorer returns, which is consistent with the study's mixed findings.

Return on Loans and Advances

Current Study: Compared to NABIL, NSBI has a better return on loans and advances, suggesting more efficient use of capital. Prior Research: This is consistent with other studies that found a correlation between increased profitability and effective lending methods (Demirgüç-Kunt & Huizinga, 1999). Banks that are able to increase loan returns typically have better financial results. According to research by Claessens, Kose, and Terrones (2012), macroeconomic variables like GDP growth, inflation, and interest rates have a big impact on loan and advance returns. Because of improved loan recoveries, banks that operate in stable economic conditions frequently record greater returns.

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Return on Equity (ROE) and Earnings Per Share (EPS)

Current Study: In comparison to NSBI, NABIL has a higher average ROE and EPS, indicating superior use of shareholders' money and earnings production. Prior Research: These results align with the larger body of literature, which frequently associates improved management effectiveness and profitability with greater ROE and EPS (Molyneux & Thornton, 1992). Higher ROE is frequently associated with a competitive advantage in the financial industry, according to Berger and Bouwman (2013). According to their study, banks with high ROE ratios typically outperform their counterparts in terms of long-term stability and market valuation.

Cash and Bank Balance to Total Assets

Current Study: NSBI's higher ratio suggests better capacity to meet cash demands. **Previous Studies:** Historical studies support this, indicating that banks with higher cash reserves are better positioned to handle liquidity crises, though this can sometimes lead to lower profitability due to idle funds (Diamond & Rajan, 2001).

Investment Securities to Total Assets

Current Study: NABIL's higher average investment in securities indicates a strategy to balance liquidity and profitability. **Previous Studies:** This strategy is corroborated by past research showing that investment in securities can provide a safety net and additional income streams, although it requires careful management to avoid excessive risk (Fabozzi, 2013).

Statutory Liquidity Ratio (SLR) and Credit to Deposit (CCD) Ratio

Current Study: While NABIL occasionally exceeds the CCD ratio limit, which indicates a more aggressive lending policy, both banks adhere to the required SLR. Prior Research: A common measure of regulatory compliance that is essential to financial stability is adherence to SLR standards (Acharya & Naqvi, 2012). If properly managed, an aggressive CCD ratio can boost profitability, but it also raises risk, as previous studies have highlighted. SLR compliance was emphasized by Acharya and Naqvi (2012) as a crucial element of banking regulation. According to their research, preserving the required SLR promotes financial stability by guaranteeing that banks have enough liquid reserves to cover unforeseen liabilities.

Net Interest Margin (NIM) and Return on Assets (ROA)

Current Study: More effective asset use and interest management are shown by NSBI's greater NIM and ROA. Prior Research: It is commonly acknowledged that these parameters are important markers of bank profitability and operational effectiveness (Pasiouras & Kosmidou, 2007). Banks with higher NIM and ROA typically show stronger financial performance.

Correlation and Regression Analysis

Current Study: Several liquidity and profitability measurements show both positive and negative associations, according to the study, with many of these links being statistically insignificant over the course of the five-year timeframe. Prior Research: The statistical insignificance and mixed correlations are non line with previous findings, which frequently imply that there are several variables at play in the complicated link between profitability and liquidity (Bourke, 1989). As recommended, extending the study duration may yield more conclusive findings; this suggestion has been supported by other studies. According to a research by Ghosh (2010), additional factors including size and capital adequacy attenuated the statistically significant association between profitability and some liquidity metrics (such as the cash ratio) in regression models.

CHAPTER-V
SUMMARY AND CONCLUSIONS

The study's final chapter is this one. The summary, findings, and suggestions are the three components that make up this chapter. This chapter provides a concise overview of the study and accurate information on the current state of affairs under the study's designated topic. Using a variety of financial and statistical methodologies, the conclusions analyze the relevant facts and provide the commercial banks' prospects, challenges, weaknesses, and strengths. Last but not least, recommendations that are organized based on findings and conclusions provide proposals.

5.1 Summary

The banking industry in Nepal continues to face a number of issues, including a robust unorganized sector, a poor position and unhealthy competition, Nepal Rastra Bank's weakness, and a lack of research, training, and development. However, the nation's present political and economic climate, together with Nepal Rastra Bank's prudential standards and fierce competition, may cause businesses to reconsider their plans to open banks. The fast advancement of information technology and unfair competition have a direct impact on liquidity management. Although the term "liquidity management" is not new to the banking industry, it remains unexpected and is of utmost importance to profitability. A wise policy choice that takes into account the breadth and depth of liquidity can lessen such a stage.

The goal of the current study is to analyze and assess commercial banks' liquidity analyses (with reference to NABIL and NSBI). To increase the effectiveness and informational value of this study, the researcher has employed statistical and financial instruments. Data for this research spans five years, from the bank's FY 2017–18 to FY 2021/22. The researcher has attempted to provide a summary of NABIL and NSBI's liquidity and profitability in this part.

Commercial banks have a significant impact on how quickly an economy develops. One outstanding organization that manages the nation's payment system is the commercial

bank. The individuals and institutions make payments to each other through the mechanism of commercial bank. Because it provides all financial services to both individuals and institutions, the commercial bank is essential to the efficient running of an economy. Commercial banks are those that take deposits of immobilized capital from the general public, businesses, organizations, etc., and use that money to invest in a variety of industries, businesses, and services, among other sectors, in order to meet the capital needs of such industries. In actuality, the growth of commercial banks has a significant impact on the development of an economy. The position isn't The rise of commercial banks has emerged as a key indicator of a country's economic expansion. The government opened the banks throughout the 1980s. In Nepal, the private sector was not allowed to establish banks. The financial sector was developed via the adoption of liberalized economic policies. The Foreign Investment and Technology Transfer Act of 1984 was created as a prerequisite for economic liberalization. The establishment of private banks was permitted by the government. There are now 20 commercial banks operating and registered in Nepal.

One of the most important factors in financial management decisions is liquidity management. A business that successfully balances the trade-off between profitability and liquidity management may get the best possible liquidity management. The core of financial decision-making is liquidity. It is the primary predictor of a company's success or failure. Therefore, the management should address its weaknesses appropriately and continue to perform well in its strong areas. The primary purposes of bank performance analysis are to compare the bank's performance to that of similar other banks and assess how well it is doing in terms of achieving the management-established goals and objectives.

The firm's liquidity status is depicted through liquidity analysis. Analysis of liquidity and profitability gives management enough knowledge to set goals, create strategies, create policies, and carry them out successfully. The information required to satisfy the demands of both present and future investors as well as regulatory bodies is provided by liquidity analysis. The firm's honest and fair picture is presented via liquidity analysis. While analyzing NABIL and NSBI's liquidity condition is the study's main goal, other goals include assessing the companies' overall performance in terms of liquidity, profitability, and growth.

Last but not least, we can say that the purpose of liquidity analysis is to ascertain the firm's liquidity status in order to pinpoint its present strengths and weaknesses and to provide recommendations that might help the company capitalize on its advantages and address its disadvantages. Based on five years' worth of financial data, the paper examines the liquidity performance of the NSBI and NABIL. The bank has attempted to examine its entire liquidity status using statistical and financial methods. The bank's liquidity during the last five years has been made clear via the various ratios. Establishing the links between two variables using correlation analysis can be helpful in understanding the effects of those variables.

5.2 Conclusions

The above-mentioned major findings led this study to following conclusions.

- The NSBI's cash reserve ratio is smaller than NABIL's. This demonstrates the irregularity of NSBI's cash reserve ratio maintenance. The ratio of NABIL's cash and bank balance to total assets is 3.66 less than NSBI's. This suggests that during the research period, NSBI has maintained a greater cash and bank balance to total deposit ratio.
- The return on NSBI's loans and advances was somewhat greater than NABIL's, indicating that the bank has been able to use its capital to make a profit. Based on this, it can be said that NSBI has consistently produced returns on advances and loans.
- The average mean ratio of 18.89% for NABIL's ROE is higher than 18.30% for NSBI. Similarly, NABIL maintains an EPS that is higher than NSBI's. This leads to the conclusion that NSBI performs better overall than NABIL. The ratio of cash and bank balance to total assets is higher than NABIL's. This demonstrates NSBI's greater ability to satisfy cash demand.The average ratio of investment securities to NABIL's total assets is higher than NSBI's, indicating that NABIL has made enough investments in securities to preserve liquidity relative to its total assets
- In accordance with the NRB's statutory mandate, both banks have maintained SLR for each fiscal year. Eight percent is the current SLR required regulation. •NSBI and NABIL have made an effort to keep the CCD ratio at the 80 percent threshold set by the NRB. In 2020–2021 and 2021–2022, NABIL surpassed 80 percent, although NSBI has not yet done so.

- After deducting interest costs, NSBI's lending operations yielded stronger profits, as seen by its somewhat higher NIM than NABIL's.
- NABIL's average return on assets ratio is 1.66 percent, which is less than NSBI's 2.04 percent.

5.3 Implications

On the basis of analysis, findings, following recommendations are made. The banks can make use of these recommendations to overcome their weakness, inefficiency and improve their present liquidity and profitability position.

- NABIL's cash reserve ratio is greater than NSBI's. It demonstrates NABIL's larger idle cash and bank balance, as well as its higher cash reserve ratio compared to NSBI. It may make the bank less profitable. It is advised that NABIL use its unused funds and bank balance to provide loans and advances in lucrative sectors. NSBI's ratio of cash and bank balance to total assets is much higher than NABIL's, indicating that NSBI has maintained a larger ratio of cash and bank balance to total deposits throughout the research period. Since cash is known to be a non-earning asset, idle cash should be invested because it generates no income. It is therefore highly advised that NSBI invest its idle funds to raise its
- In a similar vein, investments in NSBI securities are substantially less than those in NABIL. As a result, it is advised that NSBI enhance its securities holdings, which contributes to investment safety. The profitability position of NSBI is superior to that of NABIL. Therefore, NABIL is highly advised to use shareholder funds and hazardous assets in order to maximize profit margin.
- The primary source of revenue and a way for commercial banks to use their resources is through loans and advances. One of the primary causes of the bank's bankruptcy and the source of its liquidity issue may be carelessness in managing these assets. As a result, it is advised that NABIL and NSBI adopt a generous lending policy when it comes to loans and advances with adequate guarantees and put in place a sound collection policy that includes quick identification of bad debtor loans, prompt communication with the borrower, regular follow-up, and, if necessary, legal action.
- In terms of safety, it is superior than alternative investment options. It is crucial to understand that a significant growth in assets, such as cash and bank balances, is not

favorable from a profit-making perspective for the bank because it generates no return.

- A commercial bank must mobilize its funds in a variety of sectors, such as the purchase of shares and debentures of other financial and non-financial companies, as well as other government and non-government companies, in order to succeed in a competitive market and advance the nation's financial and economic development. In an effort to curb these kinds of actions, the government has recently regulated interest rates. Therefore, it is advised to raise the ratio by allocating its finances to various kinds of shares and debentures.
- The NRB has instructed commercial banks to allocate a specific portion of their funds to priority and underprivileged sectors; banks are also accountable for this. According to the survey, banks made a lot of money last year by concentrating mainly on profitable industries.

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APPENDIX

Appendix I

Cash Reserve Ratio

NABIL

Year	Cash Balance in NRB (in 000)	Local Currency Deposit(in 000)	Margin Deposit (in 000)	Ratio
2017/18	2,427,014.38	4,607,905.86	920,948.61	30.32
2018/19	3,766,154.84	5,055,369.20	1,242,331.04	28.74
2019/20	5,873,158.75	6,400,789.37	1,237,906.25	26.64
2020/21	5,677,702.31	7,153,398.75	1,536,699.36	26.64
2021/22	6,141,151.92	7,362,141.23	1,794,019.34	23.05

Source: Annual Report of NABIL and NIB

NSBI

Year	Cash Balance in NRB (in 000)	Local Currency Deposit (in 000)	Margin Deposit (in 000)	Ratio
2017/18	8,752,591.28	4,544,178.36	1,008,471.80	19.2
2018/19	12,652,937.08	7,015,948.36	1,133,750.06	12.0
2019/20	8,992,838.69	7,400,801.10	1,217,345.07	7.2
2020/21	7,767,322.79	8,668,682.94	1,587,594.36	10.5
2021/22	11,382,513.19	9,756,030.55	2,406,160.22	8.2

Source: Annual Report of NABIL and NIB

Appendix II

Cash and Bank Balance to Total Assets

(Rs 000)

Fiscal Year	NABIL			NSBI		
	Cash and Bank Balance(in 000)	Total Assets	(%)	Cash and Bank Balance(000)	Total Assets	(%)
2017/18	3,648,198.65	84,75,33,28	4.31	13,252,087.81	8,61,73,928	15.38
2018/19	5,542,590.00	1,01,21,79,18	5.48	16,744,711.22	10,43,45,436	16.05
2019/20	8,387,411.81	1,01,91,68,05	8.23	14,315,048.27	12,97,82,705	11.03
2020/21	7,874,984.06	1,09,30,99,70	7.21	13,025,831.97	15,08,18,034	8.64
2021/22	8,915,385.66	1,18,38,89,36	7.54	17,897,590.17	17,18,93,547	10.41

Source: Annual Report of NABIL and NIB

Appendix III

Investment on Securities to Total Assets

(Rs 000)

Fiscal Year	NABIL			NSBI		
	Investment on Securities(in 000)	Total Assets(in 000)	Ratio (%)	Investment on Govt. Securities(in 000)	Total Assets(in 000)	Ratio (%)
2017/18	9,886,760.48	8,47,53,328	11.66	59,85,490.151	8,61,73,928	6.95
2018/19	12,182,974.42	10,12,17.918	12.04	58,26,855.48	10,43,45,436	5.58
2019/20	9,593,051.60	10,19,16,805	9.41	91,03,082.816	12,97,82,705	7.01
2020/21	9,412,274.30	10,93,09,970	8.61	13,18,4035.1	15,08,18,034	8.74
2021/22	7,965,617.30	11,83,88,936	6.73	12,28,5834.7	17,18,93,547	7.15

Source: Annual Report of NABIL and NIB

Appendix IV

NRB Balance to Total Assets

(Rs 000)

Fiscal Year	NABIL			NSBI		
	NRB Balance(in 000)	Total assets (in 000)	%	NRB Balance(in 000)	Total Assets (in 000)	%
2017/18	24,27,014.38	84,75,33,28	2.86	87,52,591.276	8,61,73,928	10.16
2018/19	37,66,154.84	1,01,21,79,18	3.72	1,26,52,937.08	10,43,45,436	12.13
2019/20	58,73,158.75	1,01,91,68,05	5.76	89,92,838.69	12,97,82,705	6.93
2020/21	56,77,702.31	1,09,30,99,70	5.19	77,67,322.79	15,08,18,034	5.15
2021/22	61,41,151.92	1,18,38,89,36	5.19	1,13,82,513.19	17,18,93,547	6.62

Source: Annual Report of NABIL and NIB

Appendix V

Statutory Liquidity Ratio

(Rs 000)

Fiscal Year	NABIL			NSBI		
	Liquidity Reserve	Total assets (in 000)	%	Liquidity Reserve	Total Assets (in 000)	%
2017/18	15139043	84,75,33,28	17.86	16977086	86173928	19.70
2018/19	14919904	1,01,21,79,18	14.74	14315048	104345436	13.72
2019/20	17511204	1,01,91,68,05	17.18	25900641	129782705	19.96
2020/21	10917738	1,09,30,99,70	9.99	27221458	150818034	18.05
2021/22	10399571	1,18,38,89,36	8.78	28247001	171893547	16.43

Source: Annual Report of NABIL and NIB

Appendix VI

Credit Capital Deposit Ratio (CCD Ratio)

(Rs 000)

Fiscal Year	NABIL			NSBI		
	Loan and Advances(000)	Deposit +Capital	%	Loan And Advances(000)	Deposit +Capital	%
2017/18	4,10,57,397.53	64,674,848.30	71.82	4,77,00,628.31	73,831,375.92	71.9
2018/19	4,64,49,329.43	73,538,200.19	73.57	5,34,58,469.66	90,631,486.77	72.8
2019/20	5,54,28,007.25	87,335,785.85	79.12	6,76,90,198.65	108,626,641.99	76.8
2020/21	6,91,00,889.34	92,881,114.26	83.59	8,70,09,791.97	125,669,354.73	77.6
2021/22	7,76,40,976.82	99,743,000.00	88.31	10,66,83,877.00	140,328,000.00	74.71

Source: Annual Report of NABIL and NIB

Appendix VII

Return on Loan and Advances Ratio

Fiscal Year	NABIL			NSBI		
	Net Profit(in 000)	Total Loans & Advances(in 000)	Ratio %	Net Profit(in 000)	Total Loans & Advances(in 000)	Ratio %
2017/18	943,697.99	4,10,57,397.53	2.30	19,15,027.93	4,77,00,628.31	4.01
2018/19	959,107.24	4,64,49,329.43	2.06	19,39,612.34	5,34,58,469.66	3.63
2019/20	1,112,285.72	5,54,28,007.25	2.01	19,61,852.38	6,76,90,198.65	2.90
2020/21	1,935,907.63	6,91,00,889.34	2.80	25,50,883.56	8,70,09,791.97	2.93
2021/22	2,178,234.89	7,76,40,976.82	2.81	31,14,131.14	10,66,83,877.00	2.92

Source: Annual Report of NABIL and NIB

Appendix VIII

Net Interest Margin

For NABIL

Year	Interest Income	Interest Expenses	Loan	Securities	Deposit	Borrowing	Current Deposit
2017/18	4742975000	2248798000	41057397530	6542652380	64674848300	0	6407989296
2018/19	4627751000	1954263000	46449329430	7015698562	73538200190	0	8499073076
2019/20	5015844000	1565896000	55428007250	7854269532	87335785850	0	9022902938
2020/21	7106676000	3173334000	69100889340	9648796681	92881114260	0	9032609733
2021/22	9724871000	5403047000	77640976820	11654171810	99743000000	0	9599836368

Source: Annual Report of NABIL

Year	Interest Income	Interest Expenses	Loan	Securities	Deposit	Borrowing	Current Deposit	Net Int Margin
2017/18	4,743	2,249	41,057	6,543	64,675	-	6,408	6.10%
2018/19	4,628	1,954	46,449	7,016	73,538	-	8,499	5.65%
2019/20	5,016	1,566	55,428	7,854	87,336	-	9,023	5.93%
2020/21	7,107	3,173	69,101	9,649	92,881	-	9,033	5.24%
2021/22	9,725	5,403	77,641	11,654	99,743	-	9,600	4.90%

(Source: Annual Report of NABIL)

For NSBI

Year	Interest Income	Interest Expenses	Loan	Securities	Deposit	Borrowing	Current Deposit	Net Int Margin
2017/18	5816279000	22820475000	47700628310	15227969000	73831375920	0	10323069710	6.50%
2018/19	5786160000	2807361000	53458469660	21302799000	90631486770	0	11742720000	5.75%
2019/20	6776755000	2855650000	67690198650	16341544000	108626641990	0	13871210000	5.45%
2020/21	9440725357	4464551946	87009791970	16097139000	125669354730	0	8980158822	6.10%
2021/22	13574102163	7723923816	106683877000	17154379374	140328000000	0	11219811286	4.95%

Source: Annual Report of NSBI

Appendix IX

Return on Equity (ROE)

Year	NABIL (in %)	NSBI (in %)
2017/18	16.85	24.47
2018/19	17.06	20
2019/20	24.53	15.66
2020/21	21.22	16.65
2021/22	14.17	14.71
Mean	18.77	29.3
S.D	4.09	29.31

Appendix X

Non Net Interest Margin Ratio

Fiscal Year	NABIL			NSBI		
	Non Interest Income-Non Interest Exp	Total assets (in 000)	%	Non Interest Income-Non Interest Exp	Total Assets (in 000)	%
2017/18	(662)	84753	-18.74%	446	86173	-0.01%
2018/19	(614)	101217	-17.52%	447	104345	-0.02%
2019/20	(392)	101916	-10.12%	522	129782	-0.01%
2020/21	(508)	109309	-11.46%	806	150818	-0.02%
2021/22	(369)	118388	-5.76%	594	171893	-0.07%

Source: Annual Report of NABIL and NIB

Appendix XI

Return on Assets

Fiscal Year	NABIL	NSBI
2017/18	1.30	2.25
2018/19	1.34	1.88
2019/20	1.94	1.97
2020/21	2.03	2.06
2021/22	1.67	2.13

Source: Annual Report of NSBI and NABIL

Appendix XII

Sample Calculation of Correlation Co-efficient between Cash Reserve Ratio (CRR) and Return on Equity (ROE) of NABIL

Year	CRR (X)	ROE (Y)	x 2	y 2	xy
2017/18	30.32	24.53	919.30	283.92	510.89
2018/19	28.74	24.53	825.99	291.04	490.30
2019/20	26.64	24.53	709.69	601.72	653.48
2020/21	26.64	24.53	709.69	450.29	565.30
2021/22	23.05	24.53	531.30	200.79	326.62
Total	$\sum$ **x= 135.39**	$\sum$ **y= 93.83**	$\sum$ **x^2= 3695.97**	$\sum$ **y^2= 1827.76**	$\sum$ **xy= 2546.59**

We have,

Correlation Co-efficient(r) = $\dfrac{n\sum xy - (\sum x) \times (\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} \times \sqrt{n(\sum y^2) - (\sum y)^2}}$

$= 5 \times 2546.59 - 135.39 \times 93.83$

$$\sqrt{5(3695.7-(135.39)^2} \times \sqrt{5(1827.76)-(93.83)^2}$$

$$= \frac{231.87}{341.08}$$

$$= 0.13$$

$$r^2 = 0.02$$

$$\text{Probable Error (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{n}}$$

$$= 0.6745 \times \frac{1-0.02}{\sqrt{5}}$$

$$= 0.018$$

$$6 \times (\text{P.E.}) = 6 \times 0.018$$

$$= 0.1085$$

Remaining correlation coefficient has been calculated by using same method as in above table.

Appendix XIII

Sample Calculation of Correlation Co-efficient between Cash Reserve Ratio (CRR) and Return on Equity (ROE) of NSBI

Year	CRR (X)	ROE (Y)	x 2	y 2	xy
2017/18	19.2	24.47	256	598.78	391.52
2018/19	12	20	368.64	400.00	384.00
2019/20	7.2	15.66	144.00	245.24	187.92
2020/21	10.5	16.65	51.84	277.22	119.88
2021/22	8.2	14.71	110.25	216.38	154.46
Total	**$\sum$ x= 57.1**	**$\sum$ y= 91.49**	**$\sum x^2$= 741.97**	**$\sum y^2$= 1737.62**	**$\sum$ xy= 1118.02**

We have,

$$\text{Correlation Co-efficient(r)} = \frac{n\sum xy - (\sum x) \times (\sum y)}{}$$

$$\sqrt{n(\sum x^2) - (\sum x)^2} \times \sqrt{n(\sum y^2) - (\sum y)^2}$$

$$= \frac{5 \times 1118.02 - 57.1 \times 91.49}{\sqrt{5(741.97 - (57.1)^2} \times \sqrt{5(1737.62) - (91.49)^2}}$$

$$= \frac{251.99}{376.00}$$

$$= 0.97$$

$$r^2 = 0.94$$

$$\text{Probable Error (P.E.)} = 0.6745 \times \frac{1 - r^2}{\sqrt{n}}$$

$$= 0.6745 \times \frac{1-0.94}{\sqrt{5}}$$

$$= 0.01809$$

$$6 \times (\text{P.E.}) = 6 \times 0.01809$$

$$= 0.1085$$

Remaining correlation coefficient has been calculated by using same method as in above table.

Appendix XIV

Regression Analysis of Nabil Bank Ltd.

I. Dependent Variable: Return On Equity

Notes		
Output Created		03-AUG-2024 12:42:20
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
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	N of Rows in Working Data File	5
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.

Syntax		REGRESSION /DESCRIPTIVES MEAN STDDEV CORR SIG N /MISSING LISTWISE /STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT ROE /METHOD=ENTER Invtoasset CRR nrbtoassets.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01
	Memory Required	3584 bytes
	Additional Memory Required for Residual Plots	0 bytes

Descriptive Statistics

	Mean	Std. Deviation	N
Return On Equity	18.7660	4.09116	5
Investment to Total Assets	9.6900	2.20283	5
Cash Reverse Ratio	27.0780	2.73319	5
NRB Balance To Total Assets	4.5440	1.20707	5

Correlations

		Return On Equity	Investment to Total Assets	Cash Reverse Ratio	NRB Balance To Total Assets
Pearson Correlation	Return On Equity	1.000	0.043	0.131	0.519
	Investment to Total Assets	0.043	1.000	0.947	-0.771
	Cash Reverse Ratio	0.131	0.947	1.000	-0.776
	NRB Balance To Total Assets	0.519	-0.771	-0.776	1.000
Sig. (1-tailed)	Return On Equity		0.473	0.417	0.185
	Investment to Total Assets	0.473		0.007	0.063
	Cash Reverse Ratio	0.417	0.007		0.061
	NRB Balance To Total Assets	0.185	0.063	0.061	
N	Return On Equity	5	5	5	5
	Investment to Total Assets	5	5	5	5
	Cash Reverse Ratio	5	5	5	5
	NRB Balance To Total Assets	5	5	5	5

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	NRB Balance To Total Assets, Investment to Total Assets, Cash Reverse Ratio[b]		Enter

a. Dependent Variable: Return On Equity

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.997[a]	0.995	0.980	0.58463	0.995	64.961	3	1	0.091

a. Predictors: (Constant), NRB Balance To Total Assets, Investment to Total Assets, Cash Reverse Ratio

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66.609	3	22.203	64.961	.091[b]
	Residual	0.342	1	0.342		
	Total	66.951	4			

I. Dependent Variable: Return On Equity

b. Predictors: (Constant), NRB Balance To Total Assets, Investment to Total Assets, Cash Reverse Ratio

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-63.897	7.076		-9.029	0.070	-153.811	26.018
	Investment to Total Assets	-0.464	0.420	-0.250	-1.103	0.047	-5.807	4.879
	Cash Reverse Ratio	2.342	0.342	1.565	6.843	0.009	-2.007	6.691
	NRB Balance To Total Assets	5.225	0.391	1.541	13.379	0.047	0.263	10.186

II. Dependent Variable: Return on Assets

Notes

Output Created		03-AUG-2024 12:50:16
Comments		
Input	Active Dataset	DataSet0
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	Weight	<none>
	Split File	<none>
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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /DESCRIPTIVES MEAN STDDEV CORR SIG N /MISSING LISTWISE /STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT ROA /METHOD=ENTER Invtoasset CRR nrbtoassets.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01
	Memory Required	3584 bytes
	Additional Memory Required for Residual Plots	0 bytes

Descriptive Statistics

	Mean	Std. Deviation	N
Return on Assets	1.6560	0.33441	5
Investment to Total Assets	9.6900	2.20283	5
Cash Reverse Ratio	27.0780	2.73319	5
NRB Balance To Total Assets	4.5440	1.20707	5

Correlations

		Return on Assets	Investment to Total Assets	Cash Reverse Ratio	NRB Balance To Total Assets
Pearson Correlation	Return on Assets	1.000	-0.668	-0.554	0.902
	Investment to Total Assets	-0.668	1.000	0.947	-0.771
	Cash Reverse Ratio	-0.554	0.947	1.000	-0.776
	NRB Balance To Total Assets	0.902	-0.771	-0.776	1.000
Sig. (1-tailed)	Return on Assets		0.109	0.167	0.018
	Investment to Total Assets	0.109		0.007	0.063
	Cash Reverse Ratio	0.167	0.007		0.061
	NRB Balance To Total Assets	0.018	0.063	0.061	
N	Return on Assets	5	5	5	5
	Investment to Total Assets	5	5	5	5
	Cash Reverse Ratio	5	5	5	5
	NRB Balance To Total Assets	5	5	5	5

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	NRB Balance To Total Assets, Investment to Total Assets, Cash Reverse Ratio[b]		Enter

a. Dependent Variable: Return on Assets

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.985[a]	0.970	0.879	0.11626	0.970	10.699	3	1	0.220

a. Predictors: (Constant), NRB Balance To Total Assets, Investment to Total Assets, Cash Reverse Ratio

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.434	3	0.145	10.699	.220[b]
	Residual	0.014	1	0.014		
	Total	0.447	4			

a. Dependent Variable: Return on Assets

b. Predictors: (Constant), NRB Balance To Total Assets, Investment to Total Assets, Cash Reverse Ratio

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound

1	(Constant)	-2.403	1.407		-1.708	0.034	-20.283	15.477	
	Investment to Total Assets	-0.154	0.084	-1.015	-1.844	0.032	-1.217	0.908	
	Cash Reverse Ratio	0.154	0.068	1.259	2.264	0.026	-0.711	1.019	
	NRB Balance To Total Assets	0.304	0.078	1.096	3.911	0.016	-0.683	1.290	

Appendix XV

Regression Analysis of Nepal SBI Bank Ltd.

I. Dependent Variable: Return on Assets

Notes		
Output Created		03-AUG-2024 12:50:16
Comments		
Input	Active Dataset	DataSet0
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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /DESCRIPTIVES MEAN STDDEV CORR SIG N /MISSING LISTWISE /STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT ROA /METHOD=ENTER Invtoasset CRR nrbtoassets.
Resources	Processor Time	00:00:00.00

	Elapsed Time	00:00:00.01	
	Memory Required	3584 bytes	
	Additional Memory Required for Residual Plots	0 bytes	

Descriptive Statistics

	Mean	Std. Deviation	N
Return on Assets	1.6560	0.33441	5
Investment to Total Assets	9.6900	2.20283	5
Cash Reverse Ratio	27.0780	2.73319	5
NRB Balance To Total Assets	4.5440	1.20707	5

Correlations

		Return on Assets	Investment to Total Assets	Cash Reverse Ratio	NRB Balance To Total Assets
Pearson Correlation	Return on Assets	1.000	-0.668	-0.554	0.902
	Investment to Total Assets	-0.668	1.000	0.947	-0.771
	Cash Reverse Ratio	-0.554	0.947	1.000	-0.776
	NRB Balance To Total Assets	0.902	-0.771	-0.776	1.000
Sig. (1-tailed)	Return on Assets		0.109	0.167	0.018
	Investment to Total Assets	0.109		0.007	0.063
	Cash Reverse Ratio	0.167	0.007		0.061
	NRB Balance To Total Assets	0.018	0.063	0.061	
N	Return on Assets	5	5	5	5
	Investment to Total Assets	5	5	5	5
	Cash Reverse Ratio	5	5	5	5
	NRB Balance To Total Assets	5	5	5	5

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	NRB Balance To Total Assets, Investment to Total Assets,		Enter

	Cash Reverse Ratio[b]		
a. Dependent Variable: Return on Assets			
b. All requested variables entered.			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.985[a]	0.970	0.879	0.11626	0.970	10.699	3	1	0.220

a. Predictors: (Constant), NRB Balance To Total Assets, Investment to Total Assets, Cash Reverse Ratio

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.434	3	0.145	10.699	.220[b]
	Residual	0.014	1	0.014		
	Total	0.447	4			

a. Dependent Variable: Return on Assets

b. Predictors: (Constant), NRB Balance To Total Assets, Investment to Total Assets, Cash Reverse Ratio

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-2.403	1.407		-1.708	0.034	-20.283	15.477
	Investment to Total Assets	-0.154	0.084	-1.015	-1.844	0.032	-1.217	0.908
	Cash Reverse Ratio	0.154	0.068	1.259	2.264	0.026	-0.711	1.019
	NRB Balance To Total Assets	0.304	0.078	1.096	3.911	0.016	-0.683	1.290

II. Dependent Variable: NeT Interest Margin

Notes

Output Created		03-AUG-2024 13:47:53
Comments		
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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /DESCRIPTIVES MEAN STDDEV CORR SIG N /MISSING LISTWISE /STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT Netinterestmargin /METHOD=ENTER Invtoasset CRR nrbtoassets.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01
	Memory Required	3584 bytes
	Additional Memory Required for Residual Plots	0 bytes

Descriptive Statistics

	Mean	Std. Deviation	N
NeT Interest Margin	5.7500	0.59477	5
Investment to Total Assets	7.0860	1.12162	5
Cash Reverse Ratio	11.4200	4.74046	5
NRB Balance To Total Assets	8.1980	2.85912	5

Correlations

		NeT Interest Margin	Investment to Total Assets	Cash Reverse Ratio	NRB Balance To Total Assets
Pearson Correlation	NeT Interest Margin	1.000	0.168	0.829	0.301
	Investment to Total Assets	0.168	1.000	-0.157	-0.876

on	Cash Reverse Ratio	0.829	-0.157	1.000	0.568
	NRB Balance To Total Assets	0.301	-0.876	0.568	1.000
Sig. (1-tailed)	NeT Interest Margin		0.394	0.041	0.311
	Investment to Total Assets	0.394		0.400	0.026
	Cash Reverse Ratio	0.041	0.400		0.159
	NRB Balance To Total Assets	0.311	0.026	0.159	
N	NeT Interest Margin	5	5	5	5
	Investment to Total Assets	5	5	5	5
	Cash Reverse Ratio	5	5	5	5
	NRB Balance To Total Assets	5	5	5	5

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	NRB Balance To Total Assets, Cash Reverse Ratio, Investment to Total Assets[b]		Enter

a. Dependent Variable: NeT Interest Margin

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.946[a]	0.895	0.580	0.38544	0.895	2.841	3	1	0.405

a. Predictors: (Constant), NRB Balance To Total Assets, Cash Reverse Ratio, Investment to Total Assets

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.266	3	0.422	2.841	.405[b]
	Residual	0.149	1	0.149		
	Total	1.415	4			

a. Dependent Variable: NeT Interest Margin

b. Predictors: (Constant), NRB Balance To Total Assets, Cash Reverse Ratio, Investment to Total Assets

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-3.379	6.555		-0.516	0.070	-86.66	79.904

							3		
	Investment to Total Assets	0.863	0.690	1.627	1.251	0.043	-7.901	9.626	
	Cash Reverse Ratio	0.019	0.096	0.155	0.203	0.009	-1.196	1.235	
	NRB Balance To Total Assets	0.341	0.325	1.638	1.050	0.048	-3.784	4.465	

III. Dependent Variable: Return on Assets

Notes

Output Created		03-AUG-2024 13:50:56
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	5
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /DESCRIPTIVES MEAN STDDEV CORR SIG N /MISSING LISTWISE /STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT ROA /METHOD=ENTER Invtoasset CRR nrbtoassets.

Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.02
	Memory Required	3584 bytes
	Additional Memory Required for Residual Plots	0 bytes

Descriptive Statistics

		Mean	Std. Deviation	N

Return on Assets	2.0580	0.14272	5
Investment to Total Assets	7.0860	1.12162	5
Cash Reverse Ratio	11.4200	4.74046	5
NRB Balance To Total Assets	8.1980	2.85912	5

Correlations

			Return on Assets	Investment to Total Assets	Cash Reverse Ratio	NRB Balance To Total Assets
Pearson Correlation		Return on Assets	1.000	0.401	0.565	-0.203
		Investment to Total Assets	0.401	1.000	-0.157	-0.876
		Cash Reverse Ratio	0.565	-0.157	1.000	0.568
		NRB Balance To Total Assets	-0.203	-0.876	0.568	1.000
Sig. (1-tailed)		Return on Assets		0.252	0.161	0.372
		Investment to Total Assets	0.252		0.400	0.026
		Cash Reverse Ratio	0.161	0.400		0.159
		NRB Balance To Total Assets	0.372	0.026	0.159	
N		Return on Assets	5	5	5	5
		Investment to Total Assets	5	5	5	5
		Cash Reverse Ratio	5	5	5	5
		NRB Balance To Total Assets	5	5	5	5

Variables Entered/Removed[a]

Model	Variables Entered		Variables Removed	Method
1	NRB Balance To Total Assets, Cash Reverse Ratio, Investment to Total Assets[b]			Enter

a. Dependent Variable: Return on Assets

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.975[a]	0.950	0.799	0.06393	0.950	6.311	3	1	0.283

a. Predictors: (Constant), NRB Balance To Total Assets, Cash Reverse Ratio, Investment to Total Assets

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.077	3	0.026	6.311	.283[b]

	Residual	0.004	1	0.004					
	Total	0.081	4						
a. Dependent Variable: Return on Assets									
b. Predictors: (Constant), NRB Balance To Total Assets, Cash Reverse Ratio, Investment to Total Assets									
Coefficients[a]									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		
		B	Std. Error	Beta			Lower Bound	Upper Bound	
1	(Constant)	4.329	1.087		3.982	0.016	-9.485	18.143	
	Investment to Total Assets	-0.243	0.114	-1.910	-2.124	0.028	-1.697	1.211	
	Cash Reverse Ratio	0.059	0.016	1.962	3.723	0.017	-0.143	0.261	
	NRB Balance To Total Assets	-0.149	0.054	-2.990	-2.772	0.022	-0.833	0.535	

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December, 2024 ABSTRACTS This study examines the liquidity management and profitability analysis of commercial banks of Nepal over the period of 2017/18 to 2021/22. This study examines the relationship between liquidity management and profitability in the context of Nepalese commercial banks, with a focus on two leading institutions: Nabil Bank and Nepal SBI Bank (NSBI). Liquidity management, a critical aspect of banking operations, involves maintaining an optimal balance between liquid assets and liabilities to ensure the bank's ability to meet short-term obligations without compromising profitability. The analysis explores how these banks navigate the trade-off between liquidity and profitability, considering factors such as liquidity ratios, return on assets (ROA), and return on equity (ROE). By employing quantitative methods, the study assesses the impact of liquidity management practices on the financial