

**A COMPARATIVE FINANCIAL ANALYSIS OF NEPALESE COMMERCIAL
BANKS**

**With references to Sanima Bank Limited, Agricultural Development Bank Limited
and Nabil Bank Limited**

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

by

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CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled "A Comparative Financial Analysis of Nepalese Commercial Banks" The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor it has been proposed and presented as part of requirements for any other academic purposes.

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

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ABSTRACT

The objective of this study was to compare the financial performance of commercial banks in Nepal based on their financial characteristics and identify the determinants of performance exposed by the financial ratios, which were based on CAMEL Model. Three commercial banks for the period 2010/11 to 2019/20 were financially analyzed. The study is based on secondary data. Required facts and figures have been obtained from the annual reports. CAMEL model for evaluating the performance, the study is primarily based on secondary data derived from the each bank's annual reports, such as Agricultural Development Bank Limited, Sanima Bank Limited and Nabil Bank Limited corporate databases, websites, journals, and so on. The finding of the study is, ADBL, Sanima Bank, and Nabil Bank are able to manage their performance effectively and efficiently. ADBL appears to be able to outperform nabil bank and sanima bank in terms of capital adequacy ratio (CAR), return on assets (ROA), and credit deposit ratio (CDR). Similarly, in terms of non-performing loan (NPL) ratio, Sanima Bank appears to be able to perform better than ADBL and Nabil Bank. Similarly, nabil bank appears to be able to manage their good performance better than ADBL and sanima bank in terms of interest expenses to total loan (IETTL) ratio and return on equity (ROE). The implications of this research are investor who invests in bank and other project, this report will help investor to analysis comparative performance of bank. Other researcher can focus on any other related bank in their wish in which there is no study conducted. The model that can be used to calculate can be different. Other relevant data can be used to perform these kinds of research study. Primary data can be collected among customer investor and employer of the bank.

KEYWORD: CAMEL Model, Comparative Performance Analysis, Commercial Bank

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ABBREVIATIONS

A.D. = Anno Domini

ADBL= Agricultural Development Bank Limited

ATM = Automated Teller Machine

B.S. = Bikram Sambat

BFI = Bank and Financial Institutions

C.V. = Coefficient of Variation

CAR = Capital Adequacy Ratio

CDR = Credit Deposit Ratio CRR = Cash Reserve Ratio

FY = Fiscal Year

IETTL= Interest Expenses to Total Loan

MBS = Master of Business Studies No. = Number

NPL = Non-Performing Loan

NRB = Nepal Rastra Bank

NRN = Non-Resident Nepalese

ROA = Return on Assets

ROE = Return on Equity

S.D. = Standard Deviation

S.B.L= Sanima Bank Limited

T.U. = Tribhuvan University

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Financial sector is the backbone of economy of a country .It works as a facilitator for achieving sustained economic growth through providing efficient monetary intermediation. A strong financial system promotes investment by financing productive business opportunities, mobilizing savings, efficiently allocating resources and makes easy the trade of goods and services. Banking renders service to the people in financial matters, and its magnitude of action is extending day by day. It is a major financial institutional system in Nepal. The performance evaluation of bank is important for all parties including depositors, investors, managers and regulators (Jha and Hui, 2012).

Banks help to the growth of agriculture, trade, commerce and industry of the national economy. They are inevitable for the resources mobilization and economic development of the country. Banking industries are regarded as one component of economy. They transfer the scattered funds collected from saving of the public into various productive sectors. Economic activities remain halt in absence of banking industries. It helps to enhance economic activities of the country by providing capital funds for the smooth operation of business activities. People deposit their saving in trust of banks repay their deposits promptly when they demand for it. If one bank fails to repay the deposited amount to the public then the public do not believe the bank and it leads to insolvency of the banks. So as the regulator and supervisor NRB always dictate the activities of the banks in the country. It provides its directives from time to time in order to have fair competition between the banks and to safeguards the deposits of the public. As number of banks in the country increases NRB has to be more active towards its regulative and supervising role. For healthy competitions of the banks, NRB planned to merge two banks and they have to make their capital NPR 8,000,000,000.

Banking system is volatile and sensitive sector of national economy, which requires effective monitoring and efficient supervision. Smooth and effective regulation of banking activities is a must for sustainable economic growth of a country. The regulatory agency should always be watchful of banking activities carried out by governmental and non-governmental and financial institution.

Commercial banks collect deposits from the public and the largest portion of deposited money is utilized in disbursing loan and advances. Loans and advances constitute a major portion of the assets and deposits constitute a major portion of the liabilities of balance sheet of commercial banks. Similarly earning of the banks depends upon the spread that it enjoys between the interest it receives from the borrowers and that to be paid to the borrowers. An average, bank generates sixty to seventy percent of its revenue through its lending activities. The return that the bank enjoys of deposit mobilization through loan and advances is very attractive but they do not come free of cost and free of risk. There is risk inherent in lending portfolio. Banking sector is exposed to number of risk like, interest rate risk, liquidity risk, credit risk or default risk, borrowers risk, security risk, earning risk etc. Such risk are excessive had led many banks to go bankrupt in a number of countries. Performing loans have multiple benefits to the society while non-performing loan erodes even existing capital.

Financial ratios based on CAMEL Framework are related to capital, assets, management, earnings and liquidity considerations. Different ratios including return on assets (ROA), return on equity (ROE), capital adequacy ratio (CAR), nonperforming loan ratio (NPL), interest expense to total loans (IETTL), net interest margin (NIM), credit to deposit ratio (CDR), were evaluated to analyze the financial data of selected Nepalese commercial banks for the period 2011 to 2018. These ratios would help to indicate the condition of capital, assets quality, management, earnings and liquidity position of different types of banks. Financial ratio analysis is also used to quantitatively examine the differences in performance among public sector banks (PVB), joint venture banks (JVB) and domestic private banks (DPB) in Nepal, and the banks are ranked based on their financial measures and performance for each bank as a guideline for the future trend of financial position of the banks in Nepal. Therefore, the aim of this study is to measure the best performance among the commercial banks and to find out the relationship between bank specific factors (ratios) on the banks' performance. Published financial statements are the only source of information about the activities and affairs of a business entity available to the public, shareholders, investors and creditors, and the governments. These various groups are interested in the progress, position and prospects of such entity in various ways. But these statements howsoever, correctly and objectively prepared, by themselves do not reveal the significance, meaning and relationship of the information contained therein. For this purpose, financial statements have to be carefully studied, dispassionately

analyzed and intelligently interpreted. This enables a forecasting of the prospects for future earnings, ability to pay interest, debt maturities both current as well as long-term, and probability of sound financial and dividend policies. According to Myers, “financial statement analysis is largely a study of relationship among the various financial factors in business as disclosed by a single set of statements and a study of the trend of these factors as shown in a series of statements”

1.2 Statement of the problem

There are twenty seven commercial banks in Nepal in current situation. The number of established of new banks had been increased after 2040 B.S. But now, the private commercial banks are merging. They are trying to make their performance better. But most of the commercial banks have their branches are only in the urban areas other But its presence is also in urban area generally. It could not able to cover the village area satisfactory. Most of the business is concentrated in urban area and their offices are almost confined inside of Kathmandu valley. When even they are in to outside the valley, then they move towards urban sectors but not in rural sector. Therefore, the high mass of rural sector is not getting the advantages of such institutional development.

The present study basically focused on the financial performance of Agricultural Development Bank Ltd (ADBL), Nabil Bank Ltd and Sanima Bank Ltd. (SBL). In Nepal, many banks and financial companies have opened up within a span of few years. Although, these three banks have managed to perform better than other local commercial banks within the short period of time they have been facing a neck competition against one another. Therefore, it is necessary to analyze the profitability position of ADBL, Nabil Bank Ltd and LBL. Thus the present study seeks to explore the efficiency and comparative financial performance of ADBL, Nabil Bank LTD and SBL. In Nepal, the profitability rate, operating expenses and dividend distribution rate among the shareholders has been found different in the financial performance of the three 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 strengths and weaknesses. Although banks are considered efficient, but how far are they efficient? This question does emerge in banking sector. At present we have twenty seven commercial banks. In spite of rapid growth, some indicators show performance is not much

encouraging towards the service coverage. In such a situation the study tries to analyze the present performance of banks, which would give the answers of following queries.

- i. What is the capital adequacy ratio of sample banks?
- ii. What are the qualities of assets of sample banks?
- iii. What are the management qualities of sample banks?
- iv. How efficiently are the sample banks managing their liquidity?
- v. At what extents the banks are able to raise and maintain their profitability?

1.3 Objectives of the study

The main objective of the study is to analyze the comparative financial performance of three commercial banks: Sanima Bank, ADBL Bank and Nabil Bank Those specific objectives of the study are as follows:

- i. To analyze the capital and assets management of sample banks.
- ii. To examine the management quality of sample banks.
- iii. To evaluate their liquidity position.
- iv. To examine the profitability of these banks.

1.4 Significance of the study

Analysis of financial performance of any company is very important. Actually, on the basis of the financial analysis we can say that the concerned company is strong or not. The financials published by the banks gives the meaningful picture to the public regarding the financial position of the banks. Thus, the analysis of these statements is necessary in order to give the full and clear-cut position and performance of the banks. This study is mainly compare the financial performance of ADBL, Nabil Bank and Sanima Bank which compare the position of selected bank under the study, which encourage to improve the different position and performance of the selected banks. From data presentation and analysis researcher finds different and weakness of the selective banks which is recommended to the banks for their further improvement.

Banking Institutions definitely contribute and play an important role for domestic resource mobilization, economic development and maintains economic confidence of various segments and extends credit to people.

This study has multidimensional significance in particular area of concerned banks which have been undertaken that justifies for finding out important points and facts to researcher, shareholders, brokers, traders, financial institution, and public knowledge. The

study is the first in its quality in comparing these to joint venture commercial banks so it adds new idea and findings related to these bank and add the substantial knowledge literature, shareholders who invested their money in the firm, shares are most concerned about the firms earnings, they restore more confidence in those firms that so steady growth in earnings .The creditors are interested in the firm's ability to meets their claims over a very short period of time. There analysis will therefore confine to the evaluation of the firms liquidity position

This study helps and justify for finding out the financial performance of concerned selected commercial banks and Government of Nepal to make plans and policies.

This study certainly input the policymakers of concerned selected banks for making plans and policies of the effective banking system.

1.5 Limitations of the study

The limitations of the study are as follows:

- i. The study covers only ten fiscal years 2010/11 to 2019/20.
- ii. This study is conducted on the basis of secondary data such as annual reports of three sample banks and other related journal, magazines, books etc.
- iii. This study is conducted only to analyze the financial performance on the basis of accounting data. It has not analyzed market based performance of sample banks.

1.6 Organization of the Study

The study has been organized into five chapters, each devoted to some aspect of the study on “A Comparative Financial Analysis of Nepalese Commercial Banks”. The titles of these chapters are as follows:

Chapter -I Introduction

This chapter deals with the subject matter consisting Background, Focus of the Study, Statement of Problem, Objectives of the Study, Significant of the Study, Limitation of the Study of Sanima Bank Limited, Agricultural Development Bank Limited and Nabil Bank Limited.

Chapter -II Literature Review

This chapter reviews the existing literature on the concept of financial performance analysis. It also contains reviews of journals and articles, and earlier thesis related to the subject.

Chapter –III Research Methodology

This chapter includes the research methodology adopted in carrying out the present research. It deals with Research Design, Sources of Data, Data Collection Procedure, Data Processing, Data Analysis Tools and Limitation of the Methodology.

Chapter –IV Results and Discussion

This chapter concerned with analytical frameworks. It includes the analysis of Financial Statement of Everest Bank Limited, Bank of Kathmandu Limited and Nepal Industrial & Commercial Bank Limited under the framework of CAMEL and comparing it with the guidelines set by Nepal Rastra Bank and also to each other and overall findings of all three banks.

Chapter – V Summary and Conclusion

This is the last chapter, which consists of the suggestive framework that consists with the issues and gaps, conclusion and recommendations of the study.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

Study of previous research works and books with the purpose of knowing the research issue in detail and find out appropriate methodology is known as literature review. Various books, articles, and research reports are available in the market. A comprehensive study of such document and preparation of summary of such study on a topic is known as literature review. Review of previous studies is very important in academic research and it helps to complete the research work. Literature review can be either a part of a larger report of a research work or a thesis or a book that is published or unpublished. Literature review is done to understand research problem better and know the methodology that can be used in research. A researcher should study books, journals, dissertations, research reports, government publications and reports of financial and marketing activities to get information which are related to the topic under the study.

The chapter literature review is related to examine and review of some related books, article, published and unpublished different economic journals, bulletins, magazines, newspapers, yearly published balance sheet of respective banks, NRB directives and guidelines, economic survey, previous thesis on related subject and subject related website search.

2.2 Theoretical review

The theoretical literature review aids in determining what theories already exist, their relationships, and the extent to which existing theories have been studied, as well as developing new hypotheses to test.

2.2.1 Concept of Bank

The word bank has been derived from the Latin word *Bancus*, Italian word *Banca*, and French word *Banque* which means a place of keeping, lending and exchanging money. The bank is financial institutions that accepts deposits and invest the amount in the leading activities and commercial service provide. It allows interest on the deposit made and charges interest on loans granted. Regarding the origin of bank in the world, the first bank called the *Bank of Venice* was established in Venice, Italy in 1157 A.D. Following this, the *Bank of Barcelona*, Spain was established in 1401 A.D as the second bank of the

world. In addition, the first central bank, which was established in 1844 A.D, was the *Bank of England*.

Banking means the accepting for the purpose of lending and investment of deposits of money from the public, repayable on demand or otherwise and withdraws by cheque, draft or otherwise (Sayers, 2000). Bank refers to a corporate body which has been established and got permission to perform financial transactions. It is an institute which collects money from those who have it to spare and who are saving it out of their income and lends this money out to those who require it. (Bank & Financial Institution Ordinance, 2060)

2.2.2 Meaning of Commercial Bank

The ordinary meaning of bank is commercial bank. Commercial are those banks that pool together the saving of the community and arrange for their productive use. They supply the financial needs of modern business by various means. They accept deposits from the public on condition that they are repayable on demand or on short notice. In other words, a bank is a financial intermediary, a dealer in loans and in debts. It borrows from one set of people and lends to hiring money and hiring out again. Some banks draw their capital mainly from their shareholders, other's mainly from depositors. Some lend mainly to industry, others mainly to government, central and local. Some deal in short loans, borrowings and lending for short periods, others deal in long periods. However the business of individual bank may differ, their essential function is to gather saving together and lend out what they collect.

(Horne, 2005: 14-120) states a bank is a business organization that receives and holds deposits of funds others and makes loans or extends credits and transfer funds by written order of depositors. It is a dealer in money and a substitute for money, such as cheque or bill of exchange. It also provides a variety of financial services. The primary economic function of the commercial bank is to hold demand deposits and to honor cheque drawn upon them. In short, to provide us, the economies, with the most important component of the money supply.

Commercial banks are those banks which are established under this act to perform commercial functions except those which are established for specific purpose like development banks, co-operatives, etc. (Commercial Bank Act, 2031).

2.2.3 Financial Statement Analysis

A financial statement is a written report which quantitatively describes the financial health of a company. This includes in income statement and balance sheet and often also includes a cash flow statement are usually compiled on a quarterly and annual basis.

The purpose of financial statement analysis is to examine past and current financial data so that a company's performance and financial positions can be evaluated and future risk and potential can be estimated. Financial statement analysis can yield valuable information about trend and relationships, the quality of company's earnings, and the strengths and weaknesses of its financial position.

Financial analysis is the process of determining the operating and financial characteristics of a firm from accounting data and financial statement. The goal of such is to determine the efficiency and performance of the firm's management, as reflected in the financial reports and records. The analyst if attempting to measure the firm's liquidity, profitability and other indications that business conducted in an rational and orderly way. If a firm does not achieve financial norms for its industry or relationships among data that seen reasonable, the analyst note the deviations. The burden of explaining the apparent problems may than is placed upon management (Gitman and Jocknk, 1994). Financial statement analysis includes the study of relationships over the time. Financial analysis is the process of identifying the financial strengths and weakness of the firm by properly establishing relationship between the items of the balance sheet and profit and loss account (Pandey, 1999).

Financial analysis involves the use of various financial statements the first is the balance sheet, which represents a snapshot of firms financial position at a moment in time and next is the income statement that depicts a summary of the firms profitability over time. Ration analysis is one of the most commonly used techniques in the analysis of financial statement and evaluation of managerial performance. The analysis points out the problems. If there, are any areas of business operation and provides a basis out the corrective actions. There are many parties who often refer to financial ration in order to keep track of their investment performance of for some other reasons of their interest (Pradhan, 2004).

A careful review of bank's financial statement can highlight the key factors that should be considered before making a trending or investing decision. Investors needs to have a good understanding of the business cycle and the yield curve both have a major impact on the

economic performance of bank. Interest rate risk and credit risk are the primary factors to consider a bank's financial performance follows the yield curve. Financial statement analysis is important to boards, managers, payers, lenders, and others who make judgments about the financial health of organizations. One widely accepted method of assessing financial statements is ratio analysis, which uses data from the balance sheet and income statement to produce values that have easily interpreted financial meaning. The purpose of financial statement analysis is to examine past and current financial data so that a company's performance and financial position can be evaluated and future risks and potential can be estimated. Financial statement analysis can yield valuable information about trends and relationships, the quality of company's earning, and the strengths and weakness of its financial position. (Zergaw, 2010).

The Financial performance of commercial banks, various bank performance analysis models are explained below:

2.2.4 Capital Adequacy

Capital Adequacy Ratio (CAR) is the ratio of a bank's capital in relation to its risk weighted assets and current liabilities. It is decided by central banks and bank regulators to prevent commercial banks from taking excess leverage and becoming insolvent in the process.

The reason minimum capital adequacy ratios (CARs) are critical is to make sure that banks have enough cushion to absorb a reasonable amount of losses before they become insolvent and consequently lose depositors' funds. The capital adequacy ratios ensure the efficiency and stability of a nation's financial system by lowering the risk of banks becoming insolvent. Generally, a bank with a high capital adequacy ratio is considered safe and likely to meet its financial obligations.

During the process of winding-up, funds belonging to depositors are given a higher priority than the bank's capital, so depositors can only lose their savings if a bank registers a loss exceeding the amount of capital it possesses. Thus, higher the bank's capital adequacy ratio, higher will be the degree of protection of depositor's assets.

Off-balance sheet agreements, such as foreign exchange contracts and guarantees, also have credit risks. Such exposures are converted to their credit equivalent figures and then weighted in similar fashion on-balance sheet credit exposures. The off-balance sheet and

on-balance sheet credit exposures are then lumped together to obtain the total risk-weighted credit exposures.

CAR is critical to ensure that banks have enough cushions to absorb a reasonable amount of losses before they become insolvent.

CAR is used by regulators to determine capital adequacy for banks and to run stress tests.

Two types of capital are measured with CAR. The first, tier-1 capital can absorb a reasonable amount of loss without forcing the bank to cease its trading. The second type, tier-2 capital, can sustain a loss in the event of liquidation. Tier-2 capital provides less protection to its depositors.

2.2.5 Assets quality

It is obvious from the theoretical prescription that the performance of commercial banks largely depends on the quality of assets held by them, and quality of the assets relies on the financial health of their borrowers.

As stated earlier, many indicators can be used to measure the quality of assets held by commercial banks. Loans are one of the major outputs provided by a bank, but as loan is a risk output, there is always an ex ante risk for a loan to eventually become non-performing (Yike et al., 2011).

However, here, only one simple indicator – non performing loan ratio was used to measure the quality of assets being held by the banks. The increasing trend of these ratios shows the deteriorating quality of commercial bank assets.

2.2.6 Management

The success of any institution depends on the competency of its management. In fact, the management not only makes suitable policy and the business plans but also implements them for the short term and long term interests, it is evaluated by checking the effectiveness of the board of directors, the management, manpower and the officials, operating expenditure, customer's relation with the officials and institutions, management information system, organizations and working methods, internal control system, power concentrating, monitoring, decision making process, policies.

An institution can take a desired momentum only when the management is capable of strong and long term vision. For the proper and efficient management, the banks have to possess the following qualities:

1. Quality of the monitoring and support of the activities by the board and management and their ability to understand and respond to the risks associated with these activities in the present environment and to plan for the future.
2. Financial performance of the bank with regards to the other CAMEL rating.
3. Availability of internal and external audit function.
4. Concentration of delegation of authority.
5. Overall performance of the bank and its risk profile.

2.2.7 Earning

Earning is the ultimate result of any business. Generally, if the earnings are good then that business is running well. Similarly the aggregate performance of the bank reflects from its earnings. An analysis of the earnings ratios helps to management, investors and creditors to know the performance of the bank. They can get information regarding their interest. The following ratios help the management and other stakeholders to know about the earning policy of the respective banks:

1. Return on Equity(ROE)
2. Return on Assets(ROA)

It measures the profit available to the equity shareholders as per share basis i.e. the amount that they can get on each share held. In other words, this ratio measures the earning available to equity shareholders on a per share basis.

2.2.8 Liquidity

Simply, liquidity means short-run solvency of a firm. It reflects the short term financial strength of banks. Bank does not provide all deposit as loan and advances. The certain percentage of deposit should be kept in bank in the form of cash. If the bank will keep greater deposit in cash, it loses the opportunity cost. Similarly, if bank keeps low amounting deposit, it could not be able to pay depositors on the time of requirement. The

credit to deposit ratio (CDR) is a major tool to examine the liquidity of a bank and measures the ratio of fund that a bank has utilized in credit out of the deposit total collected. Higher the CDR more the effectiveness of the bank to utilize the fund it collected.

2.3 Empirical review

The trend of commercial banking is changing rapidly. Competition is getting stiffer and, therefore, banks need to enhance their competitiveness and efficiency by improving performance. Normally, the financial performance of commercial banks and other financial institutions has been measured using a combination of financial ratio analysis benchmarking performance against or a mix of these methodologies.

Jha and Hui (2012) compared the financial performance of different ownership structured commercial banks in Nepal based on their financial characteristics and identify the determinants of performance exposed by the financial ratios, which were based on CAMEL Model. The finding of the study revealed that public sector banks are significantly less efficient than their counterpart are; however domestic private banks are equally efficient to foreign-owned (joint- venture) banks.

Kumar et al. (2012) examined the performance of 12 public and private sector banks in the Indian banking system over eleven years (2000-2011). The use of internationally recognized CAMEL rating metrics to assess the financial soundness and infer the convergence of commercial banks operating in India is a relatively straightforward approach. It has been found that private sector banks are at the top of the list, with the finest soundness performances. In comparison, public sector banks such as Union Bank and SBI have taken a backseat and have low economic soundness.

Desai (2013) examined the extent of relationship between banking financial position in Indian economy. The researcher employed the camel model with public and private banks to determine ratios relevant to the camel model. The study found that rapid growth in private banking sector. So, Bank of India need to take corrective actions regarding CAMEL factors as mentioned in recommendation to improve its ranking.

Rozzani and Rahman (2013) examined the performance of both Islamic and conventional banks that are currently operating in Malaysia. This research was carried out utilizing

CAMEL parameters for this investigation, a sample of Malaysian banks was chosen. The study found that the levels of performance for both conventional and Islamic banks in Malaysia were highly similar. This study is hoped to provide useful information for stakeholders to make better investment decisions and to help both conventional and Islamic banks to mark and re-evaluate their performance based on the performance measurement used in the study.

Gupta (2014) examined the financial position and performance of India's public sector banks. The research is a descriptive study with an analytical research approach. The research on various banks has been undertaken in India utilizing the CAMEL framework. Different banks are ranked based on the ratings they received on the five criteria. The results demonstrate that there is a statistically significant difference between the CAMEL ratios of all Public Sector Banks in India, implying that their overall performance varies. Furthermore, the banks with the lowest ranking must improve their performance in order to meet the acceptable requirements.

Johri and Singh (2015) analyzed the financial performance of the commercial banks in India. The study Based on the set of indicators as defined by CAMEL framework. The study found that ICICI bank is more efficient in terms of capital adequacy and can resist risk more effectively than SBI.

Kaur, and Singh (2015) compared the financial performance of leading five public sector banks, on the basis of total assets and consolidated basis in India. CAMEL Model has been used to conduct the Research. The study found that Bank of Baroda is leading in all the aspects of CAMEL followed by Punjab National Bank in Capital Adequacy, Management efficiency and Earning capacity and Bank of India in Asset Quality.

Ahsan (2016) analyzed the financial performance of three selected Islamic Banks. The study used CAMEL Rating Analysis approach. The finding of the study relevant that all the selected Islamic Banks are in strong position on their composite rating system. They are basically sound in every respect i.e., sound in capital adequacy, asset quality, management quality, earning capacity and liquidity conditions.

Priya and Manjula (2016) analyzed IDBI's financial performance and to provide appropriate strategies for enhancing the bank's efficiency. CAMEL model for evaluating the performance, the study is primarily based on secondary data derived from the each

bank's annual reports, such as IDBI, corporate databases, websites, journals, and so on. The finding of the study revealed that the bank's net profits have increased significantly, but it still has to improve its asset quality and capital adequacy, as well as its managerial efficiency and earning potential.

Munir and Bustamam (2017) analyzed about profitability banks performance based on the CAMEL model. This analysis used descriptive method and multiple regression analysis, the result of this research indicated that banking profitability have a good performance based on CAMEL analysis. The study found that the comparison of conventional banks performance between Malaysia and Indonesia, there are significant changes, such as return on investment, management, and liquidity.

Krishnakumare, Singh, and Pandey (2018) analyzed the financial soundness of public sector banks in India using CAMEL model. The study used CAMEL model framework for analysis of financial soundness of public sector banks in India. The finding of the study related that the Punjab National Bank's overall performance was very good followed by State Bank of India and the financial performance was very poor in case of IDBI.

Parikh et al. (2018) analyzed Public sector and Private sector banks to measure their performance. The study used CAMEL model framework to measure their performance. The finding of the study related that the ranks are allocated to each parameter of the CAMELS Model and each ratio. Ranking as per the analysis is ICICI Bank, State Bank of India, Bank of Baroda and HDFC Bank.

Chaudhuri (2018) analyzed banks' financial performance was used to examine the financial performance of SBI and ICICI bank. The study focuses on emphasize the importance of the CAMEL technique for bank performance analysis. The research is primarily analytical and relies entirely on secondary data. The study found that ICICI Bank has enough resources to meet its immediate liquid liabilities as compared to SBI. The finding of the study revealed that ICICI has been a better performer in terms of profitability and management efficiency as compared to SBI for the study period. This study will help enhance further research on the subject by researchers and academicians.

Karri, Meghani, and Mishra (2019) analyzed the Financial Position and Performance of the Bank of Baroda and Punjab National Bank in India based on their financial

characteristics. The study adopted the CAMEL model. The study found that the Punjab National Bank performance is slightly less compared with Bank of Baroda. This research paper and its findings may be of considerable use to banking institutions, policy makers and to academic researchers in the area of banking performance evaluation with special reference to capital adequacy.

Panboli and Birda (2019) examined the fiscal execution of select private and public sector banks by the CAMEL Model. The data source was secondary to this subject. The banks' performance was based on their websites, yearly reports, Money Control, Equity Master, Economic Times, and numerous periodicals and research papers on financial performance. This comparative poll yielded the top five banks from both the public and private sectors. The study concluded that private sector banks outperform public sector banks across the board in all of the CAMEL Model's parameters and sub-parameters.

Shelly and Singhal (2020) measured the financial position and performance of public sector banks, ranking them accordingly. The study is based on secondary data which has been collected through capitalize database and annual financial statements of the respective banks. The CAMEL model has been used to measure the performance of the banks. The findings from the analysis indicated that Indian public sector banks are making an effort toward maintaining adequate capital, and in years to come, all banks should strive toward achieving more than the required level. Public sector banks need to brainstorm innovative ideas, which can help them deploy funds after proper analysis of the risk exposure.

2.4 Conceptual Framework

The primary purpose of the study is comparative financial analysis of Nepalese commercial banks (ADBL, Sanima Bank and Nabil Bank). Through CAMEL approach, although there are different approach to identify the financial performance of the banking sector but CAMEL is simplistic and reader friendly so that common man can easily identify the problem and solution with help of data presented through this approach.

The study is based on the following schematic diagrams:

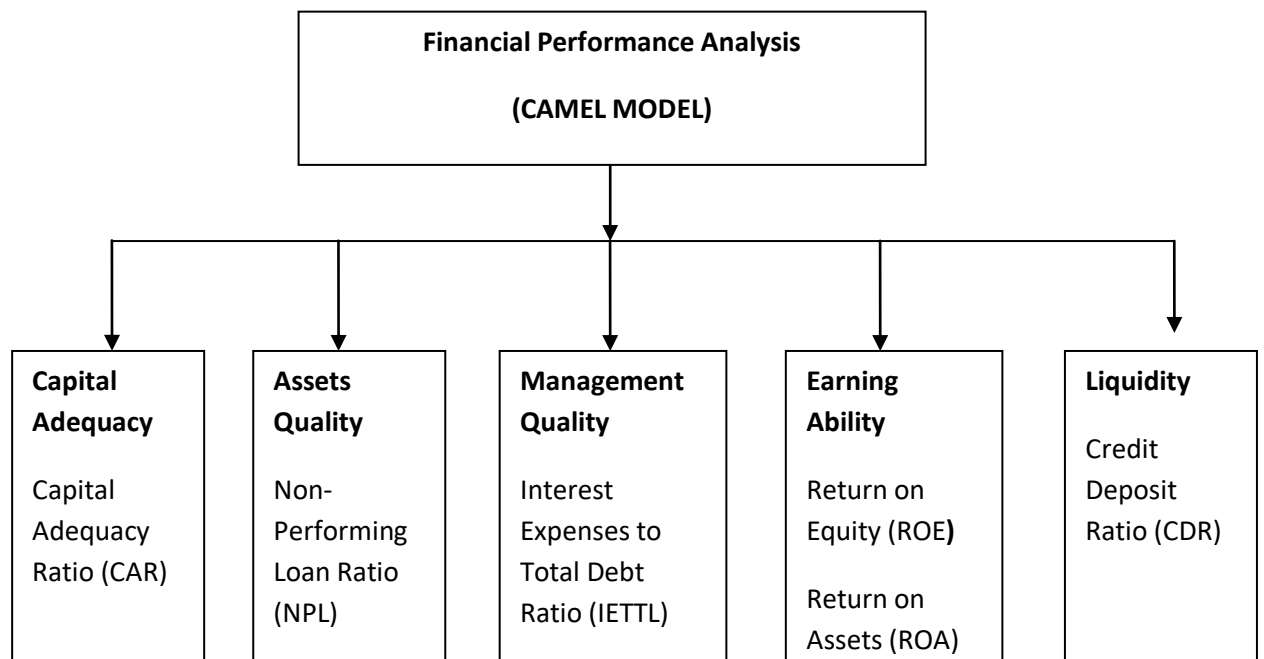


Figure: Conceptual Framework

Fundamentals of the CAMEL rating system

Capital Adequacy:

Capital adequacy is the capital expected to maintain balance with the risks exposure of the financial institution such as credit risk, market risk and operational risk, in order to absorb the potential losses and protect the financial institution's debt holder's meeting statutory minimum capital requirement is the key factor in deciding the capital adequacy and maintaining an adequate level of capital is a critical element.

Karlyn (1984) defines the capital adequacy in terms of capital- deposit ratio because the primary risk is depository risk derived from the sudden and considerably large scale of deposit withdrawals.

Asset quality

A most important assets category is the loan portfolio; the greatest risk facing the bank is the risk of loan losses derived from the delinquent loans. The credit analyst should carry out the asset quality assessment by performing the credit risk management and evaluating

the quality of loan portfolio using trend analysis and peer comparison. Measuring the asset quality is difficult because it is mostly derived from the analyst's subjectivity.

Frost (2004) stressed that the asset quality indicators highlight the use of non-performing loans ratios (NPLs) which are the proxy of assets quality, and the allowance or provision to loan losses reserve. As defined in usual classification system, loans include five three lowest categories: Standard, special mention, substandard, doubtful and loss. NPLs are regarded as the three lowest categories, which are past due or for which interest has not been paid for international norm of 90 days. In some countries, regulators allow a longer period, typically 180 days. The bank is regulated to back up the bad debts by providing adequate provisions to the loan loss reserve account. The allowance for loan loss to loans and the provision for loan to total loans should also be taken into account to estimate thoroughly the quality of loan portfolio.

Management quality:

Management quality is basically the capability of the board of directors and management, to identify, measure, and control the risks of an institution's activities and to ensure the safe, sound, and efficient operation in compliance with applicable laws and regulation.

Grier (2007) suggest that management is considered the single most important element in the CAMEL rating system because it plays a substantial role in bank's success; however, it is subject to measure as the asset quality examination.

Earning ability:

The rating reflects not only the quantity and trend in earning, but also the factors that may affect the sustainability of earnings. Inadequate management may result in loan losses and in return require higher loan allowance or pose high level of market risks. The future performance in earning should be given equal or greater value that past and present performance.

In accordance with Grier (2007) opined that a consistent profit not only builds the public confidence in the bank but also absorbs loan losses and provides sufficient provisions. It is also necessary for a balanced financial structure and helps provide shareholder reward. Thus, consistently healthy earnings are essential to the sustainability of banking

institutions. Profitability ratios measure the ability of a company to generate profits from revenue and assets.

Liquidity:

There should be adequacy of liquidity sources compared to present and future needs and availability of assets readily convertible to cash without undue loss. 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.

Rudolf (2009) emphasizes that the liquidity expresses the degree to which a bank is capable of fulfilling its respective obligations. Banks make money by mobilizing short-term deposits at lower interest rate, and lending or investing these funds in long-term at higher rates, so it is hazardous for banks mismatching their interest rates.

Funds as the institution have access to sufficient sources of funds to meet present and anticipated liquidity needs. On the other hand, the rating of five signifies critical liquidity-needs. On the other hand, the rating of five signifies critical liquidity – deficiency, and the institution demand immediate external assistance to meet liquidity needs.

2.5 Research Gap

Various studies have been conducted in the past on financial analysis of commercial banks in Nepal and as well as in other countries with different purpose and results. The research paper done in the context of Nepal mainly emphasized liquidity, profitability and leverage of the commercial banks. Present researcher has conducted research on evaluating the bank performance by using CAMEL model. This research specially evaluates the bank: Sanima, ADBL and Nabil. The total performance of commercial banks selected using various CAMEL approaches from 2010/11 to 2019/20 is also determined in this study. Comparative analysis of governments and private bank's performance are analyzed through CAMEL mode

CHAPTER III

RESEARCH METHODOLOGY

Research Methodology is the method which is used in the research in collecting information and data, analyzing and interpreting with the help of different facts and figures. It covers data analyzing tools as well. It drives the researcher and keeps the researcher on the right track from selecting the topic to work till recommendation.

3.1 Research Design

Research Design is a blue print of the study. It is a framework for completing the research work since beginning to till the end. Different research designs are used to search the answer of the different research questions; descriptive research design, causal comparative research design, and experimental research design. The study based on research question, and is both the descriptions as well as analytical analysis research. The research design followed is basically the comparative evaluation of financial performance between ADBL, Nabil Bank Limited and Sanima Bank Limited. Analytical as well as descriptive approaches are used to evaluate the financial performance of the bank. Analysis is basically on the basis of secondary data. The research design is used to measure performance of bank through collection and presentation of facts and figures such as bar graph, pie-chart, and trend line. Mean, standard deviation, coefficient of variation, etc. are used to analyze the data, facts and figures. The CAMEL (Capital, Assets, Management, Earning and Liquidity) rating system used in the study.

3.2 Population and Sampling

The study is about the comparative financial analysis of Nepalese commercial bank. As of July, 2018 A.D. 27 'A' class commercial banks are listed by NRB which is the population of the study. Out of 27 commercial banks, 3 commercial banks are selected for the purpose of the study i.e., Sanima Bank Limited, Agricultural Development Bank limited and Nabil Bank Limited based on convenience sampling method. Sanima Bank Ltd. is a non venture commercial bank promoted by Non Resident Nepalese (NRNs) and Agricultural Development Bank Ltd. Is government commercial bank in Nepal similarly, NABIL Bank Ltd. is one of the joint venture banks operating in Nepal.

3.3 Sources of Data

Various data and information are collected from secondary sources while conducting the research. The required data are collected from NRB directives, annual reports, and publications of the selected banks. Other required information are collected from libraries, websites, and from the prior reports related to the study.

3.4 Method of Data Analysis

The collected data from above stated sources are classified, tabulated and interpreted to make study easy and meaningful. Such data are presented on various diagrams such as bar graph, pie-chart and line graph. The statistical and financial tools and techniques such as mean, standard deviation, coefficient of variation, return on assets (ROA), return on equity (ROE), capital adequacy ratio (CAR), non-performing loan ratio (NPL), interest expenses to total loan (IETTL), net interest margin (NIM), credit to deposit ratio (CDR) and others are used to analyze the data.

3.5 Financial and Statistical Tools

Various collected data are analyzed by using different statistical and financial tools and techniques. Mean, standard deviation, and coefficient of variation are the statistical tools. Similarly, return on assets (ROA), return on equity (ROE), capital adequacy ratio (CAR), non-performing loan ratio (NPL), interest expenses to total loan (IETTL), net interest margin (NIM), credit to deposit ratio (CDR) are the financial tools for data analysis.

3.5.1 Financial Tools

Various financial tools are used to measure the financial performance of commercial banks in Nepal by using CAMEL components.

Return on Assets (ROA)

Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investors, 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.

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}}$$

Return on Equity (ROE)

Return on equity (ROE) is a measure of financial performance calculated by dividing net income by shareholders' equity because shareholders' equity is equal to a company's assets minus its debt, ROE could be thought of as the return on net assets.

$$\text{ROE} = \frac{\text{Net Income}}{\text{Shareholders' Equity}}$$

Capital Adequacy Ratio (CAR)

The capital adequacy ratio (CAR) is a measurement of a bank's available capital expressed as a percentage of a bank's risk-weighted credit exposures. The capital adequacy ratio, also known as capital-to-risk weighted assets ratio (CRAR), is used to protect depositors and promote the stability and efficiency of financial systems around the world. Two types of capital are measured: tier-1 capital which can absorb losses without a bank being required to cease trading, and tier-2 capital which can absorb losses in the event of a winding-up and so provides a lesser degree of protection to depositors.

$$\text{CAR} = \frac{\text{Available Capital}}{\text{Risk-Weighted Credit Exposures}}$$

Non Performing Loan Ratio (NPLR)

Non-performing Loan (NPL) ratio compares non-performing loans to the total loan portfolio (**loans are assets for the bank**), and the higher ratio means higher risk of losses for some of the loans. Non-performing loans are those loans that are late on payments (common term is 90 days but it may depend on the financial regulations in the market).

$$\text{NPL Ratio} = \frac{\text{Non-performing Loans}}{\text{Total Loan Portfolio}}$$

Credit Deposit Ratio (CDR)

Credit Deposit ratio is the ratio that shows how much a bank lends out of the deposits it has mobilized. It indicates how much a bank funds are being used for lending, the main banking activity. A higher ratio indicates more reliance on deposits for lending, and vice-versa.

$$\text{CDR} = \frac{\text{Total Loans}}{\text{Total Deposits}}$$

Interest Expenses to Total Loan (IETTL) Ratio

The Interest Expense to Total Debt ratio measures the estimated interest rate the company is paying on its total debt. This ratio assumes both Short Term Debt and Long Term Debt are summed together, as the Interest Expense figure is usually shown on the income statement as a summation of short and long-term interest expenses.

$$\text{IETTL} = \frac{\text{Interest Expense}}{\text{Total Debt}}$$

3.5.2 Statistical tools

Arithmetic Mean (A.M.)

The mean is the average of sum of total values to the number of observations in the given sample. It represents the entire data, which lies almost between the two extremes. For this reason as mean is frequently referred as a measure of central tendency. It is calculated with following relationship.

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

Where,

\bar{X} = Arithmetic mean

$\sum x$ = Sum of all the values of the variable X

n = Number of observations

Standard Deviation (S.D.)

The standard deviation is the absolute measure of dispersion in which the drawback present in other measure of dispersion as it satisfied most of the requisites of a good measure of dispersion. Standard deviation is defined as the positive square root of the mean as square of the deviation takes from the arithmetic mean. Higher the standard deviation higher will be the variability and vice versa. In other words, it helps to analyze the quality of data regarding its variability. It is calculate as:

$$\text{Standard deviation } (\sigma) = \sqrt{\frac{1}{n} \sum (X - \bar{X})^2}$$

Where, \bar{X} = Arithmetic Mean return

X = Set of Observation

n = Total number of Observation

Coefficient of Variation (C.V.)

Standard deviation is the absolute measure of dispersion. The relative measure of dispersing based on the standard deviation is known as the measurement of coefficient of standard deviation. Less CV is the more uniformity and consistency and vice versa. Only standard deviation is not appropriate to compare two pairs of variables but also CV is capable to compare two variables independently in terms of their variability.

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

CHAPTER – IV

RESULTS AND DISCUSSION

This chapter deals with the presentation and analysis of data collected from different sources with the focus on the camel components. As stated in the theoretical presentation, the financial performance of Agricultural Development Bank Limited, Nabil Bank Limited and Sanima Bank Limited are concentrated in the five components of CAMEL i.e. Capital Adequacy, Assets Quality, Management Soundness, Earning Quality and Liquidity. The data collected from annual reports of respective banks has been analyzed with the application of financial performance.

4.1 Data Presentation and Analysis

The collected data are analyzed by using different statistical and financial tools and techniques and presented on various diagrams such as bar graph, pie-chart and line graph. Mean standard deviation and coefficient of variation are the statistical tools. Similarly, Capital Adequacy Ratio (CAR), Return on Assets (ROA), Return on Equity (ROE). Non-performing loan Ratio (NPLR), Credit Deposit Ratio (CDR) are the financial tools for data analysis.

4.1.1 Capital Adequacy Ratio (CAR)

Banks have to make decisions about the amount of capital they need to hold for three reasons. First, bank capital helps prevents bank failures, a situation in which the bank cannot satisfy its obligations to pay its depositors and other credits and so goes out of business. Second, the amount of capital affects returns for the owners (equity holder) of the bank. Third, a minimum amount of bank capital is required by regulatory authorities.

Commercial banks will have to maintain capital adequacy ratio (CAR) of 8.5% as Nepal Rastra Bank (NRB) on 2019. Minimum Total Capital (including conservation buffer) is to be maintained 11%.

Table 1: Capital Adequacy Ratio

Fiscal Year	ADBL	Sanima Bank	Nabil Bank	NRB
2010/11	0.1949	0.2841	0.1058	0.10
2011/12	0.1900	0.2079	0.1101	0.10
2012/13	0.1634	0.1487	0.1159	0.10
2013/14	0.1509	0.1254	0.1124	0.10
2014/15	0.1399	0.1108	0.1157	0.10
2015/16	0.1716	0.1236	0.1172	0.11
2016/17	0.2041	0.1557	0.1173	0.11
2017/18	0.1966	0.1241	0.1300	0.11
2018/19	0.2037	0.1319	0.1250	0.11
2019/20	0.1933	0.1300	0.1307	0.11
Mean	0.1808	0.1542	0.1180	10.5
S.D	0.0229	0.0532	0.0082	0.0053
C.V	0.1266	0.3447	0.0697	0.0502

Source: Appendix 1

Table 1 shows capital adequacy ratio of ADBL Bank Ltd, Nabil Bank Ltd and Sanima bank Ltd. the average CAR of ADBL, Sanima and Nabil are 18.08%, 15.42% and 11.80% respectively. The data shows the average capital adequacy ratio of ADBL is higher than Nabil Bank and Sanima Bank. The table shows that all the banks have maintain the minimum CAR all over the period. ADBL has maintained more excessive CAR than other banks. On other hand, Nabil has been able to maintain the just CAR as per NRB. Sanima has the highest fluctuation and Nabil has the lowest fluctuation on maintaining CAR as compared to other banks.

Figure 1: Capital Adequacy Ratio 2010/11-2019/20

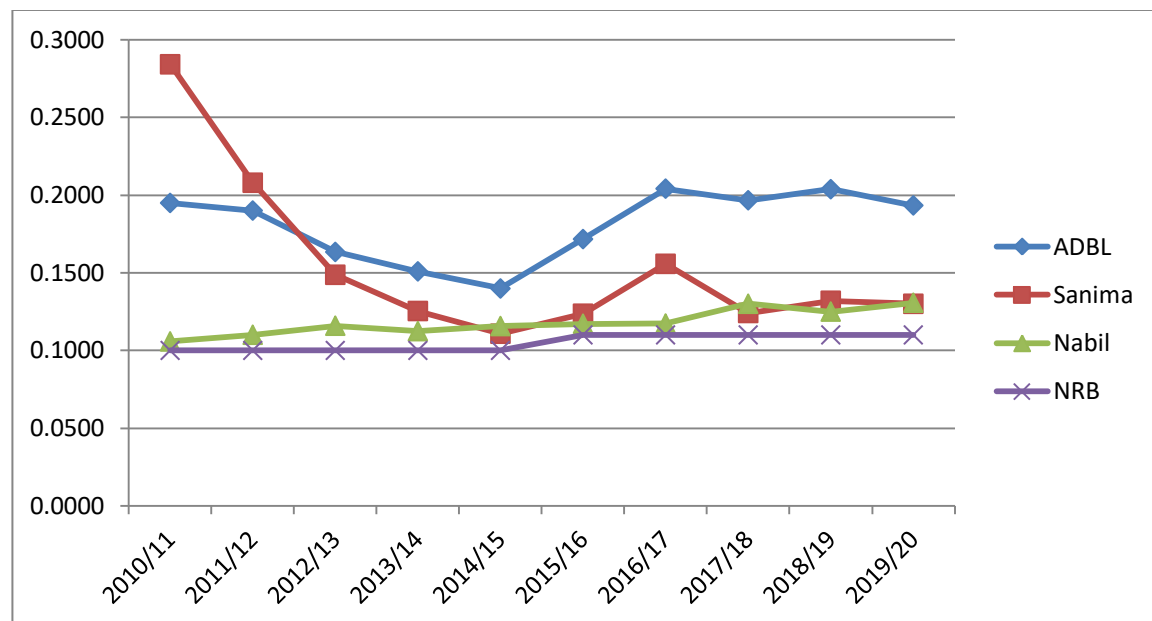


Figure 1 reveals that the Capital Adequacy Ratio of ADBL is increasing trend, Sanima Bank is decreasing trend and Nabil have fluctuating trend.

The trend lines of all banks are above the CAR trend line of NRB. It represents that all the banks have maintained CAR as per the NRB. Sanima bank has decreasing trend line at the beginning and fluctuating trend thereafter. Similarly, the trend line of ADBL is also in fluctuating trend. However, the trend line of Nabil seems to be parallel with x-axis which indicates the bank has been maintaining almost same CAR over the period.

4.1.2 Assets quality

Commercial bank holds their assets in the form of liquid assets like cash and bank balance and short term investment etc. through this lending bank generated interest. Assets quality ratio is also known as activity ratio as well as turnover ratio be converted in to cash and equivalent to cash. This is only profit if the bank is efficient enough to earn profit. For identifying the assets quality we need to calculated non-performing loan ratio.

Non-performing Loan

Non-performing loan refers to those which are not paying its principle interest in time or overdue more than three months. So it consists of sub-standard loan, doubtful loan and bad loan. The non-performing loan ratio indicated the relationship between non-performing loan and total loan; it measures the proportion of non-performing loan in total

loan and advances. Higher non-performing loan ratio indicates that the bank's assets are not doing well or loan department is not so conscious while passing loan. So lower ratio will be preferred regarding non-performing loan ratio.

Table 2: Non-performing Loan Ratios

Fiscal Year	ADBL	Sanima Bank	Nabil Bank
2010/11	0.08990	0.00004	0.01770
2011/12	0.08980	0.00480	0.02330
2012/13	0.05850	0.00027	0.02130
2013/14	0.05460	0.00017	0.02230
2014/15	0.05350	0.00073	0.01820
2015/16	0.04360	0.00019	0.01140
2016/17	0.03950	0.00010	0.00800
2017/18	0.03410	0.00030	0.00550
2018/19	0.03290	0.00080	0.00740
2019/20	0.02840	0.00450	0.00980
Mean	0.05248	0.00119	0.01449
S.D	0.02207	0.00184	0.00678
C.V	0.42051	1.54869	0.46796

Source: appendix 2

Figure 2: Non-performing loan ratio

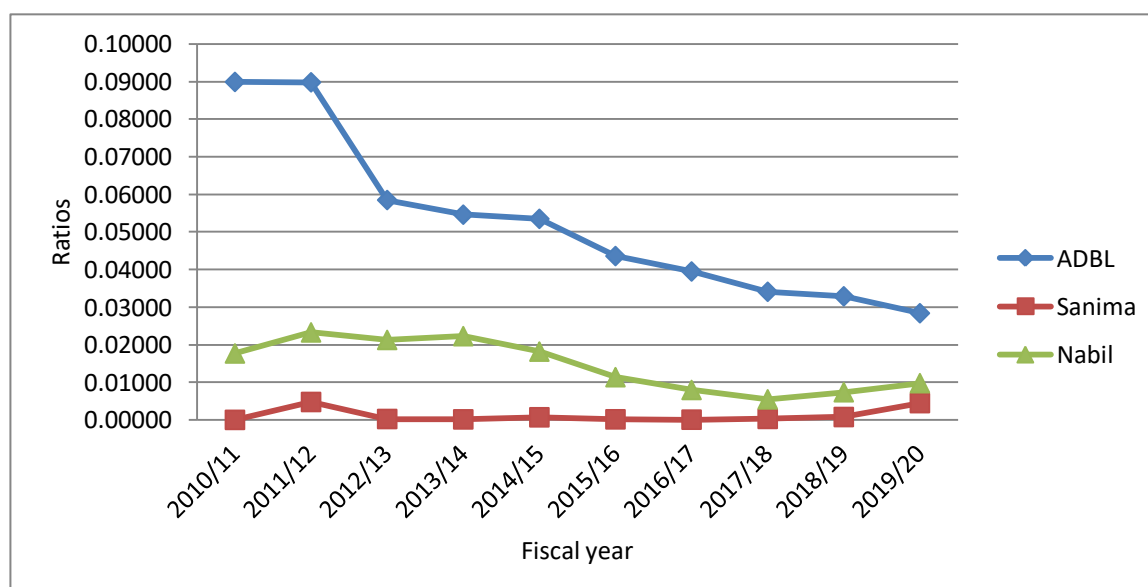


Table 2 and figure 2 represent non performing loan ratio of ADBL Bank Ltd., Nabil Bank Ltd and Sanima Bank Ltd. during ten fiscal years from FY 2010/11 to FY 2019/20. NPL ratios of ADBL are 8.99%, 8.98%, 5.85%, 5.46%, 5.35%, 4.36%, 3.95%, 3.41% , 3.29% and 2.84% in FY2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 respectively. The NPL ratio of ADBL bank is in decreasing trend. Similarly, NPL ratios of Sanima bank are 0.004%, 0.48%, 0.027%, 0.017%, 0.073%, 0.019%, 0.010%, 0.030% , 0.080 and 0.45% in FY 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 respectively. The ratio of Sanima bank is also in fluctuating trend. Likewise Nabil Bank are 1.77%, 2.33%, 2.13%, 2.23%, 1.82%, 1.150%, 0.8%, 0.055% , 0.74% and 0.98% in FY 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 respectively. The ratio of Nabil bank is fluctuating trend.

The average NPL ratio of ADBL (5.248%) is higher than Sanima Bank (0.119) and Nabil Bank (1.449%). Similarly standard deviation on NPL ratio of ADBL (2.207%) is also higher than and Sanima Bank (0.184%). Nabil Bank (0.678%) It indicates that Sanima Bank has very low risk investment. However, coefficient of variation on NPL of Sanima Bank is 154.87% which is higher than of Nabil Bank (46.796%) and ADBL (42.051%).

4.1.3 Management Quality

The board of directors and top-level managers are the key persons who are responsible for the successful functioning of the banking operations. Through this parameter, the effectiveness of the management is checked out such as, how well they respond to the changing market conditions, how well the duties and responsibilities are delegated, how well the compensation policies and job descriptions are designed, etc. For identifying the management quality we need to calculate interest expenses to total loan ratio (IETTL)

Interest Expenses to Total Loan Ratio (IETTL)

The Interest Expense to Total Debt ratio measures the estimated interest rate the company is paying on its total debt. This ratio assumes both Short Term Debt and Long Term Debt are summed together, as the Interest Expense figure is usually shown on the income statement as a summation of short and long-term interest expenses.

Table 3: Interest Expenses to Total Loan Ratios

Fiscal year	ADBL	Sanima Bank	Nabil Bank
2010/11	0.0452	0.0943	0.0552
2011/12	0.0505	0.0650	0.0546
2012/13	0.0448	0.0523	0.0379
2013/14	0.0523	0.0107	0.0244
2014/15	0.0368	0.0100	0.0210
2015/16	0.0333	0.0304	0.0158
2016/17	0.0404	0.0462	0.0206
2017/18	0.0639	0.0628	0.0362
2018/19	0.0639	0.0675	0.0454
2019/20	0.0604	0.0641	0.0448
Mean	0.0492	0.0503	0.0356
S.D	0.0110	0.0267	0.0145
C.V	0.2236	0.5296	0.4068

Source: Appendix 3

Figure 3: Interest Expenses to Total Loan Ratios

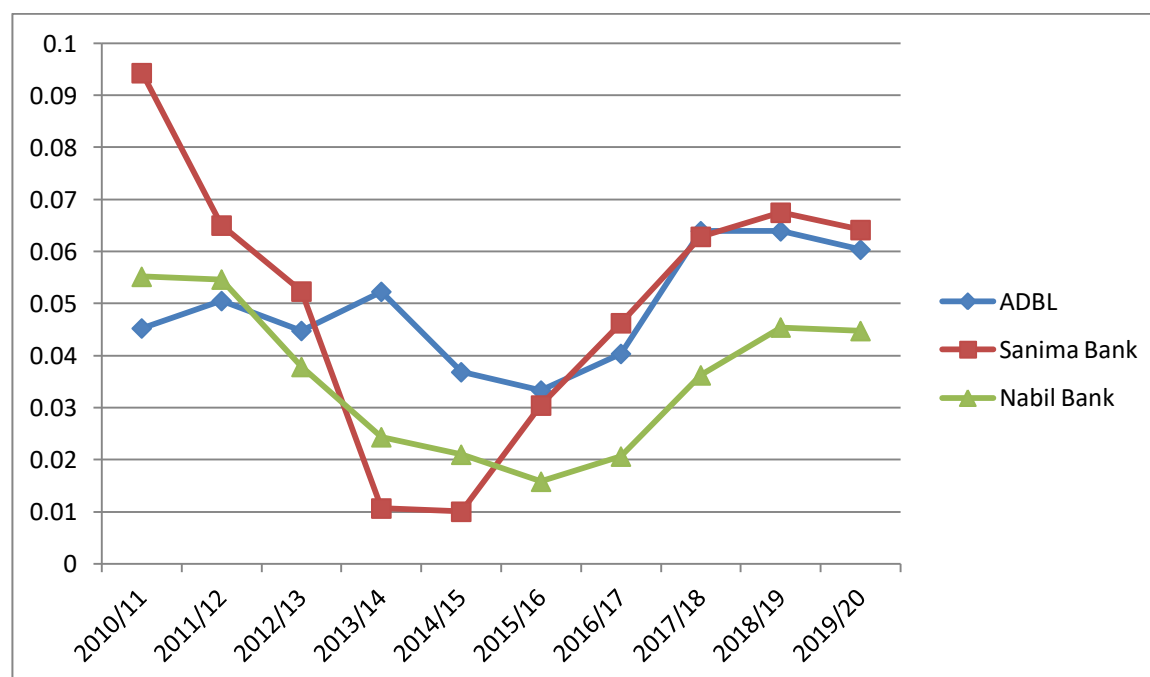


Table 3 and Figure 3 show the Interest Expenses to Total Loan Ratio of ADBL, Nabil Bank Ltd., and Sanima Bank Ltd. during different ten years from FY 2010/11 to FY

2019/20. Interest Expenses to Total Loan Ratio of ADBL are 4.52%, 5.05%, 4.48%, 5.23%, 3.68%, 3.33%, 4.04%, 6.39%, 6.39%, and 6.04%, in FY 2010/11, 2011/12, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19, 2019/20 respectively. The interest expenses to total loan ratios of ADBL bank is in fluctuating trend. Similarly interest expenses to total loan ratios of Sanima Bank are 9.43%, 6.50%, 5.23%, 1.07%, 1%, 3.04%, 4.62%, 6.28%, 6.75%, and 6.41%, in FY 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 respectively. The interest expenses to total loan ratio of Sanima Bank is in fluctuating trend. Likewise interest expenses to total loan ratios of Nabil Bank are 5.52%, 5.46%, 3.79%, 2.44%, 2.10%, 1.58%, 2.06%, 3.62%, 4.54%, 4.48% in FY2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 respectively. The interest expenses to total loan ratio of Nabil Bank is in fluctuating trend.

The average interest expenses to total loan ratio of Sanima Bank (5.03%) is higher than ADBL (4.92%) and Nabil Bank (3.56%). Similarly, standard deviation (2.67%) and coefficient of variation (52.96%) of Sanima Bank is higher than ADBL (S.D 1.10%, C.V. 22.36%) and Nabil Bank (1.45%, 40.68%). It indicates Sanima Bank is more risky than ADBL and Nabil Bank.

4.1.4 Earning

Earnings help to evaluate an institution's long term viability. A bank needs an appropriate return to be able to grow its operations and maintain its competitiveness. The examiner specifically looks at the stability of earnings, return on assets (ROA), return on equity (ROE) and future earnings prospects under harsh economic conditions. While assessing earnings, the core earnings are the most important. The core earnings are the long term and stable earnings of an institution that is affected by the expense of one-time items.

Return on Assets

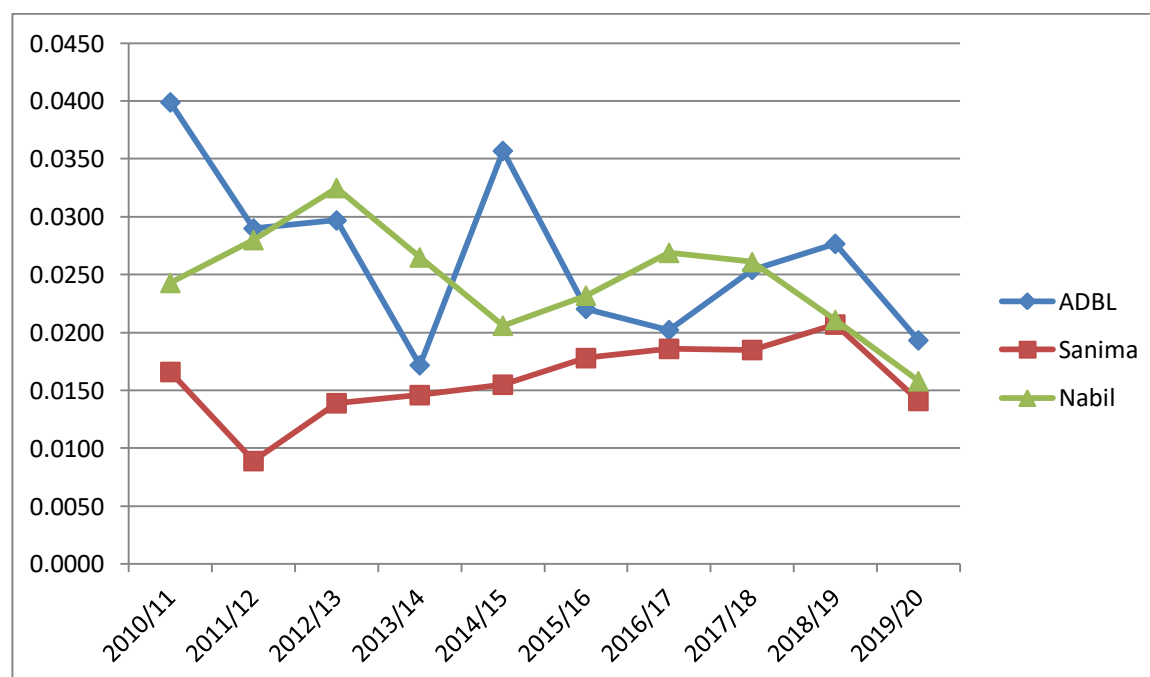
Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives a manager, investor or analyst an idea as to how efficient a company's management is at using its assets to generate earnings. Return on assets is displayed as a percentage.

Table 4: Return on Assets

Fiscal year	ADBL	Sanima Bank	Nabil bank
2010/11	0.0399	0.0166	0.0243
2011/12	0.0290	0.0089	0.0280
2012/13	0.0297	0.0139	0.0325
2013/14	0.0172	0.0146	0.0265
2014/15	0.0357	0.0155	0.0206
2015/16	0.0220	0.0178	0.0232
2016/17	0.0202	0.0186	0.0269
2017/18	0.0254	0.0185	0.0261
2018/19	0.0277	0.0207	0.0211
2019/20	0.0193	0.0141	0.0158
Mean	0.0254	0.0159	0.0245
S.D	0.0063	0.0033	0.0046
C.V	0.2464	0.2086	0.1889

Source: Appendix 4

Figure 4: Return on Assets



The table 4 and Figure 4 shows return on assets of ADBL, Nabil Bank Ltd., and Sanima Bank Ltd. during ten years fiscal years from FY 2010/11 to 2019/20. Return on assets of ADBL are 3.99%, 2.90%, 2.97%, 1.72%, 3.57% 2.20%, 2.02%, 2.54%, 2.77% and 1.93% in FY2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 respectively. The return on assets of ADBL bank is in decreasing trend. Similarly return on assets ratios of Sanima Bank are 1.66%, 0.89%, 1.39%, 1.46%, 1.55%, 1.78%, 1.86%, 1.85% 2.07% and 1.41% in FY 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 respectively. The return on assets ratio of Sanima Bank is in decreasing trend. Likewise Nabil Bank are 2.43%, 2.80%, 3.25%, 2.65%, 2.06%, 2.32%, 2.69%, 2.61%, 2.11%, and 1.58% in FY 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 respectively. The return on assets of Nabil Bank is in also in fluctuating and decreasing trend as the ratio of ADBL.

The average return on assets ratio of ADBL, Sanima Bank and Nabil Bank are 2.54%, 1.59% and 2.45% respectively. Standard deviation of ADBL, Sanima Bank and Nabil Bank are 0.63%, 0.33% and 0.46% respectively. And coefficient of variation of ADBL, Sanima Bank and Nabil Bank are 24.64%, 20.86% and 18.89% respectively. It shows ADBL has more profitability than Nabil Bank and Sanima Bank in terms of ROA.

Return on Equity

The Return on Equity ratio essentially measures the rate of return that the owners of common stock of a company receive on their shareholdings. Return on equity signifies how good the company is in generating returns on the investment it received from its shareholders.

The denominator is essentially the difference of a company's assets and liabilities. It is the amount left over if an organization decides to settle its liabilities at a given time. So if a bank has an ROE of say 1, it means Re 1 of common shareholding generates a net income of Re 1. This metric is especially important from an investor's perspective. Investors generally prefer bank with higher ROEs. However this can be used as a benchmark to pick stocks within the same sector only. Across sectors, profit and income levels vary significantly. Even within the same sector, the ROE levels may vary if a company chooses to give dividends and not keep the profit generated as idle cash.

Table 5: Return on Equity

Fiscal year	ADBL	Sanima Bank	Nabil Bank
2010/11	0.1898	0.1141	0.2902
2011/12	0.1418	0.0110	0.3025
2012/13	0.1610	0.1432	0.3278
2013/14	0.1009	0.1764	0.2797
2014/15	0.2221	0.2203	0.2273
2015/16	0.1360	0.2269	0.2561
2016/17	0.1180	0.1439	0.2241
2017/18	0.1301	0.1867	0.2094
2018/19	0.1478	0.2320	0.1776
2019/20	0.1219	0.1609	0.1361
Mean	0.1451	0.1662	0.2431
S.D	0.0391	0.0548	0.0595
C.V	0.2696	0.3299	0.2450

Source: Appendix 4

Figure 5: Return on Equity

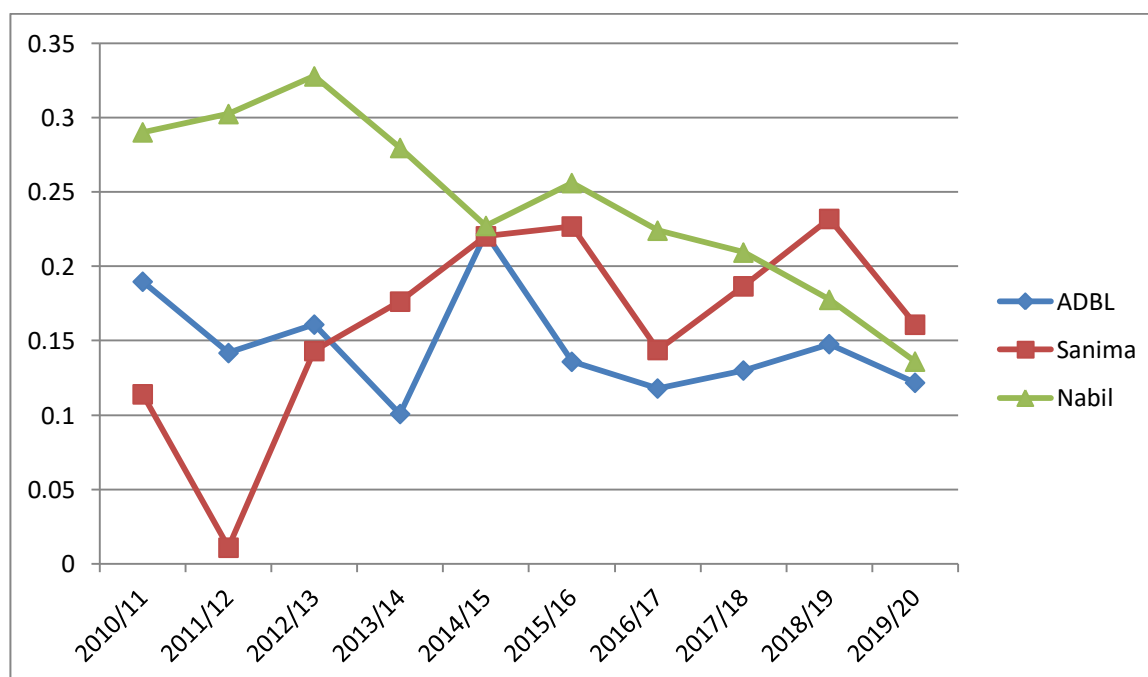


Table 5 and figure 5 showed the Return on equity of ADBL, Sanima Bank, and Nabil Bank Ltd. during ten years fiscal years from FY 2010/11 to 2019/20. Return on equity of ADBL are 18.89%, 14.18%, 16.10%, 10.09%, 22.21%, 13.60%, 11.80%, 13.01%, 14.78% and 12.19% in FY 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 respectively. The return on equity of ADBL is fluctuating trend. Similarly Return on Equity of Sanima Bank Ltd are 11.41%, 1.10%, 14.32%, 17.64%, 22.03%, 22.69%, 14.39%, 18.67%, 23.20% and 16.69% in FY 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19, and 2019/20 respectively. The Return on equity of Sanima Bank is fluctuating trend. Likewise Return on Equity of Nabil Bank Ltd are 29.29%, 30.25%, 32.78%, 27.97%, 22.73%, 25.61%, 22.41%, 20.94%, 17.76% and 13.61% respectively. The Return of Equity of Nabil Bank is decreasing trend.

The average Return of Equity of Nabil Bank (24.31%) is greater than ADBL (14.51%) and Sanima Bank (16.62%). Standard deviation of ADBL, Sanima Bank and Nabil Bank Ltd. are 3.91%, 5.48%, and 5.95% respectively. And coefficient of variation of ADBL, Sanima Bank and Nabil Bank Ltd. is 26.96%, 32.99%, 24.50% respectively. It shown Nabil Bank is more profitably than ADBL and Sanima Bank Ltd.

4.1.5 Liquidity

Liquidity describes the degree to which an asset or security can be quickly bought or sold in the market without affecting the asset's price. Market liquidity refers to the extent to which a market, such as a country's stock market or a city's real estate market, allows assets to be bought and sold at stable prices. Cash is the most liquid asset, while real estate, fine art and collectibles are all relatively illiquid.

Liquidity for a bank means the ability to meet its financial obligations as they come due. Bank lending finances investments in relatively illiquid assets, but it funds its loans with mostly short term liabilities. Thus one of the main challenges to a bank is ensuring its own liquidity under all reasonable conditions.

Credit deposit ratio (CDR)

The credit to deposit ratio (CDR) is a major tool to examine the liquidity of a bank and measures the ratio of fund that a bank has utilized in credit out of the deposit total collected. Higher the CDR more the effectiveness of the bank to utilize the fund it collected.

Credit-deposit ratio of banks is a gauge of industry health, as it's the ratio of how much a bank lends out of the deposits it has mobilized. It indicates how much of a bank's core funds are being used for lending, the main banking activity. A higher ratio indicates more reliance on deposits for lending and vice-versa.

Table 6: Credit Deposit Ratios

Fiscal Year	ADBL	Sanima Bank	Nabil Bank
2010/11	1.1738	1.0125	0.7830
2011/12	1.0406	0.8625	0.7790
2012/13	1.0081	0.8572	1.1760
2013/14	0.9480	0.8290	1.1435
2014/15	0.9377	0.8397	1.1167
2015/16	0.9546	0.8810	1.0835
2016/17	0.9290	0.8903	0.6538
2017/18	0.9564	0.8745	0.8266
2018/19	0.9362	0.9042	0.8196
2019/20	0.8584	0.8510	0.7972
Mean	0.9743	0.8802	0.9179
S.D	0.0850	0.0518	0.1898
C.V	0.0872	0.0589	0.2068

Sources: Appendix 5

Figure 6: Credit Deposit Ratios

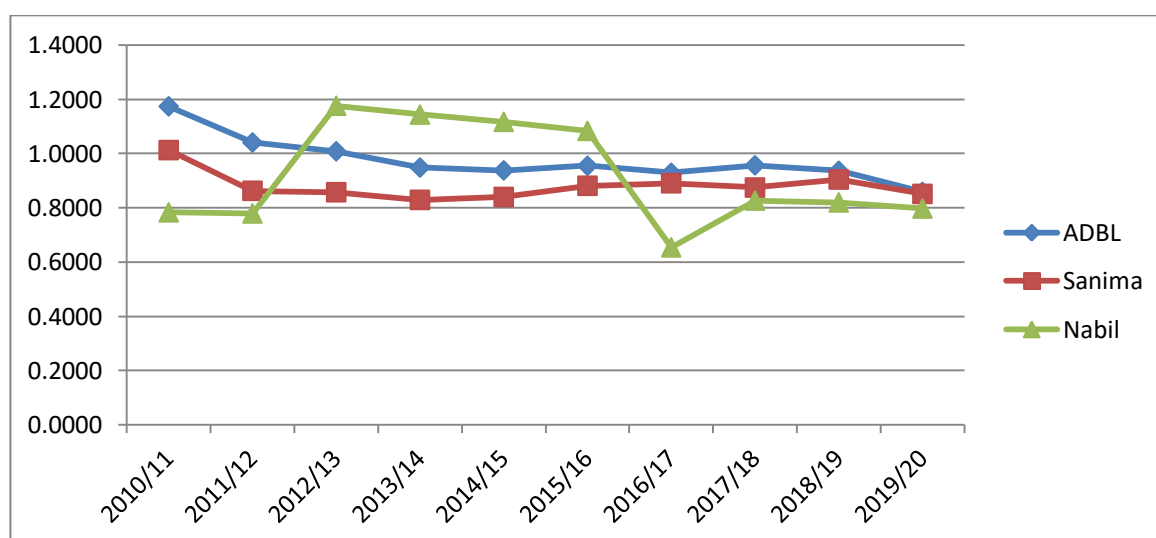


Table 4.6 and figure 4.6 showed the Credit Deposit Ratio (CDR) of ADBL, Sanima Bank Ltd. and Nabil Bank Ltd. for the period of ten years from Fiscal Year 2010/11 to Fiscal Year 2019/20. Credit Deposit Ratio of ADBL are 117.38%, 104.06%, 100.81%, 94.80%, 93.77%, 95.46%, 92.90%, 95.64%, 93.62% and 85.84% in fiscal year 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 respectively. The credit deposit ratio of ADBL is decreasing trend. Similarly Credit Deposit Ratio of Sanima Bank Ltd. are 101.25%, 86.25%, 85.72%, 82.90%, 83.97%, 88.10%, 89.03%, 87.45%, 90.42% and 85.10% in fiscal year 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 respectively. The credit deposit ratio of sanima bank is fluctuating trend. Likewise Credit Deposit Ratio of Nabil Bank are 78.30%, 77.90%, 117.60%, 114.34%, 111.67%, 108.35%, 65.38%, 82.66%, 81.96% and 79.72% in fiscal year 2010/11, 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 respectively. The credit deposit ratio of Nabil bank is fluctuating trend.

The average Credit Deposit Ratio of ADBL (97.43%) is greater than Sanima bank (88.02%) and Nabil Bank (91.79%). It showed that ADBL is maintained to high liquidity then Sanima Bank and Nabil Bank. Standard deviation of ADBL, Sanima Bank, and Nabil Bank are 8.50%, 5.18%, and 18.98% respectively. Similarly correlation of coefficient of ADBL, Sanima Bank and Nabil Bank are 8.72%, 5.89% and 20.68% respectively. It showed that Nabil bank is high riskier then ADBL and Sanima Bank.

4.2 Major findings

The study is concerned with a comparative financial analysis of Nepalese commercial banks with references to Sanima Bank Limited, Agricultural Development Bank Limited and Nabil Bank Limited in different ten years from FY 2010/11 to FY 2019/20. Secondary sources of data have been used to collect the required data and information to meet the objectives of the study. Annual reports provided by the concerned banks and NRB directives provided by Nepal Rastra Bank over the study period are the main sources of secondary data in the study. Capital adequacy ratios (CAR), credit deposit ratio (CDR), non-performing loan ratio (NPL), return on assets (ROA), return on equity (ROE), and interest expenses to total loan (IETTL) ratio. Are used the indicators to measure banks performance. Similarly, mean, standard deviation and coefficient of variation are the e statistical tools used for supporting the result over the ten years. Line graphs and bar graphs have been used to present the data on various diagrams.

After analyzing various data through using different financial and statistical tools and techniques, and presenting them on various diagrams, following major findings have been found:

1. NRB has set directives to maintain capital adequacy ratio (CAR) at minimum 11% each fiscal year and all selected banks have been able to maintain the ratio. Sanima bank has higher C.V. than other banks which indicates Sanima bank has more fluctuation in maintaining its CAR than other banks over the period indicating the bank has poor capital adequacy than other banks. However, NABIL has been able to maintain its CAR with less fluctuation (i.e. lowest CV) which indicates better capital adequacy than other banks.
2. However, here, only one simple indicator – nonperforming loan ratio was used to measure the quality of assets being held by the banks. The increasing trend of these ratios shows the deteriorating quality of commercial bank assets. Sanima bank is considered to be better than other banks with respect to Non-Performing Loan ratios. The management system of Sanima bank is considered to be efficient then ADBL and Nabil bank taking total expenses to debt (IETTL) ratios.
3. The earnings of Nepal ADBL and Nabil Bank are considered to be better than Sanima banks regarding ROA and ROE respectively. The results of the study show that Sanima bank has poor earning capability then ADBL and Nabil bank.
4. The liquidity position of ADBL is better than Nabil bank and Sanima bank because ADBL has higher Credit Deposit Ratio (CDR). Nabil bank has higher C.V. it indicates that Nabil bank has high fluctuation.
5. The higher fluctuation on capital adequacy ratio and return on equity of Sanima bank has shown poor performance. Similarly, Non-performing loan ratio and Interest expenses to total loan ratios of Sanima bank has better than other banks.
6. Both standard deviation and coefficient of variation on credit deposit ratio of Nabil bank is higher than ADBL and Sanima bank. It indicates Nabil bank has high variability and high degree of volatility or risk in credit deposit ratio than ADBL and Sanima.

In summary all this data's can be represented as follows:

(In average)

Financial Ratios	ADBL	Sanima Bank	Nabil Bank
Capital Adequacy Ratio	0.1808	0.1542	0.1180
Non-Performing Loan Ratio	0.05248	0.00119	0.011449
Interest Expenses to Total Loan Ratio	0.0492	0.0503	0.0356
Return on Assets	0.0254	0.0159	0.0245
Return on Equity	0.1451	0.1662	0.2431
Credit Deposit Ratio	0.9743	0.8802	0.9179

According to the analysis, banks are maintaining the required standards and running profitably. From the present study, ADBL has been a better performance in terms of capital, earning and liquidity as compared to Sanima Bank and Nabil Bank.

4.3 Discussion

The study is about performance analysis of Nepalese commercial bank with reference of ADBL, Sanima bank and Nabil bank. The study has identified capital adequacy ratio, non-performing loan ratio, interest expenses to total loan ratio, return on assets, return on equity, and credit deposit ratio as the financial tools to measure performance analysis of the bank over the different fiscal year FY 2010/11 to FY 2019/20. The following discussion can be made after major finding of study:

Capital adequacy ratios of the three banks have met the NRB standard. In comparison of the banks, ADBL has higher average than Sanima bank and Nabil bank. This data says that ADBL can absorb the balance sheet stock better than Sanima bank and Nabil bank.

The study has supported the findings of most past studies conducted by previous researcher that the financial performance of public sector bank (ADBL) is better than joint venture and non-venture bank. ADBL is public bank in Nepal in the study. There are various aspects and many variables should be considered to analyze the financial performance of commercial banks. As per the study Nabil Bank a joint venture bank considered in the study has poor financial performance than other commercial banks. The lower Capital Ratio, higher non-performing loan ratio and lower interest expenses to total

loan ratio shown the Nabil Bank is poor performance than ADBL bank. Similarly Sanima bank has poor return from assets and equity and poor credit deposit ratio, it shown Sanima has poor earning capability and poor liquidity then ADBL. The article of a comparison of financial performance of commercial banks: A case study of Nepal has found different result the overall performance of public sector banks was not observed sound because other financial ratios including ROE, CDR, and CAR of most of the joint venture and domestic public banks were found superior.

ADBL has a greater non-performing loan ratio than Nabil Bank and Sanima Bank. In each fiscal year, the NPL ratio of Sanima Bank is quite low. It reveals that Sanima has a lower risky investment portfolio than Nabil and ADBL, as well as a better credit risk management strategy than both ADBL and Nabil bank. Similarly, Nabil bank has a lower NPL ratio than ADBL in each fiscal year, indicating that Nabil bank has less risky investments. The similar research (jha & hui 2012) they found The share of public sector banks in nonperforming loans (NPL) was unusually high, implying deterioration in credit quality and concentration.

In their own unique ways, ADBL, Sanima Bank, and Nabil Bank are able to manage their performance effectively and efficiently. ADBL appears to be able to outperform Nabil bank and Sanima bank in terms of capital adequacy ratio (CAR), return on assets (ROA), and credit deposit ratio (CDR). Similarly, in terms of non-performing loan (NPL) ratio, Sanima Bank appears to be able to perform better than ADBL and Nabil Bank. Similarly, Nabil bank appears to be able to manage their good performance better than ADBL and Sanima bank in terms of interest expenses to total loan (IETTL) ratio and return on equity (ROE).

CHAPTER-V

SUMMARY AND CONCLUSION

5.1 Summary

The major issue on this paper is investor who invests on any kinds of bank and other project is to analyze best investment project. To analyze different investment project, different related research article paper need to be publish. This kind of research will help that kind of investor who invests in bank and other project. So our issue will minimize their effort to find risk on investment. The objective of this research is to analyze the financial performance of three Nepalese commercial banks. (ADBL, Sanima bank and Nabil bank) by using CAMEL Approach. This research is essential for those who want to invest in share market and other investment. It gives an opportunity to evaluate benefits and challenges of bank management system. The study will allowed us to explore my interest in analysis of different bank in the area of performance of bank. This study is conducted only to analyze the financial performance on the basis of accounting data; it is not analyzed market based performance of sample banks. The study covers only ten fiscal years.

No researcher has done any related research only on financial performance of Sanima Bank Limited, ADBL and Nabil Bank Limited. So this research studies only the financial performance of three banks. This research is based on CAMEL model analysis of different bank with 10 fiscal years. This study examines the financial performance of sample banks in terms of CAMEL, which stands for Capital Adequacy, Assets Quality, Management, Earnings, and Liquidity. It was designed by regulatory agencies. The purpose of financial statement analysis is to get a better understanding of the bank's condition and performance. In order to obtain significant results and achieve the research objectives, this study employed a variety of financial and statistical approaches.

The conceptual review included the following areas: historical development of the financial system and evolution of commercial banks in Nepal, idea of commercial banks, role of commercial banks, and CAMEL components. Aside from that, research reviewers conducted reviews of other theses.

ADBL, Sanima Bank, and Nabil Bank are able to manage their performance effectively and efficiently. ADBL appears to be able to outperform Nabil bank and Sanima bank in

terms of capital adequacy ratio (CAR), return on assets (ROA), and credit deposit ratio (CDR). Similarly, in terms of non-performing loan (NPL) ratio, Sanima Bank appears to be able to perform better than ADBL and Nabil Bank. Similarly, Nabil bank appears to be able to manage their good performance better than ADBL and Sanima bank in terms of interest expenses to total loan (IETTL) ratio and return on equity (ROE).

5.2 Conclusions

The study has compared performance analysis of ADBL, Sanima bank limited and Nabil bank limited using various indicators such as capital adequacy ratio, non-performing loan ratio using CAMEL model, interest expenses to total loan ratio, return on assets, return on equity and credit deposit ratio. The data have been collected from secondary sources mainly from annual reports and NRB directives. After analyzing the data through various financial and statistical tools, presenting the analyzed data in different diagrams such as bar graph and trend line, and interpreting them, following conclusions can be drawn:

ADBL, Sanima bank and Nabil bank are able to manage their performance effectively and efficiency in their own way. In terms of capital adequacy ratio (CAR), return on assets (ROA) and credit deposit ratio (CDR), ADBL seems to be able good performance then Nabil bank and Sanima bank. Similarly Sanima bank seems to be able in good performance more efficiently than ADBL and Nabil bank in terms of non-performing loan (NPL) ratio. Likewise in terms of interest expenses to total loan (IETTL) ratio and return on equity (ROE), Nabil bank seems to be able to managing their good performance than ADBL and Sanima bank.

Non-performing loan ratio of ADBL is higher then Nabil bank and Sanima bank. NPL ratio of Sanima bank is very low in each fiscal year. It shows Sanima has lower risky investment than Nabil and ADBL and has managed credit risk more efficiently then ADBL and Nabil bank. Similarly, Nabil bank has low NPL ratio than ADBL in every fiscal year it shows Nabil bank has lower risky investment than ADBL. This calculation defines the capital and asset management of bank which cover first objective of the research according to our research. so the assets and capital management of ADBL is high.

Interest expenses define the bank management system, which cover the second objective of our research. Interest expenses to total loan ratio of Sanima bank is higher than ADBL and Nabil bank. A higher ratio indicates that a company has a better capacity to cover its

interest expense. It indicates that Sanima bank has well managed the quality of management then ADBL and Nabil bank.

CDR will find the liquidity of bank. Credit deposit ratio of ADBL is higher than Nabil bank and Sanima bank. It means ADBL has maintained to higher liquidity than Nabil bank and Sanima bank. Sanima bank has lower credit deposit ratio than ADBL and Nabil bank, Sanima has maintained lower liquidity than ADBL and Nabil bank. Liquidity of the ADBL is high so we can invest and bank can further invest.

Return on assets find earning which calculate profitability of bank .ROA of ADBL is higher then Nabil bank and Sanima bank. It shown that ADBL is well managed the investment of assets then Sanima and Nabil bank. Sanima bank has lower return on assets than Nabil bank and ADBL it means Sanima has poor managed their assets than ADBL and Nabil bank. Return on equity (ROE) of Nabil bank has higher then Sanima bank and ADBL. It shown Nabil bank has well managed their equity than ADBL and Sanima bank. ADBL has lower return on equity than Nabil and Sanima. This mean ADBL has poor managed their equity than Nabil bank and Sanima. So we can invest a trust Sanima bank.

From the study, comparative performance analysis of Nepalese commercial banks (ADBL, Sanima Bank and Nabil Bank) which were based on CAMEL Model framework, concluded that ADBL is show high performance comparatively Sanima Bank ltd. and Nabil Bank ltd.

5.3 Implications

This study examines the impact on the financial performance of commercial Banks in Nepal. Three commercials banks were taken as a sample for the purpose of analysis of financial performance. The study has observed different financial tools such as and capital adequacy ratio (CAR), non-performing loan (NPL) ratio, interest expenses to total loan (IETTTL) ratio, return on assets (ROA), return on equity (ROE) and credit deposit ratio (CDR) for the analysis of performance of banks over different fiscal years from FY 2010/11 to FY 2019/20. Based on major findings, discussions, summary and conclusions drawn from the study, the study has several significant implications on various fields.

The study has compared the financial performance of three commercial banks i.e. ADBL, Nabil and Sanima. These commercial banks may improve their performance on CAMEL management on the following data understanding how banks are managing their

performance. Similarly, the trend lines of various ratios determined through collected data help them in predicting their future performance and take necessary actions if any improvements are required on the area of CAMEL analysis. Furthermore, the study has observed the implementation of NRB directives on mitigation of credit risks by these banks which may help the internal audit and compliance department of the sample banks to ensure that the directives are properly implemented.

The future researchers who have interest on financial performance area can conduct their research reviewing the study. The study would be important as it provide theoretical as well as conceptual framework of different aspect of financial performance analysis. The study has observed ten different fiscal years from FY 2010/11 to FY 2019/20. The future researcher can focus on any other related bank in their wish in which there is no study conducted. The model that can be used to calculate can be different. Other relevant data can be used to perform these kinds of research study. Primary data can be collected among customer investor and employee of the banker. Further carry out their research on upcoming fiscal years. Similarly, all aspects of CAMEL model have not been observed and limited financial performance analyzing tools are used to measure the financial performance of commercial banks. The researcher can view other aspects of CAMEL model.

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APPENDICES

Appendix-1: Capital Adequacy Ratio

Fiscal Year	ADBL	Sanima Bank	Nabil Bank
2010/11	0.1949	0.2841	0.1058
2011/12	0.1900	0.2079	0.1101
2012/13	0.1634	0.1487	0.1159
2013/14	0.1509	0.1254	0.1124
2014/15	0.1399	0.1108	0.1157
2015/16	0.1716	0.1236	0.1172
2016/17	0.2041	0.1557	0.1173
2017/18	0.1966	0.1241	0.1300
2018/19	0.2037	0.1319	0.1250
2019/20	0.1933	0.1300	0.1307

Source: Annual Report of ADBL, Sanima Bank Ltd. and Nabil Bank Ltd. (2010/11-2019/20)

Appendix-2: Non-performing Loan Ratio

Fiscal year	ADBL	Sanima Bank	Nabil Bank
2010/11	0.08990	0.00004	0.01770
2011/12	0.08980	0.00480	0.02330
2012/13	0.05850	0.00027	0.02130
2013/14	0.05460	0.00017	0.02230
2014/15	0.05350	0.00073	0.01820
2015/16	0.04360	0.00019	0.01140
2016/17	0.03950	0.00010	0.00800
2017/18	0.03410	0.00030	0.00550
2018/19	0.03290	0.00080	0.00740
2019/20	0.02840	0.00450	0.00980

Source: Annual Report of ADBL, Sanima Bank Ltd. and Nabil Bank Ltd. (2010/11-2019/20)

Appendix-3: Calculation of Interest Expenses to Total Loan Ratio

ADBL

Fiscal year	Interest Expenses	Total Loan	IETTL
2010/11	2,116,489,366.61	46,778,817,254.87	0.0452
2011/12	2,840,110,876	56,228,320,681	0.0505
2012/13	2,814,540,161	62,874,435,261	0.0448
2013/14	3,839,726,449	73,443,437,001	0.0523
2014/15	3,120,532,222	84,701,315,916	0.0368
2015/16	3,120,532,222	93,658,786,130	0.0333
2016/17	4,224,871,172	104,695,855,059	0.0404
2017/18	6,966,285,982	108,961,310,003	0.0639
2018/19	7,865,130,446	123,085,031,095	0.0639
2019/20	9,105,579,926	150,849,331,221	0.0604

Source: Annual Report of ADBL (2010/11-2019/20)

$$\text{Interest Expenses to Total Loan Ratio (IETTL)} = \frac{\text{Interest Expenses}}{\text{Total Loan}}$$

Sanima Bank Ltd.

Fiscal year	Interest Expenses	Total Loan	IETTL
2010/11	683,000,393	7,244,689,917	0.0943
2011/12	753,616,780	11,592,885,618	0.0650
2012/13	1,023,257,441	19,552,508,624	0.0523
2013/14	283,157,025	26,543,588,759	0.0107
2014/15	370,405,691	36,870,503,686	0.0100
2015/16	1,540,695,579	50,612,306,433	0.0304
2016/17	2,818,180,505	60,935,067,945	0.0462
2017/18	5,092,454,648	81,034,067,102	0.0628
2018/19	6,549,283,717	97,074,939,906	0.0675
2019/20	7,280,030,928	113,492,376,218	0.0641

Source: Annual Report of Sanima bank Ltd. (2010/11-2019/20)

$$\text{Interest Expenses to Total Loan Ratio (IETTL)} = \frac{\text{Interest Expenses}}{\text{Total Loan}}$$

Nabil Bank Ltd.

Fiscal year	Interest Expenses	Total Loan	IETTTL
2010/11	2,955,430,746	53,574,920,380	0.0552
2011/12	3,155,490,469	57,749,412,884	0.0546
2012/13	2,186,184,871	57,749,412,884	0.0379
2013/14	1,939,745,260	79,633,559,424	0.0244
2014/15	2,236,063,893	106,500,109,924	0.0210
2015/16	1,829,689,197	115,705,169,654	0.0158
2016/17	2,606,090,642	126,237,225,400	0.0206
2017/18	5,087,807,629	140,391,714,024	0.0362
2018/19	8,084,526,137	177,950,209,071	0.0454
2019/20	9,479,248,807	211,824,371,003	0.0448

Source: Annual Report of Nabil bank Ltd. (2010/11-2019/20)

$$\text{Interest Expenses to Total Loan Ratio (IETTTL)} = \frac{\text{Interest Expenses}}{\text{Total Loan}}$$

Appendix-4: Return on Assets and Return on Equity

ADBL

Fiscal year	Net Income	Total assets	Shareholders' equity	ROA	ROE
2010/11	2365.48	59241.36	12462.55	0.040	0.190
2011/12	1839.92	68646.34	12972.65	0.029	0.142
2012/13	2289.32	77097.35	14,223.00	0.030	0.161
2013/14	1520.81	88519.69	15,076.00	0.017	0.101
2014/15	3603.37	100928.51	16,224.00	0.036	0.222
2015/16	2464.68	111786.10	18,127.00	0.022	0.136
2016/17	2565.22	126866.60	21,739.00	0.020	0.118
2017/18	3442.32	135419.61	26,458.00	0.025	0.130
2018/19	4191.59	151457.73	28,353.00	0.028	0.148
2019/20	3468.03	179417.06	28459.44	0.019	0.122

Source: Annual Report of ADBL. (2010/11-2019/20)

$$\text{Return on Assets (ROA)} = \frac{\text{Net Income}}{\text{Total Assets}}$$

$$\text{Return on Equity (ROE)} = \frac{\text{Net income}}{\text{Shareholder's Equity}}$$

Sanima Bank Ltd.

Fiscal Year	ROA	ROE
2010/11	0.017	0.114
2011/12	0.009	0.011
2012/13	0.014	0.143
2013/14	0.015	0.176
2014/15	0.016	0.220
2015/16	0.018	0.227
2016/17	0.019	0.144
2017/18	0.019	0.187
2018/19	0.021	0.232
2019/20	0.014	0.161

Source: Annual Report of Sanima bank Ltd. (2010/11-2019/20)

Nabil Bank Ltd.

Fiscal Year	ROA	ROE
2010/11	0.024	0.290
2011/12	0.028	0.303
2012/13	0.033	0.328
2013/14	0.027	0.280
2014/15	0.021	0.227
2015/16	0.023	0.256
2016/17	0.027	0.224
2017/18	0.026	0.209
2018/19	0.021	0.178
2019/20	0.016	0.136

Source: Annual Report of Nabil Bank Ltd. (2010/11-2019/20)

Appendix-5: Credit Deposit Ratio (CDR)

Fiscal Year	ADBL	Sanima Bank	Nabil Bank
2010/11	1.1738	1.0125	0.7830
2011/12	1.0406	0.8625	0.7790
2012/13	1.0081	0.8572	1.1760
2013/14	0.9480	0.8290	1.1435
2014/15	0.9377	0.8397	1.1167
2015/16	0.9546	0.8810	1.0835
2016/17	0.9290	0.8903	0.6538
2017/18	0.9564	0.8745	0.8266
2018/19	0.9362	0.9042	0.8196
2019/20	0.8584	0.8510	0.7972

Source: Annual Report of ADBL, Sanima Bank Ltd and Nabil Bank Ltd. (2010/11-2019/20)