ASSESSMENT OF FINANCIAL PERFORMANCE OF COMMERCIAL BANKS UNDER THE FRAMEWORK OF CAMEL

A Thesis

By

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APPROVAL SHEET

We, the undersigned, have examined the thesis entitled "Assessment of Financial Performance of Commercial Bank under the Framework of CAMEL" presented by Pushpa Bhandari, a candidate for the degree of Master of Business Studies (MBS) and conducted the viva voce examination of the candidate. We hereby certify that the thesis is worthy of acceptance.

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RECOMMENDATION LETTER

I certify that the Thesis submitted by Ms. Pushpa Bhandari entitled "Assessment of Financial Performance of Commercial Bank under the Framework of CAMEL" has been prepared as per the format prescribed and approved by the Faculty of Management, Tribhuvan University. This research work is completed under my supervision and guidance. This thesis is the candidate's original research work. I am fully satisfied with the language and substance of this research submitted to Faculty of Management. To the best of my knowledge, the candidate has fulfilled all the requirement of Master of Business Studies (MBS Semester) degree, Faculty of Management, Tribhuvan University. I, therefore, recommend that this research be considered for the award of master degree.

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CERTIFICATION OF AUTHORSHIP

The certification of authorship to be signed by the candidate would appear as follows:

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the reference section of the thesis.

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Pushpa Bhandari

Date : December, 2018

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This thesis entitled "Assessment of Financial Performance of Commercial Bank under the Framework of CAMEL" has been prepared in partial fulfillment for the degree of Master of Business Studies (MBS) under the course designed by the Faculty of Management, TU.

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Pushpa Bhandari

TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

The study evaluated the financial performance of commercial banks in Nepal of ten selected sample banks for a five year period from 2012/13 to 2016/17 based on Camel rating approach. The study used the secondary data sourced from the annual reports of the selected banks. CAMEL approach is a tool to measure the bank performance on the basis of Capital adequacy, Asset quality, Management quality, Earning Quality and Liquidity. The collected data were analyzed using both financial and statistical tools. The financial tools used to rate the overall performance of the bank, while correlation coefficient and multiple regression models were used to measure the impact of Camel elements on profitability i.e. ROA and ROE. Financial ratio analysis compares the financial performance among commercial banks, the same bank had different ranks under the different financial ratios. As per the composite rating of CAMEL, the finding of the study revealed that EBL bank stood on the top followed by NIBL and SCBL banks, while NBL bank stood the least position among the selected banks.

The correlation analysis revealed that ROA had a positive correlation with Capital, Management, Earning and liquidity which signifies that it helps to increase the profitability of bank. While Asset had negative correlation with ROA. Likewise, ROE had significant positive correlation with Capital Adequacy ratio of Debt equity ratio, Assets quality, Earning ratio of Interest income to total income and liquidity ratio of Liquid asset to Total asset and other ratios were negatively correlated. The regression analysis showed that Capital adequacy, Asset quality, Liquidity had no significant relationship with the selected banks' performance in terms of ROA. On the other hand Management quality and Earning quality ratio of OPTTA was found to be significant relationship to the performance of the bank. While Capital Adequacy ratio of CAR and D/E ratio and Liquidity ratio of LATTA had significant relationship with the selected bank's performance in terms of ROE and other ratios were found to be insignificant relationship to the performance of the bank at 5% significance level. The finding of this study will be helpful to the management of selected banks in making appropriate managerial decision.

***Key words** : CAMEL, Profitability ratios i.e. ROA and ROE, Financial Performance.*

ABBREVIATIONS

ABBS	Anywhere Branch Banking Service
ADBL	Agricultural Development Bank
ATM	Automated Teller Machine
BAFIA	Bank and Financial Institution Act
BLB	Branchless Bank
BOK	Bank of Kathmandu
BPE	Business Per Employee
CA	Company Act
CAMEL	Capital, Asset, Management, Earning, Liquidity
CAR	Capital Adequacy Ratio
CDR	Credit to Deposit ratio
D/E	Debt- Equity
EBL	Everest Bank Limited
HBL	Himalayan Bank Limited
IITTI	Interest Income to Total Income
JVBs	Joint Venture Banks
KBL	Kumari Bank Limited
LATDD	Liquid Asset to Demand Deposit
LATTA	Liquid Asset to Total Asset
LATTD	Liquid Asset to Total Deposit
LLP	Loan Losses Provision
Ltd.	Limited
MBL	Machhapuchre Bank Limited
NBBL	Nepal Bangladesh Bank Limited
NBL	Nepal Bank Limited
NIBL	Nepal Investment Bank Limited
NIDC	Nepal Industrial Development Corporation
NIMTTA	Net Interest Margin to Total Asset
NPA	Non Performing Assets
NPATTA	Non Performing Assets to Total Asset

NPATTAd	Non Performing Asset to Total Advance
NPL	Non Performing Loan
NRB	Nepal Rastra Bank
NSBIL	Nepal State Bank of India Limited
OPTTA	Operating Profit to Total Asset
PPE	Profit Per Employee
RBBL	Rastriya Banijya Bank Limited
ROA	Return on Asset
ROE	Return on Equity
SCBL	Standard Chartered Bank Limited
TATTA	Total Advance to Total Assets
TATTD	Total Advance to Total Deposits
TITTA	Total Investment to Total Asset

CHAPTER- I
INTRODUCTION

1.1Background of the Study

The banking sector, being a fundamental component of financial system is the backbone of the modern economic system. Banks are one of the oldest financial institution in the financial system, which play a curcial role in the mobilization of deposits and disbursement of credit among the various sectors of the economy. A sound banking system act as fuel injection which stimulates economic efficiency by mobilizing savings and allocating them to high return investment. Various research studies substantial that countries with a well developed banking system grow faster in contrary to countries having weak banking (Aspal, 2016).

The word 'Bank' has been derived from the Italian word ' Banco' which means a place for keeping, lending and exchanging money. The bank is a financial institution, which deals with money. It accepts deposits from individual and organization and grants loans to them. It allows interest on the deposits made and charges interest on the loans granted. The history of banking in Nepal may be describes as a component of gradual and ordinary evaluation in the financial and economic sphere in the Nepalese life. The establishment of ‘Tejarath Adda’ during the Tenure of Prime minister Ranoddip Singh in 1933 B.S. was the first step toward the institutional development of banking in Nepal. It was fully subscribed by the government in Kathmandu. Tejarath provided credit loans to the general public at 5% interest rate on securities i.e. gold, silver and other ornaments. It objective was to provide credit or loans to the general public but it failed to accept deposits from them. The concept of modern banking institution in Nepal was introduced when the first commercial bank, Nepal Bank Limited establish on 30thKartik, 1994 B.S. Banking sector was first started in Nepal after the establishment of Nepal Bank Limited in 1994 B.S. Then Nepal Rastra Bank was established on 14 Baisakh, 2013 B.S. as the central bank under the Nepal Rastra Bank Act 2012 B.S. Its function to supervise commercial banks and to guide the basic monetary policy of the nation. In 2013 B.S., Industrial Development centre was established and later it was converted into Nepal Industrial Development Corporation

(NIDC) in 2016 B.S. As the monetary transaction got more and more complicated on 2022.10.10, Rastriya Banijya Bank was established as a fully government own commercial bank. Similarly, Agriculture Development Bank was established in 2024 B.S. The commercial bank act 2031 was enacted because after the reestablishment of democracy, the government has taken the liberal policy in banking sector so different private banks are getting permission to established with the joint venture of other countries and the trend is continuing till today as many Nepalese owned banks are to running. Today, there are altogether 28 commercial bank in Nepal. (Pandey,2008).

Commercial banks play a vital role in the economic resource allocation of countries. They channel funds from depositors to investors continuously. They can do so, if they generate necessary income to cover their operational cost they incur in the due course. In other words for sustainable intermediation function, banks need to be profitable. Beyond the intermediation function, the financial performance of banks has critical implications for economic growth of countries. Good financial performance rewards the shareholders for their investment. This, in turn, encourages additional investment and brings about economic growth. On the other hand, poor banking performance can lead to banking failure and crisis which have negative repercussion on the economic growth, (Ongore and Kusa, 2013:237)

Performance of the banking sector is an effective measure and indicator to check the performance of any economy to a large extent. As banking system in economy has been allotted a crucial and noteworthy role in financing the planned economic growth. It therefore, has enforced the bankers for more frequent examination of its performance. Financial performance evaluates the overall performance of bank by implementing a regulatory banking supervision framework. One of such measures of supervisor information is the CAMEL rating system. The CAMEL analysis is the ratio based model to evaluate the performance of the banks based on parameter such as capital adequacy, asset quality, management efficiency, earning ability and liquidity risk (Kumar, 2017).

1.2 Introduction of Selected Banks

In present, there are altogether 28 commercial banks in Nepal. This study has taken ten banks for the research study. The general introduction of ten selected bank are follows;

Nepal Bank Limited

Nepal Bank Limited (NBL), a pioneer commercial bank is the oldest bank in the history of modern banking system of Nepal. It was established on13thKartik 1994 BS in the technical assistance of Imperial Bank of India under "Nepal Bank Act 1993".

With Starting paid up Capital Rs. 842,000 invested in 1994, has grown to Rs. 38.04 crore as at 060 Kartik. Shareholders are distributed as 40.49% is owned by government and 59.51% by public. It has expanded its branches throughout the country including far remote area having very poor profitability and some of the parts having income not sufficient to meet breakeven. Accordingly, NBL was established to provide the services; to accept deposits, to extend credit facilities for the promotion of trade, cottage industries and agriculture, to render customer- related services, i.e. issue of bill of exchange, hundis etc. to invest on government bond and securities, to carry out agency functions and to act banker to the government. (www.nbl.com.np)

Rastriya Banijya Bank

RBB Ltd. - established on January 23, 1966 (2022Magh 10) - a synonymous of stable and people's bank in Nepal - is one of the pioneer Bank in the country with the history of nearly a half century. Earlier constituted under RBB act 2021 with the full ownership of the government of Nepal, the Bank has been running under Bank and Financial Institute Act (BAFIA) and Company Act (CA) 2063 at present. The Bank licensed by NRB as 'A' class commercial Bank of the country, has grown up as an indispensable component of the Nepalese economy.

RBBL which has made glorious history of contributing for the monetization of the economy, eliminating dual currency in the market, initiating preliminary financial literacy, help flourish industrial, commercial and financial sector of the country has

now emerged as a modern and strong financial institute of the country. The Bank with 2600 hands has expanded its wings in the most part of the country through multiple distribution outlets of 207 branches, 17 counters, 93 branch less banking (BLB) and 165 ATMs. The Bank with the highest public confidence- reflected in the highest deposit base and growing demand for branch establishment in the various parts -has stood as a pyramid in the financial arena of the country. (www.rbbl.com.np)

Agricultural Development Bank

With the main objective of providing institutional credit for enhancing the production and productivity of the agricultural sector in the country, the Agricultural Development Bank, Nepal was established in 1968 under the ADBN Act 1967, as successor to the cooperative Bank. The Land Reform Savings Corporation was merged with ADBN in 1973.

Agricultural Development Bank Limited (ADBL) is an autonomous organization largely owned by Government of Nepal. The bank has been working as a premier rural credit institution since the last three decades, contributing a more than 67 percent of institutional credit supply in the country. Hence, rural finance is the principal operational area of ADBL. Furthermore, the bank has also been involved in commercial banking operations since 1984. In line with the BAFIA, ADBL has been incorporated as a public limited company on July 14, 2005. Thus, ADBL operates as a "A" category financial Institution under the legal framework of BAFIA and the Company Act, 2053. (www.adbl.gov.np)

Nabil Bank Limited

Nabil, the first foreign joint venture bank of Nepal, started operations in July 7, 1984. Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Nabil provides a range of commercial banking services through its 51 points of representation across the country and over 170 correspondent banks across the globe. It was earlier known as Nepal Arab Bank Ltd.

Nabil is moving forward with a Mission to be **"1st Choice Provider of Complete Financial Solutions"** for all its stakeholders; Customers, Shareholders, Regulators, Communities and Staff. Nabil is determined in delivering excellence to its stakeholders in an array of avenues, not just one parameter like profitability or market share. It is reflected in its Brand Promise **"Together Ahead"**. (www.nabilbank.com)

Nepal Investment Bank Limited

Nepal Investment Bank Ltd. (NIBL), previously Nepal Indosuez Bank Ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital of NIBL) was Credit Agricole Indosuez, a subsidiary of one of the largest banking group in the world.

Later, in 2002 a group of Nepalese companies comprising of bankers, professionals, industrialists and businessmen acquired the 50% shareholding of Credit Agricole Indosuez in Nepal Indosuez Bank Ltd., and accordingly the name of the Bank also changed to Nepal Investment Bank Ltd.Till date it has 66 branches, 4 Extension Counters (98 ATM outlets) scattered throughout the country giving modern banking services of international class.

At present the Bank's shareholding pattern is as follows:

Promoters - 69%

General Public - 31%(www.nibl.com.np)

Standard Chartered Bank Limited

Standard Chartered Bank Nepal Limited has been in operation in Nepal since 1987 when it was initially registered as a joint-venture operation. Today the Bank is an integral part of Standard Chartered Group having an ownership of 70.21% in the company with 29.79% shares owned by the Nepalese public. The Bank enjoys the status of the largest international bank currently operating in Nepal. With 15 points of representation, 23 ATMs across the country and with more than 450 local staff, Standard Chartered Bank Nepal Ltd. is in a position to serve its clients and customers through an extensive domestic network.

It is the first Bank in Nepal that has implemented the Anti-Money Laundering policy and applied the 'Know Your Customer' procedure on all the customer accounts. (www.sc.com)

Himalayan Bank Limited

Himalayan Bank Limited (HBL) is one of the largest private banks of Nepal. The Bank was incorporated in 1992 by a few eminent individuals of Nepal in partnership with the Employees Provident Fund and Habib Bank Limited of Pakistan. The bank commenced its operations in January 1993. Himalayan Bank is also the first commercial bank of Nepal with most of its shares held by the private sector of Nepal. Besides commercial banking services, the bank also offers industrial and merchant banking service.

With its head and corporate office at Kamaladi, Kathmandu, the bank has 44 branches. Eighteen of its branches are located inside the Kathmandu Valley while the rest are outside the valley. (www.himalayanbank.com)

Nepal SBI bank Limited

NSBL was established in July 1993 and has emerged as one of the leading banks of Nepal, with 869 skilled and dedicated Nepalese employees working in a total of 83 outlets, which includes 72 branches, 7 extension counters, 3 Regional Offices and Corporate Office. With presence in 39 districts in Nepal, the Bank is providing value added services to its customers through its wide network of 110 ATMs (including 2 Mobile ATMs and 4 CRMs), internet banking, mobile wallet, SMS banking, IRCTC Ticket Online Booking facility, etc.

The Bank enjoys leading position in the country in terms of penetration of technology products, viz. Mobile Banking, Internet Banking and Card Services. The Bank is moving ahead in the Nepalese Banking Industry with significant growth in Net Profit with very nominal NPA. As of 31st Chaitra, 2074, the Bank has deposits of Rs. 83.66 billion and advances (net) of Rs. 74.05 billion, besides investment portfolio of Rs. 17.93 billion. (www.nepalsbi.com.np)

Nepal Bangladesh Bank Limited

Nepal Bangladesh Bank Ltd. also known as NB Bank or NBB is a public owned commercial bank in Nepal.

Nepal Bangladesh Bank Ltd. was established in June 1994 with an authorized capital of Rs. 240 million and Paid up capital of Rs. 60 million as a Joint Venture Bank with IFIC Bank Ltd. of Bangladesh. Its Head Office is situated at Kamaladi-31, Kathmandu. The bank has a network of 43 branches, 7 Branchless banking and 43 ATM terminals.

NB Bank also provides banking services through E-Banking, and mobile banking viz. NBBL SMART. Recently, the bank signed an agreement with Khalti Digital Wallet in Nepal to facilitate digital payments to its customers. (www.nbbl.com.np)

Everest Bank Limited

Everest Bank Limited started its operation in 1994 with a view and objective of extending professionalized and efficient banking services to various segment of the society. Its joint venture partner, Punjab National Bank holding 20% equity in the bank. Everest Bank Limited (EBL) provides customer-friendly services through its wide Network connected through ABBS system, which enables customers for operational transactions from any branches. The bank has 80 Branches, 113 ATM Counters, 7 extension counter & 28 Revenue Collection Counters across the country making it a very efficient and accessible bank for its customers, anytime, anywhere.
EBL was one of the first banks to introduce Any Branch Banking System (ABBS) in Nepal. (www.everestbankltd.com.np)

1.3 Statement of Problems

The overall performance of financial institution may not reflect by financial statement, so a major question emerges, whether these are adequate to reflect the overall performance of bank. Hence, there is needed to identify the overall performance of the banks. For these purpose, several financial and statistical tools and techniques are developed by different experts and financial institutions all over the world, one of them is CAMEL. There are many problem faced by banks. The problem

can be separated in different parts. All the part of problems are assessed with the help of CAMEL rating. To examine, analyze and measure the performance of banks CAMEL is the popular and effective tool.

The study deal with the following research questions;

1. What are the financial performance of selected commercial banks by using CAMEL rating system ?
2. What are the composite CAMEL rating of the selected banks ?
3. What is the relationship of components of CAMEL rating and profitability of the banks ?

1.4 Purposes of the Study

The main purpose of the study is to assess the financial performance of selected commercial bank under CAMEL framework. The study is conducted to accomplish the following specific objectives:

1. To analyze the financial performance of selected Commercial banks by using CAMEL rating system.
2. To examine the composite CAMEL rating of selected Commercial bank.
3. To evaluate the relationship between the CAMEL and Profitability of the selected Commercial banks.

1.5 Significances of the Study

Financial institution specially 'A' class commercial banks play very significant role in the national economic and social development. Commercial banks are the key player among the financial institution so they have also very important role in the overall development of an economy. This study is concerned with the evaluation of overall performance of commercial bank in Nepal. It is expected that this study significantly provide the effective suggestions to improve the existing situation of bank under study in the field of Capital adequacy, Asset quality, Management efficiency, Earning capacity and Liquidity. The goal of the study is to examine the efficiency and performance of banks as reflected in the annual financial reports.

The following points are some of the significances of the study;

1. This study help to show the financial position of the bank to the investor as well as concerned management.
2. This study also provide necessary information of performance capability of their banks to the management.
3. This study is benefit to the concerned scholars, academicians, investors, professionals, researchers and many others interested group and people for future in the view of review.
4. This study directly help the concerned to make decision effectively by analyzing the financial as well as statistical results.
5. This study provide real picture of performance which is beneficial to potential as well as existing shareholders.

1.6 Limitations of the Study

All research studies are done to solve the particular research problem. It requires various kinds of data, material and other relevant information, which may not sufficient to the researcher. This study cannot escape from the frame of limitations. This study is mainly based on secondary data, particularly financial data and information given by respected banks, this is not sufficient for the deep and good research study.

Some limitations of the study are given below;

1. This study is mainly base on secondary data, so the limitations of secondary data may exist.
2. Out of twenty eight commercial banks here only ten banks and five fiscal year i.e. from 2012/13 to 2016/17 for the analysis of commercial banks. So this thesis shows the trend of commercial banks but not the whole mirror of all commercial bank.
3. In this study, only selected financial and statistical tools and techniques are used.
4. Lack of research experiences is appears as one of the most limitation during study.

1.7 Organization of the Study

The study is organized into five chapters.

Chapter I : Introduction

This chapter provides a general background of the study with introduction of a selected bank, followed by statement of the problem, objectives of study, significance of the study, limitation and the organization of the study.

Chapter II : Literature Review

This chapter comprises the reviews of relevant previous writing and studies to find the existing gaps. It includes conceptual framework regarding banks and performance analysis of financial institutions, and review of related studies. Review of journal, books, thesis and newspaper is also included in this chapter.

Chapter III : Methodology

This chapter describes the research methodologies applied to the study. This includes research design, sources of data. It also comprises the population and sample of the study along with method of analysis using various financial and statistical tools used in the study.

Chapter IV : Results

This chapter comprises of presentation and analysis of financial data obtained from annual reports of selected bank for the past five years in the framework of camel and concluded by major findings of the analysis. The data collected after processing have been presented using tables and result of statistical analysis are interpreted in this chapter.

Chapter V : Conclusions

This chapter consists of summary of all previous four chapters and a conclusion of the study based on finding of the analysis. Similarly Implication for further research are also provided based on the overall study.

Finally, References is presented along with the Appendices at the end of the study.

CHAPTER- II
LITERATURE REVIEW

Review of literature comprises upon the existing literature and research related to the present study with a view to find out what had already been studied. The purpose of the reviewing the literature is to develop some expertise in one's area to see what new contribution can be made and to review some idea for developing research design. (Pant, 2067). This portion has been divided into two parts.

2.1 Conceptual Review
2.2 Empirical Review

2.1 Conceptual Review

The modern financial evaluation has greatly affected the role and importance of financial performance. Nowadays, finance is best characterized as ever changing with new ideas and techniques. Only efficient manager of the company can achieve the set up goals. If bank does not maintain adequate equity capital, it makes the bank more risky. If bank has inadequate equity capital, it must be used more debt that has high fixed cost. So any firm must have adequate equity capital in their capital structure.

The main objectives of bank are to collect deposits as much as possible from the customers and to mobilize into the most profitable sector. If a bank fails to utilize it's collected resources than it cannot generate revenue. Resources mobilization management of bank includes resource collection, investment portfolio, loans and advances, working capital, fixed asset management etc. It measures the extent to which bank is successful to utilize its resources. (Bhandari, 2010)

Financial performance is the process of identifying the financial strengths and weaknesses of the firm by properly establishing relationship between the item of balance sheet and the profit and loss statements. It is also a study of relationship among various financial factors in a 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. By establishing a strategic relationship between the items of a balance sheet and income statement and other operative data, the financial analysis unveils the meaning and

significance of such items. Thus, financial performance analysis is required to take managerial and financial decisions.(Panday, 2008)

2.1.1 Financial Analysis in a Framework of CAMEL

Banking performance evaluates the overall performance of banks by implementing a regulatory banking supervision framework. One of such measures of supervisory information is the CAMEL rating system which was put into effect firstly in the U.S. in 1979. CAMEL rating system was first introduced by U.S. supervisory authorities as a system of rating for on-site examination of banking institutions. Under this system, each banking institution subject to on- site examination is evaluated on the basis of five critical dimensions relating to its operations and performance, which are referred to as the component factors. These are Capital adequacy, Assets quality, Management efficiency, earning ability and Liquidity used to reflect the financial performance, financial condition, operating soundness and regulatory compliance of the banking institution. A sixth component relating to sensitivity to market risk has been added to the CAMEL rating to make the rating system more risk- focused. Each of the component factor is rated on scale of 1 (best) to 5 (worst). The composite rating ranges between 1 (best) and 5 (worst), and also a certain amount of subjectivity based on the examiners overall assessment of the institution in view of the individual component assessments. (Gupta, 2014)

CAMEL rating is based on the financial statements of the banks, viz. Profit and Loss account, balance sheet and on- site examination by the bank regulators.

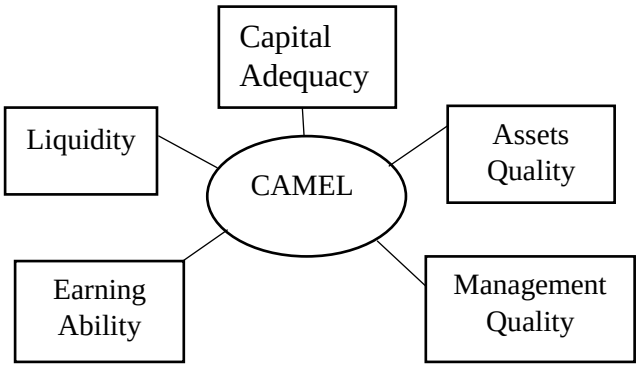

Figure: Meaning of CAMEL, *Source: Piyu,1992*

2.1.2 Component of CAMEL

CAMEL which stands for Capital adequacy, Asset quality, Management efficiency, Earning and Liquidity. Those individual components used to measure the operational performance and soundness of banks.

1. Capital Adequacy: The capital adequacy measures the bank's capacity to handle the losses and meet all its obligations towards the customers without ceasing its operations. This can be met only on the basis of an amount and the quality of capital, a bank can access. A ratio of capital to risk weighted assets determines the bank's capital adequacy. It reflects the overall financial condition of the banks and also the ability of the management to meet the need for additional capital (Kaur, 2010). Capital Adequacy measure the adequacy of the amount of capital to meet any unfortunate shocks that the bank may experience (Baral, 2005). Capital adequacy indicates the overall financial position of a bank. It indicates whether the bank has sufficient capital to bear unexpected losses in the future and bank leverage (Kumar, 2017).

The capital adequacy of an institution's related based upon, but not limited to and assessment of the following evaluation factors.(Rai, 2010)

- Size of the bank
- Volume of inferior quality assets
- Bank's growth experience, plan and prospects
- Quality of capital retained earnings
- Access to capital markets

2. Asset Quality : Asset quality is one of the factors in determining the financial healthiness of banking institution. The quality of asset is significant aspect to assess the degree of financial strength of a bank (Aspal and Dhawan, 2016). An asset represents all the assets of the banks, viz. current and fixed, loan investments, real estates and all the off- balance sheet transcations. Asset quality determines the healthiness of financial institutions. The weakening value of assets has a spilt over effect, as losses are eventually written- off against capital, which eventually expose

the earning capacity of the institution. Through this indicator, the performance of an asset can be evaluated. The ratio of Gross Non- performing Loans to Gross Advances is one of the criteria to evaluate the effectiveness of credit decisions made by the bank (Gupta, 2014).

3. Management Quality : Management quality reflects the management soundness of bank, the management acts as a safeguard to operate the bank in a smooth and decent 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 parameters, the effectiveness of the management is checked out such as, how well the duties and responsibilities are delegated, how well the compensation policies and job descriptions are designed etc. (Ahsan, 2016)

For the proper and efficient management, the banks have to possess the following qualities. (Rai, 2010)

- Structure of management team should be perfect.
- Qualitative manpower and its productivity.
- Good relationship between customers and organization.
- Adequate management system should be perfect.
- Internal management system should be perfect.
- Working environment should be perfect.

4. Earnings : Earning is an important parameter to measure the financial performance of an organization. Earning quality mainly measures the profitability and productivity of the bank, explains the growth and sustainability of future earnings capacity. In the same way, bank depends on its earning to perform the activities like funding dividends, maintaining adequate capital levels, providing for opportunities for investment for bank to grow, strategies for engaging in new activities and maintain the competitive outlook (Ahsan, 2016).

Earning capacity largely counts on the efficiency of management. Chronically, loss making commercial banks reduce their capital base, risk the solvency and eventually bring down the wealth of their shareholders. Income from all the operations, non-performing traditional and extra ordinary sources constitue the earnings of a bank.

Through this parameter, the bank's efficiency is checked with respect to its capital adequacy to cover all the potential losses and the ability to pay off the dividends. Return on Assets ratio, Return on Equity and profit margin measures the earnings of the banks. So, earning capacity is one of the indicators of the sound health of a commercial bank. (Baral, 2005)

5. Liquidity : The bank ability to convert assets into cash is called as liquidity. The ratio of cash maintained by banks and balance with the central bank to total assets determines the liquidity of the bank. For having sound banking operations it needs to have liquidity solvency. If any bank faces liquidity crisis, bank can't meet up its short term obligations. Cash and investments are the most liquid assets of a bank. (Ahsan, 2016)

Liquidity is rated upon these factor like, the adequacy of liquidity sources compared to present and future needs and the ability of the institution to meet liquidity needs without adversely affecting its operations or condition, the availability of assets readily convertible to cash without undue loss, access to money market and other sources of funding, the level of diversification of funding sources, both on and off – balance sheet, the degree of reliance on short- term, volatile sources of funds, including borrowings and brokered deposits, to fund longer term assets, the trend and stability of deposits (Ferrouhi, 2014).

2.1.3 Composite of Rating and description

Composite ratings are based on a careful evolution of an institution's managerial, operational, and financial and compliance performance. The five key composites used to access an institution's financial condition and operations are: capital adequacy ratio, asset quality, management capability, earning quantity and liquidity. The rating scale ranges from 1 to 5;

Rating	Description
1	Indicates strong performance
2	Indicates above average performance which means sound and relatively safe operation
3	Indicates performance that is flawed to some degrees.
4	Indicate unsatisfactory performance. If left unchecked, such performance could threaten the solvency of the banking company.
5	Indicates very unsatisfactory performance, in need of immediate remedial attention for the sake of the banking company's survival.

Source: Trautmann, 2006

2.2 Empirical Review

The evaluation of financial performance of banking sector has been assessed by various researcher, academicians and policymaker in different time periods. A simplistic review of some of the important studies is presented here which fulfills the need for the present study.

Jha and Hui, (2012) had studied about comparison of financial performance of Nepalese public bank, joint venture and domestic private bank using CAMEL framework. They found that the ROAs of public sector banks were higher than those of joint venture and domestic private banks due to having utmost total assets but the overall performance of public sector banks was not observed sound because other financial ratio including ROE, CDR, CAR of most of the joint venture and domestic public banks were found superior. High overhead costs, political interventions, poor management and low quality of collateral created continued deterioration in financial health of public sector banks. The values determined for the financial ratios reveal that joint venture and domestic public banks are also not so strong in Nepal to manage the possible large-scale shocks to their balance sheet. They concluded that the capital adequacy ratio, interest expenses to total loan and CDR do not have any considerable

effect on ROA. The CAR positively influence the ROE but the NPL, CDR, interest assign had no significant effect on ROE.

Oli, (2001) has reported that the current ratio of HBL was below than normal standard 2:1 so HBL suggested that the liquidity position of HBL, NSBL and NBBL were fluctuating and was not in satisfactory level. The capital structure of three JVBs was highly leveraged. The total debt to shareholders equity ratio has indicated that the use of debt by the three banks helped to enhance the rate of return on shareholder's fund. However, excessive use of debt in non- profitable business may cause solvency of these banks. Profitability position of three JVBs was not found satisfactory but profitability position of HBL was comparatively better than the same NSBL and NBBK. So, NSBL and NBBL have been recommended to utilize their resources more efficiently for generating more profit margins. The major sources of income of three JVBs were from the interest income. NBBL has been investing more in government securities rather than investing loan and advances. The researcher further suggested that the banks needed to minimize their operation expenses as far as possible since it contributes to enhance the volume of profit. The researcher finally recommended that banks should fulfill some social obligations by extending their resources to rural areas and promoting the development of poor and disadvantageous groups. In order to do so the banks should open their branches in remote areas with the objective of providing cheaper banking services.

Furthermore, Baral, (2005) has conducted a research on health check-up of commercial banks in the framework of CAMEL. Bank under study were well capitalized and they were complying with the directives of NRB on capital. Nevertheless, their capital base relative to the risk- weighted assets is not so strong. It uncovered further, non- performing assets of joint venture banks on the average is at satisfactory level, but they are far below aggregate percentage of non- performing assets of commercial banks. The researcher has also concluded that management of NSBI is least efficient among sampled banks and SCBN has most efficient management. The profitability of NSBL is not so weak during the study period. Profitability of Nabil and SCBN was better than NSBI. Furthermore, the liquidity of

joint venture banks was higher the industry average ratio. Thus with the view point of liquidity position, the health of joint venture banks is looked like a bit unhealthy.

Sharma, (2007) conducted a research of Nepal SBI Bank in the framework of CAMEL based on the secondary data covering the six year data, he concluded that Nepal SBI Bank Ltd was well capitalized and complying with the directives of NRB. The bank has maintained satisfactory level of past due loan on total loan except 2001. Earning per employees of the bank was found quite high. Net interest margin of the bank was found satisfactory. Further the liquidity position of the bank was found sound.

Furthermore, Dangol, (2012) found that NSBI has been operating its business in a satisfactory way and doing better each year of the study period except in its assets quality where the banks loss loan was found to be in increasing trend. But the provisioning for its loss loan was very near to the level though not equal in some instances, as set by the NRB. Overall, NSBI was not found to be very aggressive in profit maximization goal though it could be smelled that NSBI in a long run strategy of "slow and steady wins the race".

Joshi, (2014) has analyses the financial performance of NSBI in CAMEL framework. She got that the bank is performing satisfactorily. Some sectors are to be improved by the bank like maintain the liquidity in optimal condition, managing the loan loss and Non- performing loan etc.

Bhandari, (2006) has conducted a study on the financial performance of Himalayan Bank Ltd. (HBL) in the framework of CAMEL. The basic objective of the study was to analyze the financial performance of Himalayan Bank Ltd. (HBL) through CAMEL framework. The study has covered the period of 6 years from the F/Y 1999 to 2004. The researcher has used different financial tools in the study such as ratios like capital adequacy ratio, non- performing loan ratio, loan loss ratio, total expenses to total income ratio, and return on equity, return on assets, net interest margin, earning per share, total liquid fund to total deposit ratio, NRB Balance to total deposit ratio, cash in vault to total deposit ratio, and other financial tools like average, standard deviation, coefficient of variation, least square trend analysis.

The major findings of this study are; the capital adequacy ratio of the bank was above the NRB standard in all the years except in year 2004 i.e. insufficient of capital in that year however, it was found that the core capital adequacy ratio of HBL adequate and sufficient. The supplementary capital ratio was within the boundary of NRB standard during the period of past six years. The non- performing loan to total loans and advances ratio for the study period was in decreasing trend but it was not sufficient in banking industry. The slope of the trend line of loan loss ratio was high this showed that the loan loss provision was increasing rapidly. The bank's liquidity position was better than that of the industry average. NRB balance to total deposit ratio of HBL was below the industry average ratio in each year during the study period. This has indicated that the bank has not strictly following the directives issued by NRB in respect to balance must be hold in NRB. Vault to deposit ratio of HBL during the study period was below the industry average. This has implied that the bank was not strictly following the directives issued by NRB in respect to balance must hold as vault.

The researcher has not mentioned all the ratios that are must for CAMEL analysis. The research lacks the ratios like loan loss provisioning, loan to single borrower to core capital, earning per employee, net spread etc.

Poudel, (2007) evaluate the performance of the SCBL and HBL. He used the financial tools like liquidity, activity profitability, structural and income and expenditures ratios. Further, the research used the method of least square to find out that end of different financial indicators he found that the performance of SCBL is better than that of HBL.

Furthermore, B.K., (2008) has attempted to analyze the financial performance of selected banks using various statistical and financial tools. The major finding of the study are the liquidity position of SCBNL is comparatively better than HBL; SCBNL has utilized more portions of current assets as loan and advances and lesser portions in the government securities. The profitability position of SCBNL is comparatively better than HBL. There is no significant relationship between deposit and loan and advances as well as outside assets and net profit in case of SCBNL where as there is no significant relationship between deposit and total investment increase of HBL.

SCBNL seems to be more successful in increasing its sources of fund for deposit mobilization and granting loan and advances and maintain a good investment.

Chand, (2011) has noted that the bank is running with adequate capital and the capital fund of the bank is sound and sufficient to meet the banking operation as per NRB standard. The bank has placed efficient credit management and recovery efforts of good quality loans are increasing. Further, it seems that amount default associated in loans will decrease in future. The management decisions related to operation and investment have assisted in controlling control and recovery of bad debt. The management has been able to control the interest spread and cost effective sources of funds. This has helped the bank in increasing the market strength. The liquid assets to total deposit ratio is above the industrial average ratio. The bank has able to match the risk sensitive assets to risk sensitive liabilities in long term maturity bucket and therefore interest rate changes has no affect on them.

Shrestha, (2003) has conducted a study on NRB –Capital Adequacy Norms for commercial bank and its impact: case study of Bank of Kathmandu and Himalayan Bank Ltd. The basic objective of this study was to examine the capital adequacy of BOK and HBL. The banks under study are found to be successful to comply with requirement of capital adequacy norms. Anyhow the banks are meeting the requirements. However, some bank officials are not satisfied with the provisions. The capital to deposit ratio of both banks seems to be inadequate. The CD ratio of HBL is very much low which needs to be improved immediately. The CD ratio of BOK is satisfactory. Although the banks are successful to meet the capital adequacy requirement, they seem to be ineffective to fulfill other capital and deposit ratios which are also very much important in regard of safeguarding the money of the depositors. The lack of policy in regard of these types of ratios caused to the relaxation of the banks not to meet the adequate ratios. The correlation coefficients between capital and deposit and between capital and credit are found to be positive and near to perfect correlation. The test of hypothesis revealed that the capital and deposit and correlated. Also, the test brought to light that capital and credit are also correlated.

Bhusal, (2008) compare the financial performance of KBL and MBL in the framework of CAMEL from FY 2058/59 to 2062/2063 with the help of both secondary as well as primary data, she found that both bank are maintaining CAR as per rule of NRB and the trend of CAR is decreasing. Both banks are in much satisfactory level in the case of assets management. Increasing profit of both bank shows the good sign but it is not enough to compete with other established banks. According to her study, profits are also not enough to meet benchmark set by the world Bank. In case of liquidity both banks are not properly maintaining the rule of NRB. In her overall analysis there is tough competition between KBL and MBL and both are in the phase of improvement.

Acharya, (2011) had studied on CAMEL rating system of Commercial Banks in Nepal with reference to Bank of Kathmandu and Kumari Bank Limited. She had objective of analyzing and comparing the fundamental performance of BOK and Kumari Bank Limited. She found that KBL has capital adequacy than BOK which shows more conscious to the security of depositors. The loan loss provision of BOK is higher than that of KBL. KBL is improving in bad debts from its LLP. Management efficiency ratio of BOK seems to be consistence. BOK has earned higher profit. BOK has higher liquidity positon than KBL.

Kharel, (2005) has conducted a study to analyze the activity or turnover position, loans and advances to fixed deposit ratio of NABIL and NBL. Analysis of activity ratio indicates better turnover position of NABIL. This implies that NABIL is efficiently utilizing its deposit on loans and advances and others. While NBL is not lending its available deposit but holding the fund and deposits to own custody and / or other bank's balance. It shows NBL is discouraging the investment of its resources which makes adverse effect to the bank in terms of efficiency and profitability also. Analysis of leverage or capital structure indicates that long term debt to net worth ratio of NBL is higher than NABIL and also total debt to total assets ratio of NBL is higher than that of NBL. Unbalanced capital structure is the common situation of the banks. Banks are using excessive debt capital. This proves both the banks are extremely leveraged.

Capital adequacy ratio calculated for the banks stood below the prescribed adequacy ratio by NRB to absorb unexpected losses than can be incurred in the bank. Comparatively, NABIL position is better than NBL. Profitability of these banks are reflected by the determination of return on investment, commission and discount income to personnel expenses ratio, interest income to interest expenses ratio and return on shareholder's equity.

Shrestha, (2007) has used the CAMEL Rating System. The study was conducted with the objective of analyzing Capital Adequacy, Quality of Assets, earning and liquidity of the HBL and NABIL. Audited annual reports of condition for the period 2001/02 to 2005/06 are the primary source of information and treated as authentic. The both banks Core capital adequacy ratio varied positively NRB standard during the review period. Supplementary capital ratio of the banks was within the boundary of NRB regulation over the study period. The ROE ratio of NABIL was above the universal bench mark. The increasing trend of ROE showed that there turn per unit of equity invested by the shareholders was increasing year by year. The liquid assets to total deposit ratio of NABIL was above the industrial average ratio except in the initial period.

Assets composition of both banks like in every banks remained largely in the loans and investment. In case of NABIL the decreasing trend of loan loss provisioning ratio speaks of good quality loans were increasing i.e., it seems that amount default associated in loans was decreasing in future. Whereas, the increasing trend of loan loss provisioning ratio of HBL indicates that the quality of loan becoming degrading year by year i.e. it seems that amount of non-performing loans and possibilities of default in future was increasing. The both banks was managed and operating efficiently since the total expenses to total revenues ratios were in decreasing trend. This could be, but was not limited to management efficiencies. In any case, the decreasing trend will positively affect the bank's profitability in future. The increasing trend of earning per employee of NABIL depicts management capacity to control overhead expenses due to overstaffing with similar repercussions in terms of profitability. But the later 2 years it was in decreasing trend which was a matter of concern. Overall it was concluded that the management decisions related to operation

and investment has assisted in controlling control and recovery of bad debt. The ROE ratio of NABIL was above the universal benchmark. The increasing trend of ROE showed that there turn per unit of equity invested by the shareholders was increasing year by year. The liquid assets to total deposit ratio of NABIL was above the industrial average ratio except in the initial period. The investment in liquid assets was in increasing trend and switched into more profitable but high risk assets. The NRB balance to total deposits ratio was below the industrial average during the study period.

Singh, (2008) conducted the study to evaluate the capital adequacy ratio, to analyze assets quality and to absorb the liquidity position of these banks. He used ration analysis and statistical tools to covered five years analysis. On the basis of analysis, he concluded that SCBL is on the top and NABIL followed by HBL.

Likewise, Manandhar, (2009) have reported the performance analysis of Top Five Commercial Banks of Nepal with objective to analyze and compare liquidity, profitability, stability and market value position among the top five commercial banks. The other specific objectives are to trace out the trend of loan and advances, to find out the relationship between deposits and loans and advances, and deposits and net profit, to analyze the trend of profit and dividend distribution. The major findings of the study are EBL and NIBL have been getting lower net profit out of total income with comparison to all the banks. EBL comparatively fails to maintain operating ratio on total assets whereas NIBL did best. HBL, EBL, and NIBL have been suffering from ineffectively using the total fund. So, they are getting lower return than SCBNL and NABIL. All top five commercial banks have been earning sufficient interest income on loan and advances. It means they have been high utilizing the loan and advances. NABIL has been providing better dividend in a consistent way to some extent. As a lower average, NIBL has not provided dividend on share capital.

Rai, (2010) study the camel analysis of the Himalayan bank limited and Everest bank limited with objective to check the camel rating and to assess the organization investments, social corporate responsibility and services provided by the banks. EBL has perform with high efficiency effectiveness with high profit and productivity.

Whereas, HBL bank has low earning per share in comparision to the EBL. Both HBL and EBL has a comparative lower management efficiency

Warchira, (2010) analyses the relationship between financial performance and CAMEL rating of commercial bank and have noted that CAMEL model is able to capture the wholistic efficiency of a bank. It can also be argued that no one CAMEL rating factor taken separately from the others can influence the financial performance of a bank. Therefore, the CAMEL model rating factors should be considered together as combination and are inter-related.

Aftab, Samad and Hussain, (2015) have applied camel framework to find out whether the ownership (private or public) and political regimes (democracy or autocracy) have any connection with the performance of BFIs in reference of Pakistanis banks.

They concluded that when banks are in private control, bank's profitability increases with improvement in quality of assets and management, and it goes down when the banks increase capital base or board liquidity. However, when banks are owned by the government, the linkage between quality of assets and liquidity become statistically insignificant implying that government becomes guarantor of short term solvency and provides cover for asset deterioration.

Gupta,(2014) has analyzed public bank in india and found that there is a statistically significant different between the CAMEL ratio and thus the performance of all the public institution. Likewise, Ahsan, (2016) measured financial performance based on CAMEL on selected Islamic banks in Bangladesh and it is found 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.

Kumari, (2017) has used CAMEL rating system for evaluating the financial performance of foreign commercial bank. It was found that foreign sector banks are good in the performance of capital adequacy and earning while other variables show an average performance. In an analysis on financial performance of African banks, Desta, (2016) showed that all the banks are aggregately rated and fall under the composite rate 3, that is, fair. This composite rating often indicates that reasonable

problems exist which require and immediate action and careful monitoring. It means the bank are less capable of withstanding and more vulnerable to credit, market and other risks. Besides, the standard bank of South Africa ltd. That was identified as the winner best regional bank in Africa by the Global Finance Magazine (2015) is, however, on the verge of composite rate 4 and ranked the last among the seven banks under study.

The study concluded that the composite CAMEL rating reveals variations among the observed banks. Even if all the banks are compositely rated as fair, they have differences when each component and their aggregate average is considered. This variation helps to compare and rank banks based on their financial performance apart from triggering regulatory, supervisory and administrative concerns that must be addressed.

2.3 Research Gap

Although various studies have been carried out regarding financial performance analysis of banks and other financial institutions in Nepalese context, those studies mainly focused on the comparative study of different banks based on liquidity, leverage and profitability of the banks. The financial performance analysis done in the past lack the analysis in the framework of CAMEL, a new technique of assessing financial performance of the banks. Very few studies have been done applying this technique, however, they also lack thorough study using appropriate models, important ratio analysis. In addition, there lack a research on the related topic using the latest financial data. Most of the past researches had lack many other important ratios which are ideal for the assessment of financial performance of bank which shows the real position and performance. Most of the past researches had taken only one or less than Five bank for the CAMEL Study which are not sufficient for the study. This study has attempted to analyze the financial performance of the Ten selected commercial bank for the study which is sufficient sample for the research. They are NBL, RBBL, ADBL, NABIL, NIBL, SCBL, HBL, SBI, NBBL and EBL in the framework of CAMEL using appropriate models and analysis of financial ratio using financial data of last Five years.

CHAPTER- III
RESEARCH METHODOLOGY

This chapter provides the overall framework or plan for the collection, analysis and presentation of data required to fulfill the objective of the study. Objective of using different tools and techniques for the analysis and presentation as well as to answer the research questions as explained under this section. Research methodology is the specific procedure of techniques used to identify, select, process, and analyze information about a topic. To meet the objectives, the methodologies applied in the study are described below.

3.1 Research Design

To fulfill the objectives of the study certain research design is essential so the analysis of the study is based on the nature of data and tools for analysis. Therefore, the present study uses descriptive as well as analytical research design to describe, measure and analyze the financial performance of commercial banks to make a critical evaluation of the study to achieve the desired result.

3.2 Sources of Data

This research study is basically based on secondary data. The information required for study is collecting through following ways:

- Library research study
- Internet, homepage and related banks links
- Derivatives of NRB
- Annual report of related bank
- Published articles and journals from various researchers and lecturers

3.3 Population and Sample

The total number of commercial banks represent as the total population for the purpose of this study. There are 28 commercial banks in Nepal. Hence population consists of all commercial banks. Out of the total population ten commercial banks

are used as sample. The selected banks are based on the year of establishment of the bank which are listed by Nepal Rastra Bank according to their establishment (i.e banks started their operation). The first commercial bank of Nepal is Nepal Bank Limited. After the establishment of it, Rastriya Banijya Bank, Agriculture Development Bank, Nabil Bank, Nepal Investment Bank, Standard Chartered Bank, Himalayan Bank, Nepal SBI Bank, Nepal Bangladesh Bank and Everest Bank respectively. (www.nrb.org.com)

3.4 Period Covered

To do this research work five years annual report have been taken of respective banks which are published by bank after audit to general public in the form of annual report. It covers the fiscal year of 2012/13 to 2016/17.

3.5 Tools for Analysis

The available information is group as per the need of the research work in order to meet research objective. Both financial and statistical tools are applied to meet the objective of the study.

3.5.1 Financial tools

Financial ratio analysis tools are used to determine the performance of the banks in the framework of CAMEL components. These ratios are categorized in accordance of the CAMEL. For the analysis following various financial tools have been used in order to meet the purposes of the study.

A. CAMEL Indicators

3.5.1.1 Capital Adequacy

Capital Adequacy is a major indicator of the financial health of bank. It indicates whether the bank has enough capital to absorb unexpected losses. It reflects the overall financial position of the banks and also the ability of the management to meet the need for additional capital and also to maintain depositor’s confidence and

preventing the bank from going bankrupt. The following ratios measure capital adequacy are :-

1. Capital Adequacy Ratio (CAR)

This ratio is advocated to ensure that banks can bear a reasonable amount of losses occurring during the operation and to ascertain bank's loss bearing capacity. Higher the ratio reflect that banks are stronger and the investors are more protected.

Capital Adequacy ratio is the numerical expression of total capital fund to total risk weighted assets. It measures the adequacy of capital. The ratio is expressed as;

$$\text{Capital Adequacy Ratio} = \frac{\text{Total Capital Fund}}{\text{Risk- weighted Assets}}$$

Where,

Total Capital Fund = (Core capital + supplementary capital)

Risk- weighted Assets = (On- balance sheet risk weighted assets + Off- balance sheet risk adjusted assets)

2. Debt Equity Ratio

The ratio indicates the degree of leverage of a bank. It indicates the extent of the bank business which is financed through debt and equity. This is calculated as the proportion of total outside liability to net worth. Outside Liabilities includes total borrowings, deposits and other liabilities. Net worth includes equity capital and reserves and surplus. A higher ratio indicates less protection for the creditors and depositors in the banking system.

$$\text{Debt- Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

3. Advance to Total Assets

This is a ratio indicates the relationship between the total advances and total assets. This ratio indicates a bank's aggressiveness in lending which ultimately produces better profitability. Higher ratio is preferred to a lower one. The higher the ratio, the more the loan- assets created from deposits.

$$\text{Advance to Total Assets} = \frac{\text{Total Advances}}{\text{Total Assets}}$$

3.5.1.2 Assets Quality

The quality of assets is an important parameter to measure the strength and financial health of the bank assets. The poor quality of assets can force the bank to fail. Assets quality indicates the type of the debtors the bank is having. So it should be undertaken to find out as to why Non- performing assets are getting created and Non- performing assets classification of 90 days, 180 days and so on has to be strictly followed. If a bank has lent high amounts of credit to such sectors it is bound to have the problem of bad loans. The following ratios are necessary to assess the assets quality :-

1. NPA to Total Advances

This ratio is the most standard measure to evaluate the assets quality. It indicate the level of the non- performing assets as a percentage of Total advances. This ratio indicates how good a bank's provisioning practices. If the ratio is lower, it is a very good sign of credit efficiency of a bank and the better for the company. The highest ratio leads to the weak performance of a bank.

$$\text{NPA to Total Advances} = \frac{\text{Non- Performing Asset}}{\text{Total Advances}} \times 100$$

2. NPA to Total Assets

This ratio indicates the efficiency of the bank in assessing credit risk and, to an extent, recovering the debts. It is the ratio of NPA to total asset ratio. It indicates how much assets the bank has to cover in NPAs. The Lower the ratio, the better for banks means that the less proportion of its advances are turning NPA.

$$\text{NPA to Total Assets} = \frac{\text{Non- Performing Asset}}{\text{Total Assets}} \times 100$$

3. Total Investment to Total Assets

This ratio indicates the extent of deployment of assets in investment as against advances. This ratio is used as a tool to measure the percentage of total assets locked

up in investments. A higher ratio shows the conservative policy of a bank to provide safeguard to the investment against NPAs. Lower the ratio better for the bank.

$$\text{Total Investment to Total Assets} = \frac{\text{Total Investment}}{\text{Total Assets}} \times 100$$

3.5.1.3 Management Efficiency

The management efficiency is calculated as the ability of bank's top management to take right decisions. It is used to evaluate better management quality and discount poorly managed ones and also helps a bank in achieving sustainable growth. It sets vision and goals for the organization and sees that it achieves them. The ratios in this element involve subjective analysis to measure the efficiency and effectiveness of management. The ratio that are used to evaluate management efficiency are :-

1. Total Advances to Total Deposits

This ratio measures the efficiency and ability of the bank's management in converting the deposits available with the bank (excluding other funds like equity capital, etc.) into high earnings advances. Total Deposits include demand deposits, saving deposits, term deposits and deposits of other banks. Total Advances also include the receivables. Higher the ratio, better will be the performance of the bank.

$$\text{Total Advances to Total Deposits} = \frac{\text{Total Advances}}{\text{Total Deposits}} \times 100$$

2. Business per Employee

This ratio measures the efficiency of all the employees of a bank in generating business for the bank. It is calculated by dividing the total business by the total number of employees. Business means the sum of total advances and total deposits in a particular year. Business per employee reveals the productivity and efficiency of human resources of bank. Higher the ratio, the better it is for the bank and vice- versa.

$$\text{Business Per Employee} = \frac{\text{Total Business}}{\text{Total Number of employees}} \times 100$$

3. Profit per Employee

This ratio measures the efficiency of all employees of a bank in generating profit for the banks. It is calculated by dividing the total profit after tax earned by the bank, by the total number of employees. The higher the ratio, the higher will be the efficiency of employees and management.

$$\text{Profit Per Employee} = \frac{\text{Net profit after tax}}{\text{Total number of employee}} \quad \text{x } 100$$

3.5.1.4 Earning Quality

High earning quality should reflect the firm's current operating performance and a good indicator of future operating performance. The quality of earnings is an extremely significant parameter which expresses the quality of profitability and capability of a bank to sustain quality and earning consistently. It primarily reflects the profitability of bank and enlightens consistency of future earnings. The following ratios are required to assess earning quality:

1. Interest Income to Total Income Ratio

Ineterst income to total income shows the proportionate contribution of interest income in total income. Banks lend money in the form of loans and advances to the borrowers and receive interest on it. This receipt of interest is called interest income. Total income includes interest income, non- interest income and operating income.

$$\text{Interest income on total income} = \frac{\text{Interest Income}}{\text{Total Income}} \quad \text{x } 100$$

2. Net Interest Margin to Total Assets

Net interest margin (NIM) is a measure of the difference between the interest income generated by banks or other financial institution and the amount of interest paid out to lenders (for example, deposits), relative to the amount of their (interest – earning) assets.

$$\text{NIM} = \frac{\text{Interest earned} - \text{Interest expenses}}{\text{Total Assets}} \quad \text{x } 100$$

3. Operating Profit to Total Assets

Operating profit ratio as the operating profit (or net operating income) of the bank divided by average total assets. It measures the ability of the management to keep revenue growth ahead of rising costs. This ratio reveals how much profit a bank can earn from its operations for every rupee invested in its total asset. The optimal utilization of assets will increase the operating profit of the bank. The higher the ratio the better will be the earning of the bank.

$$\text{Operating profit on total assets} = \frac{\text{Operating profit}}{\text{Total Assets}} \times 100$$

3.5.1.5 Liquidity

Liquidity is an important aspect of any organization dealing in money which measures the capacity of banks to meet its financial obligations. Among assets, cash and investments are the most liquid of bank assets. If liquidity is too much low, then banks are not in a position to meet its current financial liabilities. On another hand, if liquidity is too much high, then banks are not utilizing their cash properly. Thus a proper balance is necessary for liquidity so that banks can generate high profit while at the same time provide liquidity to the depositors. The ratios suggested to measure liquidity under CAMEL Model are as follows:

1. Liquid Assets to Total Assets

The proportion of liquid assets to total assets indicates the overall liquidity position of the bank. Liquid assets include cash in hand, balance with the NRB, balance with other banks and money at call and short notice. Total assets include the revaluations of all the assets. Higher the ratio, better will the performance of the banks and vice-versa.

$$\text{Liquid Assets to Total Assets} = \frac{\text{Liquid Assets}}{\text{Total Assets}} \times 100$$

2. Liquid Assets to Demand Deposit

The ratio measures the ability of a bank to meet the demand from deposits in a particular year. It is arrived at by dividing the liquid assets by total demand deposits. The demand deposits offer high liquidity to the depositors and hence banks have to invest these assets in a highly liquid form. The liquid assets include cash in hand, balance with the NRB, balance with other banks and money at call and short notice.

$$\text{Liquid Assets} = \frac{\text{Liquid Assets}}{\text{Demand Deposit}} \quad \text{x } 100$$

3. Liquid Assets to Total Deposit

This ratio measures the liquidity available to the deposits of a bank. Total deposits include demand deposits, saving deposits, term deposits and deposits of other financial institution. Liquid assets include cash in hand, balance with other banks, and money at calls and short notice.

$$\text{Liquid Assets to Total Deposit} = \frac{\text{Liquid Assets}}{\text{Total Deposit}} \quad \text{x } 100$$

B. Profitability Indicator

1. Return on Assets

Return on total assets explains the contribution of assets to generating net profit. This ratio indicates efficient towards of assets mobilization. In other words return on total assets ratio is an overall profitability rate, which measures earning power and overall operation efficiency of a firm. This ratio helps the management in identifying the factors that have a bearing on overall performance of the firm.

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

2. Return on Equity

Equity shareholders are the real owner of a company and are the risk- bearers and are entitled to total profits earned by the company after preference dividend. Return on equity relates the profitability of a company to equity shareholders equity. ROE measures the company's profitability in terms of return to equity shareholders. It is calculate as under.

$$\text{Return on Total Equity} = \frac{\text{Net Profit After Tax}}{\text{Shareholders' Equity}}$$

3.5.2 Statistical tool

Various statistical tools can be used to analyze the data available to the researcher. These tools are used in research in order to draw the reliable conclusion through the analysis of financial data.
Following tools are used for purpose.

3.5.2.1 Multiple Regression Model

Multiple regression analysis is a statistical method used to predict the value a dependent variable based on the values of two or more independent variables. In this study, financial ratios under the CAMEL rating system have been taken as the independent variables and return on assets and return on equity that is profitability ratio have been used as the dependent variables. The regression models used in this analysis are:

$ROA = a + b_1 CAR + b_2 D/E + b_3 TATTA \ldots (i)$

$ROE = a + b_1 CAR + b_2 D/E + b_3 TATTA \ldots (ii)$

And 'a' represents the constant value and 'b_1', 'b_2', and 'b_3' represents the regression coefficient.

The first model measures the effect of the CAMEL indicators on profitability in Nepalese commercial banks, where return on asset (ROA) is the proxy for profitability.

The second model measures the effect of the CAMEL indicators on profitability in Nepalese commercial banks, where return on equity (ROE) is the proxy for profitability.

3.5.2.1 Correlation Analysis

It is a statistical tool for measuring the intensity or the magnitude of linear relationship between two series. Karl Pearson's measure, known as Pearson's correlation coefficient between two variables. Several types of correlation coefficient exist, each with their own definition and own range of usability and characteristics. They all assume values in the range from -1 to +1, where +1 indicates the strongest possible agreement and -1 indicates the strongest possible disagreement.

CHAPTER – IV
RESULTS

This chapter deals with presentation and analysis of data collected from annual reports of the bank. The raw data collected has been organized and processed using various tools discussed in the previous chapter "Research Methodology". In this chapter data and information are presented and analyzed using different financial and statistical tools in order to achieve the objectives of the study. In data presentation and analysis, the study is focused on CAMEL components.

4.1 CAMEL Indicators

4.1.1 Capital Adequacy

4.1.1.1 Capital Adequacy Ratio (CAR)

Table 4.1- Capital Adequacy Ratio (In %)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	-5.82	-0.59	4.55	7.5	10.2	3.168	10
RBBL	2.94	4.62	10.16	10.46	10.39	7.714	9
ADBL	16.34	14.93	17.16	17.18	20.41	17.204	1
NABIL	11.59	11.24	11.57	11.73	12.42	11.71	7
NIBL	11.49	11.27	11.9	14.92	13.02	12.52	5
SCBL	12.54	12.27	13.1	16.38	21.08	15.074	2
HBL	11.55	11.23	11.14	10.84	12.15	11.382	8
SBI	12.39	13.28	14.03	13.49	15.71	13.78	3
NBBL	11.61	11.44	11.31	10.96	15.1	12.084	6
EBL	11.59	11.31	13.33	12.66	14.69	12.716	4

(Source : Appendix-1)

Table 4.1 presents the capital adequacy ratio of the banks. As per the NRB guidelines commercial banks have to maintain capital adequacy ratio (CAR) as 11%. Capital Adequacy Ratio of the banks are above standard set by NRB throughout the study except NBL and RBB bank with least average. It is found that Agriculture Development bank ranked on the top position with highest CAR in an average i.e 17.204% of which is considered as safe and likely to meet its financial position. Nepal Bank Limited and Rastriya Banijya Bank has lower CAR in an average i.e. 3.168% and 7.714% respectively which are lower than the standard and scored the lowest position in which it is unable to maintain minimum requirement of CAR directed by

NRB. It implies that, except NBL and RBB all other banks have become successful to minimize its risk to maintain standard capital as adequate by regulation. So ADBL bank is able to cover realistic point of losses which will happen in banking operation.

4.1.1.2 Debt- Equity Ratio

Table 4.2 - Debt- Equity ratio

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	-339.68	22.29	22.03	14.41	8.79	-54.432	10
RBBL	78.78	50.35	19.91	18.34	15.55	36.586	9
ADBL	4.42	5.64	5.22	1.21	4.82	4.262	1
NABIL	9.95	10.42	11.23	9.98	8.56	10.028	5
NIBL	9.92	9.87	9.64	6.97	7.1	8.7	4
SCBL	8.88	9.48	9.92	7.66	5.53	8.294	3
HBL	10.54	11.1	10.89	10.32	8.16	10.202	6
SBI	16.06	12.47	9.5	10.35	8.6	11.396	7
NBBL	5.1	6.51	7.1	6.73	4.45	5.978	2
EBL	10.62	11.91	13.39	12.38	9.09	11.478	8

(Source : Appendix-1)

Table 4.2 exhibits the ratio of Debt to equity. It shows the relationship between long term debt or total debt and shareholder funds. It is a test of long term solvency of a firm. Debt to equity ratio has been fluctuating in every study period of each bank. It is found that ADBL is in the top position with the least average of 4.262 times followed by the NBBL with average of 5.9768 times with second rank, SCBL with average of 8.294 times with third rank, NIBL with average of 8.7 times with fourth rank and so on. A low debt equity ratio implies the use of more equity than debt which means larger margin of safety for creditors since shareholder equity is considered as a margin of safety by creditor and vice- versa. NBL is in lowest position with average of -54.432times which is negative. A negative debt to equity ratio implies that the bank requires on increase in equity from shareholders. From the finding, it concluded that ADBL bank is highly protective for the depositors and creditors because it has least ratio among other bank.

4.1.1.3 Advance to Total Assets

Table 4.3 - Advance to Total Asset (%)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	53.48	52.86	60.52	61.39	66.37	58.924	8
RBBL	48.31	49.65	54.34	51.35	61.33	52.996	9
ADBL	71.23	70.58	71.57	74.62	73.09	72.218	1
NABIL	65.05	64.39	57.91	61.06	65.19	62.72	6
NIBL	65.21	62.04	64.87	67.04	70.74	65.98	3
SCBL	50.71	49.37	43.16	48.63	51.32	48.638	10
HBL	67.14	63.12	66.94	69.19	72.39	67.756	2
SBI	45.05	58.48	68.28	60.55	63.86	59.244	7
NBBL	60.26	61.71	65.4	69.68	65.81	64.572	4
EBL	67.23	68.78	55.84	60.53	67.19	63.914	5

(Source : Appendix-1)

Table 4.3 presents the ratio of advance to total asset which indicate bank aggressiveness in lending which ultimately produces better profitability. The ratio has been fluctuating during the research period of each selected bank. ADBL bank is in first rank with an highest average of 72.218% and followed by the HBL, NIBL, NBBL, EBL and so on with an average of 67.756%, 65.98%, 64.572%, 63.914% with second, third, fourth, fifth rank respectively among the selected bank. This ratio should be maximum as possible because the main function of the bank is to give out advances. If there is more lending more will be the income from its operations. Higher the ratio higher will be the profits from interest on lending. Likewise, SCBL is in last rank with an least average of 48.638% among the selected bank. Lower the ratio lower is the profits from interest on lending. From the finding, it concluded that ADBL bank is preferred as better profitability than the other bank because it has higher ratio as compared to other.

4.1.1.4 Composite Capital Adequacy

Table 4.4 - Composite Capital Adequacy

Bank	CAR (%)		Debt- Equity (%)		Advances/Total Assets (%)		Group Rank	
	Average	Rank	Average	Rank	Average	Rank	Average	Rank
NBL	3.168	10	-54.432	10	58.924	8	9.33	10
RBBL	7.714	9	36.586	9	52.996	9	9	9
ADBL	17.204	1	4.262	1	72.218	1	1	1
NABIL	11.71	7	10.028	5	62.72	6	6	8
NIBL	12.52	5	8.7	4	65.98	3	4	2.5
SCBL	15.074	2	8.294	3	48.638	10	5	4
HBL	11.382	8	10.202	6	67.756	2	5.33	5
SBI	13.78	3	11.396	7	59.244	7	5.67	6.5
NBBL	12.084	6	5.978	2	64.572	4	4	2.5
EBL	12.716	4	11.478	8	63.914	5	5.67	6.5

(Source : Appendix-1)

Table 4.4 shows group averages of three ratios of capital adequacy. ADBL bank is at the top position with group average of 1, followed by NIBL (4.00) and NBBL (4.00) with same average. NBL scored the lowest position due to its poor performance in Debt- Equity and Capital Adequacy ratio than the other banks.

4.1.2 Asset Quality

4.1.2.1 Non- Performing Assets (NPA) to Total Asset

Table 4.5 - NPA to Total Asset (In %)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	2.8	2.71	2.41	1.91	2.2	2.406	8
RBBL	2.57	3.17	2.91	2.18	2.31	2.628	9
ADBL	0.42	3.94	3.83	3.25	3.36	2.96	10
NABIL	0.99	1.44	1.05	0.69	0.52	0.938	6
NIBL	1.25	1.1	0.81	0.46	0.59	0.842	5
SCBL	0.39	0.24	0.15	0.16	0.09	0.206	2
HBL	1.94	1.24	2.15	0.85	0.62	1.36	7
SBI	0.17	0.15	0.13	0.08	0.06	0.118	1
NBBL	0.8	0.84	0.87	0.49	0.5	0.7	4
EBL	0.42	0.67	0.37	0.23	0.17	0.372	3

(Source : Appendix-1)

Table 4.5 presents the ratio of Non- performing asset to total asset. The ratio has been fluctuating during the research period of each bank. SBI bank is in the first rank with an least average of 0.118% among the sample bank and followed by the SCBL, NBBL, NIBL, NABIL and so on with an average of 0.206%, 0.372%, 0.7%, 0.842%

with second, third, fourth, fifth rank respectively. The bank should be better if the NPA levels are kept minimum as possible. If NPA is low the returns on the asset is of high quality. In the same way, ADBL is in the last rank with the highest average of 2.96% among the sample bank. If the NPA levels are increase the income or returns on their investments/ advances will reduce.

4.1.2.2 Non- Performing Assets (NPA) to Total Advance

Table 4.6 - NPA to Total Advance (In %)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	5.24	5.12	3.98	3.11	3.32	4.154	8
RBBL	5.32	6.38	5.35	4.25	3.66	4.992	9
ADBL	5.85	5.46	5.35	4.36	4.6	5.124	10
NABIL	2.13	2.23	1.82	1.14	0.79	1.622	6
NIBL	1.91	1.77	1.25	0.68	0.83	1.288	5
SCBL	0.77	0.48	0.34	0.32	0.19	0.42	2
HBL	2.89	1.96	3.22	1.23	0.85	2.03	7
SBI	0.37	0.26	0.19	0.14	0.1	0.212	1
NBBL	1.33	1.35	1.33	0.71	0.76	1.096	4
EBL	0.62	0.97	0.66	0.38	0.25	0.576	3

(Source : Appendix-1)

Table 4.6 presents the ratio of Non- performing asset to total advance. NPA to total advance has been fluctuating in every study period of each bank. The ratio of SBI bank is in the first rank among the sample bank with least average of 0.212% followed by SCBL with an average of 0.42% in the second position. Likewise, EBL, NBBL, NIBL, NABIL etc are in third, fourth, fifth, sixth position with an average of 0.576%, 1.096%, 1.288%, 1.622% respectively. Lower the ratio better is the advance (asset) quality. NPA is like bad- debt to a company, it should be minimum as possible or it should be decreasing which is good for the bank. By this way ADBL bank is in last position with highest ratio among the selected bank. ADBL has an average of 5.124% which is highest ratio among the selected bank. If the number of NPA increases it means that it is not recovering its advances. So, the bank has to take preventive measures so that NPA to net advance ratio comes down as much as possible.

4.1.2.3 Total Investment to Total Assets

Table 4.7 - Total Investment to Total Assets (%)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	15.51	29.06	19.16	12.41	10.87	17.402	4
RBBL	29.23	26.18	25.3	26.29	22.06	25.812	9
ADBL	11.93	15.08	13.38	12.51	12.53	13.086	3
NABIL	22.3	20.94	26.7	28.69	23.23	24.372	8
NIBL	15.63	17.85	20.57	22.52	16.98	18.71	5
SCBL	27.95	17.61	19.98	35.43	20.19	24.232	7
HBL	21.25	26.96	20.67	19.33	16.72	20.986	6
SBI	39.98	29.02	15.72	24.57	21.08	26.074	10
NBBL	14.24	9.78	14.58	9.64	14.05	12.458	1
EBL	14.09	9.23	15.23	15.98	10.27	12.96	2

(Source : Appendix-1)

Table 4.7 exhibits the ratio of total investment to total assets. It is one of the key ratio of Asset Quality of the banking industry. This ratio indicates the extent of assets against investment. The ratio has been fluctuating in every study period of each bank. NBBL bank is in the first position with an least average of 12.458% among the selected bank and followed by the EBL bank with an average of 12.96% in second rank. Likewise, ADBL, NBL, NIBL, HBL etc are in third, fourth, fifth, sixth rank with an average of 13.086%, 17.402%, 18.71%, 20.986% respectively. In the same way SBI bank rank in the last position among the selected bank with an average of 26.074% which is highest among the bank. A higher ratio shows the conservative policy of a bank. To provide safeguard the investment against NPA's.

4.1.2.4 Composite Asset Quality

Table 4.8 - Composite Asset Quality

Bank	NPA to Total Assets (%)		NPA To Total Advance (%)		Total Investment to Total Assets (%)		Group Rank	
	Average	Rank	Average	Rank	Average	Rank	Average	Rank
NBL	2.406	8	4.154	8	17.402	4	6.67	7
RBBL	2.628	9	4.992	9	25.812	9	9	10
ADBL	2.96	10	5.124	10	13.086	3	7.67	9
NABIL	0.938	6	1.622	6	24.372	8	6.67	7
NIBL	0.842	5	1.288	5	18.71	5	5	5
SCBL	0.206	2	0.42	2	24.232	7	3.67	3
HBL	1.36	7	2.03	7	20.986	6	6.67	7
SBI	0.118	1	0.212	1	26.074	10	4	4
NBBL	0.7	4	1.096	4	12.458	1	3	2
EBL	0.372	3	0.576	3	12.96	2	2.67	1

(Source : Appendix-1)

Table 4.8 shows the group average of three ratios of assets quality. EBL is at the first position with group average of 2.67, followed by NBBL (3.00) and SCBL (3.67) with average. RBBL scored the lowest position with tenth rank among the sample bank due to its poor performance in NPA to Total Assets, NPA to Total Advance and Total investment to Total Assets.

4.1.3 Management Efficiency

4.1.3.1 Total Advances to Total Deposits

Table 4.8 - Total Advances to Total Deposits (In %)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	60.1	59.45	68.45	71.05	79.17	67.644	8
RBBL	53.84	56.73	61.05	58.46	69.29	59.874	9
ADBL	100.81	94.8	93.77	95.46	92.9	95.548	1
NABIL	74.9	74.55	64.43	70.49	65.38	69.95	5
NIBL	76.4	72.4	74.7	80.1	84.9	77.7	2
SCBL	58.63	56.87	48.92	56.88	62.2	56.7	10
HBL	77.36	71.82	75.37	79.12	83.59	77.452	3
SBI	49.55	65.54	78.39	72.9	78.07	68.89	7
NBBL	66.31	66.59	69.17	72.91	69.72	68.94	6
EBL	76.57	78	66.63	73.52	82.32	75.408	4

(Source : Appendix-1)

Table 4.8 exhibits the ratio of total advances to total deposits. The ratio has been fluctuating during the research period of each bank. This ratio evaluates the efficiency and capabilities of the banks management. ADBL bank is in the first rank with the highest average of 95.548% and followed by the NIBL, HBL, EBL, NABIL etc. with an average of 77.7%, 77.452%, 75.408%, 69.95% by securing the second, third, fouth, fifth rank position respectively. SCBL bank is in last rank with an least average of 56.7% among the bank of research period. Higher the ratio is good and satisfactory condition for the bank.

4.1.3.2 Profit Per Employees

Table 4.9 - Profit per Employees (in Lakhs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	2.71	2.74	1.85	12.24	14.76	6.86	10
RBBL	5.26	7.28	18.25	9.54	12.35	10.536	8
ADBL	7.64	5.23	13.16	10.14	9.75	9.184	9
NABIL	29.9	32.04	29.66	35.6	42.61	33.962	1
NIBL	21.04	20.59	20.25	25.38	26.24	22.7	4
SCBL	26.83	29.06	29.79	29.71	28.72	28.822	2
HBL	11.37	11.49	12.99	22.59	26.09	16.906	7
SBI	14.34	15.21	17.88	19.62	19.83	17.376	6
NBBL	17.98	16.28	16.05	22.52	19.42	18.45	5
EBL	22.88	22.27	22.62	23.41	27.15	23.666	3

(Source : Appendix-1)

Table 4.9 shows the ratio of net profit per employee. This ratio indicates the amount of net profit made by the bank per employee. It seems that profit per employee has been fluctuating in every study period of each bank. NABIL bank was the highest position with average of 33.962% per employee followed by the SCBL with average of 28.822% in second position. Likewise, EBL is in the third position with the average of 23.666%, NIBL is in fourth position with average 22.70% per employee and so on. Higher the ratio higher is the efficiency level of the banks employees. NBL scored the lowest position with the average of 6.86% per employee which is lowest average among the sample bank which were taken for study. It shows that the efficiency level of the employees is lower to generate business to the bank.

4.1.3.3 Business Per Employee (BPE)

Table 4.10 - Business Per Employee (in Lakhs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	361.94	422.29	500.91	649.13	796.96	546.246	10
RBBL	562.81	666.37	786.08	937.97	1156.64	821.974	8
ADBL	365.02	441.29	544.99	702.9	731.54	557.148	9
NABIL	1499.4	1817.57	2427.76	2373.71	2480.98	2119.884	1
NIBL	1210.21	1351.27	1633.87	1946.63	1957.48	1619.892	5
SCBL	1378.96	1578.85	1970.21	2009.76	2092.98	1806.152	3
HBL	1134.09	1330.83	1506.61	1825.39	2042.18	1567.82	6
SBI	1637.81	1486.12	1545.3	1660.63	1893.45	1644.662	4
NBBL	715.54	981.54	1176.66	1360.95	1313.48	1109.634	7
EBL	1585	1588	1989	2201	2318	1936.2	2

(Source : Appendix-1)

Table 4.10 exhibits the ratio of business per employee. This ratio indicates the amount of business made by the bank per employee. Business per employee has been fluctuating in every study period of each bank. The business was the highest of NABIL bank. It was in the first position with an average of highest amount of 2119.884 Lakh per employee in an study period of five years and followed by EBL with an average of 1936.2 lakh per employee with second position. Likewise SCBL is in the third position with an average of 1806.152 lakh per employee among the sample bank taken for study. This ratio shows the efficiency levels of employees to generate business to the bank. More the ratio more is the efficiency level of the banks employees. Nepal bank limited (NBL) scored the last position among the sample of 10 bank with lowest average of 546.246 Lakh per employee. Lower the ratio lower is the efficiency level of the banks employees.

4.1.3.4 Composite Management Efficiency

Table 4.11 - Composite Management Efficiency

Bank	Total Advance to Total Deposits (%)		Profit per Employee (%)		Business per Employee (%)		Group Rank	
	Average	Rank	Average	Rank	Average	Rank	Average	Rank
NBL	67.644	8	6.86	10	546.246	10	9.33	10
RBBL	59.874	9	10.536	8	821.974	8	8.33	9
ADBL	95.548	1	9.184	9	557.148	9	6.33	8
NABIL	69.95	5	33.962	1	2119.884	1	2.33	1
NIBL	77.7	2	22.7	4	1619.892	5	3.67	3
SCBL	56.7	10	28.822	2	1806.152	3	5	4
HBL	77.452	3	16.906	7	1567.82	6	5.33	5
SBI	68.89	7	17.376	6	1644.662	4	5.67	6
NBBL	68.94	6	18.45	5	1109.634	7	6	7
EBL	75.408	4	23.666	3	1936.2	2	3	2

(Source : Appendix-1)

Table 4.11 shows the group average of three ratios of management efficiency. NABIL bank is at the first position with group average of 2.33, followed by EBL (3.00) and NIBL (3.67) respectively. NBL bank scored the lowest position with tenth rank that is last position among the study bank with an average of (9.33).

4.1.4 Earning Quality

4.1.4.1 Operating Profit to Total Assets

Table 4.12 - Operating Profit to Total Assets (In %)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	0.15	-0.01	0.44	1.88	2.64	1.02	9
RBBL	0.54	0.72	1.06	1.04	1.63	0.998	10
ADBL	1.46	0.63	0.58	1.96	1.78	1.282	8
NABIL	4.73	4.07	2.79	3.39	3.89	3.774	1
NIBL	2.93	3.36	2.44	2.85	3.14	2.944	3
SCBL	4.08	3.71	2.81	2.61	2.57	3.156	2
HBL	1.87	1.34	0.82	2.3	2.28	1.722	7
SBI	1.81	2.22	2.75	2.62	2.34	2.348	6
NBBL	2.54	2.47	2.59	3.26	3.11	2.794	5
EBL	3.5	3.32	2.27	2.34	2.65	2.816	4

(Source : Appendix-1)

Table 4.12 exhibits the ratio of operating profit to total assets which reveals how much profit a bank can earn from its operations for every rupee invested in its total asset. The operating profit to total asset ratio has been fluctuating during the research period of each selected banks. NABIL bank is in the first rank with the highest average of 3.774% and followed by the SCBL, NIBL, EBL, NBBL and so on with the average of 3.156%, 2.944%, 2.816%, 2.794% with the second, third, fourth, fifth rank respectively. The optimal utilization of assets will increase the operating profit. The higher the ratio better will be the earning of the bank. Likewise, RBBL bank is in last rank among the selected bank with an least average of 0.998% which represent that it is unable to utilize its assets to earn profit.

4.1.4.2 Interest Income to Total Income Ratio

Table 4.13 - Interest Income to Total Income Ratio (In %)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	87.66	80.7	81.43	71.77	76.51	79.614	8
RBBL	88.38	86.25	62.82	87.62	88.01	82.616	5
ADBL	90.63	90.24	88.05	88.14	87.43	88.898	1
NABIL	83.76	81.29	81.85	80.8	82.11	81.962	6
NIBL	89.26	83.35	82.72	82.25	82.95	84.106	4
SCBL	74.81	72.96	70.47	69.24	72.52	72	10
HBL	81.91	78.92	76.68	79.04	82.44	79.798	7
SBI	87.76	85.87	83.08	81.06	83.57	84.268	3
NBBL	80.96	78.94	78.03	77.42	76.01	78.272	9
EBL	88.79	86.35	83.33	83.07	86.36	85.58	2

(Source : Appendix-1)

Table 4.13 presents the ratio of Interest income to total income ratio which reflect the capability of the bank in generating income from its lending business. Interest income is the prime source of revenue for bank. ADBL bank is in the first rank with an highest average ratio 88.898% followed by the EBL with second highest average ratio of 85.58% with second rank. SBI, NIBL, RBBL etc are in third, fourth, fifth rank with an average of 84.268%, 84.106%, 82.616% respectively. High ratio indicate the high performance of the bank from its operation. Interest earned should be as high as possible is good for any bank. Likewise, SCBL is in the last rank among the selected bank with an least average of 72%. Lower the ratio indicates the poor performance of the bank from its operation.

4.1.4.3 Net Interest Margin (NIM) to Total Assets

Table 4.14 - NIM to Total Assets (In %)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	3.57	3.62	3.75	4.45	5.17	4.112	2
RBBL	3.24	3.17	3.29	3.34	4.02	3.412	5
ADBL	6.12	5.22	5.59	5.6	5.6	5.626	1
NABIL	4.81	4.24	3.04	3.39	3.89	3.874	3
NIBL	4.24	3.48	2.86	3.02	3.17	3.354	6
SCBL	4.22	3.77	2.95	2.84	2.84	3.324	7
HBL	4.1	3.39	3.23	3.46	3.51	3.538	4
SBI	2.51	2.94	3.45	3.08	2.92	2.98	9
NBBL	3.15	2.16	2.76	3.13	2.68	2.776	10
EBL	3.13	4.14	2.91	2.84	3.21	3.246	8

(Source : Appendix-1)

Table 4.14 exhibits the ratio of Net interest margin to total assets which measures the different between the interest income generated by banks and the amount of interest paid out to their lenders, relative to the amount of their assets. The NIM to total assets ratio has been fluctuating during the research period of each bank. ADBL is in the first rank with an highest average of 5.626% among the sample bank and followed by the NBL, NABIL, HBL, RBBL and so on with an average of 4.112%, 3.874%, 3.538%, 3.412% with the second, third, fourth, fifth rank respectively. Higher ratio indicates the better earnings given the total assets and vice- versa. Likewise, NBBL is in last rank with an least average of 2.776% among the sample bank. It indicate that its earning is lower among the other sample bank.

4.1.4.4 Composite Earning Quality

Table 4.15 - Composite Earning Quality

Bank	Operating profit to Total Assets (%)		Interest Income to Total Income (%)		Net Interest margin to Total Asset (%)		Group Rank	
	Average	Rank	Average	Rank	Average	Rank	Average	Rank
NBL	1.02	9	79.614	8	4.112	2	6.33	7.5
RBBL	0.998	10	82.616	5	3.412	5	6.67	9
ADBL	1.282	8	88.898	1	5.626	1	3.33	1.5
NABIL	3.774	1	81.962	6	3.874	3	3.33	1.5
NIBL	2.944	3	84.106	4	3.354	6	4.33	3
SCBL	3.156	2	72	10	3.324	7	6.33	7.5
HBL	1.722	7	79.798	7	3.538	4	6	5.5
SBI	2.348	6	84.268	3	2.98	9	6	5.5
NBBL	2.794	5	78.272	9	2.776	10	8	10
EBL	2.816	4	85.58	2	3.246	8	4.67	4

(Source : Appendix-1)

Table 4.15 shows the group average of three ratios of Earning Quality. ADBL and NABIL bank is at the first position with group average of 3.33, followed by NIBL (4.33) and EBL (4.67) respectively. NBBL bank scored the lowest position with tenth rank that is last position among the study bank with an average of (8.00) due to its poor performance among the other banks.

4.1.5 Liquidity

4.1.5.1 Liquid Asset to Total Asset

Table 4.16 - Liquid Asset to Total Asset (In %)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	20.33	8.54	10.49	19.82	16.84	15.204	5
RBBL	15.31	23.07	18.43	19.66	11.87	17.668	4
ADBL	12.44	10.17	11.46	9.67	12.31	11.21	8
NABIL	10.26	12.29	14.08	8.37	9.33	10.866	9
NIBL	18.48	19.7	13.72	10.15	11.89	14.788	6
SCBL	20.63	32.16	36.27	17.95	27.84	26.97	1
HBL	9.34	7.79	11.73	9.37	8.31	9.308	10
SBI	12.12	10.89	14.23	13.23	13.25	12.744	7
NBBL	22.93	26.38	18.68	19.84	19	21.366	2
EBL	17.06	18.69	25.33	20.29	18.35	19.944	3

(Source : Appendix-1)

Table 4.16 presents the ratio of total liquid assets to total assets which measure the overall liquidity position of the bank. The liquid assets to total assets ratio has been fluctuating during the research period of each selected bank. SCBL is in the first rank with an highest average of 26.97% ratio followed by NBBL, EBL, RBBL, NBL etc. with an average of 21.366%, 19.944%, 17.668%, 15.204% by securing the second, third, fourth, fifth rank position respectively among the selected bank. This ratio ensures that the bank will have enough liquid assets in order to cope- up with sudden demand for withdrawals. HBL bank is in last rank with an least average of 9.308% among the selected bank of research period.

4.1.5.2 Liquid Asset to Demand Deposits

Table 4.17 - Liquid Asset to Demand Deposit (In %)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	1.05	0.43	0.52	0.97	0.81	0.756	9
RBBL	0.31	1.05	1.13	0.79	0.49	0.754	10
ADBL	1.24	1.05	1.13	0.86	1.52	1.16	6
NABIL	1.03	1.12	1.27	0.66	0.77	0.97	8
NIBL	2.42	1.64	1.22	0.95	1.28	1.502	4
SCBL	0.68	1.39	1.46	0.86	1.74	1.226	5
HBL	0.98	0.89	1.14	1.04	0.99	1.008	7
SBI	1.56	1.62	1.75	1.88	2.1	1.782	3
NBBL	3.67	4.68	3.5	3.04	2.45	3.468	1
EBL	1.39	2.03	3.55	2.68	2.41	2.412	2

(Source : Appendix-1)

Table 4.17 exhibits the ratio of Liquid asset to Demand deposit which reflect the ability of bank to honor the demand for depositors during a particular year. The liquid asset to demand deposit ratio has been fluctuating during research period of each selected bank. NBBL is in the first rank with an highest average of 3.468% followed by EBL, SBI, NIBL, SCBL etc with an average of 2.412%, 1.782%, 1.502%,1.226% with securing second, third, fourth, fifth rank position respectively. Higher the ratio higher is the satisfactory condition for the bank, which is showing that bank is maintaining a proper balance. On the same way, RBBL bank is in last rank among the selected bank with an least average of 0.754%. The bank should need to maintain balance between the liquid assets and its advances in order to ensure constant flow of withdrawals to the customer.

4.1.5.3 Liquid Asset to Total Deposits

Table 4.18 - Liquid Asset to Total Deposit (In %)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	22.84	9.61	11.87	22.94	22.09	17.87	5
RBBL	17.06	25.93	18.43	19.66	13.41	18.898	4
ADBL	17.61	13.66	15.02	12.37	15.64	14.86	7
NABIL	11.82	14.24	15.66	9.66	11.01	12.478	9
NIBL	21.66	22.99	15.79	12.13	14.27	17.368	6
SCBL	23.85	37.04	41.1	20.99	33.74	31.344	1
HBL	10.76	8.87	12.85	10.71	9.59	10.556	10
SBI	13.33	12.21	16.34	15.93	16.2	14.802	8
NBBL	28.01	31.68	21.81	23.23	24.74	25.894	2
EBL	19.43	21.21	30.23	24.66	22.49	23.604	3

(Source : Appendix-1)

Table 4.18 presents the ratio of liquid assets to total deposit. This ratio measures the liquidity available to the depositors of a bank. The liquid assets to total deposits ratio has been fluctuating during the research period of each selected sample banks. SCBL is in first rank among the banks with an highest average of 31.344% and followed by the NBBL, EBL, RBBL, NBL, NIBL and soon with an average ratio of 25.894%, 23.604%, 18.898%, 17.87%, 17.368% with second, third, fourth, fifth , sixth rank among the sample bank. High ratio is a sign of showing that the bank is maintaining a proper balance between the liquid assets and its advances in order to ensure constant flow of the withdrawals to the customer. Likewise, HBL bank is in last rank with an least average of 10.556% among the sample bank.

4.1.5.4 Composite Liquidity

Table 4.19 - Composite Liquidity

Bank	Liquid Asset to Total Asset (%)		Liquid Asset to Demand Deposit (%)		Liquid Asset to Total Deposits(%)		Group Rank	
	Average	Rank	Average	Rank	Average	Rank	Average	Rank
NBL	15.204	5	0.756	9	17.87	5	8.33	8
RBBL	17.668	4	0.754	10	18.898	4	6	5.5
ADBL	11.21	8	1.16	6	14.86	7	7	7
NABIL	10.866	9	0.97	8	12.478	9	8.67	9
NIBL	14.788	6	1.502	4	17.368	6	5.33	4
SCBL	26.97	1	1.226	5	31.344	1	2.33	2
HBL	9.308	10	1.008	7	10.556	10	9	10
SBI	12.744	7	1.782	3	14.802	8	6	5.5
NBBL	21.366	2	3.468	1	25.894	2	1.67	1
EBL	19.944	3	2.412	2	23.604	3	2.67	3

(Source : Appendix-1)

Table 4.19 shows the group average of three ratios of Liquidity parameter. NBBL bank is at the first position with group average of 1.67, followed by SCBL (2.33) and EBL (2.67) respectively. HBL bank scored the lowest position with tenth rank that is last position among the study bank with an average of (9.00) due to its poor performance among the other banks.

4.1.6 Composite Ranking of CAMEL

Table 4.20 - Composite Ranking of CAMEL

Bank	**C**	**A**	**M**	**E**	**L**	**Average**	**Rank**
NBL	9.33	6.67	9.33	6.33	8.33	7.998	9
RBBL	9	9	8.33	6.67	6	7.8	8
ADBL	1	7.67	6.33	3.33	7	5.066	4
NABIL	6	6.67	2.33	3.33	8.67	5.4	5
NIBL	4	5	3.67	4.33	5.33	4.466	2
SCBL	5	3.67	5	6.33	2.33	4.466	2
HBL	5.33	6.67	5.33	6	9	6.466	7
SBI	5.67	4	5.67	6	6	5.468	6
NBBL	4	3	6	8	1.67	4.534	3
EBL	5.67	2.67	3	4.67	2.67	3.736	1

(Source : Appendix-1)

Table 4.20 presents the overall ranking of selected commercial banks in Nepal, the composite ranking has been calculated from the individual ranking of the banks for the period of 2012/13 to 2016/17. As per the CAMEL model analysis, EBL bank ranked first position, which was followed by the NIBL and SCBL with second position, and NBL and RBBL stand at least position among the study bank. From finding of table, it concluded that looking at the overall camel indicators, EBL bank is better with their good performance among the other banks.

4.2 Profitability Indicator

4.2.1 Return on Asset (ROA)

Table 4.21 - Return on Asset (ROA)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	1.07	0.92	0.55	2.79	2.78	1.622	9
RBBL	1.26	1.47	3.22	1.42	1.6	1.794	7
ADBL	2.97	1.76	3.12	2.32	2.15	2.464	3
NABIL	3.25	2.89	2.06	2.32	2.7	2.644	1
NIBL	2.6	2.3	1.9	2	2.1	2.18	5
SCBL	2.67	2.51	1.99	1.98	1.84	2.198	4
HBL	1.54	1.3	1.34	1.94	2.03	1.63	8
SBI	1.19	1.5	1.7	2	1.68	1.614	10
NBBL	3.57	2.4	2.06	2.57	2.11	2.542	2
EBL	2.39	2.25	1.85	1.61	1.72	1.964	6

(Source : Appendix-1)

Table 4.21 exhibits percentage of ROA of Ten commercial banks in five years. This ratio measures the profitability of the bank. The return on asset has been fluctuating during the research period of each selected sample banks. NABIL bank is in first rank among the banks with an highest average of 2.644% and followed by the NBBL, ADBL, SCBL, NIBL, EBL and soon with an average ratio of 2.542%, 2.464%, 2.198%, 2.18%, 1.964% with second, third, fourth, fifth , sixth rank among the sample bank. High ratio is a sign of showing that the more efficiency of the management in the utilization of total assets and vice- versa. Likewise, SBI bank is in last rank with an least average of 1.614% among the sample bank.

4.2.2 Return on Equity (ROE)

Table 4.22 - Return on Equity (ROE)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17	Average	Rank
NBL	-3.61	21.42	12.63	42.94	27.22	20.12	7
RBBL	102.96	76.96	69.56	27.37	26.48	60.666	1
ADBL	16.1	11.64	25.18	14.78	11.43	15.826	10
NABIL	32.78	27.97	22.73	25.61	26.65	27.148	2
NIBL	31.7	27.6	24.8	26	19.1	25.84	3
SCBL	26.38	26.27	21.69	17.18	11.98	20.7	6
HBL	17.8	15.77	15.98	21.94	18.61	18.02	9
SBI	20.31	22.85	21.51	22.16	20.41	21.448	5
NBBL	26.36	20.77	19.8	19.84	11.5	19.654	8
EBL	26.63	24.75	20.58	18.31	17.38	21.53	4

(Source : Appendix-1)

Table 4.21 presents percentage of ROE of Ten commercial banks in consecutive five years. This ratio measures the profitability of the bank. The return on equity has been fluctuating during the research period of each selected sample banks. RBBL bank is in

first rank among the banks with an highest average of 60.666% and followed by the NABIL, NIBL, EBL, SBI, SCBL and soon with an average ratio of 27.148%, 25.84%, 21.53%, 21.448%, 20.7% with second, third, fourth, fifth , sixth rank among the sample bank. High ratio is a sign of showing that the more efficiency of the management in the utilization of shareholder's fund and vice- versa. Likewise, ADBL bank is in last rank with an least average of 15.826% among the sample bank.

4.3 Correlation Analysis of variables

4.3.1 Correlation between ROA and CAMEL

Table 4.23 - Correlation between ROA and CAMEL

	ROA	CAR	D/E	TATTA	NPATTA	NPATTAd	TITTA	TATTD
ROA	1.000							
CAR	0.678	1.000						
D/E	0.388	0.512	1.000					
TATTA	0.318	0.294	-0.074	1.000				
NPATTA	-0.303	-0.362	-0.213	0.217	1.000			
NPATTAd	-0.313	-0.370	-0.173	0.142	0.995	1.000		
TITTA	-0.354	-0.122	0.326	-0.635	-0.165	-0.114	1.000	
TATTD	0.261	0.428	-0.069	0.922	0.350	0.286	-0.597	1.000
PPE	0.590	0.399	0.332	-0.170	-0.746	-0.736	0.260	-0.266
BPE	0.349	0.368	0.378	-0.120	-0.838	-0.835	0.327	-1.532
OPTTA	0.672	0.438	0.247	-0.062	-0.814	-0.811	0.090	-2.798
IITTI	0.001	0.194	0.162	0.656	0.356	0.343	-0.305	-4.064
NIMTTA	0.040	0.158	-0.277	0.443	0.734	0.708	-0.281	-5.330
LATTA	0.217	0.058	0.075	-0.647	-0.377	-0.330	-0.089	-6.596
LATDD	0.503	0.298	0.139	0.223	-0.529	-0.538	-0.558	-7.862
LATTD	0.286	0.128	0.027	-0.556	-0.374	-0.335	-0.196	-9.127
	PPE	BPE	OPTTA	IITTI	NIMTTA	LATTA	LATDD	LATTD
ROA								
CAR								
D/E								
TATTA								
NPATTA								
NPATTAd								
TITTA								
TATTD								
PPE	1.000							
BPE	0.915	1.000						
OPTTA	0.955	0.855	1.000					
IITTI	-0.319	-0.194	-0.263	1.000				
NIMTTA	-0.384	-0.510	-0.433	0.461	1.000			
LATTA	0.241	0.101	0.272	-0.610	-0.450	1.000		
LATDD	0.177	0.173	0.399	-0.017	-0.499	0.405	1.000	
LATTD	0.228	0.073	0.286	-0.570	-0.384	0.990	0.466	1.000

(Source : Appendix-2)

The table 4.23 exhibits the correlation between the study variable of camel indicators with ROA with determinants of the bank's profitability ratio. Result show that ROA

is negatively correlated with NPATTA (-0.303), NPATTAd (-0.313) and TITTA (-0.354). It means that higher the NPATTA, NPATTAd and TITTA it decreases the profitability and lower these ratio increases the profitability of the bank. The negative correlation resulted in these ratios had inverse relationship with ROA.

Similarly, there are positively correlated with ROA and other financial ratio like CAR(0.678), D/E(0.388),TATTA(0.318),TATTD(0.261),PPE(0.590), BPE(0.349), OPTTA(0.672), IITTI(0.001), NIMTTA(0.040), LATTA(0.217), LATDD(0.503) and LATTD(0.286). The positive coefficient estimates of the correlation implied that there was direct relationship of financial ratio with ROA.

4.3.2 Correlation between ROE and CAMEL

Table 4.24 - Correlation between ROE and CAMEL

	ROE	CAR	D/E	TATTA	NPATTA	NPATTAd	TITTA	TATTD
ROE	1.000							
CAR	-0.387	1.000						
D/E	0.503	0.512	1.000					
TATTA	-0.477	0.294	-0.074	1.000				
NPATTA	0.332	-0.362	-0.213	0.217	1.000			
NPATTAd	0.402	-0.370	-0.173	0.142	0.995	1.000		
TITTA	0.487	-0.122	0.326	-0.635	-0.165	-0.114	1.000	
TATTD	-0.464	0.428	-0.069	0.922	0.350	0.286	-0.597	1.000
PPE	-0.151	0.399	0.332	-0.170	-0.746	-0.736	0.260	-0.266
BPE	-0.166	0.368	0.378	-0.120	-0.838	-0.835	0.327	-0.228
OPTTA	-0.277	0.438	0.247	-0.062	-0.814	-0.811	0.090	-0.191
IITTI	0.056	0.194	0.162	0.656	0.356	0.343	-0.305	0.741
NIMTTA	-0.192	0.158	-0.277	0.443	0.734	0.708	-0.281	0.678
LATTA	0.100	0.058	0.075	-0.647	-0.377	-0.330	-0.089	-0.602
LATDD	-0.312	0.298	0.139	0.223	-0.529	-0.538	-0.558	0.037
LATTD	-0.010	0.128	0.027	-0.556	-0.374	-0.335	-0.196	-0.503

	PPE	BPE	OPTTA	IITTI	NIMTTA	LATTA	LATDD	LATTD
ROE								
CAR								
D/E								
TATTA								
NPATTA								
NPATTAd								
TITTA								
TATTD								
PPE	1.000							
BPE	0.915	1.000						
OPTTA	0.955	0.855	1.000					
IITTI	-0.319	-0.194	-0.263	1.000				
NIMTTA	-0.384	-0.510	-0.433	0.461	1.000			
LATTA	0.241	0.101	0.272	-0.610	-0.450	1.000		
LATDD	0.177	0.173	0.399	-0.017	-0.499	0.405	1.000	
LATTD	0.228	0.073	0.286	-0.570	-0.384	0.990	0.466	1.000

(Source : Appendix-2)

The table 4.24 exhibits the correlation between the study variable of camel indicators with ROE with determinants of the bank's profitability ratio. Result show that ROE is negatively correlated with CAR(-0.387), TATTA(-0.477), TATTD(-0.464), PPE(-0.151), BPE(-0.166), OPTTA(-0.277), NIMTTA(-0.192), LATDD(-0.312) and LATTD(-0.010) The negative correlation resulted in these ratios had inverse relationship with ROE.

Similarly, there are positively correlated with ROE and other financial ratio like D/E(0.503), NPATTA(0.332), NPATTAd(0.402), TITTA(0.487), IITTI(0.056), LATTA(0.100). The positive coefficient estimates of the correlation implied that there was direct relationship of financial ratio with ROE.

4.4 Regression Analysis of variables

4.4.1 Regression Analysis between ROA and CAMEL

Table 4.25 - Variation in ROA explained by financial ratio under CAMEL

Model	Multiple R	R Square	Adjusted R Square	Std. Err
Capital	0.694	0.482	0.223	0.926
Asset	0.524	0.274	-0.089	1.096
Management	0.88	0.775	0.662	0.611
Earning	0.766	0.587	0.38	0.827
Liquidity	0.598	0.358	0.037	1.031

(Source : Appendix-3)

The table 4.25 shows the total variation of ROA that explained by financial ratio under camel. The value of coefficient of multiple determinations R square is 0.482, 0.274, 0.775, 0.587, and 0.358 in capital, asset, management, earning and liquidity indicators respectively. It implies that the independent variable camel contributed 48.2%, 27.4%, 77.5%, 58.7% and 35.8% respectively are in the variation of ROA at 95% confident interval. The chance of error is estimated 0.926, 1.096, 0.611, 0.827, and 1.031 in capital, asset, management, earning and liquidity respectively. In finding, the above table shows that there is positive relationship between the ROA and CAMEL's variable shown by 0.694, 0.524, 0.88, 0.766 and o.598 respectively.

Table 4.26 - Regression result for CAMEL on ROA

Variable Type	ROA	Coefficient	Std. Error	t - Stat	P- value
Capital Adequacy	CAR	0.156	0.1	1.56	0.17
	D/E	0.005	0.016	0.29	0.782
	TATTA	0.023	0.048	0.487	0.643
Asset Quality	NPATTA	-1.822	4.268	-0.427	0.684
	NPATTAd	0.799	2.343	0.341	0.745
	TITTA	-0.094	0.079	-1.182	0.282
Management	TATTD	0.046	0.02	2.332	0.058
	PPE	0.221	0.059	3.757	0.009
	BPE	-0.002	0.001	-2.522	0.045
Earning Quality	OPTTA	0.918	0.315	2.915	0.027
	IITTI	0.01	0.067	0.154	0.883
	NIMTTA	0.506	0.415	1.218	0.269
Liquidity	LATTA	-0.491	0.505	-0.972	0.369
	LATDD	0.349	0.511	0.683	0.52
	LATTD	0.442	0.447	0.987	0.362

(Source : Appendix-3)

Dependent Variable - ROA

5% Significance Level

95% confident interval

The Table 4.26 shows the regression result for independent effect of Camel's variable of Nepalese commercial bank. The regression coefficient of CAR, D/E, TATTA, NPATTA, NPATTAd, TITTA, TATTD, PPE, BPE, OPTTA, IITTI, NIMTTA, LATTA, LATDD and LATTD on ROA are 0.156, 0.005, 0.023, -1.822, 0.799, -0.094, 0.046, 0.221, -0.002, 0.918, 0.01, 0.506, -0.491, 0.349 and 0.442 respectively. From the above finding there is negative relationship between dependent variable (ROA) and independent variable (NPATTA, TITTA, BPE and LATTA) and there is positive relationship between ROA and CAR, D/E, TATTA, NPATTAd, TATTD, PPE, OPTTA, IITTI, NIMTTA, LATDD and LATTD. The study further revealed that P- value is less than 5% in PPE, BPE and OPTTA which shows that there are three independent variable which have statistically significant for this study at 95% confident interval. It means that PPE, BPE and OPTTA have significantly influence on ROA.

4.4.2 Regression Analysis between ROE and CAMEL

Table 4.27 - Variation in ROE explained by financial ratio under CAMEL

Model	Multiple R	R Square	Adjusted R Square	Std. Error
Capital	0.918	0.842	0.763	6.293
Asset	0.831	0.691	0.536	8.806
Management	0.546	0.298	-0.053	13.271
Earning	0.462	0.214	-0.179	14.046
Liquidity	0.786	0.618	0.427	9.791

(Source : Appendix-3)

The table 4.27 shows the total variation of ROE that explained by financial ratio under camel. The value of coefficient of multiple determinations R square is 0.842, 0.691, 0.298, 0.214, and 0.618 in capital, asset, management, earning and liquidity indicators respectively. It implies that the independent variable camel contributed 84.2%, 69.1%, 29.8%, 21.4% and 61.8% respectively are in the variation of ROE at 95% confident interval. The chance of error is estimated 6.239, 8.806, 13.271, 14.046, and 9.791 in capital, asset, management, earning and liquidity respectively. In finding, the above table shows that there is positive relationship between the ROE and CAMEL's variable shown by 0.918, 0.831, 0.546, 0.462 and 0.786 respectively.

Table 4.28 - Regression result for CAMEL on ROE

Variable Type	ROA	Coefficient	Std. Error	t - Stat	P- value
Capital Adequacy	CAR	-2.636	0.680	-3.877	0.008
	D/E	0.508	0.111	4.565	0.004
	TATTA	-0.327	0.326	-1.002	0.355
Asset Quality	NPATTA	-74.344	34.288	-2.168	0.073
	NPATTAd	43.838	18.823	2.329	0.059
	TITTA	0.534	0.639	0.835	0.435
Management Quality	TATTD	-0.646	0.425	-1.521	0.179
	PPE	-0.273	1.276	-0.214	0.838
	BPE	-0.003	0.019	-0.143	0.891
Earning Quality	OPTTA	-5.730	5.350	-1.071	0.325
	IITTI	0.415	1.140	0.364	0.728
	NIMTTA	-7.213	7.057	-1.022	0.346
Liquidity	LATTA	13.405	4.796	2.795	0.031
	LATDD	0.371	4.858	0.076	0.942
	LATTD	-11.424	4.250	-2.688	0.036

(Source : Appendix-3)
Dependent Variable - ROE
95% confident interval
5% Significance Level

The Table 4.28 shows the regression result for independent effect of Camel's variable of Nepalese commercial bank. The regression coefficient of CAR, D/E, TATTA, NPATTA, NPATTAd, TITTA, TATTD, PPE, BPE, OPTTA, IITTI, NIMTTA, LATTA, LATDD and LATTD on ROE are -2.636, 0.508, -0.327, -74.344, 43.838, 0.534, -0.646, -0.273, -0.003, -5.730, 0.415, -7.213, 13.405, 0.371 and -11.424 respectively. From the above finding there is negative relationship between dependent variable (ROE) and independent variable (CAR, TATTA, NPATTA, TATTD, PPE, BPE, OPTTA, NIMTTA and LATTD) and there is positive relationship between ROE and D/E, NPATTAd, TITTA, IITTI, LATTA and LATDD. The study further revealed that P- value is less than 5% in CAR, D/E, LATTA and LATTD which shows that there are four independent variable which have statistically significant for this study at 95% confident interval. It means that CAR, D/E, LATTA and LATTD have significantly influence on ROE.

4.5 Major Findings

Capital Adequacy Ratio

In term of CAR, all banks are above standard except in NBL and RBB bank among selected bank. ADBL bank has higher CAR i.e. ADBL is in the top rank with highest average ratio of (17.204%) which indicate that it has sufficient adequate capital. Whereas, NBL bank is in the last rank among the selected bank with below standard CAR with least average ratio of (3.168%), which indicate that it has to increase its capital to maintain minimum CAR.

In term of Debt equity ratio, ADBL bank is in the top rank with lower D/E ratio of (4.262)among the selected bank, whereas RBB bank is in last rank with higher ratio of (-54.432) which implies that higher the ratio, less protective for its stakeholders.

In term of total advances to total assets, ADBL is in the top rank with higher ratio of (72.218%) which indicates that, it is able to earn more profit from interest on lending. Likewise, SCBL is in the least position with the least ratio of (48.638%) among the selected banks.

In composite CAR rating, ADBL covered its first position with strong performance among the selected bank where NBL is in least position with poor performance among the selected bank.

Asset Quality

In term of Non- performing Asset to Total Assets and Non- performing asset to total advances, SBI bank is in the top rank among the selected bank with lower ratio of an average of (2.96%) and (5.124%) respectively which indicate that it has able to recover its loan and advances. Likewise, ADBL bank is in least position with higher ratio of an average of (0.118%) and (0.212%) respectively which indicate that it has pay higher return on asset and unable to recover its loan and advances. So, the bank have to maintain its non- performing asset as lower as possible.

In terms of Total Investment to Total Assets, NBBL bank is in the top rank with least average ratio of (12.458%) and SBI Bank is in the bottom rank with highest average ratio of (26.074%).

In composite asset quality, EBL is in the top rank with least average whereas RBBL bank is at the last rank among the selected bank due to the poor performance among the bank.

Management Efficiency

In term of Total Advances to Total Deposit ratio ADBL is in the first rank with higher average ratio of (95.548%). It reveals that it is converting its deposit into high earning advances. Likewise, SCBL is in the bottom rank with least average of (56.7%).

In term of PPE and BPE, Nabil bank rank at the first position among the sample bank with higher average of (33.962 Lakh) and (2119.884Lakh) respectively. Because it has higher profit per employee and business per employee among the selected bank. Higher the ratio higher is the efficiency level of the employees lead to the higher to generate the business to the bank. Whereas, NBL is in the last rank among the selected bank because its profit per employee and business per employee is lower among the bank with an least average of (6.86 Lakh) and (546.246 Lakh) respectively.

Lower the ratio lower is the efficiency level of the employees and lead to the lower to generate the business to the bank.

In composite Management Efficiency, NABIL bank is in the top rank with least average whereas NBL bank is at the last rank among the selected bank due to the least performance among the bank.

Earning Quality

In term of Operating profit to Total asset ratio, NABIL bank is in the first rank with and highest average ratio of (3.774%). Higher the ratio better will be for the bank. By this way, RBBL bank is in the least position with an least average of (0.998%) which indicates that it is unable to utilize its assets to earn profit.

In term of Interest Income to Total Income Ratio and Net Interest Margin ratio to Total Assets ratio, ADBL bank is in the top with an highest average ratio of (88.898%) and (5.626%) respectively. Higher the ratio higher is the performance and earning. Likewise, SCBL with least average ratio of (72%) and NBBL bank with an average of (2.776%) are in the last rank among the selected bank in term of interest income to total income and net interest margin to total assets ratio respectively.

In composite rating of Earning Quality, ADBL and NABIL bank are rank in the first position with higher ratio among the selected bank. It indicates that it is able to earn profit by managing its earning assets. Likewise, RBBL bank rank in the last position due to unable to maintain its earning quality with least ratio. It rank last among bank due to lea performance than the other banks.

Liquidity

In term of Liquid Asset to Total Asset ratio and Liquid Asset to Total Deposits, SCBL with an highest average of (26.97%) and (31.344%) respectively, is in the top rank among the bank. Whereas, HBL bank with an least average of (9.308%) and (10.556%) respectively is in the last rank. Higher the ratios, better is the liquidity position of that bank and vice- versa.

In term of Liquid asset to Demand deposit, NBBL bank is in the top rank with an highest average ratio of (3.468%) and RBBL bank is in the least position with an least

average of (0.754%). Higher ratio indicates that the ability of a bank to meet the demand from deposits.

In term composite liquidity, NBBL bank is in the top rank which indicates that it is able to maintain its liquidity position among selected bank. Higher the ratios, better is the liquidity position of that bank and vice- versa. Likewise, HBL bank in the last rank which indicates that it is unable to maintain its liquidity fund among the selected bank.

In term of composite rating of CAMEL, EBL bank is in the top rank among the selected bank which indicate that it is able to maintain its capital adequate, asset quality, management quality, and liquidity among the selected bank with better performance. And NBL bank is unable fulfill the camel rating system and rank in the last position with poor performance.

Statistical measures

The correlation analysis revealed that ROA had a positive correlation with Capital, Management, Earning and liquidity which signifies that it helps to increase the profitability of bank. Whereas, Asset had negative correlation with ROA which indicate that there is no any relationship between the ROA and asset parameter.

Likewise, ROE had significant positive correlation with Capital Adequacy ratio of Debt equity ratio, Assets quality, Earning ratio of Interest income to total income and liquidity ratio of Liquid asset to Total asset and other ratios were negatively correlated.

The regression analysis showed that Capital adequacy, Asset quality, Liquidity had no significant relationship with the selected banks' performance in terms of ROA. On the other hand Management quality and Earning quality ratio of OPTTA was found to be significant relationship to the performance of the bank. While Capital Adequacy ratio of CAR and D/E ratio and Liquidity ratio of LATTA had significant relationship with the selected bank's performance in terms of ROE and other ratios were found to be insignificant relationship to the performance of the bank at 5% significance level.

CHAPTER- V
CONCLUSIONS

This chapter provides the conclusion after assessment of the overall financial performance of the commercial bank under CAMEL framework. It also tries to provide some implication to the concerned banks from the conclusion derived from the study.

5.1 Summary

Banks and financial institutions are backbone of the country's economy. It's failure and success will have huge impact on financial as well as economic health of overall sectors of the country. Among the four classes of financial institutions, that are Commercial banks, Development banks, Financial institution and microfinance companies, commercial banks perform largest activities than any other financial institutions.

The study is conducted with objective to assess the financial performance and position of the selected commercial bank of Nepal, over five year period of time from fiscal year 2012/13 to 2016/17. The study is based on secondary data over the period of time. For analysis of financial, a world recognized tool is used i.e. CAMEL. The various financial and statistical tools have been used to make analysis meaningful and systematic and meet the research objective.

The financial tools used to rate the overall performance of the bank, while correlation coefficient and multiple regression models were used to measure the impact of Camel elements on profitability ratios i.e. ROA and ROE. Financial ratio analysis compares the financial performance among commercial banks, the same bank had different ranks under the different financial ratios. As per the composite rating of CAMEL, the finding of the study revealed that EBL bank stood on the top followed by NIBL and SCBL banks, while NBL bank stood the least position among the selected banks. The correlation analysis revealed that ROA had a positive correlation with Capital, Management, Earning and liquidity which signifies that it helps to increase the profitability of bank. Whereas, Asset had negative correlation with ROA.

Likewise, ROE had positive correlation with Capital Adequacy ratio of Debt equity ratio, Assets quality, Earning ratio of Interest income to total income and liquidity ratio of Liquid asset to Total asset and other ratios were negatively correlated.

The regression analysis showed that Capital adequacy, Asset quality, Liquidity had no significant relationship with the selected banks' performance in terms of ROA. On the other hand Management quality and Earning quality ratio of OPTTA was found to be significant relationship to the performance of the bank. While Capital Adequacy ratio of CAR and D/E ratio and Liquidity ratio of LATTA had significant relationship with the positive effect selected bank's performance in terms of ROE and other ratios were found to be insignificant relationship to the performance of the bank at 5% significance level.

5.2 Conclusions

To uplift the economy of the country financial sector is required to be developed. In this connection, the banking sector must be given priority to attain sustainability in financial sector. So, the smooth and efficient operation of banking sector helps to reduce the risk of failure of an economy. Therefore, the performance of banking sector has always been a sources of interest for researcher to judge the economic condition of a country. Regulators of the banking sector always monitor the performance of the banks to ensure efficient financial system based on CAMEL model.

Based on the finding of the study the research has arrived at meaningful conclusions. Though financial ratios analysis compares the financial performance among commercial banks, the same bank had different ranks under the different financial ratio according to the ratio obtained by them on the five parameters. EBL bank is in the number one rank in the CAMEL rating system among the banks whereas NBL bank is in the last rank under camel rating system. It can be concluded that the banks with low ranking need to improve their performance to reach up to the desired standards.

The correlation analysis revealed that ROA had a positive correlation with Capital, Management, Earning and liquidity which signifies that it helps to increase the profitability of bank. Whereas, Asset had negative correlation with ROA which indicate that Asset has no any relation with ROA. Likewise, ROE had positive correlation with Capital Adequacy ratio of Debt equity ratio, Assets quality, Earning ratio of Interest income to total income and liquidity ratio of Liquid asset to Total asset and other ratios were negatively correlated.

Furthermore, it can be concluded that from the multiple regression analysis it shows that Capital adequacy, Asset quality, Liquidity had no significant relationship with the selected banks' performance in terms of ROA. On the other hand Management quality and Earning quality ratio of OPTTA was found to be significant relationship to the performance of the bank. While Capital Adequacy ratio of CAR and D/E ratio and Liquidity ratio of LATTA had significant relationship with the positive effect selected bank's performance in terms of ROE and other ratios were found to be no significant relationship to the performance of the bank.

Finally, CAMEL framework as a financial tool to analyze and evaluate the financial performance of a bank can be considered an effective tool. Since it can capture the most important fact of bank viz capital adequacy, assets quality, management soundness, earning efficiency and liquidity position, the bank's management and its higher authority can readily find out the weakness and strength of each key area and initiate timely corrective measure for the betterment of overall bank and its stakeholders. Yet, it is still only a tool. So the degree of its usefulness ultimately lies on its beholder.

Based on the major finding and conclusion of the study, researcher has idealized to provide some implications and further research implication to all whom it may concern on the following sections.

5.3 Implications

1. As per the study, there is below standard capital adequacy ratio in NBL and RBBL bank which indicate that there is no enough capital. So the bank may concern to raise its capital. The higher the CAR the better is the capacity of the banks to pay its obligation and safety against bankruptcy.
2. The debt- equity ratio is higher in the RBBL bank. So the bank has to minimize its debt and use more equity. The higher the D/E ratio lower the cover of risk for its stakeholders, the banks should emphasis on maintain these ratio.
3. NPA have to manage efficiently, higher the ratio means the bank is unable to manage its loan and advances effectively.
4. The profit earning capacity of the banks shows how well the banks are managing its earning assets to earn profitable revenues. Therefore it has to be given highest priority.
5. The bank need to lay focus on the management efficiencies as management is the only criteria which can manage all the other elements of the performance.
6. Liquidity position of the bank should meet its current and contingent obligations.
7. The banks with low ranking need to improve their performance to reach up to the desired standard.
8. Since it was found that Asset quality has negative effect on ROA. So all banks should be considered toward reducing the Non performing Asset. Likewise asset and management parameter has negative effect on ROE. So the bank should be considered toward increasing the management efficiency of the bank.

5.4 Further Implications

This research was carried out on the past five years data of selected commercial bank of Nepal in the framework of camel based on the secondary data. For the further research in this field researcher has some implications;

1. The further researcher may study on whether the CAMEL model is capable to be used as a banking supervisory tool in Nepal or not.

2. Further researcher can also study on extending the time horizon of the study more than five years of annual financial reports which might be a good research.
3. They can study on taking all 28 commercial bank as sample to analyze the financial performance under camel, which shows the exact rank of all the commercial bank.
4. In the further research one might want to consider this research as a reference to expand the scope and improved results of the research.

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APPENDICES

Appendix- 1

Annual Data

1. Total Capital Fund (Tier I and Tier II) (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	-424918	3593123	4398193	7439635	84053201
RBBL	1762609.28	2843233.57	7603518.52	8969051.76	10982752.99
ADBL	16950971867	17881568017	18539251302	20234919485	23448861807
NABIL	7366908329	8259651304	10154456184	12203614497	14752638819
NIBL	7813057	8993849	11754294	18182544	20367203
SCBL	4828551	5333516	6111788	7779409	11975101
HBL	6414437452	8041967083	7155579476	9815198969	12613817027
SBI	4888637991	5892028000	7063688000	8169663	11692078
NBBL	2664288	3612011	4848885	6042450	10715863
EBL	5777682	6422257	8457023	10094804	13063702

(Sources: annual report of respective banks)

2. Risk- Weighted Asset (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	71433221	79008725	58656402	72907713	12158918
RBBL	60020640	61521110.93	74841286.66	85779465.74	105671317.3
ADBL	1.03761E+11	1.18524E+11	1.33373E+11	1.17766E+11	1.14883E+11
NABIL	62291807385	73854239278	87766260826	1.0404E+11	1.18828E+11
NIBL	67995228	76776912	98745831	121867349	156448460
SCBL	38508223	43470427	46672653	47485471	56801993
HBL	55520649287	72183721696	63729135353	90507189794	1.03797E+11
SBI	38686812787	44364256000	50363030000	58821049	74408808
NBBL	22951462	31571606	42870595	55139110	70981671
EBL	49834045	56780161	63451114	79711762	88929577

(Sources: annual report of respective banks)

3. Total Debt (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	70985963130	74633441130	84380149770	96765619640	1.00605E+11
RBBL	1.00251E+11	12017134800	1.32885E+11	1.57826E+11	1.63061E+11
ADBL	62874435260	73478106280	84704299780	1.07456E+11	1.0507E+11
NABIL	66552115160	79633559420	1.065E+11	1.15705E+11	1.26237E+11
NIBL	66131510660	78248448970	94538483820	1.13495E+11	1.3211E+11
SCBL	41013526120	48236011270	58978250470	57661557280	65544572370
HBL	55853257230	67506434670	75842650980	91039239950	95550283150
SBI	6099719540	56537533060	53631375930	71594882830	89430672940
NBBL	18228385460	27763374570	34591348870	40644919580	46481233110
EBL	60913305780	64987935380	92262428990	1.05371E+11	1.04966E+11

(Sources: annual report of respective banks)

4. Total Equity (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	-208980570	334787672	3830936192	6713914357	11451753780
RBBL	1272488144	2386572749	6675764789	8606249451	10484033170
ADBL	14222913580	13033983390	16224114620	18128012480	2179670140
NABIL	6689144511	7640986496	9485591487	11595025720	14094834780
NIBL	7020644097	7925478596	9806952579	16287751620	18707884090
SCBL	4617574225	5088090898	5948554654	7524175186	11864025320
HBL	5299708123	6083411016	6958899626	8823768128	11705196750
SBI	3798957417	4535798670	5645914521	6920462451	10397954980
NBBL	3573416034	4110238338	489222335	6039333849	10438618660
EBL	4827844672	5457147460	6890377025	8514088112	11544581880

(Sources: annual report of respective banks)

5. Total Advances (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	37851965743	41218297400	53388387872	63524487255	74372886596
RBBL	49044912288	60854848917	75836499116	85470370235	1.06431E+11
ADBL	54918507832	62472929711	7.22385E+11	83418263170	92725212976
NABIL	47645529877	56203076407	67161670913	77730401536	91491252370
NIBL	47700628308	53458469658	67690198649	87009791973	1.06684E+11
SCBL	23138370328	26328361464	2823823007	31697344583	39729835900
HBL	41057397533	46449329430	55428007254	69100889341	77640976817
SBI	29193903422	35714255755	40471869460	47542980562	63752132089
NBBL	13137562587	19051313859	25823846471	32528325232	37460092611
EBL	44197762941	48450304601	55363518834	68911543324	78284678567

(Sources: annual report of respective banks)

6. Total Assets (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	70776982567	77980528805	88211085964	1.0348E+11	1.12057E+11
RBBL	1.01524E+11	1.22558E+11	1.39561E+11	1.66432E+11	1.73545E+11
ADBL	77097348840	88519685712	1.00812E+11	1.11785E+11	1.26867E+11
NABIL	73241448431	87274619480	1.15986E+11	1.273E+11	1.40332E+11
NIBL	73152154761	86173927574	1.04345E+11	1.29783E+11	1.50818E+11
SCBL	45631100342	53324102172	64926805120	65185732479	77408597693
HBL	61152965353	73589845698	82801550614	99863008080	1.07255E+11
SBI	64796152822	61073331730	59277290453	78515345284	99828627912
NBBL	21801801490	30873612915	39483572200	46684253432	56919851776
EBL	65741150457	70445082845	99152806017	1.13885E+11	1.1651E+11

(Sources: annual report of respective banks)

7. Non- Performing Asset (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	1982323212	2109229982	2126079148	1978531825	2469786693
RBBL	2610188241	3884221126	4058087567	3636010896	4015894682
ADBL	3212599021	3408954346	3862823331	3634792121	4266110478
NABIL	1015176698	1256075230	1220819346	889035409	728059005
NIBL	913096227	947121461	844132707	592992655	888161356
SCBL	177268199	127347934	94769956	101819490	76720052
HBL	1186189950	911514998	1783952501	851375948	661807697
SBI	108691856	91237036	74924252	65981814	64195071
NBBL	174491938	258000286	342556474	231444566	286332205
EBL	276198772	470404039	367164030	264422150	198904860

(Sources: annual report of respective banks)

8. Total Investment (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	10979120246	22664105663	16902242686	12843441784	12181297077
RBBL	29672248532	32089382024	35310274931	43768304627	3827647198
ADBL	9194611453	13344007513	13501077609	13982297758	15898842009
NABIL	16332043012	18276752741	30972487414	36527949503	32593660420
NIBL	11435268171	21462587744	15383529110	29226761943	25615645263
SCBL	12753518240	9391378664	13971231533	23094621556	15632025143
HBL	12992044772	19842060285	17113389432	19306073338	17929265339
SBI	25906119814	17722395654	9319697947	19291309392	21043220481
NBBL	3104021310	3020117579	5754939170	7994966840	4499286240
EBL	9263858419	6504185769	15102674194	18198739944	11964561347

(Sources: annual report of respective banks)

9. Total Number of Employee

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	2786	2618	2623	2356	2112
RBBL	2490	2523	2545	2470	2248
ADBL	2996	2909	2739	2430	2632
NABIL	742	724	706	792	848
NIBL	910	942	969	1005	1187
SCBL	454	460	433	435	495
HBL	830	835	856	857	835
SBI	538	607	596	679	768
NBBL	433	456	507	532	618
EBL	643	696	696	739	748

(Sources: annual report of respective banks)

10. Net Profit After Tax (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	755180353	716958108	483848520	2882978165	3117893760
RBBL	1310113981	1836695515	4643868022	2355287583	2776308812
ADBL	2289319963	1520806289	3490268417	2464683088	2565220197
NABIL	2219017709	2319557472	2093813608	2819333752	3613200322
NIBL	1915027932	1939612344	1961852380	2550883563	3114131140
SCBL	1217940751	1336589187	1290025348	1292494632	1421596136
HBL	943697990	959107241	1112285716	1935907634	2178234893
SBI	771471129	922984007	1065436141	1331881801	1523237401
NBBL	778645431	742342538	813976568	1198297230	1200381901
EBL	1471117291	1549698561	1574352443	1730207025	2006247780

(Sources: annual report of respective banks)

11. Interest Income (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	4739535754	5011227716	5121685058	6263549474	7526659399
RBBL	5748968390	6104557253	6520239025	7422643106	8887855745
ADBL	7533344535	8461935790	8765467854	9620203330	11324507577
NABIL	5702122918	5636158253	5762345126	6155660129	8065591460
NIBL	5878272056	5816279068	5786160480	6776754762	9248698650
SCBL	2535359454	2583957771	2574590303	2415582668	3060619093
HBL	4627335224	4742975480	4627750829	5015843968	6938502556
SBI	4110514126	3976647583	3821326338	3981262340	5911160526
NBBL	1623290139	2032467693	2351305410	2918753829	3654155981
EBL	4936924072	5177551762	4996428451	5057077497	6747148285

(Sources: annual report of respective banks)

12. Total Expenses (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	2214164344	2187645803	1810664720	1658477928	1728360491
RBBL	2461853388	2355316185	1924982516	1872716006	1909488825
ADBL	2814540161	223790949.1	8765467854	9620203330	3358872302
NABIL	2186184871	3549363372	3235924937	1829689197	2606090642
NIBL	-2774788162	2820475438	-2807361350	-2855650146	-4464551946
SCBL	611382395	576298811	661074838	565704649	863459635
HBL	2119062154	2248797712	1954262604	1565895670	3173333669
SBI	2486978979	2231604253	1773842303	1565150928	2994483069
NBBL	937065826	1179941271	1261069650	1456393671	2129546590
EBL	2179182368	2258736810	2116993166	1828492869	3009792494

(Sources: annual report of respective banks)

13. Operating Profit (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	104169068	-5948674	386659440	1947214856	2962495496
RBBL	552169909.5	878203643	1472369727	1734448825	2822864184
ADBL	1128312509	555491871	542077694	2187831876	2257234013
NABIL	3464917158	3549363372	3235924937	4344447596	5464678241
NIBL	2145299600	2891610284	2545848091	3699688752	4729782804
SCBL	1862481494	1978908777	1827019810	1701248338	1985842742
HBL	1145973993	982579118	679560515	2297520673	2449761449
SBI	1175054615	1358469532	1630332826	2059235045	2339982324
NBBL	553988367	762422465	1024835395	1519687407	1771876929
EBL	2302748773	2338065548	2252640623	2666102674	3089925916

(Sources: annual report of respective banks)

14. Liquid Assets (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	1.43884E+11	6659557502	9261314911	20514381850	18873247390
RBBL	15538815610	24746875540	22894590880	28739354690	20596546980
ADBL	9592637400	9000332565	11570804880	10811190503	15614533270
NABIL	7516874658	10731336780	16327281030	63086967310	13091730280
NIBL	13519487810	16977086220	14315048270	13175211970	17937590170
SCBL	9414062782	17148609210	23545987930	10041992180	21551865970
HBL	5710030240	5738690002	9451361809	9357020388	8915385658
SBI	7852328769	6654971120	8435747532	10389818490	13229680990
NBBL	5098377617	8144551386	7377102890	9263297081	10816191890
EBL	11215793960	13172782870	25116482060	23117394490	21383490030

(Sources: annual report of respective banks)

15. Demand Deposits (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	13757306367	15504551294	17669309615	21205445927	23335625643
RBBL	23703801723	26344890596	30339069323	35913524245	41963283656
ADBL	7757016421	8580489943	10268496849	12558579011	10287625544
NABIL	7271123319	9545929789	12848379756	16237275994	16946016377
NIBL	5582196624	10323906071	11742719309	13871208103	14023175777
SCBL	13894578160	12315435764	16125878269	13690280642	12422300151
HBL	5844054507	6407989296	8499073076	9022902938	9032609733
SBI	5037126566	4115406375	4818048457	5531334474	6299389707
NBBL	1360392554	1739760220	2106144353	3043714431	4420204975
EBL	8099050980	6490122477	7081260955	8629903086	8867660592

(Sources: annual report of respective banks)

16. Total Deposits (in Rs)

Bank	2012/13	2013/14	2014/15	2015/16	2016/17
NBL	62984350047	69337609696	77998775919	89410018773	93944014252
RBBL	91093908717	1.0727E+11	1.24222E+11	1.46208E+11	1.53581E+11
ADBL	54477651530	65898412646	77035056186	87387154947	99816272142
NABIL	63609808199	75388790862	1.04238E+11	1.10267E+11	1.18896E+11
NIBL	62428845372	7.38331E+11	90631486765	1.08627E+11	1.25669E+11
SCBL	39466453239	46298532040	57286482037	55727178456	63872885452
HBL	53072319487	64674848295	73538200185	87335785849	92881114255
SBI	58920455656	54492993606	51628221954	65213519724	81664548665
NBBL	17845158014	25706915697	33832696025	39874233993	43713193739
EBL	57720464632	62108135754	83093789957	93735480708	95094461030

(Sources: annual report of respective banks)

Appendix- 2

1. Correlation between CAMEL indicator and Profitability ratio ROA

	ROA	*CAR*	*D/E*	*TATTA*	*NPATTA*	*NPATTAd*	*TITTA*	*TATTD*
ROA	1.000							
CAR	0.678	1.000						
D/E	0.388	0.512	1.000					
TATTA	0.318	0.294	-0.074	1.000				
NPATTA	-0.303	-0.362	-0.213	0.217	1.000			
NPATTAd	-0.313	-0.370	-0.173	0.142	0.995	1.000		
TITTA	-0.354	-0.122	0.326	-0.635	-0.165	-0.114	1.000	
TATTD	0.261	0.428	-0.069	0.922	0.350	0.286	-0.597	1.000
PPE	0.590	0.399	0.332	-0.170	-0.746	-0.736	0.260	-0.266
BPE	0.349	0.368	0.378	-0.120	-0.838	-0.835	0.327	-1.532
OPTTA	0.672	0.438	0.247	-0.062	-0.814	-0.811	0.090	-2.798
IITTI	0.001	0.194	0.162	0.656	0.356	0.343	-0.305	-4.064
NIMTTA	0.040	0.158	-0.277	0.443	0.734	0.708	-0.281	-5.330
LATTA	0.217	0.058	0.075	-0.647	-0.377	-0.330	-0.089	-6.596
LATDD	0.503	0.298	0.139	0.223	-0.529	-0.538	-0.558	-7.862
LATTD	0.286	0.128	0.027	-0.556	-0.374	-0.335	-0.196	-9.127

	PPE	*BPE*	*OPTTA*	*IITTI*	*NIMTTA*	*LATTA*	*LATDD*	*LATTD*
ROA								
CAR								
D/E								
TATTA								
NPATTA								
NPATTAd								
TITTA								
TATTD								
PPE	1.000							
BPE	0.915	1.000						
OPTTA	0.955	0.855	1.000					
IITTI	-0.319	-0.194	-0.263	1.000				
NIMTTA	-0.384	-0.510	-0.433	0.461	1.000			
LATTA	0.241	0.101	0.272	-0.610	-0.450	1.000		
LATDD	0.177	0.173	0.399	-0.017	-0.499	0.405	1.000	
LATTD	0.228	0.073	0.286	-0.570	-0.384	0.990	0.466	1.000

Correlation is significant at 0.05 level.

2. Correlation between CAMEL indicator and Profitability ratio ROE

	ROE	CAR	D/E	TATTA	NPATTA	NPATTAd	TITTA	TATTD
ROE	1.000							
CAR	-0.387	1.000						
D/E	0.503	0.512	1.000					
TATTA	-0.477	0.294	-0.074	1.000				
NPATTA	0.332	-0.362	-0.213	0.217	1.000			
NPATTAd	0.402	-0.370	-0.173	0.142	0.995	1.000		
TITTA	0.487	-0.122	0.326	-0.635	-0.165	-0.114	1.000	
TATTD	-0.464	0.428	-0.069	0.922	0.350	0.286	-0.597	1.000
PPE	-0.151	0.399	0.332	-0.170	-0.746	-0.736	0.260	-0.266
BPE	-0.166	0.368	0.378	-0.120	-0.838	-0.835	0.327	-0.228
OPTTA	-0.277	0.438	0.247	-0.062	-0.814	-0.811	0.090	-0.191
IITTI	0.056	0.194	0.162	0.656	0.356	0.343	-0.305	0.741
NIMTTA	-0.192	0.158	-0.277	0.443	0.734	0.708	-0.281	0.678
LATTA	0.100	0.058	0.075	-0.647	-0.377	-0.330	-0.089	-0.602
LATDD	-0.312	0.298	0.139	0.223	-0.529	-0.538	-0.558	0.037
LATTD	-0.010	0.128	0.027	-0.556	-0.374	-0.335	-0.196	-0.503

	PPE	BPE	OPTTA	IITTI	NIMTTA	LATTA	LATDD	LATTD
ROE								
CAR								
D/E								
TATTA								
NPATTA								
NPATTAd								
TITTA								
TATTD								
PPE	1.000							
BPE	0.915	1.000						
OPTTA	0.955	0.855	1.000					
IITTI	-0.319	-0.194	-0.263	1.000				
NIMTTA	-0.384	-0.510	-0.433	0.461	1.000			
LATTA	0.241	0.101	0.272	-0.610	-0.450	1.000		
LATDD	0.177	0.173	0.399	-0.017	-0.499	0.405	1.000	
LATTD	0.228	0.073	0.286	-0.570	-0.384	0.990	0.466	1.000

Correlation is significant at the 0.05 level.

Appendix- 3

1. Multiple Regression model of ROA on CAR, D/E, TATTA

Regression Statistics	
Multiple R	0.694
R Square	0.482
Adjusted R Square	0.223
Standard Error	0.926

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-1.127	2.754	-0.409	0.697
CAR(%)	0.156	0.100	1.560	0.170
D/E(%)	0.005	0.016	0.290	0.782
TATTA(%)	0.023	0.048	0.487	0.643

1. Multiple Regression of ROA on NPATTA, NPATTAd, TITTA

Regression Statistics	
Multiple R	0.524
R Square	0.274
Adjusted R Square	-0.089
Standard Error	1.096

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	4.582	1.870	2.451	0.050
NPATTA(%)	-1.822	4.268	-0.427	0.684
NPATTAd(%)	0.799	2.343	0.341	0.745
TITTA(%)	-0.094	0.079	-1.182	0.282

2. Multiple Regression of ROA on TATTD, PPE, BPE

Regression Statistics	
Multiple R	0.880
R Square	0.775
Adjusted R Square	0.662
Standard Error	0.611

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-2.209	1.607	-1.375	0.218
TATTD(%)	0.046	0.020	2.332	0.058
PPE(00,000)	0.221	0.059	3.757	0.009
BPE (00,000)	-0.002	0.001	-2.522	0.045

3. Multiple Regression of ROA on OPTTA, IITTI, NIMTTA

Regression Statistics	
Multiple R	0.766
R Square	0.587
Adjusted R Square	0.380
Standard Error	0.827

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-2.603	5.268	-0.494	0.639
OPTTA(%)	0.918	0.315	2.915	0.027
IITTI(%)	0.010	0.067	0.154	0.883
NIMTTA(%)	0.506	0.415	1.218	0.269

4. Multiple Regression of ROA on LATTA, LATDD, LATTD

Regression Statistics	
Multiple R	0.598
R Square	0.358
Adjusted R Square	0.037
Standard Error	1.031

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	1.214	1.071	1.134	0.300
LATTA(%)	-0.491	0.505	-0.972	0.369
LATDD	0.349	0.511	0.683	0.520
LATTD(%)	0.442	0.447	0.987	0.362

5. Multiple Regression of ROE on CAR, D/E, TATTA

Regression Statistics	
Multiple R	0.918
R Square	0.842
Adjusted R Square	0.763
Standard Error	6.293

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	73.543	18.712	3.930	0.008
CAR(%)	-2.636	0.680	-3.877	0.008
D/E(%)	0.508	0.111	4.565	0.004
TATTA(%)	-0.327	0.326	-1.002	0.355

6. Multiple Regression of ROE on NPATTA, NPATTAd, TITTA

Regression Statistics	
Multiple R	0.831
R Square	0.691
Adjusted R Square	0.536
Standard Error	8.806

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	13.473	15.020	0.897	0.404
NPATTA(%)	-74.344	34.288	-2.168	0.073
NPATTAd(%)	43.838	18.823	2.329	0.059
TITTA(%)	0.534	0.639	0.835	0.435

7. Multiple Regression of ROE on TATTD, PPE, BPE

Regression Statistics	
Multiple R	0.546
R Square	0.298
Adjusted R Square	-0.053
Standard Error	13.271

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	80.421	34.906	2.304	0.061
TATTD(%)	-0.646	0.425	-1.521	0.179
PPE(00,000)	-0.273	1.276	-0.214	0.838
BPE (00,000)	-0.003	0.019	-0.143	0.891

8. Multiple Regression of ROA on OPTTA, IITTI, NIMTTA

Regression Statistics	
Multiple R	0.462
R Square	0.214
Adjusted R Square	-0.179
Standard Error	14.046

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	30.414	89.480	0.340	0.746
OPTTA(%)	-5.730	5.350	-1.071	0.325
IITTI(%)	0.415	1.140	0.364	0.728
NIMTTA(%)	-7.213	7.057	-1.022	0.346

9. Multiple Regression of ROE on LATTA, LATDD, LATTD

Regression Statistics	
Multiple R	0.786
R Square	0.618
Adjusted R Square	0.427
Standard Error	9.791

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	24.364	10.172	2.395	0.054
LATTA(%)	13.405	4.796	2.795	0.031
LATDD	0.371	4.858	0.076	0.942
LATTD(%)	-11.424	4.250	-2.688	0.036