FINANCIAL PERFORMANCE ANALYSIS OF COMMERCIAL BANKS IN NEPAL

(With Reference to Nepal Bank Ltd., Agricultural Development bank Ltd., Global IME Bank Ltd. And Nepal SBI Bank Limited)

A Dissertation Submitted to the office of the Dean, Faculty of Management
in partial fulfilment of the requirements for the Master's Degree

By

Rachana Ghimire
Nepal Commerce Campus
Symbol No. 11761/19
Registration No. 7-3-379-133-2013

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CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled “Financial Performance Analysis of Commercial Banks in Nepal (With Reference to Nepal Bank Ltd., Agricultural Development bank Ltd., Global IME Bank Ltd. And Nepal SBI Bank Limited)”. The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor has it been proposed and presented as part of requirements for any other academic purpose.

Rachana Ghimire

Signature:

Date of Submission:

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Submitted by

Rachana Ghimire

Entitled

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has been prepared as approved by this department in the prescribed format of the faculty of management. This dissertation is forward for examination.

.....	.....	.....
Sabina Timalsena	Assoc. Prof. Dr. Jitendra Pd. Upadhyay	Prof. Dhurba Prasad Silwal
(Dissertation Supervisor)	(Head of Research Department)	(Campus Chief)

Date:

REPORT OF RESEARCH COMMITTEE

Rachana Ghimire has defended research proposal entitled "Financial Performance Analysis of Commercial Banks in Nepal (With Reference to Nepal Bank Ltd., Agricultural Development bank Ltd., Global IME Bank Ltd. And Nepal SBI Bank Limited)" successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestion and guidance of supervisor Sabina Timalsena and submit the dissertation for evaluation and Viva-Voce examination.

Sabina Timalsena
Position: Dissertation Supervisor
Signature: ……

Dissertation Proposal Defended Date:

…….

Dissertation Submitted Date:

……

Assoc. Prof. Dr. Jitendra Pd. Upadhyay
Head of Research Committee
Signature: ……..

Dissertation Viva-Voce Date:

……

APPROVAL SHEET

We have examined the dissertation entitled "Financial Performance Analysis of Commercial Banks in Nepal (With Reference to Nepal Bank Ltd., Agricultural Development bank Ltd., Global IME Bank Ltd. And Nepal SBI Bank Limited)" presented by Rachana Ghimire for the degree of Master of Business Studies. We hereby certify that the acceptable for the award of degree.

.....
Sabina Timalsena
Dissertation Supervisor

.....
Internal Examiner

.....
External Examiner

.....
Assoc. Prof. Dr. Jitendra Pd. Upadhyay
Chair Person, Research Committee

Date:

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I am delighted to present this dissertation entitled "Financial Performance Analysis of Commercial Banks in Nepal (With Reference to Nepal Bank Ltd., Agricultural Development bank Ltd., Global IME Bank Ltd. And Nepal SBI Bank Limited)" to the head of the research department, Nepal Commerce Campus, in partial fulfillment of the requirement for the degree of Masters in Business Studies (MBS), Faculty of Management, Tribhuvan University. The completion of this dissertation would have been considerably difficult without the help, co-operation and suggestion of my supervisor Sabina Timalsena. I am indebted to her for her kind support in spite of his business. Moreover, I would also like to thank campus administration, staffs of library and faculties of Nepal Commerce Campus. Their cooperation and friendliness towards learner like me have always remained as a motivating factor.

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ABBREVIATIONS

AD	:	Annon Domini
ADBL	:	Agricultural Development Bank Limited
ANOVA	:	Analysis of Variances
C.V.	:	Coefficient of Variation
CAR	:	Capital Adequacy Raito
CDR	:	Credit Deposit Raito
EPS	:	Earnings per Share
F-Value	:	Fishers Value
GIME	:	Global IME Bank Limited
NBL	:	Nepal Bank Limited
NIMR	:	Net Interest Margin Ratio
NPLR	:	Non-performing Loan Ratio
NPM	:	Net Profit Margin
NRB	:	Nepal Rastra Bank Limited
NSBI	:	Nepal SBI Bank Limited
P-Value	:	Probability Value
r	:	Coefficient of correlation
R^2	:	Coefficient of de termination
ROA	:	Return on Assets
ROE	:	Return on Equity
Rs.	:	Rupees
S.D.	:	Standard deviation
SCBL	:	Standard Chartered Bank Limited
SN	:	Serial Number

ABSTRACT

The study is concerned with comparative profitability analysis of Nepalese Commercial Banks having four samples such as Nepal SBI, Nepal Bank Limited, Agricultural Development Bank Limited and Global IME Bank Limited out of total 25 commercial banks. The major objective of this study is to have comparative profitability analysis of Nepalese commercial banks. The samples have been chosen purposively considered. The total number of observations is forty having ten years' annual financial statistics. As per research design, descriptive and causal comparative research design has been employed. The statistical tools consist of mean, standard deviation and coefficient of variation as well as the inferential statistic consists of mainly correlation, regression analysis and hypothesis testing for better evaluation of undertaken variables such as proxies (non-performing loan ratio, credit deposit ratio, price earnings ratio, earnings per share and net interest margin ratio), also known as independent variables (predictors) and profitability proxies such as return on equity.

In conclusion, the private owned banks profitability is higher than joint venture and government owned banks followed by joint venture bank. The private owned banks' shareholders have been provided more return followed by joint venture bank. The wealth and growth of equity shareholders have been found more satisfactory in private owned banks followed by joint venture banks. The net profit margin and non-performing loan ratio have positive impact of profitability in commercial banks. In addition, net profit margin and non-performing loan ratio have positive relationship with profitability. Similarly, earnings per share, price earnings ratio and net interest margin ratio have negative impact on profitability. Moreover, earnings per share, price earnings ratio and net interest margin ratio have positive relationship with profitability.

CHAPTER-I
INTRODUCTION

1.1 Background of the Study

In Nepalese context, Marahatta (2022) states return on equity decreases when capital adequacy, asset quality and liquidity increases. It has been observed that bank size is strong determinant of ROE. Thus, asset quality and bank size are the most important factors in determining the performance of commercial banks. Joshi (2004) analyzed financial performance through the use of appropriate financial tools and to show the cause of change in cash position of the two banks. In which he stated that bank profitability uses the return on assets, the return on equity and net interest margin. The study found that liquidity and bank loan are positively related to bank profitability. Karki (2004) found that liquidity ratio was relatively fluctuating over the period, return on the equity is found satisfactory and there is positive relationship between deposits and loan advances. The recommendations made that are the existing condition of the liquidity of the banking and financial institutions needs to be reduced through an appropriate investment policy.

Bank profitability refers to the difference between the profit amount gained from the assets and expense of the liabilities. Profitability is driven by the ability of a bank in generating sufficient earning or in lowering operational cost, implying being more efficient. It is measured by ratios such as (firm's returns on asset, return on equity, and net interest margin) that summarize large quantities of financial data and to make qualitative judgment about the firm's profitability (Velampy & Niresh, 2012). In the literature, bank profitability is referred as a function of both micro and macro determinants. Micro variables consist of accounts in balance sheet and income statement that can be controlled by management.

The commercial banks are currently regarded as key driver of financial institutions of Nepal (Hui & Jha, 2012). Commercial banks have held the large share for the development and enhancement of economy and has been playing vital role for the growth and sustainability of service sector and overall economy in general. The commercial banks have dominated stock market. Banking Sector covers 75% out of the total 194 listed companies (Sharesansar, 2018). Not only the stock market, but the commercial banks have also been

major contributors to the revenue of the country. They have been paying a large amount of tax every year.

The profitability of the banking sector of any country is essential because the financial system of a country is mostly based on banking system. A profitable commercial bank can withstand negative shocks and contribute to the stability of the financial system in the country (Athanasoglou, Brissimis, & Delis, 2008). The modalities of the banking business have changed a lot in the new millennium compared to the way they used to be in the years bygone (Hussain & Bhatti, 2010). In modern time, every bank and banking group is striving to attract more and more customers towards it, so they can make its name in the banking industry and gets fame by their working and operations so that their customers‟ loyalty can be enhanced towards them and they are able to utilize this in their future policies. Competition between them has also make them quality oriented. Today banking industry is not the bank oriented but it is customer oriented. The entire banks and banking groups are doing what their customers are demanding from them. They are ready to provide them all the facilities only to retain them with their bank.

The profitability is a wide subject of study as its relation with performance is of great concern in the construction to all other industry including banking. It can be determined in terms of return on assets, return on equity (ROE), return on capital employed and net interest margin (Chilwal & Mishra, 2018). Size of bank, capital, loan, and deposit were independent variables for profitability. There exists a relationship between total assets and bank profitability. As the size (natural logarithm of total assets) of bank increases, return on assets decreases. This signifies that bank profitability also decreases because Return on Assets had a direct relation with bank profitability. This clearly indicated that it was not true that, only banks with the highest assets have high profitability. It was also examined that total deposits and total equity have inverse relationship with bank profitability. As a deposit of bank increases, return on Assets decreases. Similarly, as the capital of banks increases, return on Assets decreases. Since, there was a direct association between Return on Assets and profitability of the bank, it was clear those banks with highest total deposits and total equity does not possess the highest profitability (Abugamea, 2018). Since banks with highest loan have the lowest Return on Assets in comparison to banks with the lowest

loan, Loan had negative contribution to bank profitability. This clearly revealed that as loan ratio increases, return on assets decreases that means bank profitability also decreases. Similarly, return on equity and return on capital employed also have negative relation with size, capital, loan, and deposit. But net interest margin had positive relation with respect to size and capital, while a negative relation with loan and deposit. A country like Nepal, where banks are under process of growing to support the economy, which largely depends on foreign aid (Mishra & Aithal, 2021). It is clear that bank performance determines profitability to support national infrastructure. So, a study assuring the same required.

The study is meant to have comparative study on profitability of commercial banks in Nepal. The study attempts to examine statistical relationship among net profit margin, earnings per share, price earnings ratio, net interest margin, non-performing loan and profitability (ROE). At the same time, this study also tends to examine the effect of net interest margin and non-performing loan on profitability of commercial banks.

1.2 Problem Statement

Studies of Nepalese banks' profitability are important as guidance towards enhancing the economy since banks do contribute to economic growth and stability. Stability in the banking sector helps to maintain stability in the economy (Baral, 2005). Few studies have been conducted on determinant of profitability of the commercial banks in Nepal, for example, Karki (2004) also found that the positive relationship between capital adequacy and profitability, Joshi (2004) found that the liquidity and banks loan are positively related to banks profitability and Maharjan (2007) revealed that the capital adequacy and liquidity is positively associated with banks profitability.

Ayanda et al. (2014) used ROA, ROE and NIM to determine the profitability and found that capital adequacy, liquidity risk, loan risk , management efficiency have significant relationship with profitability ,but bank size, rate of inflation and GDP have no impact on it. In addition, Pradhan (2016) concludes that Credit to total deposit ratio and liquidity are the major determinants of profitability of Nepalese commercial banks. Adeyefa et al. (2014) investigated the impact of bank-specific, industry-specific and macroeconomic indicators on bank profitability in Nigeria using random-effect model where bank profitability is peroxided by return on assets (ROA) return on equity (ROE) and net interest

margin (NIM) and found that there's positive and significant effect of capital adequacy, bank size, productivity growth and deposits on profitability whereas credit risk and liquidity ratio have a negative and significant effect on bank profits but no evidence was found in support of the effect of industry-specific variables and out of the three taken macroeconomic variables, inflation and interest rate are found to have negative effect on profitability, while GDP growth has insignificant relationship with it. Sufian (2009) suggests higher credit risk lowers profitability but higher proportion of income from non-interest sources, and high operational expenses tend to exhibit higher profitability. Moreover, economic growth has a negative effect while a high inflation rate has positive impact on banks' profitability.

Bodla et al. (2007) studied about key determinants of profitability of public sector banks in India is identified. As per the study result importance of some variable like NII, OE, NPA, CD ratio is significantly high. Non-interest income, operating expenses, provision and contingencies and spread have a significant relationship with net profit. Giannopoulos et al. (2017) also found GDP growth rate has a positive impact on bank profitability According to some previous research results stated that OEOI has a negative and significant effect on bank profitability (Haryanto, 2016). While the result of another study stated that OEOI has no significant effect to profitability (Sabir et al, 2012). NPL, LDR, CAR, NIM, and OEOI have significantly influence to profitability (Hermanto & Setiawan, 2017).

Banks today are under great pressure to meet the objectives of their stockholders, employees, depositors and borrowing customers, while somehow keeping government regulators satisfied that the bank's policies, loans, investment are sound. In order to exist in the market, commercial banks have to maintain certain level of profit. They must make profit out of the responsibilities assigned. So the manager should take the decision very carefully to tackle with the situations. People expect better, quicker, easier and special facilities from banks. The open and liberal economic policy towards the banking sector of Nepal initiated many private and joint venture Banks to operate inside the country which creates the sharp competition among each other. This competition also affects profitability of the bank. Various factors create problem to profitability position of the commercial banks. The monetary policy of the government, strong competition between the banks,

strikes and political situation of the country directly or indirectly hampers the profitability of the bank.

Banking has become highly complex and sophisticated. Some notable changes are taking place in the banking environment. These changes bring risks and opportunities which directly effects the operation of banking activities. Therefore, coming future is going to be more exciting and challenging then today. In Nepal, the profitability rate, operating expenses and dividend distribution rate among the shareholders has been found different in the financial performance of the two joint venture banks in different period of time. The problem of the study will ultimately find out the reasons about difference in financial performance. A comparative analysis of financial performance of the banks would be highly beneficial for pointing out their strength and weakness. Although joint venture banks are considered efficient, but how far are they efficient? This question does emerge in banking sector. At present we have twenty-six commercial banks. In spite of rapid growth, some indicators show performance is not much encouraging towards the service coverage.

Although Commercial banks are making satisfactory profit; they have low volume loans, advances in relation to deposit. They are found to be poor deposit mobilization; they are not able to utilize the funds in efficient way in income generating purpose. The poor liquidity position is another evil of the commercial banks. This study aims to find out the areas of difference between the selected banks in terms of deposit collection, resource mobilization, liquidity and others

Profitability is reward for investor. Investors are investing from present saving to get the reward in future. Profitability is the ability of a business to earn a profit. Liquidity means a bank having money where they need it particularly to satisfy the withdrawal needs of the customers. If banks hold excess cash in vault, the cash is unproductive and obviously it may affect on profitability.

Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives a manager, or analyst an idea as to how efficient a company's management is at using its assets to generate earnings. Return on assets is displayed as a

percentage. ROE is a key profitability ratio that investors use to measure the amount of a company's income that is returned as shareholders' equity. This metric reveals how effectively a corporation is generating profit from the money that investors have put into the business (by buying its stock). ROE is calculated by net income dividing by shareholders equity. The study tries to analyze the present profitability of banks, which would give the answers of following queries.

i) How is the status of price earnings ratio, net profit margin, earnings per share, non-performing loan ratio, net interest margin and financial performance (return on equity) of selected commercial banks?
ii) Does price earnings ratio, net profit margin and earnings per share have impact on return on equity of selected commercial banks?
iii) What is the impact of non-performing loan ratio and net interest margin on return on equity of selected commercial banks?

1.3 Objectives of the Study

The main objective of the study is to have comparative analysis of profitability of commercial banks in Nepal. The specific objectives are as under;

i) To analyze the status of price earnings ratio, net profit margin, earnings per share, non-performing loan ratio, net interest margin and financial performance (return on equity) of selected commercial banks.
ii) To assess the impact of price earnings ratio, net profit margin, earnings per share on return on equity of selected commercial banks.
iii) To examine the impact of non-performing loan ratio and net interest margin on return on equity of selected commercial banks.

1.4 Research Hypotheses

H1: There is significant relationship between price earnings ratio and profitability (ROE).
H2: There is significant relationship between net profit margin and profitability (ROE).
H3: There is significant relationship between earnings per share and profitability (ROE).

H4: There is significant relationship between non-performing loan ratio and profitability (ROE).

H5: There is significant relationship between net interest margin ratio and profitability (ROE).

1.5 Rationale of the study

This has tended to benefit to the concerned scholars, academicians, investor, researchers, and professional and management student too. It helps to inform the decision makers about the important of Financial Performance management for the bright future of the financial institutions. It also assists to concerned department how to reduce the cost with the help of better financial performance in the bank in changing environment to perform strategically to compete against competitors. At this situation, the commercial banks should be more competitive. They should become financially strength/healthy and must have growth potentially and they have to shape their plans and strategies thus the study may be more fruitful and rationale to their stakeholders at present situation. The study plays vital role in the managerial decisions. Every organization has to analyze its profitability in every step of its operation, promotion and expansion.

1.6 Limitations of the Study

i) Out of 21 commercial banks in Nepal [24-Feb-2023], four commercial banks have only been taken as sample. Therefore, generalized should be made with caution.

ii) The study only deals with variables such as net profit margin, earnings per share, price earnings ratio, net interest margin, non-performing loan return on equity. Therefore, other necessary variable might be omitted.

iii) The study has only considered sample period from fiscal year 2011/12 to 2020/21 but trend analysis would be better with longer time data.

CHAPTER-II
LITERATURE REVIEW

2.1 Conceptual Framework

The modern financial evaluation has greatly affected the role and importance of financial performance. Nowadays, finance is best characterized as ever changing with new ideas and techniques. Only efficient manager of the company can achieve the set-up goals. If a bank does not maintain adequate equity capital, it makes the bank riskier. If a bank has inadequate equity capital, it must be used more debt that has high fixed cost. Therefore, any firm must have adequate equity capital in their capital structure. The main objectives of the bank are to collect deposit as much as possible from the customer and to mobilize into the most profitable sector. If a bank fails to utilize its collected resources, it cannot generate revenue (Chanra, 2015).

Resource mobilization management of bank includes resource collection, investment portfolio loan and advances, working capital, fixed assets management etc. It measures-the-extent to which is successful to utilize its resources. To measure the bank performance in many aspects, we should analyze its financial indicator with the help of financial statement (Vanhome, 2015).

Financial analysis is the process of identifying the financial strength and weakness of the concerned bank. It is the process of finding strength and weakness of the concerned bank. It is the process of finding details accounting information given in the financial statement. It is performed to determine the liquidity, solvency, efficiency and profitability position of an organization. The function or the performance of finance can be broken down into three major decisions i.e. the investment decision, the financing decision and the dividend decision. An optional combination of the three decisions will maximize the value of the firm (Gupta, 2015)

2.1.1 Concept of Banking

The Lexis ‘Banking’ is a derivative of terminology 'Bank’, Bank itself is an organizational engaged in any or all the various functions of banking viz. Receiving, collecting,

transferring, paying, lending, investing, dealing exchanging and servicing (safe deposit, trusteeship, agency, custodianship) money and claims to money both domestically and internationally. A bank is a business organization that receives and holds deposits of funds from others makes loans or extends credits and transfers funds by written orders of depositors (Beley, 2017).

This is a board concept under which different types of banks are included. There are several popular modalities of banking. It may differ country to country Commercial banking is one of them (Prashikshan, 2008), banking and financial institutions are also the transmission channels of monetary policy, it is important for the effective monetary policy management to ensure that their financial health is sound and overall financial sector is stable. In the Nepalese context, nowadays three types of banks are being operated by performing their activities in different sectors, such as central bank (Nepal Rastra Bank), Commercial Banks and Development Banks. Commercial banking is either operated fully in the public sector (RBB) or the joint sector (NBL) or being operated under joint venture with foreign banks with private participation (EBL).

2.1.2 Development of Banking System in Nepal

Nepal's first commercial bank, the Nepal Bank Limited was established in 1997 B. S. The government owned 5 percent of the shares in the bank and controlled its operations to a large extent. Headquarter of Nepal Bank Limited is located in Kathmandu and has branches in other parts of the country. There are other government banking institutions. Rastriya Banijya Bank, a state-owned commercial bank, was established in 1966 AD. The Land Reform Savings Co-operation was established in 1966 to deal with finances related to land reforms. There were two other specialized financial institutions. Nepal Industrial Development Corporation a state-owned development financial organization headquartered in Kathmandu was established in 1959 with United States assistance to offer financial and technical assistance to private industry. Although the government invested in the corporation, representatives from the private business sector also sat on the board of directors (Thapa, 2019).

The Co-operative Bank, which became the Agricultural Development Bank in1967, was the main source of financial for small agribusiness and cooperatives. Almost 75 percent of

the bank was state-owned 21 percent was owned by the Nepal Rastra Bank and 5 percent by cooperative and private individuals. The Agricultural Development Bank also served as the governments' implementing agency for small farmers' group development projects assisted by the Asian Development Bank (see Glossary) and financed by the United Nations Development Programmed. The Ministry of Finance reported in 1990 that the Agricultural Development Bank, which is vested with leading role in agricultural loan investment, has granted loans only 9 percent of the total number of farming families since 1965. Since the 1960s both commercial and specialized banks have expanded. More business arid h6useh6lds has better access the credit market although the credit market had not expanded (Cryal, 2013).

Financial analysis is the process of identifying the financial strength and weakness of concerned bank. It is the process of finding strength and weakness of concerned bank. it is the process of finding details accounting information given in the financial statement. It is performed to determine the liquidity, solvency, efficiency and profitability position of an organization. The function or the performance of finance can be broken down in to three major decisions i.e. (i) investment decision, (ii) financing decision and (iii) dividend decisions. An operational combination of the three decisions will maximize the value of the firm (Pandey, 2009).

Nepal Rastra Bank was created in 1956 as the central bank. Its function was to supervise commercial banks and to guide the basic monetary policy of the nation. Its major aims were to regulated to issue of paper money, secure countrywide circulation of Nepalese currency and achieve stability in its exchange rates, develop the banking system in the country, thereby ensuring the existence of banking facilities and maintain the economic interests of the general public. Nepal Rastra Bank also was to oversee foreign exchange rates and foreign exchange reserves (Bexeley, 2017).

2.1.3 Concept of Profitability

Profitability is usually defined as the ability of a given investment to earn a return from its use. The term profitability is composed of two words profit and ability. The word profit has been defined in a number of ways, is the sum arrived by deducting total costs from sales revenue. The term ability reflects the power of an enterprise to earn profit. The ability

is also referred to as earning power, earning capacity or operating performance of the concerned investment.

The overall objective of a business is to earn at least a satisfactory return on funds invested in it consistent with maintaining a sound financial position. Satisfactory return depends upon several factors including the nature of business risk involved in business etc. If an enterprise fails to earn profits, invested capital is eroded and if this situation is prolonged the enterprise may ultimately cease to exist.

Profitability of a business indicates the financial ability and tends to enhance the income earning capacity. Today, profitability analysis has stolen a march over other aspects which are highlighted in interpretation of financial statements, in developed and developing countries. Financial analysis is more external than internal; profitability analysis is internal as well as external.

Profitability analysis helps in critically analyzing and interpreting the current and prospective earning capacities of business corporations. It becomes all the more important when within the business there is an earning goal that helps to guide the behavior of managers and other employees. It also helps the external users of accounting information pertaining to a particular business concern, viz; bondholders, shareholders, potential investors, bankers and other creditors and numerous governmental agencies in maintaining its economic health by its net earnings. Common-size statements are miniatures of the originals. These statements are most valuable to an analyst in studying the current financial position and operating results of a business, especially in making comparisons between companies within the same industry in different years and in between different companies in a year.

2.1.4 Importance of Profitability

Clearly, bank profitability matters for financial stability. Profits are the first line of defense against losses from credit impairment. Retained earnings are an important source of capital, enabling banks to build strong buffers to absorb additional losses. Those buffers ensure that banks are able to provide financial services to euro area households and businesses,

even in the face of adverse developments, thereby smoothing rather than amplifying the impact of negative shocks on the real economy.

Profitability ratios are a group of quantitative values that measure a company's profitability against its revenue, cost of sales, equity, and balance sheet assets. A metric measures a company's ability to generate income from its operations over a specific period. Profitability ratio is a category falling under financial ratios that are used by investors, bankers, financial institution, creditors and other stakeholders for evaluation of financial performance of the company in regards of annual profitability.

These ratios help them to assess how profitable an entity currently earns from using or managing the existing resources to generate profits and add value to its shareholders or owners. For example, the gross profit margin is the ratio used to assess how efficiently the company manages its costs compared to its competitors or industry averages. If the margin is high competitors', it means that the company could generate high profit from 1 USD that it spends compare to competitors or industry averages. Even though these ratios are importance for most of key stakeholders, that ratios themselves also have the limitation.

Gross profit margin is a measure of the profit earned on sales. It denotes the profit part of the total revenue earned after deducting the costs of goods sold. It is significantly important since the gross profit is what covers the admin and office costs and the dividends to be distributed to the shareholders. The higher the gross profit the more profitable the company is and is a good catch to invest in. As mention above, it is also used to assess the efficiency of cost management. If the calculation shows that the ratio is now, then the key areas to look or improve are purchasing as well as productions in terms of economy and effectiveness.

The net profit margin is the final ratio that demonstrates the overall performance of a company. It could say that it is the most important ratio for the management since any disturbances in other ratios indirectly hit the net profit margin as well. For example, a low quick ratio may be because of low sales which would obviously lower the net profit margin as well. This ratio is important since it could help the company or investors to see where it could go wrong in the company's current operating expenses. Maybe the interest expenses are too high due to the financing strategy that weighs more to loan rather than equity.

Where the net profit margin is an important metric for the company itself, returns on equity are one of the most important ratios for the investors. It is a percentage of the earnings that shareholders get in return for the money invested in the company. The higher the ROE means the higher the dividends the shareholders will receive and hence, more investors are attracted.

Returns on capital employed (ROCE) measures how efficiently the company uses its assets. It helps the management minimize inefficiencies by evaluating the ROCE ratio. The higher the ROCE as compared to other industries, the higher the efficiency in the production process of the company.

Return on assets (ROA) is a measure of every dollar of income earned on every dollar of the asset owned by the company. It is similar to the ROCE and helps the management in managing the utilization of assets.

2.1.5 Theories of Banks' Profitability

One of the crucial components of the financial systems and the economy are the commercial banks. In the recent years, commercial banks have contributed largely in the financial development of the economy of the region. Banks are responsible for allocation of funds to the organizations and individuals who need them. They deposit the funds of the organizations and individuals who have them in excess. Hence, they are responsible for mobilization of funds. Financial performance of the banks affects the capital allocation, expansion of the firms, economic growth of the industries and development of the economy. Profitability of the banks affects not only the commercial banks but it has its impact on the macroeconomic level. In presence of the current environment, the profits fetched by the banks reflect their financial performance. Banks come in stable state and they fetch high profits in case of maintenance of the profitability index of the commercial banks (Goddard et al., 2004). Hence, profitability becomes the important part of the performance of the banks which affects many sectors. Hence, factors influencing the performance of the banks in financial sector have grabbed the attention of the many research scholars, bank supervisors and financial markets. Scholars began conducting research on the performance of the banks between 1970 and 1980. They applied two

models named as efficient structure theory and market power theory (Athanasoglou et al., 2006).

Another theory which is known as balanced portfolio theory helps in determining profits fetched by banks. It has also been used in the study of the profitability of banks (Nzongang & Atemnkeng, 2006). The performance of the banks is affected by the market structure of the industry stated by market power theory which was given by Tregenna (2009). The SCP and the RMP theorem are the two different approaches of the market power theory. SCP approach states that banks in high concentration market have more potential to raise profits than firms in low concentration market as banks have the chance to get deposits at lower interest rates and allocate loans at higher interest rates due to the presence of monopolistic environment (Tregenna, 2009). The RMP approach states that profits fetched by the banks are affected by their shares in market. This approach assumes that the banks which have differentiated products can be price makers and experience more power in the market (Tregenna, 2009).

Another theory which is known as efficiency theory states that banks are more efficient than other so they earn more profits. This theory also possesses two different approaches named as Scale efficiency hypothesis and X efficiency. X efficiency states that efficient firms have lower cost hence; they are more profitable than others. On the other hand, approach of Scale efficiency focuses on high scale production and ignores any differences in management and technology of production. Large firms have benefit of economies of scale which leads to low per unit cost of product and high profits for the firms. Hence, they have high market share which leads to higher profits (Athanasoglou et al., 2006). Balanced portfolio theory also plays a vital role in the study of performance of the banks (Nzongang & Atemnkeng, 2006).This theory states that decisions regarding the policy affect the optimal presence of each asset in the investment of shareholder. These decisions are affected by a number of factors such as rate of return, size of the portfolio and risks associated with the holding of each asset. High profits can be achieved by possible set of liabilities and assets which are recognized by management and expenses incurred by banks. The performance of the banks is also affected by signaling, balance sheet ratio, bankruptcy

costs and risk return trade off. Hence, equity to asset ratio also plays a important function in determining the performance of the banks.

Modigliani & Miller (1958) theory states that the market value of the bank does not affect capital structure of the bank. According to financing theory, high levels of debt and low value of equity to asset ratio results in high risk which results in high rates of return. This also explains the risk return trade off theory (Van Ommeren, 2011). Some scholars have also explained that higher profits can be fetched by high equity to asset ratio. According to Berger, these explanations are consequence of application of signaling and bankruptcy costs hypothesis. Market value of the bank increases with high equity ratio according to signaling hypothesis (Berger, 1995). On the other hand, bankruptcy cost hypothesis states that banks hold high equity because of unexpectedly high bankruptcy costs to avoid financial debt (Berger, 1995).

2.2 Review of Previous Studies

Hudgins (2008) confirmed the view that ROA is one of the most important measures of profitability in banking literature. Therefore, in this study ROA had been used to measure the financial performance of commercial banks in Nigeria. Thus, ROA has significant relationship with banks specific variables such as interest margin ratio and non-performing loan ratio.

The performance of commercial banks can be measured by return on assets (ROA) which reflects the ability of bank management to generate profits from the available assets. Athanasoglou, Brissimis and Delis (2008) argued that ROA is considered a core performance indicator used in the majority of empirical studies.

In the paper on financial performance of commercial banks, the financial performance of the two major banks namely J & K Bank and Punjab National Bank operating in northern India had been evaluated by using CAMEL model. Its result reveals that the position of the banks under study is sound and commendable so far, their capital adequacy, asset quality, management capability and liquidity are concerned (Sangmi & Tabasum, 2010).

Kumbirai and Webb (2010) investigated the performance of South Africa's commercial banking sector for the period 2005- 2009. Financial ratios were employed to examine the

profitability, liquidity and credit quality performance of five South African based commercial banks. The study concluded that overall bank performance increased considerably in the first two years and a significant change in trend was noticed at the onset of the global financial crisis in 2007, reaching its peak during 2008-2009. This resulted in falling profitability, low liquidity and deteriorating credit quality in the South African Banking sector.

Mohd, Karim and Sallahundin (2010) maintain that the management of non-performing loans is often associated with high operational costs leading to dwindling capital growths in the affected banks. Non-Performing Loans (NPLs) reduces the liquidity of banks, distorts credit expansion, and slows down the growth of the real sector with direct consequences to the performance of banks.

Somoye (2010) said that NPLs also bring down investors' confidence in the banking system, thereby discouraging them from making reasonable investments. As far as the Nigeria banking sector is concern, something has to be done seriously and urgently to bring back the confidence of bank customers in the sector. Confidence is one of the factors banks must offer in order to get the patronage of customers.

The internal factors are bank specific variables which influence the profitability of specific bank. These factors are within the scope of the bank to manipulate them and that they differ from bank to bank. These include capital size, size of deposit liabilities, size and composition of credit portfolio, interest rate policy, labor productivity, and state of information technology, risk level, management quality, bank size, ownership and the like. CAMEL framework often used by scholars to proxy the bank specific factors (Dang, 2011). CAMEL stands for Capital Adequacy, Asset Quality, Management Efficiency, Earnings Ability and Liquidity.

Poor asset quality led to many bank failures in Kenya in the early 1980s (Olweny & Shipo, 2011). The result reveals that prior to the Global Recession, Foreign Bank group had an achieving edge over other banking sectors. Hitherto performance of private, nationalized and SBI bank groups was recorded as satisfactory (Puneet & Sonali, 2011).

The result shows that Capital Adequacy Ratio, interest expenses to total loan and Net Interest Margin have a considerable impact on Return on Assets. More particularly Capital Adequacy Ratio has influenced Return on Equity greatly (Jha & Hui, 2012). In the study of Comparative Performance of Different Bank Groups from the Era of Global Recession for the period 2006-2010, the performance of banking groups had been compared as based on their Credit Deposit Ratio and NPA.

Mohammad, Ammara, Abrar and Fareeha (2012) examined economic determinants of non-performing loans using correlation and regression analysis to analyze the impact of selected independent variables and the result reveals that interest rate, energy crisis, unemployment, inflation and exchange rate has a significant positive relationship with the non-performing loans of Pakistan banking sector, while GDP growth rate has a significant negative relationship with the non-performing loans of Pakistan banking sector.

The study on financial performance of commercial banks in Tanzania has found that the overall performance of the banks has increased during the first two years of the study. Looking back at the performance monetarily despite the financial crisis globally in 2008-09, one may see how the banking system in the country remained steady and amply financed as well as supported (Ally, 2013).

The study finding showed that the independent variables in CAMEL framework have highly explained the performance variables i.e., return on assets and return on equity. The private banks were in a better position than the public banks in terms of asset quality, management quality, and earning ability, while public banks were better in capital adequacy. However, liquidity position was high for both private and public commercial banks (Anteneh et al., 2013).

Mwangi (2014) found return on assets (ROA) which were the dependent variable and NPL which was the independent variable. The study adopted simple linear regression model of the form $Y = a+bx$ to establish the effect of nonperforming loans on commercial banks financial performance. The results obtained from the study confirm that during the earlier years of the study, there was a high amount of NPLs resulting to a very low ROA. Later years however showed a different trend where ROA was higher and NPLs were low.

Liquidity ratio measures the bank's ability to meet its current obligation. Banks make money by mobilizing deposit and providing fund for creditors, so the bank needs to be conscious to meet the payment when depositors demands for. The inability of the bank to meet the demand of depositor leads to the liquidity risk. Therefore, the fund management practices should ensure an institution is able to maintain a level of liquidity sufficient to meet its financial obligations in a timely manner; and capable of quickly liquidating assets with minimal loss (Mulalem, 2015).

Ekanayake and Azeez (2015) observed that banks with high level of credit growth is associated with a reduced level of non-performing loans, while larger banks incur lesser loan defaults compared to smaller banks. However, the study found with regards to the macro economic variables, that non-performing loans vary negatively with growth rate of GDP, while inflation was positively related to the prime lending rate.

The financial performance of a bank can be measured as the achievement of the bank in terms of profitability position, service quality, customer satisfaction and other relevant aspects. The profitability of a bank denotes the efficiency with which a bank deploys its total resources to optimize its net profits and thus serve as an index to the degree of asset utilization and managerial effectiveness. At present, the Indian banking system faces a number of difficult challenges. The higher the ratio ensures increased return to the equity shareholders and vice versa (Mustafa & Taqi, 2017).

Hawaldar et al. (2017) revealed that conventional retail banks, except for Bahrain development bank, have consistent performance in return on assets and return on equity. While among the Islamic retail banks, the performance of Kuwait finance house is satisfactory in terms of profitability. Hawaldar et al. (2017) found that the staff cost to income ratio, cost to income ratio, asset utilization and operating efficiency is higher in wholesale Islamic and conventional banks compared to retail banks.

There must be a proper balance between liquidity and profitability. Among assets cash investments are most liquid of a bank's assets. In general, banks with a larger volume of liquid assets are perceived safe, since these assets would allow banks to meet unexpected withdrawal (Amin, 2018).

Muktuf and Hazim (2020) showed that the banks obtained the third classification for its overall financial performance according to the results of the composite classification of the CAMELS model during the years of research, in addition to the weak management of the bank's assets.

Binh and Dung (2020) investigated the factors affecting the profitability of commercial banks in Asian developing countries, including Vietnam, Malaysia and Thailand. Authors used panel data of 4 entities; 10 banks in Vietnam, 8 banks in Malaysia, 9 banks in Thailand and all 27 commercial banks from the period 2012 to 2016. Because of the study, the most outstanding similarity is that all entities display a significantly negative relationship between operational risk and banking profitability. Likewise, the significantly negative influence of bank size to profitability is found on models of Vietnam and Thailand and no significant effect on the model of Malaysia. Meanwhile, the most controversial result comes up with the negative relationship between CAR and profitability indicators as well as the positive association between credit risk and banking profitability. The most outstanding similarity is that all entities record the significantly negative relationship between operational risk and banking profitability. Likewise, the significantly negative influence of bank size to profitability is found on models of Vietnam and Thailand and no significant effect on the model of Malaysia. Meanwhile, the most controversial result comes up with the negative relationship between CAR and profitability indicators as well as the positive association between credit risk and banking profitability (Dao & Nguyen, 2020).

Staikouras and Wood (2022) reviewed the literature on bank performance studies and classified the bank profitability determinants. The estimation results suggested that the profitability of European banks is influenced not only by factors related to their management decisions but also to changes in the external macroeconomic environment. The results are in contrast to studies that have examined the structure-performance relationship for European banking and find a positive effect of the concentration and/or market share variables on bank profitability. Finally, the GDP growth is significant and negative in the case of commercial and savings banks, and the GPI growth is significant and positive for co-operative banks.

Simkhada (2023) found mergers and acquisitions (M&A) have become an effective strategic tool to consolidate the Banks and Financial Institutions (BFIs) in Nepal to increase their capital base, expand their business, and bring financial stability. This paper evaluates the impact of M&A on the financial performance of two commercial banks between 2013 and 2020 by using twelve accounting ratios and a paired sample t-test. The findings for the first bank show that the impact of the merger on the financial performance ratios is mixed, despite significant improvements in return on assets, net interest margin, and earnings per share. However, in the case of the second bank, there is an insignificant impact of M&A on the financial ratios except for dividends per share (DPS) in the pre-post-M&A period.

Table 1

Summary of Literature Review of Previous Studies

Year	*Author*	*Major Findings*
2008	Hudgins	ROA has significant relationship with banks specific variables such as interest margin ratio and non-performing loan ratio.
2008	Athanasoglou, Brissimis & Delis	ROA is considered a core performance indicator used in the majority of empirical studies.
2010	Sangmi & Tabasum	Revealed that the position of the banks under study is sound and commendable so far, their capital adequacy, asset quality, management capability and liquidity are concerned.
2010	Kumbirai & Webb	This resulted in falling profitability, low liquidity and deteriorating credit quality in the South African Banking sector.
2010	Somoye	NPLs also bring down investors' confidence in the banking system, thereby discouraging them from making reasonable investments.
2010	Mohd Karim & Sallahundin	Non-Performing Loans (NPLs) reduces the liquidity of banks, distorts credit expansion, and slows down the

		growth of the real sector with direct consequences to the performance of banks.
2011	Dang	These include capital size, size of deposit liabilities, size and composition of credit portfolio, interest rate policy, labor productivity, and state of information technology, risk level, management quality, bank size, ownership has significant impact on financial performance i.e. ROE.
2011	Olweny & Shipo	Poor asset quality and low levels of liquidity are the two major causes of bank failures.
2011	Puneet & Sonali	The result reveals that prior to the Global Recession, Foreign Bank group had an achieving edge over other banking sectors.
2012	Jha and Hui	The result shows that Capital Adequacy Ratio, interest expenses to total loan and Net Interest Margin have a considerable impact on Return on Assets.
2012	Mohammad, Ammara, Abrar & Fareeha	Revealed that interest rate, energy crisis, unemployment, inflation and exchange rate has a significant positive relationship with the non-performing loans of Pakistan banking sector, while GDP growth rate has a significant negative relationship with the non-performing loans of Pakistan banking sector
2013	Zawadi Ally	The performance monetarily despite the financial crisis the banking system in the country remained steady and amply financed as well as supported.
2013	Anteneh et al.	The private banks were in a better position than the public banks in terms of asset quality, management quality, and earning ability, while public banks were better in capital adequacy. However, liquidity position was high for both private and public commercial banks.

2014	Mwangi	The results obtained from the study confirm that during the earlier years of the study, there was a high amount of NPLs resulting to a very low ROA. Later years however showed a different trend where ROA was higher and NPLs were low.
2015	Mulalem	The fund management practices should ensure an institution is able to maintain a level of liquidity sufficient to meet its financial obligations in a timely manner; and capable of quickly liquidating assets with minimal loss.
2015	Ekanayake & Azeez	Found with regards to the macro economic variables, that non-performing loans vary negatively with growth rate of GDP, while inflation was positively related to the prime lending rate.
2017	Hawaldar et al.	Found that the staff cost to income ratio, cost to income ratio, asset utilization and operating efficiency is higher in wholesale Islamic and conventional banks compared to retail banks.
2018	Amin	There must be a proper balance between liquidity and profitability. Among assets cash investments are most liquid of a bank's assets. In general, banks with a larger volume of liquid assets are perceived safe, since these assets would allow banks to meet unexpected withdrawal.
(2020)	Muktuf and Hazim	the banks obtained the third classification for its overall financial performance according to the results of the composite classification of the CAMELS model during the years of research, in addition to the weak management of the bank's assets.

2020	Binh and Dung	Because of the study, the most outstanding similarity is that all entities display a significantly negative relationship between operational risk and banking profitability
2022	Staikouras and Wood	The GDP growth is significant and negative in the case of commercial and savings banks, and the GPI growth is significant and positive for co-operative banks.
2023	Simkhada	The findings for the first bank show that the impact of the merger on the financial performance ratios is mixed, despite significant improvements in return on assets, net interest margin, and earnings per share. However, in the case of the second bank, there is an insignificant impact of M&A on the financial ratios except for dividends per share (DPS) in the pre-post-M&A period.

2.3 Review of Nepalese Context

The quality of assets held by a bank depends on exposure to specific risks, trends in non-performing loans, and the health and profitability of bank borrowers. Poor asset quality and low levels of liquidity are the two major causes of bank failures (Baral, 2005).

As capital structures of both the bank are highly levered, both the banks are recommended to maintain and improve mix at debt and owner's equity by increasing equity share. He further suggests to HBL to improve the efficiency in utilizing the deposits in loan and advance for generating the profit NBBL should try to maintain present position on this regard. Profitability position of HBL is comparatively better than the same of NBBL (Regmi, 2007).

The analysis of liquidity of these commercial banks shows different position here; the average current ratio of NSBI is greater than that of NBBL. Therefore, the liquidity position of SBI is in normal position. The turnover of the commercial banks is the main indication of income generating activities. Despite the fluctuating trend in the ratio of cash and bank

balance to total deposit NSBI bank is more efficient than NBBL in cash management i.e., it is more able to keep more cash balance against its various deposits (Joshi, 2008).

In some cases, the liquidity position of EBL is slightly stronger where as in some cases the ratio of NSBIBL is higher. It concludes that liquidity position of these two banks is sound. NBBL has better utilization of resource in income generating activity than EBL. They are on decreasing trends while interest earned to total assets and return or net worth ratio of EBL is better than NSBIBL. It seems overall profitability position of EBL is better than NSBIBL and both banks are highly leverage (Suman, 2010).

The current ratio of GIBL is slightly higher than NIBL. This indicates the GIBL ability to meet its obligation due in one year is better than NIBL. NIBL has always maintained a slightly higher CRR than the NRB requirements. This has resulted NIBL higher levels of CRR than compared to GIBL. This indicates that liquidity maintained by NIBL is sounder than GIBL. The higher SD of NIBL indicates that more CRR always come with more risk which decreases the profitability of banks (Silwal, 2018).

Sanima Bank Limited and Agriculture Development Bank Limited both banks have poor current ratio because both banks CR are below one time. The average investment on government securities to current assets ratio of both two banks is in satisfactory level. The average cash and bank balance to total deposit ratio has sound CRR with comparison of NRB directives (4%). The average loan and advances to saving deposit ratio both banks have effective lending management (Sanjyal, 2019).

Khatri (2020) reveled that using Hausman test and thereafter-fixed effects approach, the result showed that assets quality (AQ) has negative and significant relationship with return on assets (ROA) whereas it has positive and significant relationship with return on equity (ROE). Cash-deposit ratio (CADR) has positive and insignificant relationship with return on assets (ROA) and return on equity (ROE). However, the study reveals that credit-deposit (CDR) has positive but insignificant relationship with ROA and has negative and insignificant relationship with return on equity (ROE).

Marahatta et al. (2022) examined determinants of bank’s performance in Nepalese commercial banks. The study showed that higher the quality of assets, bank size, and GDP

growth of a nation and liquidity of a bank higher would be the return on assets. However, beta coefficient is statistically significant for asset quality only at 1 percent level of significance which signifies that assets quality is strong determinant of ROA. When GDP growth rate, inflation of a country and bank size increases, return on equity increase. ROE also decrease when capital adequacy, asset quality and liquidity increases. It has been observed that bank size is strong determinant of ROE. Thus, asset quality and bank size are the most important factors in determining the performance of commercial banks.

Jigeer and Koroleva (2023) used a panel data regression model to investigate how internal and external factors affect the profitability of city commercial banks in China. The research sample consists of 16 listed city commercial banks with an unbalanced dataset covering the time period within the period of 2008–2020. A panel data regression method is utilized to investigate the factors that influence the profitability of city commercial banks in China. There are several estimation methods in panel data, and the most commonly employed models are the fixed effects and random effects models. The pooled OLS model is often used for comparison for panel data regression, and the appropriate model will be determined by statistical hypothesis testing. The results show that internal explanatory variables such as bank size, capital adequacy, credit quality, and operating efficiency and external explanatory variables such as province GDP and inflation have a significant impact on the profitability of city commercial banks, while liquidity has no significant effect on the bank's profitability. The paper contributes to the relevant literature by identifying the determinants of city commercial banks' profitability considering the latest situation of the banking sector in China and provides practical implications from the perspective of improving bank profitability, which are important for both banking management and regulators and for the municipal and state.

Table 2

Summary of Literature Review of Nepalese Context

Year	Author	Major Findings
2005	Baral	The quality of assets held by a bank depends on exposure to specific risks, trends in non-performing loans, and the health and profitability of bank borrowers.

2007	Regmi	Both the bank are highly levered both the banks are recommended to maintain and improve mix at debt and owner's equity by increasing equity share.
2008	Joshi	The analysis of liquidity of these commercial banks shows different position here; the average current ratio of NSBI is greater than that of NBBL. Therefore, the liquidity position of SBI is in normal position.
2010	Suman	It is found that overall profitability position of EBL is better than NSBIBL and both banks are highly leverage.
2018	Silwal	The current ratio of GIBL is slightly higher than NIBL. This indicates the GIBL ability to meet its obligation due in one year is better than NIBL.
2019	Sanjyal	The average investment on government securities to current assets ratio of both two banks is in satisfactory level. The average cash and bank balance to total deposit ratio has sound CRR with comparison of NRB directives (4%).
2020	Khatri	The study reveals that credit-deposit (CDR) has positive but insignificant relationship with ROA and has negative and insignificant relationship with return on equity (ROE).
2022	Marahatta	ROE also decrease when capital adequacy, asset quality and liquidity increases. It has been observed that bank size is strong determinant of ROE. Thus, asset quality and bank size are the most important factors in determining the performance of commercial banks.
2023	Jigeer and Koroleva	The results show that internal explanatory variables such as bank size, capital adequacy, credit quality, and operating efficiency and external explanatory variables such as province GDP and inflation have a significant impact on the profitability of city commercial banks, while

	liquidity has no significant effect on the bank's profitability.

2.4 Research Gap

Based on the analysis of previous studies on Nepalese commercial banks, this study aims to provide a comparative profitability analysis of all types of commercial banks, including government, private, and joint venture-owned banks. Unlike previous studies, this research will focus on the relationship between return on equity and independent variables such as earnings per share, price earnings ratio, non-performing loan ratio, and net interest margin ratio. The study will use inferential statistical tools, such as descriptive, correlation, and regression analysis, and will employ linear multiple regress analysis to analyze the data. With a sample size of only forty-eight and data ranging from 2011/12 to 2020/21, this study aims to fill the gap in research where previous studies have failed to explore the comparative profitability analysis of all types of commercial banks in Nepal with a focus on the relationship between return on equity and various independent variables.

CHAPTER-III
RESEARCH METHODOLOGY

Research methodology sets out overall plan associated with a study. It provides a basic framework on which the study is based. Before presenting the analysis and interpretation of data, it is necessary that research methodology be described first. This chapter presents all the necessary steps to be followed throughout this research work in order to achieve and accomplish the objectives of the study.

3.1 Research Design

This study adopts descriptive research design for fact-finding and searching adequate information about the impact of non-performing loan on profitability of commercial banks in Nepal. This study is also based on causal comparative design that helps to investigate the possible causes and effect relationship between various dependent and the independent variables. The casual comparative research design has been used in order to determine the financial performance of commercial banks in Nepal.

3.2 Population and Sample

Out of 21 commercial banks [24-Feb-2023], four banks have been selected as sample for study the financial performance. Ten years data have been observed to analyze the financial performance of sampled bank with the total fifty numbers of observations.

Table 3

Number of Commercial Banks Sampled with Period and Observations

SN	Banks	Abbv.	Sample period	N
1	Nepal Bank Limited	NBL	2011/12 -2020/21	10
2	Agricultural Development Bank Limited	ADBL	2011/12 -2020/21	10
3	Global IME Bank Limited	GIME	2011/12 -2020/21	10
4	Nepal SBI Bank Limited	NSBI	2011/12 -2020/21	10
	Total No. of Observations			40

Thus, the study has been based on 40 observations.

3.3 Sampling Technique

In this particular study, purposive sampling has been used since purposive sampling, also known as judgmental sampling, is a specific type of non-probability sampling method that relies on data collection from population on the basis of nature of banks like government owned and private owned.

3.4 Types and Source of Data

This study is based on secondary data. The data is collect from annual report of sampled banks, tax book and financial report publish by banks. Secondary data is most reliable source for this research study because these data are easily available in any time. Time is not waste in secondary source to search different types of data which is needed for study.

3.5 Collection of Data

In this study, only secondary data were used for the analysis of the report. The research study includes Secondary data which has been already published. The required data has been collected on several ways like;

i) Annual Report of selected banks.

ii) Internet search in related link

iii) Library Research study

iv) Previous Research Studies and Articles on the subject

3.6 Tools for Analysis

As per tools for data analysis for this study, the statistical and financial tools have been employed for data analysis which is sufficient.

A) Financial Tools

A ratio is simply a number expressed in terms of another number and it expresses the quantitative relation between any two variables. Ratio can be calculated between any two items of financial statements. It means there may be as many ratios as there are the numbers of items. However, under the ratio analysis technique, it is not practical to work out all the ratios. Hence, only the required ratios have been worked out.

Ratio analysis helps to summarize the large quantities of financial data and to make quantitative judgments about the firm's financial performance. Ratio is the expression of

one figure in terms of another. It is the expression of relationship between the mutually independent figures, in financial analysis; ratio is use to as an index of yardstick for evaluating the financial position and performance of firm. Ratio analysis is very much powerful & widely used tool of financial analysis. It is defined as the systematic use of ratio to interpret the financial statements so that the strength and weakness of a firm as well as its historical performance and current financial condition can be determined. It helps the analysis to make qualitative judgment in about the financial position and performance of the firm. Therefore, it is helps to establish relationship among various ratios and interpret there on specially, based on comparison between two or more firms or inters firm comparison and comparison between present and past ratios for the same firm give enormous and fruitful results to examine the financial performance. The obsolete accounting figure reported in the financial statement does not provide a meaningful understanding of the performance and financial position of the firm. An accounting figure conveys meaning when it is related to some other relevant information. Therefore, the ratio is the relationship between two accounting figures expressed mathematically. It helps to summarize large quantitative relationship helps to form a quality judgment. However, " A single ratio itself does not is indicate favorable or unfavorable conditions. It should be compared with some standard.

Return on Equity (ROE)

Return on equity is the ratio of net income after taxes divided by total equity capital. ROE is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is what the shareholders look in return for their investment. It represents the rate of return earned on the funds invested in the bank by its shareholders. It is expressed as a percentage of what the financial institution earns on loans in a specific time and other assets minus the interest paid on borrowed funds divided by the average amount of the assets on which it earned income.

$$\text{Return on Equity} = \frac{\text{Net income}}{\text{Total Shareholder's Equity}}$$

Non-Performing Loan Ratio

A non-performing loan (NPL) is a sum of borrowed money upon which the debtor has not made the scheduled payments for a specified period. Although the exact elements of non-performing status vary, depending on the loan's terms nonpayment is usually defined as zero payments of either principal or interest. The specified period also varies in depending on the industry and the type of loan. Generally, however, the period is 90 days or 180 day. Non-performance loan ratio is a performance indicator of bank efficiency. The lower the ratio, the more efficient the bank. Similarly, higher ratio is a symbol of the inefficient management of the bank. Nonperforming loan ratio up to 5% is acceptable as per the international banking practices (Kattel, 2014).

$$\text{Non-Performing Loan Ratio} = \frac{\text{Non-Performing Loan}}{\text{Total loan and advances}}$$

Net Interest Margin Ratio

The NIM ratio measures the profit, a company makes on its investing activities as a percentage of total investing assets. Banks and other financial institutions typically use this ratio to analyze their investment decisions and track the profitability of their lending operations. This way they can adjust their lending practices to maximize profitability.

Investment firms also use this margin to measure the success of a fund manager's investment decision-making. A positive percentage indicates that the fund manager made good decisions and was able to a profit on his investments. A negative ratio, on the other hand, means the fund manager lost money on his investments because the interest expenses exceeded the investment earnings.

$$\text{Net Interest Margin Ratio} = \frac{\text{Investment income}}{\text{Total Loan and Advances}}$$

Net Profit Margin

The net profit margin is equal to how much net income or profit is generated as apercentage of revenue. Net profit margin is the ratio of net profits to revenues for a company or business segment. Net profit margin is typically expressed as a percentage butcan also be represented in decimal form. The net profit margin illustrates how much of each rupee in revenue collected by a company translates into profit. Net income is also called the bottom line for a company or the net profit. Net profit margin is also called net margin. The term

net profits is equivalent to net income on the income statement, and onecan use the terms interchangeably.

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Total Revenue}}$$

Earnings per Share

EPS represents the capability of a company in making profit for each stock owned by stakeholder. The increasing earnings per share generally indicate the growth of a company and resulting in high market price. Uddin and Rahman (2013) revealed a positive linear relationship between earning per share and market stock price. Malhotra and Tandon (2013) found that earnings per share has a positive relationship with market price, that is, higher the earning per share, higher would be the market price per share.

$$\text{Earnings per Share} = \frac{\text{Total Net Proift}}{\text{Total No. of Share}}$$

Price Earnings Ratio (P/E ratio)

Geetha and Swaaminathan (2015) pointed that this ratio enables an investor to make appropriate calculation of the time required to cover the investment in a company's stock. P/E ratio expresses the relationship between the market price of a company's share and its earnings per share. It indicates the extent to which the earning of each share is covered by its price.

$$\text{Price Earnings Ratio} = \frac{\text{Market Price per Share}}{\text{Earnings per Share}}$$

B) Statistical Tools

I) Descriptive Statistical Tools

Descriptive statistical tools help to find out the trend of financial position of the sample banks. It also analyzes the relationship between variables and helps banks to take appropriate decisions regarding the fulfillment of organization goals. Descriptive analytical tools such as Percentage, mean (arithmetic), variance and standard deviation had been used in this research.

A) Average/ Mean

Arithmetic mean of a given set of observations is their sum divided by the number of observations (Elhance & Agarwal, 2000). In general, if X_1, X_2.....X_n are the given N observations, then their arithmetic mean, denoted by $\overline{X}$ is given by,

$$\overline{X} = \frac{x_1 + x_2 + ... + x_n}{N} = \frac{\sum x}{N}$$

Where, $\sum X$ = Sum of the observations, and N = Number of Years

B) Standard Deviation

Standard deviation is the square root of the sum of the squares of the deviations measured from the mean. Thus, in the calculation of standard deviation, first, the arithmetic average is calculated and the deviation of various items from the arithmetic average are squared. The squared deviations are totaled and the sum is divided by the number of items. The square root of the resulting figure is the standard deviation of the series (Elhance & Agarwal, 2000). The standard deviation is conventionally represented by the Greek letter sigma. If X1, X2… Xn is a set of N observations then, standard deviation is given by,

$$\sigma = \sqrt{\frac{\sum (X - \overline{X})^2}{N}}$$

$\sum (X - \overline{X})$ = Sum of the squares of the deviations measured from mean N = Number of Observations

C) Coefficient of Variation (C.V.)

Coefficient of variation is computed for comparing the variability of two distributions. A distribution with smaller C.V. is said to be more homogeneous or uniform or less variable than-the other, and the series with greater C.V. is said to be more heterogeneous or more variable than the other (Elhance & Agarwal, 2000). It is computed as under.

$$C.V. = \frac{\sigma}{\overline{X}} \times 100\%$$

II) Inferential Statistical Tools

Unlike with the data description which have the focus of describing the sample data, while the focus of inferential analysis is on estimation or hypothesis testing, by using sample

purely to make inferences about the population. This process is formally known as inferential statistics. There are two major groups of inferential statistics, (i) parametric and (ii) non-parametric. In this research, parametric test such as correlation analysis, regression analysis and hypothesis have been incorporated to attain findings and conclusion.

A) Coefficient of correlation (r)

The correlation is a statistical tool which studies the relationship between two variables and correlation analysis involves methods and techniques used for studying and measuring the extent of the relationship between the two variables. Correlation analysis enables to have an idea about the degree and direction of the relationship between the two variables under study. However, it fails to reflect upon the cause and effect relationship between the variables (Elhance & Agarwal, 2000). The coefficient of correlation, denoted by r is computed as under:

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

B) Regression Analysis

The literal or dictionary meaning of the regression is moving backward, going back, or the return to the average value. Regression analysis is the technique of studying how the variations on one series are related to variation in another series. It determines the nature and strength of relationship between two variables. Thus, regression is the estimation of unknown values or prediction of one variable from known values of other variables. The regression analysis confined to the study of only two variables at a time is called simple regression. The known value which is used for prediction (or estimation), is called independent (or regressed or predictor or explanatory) variable and the unknown value which is to be estimated or predicted by known value is called dependent (or regressed or explained) variable (Sharma & Chaudhary, 2008). A line fitted to a set of data points to estimate the relationship between two variables is called regression line. A line fitted by the method of least square is the line of best fit. A line of regression gives the best estimate of one unknown variable for any given value of the other variable.

The Model Specifications

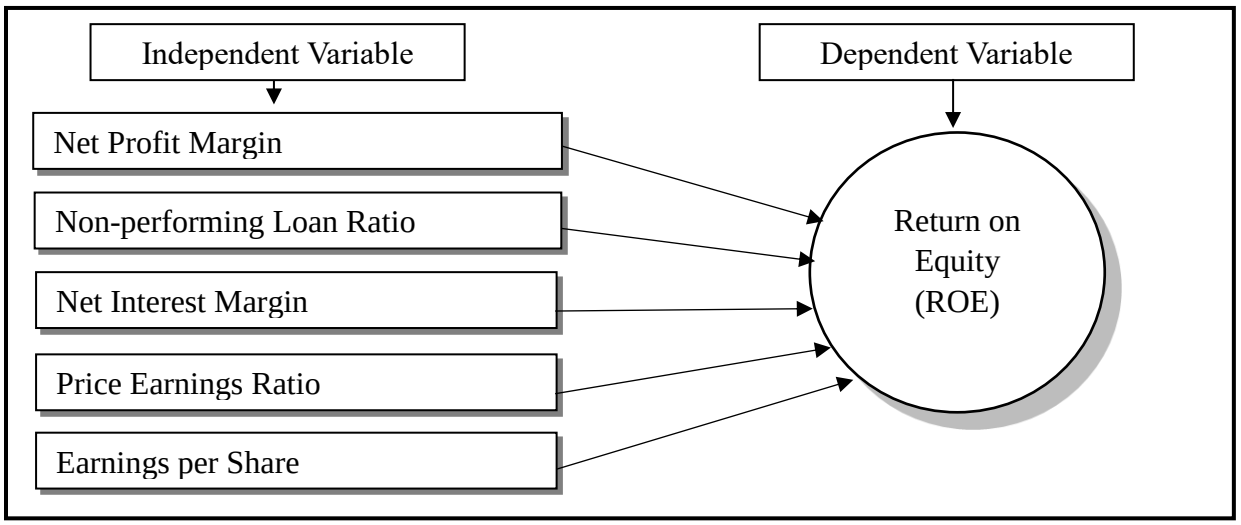
The model has been developed by undertaking the dependent variable i.e. ROE and independent variables such as net interest margin, non-performing loan and liquidity.

$$ROE= \beta_0 +\beta 1EPS+ \beta 2NPLR+ \beta 3NIMR+ \beta 4NPM + \beta 5PER +\varepsilon$$

Where,

β_0	=	Intercept of the dependent variable
$\beta 1$, to $\beta 5$	=	Coefficient of the variables
ROE	=	Return on Equity
NPLR	=	Non-performing loan ratio
EPS	=	Earnings per share
NPM	=	Net Profit Margin
PER	=	Price Earnings Ratio
NIMR	=	Net interest margin ratio
ε	=	Error term

3.7 Research Framework and Definition of Variables



Source: Jha & Hui, 2012

Figure 1: *Research Framework*

Return on Equity (ROE)

Return on equity is the ratio of net income after taxes divided by total equity capital. ROE is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is what the

shareholders look in return for their investment. It represents the rate of return earned on the funds invested in the bank by its shareholders. ROE reflects how effectively a bank management is using shareholder funds (Khrawish, 2011).

Net Profit Margin (NPM)

Net profit margin is the ratio of net profits to revenues for a company or business segment. Net profit margin is typically expressed as a percentage but can also be represented in decimal form. The net profit margin illustrates how much of each dollar in revenue collected by a company translates into profit. There is positive and significant relationship between the net profit margin and market price per share (Karki, 2018).

Non-performing Loan Ratio (NPLR)

NRB has directed all the commercial banks to create loan loss provision against the doubtful and bad debts. This ratio helps in minimizing the non-performing loans and helps to control the credit. Non-performance loan ratio is a performance indicator of bank efficiency. The lower the ratio, the more efficient the bank. Similarly, higher ratio is a symbol of the inefficient management of the bank. Nonperforming loan ratio up to 5% is acceptable as per the international banking practices (Kattel, 2014).

Net Interest Margin (NIMR)

Net interest margin is a ratio that measures how successful a firm is at investing its funds in comparison to its expenses on the same investments. A negative value denotes that the firm has not made an optimal investment decision because interest expenses exceed the amount of returns generated by investments. Net interest margin is expressed a percentage.

Price Earnings Ratio (P/E ratio)

Geetha and Swaaminathan (2015) pointed that this ratio enables an investor to make appropriate calculation of the time required to cover the investment in a company's stock. P/E ratio expresses the relationship between the market price of a company's share and its earnings per share. It indicates the extent to which the earning of each share is covered by its price.

Earnings per Share (EPS)

EPS represents the capability of a company in making profit for each stock owned by stakeholder. The increasing earnings per share generally indicate the growth of a company and resulting in high market price. Uddin and Rahman (2013) revealed a positive linear relationship between earning per share and market stock price. Tandon and Malhotra (2013) found that earnings per share has a positive relationship with market price, that is, higher the earning per share, higher would be the market price per share.

CHAPTER-IV

RESULTS AND DISCUSSION

4.1 Data Presentation and Analysis

The purpose of this chapter is to analyze and interpret the data collected during the study. Various statistical tools described in chapter three have been used for fulfilment of study' objectives. The chapter four provides systematic presentation, interpretation and analysis of secondary data in order to deal with various issues associated with profitability analysis of Nepalese Commercial Banks.

4.1.1 Non-performing Loan Ratio

Non-performance loan ratio is a performance indicator of bank efficiency. The lower the ratio, the more efficient the bank. Similarly, higher ratio is a symbol of the inefficient management of the bank. Nonperforming loan ratio up to 5% is acceptable as per the international banking practices (Kattel, 2014).

Table 4

Non-performing Loan Ratio

Year	Non-performing Loan Ratio (NPLR)			
	ADBL	NSBI	GIME	NBL
2011/12	8.99	1.1	2.52	5.75
2012/13	8.98	0.54	1.64	5.58
2013/14	5.85	0.37	2.27	5.24
2014/15	5.46	0.26	2.55	5.12
2015/16	5.35	0.19	2.23	3.98
2016/17	4.36	0.14	1.89	3.11
2017/18	4.6	0.1	1.6	3.32
2018/19	3.5	0.2	0.77	3.37
2019/20	3.29	0.2	0.55	2.64
2020/21	2.84	0.23	1.76	2.47
Mean	5.32	0.33	1.78	4.06
SD	2.17	0.30	0.68	1.25
CV	40.68	89.30	38.33	30.91

Source: Annual Reports, 2011/12-2020/21

The average non-performing loan ratio indicates that ADBL has the lowest NPLR among the four commercial banks listed (ADBL, NSBI, GIME, and NBL) with an average of 0.33 percent. On the other hand, NBL has the highest average NPLR with 4.06 percent. Based on this information, it can be suggested that ADBL has a better management of doubtful and bad debts as compared to the other banks. However, it is also mentioned that there is fluctuation and consistency in the non-performing loan ratio, indicating that there might be fluctuations in the management of doubtful and bad debts for the different banks.

4.1.2 Net Interest Margin Ratio

Net interest margin is a ratio that measures how successful a firm is at investing its funds in comparison to its expenses on the same investments. A negative value denotes that the firm has not made an optimal investment decision because interest expenses exceed the amount of returns generated by investments. Net interest margin is expressed a percentage.

Table 5

Net Interest Margin Ratio

Year	Net Interest Margin Ratio			
	ADBL	NSBI	GIME	NBL
2011/12	15.41	10.32	15.37	14.01
2012/13	15.72	9.16	13.27	13.64
2013/14	13.61	9.59	13.43	12.52
2014/15	12.62	10.19	10.88	12.16
2015/16	12.05	11.18	10	9.59
2016/17	15.19	10.98	8.98	9.86
2017/18	18.61	13.53	10.2	9.73
2018/19	19.28	13.38	12.88	12.22
2019/20	19.27	12.72	12.29	11.23
2020/21	16.5	12.39	12.02	11.16
Mean	15.83	11.34	11.93	11.61
SD	2.63	1.57	1.93	1.58
CV	16.59	13.88	16.16	13.59

Source: Annual Reports, 2011/12-2020/21

Based on table 5 the information in the paragraph, it seems that the average value of NIMR for ADBL is highest among the four banks (ADBL, NSBI, GIME, and NBL) with 15.83 percent. So, it can be concluded that ADBL has the highest net interest margin ratio. On

the other hand, the lowest net interest margin ratio is found in NBL with 11.61 percent. The standard deviation and coefficient of variation for NIMR for each of the banks are not mentioned in the paragraph, so it cannot be concluded about the fluctuation and consistency in net interest margin ratio for each of the banks. In terms of suggestions, it could be suggested that the other banks could take inspiration from the lending and investing operations of ADBL to improve their net interest margin ratio. Additionally, they could look into ways to effectively utilize their assets to increase their net interest margin.

4.1.3 Net Profit Margin Ratio

Net profit margin is the ratio of net profits to revenues for a company or business segment. Net profit margin is typically expressed as a percentage but can also be represented in decimal form. The net profit margin illustrates how much of each dollar in revenue collected by a company translates into profit. There is positive and significant relationship between the net profit margin and market price per share (Karki, 2018).

Table 6

Net Profit Margin Ratio

Year	Net Profit Margin Ratio			
	ADBL	NSBI	GIME	NBL
2011/12	19.49	24.85	28.44	2.96
2012/13	19	22.93	40.72	3.58
2013/14	16.34	32.75	41.24	13
2014/15	15.09	34.83	43.49	10.91
2015/16	13.99	34.48	35.03	7.33
2016/17	17.18	36.78	30.32	30.54
2017/18	20.41	33.46	40.72	30.81
2018/19	20.33	25.16	24.4	30.57
2019/20	20.37	27.13	28.97	21.51
2020/21	19.33	17.23	26.19	17.34
Mean	18.15	28.96	33.95	16.86
SD	2.35	6.41	7.12	11.07
CV	12.93	22.12	20.98	65.66

Source: Annual Reports, 2011/12-2020/21

Based on table 6 the information given in Table 4.3, it seems that GIME has the highest average net profit margin (NPM) among ADBL, NSBI, GIME, and NBL, with a NPM of

33.95%. The NPM of the other banks, in order of highest to lowest, is NBL with 16.86%, ADBL with 18.07%, and NSBI with 28.96%. However, it is mentioned that all the banks have well-maintained closing net profit margins over the ten-year period. The standard deviation for NPM indicates fluctuation and inconsistency in the net profit margin of each bank during the ten-year period. The standard deviation of NPM is highest for NSBI with 6.41% and lowest for ADBL with 2.35%. The coefficient of variation also reflects per-year changes in terms of fluctuation and inconsistency over NPM. The highest coefficient of variation is for NBL with 65.66%, and the lowest is for ADBL with 12.93%. Given the information, it can be suggested that the commercial banks in Nepal have maintained a satisfactory level of profitability, as measured by NPM. However, the inconsistency and fluctuation in NPM suggests the need for further analysis to understand the factors affecting the NPM of each bank and to develop strategies to improve the consistency of NPM in the future.

4.1.4 Price Earnings Ratio

P/E ratio expresses the relationship between the market price of a company's share and its earnings per share. It indicates the extent to which the earning of each share is covered by its price.

Table 7

Price Earnings Ratio

Year	Price Earnings Ratio			
	ADBL	NSBI	GIME	NBL
2011/12	117.38	17.50	14.86	1.67
2012/13	104.06	17.50	13.57	2.58
2013/14	100.81	20.00	26.74	0.86
2014/15	94.8	22.07	32.7	25.39
2015/16	93.77	28.42	30.74	40.78
2016/17	95.46	29.53	26.64	10.54
2017/18	92.9	16.34	15.21	9.39
2018/19	95.64	15.79	12.27	7.03
2019/20	93.62	16.84	12.48	12.45
2020/21	85.84	9.47	13.29	12.04
Mean	97.43	19.35	19.85	12.27
SD	8.50	6.02	8.29	12.29
CV	8.72	31.12	41.74	100.17

Source: Annual Reports, 2011/12-2020/21

Table 7 shows the average price earnings ratio for ADBL, NSBI, GIME and NBL. The average value of PER for these banks is 27.96%, 97.43%, 19.35%, 19.85% and 12.27% respectively, indicating that ADBL has the highest average price earnings ratio among the Nepalese commercial banks. This suggests that investors are expecting higher earnings growth in the future from ADBL. The standard deviation for the price earnings ratio for these banks are 8.50%, 6.02%, 8.29%, and 12.29% respectively, demonstrating the fluctuation and inconsistency in the price earnings ratio over the ten-year period. The coefficient of variation for ADBL, NSBI, GIME, and NBL are 8.72%, 31.12%, 41.74% and 100.17% respectively, which reflects the yearly changes and inconsistency in the price earnings ratio over the ten-year period.

4.1.5 Earnings per Share

EPS represents the capability of a company in making profit for each stock owned by stakeholder. The increasing earnings per share generally indicate the growth of a company and resulting in high market price. Uddin and Rahman (2013) revealed a positive linear relationship between earning per share and market stock price.

Table 8

Earnings per Share

Year	Earnings per Share			
	ADBL	NSBI	GIME	NBL
2011/12	25.71	7	14.06	33.74
2012/13	36.65	8.33	11.79	46.36
2013/14	32.27	9.58	16.25	198.53
2014/15	30.43	9.32	19.57	18.08
2015/16	28.77	10.92	15.58	7.48
2016/17	23.33	8.33	19.33	52.79
2017/18	31.18	10.04	25.51	31.59
2018/19	29.15	7.18	23.64	36.91
2019/20	27.2	6.65	23.47	42.88
2020/21	33.98	8.89	17.19	31.45
Mean	29.87	8.62	18.64	49.98
SD	3.94	1.40	4.50	53.83
CV	13.19	16.19	24.12	107.70

Source: Annual Reports, 2011/12-2020/21

From the data presented in Table 8, it is evident that the commercial bank with the highest average earnings per share is NBL with Rs. 49.98, followed by ADBL with Rs. 18.64, NSBI with Rs. 8.62 and commercial banks with Rs. 29.87. However, it should be noted that there is inconsistency in the earnings per share over ten years, as reflected by the standard deviation and coefficient of variation. The standard deviation and coefficient of variation for NBL are the highest among all banks, indicating high fluctuations in its earnings per share. For banks with lower earnings per share, it may be worth considering strategies to increase stability and consistency in their earnings.

4.1.6 Return on Equity

Return on equity is the ratio of net income after taxes divided by total equity capital. ROE is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is what the shareholders look in return for their investment. It represents the rate of return earned on the funds invested in the bank by its shareholders. ROE reflects how effectively a bank management is using shareholder funds (Khrawish, 2011).

Table 9

Return on Equity

Year	Return on Equity (ROE)			
	ADBL	NSBI	GIBL	NBL
2011/12	15.20	16.19	29.02	7.36
2012/13	33.28	15.02	30.25	5.72
2013/14	15.73	20.31	32.78	12.58
2014/15	9.39	22.85	27.97	15.09
2015/16	16.65	17.08	22.73	18.19
2016/17	13.96	17.46	25.61	22.69
2017/18	11.69	14.85	22.41	14.39
2018/19	13.87	15.81	20.94	18.67
2019/20	14.74	16.20	17.76	23.2
2020/21	11.71	10.44	13.61	16.09
Mean	15.62	16.62	24.31	15.40
SD	6.58	3.30	5.95	5.78
CV	42.10	19.88	24.50	37.52

Source: Annual Reports, 2011/12-2020/21

It can be seen from Table 9 that NSBI has the highest average return on equity ratio of 24.31%. This indicates that NSBI has been successful in managing the wealth and growth of its equity shareholders, as well as providing satisfactory returns to them. For the commercial banks with lower return on equity ratios, such as ADBL and NBL, it may be beneficial for them to analyze the reasons for their lower returns and make changes to improve their performance. For example, they could consider analyzing and improving their financial performance and risk management practices, as well as seeking out new investment opportunities to increase their return on equity. Additionally, they could also consider enhancing their brand image and customer satisfaction to attract more investments and increase their returns.

4.1.7 Descriptive Analysis

Descriptive statistical tools help to find out the trend of financial position of the sample banks. It also analyzes the relationship between variables and helps banks to take appropriate decisions regarding the fulfillment of organizational goals. Descriptive analytical tools such as percentage, mean (arithmetic), minimum, maximum, range and standard deviation have been used in this research. The variables incorporated in this study are net interest margin ratio, non-performing loan ratio, price earnings ratio, net profit margin, earnings per share and return on equity thus the characteristics of these variables have been discussed with descriptive statistics.

Table 10

Descriptive Statistics

Descriptive Statistics						
Variables	N	Range	Minimum	Maximum	Mean	Std. Deviation
NPM	40	40.53	2.96	43.49	24.4700	10.1999
NPLR	40	8.89	0.10	8.99	2.8727	2.33068
NIMR	40	10.30	8.98	19.28	12.6785	2.65061
PER	40	116.52	0.86	117.38	37.2243	36.38825
EPS	40	191.88	6.65	198.53	26.7777	30.32088
ROE	40	27.56	5.72	33.28	17.9873	6.50085

The paragraph provides a summary of the descriptive statistics of net profit margin ratio (NPM) and non-performing loan ratio (NPLR) for forty observations over ten years. The mean NPM is 24.4700 percent with a standard deviation of 10.1999, indicating that the NPM has a relatively wide range of values. The minimum NPM is 2.96 percent and the maximum is 43.49 percent, giving a range of 40.53 percent. For NPLR, the mean value is 2.8727 percent with a standard deviation of 2.33068, suggesting that the values are clustered closer to the mean. The minimum NPLR is 0.10 percent and the maximum is 8.99 percent, resulting in a range of 8.89 percent. Based on the information provided, it can be suggested that the commercial banks have maintained a relatively stable net profit margin but with a wide range of values. On the other hand, the non-performing loan ratio is relatively low and stable for the banks.

The mean value for NIMR is 12.6785 percent with a standard deviation of 2.65061. The minimum NIMR is 8.98 percent and the maximum is 19.28 percent with a range of 10.30 percent. The mean value for PER is 37.2243 percent with a standard deviation of 36.38825. The minimum PER is 0.86 percent and the maximum is 117.38 percent with a range of 116.52 percent. Based on this information, one can conclude that the financial ratios of commercial banks have shown fluctuations and inconsistencies over the ten years. It would be wise for investors to carefully consider these ratios while making investment decisions in commercial banks.

The mean value for net interest margin ratio is 12.6785 percent with a standard deviation of 2.65061. The minimum and maximum percentage of NIMR is 8.98 and 19.28 percent, respectively, resulting in a range of 10.30 percent. The mean value for price earnings ratio is 37.2243 percent with a standard deviation of 36.38825. The minimum and maximum percentage of PER is 0.86 and 117.38 percent, respectively, resulting in a range of 116.52 percent. Based on this information, it can be suggested that the net interest margin ratio is relatively stable with a small standard deviation, but the price earnings ratio is highly variable with a large standard deviation. This could indicate that the earnings of commercial banks can be unpredictable, and investors may need to be cautious when investing in these banks based on their price earnings ratio. Additionally, it might be

worthwhile to look into the reasons behind the variability in the price earnings ratio and if any steps can be taken to reduce the volatility.

From the information given, the mean value for EPS is Rs. 26.7777 with a standard deviation of 30.32088. The minimum value is Rs. 6.65 and the maximum value is Rs. 198.53, which gives a range of Rs. 191.88. The mean value for ROE is 17.9873 percent with a standard deviation of 6.50085. The minimum value is 5.72 percent and the maximum value is 33.28 percent, giving a range of 27.56 percent. It can be suggested that the data is widely dispersed, as evidenced by the high standard deviations and large ranges, which might indicate a high level of variation in the data set. Further analysis, such as regression or correlation, may be required to understand the relationships between the different financial ratios. Additionally, the data may also benefit from being compared to industry averages or benchmark values to determine the relative performance of the entities being analyzed.

4.1.8 Correlation Analysis

The correlation analysis among variables incorporated in this study are net interest margin ratio, non-performing loan ratio, price earnings ratio, net profit margin, earnings per share and return on equity thus the relationship between and among variables with the help of Bivariate Pearson's' correlation has been discussed below.

Table 11

Correlation Analysis

Correlations						
Variables	NPM	NPLR	NIMR	PER	Log_EPS	ROE
NPM	1	-.575**	-.315*	-.274	-.292	.630**
NPLR		1	.403**	.596**	.387*	-.124
NIMR			1	.609**	.098	-.203
PER				1	-.055	-.095
Log_EPS					1	-.156
ROE						1

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

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

The table 11 shows correlation analysis with dependent variable ROE. Study reveals that there is positive correlation between return on equity and net profit margin. Positive correlation between return on equity and net profit margin implies that when net profit margin increases, the return on equity also increases, as they lead one another in the same direction.

However, net interest margin ratio, non-performing loan ratio, earnings per share and price earnings ratio have negative correlation with return on equity which indicates that they lead each other in the inverse direction. Negative correlation between net interest margin ratio, non-performing loan ratio, earnings per share, price earnings ratio implies the meaning that they lead each other in the inverse direction.

There is positive correlation between earnings per share, non-performing loan and net interest margin ratio. Positive correlation earnings per share, non-performing loan and net interest margin ratio imply that they lead one another in the same direction. However, earnings per share are negatively correlated with net profit margin and price earnings ratio; as a result, they lead each other in the inverse direction.

Price earnings ratio has negative correlation with net profit margin thus they lead one another in the inverse direction however, price earnings ratio is positively correlated with non-performing loan and net interest margin ratio imply that they lead one another in the same direction. Net interest margin ratio is negative correlated with net profit margin but positive correlation with non-performing loan ratio. Finally, non-performing loan ratio is negatively correlated with net profit margin.

4.1.9 Regression Analysis

The two dependent variables have been undertaken thus the regression analysis deals with both variables The regression analysis among independent variables such as are net interest margin ratio, non-performing loan ratio, price earnings ratio, net profit margin, earnings per share and return on equity. The model has been developed by undertaking the dependent variable i.e. ROE and independent variables such as net interest margin, non-performing loan and liquidity. $ROE= \beta_0 +\beta 1EPS+ \beta 2NPLR+ \beta 3NIMR+ \beta 4NPM + \beta 4PER +\varepsilon$

Table 12

Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.720	.518	.447	4.83285

a. Predictors: (Constant), Log_EPS, PER, NPM, NIMR, NPLR

b. Dependent Variable: ROE

The table 12 represented R Square for this model, which is .518. This means that .518 percent 51.8% of the variation in the dependent variable i.e. return on equity can be explained by six independent variables (earnings per share, price earnings ratio, net profit ratio, net interest margin ratio and non-performing loan ratio). R is .720, adjusted R square is .447 and the standard error of the estimate is 4.83285.

Table 13

ANOVA

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	854.064	5	170.813	7.313	.000
	Residual	794.119	34	23.356		
	Total	1648.183	39			

a. Dependent Variable: ROE

b. Predictors: (Constant), Log_EPS, PER, NPM, NIMR, NPLR

According to table 13, the fitness of the model is stated by an F-value of 7.313 at a .00 percent level of significance. This implies that the research model is a good-fit in analyzing the profitability in Nepalese commercial banks.

Table 14

Coefficients Analysis

Model		Coefficients				
		Unstandardized Coefficients			Collinearity Statistics	
		B	t	Sig.	Tolerance	VIF
1	(Constant)	7.760	1.272	.212		
	NPM	.521	5.727	.000	.629	1.591
	NPLR	1.735	2.762	.009	.280	3.576
	NIMR	-.020	-.053	.958	.567	1.764
	PER	-.033	-.979	.335	.397	2.518
	Log_EPS	-2.046	-1.345	.188	.520	1.925

Dependent Variable: ROE

The Multiple Regression Equation

Return on Equity= 7.760 + (.521) net profit margin**+ (1.735)** non-performing loan ratio+ (-.020) net interest margin ratio+ (-.033) price earnings ratio + (-2.046) earnings per share.

Based on table 12, the positive regression coefficient of net profit margin in the regression coefficient analysis is .521 which indicates that there is positive relationship and impact between net profit margin and return on equity. In addition, if net profit margin is increased by one unit, the average influence on return on equity will increase by .521 unit.

The corresponding p-value is .000 which is less than .05; hence, there is significant relationship between net profit margin and return on equity. The variance influence factor (1.591) is less than 10 thus there is no multicollinearity issue.

Similarly, the positive regression coefficient of non-performing loan ratio in the regression coefficient analysis is 1.735 which indicates that there is positive relationship between and impact non-performing loan ratio and return on equity. In addition, if non-performing loan

ratio is increased by one unit, the average influence on return on equity will increase by 1.735 unit.

The corresponding p-value is .009 which is less than .05; hence, there is significant relationship between non-performing loan ratio and return on equity. The variance influence factor (3.576) is less than 10 thus there is no multicollinearity issue.

Moreover, the negative regression coefficient of net interest margin ratio in the regression coefficient analysis is -.020 which indicates that there is negative relationship and impact between net interest margin ratio and return on equity. In addition, if net interest margin ratio is increased by one unit, the average influence on return on equity will increase by 0.020 unit.

The corresponding p-value is .958 which is greater than .05; hence, there is insignificant relationship between net interest margin ratio and return on equity. The variance influence factor (1.764) is less than 10 thus there is no multicollinearity issue.

Likewise, the negative regression coefficient of price earnings ratio in the regression coefficient analysis is -.033 which indicates that there is negative relationship between and impact net price earnings ratio and return on equity. In addition, if price earnings ratio is increased by one unit, the average influence on return on equity will increase by .033 unit.

The corresponding p-value is .335 which is greater than .05; hence, there is insignificant relationship between price earnings ratio and return on equity. The variance influence factor (2.518) is less than 10 thus there is no multicollinearity issue.

Eventually, the negative regression coefficient of earnings per share in the regression coefficient analysis is -2.046 which indicates that there is negative relationship and impact between earnings per share and return on equity. In addition, if an earnings per share is increased by one unit, the average influence on return on equity will increase by .033 unit.

The corresponding p-value is .188 which is greater than .05; hence, there is insignificant relationship between earnings per share and return on equity. The variance influence factor (1.925) is less than 10 thus there is no multicollinearity issue.

Table 15

Hypothesis Summary

Hypothesis		Remark
H_11:	There is significant relationship between and price earnings ratio and profitability (ROE).	Reject
H_12:	There is significant relationship between net profit margin and profitability (ROE).	Accept
H_13:	There is significant relationship between earnings per share and profitability (ROE).	Reject
H_14:	There is significant relationship between non-performing loan ratio and profitability (ROE).	Accept
H_15:	There is significant relationship between net interest margin ratio and profitability (ROE).	Reject

4.2 Major Findings

i) The non-performing loan status. The average non-performing loan ratio for commercial banks, ADBL, NSBI, GIME and NBL has 5.32 , 18.07, 1.78 and 4.06 percentage respectively. The commercial banks found to tackle the doubtful and bad debts since the average NPLR for all banks seem to be not exceeding 5 percent (Kattel, 2014). However, there is fluctuation and consistency in non-performing loan ratio in commercial banks.

ii) The average value of NIMR for ADBL, NSBI, GIME and NBL has 15.83, 11.34, 11.93 and 11.61 percent respectively. The government banks have had earned more interest margin. In other words, the effective utilization of investing assets and lending operation were found in ADBL as compared to others. However, there is fluctuation and consistency in net interest margin ratio in commercial banks.

iii) The average value of NPM for ADBL, NSBI, GIME and NBL has 18.07, 18.15, 33.95, 34.99 and 16.86 percent respectively which depicted that GIME in average

was higher among net profit margin. However, the closing net profit margins of all sample banks seem to be well maintained over ten years.

iv) The profitability as measured by NPM in commercial banks was content due to proper revenue generations. The standard deviation for NPM has 2.35, 6.41, 8.77 and 11.07 percent for ADBL, NSBI, GIME and NBL respectively which depicted the fluctuation and inconsistency in net profit margin during the ten-year period.

v) It is found that there is absolute inconsistency over the net profit margin in Nepalese commercial banks. The coefficient of variation for ADBL, NSBI, GIME and NBL are 12.93, 22.12, 25.08 and65.66percent respectively reflected per year changes in terms of fluctuation and inconsistency over net profit margin for ten years period.

vi) The average value of PER for ADBL, NSBI, GIME and NBL are 27.96, 97.43, 19.35, 19.85 and 12.27 percent respectively which depicts that ADBL in average is higher among price earnings ratio. Thus, that investors are expecting higher earnings growth in the future from Nepalese commercial banks.

vii) The investors who made an investment in Nepalese commercial banks are getting beneficial. The standard deviation for PER are 8.50, 6.02, 8.29 and 12.29 percent for ADBL, NSBI, GIME and NBL respectively which depicts the fluctuation and inconsistency in price earnings ratio during the ten year period. Thus, it is found that there was absolute inconsistency over the price earnings ratio in Nepalese commercial banks.

viii) The coefficient of variation for ADBL, NSBI, GIME and NBL are 8.72, 31.12, 41.74 and 100.17 percent respectively reflected per year changes in terms of fluctuation and inconsistency over price earnings ratio for ten years period.

ix) The earnings per share over ten years. In average, earnings per share, for commercial banks, ADBL, NSBI, GIME and NBL have Rs. 29.87, 8.62, 18.64 and 49.98respectively. Therefore, it seems commercial banks have accumulated profit largely.

x) The external investors are likely to invest in commercial banks shares. However, there is inconsistency and fluctuation over earnings per share over ten years, as standard deviation in average for commercial banks, ADBL, NSBI, GIME and NBL has Rs. 3.94, 1.40, 4.50 and 53.83 respectively.

xi) It is also found that there is inconsistency over earnings per share, as coefficient of variation in average for commercial banks, ADBL, NSBI, GIME and NBL has 13.19, 16.19, 24.12 and 107.70 percent respectively.

xii) The average return on equity ratio for commercial banks, ADBL, NSBI, GIME and NBL has 15.62, 16.62, 24.31 and 15.40 percentage respectively. The equity shareholders have been provided satisfactory return in commercial banks. The wealth and growth of equity shareholders have been managed by commercial banks in satisfactory way. However, there is inconsistency in return on equity ratio over ten year in all commercial banks because standard deviation is not null. In addition, per year consistency over ROE has been observed.

xiii) The descriptive statistics of net profit margin ratio (NPM) and non-performing loan ratio (NPLR) for forty observations over ten years. The mean NPM is 24.4700 percent with a standard deviation of 10.1999, indicating that the NPM has a relatively wide range of values. The minimum NPM is 2.96 percent and the maximum is 43.49 percent, giving a range of 40.53 percent. Meanwhile, the mean value for non-performing loan ratio is 2.8727 percent with standard deviation 2.33068 over ten years. The minimum and maximum percentage of NPLR is 0.10 and 8.99 percentage. Thus, the range for NPLR is 8.89 percentage.

xiv) The mean value for net interest margin ratio is 12.6785 percent with standard deviation 2.65061 over ten years. The minimum and maximum percentage of NIMR is 8.98 and 19.28 percentage. Thus, the range for NIMR is 10.30 percentage. Further, the mean value for price earnings ratio is 37.2243 percent with standard deviation 36.38825 over ten years. The minimum and maximum percentage of PER is 0.86 and 117.38 percentage. Thus, the range for PER is 116.52 percentage.

xv) The mean value for earnings per share is Rs. 26.7777 percent with standard deviation 30.32088 over ten years. The minimum and maximum percentage of EPS is Rs. 6.65 and Rs. 198.53. Thus, the range for EPS is Rs. 191.88. Eventually, the mean value for return on equity is 17.9873 percent with standard deviation 6.50085 over ten years. The minimum and maximum percentage of ROE is 5.72 and 33.28 percentage. Thus, the range for ROE is 27.56 percentage.

4.3 Discussion

The study is concentrated on profitability analysis of Nepalese commercial banks. Return on equity is profitability proxy which is also dependent variable. The independent variables are earnings per share, price earnings ratio, net profit margin, net interest margin ratio and non-performing loan ratio. The study reveals that net profit margin and non-performing loan ratio have significant relation and impact with profitability (return on equity). However, earnings per share, net interest margin ratio and price earnings ratio have negative relation and impact with profitability (return on equity). The findings of this study are consistent with the findings of previous studies such as Hudgins (2008), Mohd Karim & Sallahundin (2010) and Regmi (2007) as they are agree on the statement that net profit margin and non-performing loan ratio have significant relation and impact with profitability (return on equity). However, earnings per share, net interest margin ratio and price earnings ratio have negative relation and impact with profitability (return on equity).. However, the findings of this study are inconsistent with the findings of previous studies such as Dang (2011), Jha and Hui (2012) and Anteneh et al. (2013) as they disagree on the statement that net profit margin and non-performing loan ratio have significant relation and impact with profitability (return on equity). However, earnings per share, net interest margin ratio and price earnings ratio have negative relation and impact with profitability (return on equity).

CHAPTER-V
SUMMARY AND CONCLUSION

5.1 Summary

The study is all about comparative financial performance analysis of Nepalese commercial banks. The major objective of the research is to analyze the financial performance of commercial banks in Nepal. Out of 21 commercial banks [24-Feb-2023], four commercial banks have been selected as sample for study of financial performance considering ten years data. Purposive sampling technique has been adopted as sample of the study selected on the basis of township like two private owned and two government owned. The data have been employed from fiscal year 2011/12 to 2020/21 (10 years). The total number of observations is forty having ten years' annual financial data. As per research design, descriptive and causal comparative research designs have been used. The statistical tools consist of mean, standard deviation and coefficient of variations as well as the inferential statistic consists of mainly Bivariate Pearson's' correlation and linear regression analysis for examining the effect and relationship among variables such as net profit margin, net interest margin ratio, earnings per share, price earnings ratio and non-performing loan ratio on return on equity (profitability).

The major findings of this study can be elaborated, as the positive regression coefficient of net profit margin in the regression coefficient analysis is .521 which indicates that there is positive relationship between net profit margin and return on equity. In addition, if net profit margin is increased by one unit, the average influence on return on equity will increase by .521 unit. Similarly, the positive regression coefficient of non-performing loan ratio in the regression coefficient analysis is 1.735 which indicates that there is positive relationship between non-performing loan ratio and return on equity. In addition, if non-performing loan ratio is increased by one unit, the average influence on return on equity will increase by 1.735 unit. Moreover, the negative regression coefficient of net interest margin ratio in the regression coefficient analysis is -.020 which indicates that there is negative relationship between net interest margin ratio and return on equity. In addition, if net interest margin ratio is increased by one unit, the average influence on return on equity

will increase by 0.020 unit. Likewise, the negative regression coefficient of price earnings ratio in the regression coefficient analysis is -.033 which indicates that there is negative relationship between net price earnings ratio and return on equity. In addition, if price earnings ratio is increased by one unit, the average influence on return on equity will increase by .033 unit. Eventually, the negative regression coefficient of earnings per share in the regression coefficient analysis is -2.046 which indicates that there is negative relationship between earnings per share and return on equity. In addition, if an earnings per share is increased by one unit, the average influence on return on equity will increase by .033 unit.

In conclusion, this study found a positive relationship between net profit margin and return on equity, as well as a positive relationship between non-performing loan ratio and return on equity. On the other hand, the study found a negative relationship between net interest margin ratio, price earnings ratio, and earnings per share, and return on equity. The results suggest that changes in these financial variables can have an impact on a company's return on equity.

5.2 Conclusion

In conclude, investors should carefully consider these ratios while making investment decisions in commercial banks. The net interest margin ratio is relatively stable with a small standard deviation, while the price earnings ratio is highly variable with a large standard deviation, indicating that earnings of commercial banks can be unpredictable. The earnings per share, return on equity, and other financial ratios show widely dispersed data with high standard deviations and large ranges, suggesting a high level of variation in the data set. Further analysis, such as regression or correlation, may be necessary to understand the relationships between the different financial ratios and to compare the data to industry averages or benchmark values. Investors may need to be cautious when investing in commercial banks based on their price earnings ratio, and consider the reasons behind the variability in the ratio.

The relationship between return on equity (ROE) and various financial ratios. The study reveals that there is a positive correlation between ROE and net profit margin, meaning that an increase in net profit margin leads to an increase in ROE. On the other hand, net

interest margin ratio, non-performing loan ratio, earnings per share, and price earnings ratio have negative correlations with ROE, indicating that they lead in the opposite direction. There is a positive correlation between earnings per share, non-performing loan and net interest margin ratio, but negative correlations between earnings per share and net profit margin, price earnings ratio, and between net profit margin and price earnings ratio. Price earnings ratio has a positive correlation with non-performing loan and net interest margin ratio, but a negative correlation with net profit margin. Finally, non-performing loan ratio has a negative correlation with net profit margin, but a positive correlation with net interest margin ratio.

It was found that the non-performing loan ratio and net profit margin had a significant positive impact on return on equity, while the net interest margin ratio, price earnings ratio, and earnings per share had an insignificant impact. The results indicate that an increase in the non-performing loan ratio and net profit margin leads to an increase in the return on equity. However, changes in the net interest margin ratio, price earnings ratio, and earnings per share do not have a significant impact on return on equity. The findings suggest that commercial banks should focus on maintaining a low level of non-performing loans and improving their net profit margins to increase their return on equity.

5.3 Implications

The implication of this study can be elaborated as below;

Practical Implications

- The wide range of values in the net profit margin ratio (NPM) suggests that the performance of commercial banks can be highly variable, and investors may need to be cautious when making investment decisions based on NPM.
- The relatively stable non-performing loan ratio (NPLR) indicates that commercial banks are maintaining a low level of bad loans, which is positive for their financial stability and creditworthiness.
- The high variability in the price earnings ratio (PER) implies that the earnings of commercial banks can be unpredictable, and investors may need to exercise caution when investing in these banks based on PER.

- The widely dispersed data in the earnings per share (EPS) and return on equity (ROE) suggest that the financial performance of commercial banks can be highly variable, and investors may need to consider this while making investment decisions.

Theoretical Implications

- The results provide evidence of the importance of considering both the mean and the standard deviation of financial ratios when analyzing the performance of commercial banks.
- The findings highlight the need for further analysis, such as regression or correlation, to understand the relationships between different financial ratios and to determine the relative performance of commercial banks.
- The results also support the use of benchmark values, such as industry averages, to compare the performance of commercial banks and to make more informed investment decisions.
- The results of the study can be used as a basis for future research on financial ratios and their implications for the performance of commercial banks.

Future Scope

- Expanding the sample size to obtain a more comprehensive understanding of the variability in financial ratios and their implications for the performance of commercial banks.
- Applying regression analysis to identify the factors that contribute to the variability in financial ratios.
- Examining the relationships between different financial ratios and their impact on the performance of commercial banks over time.
- Comparing the financial ratios of commercial banks with other types of financial institutions to determine their relative performance.
- Studying the impact of macroeconomic factors on financial ratios and the performance of commercial banks.

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APPENDIX

Entities	Years	NPM	NPLR	NIM	PER	EPS	ROE
ADBL	2011/12	19.49	8.99	15.41	117.38	25.71	15.20
	2012/13	19	8.98	15.72	104.06	36.65	33.28
	2013/14	16.34	5.85	13.61	100.81	32.27	15.73
	2014/15	15.09	5.46	12.62	94.8	30.43	9.39
	2015/16	13.99	5.35	12.05	93.77	28.77	16.65
	2016/17	17.18	4.36	15.19	95.46	23.33	13.96
	2017/18	20.41	4.6	18.61	92.9	31.18	11.69
	2018/19	20.33	3.5	19.28	95.64	29.15	13.87
	2019/20	20.37	3.29	19.27	93.62	27.2	14.74
	2020/21	19.33	2.84	16.5	85.84	33.98	11.71
NSBI	2011/12	24.85	1.1	10.32	17.50	7.00	16.19
	2012/13	22.93	0.54	9.16	17.50	8.33	15.02
	2013/14	32.75	0.37	9.59	20.00	9.58	20.31
	2014/15	34.83	0.26	10.19	22.07	9.32	22.85
	2015/16	34.48	0.19	11.18	28.42	10.92	17.08
	2016/17	36.78	0.14	10.98	29.53	8.33	17.46
	2017/18	33.46	0.1	13.53	16.34	10.04	14.85
	2018/19	25.16	0.2	13.38	15.79	7.18	15.81
	2019/20	27.13	0.2	12.72	16.84	6.65	16.20
	2020/21	17.23	0.23	12.39	9.47	8.89	10.44
GIME	2011/12	28.44	2.52	15.37	14.86	14.06	29.02
	2012/13	40.72	1.64	13.27	13.57	11.79	30.25
	2013/14	41.24	2.27	13.43	26.74	16.25	32.78
	2014/15	43.49	2.55	10.88	32.7	19.57	27.97
	2015/16	35.03	2.23	10	30.74	15.58	22.73
	2016/17	30.32	1.89	8.98	26.64	19.33	25.61
	2017/18	40.72	1.6	10.2	15.21	25.51	22.41
	2018/19	24.4	0.77	12.88	12.27	23.64	20.94
	2019/20	28.97	0.55	12.29	12.48	23.47	17.76
	2020/21	26.19	1.76	12.02	13.29	17.19	13.61
NBL	2011/12	2.96	5.75	14.01	1.67	33.74	7.36
	2012/13	3.58	5.58	13.64	2.58	46.36	5.72
	2013/14	13	5.24	12.52	0.86	198.5	12.58
	2014/15	10.91	5.12	12.16	25.39	18.08	15.09
	2015/16	7.33	3.98	9.59	40.78	7.48	18.19
	2016/17	30.54	3.11	9.86	10.54	52.79	22.69
	2017/18	30.81	3.32	9.73	9.39	31.59	14.39
	2018/19	30.57	3.37	12.22	7.03	36.91	18.67
	2019/20	21.51	2.64	11.23	12.45	42.88	23.2
	2020/21	17.34	2.47	11.16	12.04	31.45	16.09

Correlations

		NPM	NPLR	NIMR	PER	Log_EPS	ROE
NPM	Pearson Correlation	1	-.575**	-.315*	-.274	-.333*	.630**
	Sig. (2-tailed)		.000	.048	.088	.036	.000
	N	40	40	40	40	40	40
NPLR	Pearson Correlation	-.575**	1	.403**	.596**	.624**	-.124
	Sig. (2-tailed)	.000		.010	.000	.000	.445
	N	40	40	40	40	40	40
NIMR	Pearson Correlation	-.315*	.403**	1	.609**	.278	-.203
	Sig. (2-tailed)	.048	.010		.000	.083	.209
	N	40	40	40	40	40	40
PER	Pearson Correlation	-.274	.596**	.609**	1	.184	-.095
	Sig. (2-tailed)	.088	.000	.000		.256	.558
	N	40	40	40	40	40	40
Log_EPS	Pearson Correlation	-.333*	.624**	.278	.184	1	-.156
	Sig. (2-tailed)	.036	.000	.083	.256		.335
	N	40	40	40	40	40	40
ROE	Pearson Correlation	.630**	-.124	-.203	-.095	-.156	1
	Sig. (2-tailed)	.000	.445	.209	.558	.335	
	N	40	40	40	40	40	40

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

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

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.720[a]	.518	.447	4.83285

a. Predictors: (Constant), Log_EPS, PER, NPM, NIMR, NPLR

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	854.064	5	170.813	7.313	.000[b]
	Residual	794.119	34	23.356		
	Total	1648.183	39			

a. Dependent Variable: ROE

b. Predictors: (Constant), Log_EPS, PER, NPM, NIMR, NPLR

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	7.760	6.099		1.272	.212		
	NPM	.521	.091	.860	5.727	.000	.629	1.591
	NPLR	1.735	.628	.622	2.762	.009	.280	3.576
	NIMR	-.020	.388	-.008	-.053	.958	.567	1.764
	PER	-.033	.034	-.185	-.979	.335	.397	2.518
	Log_EPS	-2.046	1.522	-.222	-1.345	.188	.520	1.925

a. Dependent Variable: ROE