Performance Analysis of Nepalese Commercial Banks:
In the Framework of CAMEL
(A case study of Standard Chartered Bank Nepal Ltd., Everest Bank Ltd.,
Siddhartha Bank Ltd., & Laxmi Bank Ltd.)

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RECOMMENDATION

This is to certify that the thesis

Submitted by
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Entitled

**Performance Analysis of Nepalese Commercial Banks:
In the Framework of CAMEL**

has been prepared as approved by this Department in the prescribed format of Faculty of Management. This thesis is forwarded for examination.

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VIVA- VOCE SHEET

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**Performance Analysis of Nepalese Commercial Banks:
In the Framework of CAMEL**

and found the thesis to be the original work of the student written accordance to the prescribed format. We recommended the thesis to be accepted as partial fulfillment of the requirement for the degree of **Master of Business Studies (MBS).**

<u>VIVA-VOCE COMMITTEE</u>

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DECLERATION

I hereby declare that this thesis report entitled, "**Performance Analysis of Nepalese Commercial Banks: In the Framework of CAMEL"** submitted to Global College of Management, Faculty of Management, Tribhuvan University is my original work done in the form of partial fulfillment for the requirement of Master of Business Studies (MBS) under the supervision of respected **Prof. Dr. Madhav Raj Koirala** and **Mr. Santosh Mainali** (Lecturer – Global College of Management).

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It has not been so long that systematic banking practices have been started in Nepal with the establishment of Nepal Bank Ltd. as a first bank in 1994 B.S. During these periods Nepalese banking sector has become more complicated with the introduction of more innovative and complex products which has posed challenges to the governing authority to maintain healthy financial system in the nation. By the time, many tools have been innovated for making financial system of the nation healthier. CAMEL is one of the widely accepted tools for ranking financial institution in respect to their financial performance. Thus, it is my great pleasure to study healthiness of financial system of the nation in a comparative way and the regulation practices of the central authority as my partial fulfillment of the requirement for MBS. I would like to extend my sincere gratitude to all who have supported me and provided suggestions for the completion of my thesis.

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Date   :…………….   **Diwakar Bhattarai**
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ABBREVIATION

AD -   Anno Domini

ADB -   Asian Development Bank

ATM -   Automated Teller Machine

BHC -   Bank Holding Company

BOK -   Bank of Kathmandu Limited

B.S. -   Bikram Sambat

BSD -   Banking Supervision Department

CD -   Credit to Deposit

CRR -   Cash Reserve Ratio

CV-   Coefficient of Variation

DSL -   Deprived Sector Lending

EBL -   Everest Bank Limited

FDIC -   Federal Deposit Insurance Corporation

FI -   Financial Institution

FY-   Fiscal Year

HBL -   Himalayan Bank Limited

HR -   Human Resource

i.e. -   For Example

IRB -   Integral Rating Based

KBL -   Kumari Bank Limited

LBL -   Laxmi Bank Limited

MIS -   Management Information System

NIBL -   Nepal Investment Bank Limited

NIC -   Nepal Industrial and Commercial Bank Limited

NPR -   Nepalese Rupees

NRB -   Nepal Rastra Bank

OCC -   Office of the Comptroller of the Currency

POS -   Pint of Sale

SBL -   Siddhartha Bank Limited

SCBNL -   Standard Chartered Bank Nepal Limited

S.D. -   Standard Deviation

SLR -   Statutory Liquidity Ratio

UFIRS -   Uniform Financial Institutions Rating System

CHAPTER I
INTRODUCTION

1.1 General Background

Financial institutions are backbone for the economic development of every nation. Capital formation is foremost and initial step for the economic development. Unless and until scattered fund with the small savers and investors is collected and used in the productive sector and development projects, economy of the nation cannot be uplifted. Financial institutions collect fund, which is scattered in the various sectors of the society, in the form of deposit and use these funds in the development sectors as an investment and loan and advances. That is how; in one hand, small depositors can get safety to their hardly accumulated wealth and get some returns in the form of interest and on the other hand, investors get financing facility to their profitable projects. Bank and financial institutions play intermediary role between lender and borrower of money.

1.2 Meaning of Bank

The concept of banking has been developed from the ancient history with the effort of ancient goldsmiths who developed the practice of storing people's gold and valuables. Under such arrangement, the depositors would have their gold for safekeeping and given a receipt by gold smith. Whenever the receipt was presented, the depositors would get back their gold and valuables after paying a small amount as fee for safekeeping and serving.

The term "Bank" was originated from Italian word "Banco". Now it keeps a specific meaning. Bank is financial institution, which plays a significant role in the development of the country. It facilitates the growth of trade and industry of the national economy. However, bank is a resource for economic development, which maintains the self-confidence of various segments of society and extends credit to the people.

A bank is a business organization that receives and holds deposits of funds from others makes loans or extends credits and transfers funds by written orders of depositors. The business of banking is one of collecting funds from the community and extending credit (making loans) to people for useful purpose. Banks have played

a pivotal role in moving money from lenders to borrowers. Banking is a profit seeking business not a community charity. As a profit seeker, it is expected to pay dividends and otherwise add to the wealth of its shareholders. The more developed financial system of the world characteristically fall into three parts: The central bank, the commercial banks and other financial institution. They are also known as financial intermediaries.

Banking is the business of providing financial services to consumers and businesses. The basic services that a bank provides are checking accounts; which can be used like money to make payments and purchase goods and services; savings accounts and time deposits that can be used to save money for future use; loans that consumers and businesses can use to purchase goods and services; and basic cash management services such as cheque cashing and foreign currency exchange. Four types of banks specialize in offering these basic banking services: commercial banks, savings and loan associations, savings banks, and credit unions.

A broader definition of a bank is any financial institution that receives, collects, transfers, pays, exchanges, lends, invests, or safeguards money for its customers. This broader definition includes many other financial institutions that are not usually thought of as banks but which nevertheless provide one or more of these broadly defined banking services. These institutions include finance companies, investment companies, investment banks, insurance companies, pension funds, security brokers and dealers, mortgage companies, and real estate investment trusts.

Banking services are extremely important in an economy. Banking services serve two primary purposes. First, by supplying customers with the basic mediums-of-exchange (cash, checking accounts, and credit cards), banks play a key role in the way goods and services are purchased. Without these familiar methods of payment, goods could only be exchanged by barter (trading one good for another), which is extremely time-consuming and inefficient. Second, by accepting money deposits from savers and then lending the money to borrowers, banks encourage the flow of money to productive use and investments. This in turn allows the economy to grow. Without this flow, savings would sit idle in someone's safe or pocket, money would not be available to borrow, people would not be able to purchase cars or houses, and businesses would not be able to build the new factories the economy needs to produce more goods and

grow. Enabling the flow of money from savers to investors is called financial intermediation, and it is extremely important to a free market economy.

The following are few definitions given by different authors:

"Bank is an establishment for the custody of money from or on behalf of the customers its customers its essential duty to pay their draft on it, its profits arises from its uses of the money left unemployed by them".   -The Shorter English Dictionary

"Bank is a financial institution, which provides financial services that may be in the form of accepting deposits, advancing loan, providing necessary technical advices, dealing over foreign currencies, remitting funds, etc." -Nepal Rastra Bank Act, 2002

The concept of banking system was introduced in Nepal with the establishment of Nepal Bank Ltd. in1937A.D. In Nepalese context, now a days, three types of banks are being operated by performing their activities in different sectors, such as Central Bank (Nepal Rastra Bank), Commercial Banks and Development Banks. Under Commercial Banks, there are three types of banks one is being operated by government sectors, one is being foreign partners with sharing national investors, and other being a pure national investors.

1.3 Development of Bank in Nepal

In comparison with other developed countries, the development of banking system of Nepal is far behind. As in other countries, goldsmith and moneylender were the ancient bankers of Nepal. According to historical records, in 780 B.S. King Gunakamdev Dev renovated the Kathmandu City by taking loan. Some 157 years later i.e. in 937/38 B.S. a trader named "Shankhadhar" cleared the ineptness of the people and in the remembrance of this occasion, he introduced the "Nepal Sambat" the New Era.

In the 14th century Jayasthiti Malla, the king of Kantipur, introduced various measures of cast according to their occupation and their money was carried out by the certain cast "Thankdhari". However, they were motivated mainly towards profit making. Later in 1933 B.S., during the tenure of Prime Minister Ranoddip Singh "Tejarath Adda" was established which carried out some of the banking activities and it was the first step towards the institutional development of banking in Nepal. Tejarath Adda

did not use to accept deposit but only used to lend loan to the government officials and the people against the deposit of gold, silver, and other ornaments charging 5% interest rate.

Banking in a true sense of term started with the inception of Nepal Bank Ltd. on 30th Kartik, 1994 B.S. Nepal Bank Ltd. is the first commercial bank to provide the banking function in Nepal. The establishment of Nepal Bank Ltd. paved the path for development of banking in Nepal. Though this bank was given the authority and responsibility of central bank, with the change of time, "Nepal Rastra Bank" was established in Baishakh 14th, 2012 B.S (1955 A.D.) as the central bank of Nepal under Nepal Rastra Bank Act, 2012. Since then, it has been functioning as the government's bank and has contributed to the growth of financial sector. After its establishment, for the first time it issued the Nepali paper notes on 7th of Falgun 2016 B.S. The first five-year plan was introduced in the country after its establishment. It was established with a purpose to increase the usage of Nepalese paper notes, to apply monetarism in all the parts of the kingdom of Nepal.

In the year 2013 BS, Industrial Development Center was established for the industrial development in the country that has been converted to Nepal Industrial Development Corporation (NIDC) later in 2016 BS. Integrated and speedy development of the country is possible only when competitive banking services reaches nooks and corners of the country. In order to fulfill this objective, Rastriya Banijya Bank was set up in 2022 B.S. under the Banijya Bank Act, 2021 as per the recommendation of Nepal Rastra Bank. With the help of this bank, banking services spread to both the urban and rural areas of Nepal.

However, the Banijya Bank had to carry out the functions of development banks also. Despite being an agricultural country, our farming system is the traditional one that consumes more cost and less yield. To get rid of this problem, scientific agriculture is imperative, which requires finance and specialist of the field. To meet these ends, Agricultural Development Bank was established in 2024 BS. With the purpose of increasing the life standard of the people who are involved in agriculture sector, it provides the capital and loan to the agricultural sector of the country.

With the establishment of the various types of banks with various objectives and tasks, banking services spread to both the urban and rural areas. To operate all

commercial banks uniformly under single Act, "Commercial Bank Act, 2031" was enacted. Later in 2063, "Banking and Financial Institution Act, 2063" was enacted which replaced the "Commercial Bank Act, 2031", "Agricultural Development Bank Act, 2024", "Finance Company Act, 2042", and "Nepal Industrial Development Corporation Act, 2046". For the purpose of developing the rural banking sector, His Majesty's Government of Nepal (HMG/N) established 5 rural development banks in 2041 B.S (1984 A.D) which are in operation till now under the control and supervision of Nepal Rastra Bank.

After the reestablishment of democracy, the government has taken liberal policy in banking sector so different private banks got permission to establish as the joint venture with the banks of other countries. The establishment of Nepal Arab Bank Limited on 29th Ashadh, 2041 BS as the first Joint Venture Bank proved to be a milestone in the history of banking, which was renamed as NABIL Bank Limited later.

Today, Nepal has come a long way in banking fields. Nepal has also opened its door to foreign commercial banks to operate in the kingdom almost decade ago. Due to liberal economic policy of Nepalese government, different joint-venture banks in collaboration with foreign banks have been established and are operating successfully.

1.4 General Introduction of Selected Banks

1.4.1 Everest Bank Limited (EBL)

With the view and objective of extending professionalized and efficient banking services to various segments of the society, Everest Bank Limited came into operation in 1994 A.D. The bank has 20% equity participation by Panjab National Bank, one of the leading banks in India, 50% investment by Nepalese promoters and 30% from public. Having its head office at Lazimpat, the bank is providing its banking services through 43 branches, 72 ATMs and more than 850 POS all around the nation. The bank has a representative office at India to facilitate remittance from India.

The bank was awarded with "Bank of the Year 2006, Nepal" by the banker, a publication of financial times. Similarly, the bank was bestowed with the "NCCI Excellence award" by Nepal India Chamber of Commerce for its spectacular performance under finance sector.

1.4.2 Standard Chartered Bank Nepal Ltd. (SCBNL)

SCBNL was established in 1987 A.D. as a joint venture operation in the name of Grindlays Bank. The bank has 75% ownership of Standard Chartered Group and 25% shareholding of Nepalese public. The bank is known as the largest international bank currently operating in Nepal. The bank is also a first bank to implement Anti Money Laundering policy and Know Your Customer (KYC) procedure on all its customers.

The bank has been successful for being awarded from various institutions for its excellent service, customer care, and strict compliance. Some of the award has been listed as below:

a)   "Bank of the Year 2002, Nepal" by "The Banker" of the Financial Times,

b)   "Commercially Important Person (CIP), 2002" by the then HMG, Ministry of Finance,

c)   "Nepal Excellence Award, 2002" for significant achievement in customers satisfaction and relationship awarded by Federation of Nepalese Chamber of Commerce (FNCCI),

d)   "Award for the Best Present Accounts in the Financial Institution category in Nepal" for the Fiscal Year 2002-2003 and 2001-2002 by Institute of Chartered Accounts Nepal (ICAN) in 2004, and many more.

1.4.3 Siddhartha Bank Limited (SBL)

With the objective of providing exemplary service combined with profitable operations, Siddhartha Bank Limited started its operation in 2002. The bank has been promoted by highly reputed Nepalese business executives with the aim of providing quality financial services to the public. Slogan of the bank "Our business is to understand your business" shows bank's attempt to understand customer's need and provide banking services to meet their expectation. It firmly believes customer focus is a core value, shareholder prosperity is a prime priority, employee growth is a commercial, and economic welfare is sincere concern. The bank is providing full range of financial services to its customer from its 32 branches inside and outside Kathmandu valley.

1.4.4 Laxmi Bank Limited (LBL)

With the mission of delivering quality banking and stakeholder satisfaction in the true meaning of the word, Laxmi Bank was incorporated in 2002, being promoted by a reputed business group with diversified business interest. In the bank 55.42% shareholding is from promoters group. Whereas, 9.02% shareholding is from Citizen Investment Trust (CIT) and 35.56% is from public being actively transacted in the stock market.

The bank is providing its banking services to its customers from its 22 branches. In addition to its branch networks, the bank provides its services through a host of delivery channels including cell phones, internet, ATM, POS etc. With the view of providing safe, seamless, quick and advance banking services, the bank has been heavily investing in contemporary banking technologies.

The bank is a first bank in South Asia to implement SWIFT Net; the advanced version of SWIFT which is used for speedy and secure payment and messaging services. The bank is recognized as an innovative and progressive bank geared to provide shareholders and customers with quality earnings and value added services.

1.5 Focus of the Study

Issue of regular monitoring of commercial banks is arising increasingly since these institutions are being more complex. Newer and newer products are arising day by day and the services of the banks also. There have been developed many supervision, monitoring and controlling mechanisms. Government of every country constantly keeps eyes in those institutions through its monetary authority.

The CAMELS ratings or Camels rating is a supervisory rating of the bank's overall condition used to classify the nation's banks. This rating is based on the financial statements of the bank and on-site examination by regulators. The supervisory authorities rank the banks and financial institutions in the scale from 1 to 5 with 1 being strongest and 5 being weakest. These ratings are not released to the public but kept secret with the top management of the banking company to prevent loss of public confidence with the bank with bad CAMELS rating.

The focus of study is to analyze the performance Nepalese commercial banks within the framework of CAMEL. The study also focuses on whether CAMEL provide complete rating of commercial banks from strongest to weakest point or not.

1.6 Statement of the Problem

Commercial banks are the backbone of the Nepalese economy at present. Nepal being listed among least developed countries, the establishment of the commercial bank in this sector has added more bricks in the construction of Nepalese economy.

Capital formation is foremost for economic growth. Capital are scattered and they should be brought together for investing them in the development projects. Banks are those institutions that collect scattered funds from individual and institutional depositors and invest them in different development projects. That is how the scattered funds are collected and used for the development of economy.

Banks and financial institutions promise small depositors for providing security to their hardly earned money and for providing certain specified returns. So that, individual and institutional depositors deposit their funds in the bank with the expectation of security to and some returns in the form of interest. Those funds are used by banks for the investment in different projects and providing loan to different parties. The fund collected by banks in the form of deposit is very high in comparison to capital invested by shareholders. Rather, providers of the capital of the financial institution are also general people since bank and financial institutions are public limited companies. In this sense, banks somehow play with the fund of general people. It collects funds, analyze projects and either invest them in profitable projects or use these funds in the form of loan.

If there is not any controlling mechanism for those institutions which mobilize public funds, there may arise question in the reliability of these institutions. Banks require regular health check up to maintain the confidence of private sector in financial system of the country and protect the interest of depositors, lenders, shareholders, and other stakeholders.

Therefore, in every country, there have been established a prime institution for the regulation of those institutions. Government of every country closely monitors the

money market due to its high gravity in the national economy and to build up confidence among private sector in the financial system.

"Nepal Rastra Bank" is the apex monetary authority in Nepal, which is monitoring and controlling finance industry from its inception by issuing directives and circulars. It initiates the offsite and onsite supervision of FIs to maintain their sound financial health and to build up the confidence of private sector in the liberalized financial system and protect the interest of the investors.

Financial health of a nation depends upon health of individual FI and health of individual FI depends upon number of internal as well as external environmental factors. However, the intensity of contagious effect of these macro variables may vary from one individual FI to another. Therefore, health of individual FI should be checked up regularly to know the intensity of such effect (Baral, 2005).

CAMELS is widely used tool for the regular health check up of financial institutions. Nepal Rastra Bank has also applied this technique as offsite supervision. Nevertheless, use of full fledge CAMELS is not simple in the present scenario. An independent researcher also cannot apply full fledge of CAMELS due to unavailability of sufficient information. Presently NRB is using four components "CAEL" among six components of CAMELS.

After reviewing these all, our research problems are pointed as below:

1. What is the role of commercial banks in the national economy?

2. Why do commercial banks need regular monitoring and supervision?

3. What are the mechanism used by central bank for the continuous monitoring and controlling of financial institutions?

4. What is the reliability of CAMELS rating system as regular supervision tool?

5. Are all banks meeting the standards provided by Nepal Rastra Bank?

6. Do joint venture commercial banks have higher ratings than other banks?

7. What will be the improvement areas for building healthy financial market in Nepal?

The study hovers around these questions and tries to find out answer to them.

1.7 Objectives of the Study

The main objective of the study is to analyze performance of Nepalese commercial banks in the framework of CAMEL and analyze whether or not the performance of joint venture commercial are better than that of non joint venture commercial banks. Its specific objectives are listed as below:

1. To analyze the performance of Nepalese commercial Banks in the framework of CAMEL.

2. To analyze CAMEL as an appropriate tool for analyzing financial health of FIs.

3. To compare the performance of joint venture banks with non joint venture banks in Nepal.

4. To explore NRB practices for the regulation and supervision of FIs.

5. To recommend and suggest for the improvement in the financial health of commercial banks.

1.8 Limitations of the Study

Despite of researcher's utmost effort to draw a valid conclusion from the analysis, there are certain limitations, which a researcher cannot eradicate due to the lack of time and cost. Some of which are pointed as below:

➢ A complete conclusion without error is possible in census if it is done by eliminating biasness. We could be able to analyze the performance of financial system of Nepal without error if we had included all the respondents in our research. Nevertheless, that would need more cost. A research costs in the form of time, effort, and expenses on it. Resources are scarce and they cannot be used unlimitedly. Optimum utilization of the time, cost and effort has been attempted in the course of study. However, researcher has followed the principal of sampling for minimizing errors in research.

➢ The study has been conducted within the framework of MBS curriculum set by Tribhuvan University and has not gone out of that. Researcher has not manipulated the format provided by University.

> ➢ Similarly, a single tool i.e. CAMEL rating has been used among many other tools being used by monetary authority for the regulation of financial institutions. The comparison in the result given by different tools has not been attempted.

> ➢ All the ratios of the CAMEL component has not been tested in hypothesis testing. One major ratio has been picked out and conclusion has been drawn by testing that ratio.

> ➢ The study period covers five fiscal years from FY 2006/07 to 2010/11.

1.9 Organization of the Study

The study has been organized in five chapters viz. Introduction, Literature review, Research methodology, Data presentation and analysis, and Summary, Conclusion, and Recommendation. Each of the chapters has been described as below:

Chapter I: Introduction

First chapter deals with introduction. The chapter provides general introduction and background of the study. It clarifies the motive behind the study. This includes background of the Study, statement of problem, objectives of study, limitation of study and Organization of study.

Chapter II: Review of Literature

Second chapter is the review of literature. We review available literatures in the related subject matter. Various books, research papers, journals, articles, and previous unpublished master degree dissertations has been reviewed in this chapter with their findings. Further, methodology used, sample size, period covered etc also has been reviewed in possible cases.

Chapter III: Research Methodology

Research methodology used in the study has been explained in third chapter. Different tools and techniques used by the researcher for the analysis purpose are described here. It includes research design, nature and sources of data, population and sampling, method of data collection and analysis, research variables etc.

Chapter IV: Data Presentation and Analysis

Data presentation and analysis is the main part of a thesis. In forth chapter, collected data is presented in a tabulated form and analysis of these data is done by using different methods explained in third chapter. Further, different charts and graphs have been used to present the tabulated data.

Chapter V: Summary, Conclusion, and Recommendation

The last chapter summarizes the theses and presents the conclusion that flows from the study and offers suggestions for further improvement.

A bibliography and appendices has been attached at the end of the study.

CHAPTER II
REVIEW OF LITERATURE

2.1   Introduction

Literature review is basically a "stock taking" of available literature in one's field of research. The literature survey thus provides the students with the knowledge of the status of their field of research (Pant & Wolf, 2005, p. 40).

Research is a theory building process. A research should always consider previous studies in a particular subject matter. A researcher should always consider what has been already done previously, and what are remaining to do. Findings of the previous results serve as the hypothesis for new study. For review purpose researcher uses different journals, books, articles, reports published by different institutions and unpublished discretions submitted by master level students. It is not only a way to discover what other research in the area of our problem has uncovered, but also helps to avoid investigating problems that have already been definitely answered.

2.2   Theoretical Framework

2.2.1   Concept of Banking Supervision

Banking supervision is arriving at a single, comprehensive, informed opinion about the condition and performance of a bank and taking the appropriate actions if condition or performance is poor in any way.

Commercial banks are backbone for the economic development of a nation. They are special institutions, which channelize the funds from surplus sector to deficit sector of the economy. In this process, banks collect huge amount of fund from general people and mobilize them into deficit sector. Investment from shareholders is very low in comparison to the deposit collected by banks. In this situation, there is a chance of banks to take high risk with the fund of depositors and outsiders in the expectation of getting higher return. If the project generates higher return shareholders will be benefited not the depositors, but if the project losses that loss will hamper the interest of depositors and outsiders. Therefore, regular supervision of bank and financial institutions is necessary to protect the interest of depositors and other stakeholders (NRB, 2010).

Tuning with the present scenario of globalization and increased economical activities in the country, commercial banks are introducing complex and innovative banking products. In the mean time, the probability of loss becomes significant to banks, which are running behind the competition. In case of insolvency, the public depositors as well as the shareholders   of the bank may suffer significantly, which adversely affect the overall banking sector. The bank supervision is necessary to find out the solvency position and take corrective action in the time when needed. Besides, commercial banks are exposed to many risks such as:

a) **Credit Risk**:

This type of risk is faced by the banks in their normal course of operations. The risk is involved with deterioration in the assets of the bank. If the credit customers of the bank do not fulfill their obligation of repaying principal and interest on time the bank suffer huge loss.

b) **Operational Risk:**

Operational risk is the risk of loss resulting from inadequate internal processes, people, and systems, or from external events. Operational risk itself is not a new concept, and well run banks have been addressing it in their internal controls and corporate governance structures. However, applying an explicit regulatory capital charge against operational risk is a relatively new and evolving idea. Basel II requires banks to hold capital against the risk of unexpected loss that could arise from the failure of operational systems. The most important types of operational risk involve breakdowns in internal controls and corporate governance. Such breakdowns can lead to financial losses through error, fraud, or failure to perform in a timely manner or cause the interests of the bank to be compromised in some other way, for example, by its dealers, lending officers or other staff exceeding their authority or conducting business in an unethical or risky manner. Other aspects of operational risk include major failure of information technology systems or events such as major fires or other disasters (NRB Directives, 2011).

c) **Market Risk**

Market risk can be defined as the risk of losses in on-balance sheet or off-balance sheet positions due to the adverse movement in market interest rate and prices.

d) Liquidity Risk

This is the potential that the bank may be unable to discharge its short-term liabilities on time due to its inability to liquidate its assets as and when required. Sometimes, huge depositors of the bank may withdraw their money due to some reasons so that bank faces difficulty in maintaining sufficient liquidity, which ultimately creates a threat to remaining depositors and the bank becomes problematic. Generally, liquid assets do not generate any income but only create opportunity loss. Maintaining a tight liquidity results in higher returns so, banks tend to maintain minimum liquidity. But, first of all, banks should analyze the composition and nature of its deposit and it should always follow maturity matching concept so that optimal liquidity is maintained.

e) Legal Risk

This type of risk arises from the unenforceable contracts, lawsuits, or adverse judgment can disrupts or otherwise negatively affect the operations or condition of a banking institution.

f) Reputational Risk

Reputational risk is the potential that negative publicity regarding an institution's business practices will cause a decline in customer base, costly litigation, or revenue reductions whether such information is right or wrong.

There is no any proven universal system for the structure and process for the supervision of the bank. The arrangement for banking regulation and supervision differ from country to country. Apart from the differences in the political structure, regulatory and supervision approach depends upon the state of development of financial systems, number of banks and their inherent complexities, size and concentration of banking instructions, relative openness of democratic financial system, nature and extent of public discloser of bank, financial position, and availability of technology and human resources for the regulation and supervision. However, there is a universal consent that banks are to be supervised regularly for building public confidence to the financial system of the nation. The core principles for effective banking supervision issued by Basel Committee in 1977 A.D. have provided an impact framework for the regulation and supervision of the banks. The

framework can be interpreted as comprising four distinct yet complementary sets of arrangement.

- Legal and institutional arrangements for the formulation and implementation of public policy with respect to the financial sector, and the banking system in particular;

- Regulatory arrangements regarding the formulation of laws, policies, prescriptions, guidelines or directives applicable to banking institutions (e.g. entry requirements, capital requirements, accounting and disclosure provisions, risk management guidelines);

- Supervisory arrangements with respect to the implementation of banking regulations and the monitoring and policing of their application ;

- Safety net arrangements providing a framework for handling liquidity and solvency difficulties that can affect individual banking institutions or the banking system as a whole and for the sharing of financial losses that can occur (e.g. deposit insure schemes or winding-up procedures).

2.2.2   Objectives of Banking Supervision

Banks deal with other people's money. They have high leverage ratio. The portion of investment by the shareholder in the assets is very low in comparison to the borrowed funds. Since there is inherent imbalance between own funds and borrowed funds, banks may take high risk in absent of close supervision. If the bank fails depositors loss more than shareholders do and if bank profit there will be more gain to shareholders than depositors. Thus, the close supervision of banks is compulsory. On the other hand, banks are an important source of liquidity for an economy. They serve as financial intermediaries to allocate funds and risks among individuals and firms by extending loans and buying securities with funds that they receive as deposits. A bank failure has negative impact in the financial system, which can interfere the balance of payment as well as it can affect monetary management. Supervising banks are costly but the cost of no supervision or low supervision is even higher. The cost of bank failure to the society is very high in comparison to private cost, which occurs due to bank supervision. Many depositors do not have idea about the portfolio management and fulfillment of the compliance by the bank.

Some of the major validations provided by NRB behind bank supervision are:

- To maintain stability and confidence in the financial system, thereby, reducing the risk of loss to depositors and other stakeholders.

- To ensure that banks operate in a prudent way and they hold sufficient capital to support the risks that arise in the business.

- To foster an efficient and competitive banking system that is responsive to the public's need for good quality and an easy access of financial services at a reasonable cost.

Besides, there is following reasons because of which supervision of commercial banks is essential:

- To protect depositors of banking organizations against avoidable losses, thereby contributing to confidence in the financial system and the mobilization of private savings for credit.

- To promote the smooth operation of the payments system, uninterrupted by systemic failures of financial institutions.

- To prevent the abuse of financial institutions by money launderers and terrorist financers.

Inadequate bank supervision in the United States in the 1980s and early 1990s contributed to the failure of over 700 banks, with losses to the U.S. taxpayer of $120 billion. These reasons call for an independent and autonomous supervisory authority to conduct direct assessment of the overall banking system (NRB, 2010). In sum, banks are closely supervised all over the world with the objective of maintaining smooth and efficient operation of financial system in the nation.

2.2.3   NRB in Banking Supervision

The responsibility for the regular monitoring and supervision of the financial institution goes to the central bank of the nation. Central bank of every nation prepares a strong mechanism for the regular and close supervision of banks and financial institutions of that country.

Nepal Rastra Bank, being prime institution for the regulation of monetary system in Nepal, has maintained a separate department solely for the supervision purpose viz. Bank Supervision Department. It is performing the banking supervisory functions. The department is responsible for carrying out inspection and supervision of all the commercial banks.

Bank supervision department has been following the international supervisory practices along with tailor-made Nepalese relevant laws while supervising the commercial banks. The bank uses on-site examinations and off-site supervision as its main course of bank supervision.

Nepal Rastra Bank has been following compliance based supervision practice; but its efforts are directed towards risk-based supervision. It has been focusing on thorough, regularly scheduled, on-site examinations. The bank is using "CAMELS" as the measurement of safety and soundness of the bank. The bank believes that the performance of the bank cannot be measured only in terms of returns submitted by them. Thus, it is continuously focusing on off-site surveillances of the bank using components of CAMEL except "M" which is for management. On the basis of these components off-site supervision ranks the bank regularly. The result of the ranking of banks is kept confidential and used only for supervisor's information. Section 47 of "Bank and Financial Institution Act, 2063" also has made the provision that NRB can conduct onsite or offsite supervision of any bank and financial institution at any time.

A. On-site Inspection

On-site inspection of the bank includes:

- Interviews with management

- Inspecting the written policies and procedures of the bank and the degree to which those written policies and procedures are followed

- Evaluating whether the bank's financial statements accurately show the bank's capital – requires a determination of the value of the bank's assets

- Checking the accuracy of accounting records

- Checking the adequacy of internal controls and the audit function

- Checking for compliance with laws and regulations

- Writing a "Report of Examination" that summarizes findings and assigns a rating to the bank. The ratings are organized according to CAMELS rating System.

Onsite inspection function is handled by Onsite/Enforcement Unit. Onsite inspection function is the direct visit of the bank by the enforcement unit. The unit is responsible to conduct on-site inspection of banks based on annual plan prepared by BSD. Supervisory authority conducts corporate level onsite inspection of commercial banks once a year. More than two third of the staff of supervision department are consumed by this unit. NRB furnishes following objectives of on-site inspection conducted by Bank Supervision Department:

- To determine the commercial banks' financial position and the quality of its portfolios and operations so as to ensure that it is not operating against the interests of the depositors.

- To assess and appraise the competence and capability of the commercial bank's management and staff, as the quality of the institution's management will determine the soundness of its operation.

- To ascertain whether the bank is complying with applicable laws, regulations and monetary measures issued by the NRB.

- To evaluate the adequacy of the bank's records, systems, and internal controls.

- To test the accuracy and validity of the data submitted to the NRB by the banks.

Further, the on-site function of the department includes independent on-site assessment of bank's corporate governance, internal control system, reliability of information provided etc. The on-site examinations carried out by Banking Supervision Department are grouped into:

a) Maiden or initial examination, which is usually conducted within six months of commencement of operation by a new bank;

b) Routine and corporate level full-fledged inspection, which is the regular examination

c) Targeted Inspection, which addresses specific areas of operation of a bank e.g. credit, trade finance etc.

d) Special inspection, which is carried out as the need may arise

On-site examination is always helpful to off-site supervision for verifying the information provided in the returns submitted to the off-site.

B.   Off-site Surveillances

Off-site surveillance is the collection of periodic reports and financial disclosures from the bank and analyzing the performance of these banks by generating critical ratios. These ratios help supervisory authority to identify entire health of the bank and ease to evaluate applications filed for opening new branches, granting demand loans etc.

Some of the advantages of off-site surveillances are follows:

a) This system is less costly than on-site supervision program;

b) This system can be updated frequently when new information is received through quarterly financial returns;

c) It can provide the basis for a financial evaluation of the bank between examinations; and

d) It is potentially able to isolate risk factors that may lead to future problems.

There has been established an Off-site Supervision Unit for carrying out off-site surveillances of the activities of all Nepalese commercial banks under Bank Supervision Department. The unit does not directly visit to the banks but they demand periodic financial reports from the bank and these reports are analyzed to identify potential problems and judge the compliance to prevailing laws and statue. NRB has laid down different compliance to commercial banks in terms of maintenance of liquidity, lending policy, operation policy etc. Maintenance of Cash Reserve Ratio (CRR), Statutory Liquidity Ratio (SLR), Credit to Deposit Ratio (CD Ratio) and Deprived Sector Lending (DSL) are some of the examples of this. Every banks and financial institutions have to maintain the stipulated ratios compulsorily and failing to maintain it is subject to be fined. The off-site supervision unit confirms whether all the commercial banks have been maintaining stipulated CRR, SLR, CD ratio, and DSL or not. Whenever there is a shortfall in CRR, SLR and DSL, the unit

recommends for the penalty. Furthermore, the unit collects and compiles information required for liquidity monitoring of the commercial banks on a daily basis.

The Off-site Supervision Unit reviews and analyzes the financial performance of banks using prudential reports, statutory returns and other relevant information. It also monitors trends and developments for the banking sector as a whole. Industry reports are generated on quarterly basis. The Off-Site Supervision Unit is responsible for supervising banks' operations based on data and reports submitted by banks.

The inspection and supervision By-law, 2002 (amended 2004) identifies the following key objectives of off-site supervision unit in Bank Supervision Department.

- To obtain regular information in respect of financial condition and health of the commercial banks.

- To identify potential problems of commercial banks in the absence of onsite inspection.

- To help and strengthen the quality of on-site inspection.

- To ascertain the compliance status to the applicable laws, regulations and directives on the basis of financial statements and other documents obtained from the commercial banks.

- To serve as an Early Warning Device

For the achievement of any objective there must be formulated certain course of action. Thus, Banking Supervision Department under NRB also has prepared off-site surveillance manual. The supervision manual provides guidelines on the objectives, procedures and prescribed documents for the off-site supervision.

The Off-site Supervision unit reviews the financial returns submitted by the banks for checking compliance status of the Cash Reserve Ratio (CRR), Statutory Liquidity Ratio (SLR), and Deprived Sector Lending (DSL). This unit recommends for the penalty whenever there is a shortfall in the CRR, SLR, and DSL. Furthermore, this unit collects and compiles information required for liquidity monitoring of the commercial banks on daily basis. The Off-Site Supervision unit monitors, reviews, and analyzes returns of the financial institutions and prepares reports based on said returns and makes use of early warning device as an attempt to detect emerging

problems. The returns are used by the supervisors/examiners for the purpose of determining banks' exposures to risk, the effect on banks' profits, etc. Some basic ratios (the financial soundness indicators) are computed from these returns and are used to analyze such important areas as Capital Adequacy, Assets Quality, Earnings, Liquidity, and Sensitivity to market risk (CAELS rating). Moreover, there have been established Capital Adequacy Enforcement Unit for performing the duties of enforcement, follow up and periodic review as per the New Capital Adequacy Framework 2007 (updated July 2008). This unit is coordinating and managing proper implementation of the New Capital Adequacy Framework, which is designed on the basis of capital adequacy requirements under BASEL II. New Capital Adequacy Framework has following objectives:

To ensure that each commercial banks maintain a level of capital, which;

- Is adequate to protect its depositors and creditors;

- Is commensurate with the risk associated activities and profile of the commercial banks;

- Promotes public confidence in the banking system.

The success of an offsite supervision system hinges on several elements first, the accuracy and timeliness of the data submitted by banks and second the technology used to capture the data and compile the comparative ratios, trend analyses and percentile ranks relative to peers. Finally, the analyst makes a judgment based on a variety of financial ratios and trends, and combines the findings to offer compelling evidence of a specific bank's financial condition.

Besides these two units, there are Policy, Planning and Analysis Unit and Internal Administration Unit under Banking Supervision Department. Policy, Planning and Analysis Unit has been established to develop and maintain relation with international supervisory agencies and to notify the department of new developments in the international arena, on a periodic basis. The relationship is expected to bring new supervision techniques and developments into force. Further, this unit of the BSD is performing the tasks of formulation and periodic review the annual plan of the department. This unit is also responsible for coordinating the interaction programs, seminars, and workshops in issues relevant to the supervision function, with participation of the external stakeholders, as well. Supervisory policies and guidelines

are developed in an interactive & consultative way where industry participants and the stakeholders are allowed to comment on policy documents before they are finalized.

Similarly, Internal Administration Department performs the functions related to human resources and internal administration within the department. It works as HR Department and General Service Department of NRB.

2.2.4 Review of NRB Directives

The world has witnessed many financial crises and devastating consequences due to huge financial and economic losses that resulted from each episode. Every crisis was sudden in onset and their magnitude of losses was much larger than expected. If we go back to the history, then on 3rd march 1997; the Asian crisis began in the form of liquidity problem of two finance companies. Later this spread over to other financial intuition within the Thai financial system. Simultaneously, crisis began to cover Malaysian, Indonesian and South Korean financial statement and loomed in the form of Asian crisis. So this Asian crisis appealed the whole world for regular and timely supervision and assessment of financial system, its soundness and vulnerabilities. This event forced the regulatory authorities for the enforcement of prudential measures in order to avoid further crisis review and revision in prudential regulations such as capital adequacy ratio, asset classification. Provisioning for impaired assets, exposures limit and enforcement of international accounting standard etc have now become common issue all over the world since the late 1990s.

Similarly, in our country too commercial banks could not recognize the importance of the quality credit and banking sector failed to witness the expected developments. Subsequently, the banking sector faced the problem of bad debts, overdue loans, accrued interest, accumulation of non-banking assets and excess liquidity in the banking system. In addition to these expected happenings new challenger were added to the Nepalese banking sector due to the adverse development in the domestic economy resulting from deteriorating peace and security situation and continuous persistence of natural calamities inside the country on one hand and the global recession primarily caused by international terrorism on the other. Viewing the need of structural reform amidst these adverse implications, NRB issued directives to run commercial banks in a healthy competitive manner to ensure the sustainable development of the overall banking system.

The financial sector reform of Nepal was initiated in mid 1980s. Since then NRB has been playing pioneer role in regulation, supervision and monitoring of commercial banks by issuing directives. At present the number of guidelines issued by NRB to commercial bank reaches sixteen, which are as follows:

1. The provision of minimum capital fund to be maintained by the commercial bank.

2. The provision of loan classifications and loan loss provisioning on the credit.

3. The provision relating to limit on credit exposure and facilities to a single borrower, group of related borrowers and single sector of the economy.

4. The provision relating to accounting policy and the structure of financial statements to be followed by the commercial banks.

5. Regulation relating to minimization of risk inherent in the activities of commercial banks.

6. The provision of institutional good governance to be followed by commercial banks.

7. Time frame for implementation of regulatory directives issued in connection with inspection and supervision and supervision of commercial banks.

8. Regulation relating to investment in shares and securities by commercial banks.

9. The provision of submission of statistical data to the NRB. Banking management division and inspection and supervision division.

10. Regulation relating to sale and ownership transfer of promoters shares.

11. Provision relating to consortium financing.

12. Regulation relating to credit information and stringent blacklisting procedure for loan defaulters.

13. The provision relating to cash reserve ratio

14. Regulation relating to opening the branch office of banks.

15. Provision relating to interest rates.

16. Provision relating to collection of financial sources.

17. Provision relating to Deprived Sector Lending

18. Provision relating to merger/acquisition and up-gradation of banks and financial institutions

19. Provision relating to Know Your Customer

20. Miscellaneous provisions

2.3 Introduction to CAMEL Framework

During an on-site bank exam, supervisors gather private information, such as details on problematic loans, with which to evaluate a bank's financial condition and to monitor its compliance with laws and regulatory policies. A key product of such an exam is a supervisory rating of the bank's overall condition, commonly referred to as a CAMELS rating. This rating system is used by the three federal banking supervisors (the Federal Reserve, the FDIC, and the OCC) and other financial supervisory agencies to provide a convenient summary of bank conditions at the time of an exam.

The acronym "CAMEL" refers to the five components of a bank's condition that are assessed: *C*apital adequacy, *A*sset quality, *M*anagement, *E*arnings, and *L*iquidity. A sixth component, a bank's *S*ensitivity to market risk was added in 1997; hence, the acronym was changed to CAMELS. However, the bulk of the academic literature is based on pre-1997 data and is thus based on CAMEL ratings. Ratings are assigned for each component in addition to the overall rating of a bank's financial condition. The ratings are assigned on a scale from 1 to 5. Banks with ratings of 1 or 2 are considered to present few, if any, supervisory concerns, while banks with ratings of 3, 4, or 5 present moderate to extreme degrees of supervisory concern.

All exam materials are highly confidential, including the CAMELS. A bank's CAMELS rating is directly known only by the bank's senior management and the appropriate supervisory staff. CAMELS ratings are never released by supervisory agencies, even on a lagged basis. While exam results are confidential, the public may infer such supervisory information on bank conditions based on subsequent bank actions or specific disclosures. Overall, the private supervisory information gathered during a bank exam is not disclosed to the public by supervisors, although studies show that it does filter into the financial markets.

The Basle Committee on Banking Supervision of the Bank of International Settlements (BIS) has recommended using capital adequacy, assets quality,

management quality, earnings, and liquidity (CAMEL) as criteria for assessing a FI in 1988 (ADB, 2002). The sixth component, market risk (S) was added to CAMEL in January 1997 by the bank supervisors (Gillbert, Meyer, and Vaughan, 2000, p. 6). However, most of the developing countries are using CAMEL instead of CAMELS in the performance evaluation of the FIs. The central banks in some of the countries like Nepal, Kenya use CAEL instead of CAMELS (Baral, 2005, p. 42).

CAMELS framework is a common method for evaluating the soundness of FIs. This system was developed by regulatory authorities of the U.S. banks. The Federal Reserve Bank, the Comptroller of the Currency and the Federal Deposit Insurance Corporation all use this system (McNally, 1996). Monetary authorities in most of the countries are using this system to check up the health of an individual FI. In addition, International Monetary Fund also is using aggregated indicators of individual FIs to assess the financial system soundness of its member countries as part of its surveillance work (Hilbers, Krueger and Moretti, 2000, p. 8).

2.3.1 CAMELS Ratings in the Supervisory Monitoring of Banks

Several academic studies have examined whether and to what extent private supervisory information is useful in the supervisory monitoring of banks. With respect to predicting bank failure, Barker and Holdsworth (1993) find evidence that CAMEL ratings are useful, even after controlling for a wide range of publicly available information about the condition and performance of banks. Cole and Gunther (1998) examine a similar question and find that although CAMEL ratings contain useful information, it decays quickly. For the period between 1988 and 1992, they find that a statistical model using publicly available financial data is a better indicator of bank failure than CAMEL ratings that are more than two quarters old.

Hirtle and Lopez (1999) examine the usefulness of past CAMEL ratings in assessing banks' current conditions. They find that, conditional on current public information, the private supervisory information contained in past CAMEL ratings provides further insight into bank current conditions, as summarized by current CAMEL ratings. The authors find that, over the period from 1989 to 1995, the private supervisory information gathered during the last on-site exam remains useful with respect to the current condition of a bank for up to 6 to 12 quarters (or 1.5 to 3 years). The overall conclusion drawn from academic studies is that private supervisory information, as

summarized by CAMELS ratings, is clearly useful in the supervisory monitoring of bank conditions.

2.3.2 CAMELS Ratings in the Public Monitoring of Banks

Another approach to examining the value of private supervisory information is to examine its impact on the market prices of bank securities. Market prices are generally assumed to incorporate all available public information. Thus, if private supervisory information were found to affect market prices, it must also be of value to the public monitoring of banks. Such private information could be especially useful to financial market participants, given the informational asymmetries in the commercial banking industry. Since banks fund projects not readily financed in public capital markets, outside monitors should find it difficult to completely assess banks' financial conditions. In fact, Morgan (1998) finds that rating agencies disagree more about banks than about other types of firms. As a result, supervisors with direct access to private bank information could generate additional information useful to the financial markets, at least by certifying that a bank's financial condition is accurately reported.

The direct public beneficiaries of private supervisory information, such as that contained in CAMELS ratings, would be depositors and holders of banks' securities. Small depositors are protected from possible bank default by FDIC insurance, which probably explains the finding by Gilbert and Vaughn (1998) that the public announcement of supervisory enforcement actions, such as prohibitions on paying dividends, did not cause deposit runoffs or dramatic increases in the rates paid on deposits at the affected banks. However, uninsured depositors could be expected to respond more strongly to such information. Jordan, et al., (1999) find that uninsured deposits at banks, that are subjects of publicly announced enforcement actions, such as cease-and-desist orders, decline during the quarter after the announcement.

The holders of commercial bank debt, especially subordinated debt, should have the most in common with supervisors, since both are more concerned with banks' default probabilities (i.e., downside risk). DeYoung and et al., (1998) examine whether private supervisory information would be useful in pricing the subordinated debt of large BHCs. The authors use an econometric technique that estimates the private information component of the CAMEL ratings for the BHCs' lead banks and regress it onto subordinated bond prices. They conclude that this aspect of CAMEL ratings adds

significant explanatory power to the regression after controlling for publicly available financial information and that it appears to be incorporated into bond prices about six months after an exam. Furthermore, they find that supervisors are more likely to uncover unfavorable private information, which is consistent with managers' incentives to publicize positive information while de-emphasizing negative information. These results indicate that supervisors can generate useful information about banks, even if those banks already are monitored by private investors and rating agencies.

The market for bank equity is far larger than that for bank-subordinated debt. Thus, the academic literature on the extent to which private supervisory information affects stock prices is more extensive. For example, Jordan, et al., (1999) find that the stock market views the announcement of formal enforcement actions as informative. That is, such announcements are associated with large negative stock returns for the affected banks. This result holds especially for banks that had not previously manifested serious problems.

Focusing specifically on CAMEL ratings, Berger and Davies (1998) use event study methodology to examine the behavior of BHC stock prices in the eight-week period following an exam of its lead bank. They conclude that CAMEL downgrades reveal unfavorable private information about bank conditions to the stock market. This information may reach the public in several ways, such as through bank financial statements made after a downgrade. These results suggest that bank management may reveal favorable private information in advance, while supervisors in effect force the release of unfavorable information.

Berger, Davies, and Flannery (1998) extend this analysis by examining whether the information about BHC conditions gathered by supervisors is different from that used by the financial markets. They find that assessments by supervisors and rating agencies are complementary but different from those by the stock market. The authors attribute this difference to the fact that supervisors and rating agencies, as representatives of debt holders, are more interested in default probabilities than the stock market, which focuses on future revenues and profitability. This rationale also could explain the authors' finding that supervisory assessments are much less accurate than market assessments of banks' future performances.

In summary, on-site bank exams seem to generate additional useful information beyond what is publicly available. However, according to Flannery (1998), the limited available evidence does not support the view that supervisory assessments of bank conditions are uniformly better and timelier than market assessments.

Each of the five components of CAMEL has been described in the following pints.

2.3.3   Capital Adequacy

The first of component of CAMEL, Capital adequacy ultimately determines how well FIs can manage with shocks to their balance sheets. Thus, it tracks capital adequacy ratios that take into account the most important financial risks- foreign exchange, credit and interest risks- by assigning risk weighting to the institution's assets (Baral, 2005, p. 43).

Capital is the claim of shareholders to the institution. It is the portion of fund that is invested by the shareholders and reserve and undistributed profit accumulated by the institution. The institution with lower capital has lower capacity to bear shocks that may arrive in the future. Similarly, lower capital means the institution is using high leverage and ultimately any unfavorable situation in future hampers the depositors of the bank. Thus, supervisory authorities demand certain level of investment from the shareholders depending upon quality and quantity of its assets. Capital adequacy is measured by the ratio of capital to risk weighted assets (CRAR). For doing so total capital of the FI is divided under two categories; first being Tier I and second being Tier II.

A. Tier I Capital

It is primary capital, which includes core capital of FIs. As per NRB, Tier I capital includes:

a) Paid up Capital

b) Proposed Bonus Share

c) Share Premium

d) Irredeemable Preference Share

e) General Reserve

f) Accumulated Profit/Loss

g) Capital Redemption Reserve

h) Capital Adjustment Fund

i) Other Free Funds

Following items should be deducted while calculating Tier I capital:

a) Goodwill

b) Investment in the shares or stocks of institutions exceeding the limit provided by NRB

c) Investment in the shares or stocks of institutions having financial interest

d) Fictitious assets except Research and Development and Software expenditures

e) Credit facility provided to individuals of institutions who are banned by the current acts and laws

f) Fixed assets purchased avoiding the directions issued by NRB.

B. Tier II Capital

It is secondary capital. As per Unified Directive 2069, Tier II capital includes following items:

- General Loan Loss Provision

- Assets Revaluation Fund

- Hybrid Capital Instruments

- Subordinated Term Debt

- Exchange Equalization Reserve

- Investment Adjustment Reserve

Minimum Capital Requirements

Unless a higher minimum ratio has been set by Nepal Rastra Bank for an individual bank through a review process, every bank shall maintain at all times, the capital requirement set out below:

a. A Tier 1 (core) capital of not less than 6 per cent of total risk weighted exposure;

b. A total capital fund of not less than 10 per cent of its total risk weighted exposure.

Nepal Rastra Bank can ask any individual bank to maintain higher minimum ratio through a review process. The Capital Adequacy Ratio (CAR) is calculated by dividing eligible regulatory capital by total risk weighted exposure. The total risk weighted exposure shall comprise of risk weights calculated in respect of bank's credit, operational and market risks.

Risk Weighted Exposure

Total risk of the bank has been divided in credit, operational and market risks. Among two methods of computing credit risks of the assets viz. standardized approach and integral rating based (IRB) approach, NRB is using Standardized Approach in its simplified form due to inherent constraints of the Nepalese banking system. The method, hence, is called Simplified Standardized Approach (SSA).

Under SSA, commercial banks are required to ascertain a risk weight to their balance sheet and off-balance sheet exposures. These risk weights are based on a fixed weight that is broadly aligned with the likelihood of a counterparty default. As a general rule, the claims that have already been deducted from the core capital shall be exempt from risk weights for the measurement of credit risk.

In order to be consistent with the Basel-II framework, the credit risk for the regulatory capital purpose shall be computed by segregating the exposure in the following 11 categories.

a) Claims on government & central bank

b) Claims on other official entities

c) Claims on banks

d) Claims on corporate & securities firms

e) Claims on regulatory retail portfolio

f) Claims secured by residential properties

g) Claims secured by commercial real state

h) Past due claims

i) High risk claims

j) Other assets

k) Off balance sheet items

Each individual item is provided with risk weight on the basis of possibility of default by counterparty. Claims on government and central banks are provided 0% risk and other assets are provided risk weight based on the rate provided by central bank.

2.3.4 Assets Quality

Quality of assets held by the bank is one of the important determinants of financial health of that bank. Credit risk of a bank depends on the quality of assets held by the bank. The quality of assets held by an FI depends on exposure to specific risks, trends in non-performing loans, and the health and profitability of bank –especially the corporate sector (Baral, 2005, p. 44).

The huge portion of assets carried by commercial banks is occupied by its loan and advances and investments, which carry largest amount of potential risk to the bank's capital account. The quality of the assets i.e. loan and advances depends upon risk management system of the bank. Lending policy of the bank plays a vital role in the quality of assets.

Commercial banks have to make certain provision to loan and advances on the basis of their performance. Loan which are not due fall under performing loan and the loan that are due more than 3 months fall under non-performing loan. Further, non-performing loan are categorized into three groups: substandard, doubtful, and bad debt/loss. Loan which is due more than 3 months and up to 6 months fall under substandard loan and a bank has to make 25% provision for such type of loan. Loan due more than 6 months and up to 1 year fall under doubtful loan and a bank should make 50% provision for such type of loan. And, loan which are due more than a year fall under bad debt and a bank have to make full i.e. 100% provision for such type of loan. If bad debts are recovered later after making full provision for the loan, then they are treated as bad debt recovered and bank can show entire recovered amount as income. There are certain industries specified by NRB which attract 50% or 100% provision right after falling to substandard. Further, NRB can ask the bank to provide

higher provision for the particular loan if it feels necessary after its inspection. Banks have to provide the provision of 1% for all the loans including pass loan also.

It has laid down various restrictions to the banks and financial institution which has NPL of more than 5%. The restriction may be on collecting deposits, granting loan and advances, opening new branches etc.

2.3.5 Management Efficiency

Management is a key factor for the success of any organization. They play a key role for increasing productivity of the organization by effectively mobilizing available resources. Further, they seek for opportunities in the market and develop its resources for exploiting those opportunities.

Management set long-term objective of the organization and prepare course of action for the achievement of those objectives. All the plans, policies, strategies, and targets are set by management after studying the market situation and analyzing internal strength of the organization. Further, responsibility of building internal strength of the organization also depends upon management. Searching new sources of resources, building human capital to cope with the changing environment, identifying new way of performing tasks, developing efficient MIS in the organization, identifying new developments in technology, and bringing them to the organization for performing tasks effectively and efficiently are some of the responsibilities of management of any organization. For recent periods, recruiting quality human resources, effectively utilizing them for the achievement of organizational objectives, developing them with appropriate training and development programs, and retaining quality human resources for the longer period have become major challenges for the management of any organization.

Efficient and intelligent management always search for a new approach to provide excellence service to its customer in a minimum cost so that the organization can always maintain long-term profitable relation with its customer. It is very hard to measure management efficiency in numerical term since it is a qualitative matter. Management qualities, its style, managerial traits, philosophy of the management are pure qualitative matters, which cannot be expressed in numerical value. ADB recommends cost per unit of money lent as a proxy of management quality (Baral, 2005, p. 44). The indicator cannot be used in Nepal due to lack of sufficient data.

Thus, NRB has also omitted this component of CAMEL in the performance evaluation of commercial banks. However, Operating Expenses Ratio and Earning per Employee can be calculated from the available data and these ratios jointly serve as the indicator of management quality. Many researchers have used these tools as the measure of management quality thus, the data analysis tool we are using is a tested one.

2.3.6 Earning Performance

Earning is one of the vital elements for the long-term financial health of any financial institution. Certain level of earning is always necessary for the smooth operation of any organization in long-term. Insufficient earning creates the risk of long-term insolvency of the organization.

Various stakeholders inside and outside the organization expect some return for their contribution towards the organization. Shareholder expect some percentage of dividend in their investment, debt holders expect timely payment of interest, employees expect better pay and increasing rate of bonus, government expect organization to pay high tax as the tax is one of the main sources of revenue, and society expects organization to invest in social welfare programmes. Any organization requires support of its stakeholders for the long-term survival and it is very hard to get their support for the longer period without meeting their expectations. Thus, financial health of any banking institution is dependent upon its earning capacity.

Insufficient earning; in one hand; may risks insolvency and excessive earning, on the other hand, also reflects excessive risk taking of an FI (Baral, 2005, p. 44). Return on assets, return on equity, operating profit margin, net profit margin are some of the indicators which are used as the measure of profitability. NRB uses return on total assets (ROA) as an indicator of profitability of commercial banks. It also uses some absolute measures such as interest income, net interest income, non-interest income, net non-interest income, non-operating income, net non-operating income and net profit to evaluate the profitability of a commercial bank (NRB, 2005).

2.3.7 Liquidity Position

Liquidity of an FI is a measure concern of investors, depositors and all the other stakeholders because; if any institution does not have sufficient liquidity, it cannot

discharge its liability on time. Institution cannot return depositors amount on demand and it cannot discharge its other contingent liabilities, so that it becomes the victim of short-term solvency. On the other hand, maintenance of excessive liquidity has negative impact on its profitability since; liquidity has adverse relation with profitability. Thus, an FI should maintain optimum level of liquidity so that it can maximize its profit through maintaining its capacity to discharge all its liabilities on time.

Maintenance of inadequate liquidity has created problem to certain banks in recent days. Gurkha Development Bank Ltd. and Capital Merchant Banking and Financial Institutions have been declared as problematic by NRB and Vibor Development Bank has faced liquidity problem in the beginning of fiscal year 2068/69. Sometimes, huge amount of withdrawal by institutional depositors create problem for instant management of liquidity in the bank. Similarly, bad humors of the bank and financial institution in the market also creates threat to depositors and tend withdraw their savings. Deposits collected by bank from its depositors are used for providing loan and advances so that it becomes difficult to repay all the deposit at one time.

Nepal Rastra Bank is also supervising liquidity maintenance by banks and financial institution continuously by the measure of CRR and SLR. Banks have to maintain CRR of 5.5%, which mean that every bank shall deposit 5.5% of their total deposit at NRB. Similarly, 15% SLR should be maintained at any time by the commercial banks, which mean that the bank has to invest 15% of local currency deposit of the bank in government security or maintain liquid cash in hand or at NRB. Following liquid assets has been categorized by NRB to be counted as statutory liquidity:

a) Investment in Nepalese government securities

b) Cash reserve maintained at NRB for maintaining CRR

c) Cash maintained by banks in their vault

These ratios are used by central banks for the monitoring of liquidity maintenance by banks and are compulsory to be maintained, failing to meet the requirement is subject to be fined. Besides these ratios, Loan to deposit ratio, cash and bank balance to total assets ratio, cash and bank balance to total deposit ratio etc are some of indicators, which can be used as the measure of the liquidity position of a bank.

2.3.8 Sensitivity to Market Risk

As discussed earlier, commercial banks are exposed to different types of risks. Small changes in economic activities in the nation or society greatly affect the position of a bank. Besides, international changes also have great impact on the health of a bank.

Commercial Banks are involved in diversified operations. Those activities involve; lending and borrowing, foreign currency transactions, selling of pledged proprieties, etc. All these activities are subject to market risk such as; interest risk, foreign exchange rate risk, and financial assets and commodity price risk. The health of an FI with higher sensitivity to market risk is more hazardous than that of having lower sensitivity (Baral, 2005, p. 45).

Interest rate risk, foreign exchange risk, equity price risk, and commodity price risk are the indicators of sensitivity to market risk. However, this component of CAMELS has been omitted in this study due to the lack of necessary information. Thus, the study deals with CAMEL rating instead of CAMELS rating.

2.4   Need of CAMEL Rating System in Commercial Banks

In 1979, the bank regulatory agencies created the Uniform Financial Institutions Rating System (UFIRS). Under the original UFIRS, a bank was assigned ratings based on performance in five areas: the adequacy of Capital, the quality of Assets, the capability of Management, the quality and level of Earnings and the adequacy of Liquidity. Bank supervisors assigned a 1 through 5 rating for each of these components and a composite rating for the bank. This 1 through 5 composite rating was known primarily by the acronym CAMEL

A bank that received a CAMEL of 1 was considered sound in every respect and generally had component ratings of 1 or 2 while a bank with a CAMEL of 5 exhibited unsafe and unsound practices or conditions, critically deficient performance and was of the greatest supervisory concern. While the CAMEL rating normally bore close relation to the five component ratings, it was not the result of averaging those five grades. Rather, supervisors consider each institution's specific situation when weighing component ratings and, more generally, review all relevant factors when assigning ratings.

CAMEL ratings reflect the excellent banking conditions and performance over the last several years. There is a need for bank employees to have sufficient knowledge of the rating system, in order to guide the banking growth rate in the positive direction. Lack of knowledge among employees regarding banking performance indicators affects banks negatively as these are the basis for any banking action.

2.5 Review of Previous Studies

Barker (1993) found in their article *"The Causes of Bank Failures in the 1980s."*, a research paper produced to Federal Reserve Bank of New York, a evidence that CAMEL ratings is significant predictors of bank failure, even after controlling for a wide range of publicity available information about the condition and performance of banks.

Cole and Gunther (1998) had published their article *"Predicting Bank Failures: A Comparison of On- and Off-Site Monitoring Systems."* in the Journal of Financial Services Research where they have found that the information contained in CAMEL rating decays quickly with respect to predicting banks failure from 1986-1992. In particular, they found that a model using publically available financial data is a better indicator of a likelihood of bank failure than the previous CAMEL rating that are more than two quarter old. These two studies address the issue of information decay directly; however, the primary purpose of CAMEL rating is not to identify future bank failures but to provide an assessment of banks' overall conditions at the time of examination.

An article *"The Informational Advantage of Specialized Monitors: The Case of Bank Examiners."* published by DeYoung and et al. (1998) in a working paper of Federal Reserve Bank of Chicago found a strong positive correlation between efficiency and management quality as proxies by bank's CAMEL ratings. Examining the relationship between cost efficiency and problem loans, he found that cost efficiency to Granger-cause reductions in problem loans. He note that a decline in cost inefficiency generally tends to be followed by arise in non-performing loans, "evidence" that bad management practices are manifested not only in excess expenditures, but also in subpar underwriting and monitoring practices that eventually lead to non-performing loans.

Hirtle and Lopez (1999) found that conditional on current public information, the private sector supervisory information contained in CAMEL ratings provide further insight into bank's current condition, as summarized by current CAMEL ratings, in their study *"Supervisory Information and the Frequency of Bank Examination"*. The authors found that over the period from 1989 to 1995, the private supervisory information gathered during the last on-site exam remains useful with respect to the current condition of bank for up to 6 to 12 quarters (or 1.5 to 3 years). The overall conclusion drawn from study is that private supervisory information as summarized by CAMELS ratings is clearly useful in supervisory monitoring of bank conditions.

Derviz and Podpiera (2004) found significant explanatory power are capital adequacy, credit spread, ratio of total loan to total assets, and the total assets value at risk among many other indicators of CAMEL ratings; in the Czech Republic during the period of 1988 to 2001; in their working paper *"Predicting Bank CAMELS and S&P Ratings: The Case of the Czech Republic"*. The same list of explanatory variables corresponding to the CAMELs rating inputs employed by Czech National Bank's banking sector regulators was examined for both ratings in order to select significant predictors among them. They have employed an order response logic model to analyze the monthly long run S&P rating and panel data framework for the analysis of the quarterly CAMELS rating. The predictor for which they found significant explanatory power are Capital Adequacy, Credit Spread, the ratio of total loans to total assets and the total asset value at risk. Model based on these predictors exhibited a predictive accuracy of 70%. Additionally, they found that the verified variables satisfactorily predict the S&P rating one month ahead.

Sarker, A. A. (n.d.) recommended Islamic bank's supervisors to add another 'S' (Shariah rating) to the CAMELS rating and then CAMELS becomes CAMELSS rating in his study *"CAMELS Ratings in the Context of Islamic Banking: A Proposed 'S' for Shariah Framework"*. He has analyzed CAMELS in the perspective of Bangladesh and found out it is not enough to evaluate an Islamic banks. Thus, he suggested Shariah rating of the bank with some Shariah related inspection issues.

Nurazi and Evans (2005) tried to identify whether CAMEL ratios are appropriate predictors of bank failure in the context of Indonesia in their study *"An Indonesian Study of the Use of CAMEL(S) Ratios as Predictors of Bank Failure"*. Their study concluded that the variables like; Capital Adequacy Ratio, Assets Quality, Return on

Assets, Operating Income to Operating Expenses Ratio, Cash & bank Balance to Total Deposit Ratio and Bank Size are statistically significant in explaining bank failure. Therefore, stakeholders should focus on these variables to identify and solve banking problems. They collected data regarding the banks before economic crisis i.e. 1997 and after economic crisis i.e. 1999. By building a logistic relation with the key ratios of CAMELS with the bank failure, they concluded that proper use of CAMELS component helps to predict bank failure.

Baral (2005), using the annual reports data set of joint venture banks and NRB supervision reports, published his paper abstract in the Journal of Nepalese Business Studies with the title *"Health Check-up of Nepalese Commercial Banks: A Case Study of Joint Venture Banks in Nepal"* . The paper explained the financial health of Nepalese joint venture banks in the CAMEL framework for the period ranging from FY 2001 to 2004. The health check-up, which was conducted based on publically available financial data, concludes that the financial health of joint venture banks is better than that of the other commercial banks. The study further indicates that the CAMELS component indicators of the joint venture banks are not much encouraging for managing the possible shocks. However, the study concluded that regular health check up of bank and financial institutions is necessary to build up public confidence in the financial system and protect interest of depositors.

Baral used leverage ratio, core capital ratio, total capital ratio, and supplementary capital ratio as the indicators of capital adequacy; non-performing loan ratio and loan loss reserve ratio as the indicator of assets quality; operating expenses ratio and earning per employee as the indicator of management efficiency; return on assets, return on equity, and net profit margin as the indicator of earning performance; and loan to deposit ratio, cash and equivalent to total assets ratio, and cash and equivalent to total deposit ratio as the indicator of liquidity position of a bank. Baral has excluded "S" component of CAMELS in his study due to lack of adequate information. NABIL, SCBNL and NSBI had been selected as the sample banks and the result of these banks was compared with the industry average ratios. During the study, he found out that nearly almost all the indicators of Nepalese joint venture commercial banks are stronger than that of non-joint venture commercial banks.

The article entitled "*Capital Adequacy of bank, The Nepalese Context*" by Shrestha in NRB Samachar, has suggested the banks that deal in highly risky transaction to

maintain strong capital base. He concluded that the capital base should neither be too much leading to inefficient allocation of scares resources nor too weak to expose to extreme risk. The study accepts that the operations of the banks and the degree of risk associated with them are subject to change country wise, bank wise and time wise.

2.6   Review of Thesis

Bhandari (2006) found Adequate Capital, better Earning on Equity (EOE), favorable liquidity where as lower cash maintenance and decreasing trend of net interest margin of Himalayan Bank Limited in his master thesis *"The Financial Performance of Himalayan Bank Ltd. in the Framework of CAMEL"*. The basic objective of the thesis was to analyze the financial performance of Himalayan Bank Limited in CAMEL framework. Using six years secondary data from 1999 to 2004 he concluded that the bank has been able to maintain sufficient liquidity, has decreasing but satisfactory earning, decreasing non-performing loan, and decreasing trend of net profit margin over the period.

Poudel (2007) found the performance of Standard Chartered Bank Nepal Ltd. Better than that of Himalayan Bank Ltd. in his study *"A Study on Comparative Analysis of Financial Performance Between Himalayan Bank Ltd. & Standard Chartered Bank Nepal Ltd."* The study was conducted with an objective of providing   comparative financial performance of SCBNL and HBL. By using five years data, he measured liquidity, activity, profitability, structural   and   income   and   expenditure   ratios. Also, he forecasted some financial indicators of these two banks using least square method.

Chand (2007) found all sample banks meet benchmark of NRB in his study *"Financial Performance Analysis (CAMEL-test) of Selected CBS (Nabil, NIBL & SCBNL)."* With the motive of doing comparative analysis of Nepalese Commercial banks through the framework of CAMEL, he collected five years secondary data from FY 2001 to FY 2005 and collected some primary data. From the study, he concluded that SCBNL has comparatively higher position in maintaining adequate capital. Similarly, Nabil is first in Assets Quality, SCBNL in earning and NIBL in liquidity management.

Dhakal (2008) carried out a study on *"Financial Performance Analysis of Everest Bank Limited"* with the objectives of examining the overall performance of EBL in

terms of liquidity, activity, profitability, leverage and capital adequacy, to study the achievement EBL, to evaluate the effectiveness of collection of deposit and their utilization to examine the causes of gap existing between deposits and loans and investments. The study covered five fiscal years from FY 2001/2 to FY 2005/6 and used primary as well as secondary data. From the study; deposit and net profit, total deposit and loan and advances, and total deposit and investment are found to be strongly positively correlated. Further, the net profit in comparison to total deposit is found to be relatively lower. The study also found out that the bank has high debt equity ratio.

Dahal (2009) conducted a study on *"Financial Performance Analysis of NIC Bank Ltd in the Framework of CAMEL"* with the main objective of analyzing the financial performance of NIC Bank Ltd. by CAMEL. From the secondary data collected from the annual reports of the bank from FY 2003 to FY 2008, and using some financial and statistical tools, she found out that the bank has met the requirement prescribed by NRB during the entire study period. Further, the bank has maintained adequate provision for the entire loan category, earning per employee is in increasing trend and as a sum financial performance of NIC bank is satisfactory.

Bhattarai (2004) had conducted a research study entitled *" Implementation of Directives Issued by Nepal Rastra Bank, a Comparative Study of Nepal SBI Bank and Nepal Bangladesh Bank Limited with Respect to Capital Adequacy, Loan Classification and Provisioning ",* as an unpublished Master's Degree Thesis. The study has attempted to examine the norm and standard laid down by Nepal Rastra Bank relating to capital adequacy, loan classification and provisioning by making a comparative study between Nepal Bangladesh Bank and Nepal SBI Bank. The study was undertaken to find out the impact of the changes in Nepal Rastra Bank's directives on the performance of the commercial banks. An effort was also made to find out whether the directives were implemented and that Nepal Rastra Bank was taking enough steps to monitor the implementation. The study reveals that there was a significant impact of the directives on the various aspects of the commercial banks. For instance, the increased provisioning amount would decrease the overall profitability of the commercial banks. It was also found that both the banks would fall short in supplementary capital, however, maintained its total capital according to new directives relating to capital adequacy norms. Though the research had covered major part, it has only gyrated around the directives and limitation outside the directives has

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totally ignored as per the international standard like Basel II. It did not clearly mentioned about the quality of the commercial bank except the capital adequacy and loan standard laid down by Nepal Rastra bank.

Neupane (2006) has conducted the research study on: *"A Study of Cash Flow Analysis of Commercial Banks in Nepal"* an unpublished Master's Degree Thesis, T.U July 2006 has attempted to examine liquidity aspect of the commercial banks. Here he has focused more on the cash flow aspect of the commercial banks to meet the day to day operation cash flow. The relation between good liquidity and soundness of the banks has been highlighted more in the study. Though the study was a good concern relating to the liquidity of the banks, it has ignored the direct impact between the liquidity and profitability of the banks. As we know any beyond the sufficient liquidity hampers the profitability of the bank, the study is silent in the aspect of showing the standard liquidity to be maintained in the bank. The analysis is mainly hovering around the analysis of balance sheet, liquidity position of the bank and operating cash flow only. The analysis of liquidity to other aspect is still found to be silent.

Sainju (2009) conducted a research study on entitled *" Positioning Commercial Bank on the Basis of CAMEL Rating"*, an unpublished Master's Degree Thesis, T.U. January 2009 has concluded six sample banks- SCBNL, Nabil , HBL, KBL, LBL and NIB. His findings show that SCBNL seems good in overall performance where as KBL is the least in the performance among the sample banks. He has mentioned that the overall criteria to evaluate the banks rating consider the banking performance as a whole. It does not only consider the best part of the performance but it assumes what is the best to be the best in all criteria and evaluates the banking performance in terms of quality as a whole. Every performance has its own score and averages in terms of quality as mentioned by the parameter that he has calculated. His findings conclude that all time good performance is of Standard Chartered Bank then followed by NABIL, HBL, NIBL, LXBL and KBL.

Manandhar (2011) conducted a research study on *"A Case Study on CAMEL Analysis of Commercial Banks"* taking SBL, EBL, LBL and BOK as sample with the major objective of measuring the performance and soundness of the banks and also to rate them according to their performance under CAMEL framework. Through her study, she found out that EBL is good in its performance all the time and more consistent followed by BOK, SBL and LBL at the bottom. Further, she concluded that the

performance of Nepalese banks is deteriorating over the period due to different internal and external sources. Therefore, she suggested that for the overall enhancement of the financial sector of Nepal, a well-designed strategy should be built covering the different aspects of the sector. Reforms have to be made in different aspects of banking sector.

Dhakal (2010) concluded that both the banks i.e. Machhapuchhre and Kumari has maintained sufficient capital as per NRB requirement in her study *"Financial Performance Analysis of Machhapuchhere Bank Ltd. and Kumari Bank Ltd. Based on CAMEL"*. The study was conducted with the basic objective of examining and evaluating the overall performance and effectiveness of selected bank through CAMEL. Further, by using secondary data available from the annual reports of the bank from FY 2004/05 to FY 2008/09 and using different components of CAMEL, she found out the performance of Kumari bank better than that of Machhapuchhre Bank in assets management, management efficiency, earnings, and liquidity sector.

Rai (2010) conducted a research study on *"A Study of CAMEL Analysis of Commercial Banks (Reference to EBL, BOK & NIC)"* with the main objective of examining financial performance of selected commercial banks through CAMEL test and comparing each other. She selected EBL, BOK, and NIC as her sample and used secondary data available in the annual reports of these banks. The study period covered FY 2004/05 to 2008/09. From the study, she concluded that the banks have been able to maintain sufficient capital above NRB standard, non-performing loan is on decreasing trend, banks are using appropriate recovery measures, human resources of the bank is well managed and earning of the banks is increasing. Further, she found out that EBL has been able to maintain higher liquidity among the other sample banks over the study period.

2.7 Research Gap

As stated earlier, many studies have been carried out previously for the purpose of analyzing the financial performance of banks and financial institutions of Nepal. Further, many studies have been carried out concerning different aspects of the banks like investment policy, capital structure, deposit mobilization, interest rate structures etc. Researchers have used various financial tools for the analysis proposes. However, many ratios used by the researchers, like current ratio and quick ratio, which are

suitable in manufacturing and trading organizations, are irrelevant to the banks and financial institutions, which deal with cash. Further, there is shortage of study, which compares financial health of joint venture commercial banks with non joint venture commercial banks. The study tries to compare financial health of joint venture and non joint venture commercial banks with the well tested tool i.e. CAMEL.

Further, Many studies have been found on CAMEL analysis of commercial banks. Many articles, case studies, and dissertations have assessed and ranked the performance of banks using CAMEL model. Banks have been compared in the framework of CAMEL. However, no studies have been found which can conclude the differences in the financial health of those banks are significant or not by formulating hypotheses and testing of those hypotheses. Similarly, comparing the financial health of banks in a group is also lacking. The study tries to compare financial health of joint venture and non joint venture commercial banks in the widely accepted CAMEL framework and formulate and test the hypothesis using student's t-test to conclude the differences in the financial health of joint venture and non joint venture are significant or not. Further, the study has used recent data, which provides fresher findings.

CHAPTER III
RESEARCH METHODOLOGY

3.1 Introduction

Research methodology may be defined as "a systematic process that is adopted by the researcher in studying problem with certain objective and view". In other word, research methodology describes the methods and process applied in the entire aspect of the study focus of data, data gathering instrument and procedure, data tabulating and processing and methods of analysis. It is really a method of critical thinking by defined and redefining the problems, formulating hypothesis or suggested solution and collecting and organizing and evaluating data, making deduction and making conclusions. In addition, "Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In this study, the various steps are generally adopted by a researcher in studying his/her research problem along with the logic behind them." *(Kothari, 1990, p. 10)*

The research methodology is the systematic way of solving research problem. Research methodology refers to overall research processes, which a researcher conducts during his /her study. It includes all the procedures from theoretical underpinning to the collection and analysis of data. As most of the data are quantitative, the research is based on the scientific models. It is composed of both parts of technical and logical aspect based on historical data. Research is systematic and organized effort to investigate a specific problem that needs a solution. This process of investigation involves a series of well thought out activities of gathering recording, analyzing, and interpreting the data with the purpose of finding the answer to the problem. Thus, the entire process by which we attempt to solve problem is called research.

Research methodology is a path from which we can solve research dilemma systematically to accomplish the basic objective of the study. It consists of a brief explanation of research design, nature and sources of data, method of data collection and methods of tools used for analyzing data.

3.2 Research Design

A research design refers to the conceptual structure within which the research is conducted. The research design is the arrangement of conditions for collection and analysis of data in a manner that aim to combine relevance of the research purpose with economy in procedure. Research design is the plan, structure, and strategy of investigation conceived to obtain answers to research questions and to objective of the study. It is the process, which gives us an appropriate way to reach research goal. It includes definite procedures and techniques, which guide in sufficient way for analyzing and evaluating the study.

The research design is an organized approach and not a collection of loose, unrelated parts. It is an integrated system that guides the researcher in formulating, implementing, and controlling the study (Pant, 2008, p. 92).

This study has been carried out by using quantitative analysis methods. Mostly secondary data has been used for analysis. Hence, descriptive, analytical, and comparative descriptive research design has been jointly used for the study purpose.

3.3 Population and Sample

The population refers to the industries of the same nature and its services and product in general. Thus, total of 33 commercial banks operating in Nepal constitute the population of the data and the bank under study constitutes the sample for the study. Among them, the study is focused on separating these banks into joint venture and non joint venture banks. Among seven joint venture commercial banks, only two banks have been elected as the sample banks and among remaining 25 non joint venture commercial banks two banks have been elected to carry out the study. The sample size represents 12.12% of the total population. Sample banks have been selected using judgment sampling technique.

a) Everest Bank Ltd.
b) Standard Chartered Bank Nepal Ltd.
c) Siddhartha Bank Ltd.
d) Laxmi Bank Ltd.

3.4 Period Covered

The study covers a period of 5 years from FY 2063/064 to 2067/068 (2006/07 A.D. to 2010/11 A.D.).

3.5 Nature and Source of Data

Data are facts or opinions. They are collected using primary and secondary methods. The data collection activity consists of taking ordered information from reality and transforming it into some recording system so that it can later be examined and analyzed for patterns (Pant, 2008, p. 192).

Data collected in this study are of facts. Data are mainly collected using secondary sources with negligible amount of data from primary sources. Financials; like Balance Sheet, Income Statement; published by banks in their annual reports; Basel disclosures; unaudited financials put by banks in their websites, different articles published in journals and news published in news papers are main source of data in this study. Some of the data has also been obtained from the publication of NRB in its review from time to time.

3.6 Method of Data Collection

The study is an attempt to analyze and compare the financial health of Nepalese commercial banks. The analysis is based on financials published by the banks in their annual reports and the statements prepared for submitting them to the Nepal Rastra Bank. Thus, the study is mainly focused on secondary method of data collection.

Data, which are required for the analysis, has been collected using database provided by the concerned bank in their websites, through contacting bank's concerned department and through the supervision report published by NRB. Other materials have been mainly collected from Central Library of T.U., Kirtipur, Library of Shankar Dev Campus, Putalisadak, and Library of Global College of Management, Baneshwor. Further, data have also been collected from various published and unpublished sources.

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3.7 Method of Data Analysis

Presentation and analysis of the data is the core of each research work. This study requires some financial and statistical tools to accomplish the objective of the study. The financial and statistical tools are most reliable. In this study, various financial, statistical, and accounting tools have been used. These tools make the analysis more effective, convenient, reliable, and authentic.

The various results obtained with the help of financial, accounting and statistical tools are tabulated under different headings. Then they are compared with each other to interpret the results. Two kinds of tools have been used to achieve the certain goals.

1.   Financial Tools
2.   Statistical Tools

Various financial and statistical tools have been used to complete the research study such as ratio analysis, standard deviation, coefficient of variance, coefficient of correlation, t-statistics etc. For presentation purpose, different types of tables, charts, figures, and graphs are used as per necessary.

3.7.1 Financial Tools

Financial analysis is the process of identifying the financial strengths and weaknesses of the organization by properly establishing relationships between the items of the balance sheet and the income statement.

The study tries to analyze performance of Nepalese Commercial Banks. For this, CAMEL is an appropriate indicator of the financial performance of a bank. As a financial tool researcher is using different component of CAMEL. There are various ratios calculated under CAMEL study, which has been described as below:

A. **Capital Adequacy**

Capital adequacy is measured by the ratio of capital to risk weighted assets (CRAR). Capital adequacy measures the capacity of a bank to manage shocks in their balance sheet. Different ratios jointly serve as the indicator of capital adequacy of the Bank.

a. Leverage Ratio (LR)

This is the ratio of bank's book value of core capital to the value of its assets. Higher ratio shows the higher level of capital adequacy. It is the ratio of core capital to total assets of the FI. Here, the assets are not risk adjusted.

$$LR = \frac{Core\ Capital}{Total\ Assets}$$

b. Core Capital Ratio (CCR)

This is the ratio of bank's primary capital to total risk weighted assets. Here, the assets are risk weighted. According to the 1993 Basel Accord the core capital ratio of any commercial bank must be 6%.

$$CCR = \frac{Core\ Capital}{Risk\ Weighted\ Assets}$$

c. Total Capital Ratio (TCR)

It is the ratio of Total capital of the bank to its risk weighted assets. Total Capital is the sum total of Core capital and supplementary capital. Nepal Rastra Bank has strongly instructed commercial banks to maintain minimum 10% total capital ratio through its directive. Similarly, according to Basel Accord, total capital must exceed 8% of the risk weighted assets.

$$TCR = \frac{Total\ Capital}{Risk\ Weighted\ Assets}$$

Where, Total capital = core capital+ supplementary capital

B. Assets Quality

The component provides the quality of assets being held by the institution. Further, it provides information about sufficiency of loan loss provision according to the type of loan. Different ratios are calculated for purpose of analyzing the quality of assets and sufficiency of provisions made for such assets, which is described as below:

a. Non-performing Loan Ratio (NPL)

It is the ratio of non-performing assets (loan and advances) of the bank to the total loan and advances. NRB has provided various restrictions to the bank that has Non-Performing Loan Ratio of 5% and above thus a bank tries to maintain the ration below that. The ratio clearly shows that what percentage of total assets of a particular bank is non-performing.

$$\text{NPAR} = \frac{\textit{Non-performing assets}}{\textit{Total loan and advances}}$$

b. Loan Loss Provision Ratio (LLPR)

This is the ratio of loan loss provision to the total loan and advances. Generally, loan loss provision increases as the total loan is increased. However, loan loss does not only depend upon the volume of total loan and advances but also on the quality of the loan.

$$\text{LLPR} = \frac{\textit{Loan loss provision}}{\textit{Total loan and advances}}$$

C. Management Efficiency

The tool provides the efficiency of management for better utilizing available resources in the organization. Efficient management is that which can produce higher profit with lower expenses. Expenses ratio, earning per employee, cost per unit of money lent, and average size of loan jointly serve as the indicator of management quality. Among them operating expenses ratio and earning per employee has been used in the study.

a. Operating Expenses Ratio (OER)

It is the ratio of total operating expenses to total operating revenue. Operating expenses of a bank includes interest expenses, employee expenses, office operating expenses, currency exchange loss, bad loan advance written off and loan loss provision. And, operating revenue includes interest income and fee based income. Lower ratio shows the ability of management to utilize available resources in a better way to maximize the profit of the institution and vice versa.

$$OER = \frac{Total\ Operating\ Expenses\ (TOE)}{Total\ Operating\ Revenue\ (TOR)}$$

b. Earning per Employee (EPE)

It is the ratio of net operating income to the number employee. It is the income contributed by an employee for the total income of the bank. Total operating income of the institution is divided by total number employees to get earning per employee. Higher per employee earning shows that the institution has better utilized its human resources for the profitability of institution and vice versa.

$$EPE = \frac{Net\ Operating\ Income\ (NOI)}{Number\ of\ Employee\ (NOE)}$$

D. Earning Performance

Earning is most essential for the long-term survival of any institution. Institution with higher profitability is expected to continue for longer period and have better image in the market so that they would be able to attract new businesses. Earning of an institution is measured in terms of relative return on investment and sales. Thus, Return on Equity (ROE), Return on Assets (ROA), and Net Profit Margin (PM) are used as the indicators of earning performance of a bank.

a. Return on Equity (ROE)

It is the return to shareholders of an FI. It is the claim of shareholders from the income of an institution. The ratio shows the actual return which are being generated to the shareholders. To get the ratio net income of an FI is divided by shareholders equity. It is percentage return to the shareholders equity.

$$ROE = \frac{Net\ Income\ (NI)}{Shareholder's\ Equity\ (SE)}$$

b. Return on Assets (ROA)

It is the percentage return on the total assets of an FI. The ratio shows the actual return generated by the assets being held by the institution. Net income of an FI is divided by Total assets of the institution.

$$ROA = \frac{Net\ Income\ (NI)}{Total\ Assets\ (TA)}$$

c. Profit Margin (PM)

It is percentage return on total operating revenue of an FI. The ratio shows the portion of profit in per unit operating revenue of the institution. Net income of an FI is divided by the total operating revenue of that institution.

$$PM = \frac{Net\ Income\ (NI)}{Total\ Operating\ Revenue\ (TOR)}$$

E. Liquidity Position

Liquidity serves as the short term capacity to manage shocks in the institution. Sound liquidity position enables the institution to grab the instant opportunities in the market. Loan to deposit ratio, cash and bank balance to total assets ratio, cash and bank balance to total deposit ratio etc are some of the ratios which can be used as indicators of the liquidity position of a bank.

a. Loan to Deposit Ratio (LDR)

It is the proportional relation between total loan and advances and total deposit of a financial institution. The ratio clearly shows what percentage of total deposit has been utilized as an investment and granted as loan and advances. The ratio is calculated by dividing total loan and advances by total deposit of the institution.

$$LDR = \frac{Total\ Loan\ and\ Advances\ (TLA)}{Total\ Deposit\ (TD)}$$

b. Cash and Equivalent to Total Asset Ratio (CETAR)

It is the ratio of total cash and equivalent to total assets of FI. Cash equivalent is that type of assets, which can be easily converted into cash as and when required. It includes cash deposited in NRB and investment in short term securities like treasury bills. The ratio is calculated by dividing cash and equivalent by total assets of the institution.

CETAR= $\dfrac{\textit{Cash and Equivalent (CE)}}{\textit{Total Assets (TA)}}$

c. Cash and Equivalent to Total Deposit (CETDR)

It is the ratio of cash and equivalent to total deposit of an FI. The ratio shows what percentage of total deposit an FI can refund instantly. The ratio is calculated by dividing cash and equivalent by total deposit of the institution.

CETDR= $\dfrac{\textit{Cash and Equivalent (CE)}}{\textit{Total Deposit (TA)}}$

3.6.2 Statistical Tools

Statistical tools provide us the summary of data in a simple way and make us easy to reach our decision. Average, dispersions, and coefficient of variation are some of the measures, which conclude the data in terms of their central tendency and variation. Some of the statistical tools used in the study have been described as below:

A. Average

Simple arithmetic mean has been used as the measurement of central value of the data. Average of the different ratios over the period has been calculated by using arithmetic mean. Arithmetic mean is a value obtained by dividing sum of the values by their numbers. Following formulae is used to calculate arithmetic mean of the given data:

Mean (X) = $\dfrac{\sum x}{N}$

Where,

$\sum x$= Sum of values

N=Number of observation

B. Standard Deviation

Standard deviation is the absolute measure of dispersion of the values and shows the deviation or dispersion in the absolute term (Kothari, 1989). Lower standard deviation shows closeness of the values to the central value and higher standard deviation

shows that values are spread out of the central value. It is the square root of the variance and measures the unsystematic risk in investment. It is denoted by σ. Standard deviation of different ratios of study periods has been calculated with the help of Microsoft Excel, which uses following formulae to calculate standard deviation:

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\Sigma(x - \bar{x})^2}{N}}$$

Where,

σ = standard deviation

$\bar{x}$ = arithmetic mean

N = number of observation

C. Coefficient of Variation

Coefficient of variation is the percentage variation in mean, standard deviation being considered as the total variation in the mean. Standard deviation is only an absolute measure of dispersion, depending upon the units of measurement. The relative measure of dispersion based on standard deviation is called the coefficient of variation and is given by:

$$\text{Coefficient of variation (CV)} = \frac{\sigma}{\bar{X}}$$

Where,

σ= Standard deviation, and,

$\bar{X}$= Arithmetic average

D. T-Statistics

T-statistics is one of the best methods to test hypothesis where sample size is small i.e. less than 30. The test is also called students t-statistics or simply students test since generally students use small size of sample for their study purpose. The t-statistics has been calculated and it has been compared with critical value at a significance level of 5%. T-statistics uses following formula:

$$t = \frac{\overline{X}_S - \overline{X}_E}{\sqrt{S_P^2 \left(\frac{1}{n_S} + \frac{1}{n_E} \right)}} \sim t_{n_1 + n_2 - 2}$$

The t-statistics has been calculated directly using Microsoft Excel. For the testing of hypothesis, following value and formulae have been used:

Level of Significance = 5%

Degree of Freedom = $n_1 + n_2 - 1$

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The presentation of data is the basic organization and classification of the data for analysis and the analysis of data consists of organizing, tabulating, performing statistical analysis, and drawing inferences (Wolff & Pant, 2005, p. 247).

The chapter deals with presentation of data collected from different sources with the focus on CAMEL components. Mainly data have been collected by using annual reports of sample banks and it has been organized and processed by using various tools as discussed in the previous chapter. In this chapter, collected information and data are presented using different tables and figures so that it can be understood easily and they are analyzed to achieve the objective of the study.

4.2 Capital Adequacy

Capital adequacy analysis of the sample banks has been carried out based on regulation and standard ascertained by NRB. The regulation and standard focuses on minimum risk based Core and Total Capital Standard, which includes a definition for Risk Based Capital, a system for calculating Risk Weighted Assets (RWA) by assigning on and off balance sheet items to broad risk such as foreign exchange, credit and interest rate risks, by assigning risk weightings to the institution's assets.

4.2.1   Leverage Ratio (LR)

Leverage is the use of fixed charge bearing fund to the institution. The leverage ratio shows the proportional relation between book value of core capital and total assets of the sample institutions. The ratio depicts that how much percentage of its total assets has been financed by its capital. Higher ratio shows higher equity portion in the assets and vice versa. Here, the assets are not risk adjusted. The leverage ratio of the sample banks observed during the study period, its mean, standard deviation and coefficient of variation are presented in Table 4.1.

Table 4.1

Comparative Review of Leverage Ratio

Banks	Fiscal Year					Mean	Std. Deviation	CV
	2063/64	2064/65	2065/66	2066/67	2067/68			
EBL	5.46	7.00	5.37	6.13	6.33	6.06	0.67	0.11
SCBNL	6.82	6.91	7.07	7.59	7.45	7.17	0.33	0.05
SBL	9.89	9.00	7.03	6.94	8.05	8.18	1.27	0.16
LBL	7.53	8.48	6.91	8.76	9.10	8.15	0.91	0.11

Table 4.1 shows that all the sample banks have maintained above 6% of leverage ratio on an average. Comparatively, SBL has stood in front in maintaining highest leverage ratio by securing 8.18 % and EBL has maintained lowest leverage ratio with 6.06%. SCBNL is in 7.17% and LBL is in 8.15%. Leverage ratio of SBL seems to be more volatile with standard deviation of 1.27 and CV of 0.16 and the same of SCBNL seem to be more consistent with standard deviation of 0.33 and CV of 0.05. Standard deviation of leverage ratio of EBL is 0.67 and CV is 0.11 whereas LBL has 0.91 as standard deviation and 0.11 as CV. There is no any standard rule set by NRB in case of maintaining leverage ratio but the higher ratio shows that the greater portion of bank's assets has been financed by its capital. The Table has been presented in Figure 4.1.

Figure 4.1

Comparative Review of Leverage Ratio
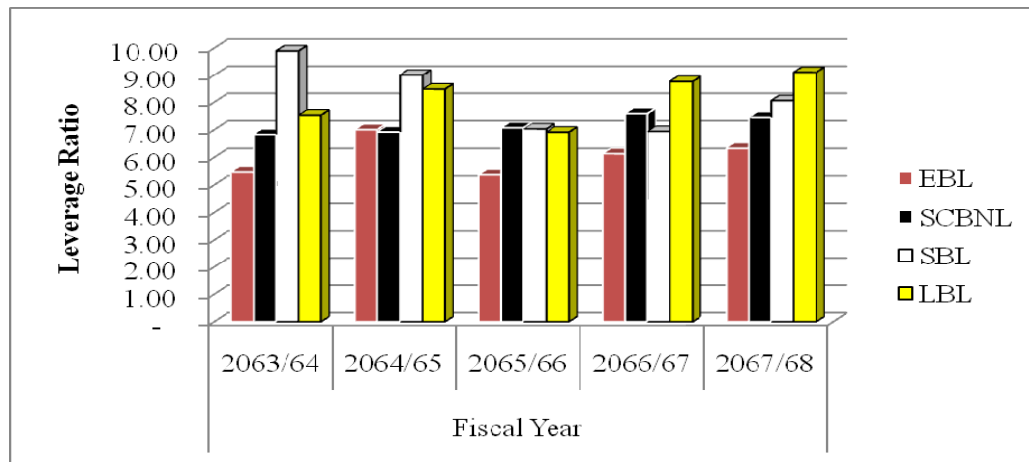
Figure 4.1 shows that the leverage ratio of SBL is high in initial two fiscal years which has been decreased in the subsequent two fiscal years and it has been slightly

increased in the last fiscal year. The ratio of EBL is fluctuating and the ratio of SCBNL is nearly consistent in the study period. SBL was maintaining the highest ratio in the initial two fiscal years, LBL is maintaining the highest ratio and in the latest two fiscal years.

4.2.2 Core Capital Ratio (CCR)

Core capital ratio is the proportional relation between Tier I capital and risk weighted exposures of a bank. Necessary deduction is made to calculate core capital as per NRB directive. Here, the assets are risk adjusted. As per Nepal Rastra Bank, every bank should maintain Core Capital Ratio of 6% at any time. The Core Capital Ratio of the sample banks observed during the study period its mean, standard deviation and coefficient of variation is presented in Table 4.2.

Table 4.2

Comparative Review of Core Capital Ratio

Banks	Fiscal Year					Mean	Std. Deviation	CV
	2063/64	2064/65	2065/66	2066/67	2067/68			
EBL	7.82	9.03	7.73	8.39	8.46	**8.29**	**0.53**	**0.06**
SCBNL	13.77	12.15	13.05	12.61	12.10	**12.74**	**0.70**	**0.05**
SBL	10.78	10.19	8.26	8.00	9.10	**9.27**	**1.20**	**0.13**
LBL	8.71	9.39	8.47	11.17	9.79	**9.51**	**1.07**	**0.11**

Table 4.2 shows that every sample banks have been able to meet required capital adequacy by maintaining more than 6% of CCR. EBL is seen in front for maintaining tight CCR with 8.29% on an average whereas SCBNL is in the last with 12.74%. Average CCR of SBL is 9.27% and LBL has maintained 9.51% of CCR during the period. CCR of SBL is more volatile with standard deviation of 1.20 and CV of 0.13. Similarly, LBL is second with standard deviation of 1.07 and CV of 0.11. CCR of SCBNL is more consistent with standard deviation of 0.70 and CV of 0.05 and EBL has Standard deviation of 0.53 and CV of 0.06. The Table has been expressed in Figure 4.2.

Figure 4.2

Comparative Review of Core Capital Ratio
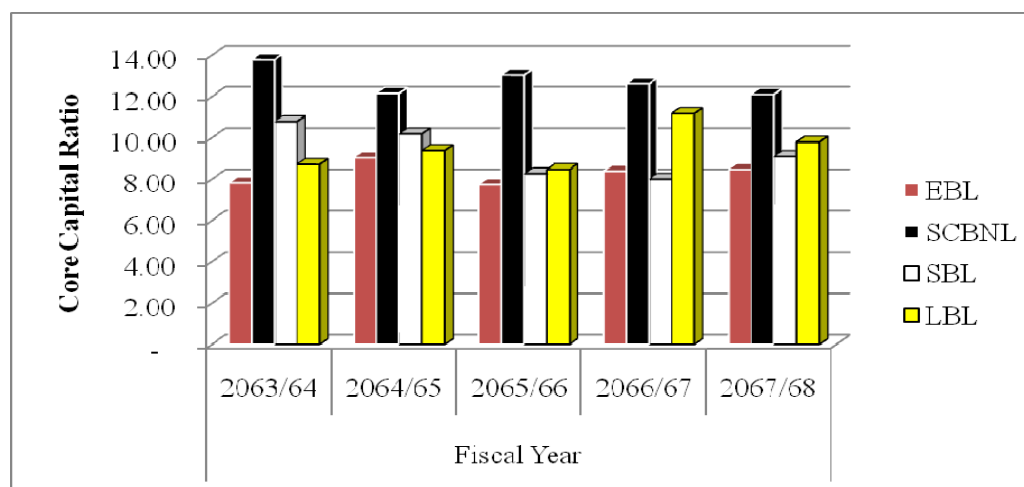
As per Figure 4.2, SCBNL has maintained highest CCR among sample banks all the time during the study period and EBL has maintained lowest CCR all the time except in the FY2066/67 where SBL is in the lowest. CCR of SBL is in decreasing trend and the same of LBL is fluctuating. However, each bank has maintained CCR above the requirement throughout the study period.

4.2.3   Total Capital Ratio (TCR)

Total capital ratio is the proportional relationship between total capital and risk weighted exposure of the bank. Where, total capital is the sum of Tier I and Tier II capital with necessary deductions. As per Nepal Rastra Bank every commercial bank has to maintain total capital ratio of 10% at minimum. The total capital ratio of sample banks, its standard deviation, and CV during the period has been presented in Table 4.3.

Table 4.3
Comparative Review of Total Capital Ratio

Banks	Fiscal Year					Mean	Std. Deviation	CV
	2063/64	2064/65	2065/66	2066/67	2067/68			
EBL	11.19	11.44	10.55	10.77	10.43	**10.88**	**0.43**	**0.04**
SCBNL	15.71	14.00	14.70	14.60	14.22	**14.64**	**0.66**	**0.04**
SBL	11.84	11.14	10.69	10.04	10.83	**10.91**	**0.66**	**0.06**
LBL	9.50	10.40	11.48	13.65	11.63	**11.33**	**1.56**	**0.14**

Form Table 4.3, every sample banks has been able to maintain adequate capital as prescribed by NRB. With average TCR of 14.64%, SCBNL is in the first position and with average TCR of 10.88% LBL is in the last position to maintain total capital ratio. The average TCR of LBL is 11.33% and the same of SBL is 10.91%. TCR of LBL seems to be more volatile with standard deviation of 1.56 and CV of 0.14 and the same of EBL are more consistent with Standard deviation of 0.43 and CV of 0.04. Standard deviation of TCR of SCBNL is 0.66 and its CV is 0.04, and standard deviation of TCR of SBL and CV is 0.66 and 0.06 respectively. The same has analyzed with the help of Figure 4.3.

Figure 4.3

Comparative Review of Total Capital Ratio
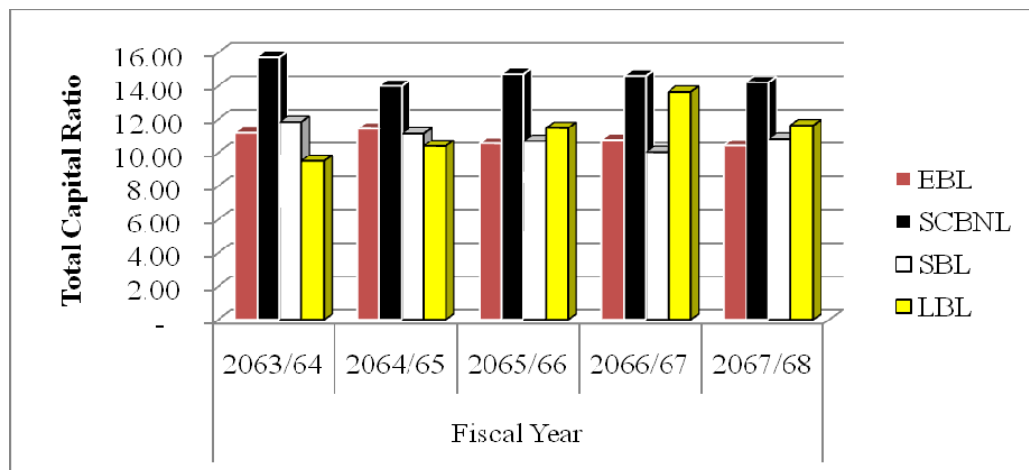
The Figure 4.3 clearly shows that SCBNL has maintained highest TCR all the time during the study period and TCR of EBL is less fluctuating. At the initial fiscal years, LBL had maintained lowest TCR among the sample banks but in the latest fiscal years, TCR of LBL is the second highest. EBL has maintained lowest TCR in the latest fiscal year and TCR of SBL is moderate in all the years.

4.3 Assets Quality

It is the capability of an institution in terms of financial strength. A comprehensive evaluation of the assets quality is one of the most important components in assessing the current and future viability of banks. The quality of a bank depends upon the quality of assets it holds. A bank holds many types of assets like cash and bank balance, investment, loan and advances, fixed assets. Every asset is subject to have

certain risk but large portion of assets and income of a bank is occupied by loan and advances which involve higher risk than other type of assets. Thus, the quality of assets a bank depends upon its lending policy, management of loan portfolio, mix of risk assets and credit administration system. Total loan of a bank can be categorized as performing and non-performing loan. Non-performing loan is further categorized as substandard, doubtful and loss loan. Non-performing loan to total loan ratio, loan loss provision ratio, loan provided to single borrower are the main indicators for showing banks ability to manage its loan and advances.

4.3.1 Non-Performing Loan Ratio (NPL)

Non-performing loan is the irregular loan account where loan customer have not paid their due interest and principal on time. It consists of substandard, doubtful, and bad loan. The non-performing loan ratio shows the proportional relation between non-performing loan and total loan and advances of the bank. In other words, the ratio shows that what percentage of total loan is irregular for the particular bank. Higher ratio shows the weak management and administration of credit and vice versa. Bank with lower ratio has tight lending policy, capable human resources in loan department and regular credit administration system. Since there are many restrictions if NPL ratio goes beyond 5% every banks tries to maintain it below 5%. The comparative ratio of sample banks during the study period is presented in the Table 4.4.

Table 4.4

Comparative Review of Non-Performing Loan Ratio

Banks	Fiscal Year					Mean	Std. Deviation	CV
	2063/64	2064/65	2065/66	2066/67	2067/68			
EBL	0.80	0.68	0.48	0.45	0.34	**0.55**	**0.19**	**0.34**
SCBNL	1.83	0.92	0.66	0.61	0.62	**0.93**	**0.52**	**0.56**
SBL	0.34	0.69	0.45	0.53	0.79	**0.56**	**0.18**	**0.33**
LBL	0.35	0.13	0.08	0.81	0.90	**0.45**	**0.38**	**0.84**

Table 4.4 clearly shows that NPL every bank is below 5%. LBL has lowest average NPL with 0.45% and SCBNL has highest average NPL with 0.93%. Average NPL of EBL and SBL are nearly same i.e. 0.55% and 0.56% respectively. NPL of SCBNL is higher and is highly volatile with standard deviation of 0.52 and CV of 0.56. NPL of

LBL is second in volatility with standard deviation of 0.38 and CV of 0.84. NPL of SBL and EBL are equally volatile with standard deviation of 0.18 and 0.19 and CV of 0.33 and 0.34 respectively. In sum, SBL and EBL are comparatively better in credit management than other two banks. The same has been presented in the Figure 4.4.

Figure 4.4

Comparative Review of Non-Performing Loan Ratio
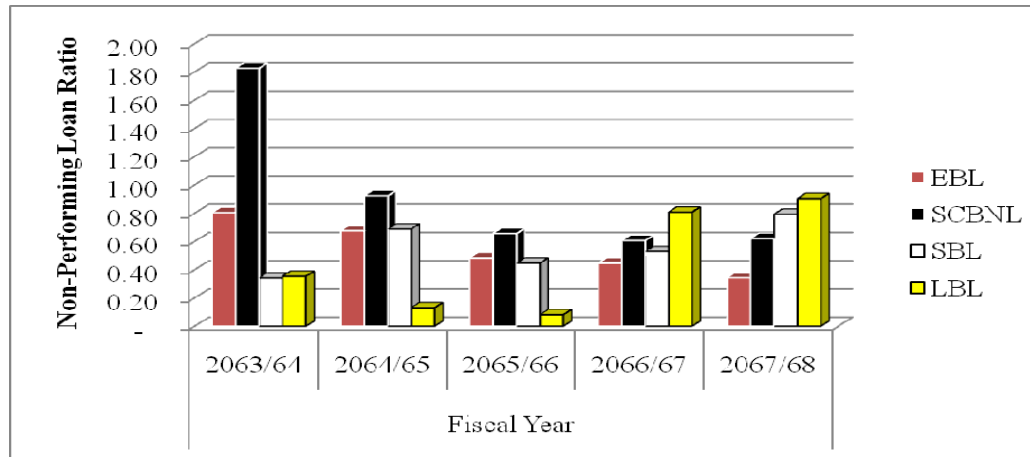
The Figure 4.4 shows that SCBNL had highest NPL in the initial three fiscal years but it has been able to reduce it in the latest fiscal years but NPL of LBL is seen in increasing trend. It has highest NPL in the latest two fiscal years. NPL of EBL is in decreasing trend and NPL of SBL is in increasing trend. In sum, the management efficiency to reduce NPL is increasing in case of SCBNL and EBL whereas it decreasing in case of LBL and SBL.

4.3.2 Loan Loss Provision Ratio (LLP)

Loan loss provision shows the adequacy of allowance for the loans and trend in the collection of loan and the performance in loan portfolio. At the same time, it shows the expectation of the bank to turn a loan to the bad loan. The rate of provision depends upon the type of loan and advances. Bank has to provide 1% provision for pass loan also. Thus, sufficiency of loan loss provision can't be interpreted alone. It should be compared with the NPL of the bank. Bank with high NPL should provide higher provision and vice versa. Here, an attempt has been made to analyze the sufficiency of provision allocated by the bank comparing with the quality of loan they

are holding and loan loss expectation of the bank. Loan Loss Provision of sample banks during the study period has been presented in Table 4.5.

Table 4.5

Comparative Review of Loan Loss Provision Ratio

Banks	Fiscal Year					Mean	Std. Deviation	CV
	2063/64	2064/65	2065/66	2066/67	2067/68			
EBL	2.97	2.64	2.39	2.13	1.91	**2.41**	**0.42**	**0.17**
SCBNL	2.66	1.76	1.45	1.36	1.26	**1.70**	**0.57**	**0.34**
SBL	1.54	1.53	1.30	1.43	1.41	**1.44**	**0.10**	**0.07**
LBL	1.41	1.16	1.10	1.20	1.23	**1.22**	**0.12**	**0.10**

From the Table 4.5, average loan loss provision of EBL is highest i.e. 2.41. Thus, it has high expectation of loan to become loss. LLP is lowest in LBL i.e. 1.22 so, it has lower expectation of loan to become loss. Average LLP of SCBNL and SBL is 1.70 and 1.44 respectively. LLP of SCBNL is comparatively volatile with standard deviation of 0.57 and CV of 0.34 whereas LLP of SBL is consistent with standard deviation of 0.10 and CV of 0.07. Standard deviation of EBL and LBL is 0.42 and 0.12 respectively and CV of the same banks is 0.17 and 0.10 respectively. The data has been presented in the Figure 4.5.

Figure 4.5

Comparative Review of Loan Loss Provision Ratio
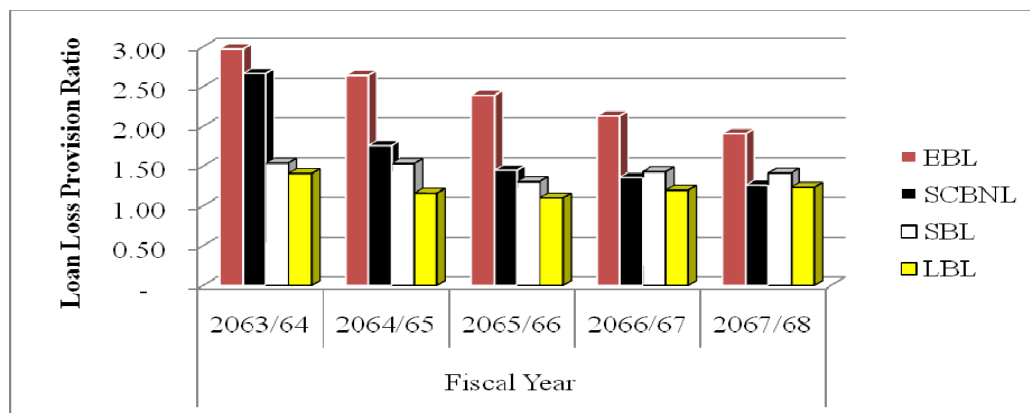
From the Figure 4.5, LLP of EBL and SCBNL is continuosly decreasing. These two banks have been able to reduce loan loss expectation. Despite of this, EBL has highest

LLP in every year during the study period. LLP of LBL is increasing in the latest years. And LLP of SBL is moderate during these years.

4.4 Management Efficiency

The sound management is crucial for the scuccess of every organizaiton. Efficient management can make an organization successful whereas an inefficinet management break the organization. Mangement prepares long term vision as well as short term policies of the organization and put them into action for the achivement. They utilize the resources of the organization effectively and efficeintly for the achievement of organizational objectives. Among six component of CAMELS management is considered to be more crucial since, it is the behavioural aspect which is more complex than mathematical calculation. For the simplicity in the study, some indicators have been developed such as operating expenses ratio, earning per employee, cost per unit of money lent, cost per loan, average loan size etc.

4.4.1 Operating Expenses Ratio (OER)

This is the ratio of total operating expenses to total operating revenue of the particular bank. Operating profit is the difference between operating revenue and operating expenses of the bank. Efficiency of the management is greatly explained by the operating expenses ratio. Operating revenue of the bank includes Interest Income, Commission and Discounts, Foreign exchange income and other operating income. Similarly, operating expenses of the bank includes Interest Expenses, Staff Expenses, Foreign exchange loss and Other operating expenses. Efficient management try to minimize operating expenses maximizing operating revenue at the same time so that operating expenses ratio becomes minimum. Operating expenses ratio of sample banks for the study period is presented in the Table 4.6.

Table 4.6

Comparative Review of Operating Expenses Ratio

Banks	Fiscal Year					Mean	Std. Deviation	CV
	2063/64	2064/65	2065/66	2066/67	2067/68			
EBL	57.48	55.59	58.32	61.46	67.93	**60.16**	**4.83**	**0.08**
SCBNL	42.68	41.30	40.71	41.21	48.33	**42.85**	**3.15**	**0.07**
SBL	67.54	65.17	72.86	79.38	82.07	**73.40**	**7.30**	**0.10**
LBL	75.17	70.85	72.91	72.09	75.23	**73.25**	**1.92**	**0.03**

From the Table 4.6, the average operating expenses ratio of SBL and LBL are higheset among the sample banks i.e. 73.40% and 73.25% respectively whereas the same is lowest in case of SCBNL i.e. 42.85%. The average operatinng expenses ratio of EBL is 60.16%. Similarly, the operative expenses ratio of SBL is seen more volatile with satandard deviation of 7.30 and CV of 0.10 whereas the same is less in case of LBL with standard deviation of 1.92 and CV of 0.03. EBL and SCBNL has standard deviation of 4.83 and 3.15 respectively and the CV of same banks are 0.08 and 0.07 respectively. The same has been presented in the Figure 4.6.

Figure 4.6

Comparative Review of Operating Expenses Ratio

Figure 4.6 shows that the operating expenses ratio of SBL is highest in the latest two fiscal years whereas the same is highest in case of LBL for initial three fiscal years. Management of SCBNL has showed strong ability to maintain minimum opearting

expenses ratio through out the study period. Hence, the management of the SCBNL can be said as most efficient among sample banks. However, the ratio of the bank has been increased in the latest fiscal year.

4.4.2 Earning per Employee (EPE)

This is the individual contribution made by employees for the profitability of the bank. Total earnings of the bank is devided by total number of employees in the bank to find out individual contribution. This is also one of the importants indicators of management quality of a bank as it shows the competency and efficiency of its human resources. Similarly, it also shows the management ability to mobilize its human resources for the achievement of the organizational goal as well as for the profitability of the bank. Earning per employee of the sample banks over the study period is presented in the Table 4.7.

Table 4.7

Comparative Review of Earning Per Employee

"In Thousand"

Banks	Fiscal Year					Mean	Std. Deviation	CV
	2063/64	2064/65	2065/66	2066/67	2067/68			
EBL	1,469.89	1,822.21	1,996.32	2,375.18	2,588.22	**2,050.37**	443.48	**0.22**
SCBNL	3,218.74	3,496.86	3,986.59	3,938.09	4,172.62	**3,762.58**	392.27	**0.10**
SBL	2,196.88	2,432.68	2,234.20	1,331.33	1,367.36	**1,912.49**	521.99	**0.27**
LBL	697.07	929.97	1,133.16	1,561.87	1,534.26	**1,171.27**	377.12	**0.32**

From the Table 4.7, average EPE is highest among the sample banks in SCBNL with Rs. 3,762.58 thousand whereas which is lowest in LBL with Rs. 1,171 thousand. Average EPE of EBL and SBL over the period is Rs. 2,050.37 thousand and Rs. 1,912.49 thousand respectively. EPE of LBL seems to be most volatile with Standard deviation of Rs. 377.12 thousand and CV of 0.32 whereas the EPE of SCBNL is least volatile with standard deviation of Rs. 392.27 thousand and CV of 0.10. Standard deviation of EBL and SBL are Rs. 443.48 thousand and 521.99 thousand respectively and CV of same banks are 0.22 and 0.27 respectively. The same has been presented in Figure 4.7.
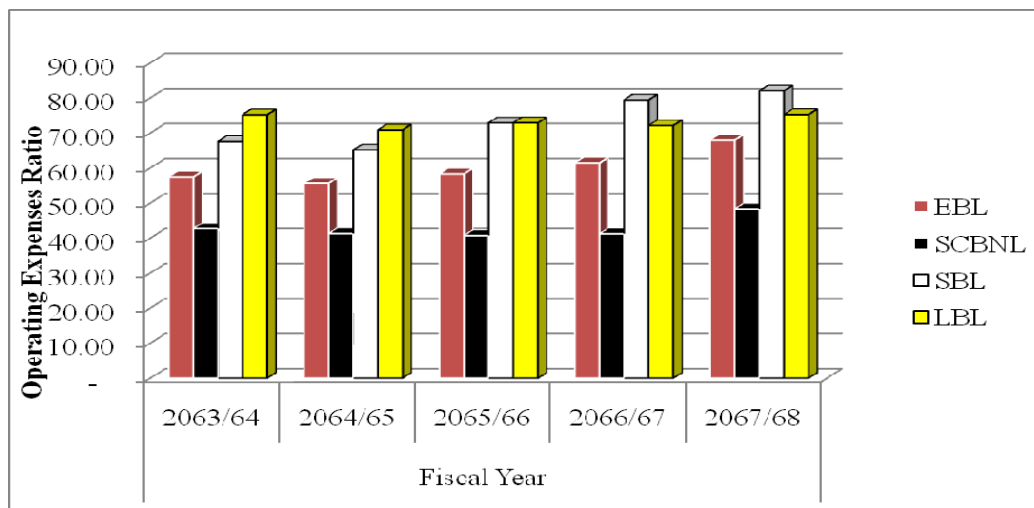
Figure 4.7

Comparative Review of Earning Per Employee
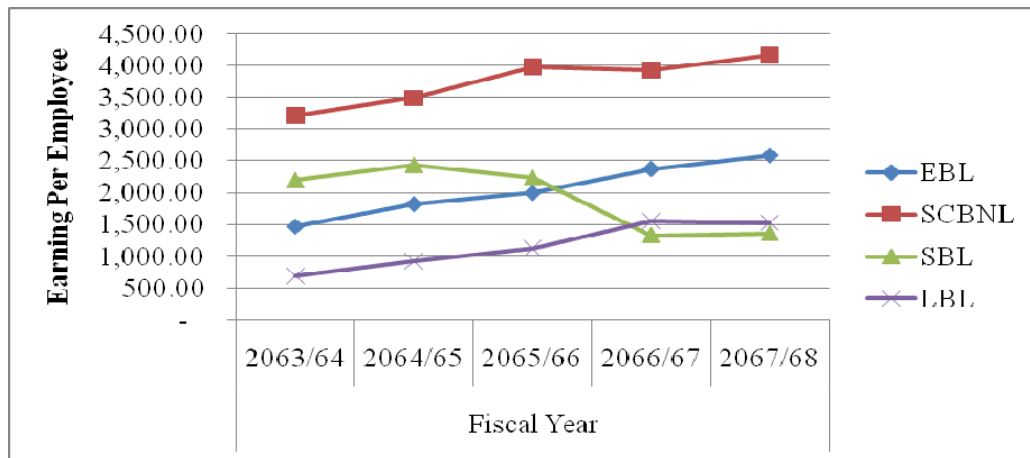
From the Figure 4.7, it is clear that EPE of SCBNL is highest almost every year over the study period and is in increasing trend. It shows ability of the management to mobilize its human resources in an optimal way. EPE of the LBL is the lowest one in the initial years which has been increased in the last F/Y i.e. 2067/68. EPE of SBL has been decreased in F/Y 2066/67 and being consistent in the F/Y 2067/68. EPE of EBL is increasing steadily over the study period.

4.5 Earning Performance

Earning is the foremost component for long term existance of any organization. Without earning profit no any organization can run for longer period. Thus, any bank must earn certain profit for fulfilling its liabilities towards its stakeholders. A bank should earn profit for avoiding long term solvancy of the bank. The main owner and the most important stakeholders of the bank are shareholders, who seek certain returns from the bank that may be in the form of capital or revenue gain. Either to distribute dividend to the shareholders or to increase the value of the share they are holding, profit is compulsory. Thus, health of the bank also depends on its profitability. Return on Equity, Return on Assets and Net Profit Margin are some of the indicators of the profitability of the bank which has been described under.

4.5.1   Return on Equity (ROE)

Equity is the shareholder's claim from the bank. It is the sum of shareholders investment in the bank and the undistributed profit of the bank. Paid up capital,

reserve and surplus, accumulated profit, provision for dividend, dividend equilization fund are some of the items which has shareholder's claim. It also can be said that equity is the amount of net assets after deducting outsider's claim from the bank.

Return on equity is the ratio of Net Profit After Tax to Equity. Here,net profit which is ready to be distributed among the shareholders is taken which is calculated after deducting all the expenses incurred and cumpulsory provisions to maintained as per NRB circulars. ROE is the percentage return to the shareholders in their claim to the bank. It shows the real earning percentage to the shareholders. ROE of the sample banks to the study period is presented in the Table 4.8.

Table 4.8

Comparative Review of Return on Equity

Banks	Fiscal Year					Mean	Std. Deviation	CV
	2063/64	2064/65	2065/66	2066/67	2067/68			
EBL	27.24	23.49	28.99	30.15	29.91	**27.95**	**2.75**	**0.10**
SCBNL	32.68	32.85	39.63	32.22	30.43	**33.57**	**3.53**	**0.11**
SBL	12.01	13.40	17.04	15.02	15.66	**14.63**	**1.96**	**0.13**
LBL	7.59	10.38	14.07	17.10	17.75	**13.38**	**4.36**	**0.33**

From the Table 4.8, average Return on Equity of SCBNL is highest among the sample banks with 33.57% whereas the same lowest in LBL with 13.38%. Average ROE of EBL and SBL are 27.95% and 14.63% respectively. The ROE is seen to be most volatile in case of LBL with standard deviation of 4.36 and CV of 0.33 and the same is seen to be most consistent in case of EBL with standard deviation of 2.75 and CV of 0.10. Standard deviation and CV of SBL is 1.96 and 0.13 respectively and the same of SCBNL is 3.53 and 0.11 respectively. The figures has been presented in Figure 4.8.

Figure 4.8

Comparative Review of Return on Equity
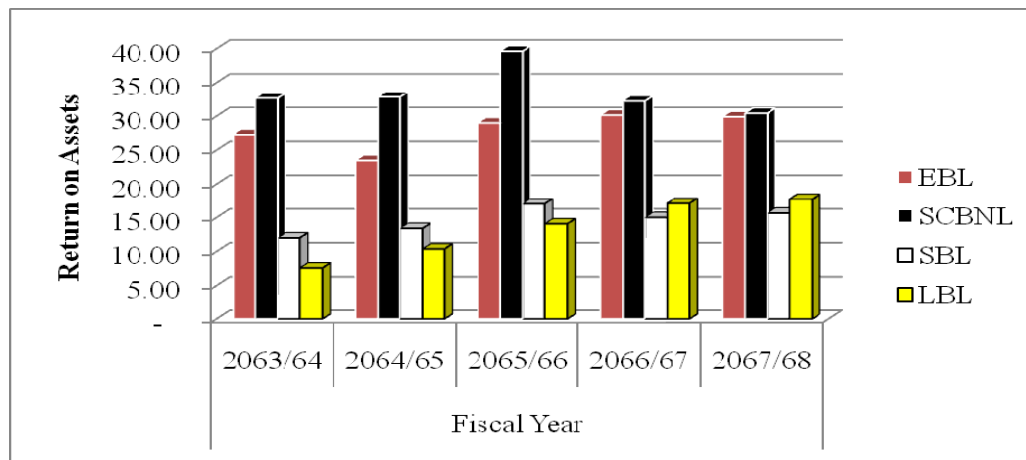
From the Figure 4.8, it is clear that the ROE of SCBNL is highest in almost every year which has been followed by EBL being second highest in generating ROE. ROE of LBL is lowest in initial three fiscal years but it has been able to upgrade its position to second lowest in the latest two fiscal years with its continous increament in ROE whereas ROE of SBL has positioned last in the latest two fiscal years despite of its increasing trend.

4.5.2 Return on Assets (ROA)

Return on assets is the ratio of net profit after tax and total assets of the bank. Althogh the return has to be calculated adding interest in the net profit after tax for the calculation of ROA, for the simplicity, net profit after tax has been considered for this purpose. This is so because most of the commercial banks has used equity only in their capital structure. Assets has been taken from the assets side of the balance sheet which includes Cash Balance, Cash at NRB, Cash at other Banks and Finanacial Institutions, Money at Short Call, Investment, Loan, Advances and Bills Purchase, Fixed Assets, Non-Banking Assets and Other Assets. Higher return on assets shows the better efficiency of the bank to use its assets in the optimal way and vice versa. Return on Assets of the sample banks over the period is presented in the Table 4.9.

Table 4.9

Comparative Review of Return on Assets

Banks	Fiscal Year					Mean	Std. Deviation	CV
	2063/64	2064/65	2065/66	2066/67	2067/68			
EBL	1.38	1.66	1.73	2.01	2.01	1.76	0.26	0.15
SCBNL	2.42	2.46	2.56	2.70	2.55	2.54	0.11	0.04
SBL	1.20	1.23	1.22	1.06	1.28	1.20	0.08	0.07
LBL	0.76	0.95	1.03	1.56	1.74	1.21	0.42	0.35

From the table 4.9, the average ROA of SCBNL is higest among the sample banks which is 2.54 % whereas the same of SBL and LBL is almost similar being lowest ROA with 1.20 % and 1.21% respectively. ROA of EBL is 1.76%. LBL has the most volitile ROA with standard deviation of 0.42 and CV of 0.35 and SCBNL has least volatile ROA with standard deviation of 0.11 and CV of 0.04. Standard deviation and CV of EBL is 0.26 and 0.15 respectively whereas the same of SBL is 0.08 and 0.07 respectively. In sum, SCBNL is most efficient in using its assets in uptimal way with higest average ROE and least standard deviation whereas LBL is seen least efficient with lowest average ROE and highest standard deviation and CV. The same table has been presented in the Figure 4.9.

Figure 4.9

Comparative Review of Return on Assets
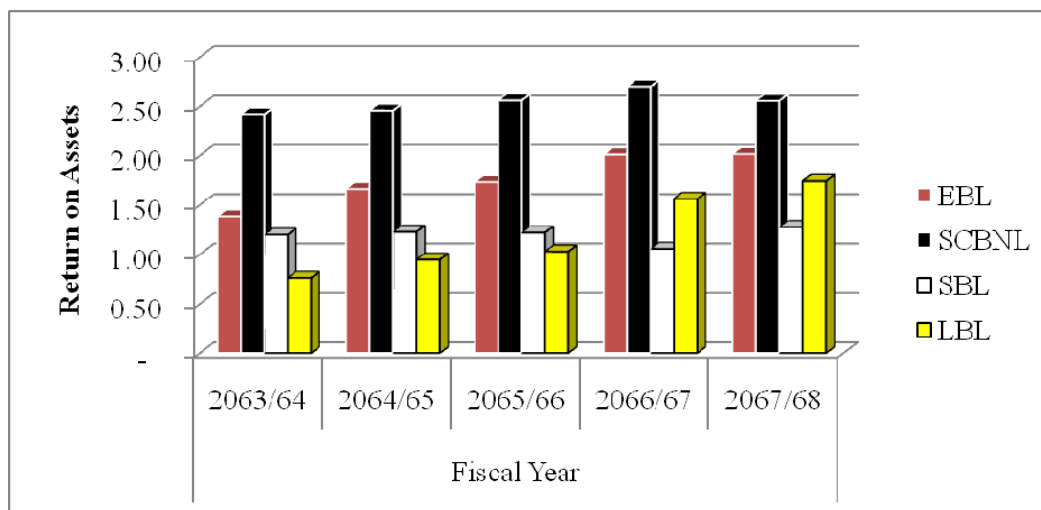
From the Figure 4.9, it is clear that SCBNL has highest ROA in almost every year with slowly increasing trend whereas LBL has improved much. LBL had lowest ROA in the initial three fiscal years but it has improved to become second lowest in the latest two fiscal years. EBL is always in second position to generate highest ROA. It also has increasing trend in ROA. But, the position of SBL is decreasing in the latest fiscal years despite of slow increase in ROA. In sum, generally all the banks has incresing trend of ROA with certain changes in the position.

4.5.3   Net Profit Margin (PM)

Profit margin is the proportional relation between net income of the bank and its net operating revenue. Net income is net profit generated by bank after deducting all its expenses and providing neccessary provisions for possible losses. Net operating revenue is the sum total of revenue generated by banks from its operating activities which includes interest income, commission and discounts, foreign exchange income and other operating income.

Profit margin shows the ability of the bank to   generate gain from its operating activities. It shows what percentage of profit a bank is generating from its individual revenue earning activities. Profit margin of sample banks over the study period is presented in the Table 4.10.

Table 4.10

Comparative Review Net Profit Margin

Banks	Fiscal Year					Mean	Std. Deviation	CV
	2063/64	2064/65	2065/66	2066/67	2067/68			
EBL	21.82	24.49	24.97	23.76	19.69	**22.95**	**2.18**	**0.09**
SCBNL	35.09	36.46	38.89	37.79	32.31	**36.11**	**2.56**	**0.07**
SBL	17.83	17.67	15.75	11.34	10.89	**14.70**	**3.37**	**0.23**
LBL	12.56	14.93	15.11	16.84	15.41	**14.97**	**1.54**	**0.10**

From the Table 4.10, it is clear that the average net profit margin of SCBNL is highest with 36.11% and the same of SBL and LBL is lowest being 14.70 and 14.97 percentage. The Figure depicts that SCBNL has highest portion of profit in its operating revenue whereas SBL and LBL has lowest portion. On an average, EBL has 22.95% profit in its operating revenue. Similarly, net profit margin of SBL is most

volatile with standared deviation of 3.37 and CV of 0.23 whereas the same of SCBNL is more consistent with standard deviation of 2.56 and CV of 0.07. Standard deviation of net profit margin of EBL is 2.18 and CV is 0.09 whereas the same of LBL is 1.54 and 0.10 respectively. The same has been presented in Figure 4.10.

Figure 4.10

Comparative Review Net Profit Margin
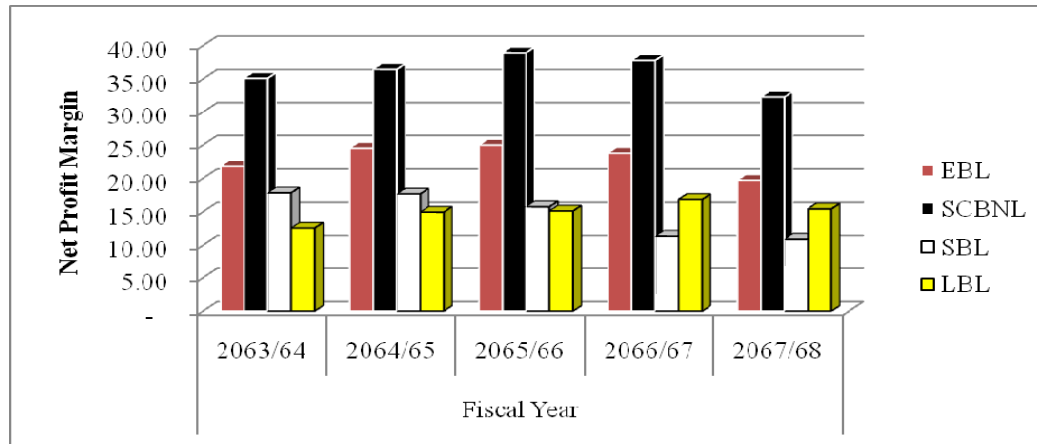
Figure 4.10 shows that SCBNL has highest PM in almost every year which has been followed by EBL being the second highest. PM of LBL is lowest in the initial three fiscal years which has improved to become second lowest in the latest two fiscal years whereas PM of SBL has become lowest in the latest two fiscal years in a decreasing trend.

4.6   Liquidity Position

Liquidity position of a bank shows its ability to discharge its short-term liabilities on time. Liquidity maintained by a bank can not be intrepreted as optimal or insufficient without comparing it with the profitability of the bank. Maintaining insufficient liquidity pushes the bank towards short-term solvency risk whereas maintaining excessive liquidity decreases the profitability of the bank. So that, a bank should find out optimal liquidity level to be maintained in every period analyzing the nature of its liabilities.

There are various methods to measure the liquidity position of the bank. Loan to deposit Ratio, Cash and Equivalent to Total Assets Ratio, Cash and Equivalent ot Total Deposit Ratio are some of the examples of it. There are also some measures

levied by NRB for commerical banks to maintain minimum liquidity such as Cash Reserve Ratio (CRR), Statutory Liquidity Ratio (SLR), Credit to Deposit (CD) Ratio etc. Some of the methods to measure liquidity position of the banks describes as under.

4.6.1 Loan to Deposit Ratio (LDR)

Loan to deposit ratio of a bank is the proportional relation between total loan and advances of a bank to its total deposit. The bank collects funds from the surplus sectors of the society as a deposit and provide the same fund in the deficit sectors in the form of loan and advances. LDR is the ratio which shows the percentage of the total deposit which has been granted as loan and advances. Total loan and advances of the bank includes loan granted in the different headings like Home Loan, Term Loan, Auto Loan, Equipment Loan, Education Loan, SME Finance, Overdraft, Business Loan, Trust Receipt etc. Similarly, total deposit of the bank includes the fund collected by the bank in the form of saving, fixed, current and call deposits. LDR of sample banks over the study period is presented in Table 4.11.

Table 4.11

Comparative Review of Loan to Deposit Ratio

Banks	Fiscal Year					Mean	Std. Deviation	CV
	2063/64	2064/65	2065/66	2066/67	2067/68			
EBL	77.44	78.56	73.43	76.24	76.98	**76.53**	**1.93**	**0.03**
SCBNL	43.78	46.95	39.27	45.98	49.11	**45.02**	**3.74**	**0.08**
SBL	95.39	93.03	85.18	83.65	86.43	**88.74**	**5.16**	**0.06**
LBL	85.78	89.72	83.88	81.49	84.10	**84.99**	**3.05**	**0.04**

The Table 4.11 shows that the average LDR of SCBNL is lowest i.e. 45.02% whereas the same is highest in case of SBL i.e. 88.74%. EBL seems to have maintained optimal LDR with 76.53%. SCBNL has highest opportunity cost which it could earn by increasing the volume of loan and advances whereas SBL and LBL has the highest LDR which may create truble to the bank to discharge its short-term liabilities on time. Thus, The LDR of EBL seems to be optimal. LDR of SCBNL is most volatile with standard deviation of 3.74 and CV of 0.08 whereas the same of EBL is more consistent with standard deviation of 1.93 and CV of 0.03. Standard deviation and CV

of SBL are 5.16 and 0.06 respectively and the same of LBL are 3.05 and 0.04 respectively. From the consistency point view also EBL is seen strong in maintaining optimal LDR. The figures in the above table has been presented in Figure 4.11.

Figure 4.11

Comparative Review of Loan to Deposit Ratio
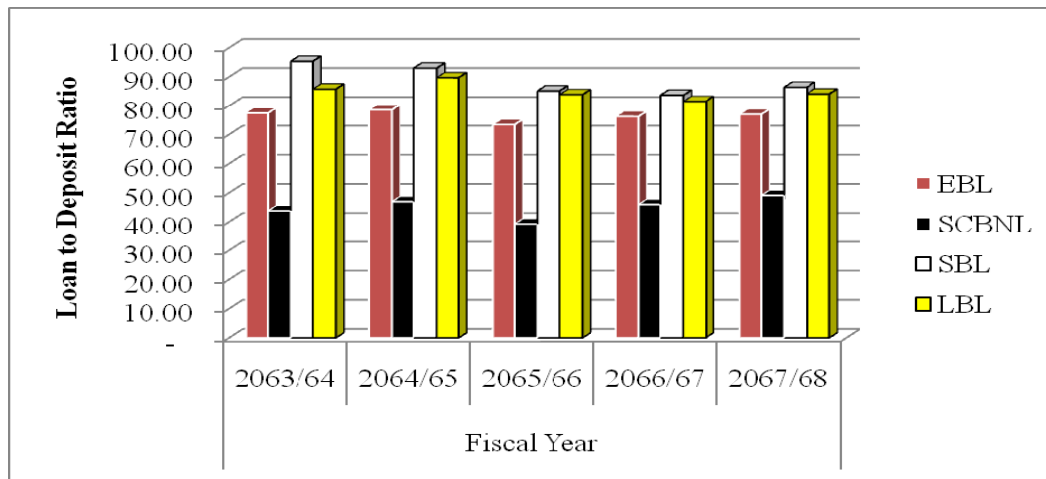
From the Figure 4.11, LDR of SCBNL is lowest in almost every year. EBL is in the second postion to maintain lower LDR. LDR of SBL is highest in almost every fiscal years which has been followed by LBL maintaining second highest LDR. Since the position has not been changed over the period it is clear that no any bank has changed their policy regarding the maintenance of LDR over the period. In the latest years, SCBNL is seen in the trend of increasing its LDR whereas LDR of other banks has not changed over the period significantly.

4.6.2 Cash and Equivalent to Total Assets Ratio (CETAR)

Cash and equivalent to total assets ratio is the proportional relation between cash and equivalent of the bank to its total assets. Banks have to maintain certain level of cash either in their vault or deposit in the NRB and other financial institutions to meet its instant requirement. NRB has made provision to all commercial banks to maintain cash reserve ratio of 5.5% compulsorily. CRR is the amount to be deposited in NRB by the banks based on their deposit volume. Banks also deposit some amount in other banks and financial institution either to earn certain interest on ideal fund or to manage their treasury. Similarly, banks have to maintain certain level of cash in their vault based on their daily transaction. Cash and equivalent is the sum of cash in hand,

balance with NRB, balance with other financial institutions, and money at call and short notice.

Bank has to maintain certain cash balance either to meet NRB regulation or to meet their daily requirement. Cash and equivalent to total assets ratio of sample banks over the study period has been presented in the Table 4.12.

Table 4.12

Comparative Review of Cash & Equivalent to Total Assets Ratio

Banks	Fiscal Year					Mean	Std. Deviation	CV
	2063/64	2064/65	2065/66	2066/67	2067/68			
EBL	11.16	11.10	16.70	18.89	13.24	**14.22**	**3.46**	**0.24**
SCBNL	13.23	12.74	12.96	8.95	16.56	**12.89**	**2.70**	**0.21**
SBL	9.39	8.76	11.37	13.62	11.43	**10.91**	**1.92**	**0.18**
LBL	5.62	11.74	12.17	13.10	13.10	**11.15**	**3.14**	**0.28**

From the Table 4.12, on an average EBL has maintained highest CETAR with 14.22% whereas SBL has maintained lowest average CETAR with 10.91%. Average CETAR of SCBNL is 12.89% and the same is 11.15% in case of LBL. From the Figure, it is seen comfortable to EBL to meet its instant liabilities on time whereas SBL is seen to have tight liquidity. CETAR of LBL is most volatile with standard deviation of 3.14 and CV of 0.28 whereas the same of SBL is more consistent with lowest standard deviation of 1.92 and CV of 0.18. Similarly, EBL has satandard deviation of 3.46 and CV of 0.24 and SCBNL has standard deviation of 2.70 and CV of 0.21. The same can also be cleared with the Figure 4.12.

Figure 4.12

Comparative Review of Cash & Equivalent to Total Assets Ratio
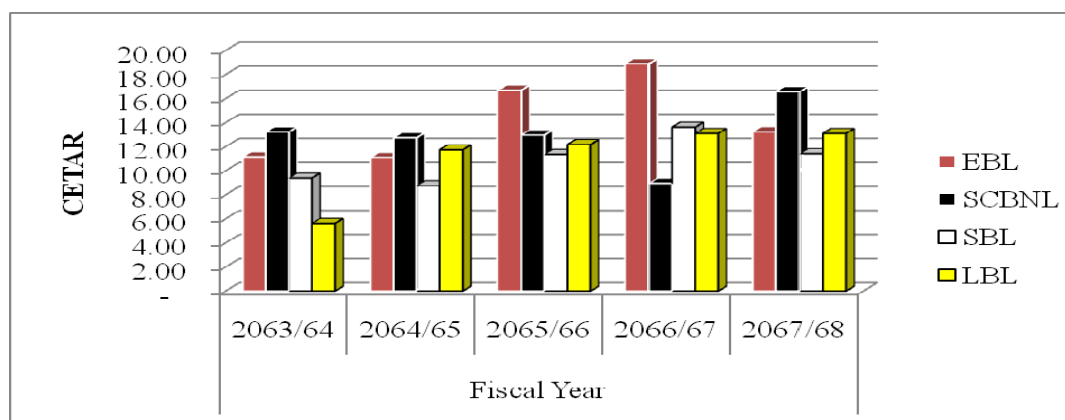
From the Figure 4.12, SCBNL has maintained highest CETAR in the initial two and last fiscal years where as EBL has maintained highest CETAR in the fiscal year 2065/66 and 2066/67.CETAR of SCBNL is lowest in fiscal year 2066/67. CETAR of SBL is lowest in latest fiscal year and F/Y 2064/65 and 2065/66. LBL has manitained moderate CETAR over the period.

4.6.3   Cash and Equivalent to Total Deposit Ratio (CETDR)

Cash and equivalent to total deposit ratio is the proportional relation between cash and equivalent to total deposit of the bank. Fixed deposit holders may ask to return their deposit upon maturity of the period whereas saving and current deposit holders can demand their deposit amount at any time they require. Failure of the bank to pay the demanded amount on time would cause to loss the faith of stakeholders towards the bank. Thus, banks have to maintain sufficient cash balance to meet their demand on time. On the other hand, maintenance of excess balance of cash also deteriorate the profit of the bank since mainatenance of cash costs to the bank either in the form of insurance premium or in the form of opportunity cost. Thus, any bank has to find out optimal cash balance to be maintained based upon their deposit volume and mix and daily transaction of the bank. Cash and Equivalent to Total Deposit Ratio of sample banks over the study period is presented in the Table 4.13.

Table 4.13

Comparative Review of Cash & Equivalent to Total Deposit Ratio

Banks	Fiscal Year					Mean	Std. Deviation	CV
	2063/64	2064/65	2065/66	2066/67	2067/68			
EBL	13.15	12.57	18.50	21.17	14.89	**16.05**	**3.68**	**0.23**
SCBNL	15.35	14.28	14.69	10.23	19.10	**14.73**	**3.16**	**0.21**
SBL	11.27	10.03	12.82	15.38	12.92	**12.48**	**2.01**	**0.16**
LBL	6.34	13.65	13.95	15.18	15.44	**12.91**	**3.75**	**0.29**

From the Table 4.13, EBL has maintained highest average CETDR with 16.05% and SBL has maintained lowest CETDR with 12.48%. Average CETDR of SCBNL and LBL are 14.73% and 12.91% respectively. From the Figure, it is seen that EBL is in the comfortable level to repay depostor's amount on time whereas SBL is in the tight position. There is no any thumb rule to maitain CETDR but a bank should be in comfortable level based upon its business volume. SCBNL and LBL seem to be in moderate level. Similarly, CETDR of LBL is seen most volatile with standard deviation of 3.75% and CV of 0.29 whereas the same of SBL is more consistent with standard deviation of 2.01% and CV of 0.16. Satandard deviation and CV of SCBNL is 3.16% and 0.21 respectively and the same of LBL is 3.75% and 0.29 respectively. The figures can be presented in the Figure 4.13.

Figure 4.13

Comparative Review of Cash & Equivalent to Total Deposit Ratio
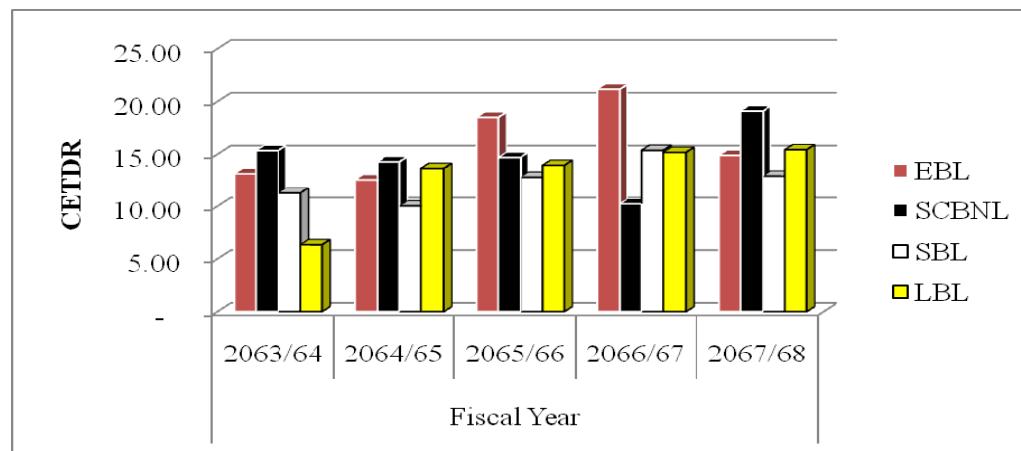
From the Figure 4.13, SCBNL has highest CETDR in the fiscal years 2063/64, 2064/65, and 2067/68 whereas EBL has highest CETDR in fiscal years 2065/66 and 2066/67. SCBNL has maintained lowest CETDR in the fiscal year 2066/67. In the last fiscal year i.e. 2067/68, SBL has lowest CETDR and LBL and EBL has maintained moderate CETDR. SBL and LBL has moderate CETDR in other fiscal years. Significant changes in the position of the banks shows the changes in the volume of deposit and/or cash and equivalent of the bank over the periods.

Summary of Key Ratios:

Table 4.14

Average Key Ratios of Banks

Ratios	Banks				Most Efficient	Least Efficient
	EBL	SCBNL	SBL	LBL		
LR	6.06	7.17	8.18	8.15	SBL and LBL	EBL
CCR	8.29	12.74	9.27	9.51	SCBNL	EBL
TCR	10.88	14.64	10.91	11.33	SCBNL	EBL
NPL	0.55	0.93	0.56	0.45	LBL	SCBNL
LLP	2.41	1.70	1.44	1.22	EBL	LBL
OER	60.16	42.85	73.40	73.25	SCBNL	SBL & LBL
EPE	2,050.37	3,762.58	1,912.49	1,171.27	SCBNL	LBL
ROE	27.95	33.57	14.63	13.38	SCBNL	LBL
ROA	1.76	2.54	1.20	1.21	SCBNL	SBL & LBL
PM	22.95	36.11	14.70	14.97	SCBNL	SBL & LBL
LDR	76.53	45.02	88.74	84.99	SCBNL	SBL
CETAR	14.22	12.89	10.91	11.15	EBL	SBL
CETDR	16.05	14.73	12.48	12.91	EBL	SBL

Based on the figures provided we can draw following conclusios:

- SCBNL is strong in maintaining sufficient capital adequacy, is efficient in managing the institution, is strong in earning capacity, and has sufficient fund to grant loan and advances where as assets quality of the bank is least compared to the other banks. The bank maintains moderate level of cash balance in the bank. The reason may be due to the small number of branches of the bank.

- EBL has maintained sufficient cash balance in the bank and it has provided highest amount as the provision for possible losses but the capital adequacy of the bank is least compared to other banks though it is maintaining the adequacy framework provided by the central bank. Assets quality, management efficiency, and earning capacity of the bank is in moderate level.

- Capital adequacy, assets quality and management efficiency of SBLis in moderate level but the liquidity level and earning of the bank is lowest compared to other banks.

- LBL has the high quality of assets, has maintained moderate level of capital adequacy and liquidity but the management efficiency and earning capacity of the bank is in the lowest level.

4.7 Hypothesis Testing

Under hypothesis testing we are trying to test whether Joint venture banks are effiecient in maintaining the key ratios as per CAMEL than Non joint venture banks. Null and alternate hypothesis has been set for major components of CAMEL.One major indicator has been selected from each component among the mix of various indicators. Total Capital ratio has been considered as the major indicator of capital adequeacy ratio. Similarly, Non-Performing Loan to Total Loan Ratio, Operating Expenses Ratio, Net Profit Margin and Loan to Deposit Ratio has been cosidered as major indicators of assets management, management efficiency, earnings, and liquidity respectively. Null and alternate hypothesis has been set for these each indicators and attempt has been made to identify whether joint venture are better in maintaining these indicators compared to non joint venture banks or not.

For the testing of hypothesis students t-statistics has been used since the number of observation is five which is less than thirty. Since all the indicators are in ratio form, it has become the test of proportions. Here, we have considered 5% level of significance i.e. 95% confidence level. Calculation of t statistics is obtained by using microsft excel. Following are the null and alternate hypothesis for the testing purpose:

Null Hypothesis (H$_0$) = There is no significant defference between mean ratios of joint venture and non joint venture banks.

Alternate Hypothesis (H$_1$) = Mean ratios of joint venture banks are better than that of non joint venture banks.

4.7.1 Test of Total Capital Ratio

Total capital ratio is the main indicator used by NRB for measuring capital adequacy of a bank. As per NRB, every bank should maintain 10% total capital ratio at any time. Higher TCR shows that the bank is maintianing adequate capital with respect to its risk weighted exposure. It is believed that Nepalese joint venture banks has been maintaining better capital adequacy than non joint venture banks. But, it can be conluded only after the test. Thus, we have set two hypothesis as below:

Null Hypothesis: There is no significant differece between average capital adequacy ratio of joint venture banks and non joint venture banks.

Alternate Hypothesis: Average capital adequacy ratio of joint venture banks is higher than that of non joint venture banks.

In mathematical term,

$H_0 : \mu_1 = \mu_2$. There is no significant differece between the average total capital ratio of joint venture and non joint venture banks.

$H_1 : \mu_1 > \mu_2$ (Right tailed test). Average total capital ratio of joint venture banks is greater than that of non joint venture banks.

Degree of freedom: $n_1+n_2-2 = 5+5-2 = 8$
Level of significance = 5%

The calculated t statistics of total capital ratio is presented in the Table 4.15.

Table 4.15

t-Test: TCR of Joint Venture and Non Joint Venture ure Banks

	JVBs	*NJVBs*
Mean	12.6104	11.0763
Variance	0.2297	0.1649
Observations	5	5
Hypothesized Mean Difference	0	
d. f.	8	
t Stat	**5.4606**	
P(T<=t) one-tail	0.0003	
t Critical one-tail	**1.8595**	
P(T<=t) two-tail	0.0006	
t Critical two-tail	2.3060	

From the Table 4.15, calculated t statistics is 5.4606 and P value is 0.003, where as one-tailed critical value of t at 5% level of significance is 1.8595. Since the calculated t statistics is greater than critical value of t and P value is less than level of significance , null hypothesis (H_0) is rejected and hence, alternate hypothesis (H_1) is accepted which means that there is significant evidence to conclude that the average TCR of joint venture banks is greater than that of non joint venture banks.

4.7.2 Test of Non-Performing Loan Ratio

Non-Performing loan to total loan ratio is the major indicator of assets quality of commercial banks. Loan and advances is the main assets of the bank which includes plenty of risks. NRB have restricted the bank and financial institutions to go beyond 5% of NPL. To test whether the assets quality of joint venture banks are better than that of non join venture bank we set two hypothesis as under:

Null Hypothesis: There is no significant difference between assets quality of joint venture banks and non joint venture banks.

Alternate Hypothesis: Assets quality of joint venture banks are better than that of non joint venture banks.

In mathematical term;

H_0 : $\mu_1 = \mu_2$. There is no significant differece between the average NPL of joint venture and non joint venture banks.

H_1 : $\mu_1 < \mu_2$ (Left tailed test). Average NPL ratio of joint venture banks is lower than that of non joint venture banks.

Degree of freedom: $n_1+n_2-2 = 5+5-2 = 8$
Level of significance $= 5\%$

The calculated t statistics of NPL ratio is presented in the Table 4.16.

Table 4.16

t-Test: NPL Ratio of Joint Venture and Non Joint Venture Banks

	JVBs	*NJVBs*
Mean	0.7046	0.5030
Variance	0.1082	0.0576
Observations	5	5
Hypothesized Mean Difference	0	
df	7	
t Stat	**1.1072**	
P(T<=t) one-tail	0.1524	
t Critical one-tail	**1.8946**	
P(T<=t) two-tail	0.3048	
t Critical two-tail	2.3646	

From the Table 4.16, calculated t statistics is 1.1072 and P value is 0.1524 where as one-tailed critical value of t at 5% level of significance is 1.8946. Since, calculated t statistics is lower than critical t value and P value is higher than level of significance null hypothesis is accepted. That means there is significant evidence to conclude that the average NPL Ratio of joint venture banks and non joint venture banks are not different. Thus, we can conclude that there is no significant difference in assests quality of joint venture and non joint venture banks.

4.7.3 Test of Operating Expenses Ratio

Operating Expenses Ratio is one of the major indicators of management efficiency of banks. Efficient management trys to maximize the profit portion in the collected reveue by reducing the portion of expenditure. Thus, to test whether management efficiency of joint venture banks is better than that of non joint venture bank, t-test of operating expenses ratio has been conducted. Following null and alternate hypothesis has been set for this purpose:

Null Hypothesis: There is no significant differece between average OER of joint venture banks and non joint venture banks.

Alternate Hypothesis: Average OER of joint venture banks is lower than that of non joint venture banks.

In Mathematical term:

H_0 : $\mu_1 = \mu_2$. There is no significant differece between average OER of joint venture and non joint venture banks.

H_1 : $\mu_1 < \mu_2$ (Left tailed test). Average OER of joint venture banks is lower than that of non joint venture banks.

Degree of freedom: $n_1+n_2-2 = 5+5-2 = 8$

Level of significance = 5%

The calculated t statistics of OER is presented in the Table 4.17.

Table 4.17

t-Test: OER of Joint Venture and Non Joint Venture Banks

	JVBs	*NJVBs*
Mean	51.5635	73.4027
Variance	23.3145	17.6304
Observations	5	5
Hypothesized Mean Difference	0	
df	8	
t Stat	**-7.6317**	
P(T<=t) one-tail	0.00003	
t Critical one-tail	**1.8596**	
P(T<=t) two-tail	0.00006	
t Critical two-tail	2.3060	

From the Table 4.17, absolute value of t statistics is 7.6317 and P value is 0.00003 where as one-tailed critical value of t at 5% level of significance is 1.85955. Since absolute value of t statistics is greater than critical value and P value is lower than level of significance, null hypothesis is rejected hence, alternate hypothesis is accepted which means there is significant evidence to conclude that average OER of joint venture banks is lower than that of non joint venture banks. Thus, we can conclude that management efficiency of joint venture banks are better than that of non joint venture banks.

4.7.4 Test of Return on Assets

ROA is the main indicator used by NRB for measuring earning capacity of banks and financial institutions. A bank holds many kind of assets and it is expected to generate earning by each component of assets. Earning depends upon effective management of assets in the bank. A bank which is able to generate higher return on assets is said to have a higher earning capability. To test whether joint venture banks are better in generating earning, we have set following hypothesis:

Null Hypothesis : There is no significant difference between earning capacity of joint venture and non joint venture banks.

Alternate Hypothesis : Earning capacity of joint venture banks are better than that of non joint venture banks.

In mathematical term;

H_0 : $\mu_1 = \mu_2$. There is no significant differece between the average ROA of joint venture and non joint venture banks.

H_1 : $\mu_1 > \mu_2$ (Right tailed test). Average ROA of joint venture banks is greater than that of non joint venture banks.

Degree of freedom: $n_1+n_2-2 = 5+5-2 = 8$
Level of significance = 5%

The calculated t statistics of ROA is presented in the following Table 4.18.

Table 4.18

t-Test: ROA of Joint Venture and Non Joint Venture Banks

	JVBs	*NJVBs*
Mean	2.1727	1.1933
Variance	0.0217	0.0419
Observations	5	5
Hypothesized Mean Difference	0	
d.f.	7	
t Stat	**8.6821**	
P(T<=t) one-tail	0.00003	
t Critical one-tail	**1.8946**	
P(T<=t) two-tail	0.00005	
t Critical two-tail	2.3646	

From the Table 4.18, calculated t statistics is 8.6821 and P value is 0.00003 where as one-tailed critical t value at 5% level of significance is 1.89458. Since calculted t statistics is greter than critical t value and P value is lower than level of significance, null hypothesis is rejected hence, alternate hypothesis is accepted which means there is significant evidence to conclude that average ROA of joint venture banks is higher than that of non joint venture banks. Thus, we can conclude that earning capacity of joint venture banks are better than that of non joint venture banks.

4.7.5   Test of Loan to Deposit Ratio

Loan to deposit ratio is one of the major indicators used by supervisory authority to check the liquidity maintenance by banks and financial institution. The ratio shows what percentage of total deposit collected by the bank is disbursed as loan and advances. Lower ratio shows the maintenance of higher liquidity by the bank and vice versa. To test whether joint venture banks are maintaining higher liquidity compared to non joint venture banks following null and alternate hypothesis have been set:

Null Hypothesis : There is no significant differece between liquidity maintenance of joint venture and non joint venture banks.

Alternate Hypothesis : Joint venture banks are maintaining better liquidity than that of non joint venture banks.

In mathematical term,

H_0 : $\mu_1 = \mu_2$. There is no significant differece between the average LDR of joint venture and non joint venture banks.

H_1 : $\mu_1 < \mu_2$ (Left tailed test). Average LDR of joint venture banks is lower than that of non joint venture banks.

Degree of freedom: $n_1+n_2-2 = 5+5-2 = 8$

Level of significance = 5%

The calculated t statistics of LDR is presented in the following Table 4.19.

Table 4.19

t-Test: LDR of Joint Venture and Non Joint Venture Banks

	JVBs	*NJVBs*
Mean	60.0091	86.8161
Variance	9.3126	14.2311
Observations	5	5
Hypothesized Mean Difference	0	
df	8	
t Stat	**-12.3536**	
P(T<=t) one-tail	0.0000009	
t Critical one-tail	**1.8595**	
P(T<=t) two-tail	0.0000017	
t Critical two-tail	2.3060	

From the Table 4.19, calculated absolute t statistics is 12.3536 and P value is nearly zero whereas one tailed critical t-value at 5% siginificance level is 1.8595. Since absolute t statistics is higher than critical value and P value is lower than level of significance, null hypothesis is rejected hence, alternate hypothesis is accepted which means there is significant evidence to conclude that average LDR of joint venture banks is higher than that of non joint venture banks. Thus, we can conclude that joint venture banks are better in maintaining liquidity than non joint venture banks.

Liquidity management can not be interpreted alone without comparing it with profitability of the bank since liquidity and profitability has the inverse relation. Maintaining excess liquidity than required is also not a wise management. But, since

the profitability of joint venture banks is significantly higher and liquidity ratio is signifinacantly lower than that of non joint venture banks, liquidity management of joint venture banks can be concluded to have better position than that of non joint venture banks.

Major Findings from Hypothesis Testing:

- ➢ Joint venture commercial banks have maintained actually better capital adequacy than that of non joint venture commercial banks.
- ➢ There is no significant difference between the assets quality of join venture and non joint venture commercial banks.
- ➢ Management efficiency of joint venture commercial banks are better than that of non joint venture commercial banks.
- ➢ Earning capacity of joint venture commecial banks are better than that of non joint venture comercail banks.
- ➢ Joint venture commercial banks have maintained better liquidity than that of non joint venture commercail banks.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The chapter consist summary, conclusions and recommendations of the research work. The facts and findings from secondary data analysis have been presented in this chapter. Besides summarizing and concluding research work, recommendations have been made to concerned institutions and authorities.

5.1   Summary

Structural adjustment program initiated during the period of 1980's and political change during the period of 1990's has opened door to large numbers of commercial banks, numerous development banks, finance companies, and co-operatives. As the number of banks is increasing, given the limited size of market, the banks survival depends upon how well it can manage its resources and delivers the best-desired quality services to its customer. As the commercial banks are now introducing complex and innovative banking products, they are exposed to many kinds of risks thus; obviously, they require intensive supervision for maintaining efficient financial system in the nation. Further, Commercial banks collect the fund from surplus sector and mobilize these funds in the deficit sectors in the form of investment and loan and advances. Since, the commercial banks deals with the fund of general people, who may not know where the bank utilize these funds, they require regular and close supervision so that the management of the bank don't hamper the interest of common depositors.

Being a prime institution for the regulation of Nepalese banks and financial institutions Nepal Rastra Bank conducts on-site and off-site supervision of Nepalese commercial banks on regular basis. CAMELS analysis is one of the widely used supervisory measures among the regulating authorities over the world to supervise banks and financial institutions of the concerned nation. CAMELS rates among the banks upon its six attributes; Capital Adequacy, Assets Management, Management Efficiency, Earning Capacity, Liquidity Management, and Sensitivity to Market Risk; and provides those information to higher authority of the concerned bank along with the supervisory measures to be undertaken if necessary. However, NRB uses CAEL approach due to complexity in the approach and lack of sufficient information for the calculation of management efficiency and sensitivity to market risk.

The study has been conducted with an objective of assessing financial performance of Nepalese commercial banks in the framework of CAMEL. Among six attributes of CAMELS study, S (Sensitivity to Market Risk) component has been excluded from the study due to the lack of sufficient information but M (Management Efficiency) component has been included though NRB has excluded in its supervision. The study has also attempted to compare the performance of joint venture commercial banks and non joint venture commercial banks in the framework of CAMEL. Various research materials were reviewed during the research period regarding the origin and development of commercial banks in Nepal, need of banking supervision, NRB and its supervision policy, meaning and components of CAMELS, ratios representing the components of CAMELS, methods of calculation, hypothesis formulation and its testing in Microsoft excel and so on. Besides, various journals, research papers, unpublished desertions, and related reports were reviewed.

The research was conducted within the framework of descriptive, analytical, and comparative descriptive research design. 33 commercial banks of Nepal has been categorized in 7 joint venture and 25 non joint venture banks and sample consisting of two banks from each group has been selected using the simple judgmental sample technique being Standard Chartered Bank Nepal Ltd., Everest Bank Ltd., Siddhartha Bank Ltd., and Laxmi Bank Ltd. as the sample banks. The study has covered the period of five years from FY 2063/64 to FY 2067/68. Required data has been collected mainly through the secondary sources; annual reports and Basel disclosures of concerned banks, annual supervision report published by NRB, various websites, newspapers, and articles. Components of CAMEL have been used as the measure of financial ratios. Simple mathematical and statistical tools; like average, variance, standard deviation, coefficient of variance; have been used to reach meaningful conclusion from the collected data. Besides, students t-statistics has been used as the test of hypothesis under 95% confidence level.

The study showed that generally all the banks are fulfilling NRB compliance like maintenance of core capital ratio of 6%, total capital ratio of 10%, and non-performing loan ratio below 5%. The study showed somewhat mixed type of result. Bank, which is best in one category, is not the best in another. Further, the different indicators of same component showed different bank as the best in maintaining the ratios. However, SCBNL has been best bank in maintaining maximum ratios with 8 followed by EBL with 3 among 13 ratios calculated. SCBNL has maintained

sufficient capital adequacy with CCR of 12.74% and TCR of 14.64% but the LR of SBL and LBL is good with 8.18% and 8.15%. LBL has the best assets quality with least Non-Performing Loan of 0.45% whereas EBL has good provision for its possible losses with LLP of 2.41%. Management of SCBNL is found to be most efficient among the industries with lowest Operating Expenses Ratio and highest Earning Per Employee. Further, SCBNL is found to be a best earner among the industry with highest average ROE, ROA and PM. SCBNL is also maintaining lowest loan to deposit ratio. However, most liquid assets maintenance is found to be highest in EBL with highest level of cash and equivalent to total deposit and cash and equivalent to total assets ratio.

Regarding second part of the study, in most of the cases, joint venture banks are found to be in better position in maintaining financial ratios compared to non joint venture banks. Joint venture commercial banks are found to maintain better capital adequacy than non joint venture banks. Their management found to be more efficient, earnings found to be significantly higher, and liquidity found to be much better compared to non joint venture banks. However, assets quality of joint venture banks is found to be similar to that of non joint venture banks.

5.2   Conclusion

Based on the findings following conclusion have been drawn from the study:

i) Capital adequacies of all the banks are above NRB standard. It shows that all the commercial banks are aware about the maintenance of capital adequacy for the long-term survival of the institution. In addition, capital adequacy of joint venture banks is significantly higher than that of non joint venture banks. Therefore, we can conclude that management of joint venture commercial banks is more aware about need of adequate capital and with international practices, like the provision of Basel.

ii) Assets qualities of all the banks are under acceptable level. The quality of assets of joint venture banks are in increasing trend whereas the same is in decreasing trend in non joint venture commercial banks. From the study, we can conclude that management of joint venture banks are adopting appropriate measures such as systematic credit philosophy, tight credit policy, and good credit assessment system for decreasing the non-performing loan. However, from the study we

found that there is no significant difference between the assets quality of joint venture and non joint venture banks.

iii) Measure of management efficiency is somewhat qualitative in nature. However, some of the indicators jointly serve as the measure of management efficiency. From the study, it is found that operating expenses ratio is lower and earning per employee is higher in joint venture banks compared to non joint venture commercial banks in Nepal. From the t-statistics also it is clear that management of joint venture commercial banks are efficient than that of non joint venture commercial banks. Thus, we can conclude that employee recruitment policy is tight, management is more intelligent, and employees of the institutions are well utilized in case of joint venture commercial banks.

iv) Earning is the crucial factor for the long survival of any institution; any institution failing to generate it will face long-term solvency risk. From the study, it is found that the earning capacities of Nepalese commercial banks are in satisfactory level. Further, earning capacities of Nepalese joint venture commercial banks are better than that of non joint venture commercial banks. Thus, we can conclude that joint venture commercial banks have better utilized its resources for gaining maximum output from the business. Further, they have gained competitive advantage by decreasing its long-term solvency risk.

v) Liquidity is utmost component for the regular and smooth operation of any business; failing to maintain sufficient liquidity will force any institution to face short-term solvency risk. Further, unnecessary liquid assets reduce the earnings of the institution. From the study, it is found that Nepalese commercial banks have maintained sufficient liquidity in their institution as per their requirement. Besides, joint venture commercial banks have maintained significantly higher liquidity ratios than that of non joint venture commercial banks. Thus, we can conclude that joint venture banks have been able to reduce their short-term solvency risk by utilizing their funds effectively.

vi) The study has shown that joint venture banks are better in earning capacity and maintenance of liquidity at the same time. Thus, the researcher can conclude that maintenance of higher liquidity don't always deteriorate the earning of the institution if it is under desirable level and if other sources of income are identified as in the case of SCBNL which has higher level of fee based income compared to other banks.

vii) From the study, we also conclude that CAMEL is one of the best tools for the regular health check up of banks and financial institutions, which tries to address maximum areas of the operation of any bank and financial institution.

viii)   NRB, being a prime institution for the regulation of financial system in Nepal, is adopting appropriate measures for the close supervision of financial institution in Nepal, by creating a separate supervision department under it. It has adopted the modified form of Basel II Accord based on the nature of financial system in Nepal.

Although the history of banks in Nepal is not so long as compared to neighbor countries, during the period it has gained so much of sophistication. Changes are taking place in the banking environment around us every day. More and more complex and innovative banking products are being introduced. Internet Banking, SMS Banking, Mobile Banking, and Branch-Less Banking besides ATM banking have gained maximum attraction from the banks and financial institution as well as customers of the banks. These changes have brought about risks and opportunities, which have direct bearing on the operation of the banks.

Banks play an important role in the economic enhancement of the country. Central bank, as the sole monetary authority of the country, is responsible for the total financial stability of the country. It undoubtedly needs to be capable of supervising the banks and other financial institutions so that it will ensure their sound financial health and help towards checking any undesirable financial crisis.

Currently some of the banks and financial institutions have faced problems and some of them have already been declared as problematic institutions, although it may be mainly due to the misconduct of representatives of the shareholders and management of the bank. There is a pressure for the monitoring authority to adopt the measures so that every aspect of the bank and financial institutions are regulated.

5.3   Recommendations

Based on the study and the conclusion drawn above, recommendations have been made to the concerned banks and financial institutions, governing authorities, general public and any other concerned persons and/or institutions for the betterment of the financial system in the coming days.

i)   All the banks are just fulfilling NRB compliance in regards to the maintenance of capital adequacy, but they are not seen to follow international practices except SCBNL. If compared to the banks in the foreign countries and their requirement, Nepalese banks fall under the high risk category. Thus, it is advised to all the financial institutions not to concern on the NRB rules only but also keep eyes on international practices which may be laid down in Nepal also in near future.

ii)   Assets quality of joint venture banks are increasing whereas it is decreasing in the case of non joint venture commercial banks. Thus, non joint venture banks are suggested to adopt appropriate credit philosophy and credit policy, strict and periodic valuation system, tight measurement of credit worthiness of customers, assess the capacity and character of the credit customers, maintain strict and close supervision from the higher level management, and train and update its credit officers from time to time; for increasing the quality of its assets.

iii) Operating expenses ratios of all the banks are increasing thus; it is advised to all the banks to adopt cost control measures for increasing the portion of profit in the revenue they collect. Further, they are also advised to utilize their human resources in a best way to increase earning per employee. Management efficiency of non joint venture commercial banks is significantly lower than that of joint venture commercial banks. So, non joint venture commercial banks are further suggested to focus on cost control measures for maximizing output from the input they use.

iv)   Earnings of all the banks are satisfactory but non joint venture commercial banks are seen weak in generating profit compared to joint venture commercial banks. They are seen to base their earnings solely on interest income. Hence, it is suggested to diversify their services where fee based income can be generated besides its interest income.

v)   Liquidities of the banks are seen in satisfactory level. However, SCBNL has maintained excessive ideal deposit, which could be used in providing loan and advances or for investment purpose. Hence, SCBNL is advised to find feasible projects and invest the ideal fund, which will generate additional profit in one hand, and in another hand, it will help to boost up the economy of the nation.

vi)   NRB has not been able to use Basel II in full-fledged way. Further, it is using only four components "CAEL "of CAMELS. Thus, NRB is suggested to use remaining two components also as the health check up of Nepalese financial

institutions since management efficiency and sensitivity to market both are vital components and without measuring them the health check up remains incomplete. For this, NRB is advised to use customized form as it is using in Basel II.

vii)   Changing global environments, excessive competition, political instabilities, lack of management skills, conflict in interests between various stakeholders are some of the problems which are being faced by Nepalese financial institutions and that cannot be measured by a single tool. Thus, besides the tools followed by foreign authorities, NRB is further advised to develop customized regulation system, which addresses the unique problems of Nepalese financial system.

viii)   At last but not the least, Nepalese general people are also advised to be aware about the condition of the bank and financial institution while doing their banking transactions. Publicly available information's, news, reports of NRB, and findings of different study will help them to choose a quality bank where they can transact for long term with confidence.

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Annex 1
Calculation of Leverage Ratio

a. Everest Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Core Capital	1,171,133,000.00	1,900,859,000.00	1,981,579,000.00	2,537,092,000.00	2,927,168,000.00
Total Assets	21,432,574,300	27,149,342,884.00	36,916,848,654.00	41,382,760,711.00	46,236,212,262.00
Leverage Ratio	5.46	7.00	5.37	6.13	6.33

b. Standard Chartered Bank Nepal Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Core Capital	1,951,117,000.00	2,304,758,000.00	2,832,761,000.00	3,050,712,000.00	3,263,248,000.00
Total Assets	28,596,689,451	33,335,788,326.00	40,066,570,593.00	40,213,319,926.00	43,810,519,664.00
Leverage Ratio	6.82	6.91	7.07	7.59	7.45

c. Siddhartha Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Core Capital	786,859,000.00	1,049,679,000.00	1,257,070,000.00	1,581,568,000.00	1,965,766,000.00
Total Assets	7,954,664,475	11,668,355,950.00	17,881,750,137.00	22,802,429,300.00	24,405,872,049.00
Leverage Ratio	9.89	9.00	7.03	6.94	8.05

d. Laxmi Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Core Capital	645,936,252.00	1,076,383,384.00	1,269,743,601.00	1,834,867,663.00	1,962,298,157.00
Total Assets	8,582,688,552.00	12,695,021,516.00	18,386,412,982.00	20,952,249,558.00	21,559,891,393.00
Leverage Ratio	7.53	8.48	6.91	8.76	9.10

Annex 2
Calculation of Core Capital Ratio

a. Everest Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Core Capital	1,171,133,000.00	1,900,859,000.00	1,981,579,000.00	2,537,092,000.00	2,927,168,000.00
Risk Weighted Assets	14,976,737,000.00	21,039,879,000.00	25,619,753,000.00	30,240,428,000.00	34,583,547,000.00
Core Capital Ratio	7.82	9.03	7.73	8.39	8.46

b. Standard Chartered Bank Nepal Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Core Capital	1,951,117,000.00	2,304,758,000.00	2,832,761,000.00	3,050,712,000.00	3,263,248,000.00
Risk Weighted Assets	14,168,420,035.00	18,969,853,751.00	21,703,164,000.00	24,184,585,000.00	26,974,342,000.00
Core Capital Ratio	13.77	12.15	13.05	12.61	12.10

c. Siddhartha Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Core Capital	786,859,000.00	1,049,679,000.00	1,257,070,000.00	1,581,568,000.00	1,965,766,000.00
Risk Weighted Assets	7,297,686,631.00	10,299,852,297.00	15,210,186,000.00	19,766,103,000.00	21,611,315,000.00
Core Capital Ratio	10.78	10.19	8.26	8.00	9.10

d. Laxmi Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Core Capital	645,936,252.00	1,076,383,384.00	1,269,743,601.00	1,834,867,663.00	1,962,298,157.00
Risk Weighted Assets	7,416,106,864.00	11,458,271,867.00	14,997,272,534.00	16,432,323,516.00	20,034,849,742.00
Core Capital Ratio	8.71	9.39	8.47	1.17	9.79

Annex 3
Calculation of Total Capital Ratio

a. Everest Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Capital	1,676,116,000.00	2,406,056,000.00	2,703,870,000.00	3,257,141,000.00	3605840000
Risk Weighted Assets	14,976,737,000.00	21,039,879,000.00	25,619,753,000.00	30,240,428,000.00	34,583,547,000.00
Total Capital Ratio	11.19	11.44	10.55	10.77	10.43

b. Standard Chartered Bank Nepal Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Capital	2,225,284,000.00	2,655,277,000.00	3,190,367,000.00	3,530,493,000.00	3,835,592,000.00
Risk Weighted Assets	14,168,420,035.00	18,969,853,751.00	21,703,164,000.00	24,184,585,000.00	26,974,342,000.00
Total Capital Ratio	15.71	14.00	14.70	14.60	14.22

c. Siddartha Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Capital	863,820,000.00	1,147,734,000.00	1,625,456,000.00	1,983,990,000.00	2,340,615,000.00
Risk Weighted Assets	7,297,686,631.00	10,299,852,297.00	15,210,186,000.00	19,766,103,000.00	21,611,315,000.00
Total Capital Ratio	11.84	11.14	10.69	10.04	10.83

d. Laxmi Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Capital	704,673,774.00	1,191,347,419.00	1,721,174,202.00	2,242,875,249.00	2,330,045,451.00
Risk Weighted Assets	7,416,106,864.00	11,458,271,867.00	14,997,272,534.00	16,432,323,516.00	20,034,849,742.00
Total Capital Ratio	9.50	10.40	11.48	13.65	11.63

Annex 4
Calculation of Non Performing Loan Ratio

a. Everest Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Non Performing Assets	113,178,936.00	127,310,368.00	117,985,232.00	125,560,472.00	108,401,563.00
Total Loan & Advances	14,082,686,088.00	18,836,431,762.00	24,469,555,526.00	28,156,399,843.00	31,661,842,757.00
Non Performing Loan Ratio	0.80	0.68	0.48	0.45	0.34

b. Standard Chartered Bank Nepal Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Non Performing Assets	197,017,153.00	128,719,782.00	91,041,656.00	98,135,727.00	115,803,901.00
Total Loan & Advances	10,790,148,357.00	13,963,983,752.00	13,880,703,075.00	16,176,582,758.00	18,662,477,835.00
Non Performing Loan Ratio	1.83	0.92	0.66	0.61	0.62

c. Siddartha Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Non Performing Assets	21,541,583.00	65,178,511.00	60,302,357.00	89,255,574.00	147,741,065.00
Total Loan & Advances	6,319,727,198.00	9,480,786,943.00	13,504,795,701.00	16,895,348,329.00	18,647,195,543.00
Non Performing Loan Ratio	0.34	0.69	0.45	0.53	0.79

d. Laxmi Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Non Performing Assets	23,021,093.00	12,729,896.00	10,790,791.00	118,938,245.00	138,839,694.00
Total Loan & Advances	6,529,239,211.00	9,794,438,354.00	13,463,349,018.00	14,736,405,493.00	15,389,472,466.00
Non Performing Loan Ratio	0.35	0.13	0.08	0.81	0.90

Annex 5
Calculation of Loan Loss Provision Ratio

a. Everest Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Loan Loss Provision	418,604,423.00	497,346,200.00	584,881,910.00	600,043,812.00	604,151,295.00
Total Loan & Advances	14,082,686,088.00	18,836,431,762.00	24,469,555,526.00	28,156,399,843.00	31,661,842,757.00
Loan Loss Provision Ratio	2.97	2.64	2.39	2.13	1.91

b. Standard Chartered Bank Nepal Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Loan Loss Provision	287,511,222.00	245,386,620.00	200,946,085.00	219,627,490.00	235,207,344.00
Total Loan & Advances	10,790,148,357.00	13,963,983,752.00	13,880,703,075.00	16,176,582,758.00	18,662,477,835.00
Loan Loss Provision Ratio	2.66	1.76	1.45	1.36	1.26

c. Siddhartha Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Loan Loss Provision	97,140,385.00	145,189,205.00	176,174,186.00	241,496,407.00	263,162,450.00
Total Loan & Advances	6,319,727,198.00	9,480,786,943.00	13,504,795,701.00	16,895,348,329.00	18,647,195,543.00
Loan Loss Provision Ratio	1.54	1.53	1.30	1.43	1.41

d. Laxmi Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Loan Loss Provision	91,789,964.00	113,489,702.00	147,744,714.00	176,295,905.00	189,624,530.00
Total Loan & Advances	6,529,239,211.00	9,794,438,354.00	13,463,349,018.00	14,736,405,493.00	15,389,472,466.00
Loan Loss Provision Ratio	1.41	1.16	1.10	1.20	1.23

Annex 6
Calculation of Operating Expenses Ratio

a. Everest Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Interest Income	1,144,408,308.00	1,548,657,132.00	2,186,814,992.00	3,102,451,484.00	4,331,026,087.00
Commission and Discounts	117,718,162.00	150,264,074.00	202094446	208,123,481.00	203,468,424.00
Other Operating Income	67,967,525.00	79,133,767.00	106403694	142,311,427.00	148,061,979.00
Exchange Income	28,404,544.00	64,452,378.00	62526819	47,879,967.00	46,259,065.00
Total Operating Revenue	**1,358,498,539.00**	**1,842,507,351.00**	**2,557,839,951.00**	**3,500,766,359.00**	**4,728,815,555.00**
Interest Expenses	517,166,241.00	632,609,264.00	1,012,874,353.00	1,572,790,306.00	2,535,875,552.00
Staff Expenses	86,118,226.00	157,957,084.00	186919870	226,364,009.00	293,130,567.00
Other Operating Expenses	177,545,649.00	233,766,645.00	292010522	352,511,231.00	383,112,054.00
Exchange Loss	-	-	-	**-**	-
Total Operating Expenses	**780,830,116.00**	**1,024,332,993.00**	**1,491,804,745.00**	**2,151,665,546.00**	**3,212,118,173.00**
Operating Expenses Ratio	**57.48**	**55.59**	**58.32**	**61.46**	**67.93**

b. Standard Chartered Bank Nepal Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Interest Income	1,411,981,867.00	1,591,195,526.00	1,887,221,257.00	2,042,109,322.00	2,718,698,856.00
Commission and Discounts	221,207,433.00	276,432,255.00	288,031,446	338,298,109.00	321,771,318.00
Other Operating Income	28,784,880.00	32,594,085.00	33,191,251	34,479,473.00	36,753,257.00
Exchange Income	309,086,504.00	345,653,020.00	427,468,313	458,564,032.00	387,133,774.00
Total Operating Revenue	**1,971,060,684.00**	**2,245,874,886.00**	**2,635,912,267.00**	**2,873,450,936.00**	**3,464,357,205.00**
Interest Expenses	413,055,152.00	471,729,700.00	543,786,600.00	575,740,660.00	1,003,100,293.00
Staff Expenses	199,778,473.00	225,256,195.00	253,055,504.00	312,964,286.00	365,986,423.00
Other Operating Expenses	228,450,604.00	230,571,409.00	276,326,674.00	295,304,522.00	305,215,112.00
Exchange Loss	-	-	-	**-**	-
Total Operating Expenses	**841,284,229.00**	**927,557,304.00**	**1,073,168,778.00**	**1,184,009,468.00**	**1,674,301,828.00**
Operating Expenses Ratio	**42.68**	**41.30**	**40.71**	**41.21**	**48.33**

c. Siddhartha Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Interest Income	481,523,807.00	729,872,484.00	1,265,582,131.00	2,018,291,813.00	2,690,294,141.00
Commission and Discounts	20,177,802.00	21,454,424.00	32,547,830	42,758,283.00	68,049,045.00
Other Operating Income	18,659,095.00	31,294,159.00	46,354,212	50,694,422.00	62,252,282.00
Exchange Income	14,245,653.00	27,487,389.00	38,682,163	12,167,702.00	38,689,741.00
Total Operating Revenue	**534,606,357.00**	**810,108,456.00**	**1,383,166,336.00**	**2,123,912,220.00**	**2,859,285,209.00**
Interest Expenses	271,710,950.00	408,188,955.00	813,619,042.00	1,406,489,572.00	1,925,243,099.00
Staff Expenses	33,620,506.00	48,247,208.00	79,384,785	103,680,178.00	155,803,411.00
Other Operating Expenses	55,721,156.00	71,480,863.00	114,816,885	175,735,300.00	265,477,124.00
Exchange Loss	-	-	-	-	-
Total Operating Expenses	**361,052,612.00**	**527,917,026.00**	**1,007,820,712.00**	**1,685,905,050.00**	**2,346,523,634.00**
Operating Expenses Ratio	**67.54**	**65.17**	**72.86**	**79.38**	**82.07**

d. Laxmi Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Interest Income	470,494,833.00	711,006,319.00	1,098,985,452.00	1,787,692,540.00	2,233,332,791.00
Commission and Discounts	15,156,901.00	20,943,463.00	29,634,632.00	46,866,912.00	67,795,886.00
Other Operating Income	15,710,023.00	25,482,082.00	70,917,293.00	60,031,631.00	69,514,877.00
Exchange Income	20,904,775.00	46,637,081.00	51,004,554.00	47,563,308.00	63,127,874.00
Total Operating Revenue	**522,266,532.00**	**804,068,945.00**	**1,250,541,931.00**	**1,942,154,391.00**	**2,433,771,428.00**
Interest Expenses	280,277,851.00	421,871,791.00	712,348,311.00	1,135,609,890.00	1,503,851,025.00
Staff Expenses	47,944,202.00	63,994,813.00	86,407,247.00	122,405,630.00	157,662,248.00
Other Operating Expenses	64,388,556.00	83,848,664.00	112,972,785.00	142,169,232.00	169,294,370.00
Exchange Loss	-	-	-	-	-
Total Operating Expenses	**392,610,609.00**	**569,715,268.00**	**911,728,343.00**	**1,400,184,752.00**	**1,830,807,643.00**
Operating Expenses Ratio	**75.17**	**70.85**	**72.91**	**72.09**	**75.23**

Annex 7
Calculation of Earning Per Employee of Everest Bank Ltd.

a. Everest Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Operating Income (Rs.)	577,668,423.00	818,174,358.00	1,066,035,206.00	1,349,100,813.00	1,516,697,382.00
Number of Employee	393	449	534	568	586
Earning Per Employee (Rs.)	**1,469,894.21**	**1,822,214.61**	**1,996,320.61**	**2,375,177.49**	**2,588,220.79**

b. Standard Chartered Bank Nepal Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Operating Income (Rs.)	1,129,776,455.00	1,318,317,582.00	1,562,743,489.00	1,689,441,468.00	1,790,055,377.00
Number of Employee	351	377	392	429	429
Earning Per Employee (Rs.)	**3,218,736.34**	**3,496,863.61**	**3,986,590.53**	**3,938,092.00**	**4,172,623.26**

c. Siddartha Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Operating Income (Rs.)	173,553,745.00	282,191,430.00	375,345,624.00	438,007,170.00	512,761,575.00
Number of Employee	79	116	168	329	375
Earning Per Employee (Rs.)	**2,196,882.85**	**2,432,684.74**	**2,234,200.14**	**1,331,328.78**	**1,367,364.20**

d. Laxmi Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Operating Income (Rs.)	129,655,923.00	234,353,677.00	338,813,588.00	541,969,639.00	602,963,785.00
Number of Employee	186	252	299	347	393
Earning Per Employee (Rs.)	**697,074.85**	**929,974.91**	**1,133,155.81**	**1,561,872.16**	**1,534,258.99**

Annex 8
Calculation of Return on Equity of Everest Bank Ltd.

a. Everest Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Profit After Tax	296,409,281.00	451,218,613.00	638,732,757.00	831,765,632.00	931,303,628.00
Shareholder's Equity	1,088,115,266.00	1,921,237,580.00	2,203,625,055.00	2,759,137,855.00	3,113,546,056.00
Return on Equity	27.24	23.49	28.99	30.15	29.91

b. Standard Chartered Bank Nepal Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Profit After Tax	691,668,064.00	818,921,008.00	1,025,114,536.00	1,085,871,694.00	1,119,171,286.00
Shareholder's Equity	2,116,353,361.00	2,492,547,996.00	2,586,486,530.00	3,369,709,444.00	3,677,777,062.00
Return on Equity	32.68	32.85	39.63	32.22	30.43

c. Siddhartha Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Profit After Tax	95,305,326.00	143,172,989.00	217,915,808.00	240,847,768.00	311,415,291.00
Shareholder's Equity	793,709,939.00	1,068,346,086.00	1,278,744,526.00	1,603,542,107.00	1,988,404,836.00
Return on Equity	12.01	13.40	17.04	15.02	15.66

d. Laxmi Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Profit After Tax	65,579,489.00	120,031,347.00	188,998,637.00	327,037,041.00	375,145,095.00
Shareholder's Equity	864,392,563.00	1,156,375,808.00	1,343,219,072.00	1,912,330,491.00	2,113,376,723.00
Return on Equity	7.59	10.38	14.07	17.10	17.75

Annex 9
Calculation of Return on Assets

a. Everest Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Income	296,409,281.00	451,218,613.00	638,732,757.00	831,765,632.00	931,303,628.00
Net Assets	21,432,574,300.00	27,149,342,884.00	36,916,848,654.00	41,382,760,711.00	46,236,212,262.00
Return on Assets	1.38	1.66	1.73	2.01	2.01

b. Standared Chartered Bank Nepal Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Income	691,668,064.00	818,921,008.00	1,025,114,536.00	1,085,871,694.00	1,119,171,286.00
Net Assets	28,596,689,451.00	33,335,788,326.00	40,066,570,593.00	40,213,319,926.00	43,810,519,664.00
Return on Assets	2.42	2.46	2.56	2.70	2.55

c. Siddhartha Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Income	95,305,326.00	143,172,989.00	217,915,808.00	240,847,768.00	311,415,291.00
Net Assets	7,954,664,475.00	11,668,355,950.00	17,881,750,137.00	22,802,429,300.00	24,405,872,049.00
Return on Assets	1.20	1.23	1.22	1.06	1.28

d. Laxmi Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Income	65,579,489.00	120,031,347.00	188,998,637.00	327,037,041.00	375,145,095.00
Net Assets	8,582,688,552.00	12,695,021,516.00	18,386,412,982.00	20,952,249,558.00	21,559,891,393.00
Return on Assets	0.76	0.95	1.03	1.56	1.74

Annex 10
Calculation of Net Profit Margin

a. Everest Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Income	296,409,281.00	451,218,613.00	638,732,757.00	831,765,632.00	931,303,628.00
Net Operating Revenue	1,358,498,539.00	1,842,507,351.00	2,557,839,951.00	3,500,766,359.00	4,728,815,555.00
Net Profit Margin	21.82	24.49	24.97	23.76	19.69

b. Standared Chartered Bank Nepal Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Income	691,668,064.00	818,921,008.00	1,025,114,536.00	1,085,871,694.00	1,119,171,286.00
Net Operating Revenue	1,971,060,684.00	2,245,874,886.00	2,635,912,267.00	2,873,450,936.00	3,464,357,205.00
Net Profit Margin	35.09	36.46	38.89	37.79	32.31

c. Siddhartha Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Income	95,305,326.00	143,172,989.00	217,915,808.00	240,847,768.00	311,415,291.00
Net Operating Revenue	534,606,357.00	810,108,456.00	1,383,166,336.00	2,123,912,220.00	2,859,285,209.00
Net Profit Margin	17.83	17.67	15.75	11.34	10.89

d. Laxmi Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Income	65,579,489.00	120,031,347.00	188,998,637.00	327,037,041.00	375,145,095.00
Net Operating Revenue	522,266,532.00	804,068,945.00	1,250,541,931.00	1,942,154,391.00	2,433,771,428.00
Net Profit Margin	12.56	14.93	15.11	16.84	15.41

Annex 11
Calculation of Loan to Deposit Ratio

a. Everest Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Loan and Advances	14,082,686,088.00	18,836,431,762.00	24,469,555,526.00	28,156,399,843.00	31,661,842,757.00
Total Deposit	18,186,253,541.00	23,976,298,535.00	33,322,946,246.00	36,932,310,008.00	41,127,914,339.00
Loan to Deposit Ratio	77.44	78.56	73.43	76.24	76.98

b. Standard Chartered Bank Nepal Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Loan and Advances	10,790,148,357.00	13,963,983,752.00	13,880,703,075.00	16,176,582,758.00	18,662,477,835.00
Total Deposit	24,647,020,755.00	29,743,998,794.00	35,350,823,711.00	35,182,721,454.00	37,999,242,310.00
Loan to Deposit Ratio	43.78	46.95	39.27	45.98	49.11

c. Siddhartha Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Loan and Advances	6,319,727,198.00	9,480,786,943.00	13,504,795,701.00	16,895,348,329.00	18,647,195,543.00
Total Deposit	6,625,078,506.00	10,191,440,970.00	15,854,798,403.00	20,197,029,402.00	21,575,653,982.00
Loan to Deposit Ratio	95.39	93.03	85.18	83.65	86.43

d. Laxmi Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Loan and Advances	6,529,239,211.00	9,794,438,354.00	13,463,349,018.00	14,736,405,493.00	15,389,472,466.00
Total Deposit	7,611,653,306.00	10,917,232,367.00	16,051,303,096.00	18,082,957,988.00	18,299,627,620.00
Loan to Deposit Ratio	85.78	89.72	83.88	81.49	84.10

Annex 12
Calculation of Cash & Equivalent to Total Assets Ratio

a. Everest Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Cash in Hand	534,996,791.00	822,989,425.00	944,695,793.00	1,091,500,407.00	1,048,998,721.00
Balance with NRB	1,178,198,197.00	1,080,914,554.00	4,787,163,541.00	5,624,113,849.00	4,706,320,590.00
Balance with Other Bank and FI	678,225,606.00	764,067,851.00	432,511,829.00	1,102,200,747.00	367,543,641.00
Money at Call & Short Notice	0.00	346,000,000.00	-	-	-
Total Cash & Equivalent	2,391,420,594.00	3,013,971,830.00	6,164,371,163.00	7,817,815,003.00	6,122,862,952.00
Tota Assets	21,432,574,300.00	27,149,342,884.00	36,916,848,654.00	41,382,760,711.00	46,236,212,262.00
Loan to Deposit Ratio	**11.16**	**11.10**	**16.70**	**18.89**	**13.24**

b. Standard Chartered Bank Nepal Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Cash in Hand	378,422,542.00	414,875,467.00	463,345,996.00	509,031,174.00	610,690,895.00
Balance with NRB	1,613,757,788.00	1,266,273,524.00	1,851,132,637.00	819,508,706.00	1,638,276,594.00
Balance with Other Bank and FI	28,840,738.00	369,094,223.00	822,684,902.00	600,766,640.00	726,827,789.00
Money at Call & Short Notice	1,761,151,500.00	2,197,537,600.00	2,055,549,000.00	1,669,460,000.00	4,280,888,000.00
Total Cash & Equivalent	3,782,172,568.00	4,247,780,814.00	5,192,712,535.00	3,598,766,520.00	7,256,683,278.00
Tota Assets	28,596,689,451.00	33,335,788,326.00	40,066,570,593.00	40,213,319,926.00	43,810,519,664.00
Loan to Deposit Ratio	**13.23**	**12.74**	**12.96**	**8.95**	**16.56**

c. Siddhartha Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Cash in Hand	130,442,580.00	149,006,950.00	270,945,787.00	326,868,203.00	491,249,342.00
Balance with NRB	380,563,747.00	270,219,328.00	984,981,288.00	1,027,465,065.00	1,222,411,894.00
Balance with Other Bank and FI	6,220,027.00	18,198,991.00	291,757,026.00	1,052,276,937.00	192,023,742.00
Money at Call & Short Notice	229,446,305.00	584,735,884.00	484,840,000.00	699,042,011.00	882,781,384.00
Total Cash & Equivalent	746,672,659.00	1,022,161,153.00	2,032,524,101.00	3,105,652,216.00	2,788,466,362.00
Tota Assets	7,954,664,475.00	11,668,355,950.00	17,881,750,137.00	22,802,429,300.00	24,405,872,049.00
Loan to Deposit Ratio	**9.39**	**8.76**	**11.37**	**13.62**	**11.43**

d. Laxmi Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Cash in Hand	119,437,325.00	267,932,363.00	211,721,472.00	244,205,091.00	356,669,236.00
Balance with NRB	323,697,613.00	720,394,571.00	1,243,649,202.00	1,219,716,716.00	1,866,490,707.00
Balance with Other Bank and FI	26,587,195.00	249,833,920.00	377,407,049.00	376,782,432.00	551,432,373.00
Money at Call & Short Notice	13,028,000.00	251,737,774.00	405,700,000.00	904,377,086.00	50,000,000.00
Total Cash & Equivalent	482,750,133.00	1,489,898,628.00	2,238,477,723.00	2,745,081,325.00	2,824,592,316.00
Tota Assets	8,582,688,552.00	12,695,021,516.00	18,386,412,982.00	20,952,249,558.00	21,559,891,393.00
Loan to Deposit Ratio	**5.62**	**11.74**	**12.17**	**13.10**	**13.10**

Annex 13
Calculation of Cash & Equivalent to Total Deposit Ratio of Everest Bank Ltd.

a. Everest Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Cash in Hand	534,996,791.00	822,989,425.00	944,695,793.00	1,091,500,407.00	1,048,998,721.00
Balance with NRB	1,178,198,197.00	1,080,914,554.00	4,787,163,541.00	5,624,113,849.00	4,706,320,590.00
Balance with Other Bank and FI	678,225,606.00	764,067,851.00	432,511,829.00	1,102,200,747.00	367,543,641.00
Money at Call & Short Notice	-	346,000,000.00	-	-	-
Total Cash & Equivalent	2,391,420,594.00	3,013,971,830.00	6,164,371,163.00	7,817,815,003.00	6,122,862,952.00
Tota Deposit	18,186,253,541.00	23,976,298,535.00	33,322,946,246.00	36,932,310,008.00	41,127,914,339.00
Loan to Deposit Ratio	**13.15**	**12.57**	**18.50**	**21.17**	**14.89**

b. Standard Chartered Bank Nepal Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Cash in Hand	378,422,542.00	414,875,467.00	463,345,996.00	509,031,174.00	610,690,895.00
Balance with NRB	1,613,757,788.00	1,266,273,524.00	1,851,132,637.00	819,508,706.00	1,638,276,594.00
Balance with Other Bank and FI	28,840,738.00	369,094,223.00	22,684,902.00	600,766,640.00	726,827,789.00
Money at Call & Short Notice	1,761,151,500.00	2,197,537,600.00	2,055,549,000.00	1,669,460,000.00	4,280,888,000.00
Total Cash & Equivalent	3,782,172,568.00	4,247,780,814.00	5,192,712,535.00	3,598,766,520.00	7,256,683,278.00
Tota Deposit	24,647,020,755.00	29,743,998,794.00	35,350,823,711.00	35,182,721,454.00	37,999,242,310.00
Loan to Deposit Ratio	**15.35**	**14.28**	**14.69**	**10.23**	**19.10**

c. Siddhartha Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Cash in Hand	130,442,580.00	149,006,950.00	270,945,787.00	326,868,203.00	491,249,342.00
Balance with NRB	380,563,747.00	270,219,328.00	984,981,288.00	1,027,465,065.00	1,222,411,894.00
Balance with Other Bank and FI	6,220,027.00	18,198,991.00	291,757,026.00	1,052,276,937.00	192,023,742.00
Money at Call & Short Notice	229,446,305.00	584,735,884.00	484,840,000.00	699,042,011.00	882,781,384.00
Total Cash & Equivalent	746,672,659.00	1,022,161,153.00	2,032,524,101.00	3,105,652,216.00	2,788,466,362.00
Tota Deposit	6,625,078,506.00	10,191,440,970.00	15,854,798,403.00	20,197,029,402.00	21,575,653,982.00
Loan to Deposit Ratio	**11.27**	**10.03**	**12.82**	**15.38**	**12.92**

d. Laxmi Bank Ltd.

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Cash in Hand	119,437,325.00	267,932,363.00	211,721,472.00	244,205,091.00	356,669,236.00
Balance with NRB	323,697,613.00	720,394,571.00	1,243,649,202.00	1,219,716,716.00	1,866,490,707.00
Balance with Other Bank and FI	26,587,195.00	249,833,920.00	377,407,049.00	376,782,432.00	551,432,373.00
Money at Call & Short Notice	13,028,000.00	251,737,774.00	405,700,000.00	904,377,086.00	50,000,000.00
Total Cash & Equivalent	482,750,133.00	1,489,898,628.00	2,238,477,723.00	2,745,081,325.00	2,824,592,316.00
Tota Deposit	7,611,653,306.00	10,917,232,367.00	16,051,303,096.00	18,082,957,988.00	18,299,627,620.00
Loan to Deposit Ratio	**6.34**	**13.65**	**13.95**	**15.18**	**15.44**

Annex 14
Calculation of Comparative Total Capital Ratio

a. Joint Venture Banks

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Capital of JVBs	3,901,400,000.00	5,061,333,000.00	5,894,237,000.00	6,787,634,000.00	7,441,432,000.00
Total Risk Weighted Assets of JVBs	29,145,157,035.00	40,009,732,751.00	47,322,917,000.00	54,425,013,000.00	61,557,889,000.00
Total Capital Ratio of JVBs	**13.39**	**12.65**	**12.46**	**12.47**	**12.09**

b. Non Joint Venture Banks

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Capital of NJVBs	1,568,493,774.00	2,339,081,419.00	3,346,630,202.00	4,226,865,249.00	4,670,660,451.00
Total Risk Weighted Assets of NJVBs	14,713,793,495.00	21,758,124,164.00	30,207,458,534.00	36,198,426,516.00	41,646,164,742.00
Total Capital Ratio of NJVBs	10.66	10.75	11.08	11.68	11.22

Annex 15
Calculation of Comparative Non-Performing Loan Ratio

a. Joint Venture Banks

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Non Performing Assets	310,196,089.00	256,030,150.00	209,026,888.00	223,696,199.00	224,205,464.00
Total Loan & Advances	24,872,834,445.00	32,800,415,514.00	38,350,258,601.00	44,332,982,601.00	50,324,320,592.00
NPL Ratio of JVBs	1.25	0.78	0.55	0.50	0.45

b. Non Joint Venture Banks

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Non Performing Assets	44,562,676.00	77,908,407.00	71,093,148.00	208,193,819.00	286,580,759.00
Total Loan & Advances	12,848,966,409.00	19,275,225,297.00	26,968,144,719.00	31,631,753,822.00	34,036,668,009.00
NPL Ratio of NJVBs	0.35	0.40	0.26	0.66	0.84

Annex 16
Calculation of Comparative Operating Expenses Ratio

a. Joint Venture Banks

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Operating Revenue of JVBs	3,329,559,223.00	4,088,382,237.00	5,193,752,218.00	6,374,217,295.00	8,193,172,760.00
Total Operating Expenses of JVBs	1,622,114,345.00	1,951,890,297.00	2,564,973,523.00	3,335,675,014.00	4,886,420,001.00
Operating Expenses Ratio of JVBs	48.72	47.74	49.39	52.33	59.64

b. Non-Joint Venture Banks

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Operating Revenue of NJVBs	1,056,872,889.00	1,614,177,401.00	2,633,708,267.00	4,066,066,611.00	5,293,056,637.00
Total Operating Expenses of NJVBs	753,663,221.00	1,097,632,294.00	1,919,549,055.00	3,086,089,802.00	4,177,331,277.00
Operating Expenses Ratio of NJVBs	71.31	68.00	72.88	75.90	78.92

Annex 17
Calculation of Comparative Return on Assets

a. Joint Venture Banks

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Income of JVBs	988,077,345.00	1,270,139,621.00	1,663,847,293.00	1,917,637,326.00	2,050,474,914.00
Net Assets of JVBs	50,029,263,751.00	60,485,131,210.00	76,983,419,247.00	81,596,080,637.00	90,046,731,926.00
Return on Assets of JVBs	1.97	2.10	2.16	2.35	2.28

b. Non Joint Venture Banks

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Net Income of NJVBs	160,884,815.00	263,204,336.00	406,914,445.00	567,884,809.00	686,560,386.00
Net Assets of NJVBs	16,537,353,027.00	24,363,377,466.00	36,268,163,119.00	43,754,678,858.00	45,965,763,442.00
Return on Assets of NJVBs	0.97	1.08	1.12	1.30	1.49

Annex 18
Calculation of Comparative Loan to Deposit Ratio

a. Joint Venture Banks

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Loan and Advances of JVBs	24,872,834,445.00	32,800,415,514.00	38,350,258,601.00	44,332,982,601.00	50,324,320,592.00
Total Deposit of JVBs	42,833,274,296.00	53,720,297,329.00	68,673,769,957.00	72,115,031,462.00	79,127,156,649.00
Loan to Deposit Ratio of JVBs	58.07	61.06	55.84	61.48	63.60

b. Non Joint Venture Banks

Year	2063/64	2064/65	2065/66	2066/67	2067/68
Total Loan and Advances	12,848,966,409.00	19,275,225,297.00	26,968,144,719.00	31,631,753,822.00	34,036,668,009.00
Total Deposit of NJVBs	14,236,731,812.00	21,108,673,337.00	31,906,101,499.00	38,279,987,390.00	39,875,281,602.00
Loan to Deposit Ratio of NJVBs	90.25	91.31	84.52	82.63	85.36