

CHAPTER - I

INTRODUCTION

1.1 Background

In an economy, the importance of the financial sector in general and banking sector in particular cannot be undermined. A strong, well functioning financial sector is crucial for any economy - be it industrial, emerging market or even developing. Banks and financial institutions are the backbone of the economy. Banking sector definitely plays a pivotal role in the overall development of the economy. It plays a very important role in the development of all sectors of the economy and actually works as a lubricator by providing financial resources. The financial sector bridges between demand and supply of funds and intermediates between surplus unit and deficit units. It provides different avenues to savers to invest their savings in financial products and services as per their needs and makes funds available to borrowers/investors in the most competitive prices. The financial sector plays an intermediary functions, such as channeling funds from saver to investors, providing a payment system for transactions, and distributing risks across space and time to those best able to bear them. Sound and healthy financial sector makes proper use of available resources and ensures that the resources are geared towards the economic development of the country.

Due to the importance of banking sector in the economy, it is important to analyze to what extent the position and performance of the banking sector has been strengthened and how well they are performing according to the national goals for economic development laid down to this sector. Government of any countries highly monitors and controls the finance industry even in the liberalized market economy. Government does so due to its high gravity in the national economy, and to build up the confidence of private sector in its financial system. Nepal Rastra Bank (NRB) as an apex monetary authority of the country started to monitor and control the finance industry especially at the end of the 1990s by issuing the directives to the financial institutions (FIs). It initiated the offsite and onsite supervision of financial institutions 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.

Not only the commercial banks but also any financial institutions require regular performance check up to maintain the confidence of private sector in the financial system of the country and protect the interest of depositors, lenders, shareholders and other stakeholders. The gravity of the importance of sound financial sector has increased tremendously especially since the international financial turmoil that had happened in the second half of the decade of the nineties. International financial institutions like the World Bank and international monetary authorities such as International Monetary Fund have underpinned the need of healthy financial sector to build up the confidence of private sector in the liberalized financial system. Therefore, they have directed their member countries to reform the financial sector and conduct the regular health check up of financial institutions through onsite and offsite supervision. International financial institutions like the World Bank and Asian Development Bank (ADB) are supporting the projects run in the vein of reforming process of the financial sector of different countries. For example, the World Bank is constantly providing the technical and financial support to reengineer Nepal Rastra Bank (NRB) and restructure Nepal Bank Limited and Rastriya Banijya Bank Limited.

Health of financial sector depends on the health of individual financial institutions. In addition, individual financial institution's health counts on the myriad macro and micro factors. Among the macro factors, political stability and the real sector growth are vital. The financial health of financial institution cannot sustain without the political stability and sustainable real sector growth with sound health. However, the intensity of contagious effect of these macro variables may vary from one individual financial institution to another. Therefore, health of individual financial institution should be checked up regularly to know the intensity of such effect.

Health of an individual financial institution is a function of multiple factors such as quality of its assets, liquidity position, capital base, management quality, market

sensitivity and earnings. All these factors affect the different types of risk to an individual financial institution. Different types of risks: credit risk, liquidity risk, interest rate risk, market risk, foreign exchange risk, technology, sovereign risk, insolvency risk, operational risk, affect the health of an individual financial institution adversely if they are not managed in sustainable manner (Saunders and Cornett, 2004). A number of factors such as quality of assets, financial market condition, foreign exchange market, composition of assets, financial health of its clients, profitability, capital adequacy, affect the degree of these risks. Financial performance check-up of an individual institution should be made regularly to detect the adverse effect of these risks on its health. Micro-prudential indicators such as capital adequacy, asset quality, management soundness, earning and profitability, liquidity, sensitivity to market risk, and market based indicators like market price of financial instruments, credit ratings are used as indicators of the sound health of an individual FI (Evan, 2000).

1.2 Background of the Nepalese Banking System

Before the establishment of Nepal Bank Limited as the first banking institution in Nepal, several monetary and banking authorities such as “Kausi Tosha Khana”, “Tejarath Adda”, “Saddar Mulukikhana Adda” existed. In context to Nepal, jeweler, merchants and moneylenders were the ancient bankers of Nepal. However, in 1876, Tejarath Adda was established during the Tenure of P.M. Ranoddip Singh. It was the first step towards the institutional development of banking in Nepal. It didn't collect deposits from the public but gave loans to employees and public against bullion.

The real history of formal banking system in Nepal began with the establishment of Nepal Bank Limited, not only as the first commercial bank but also as the first banking institution, in the Year 1937 A.D., under the semi-ownership of government along with general public and private participation. The government owned 51 percent of the shares in the bank and controlled its operations to a large extent. Nepal Bank Limited was headquartered in Kathmandu and had branches in other parts of the country as well. The Nepal Bank Limited was the only banking institution in Nepal with single coverage over the Nepalese banking system prior to the establishment of Nepal Rastra Bank in 1956

A.D as the Central Bank of the country. Nepal Rastra Bank (NRB) was established after 19 years since the establishment of the first commercial bank (i.e., NBL), the function of which was principally the supervision of commercial banks and for guiding the monetary policy of the country. Its major focus was on regulating the issue of paper money; securing widespread circulation of the Nepalese Rupee all over the country and for achieving stability in the country's exchange rate regime. Beside it enabled the mobilization of capital for economic development and for trade and industry. It also undertook the function of development of the banking system in the country, thereby ensuring that existed even in the remotest part of the country and for maintaining the economic interests of the general public. Nepal Rastra Bank also monitored the foreign exchange rates and the country's foreign exchange reserves on a continuous basis.

After the establishment of NRB, Nepal witnessed a systematic development of the financial system. A decade after the establishment of NRB, Rastriya Banijya Bank (RBB), a commercial bank under the ownership of Nepal Government was established in 1966 A.D. the state had total controlling stake in RBB. These two commercial banks (Nepal Bank Limited and Rastriya Banijya Bank) were the pioneers of the Nepalese Banking Industry. These two banks competing in the commercial banking extended their banking operations, activities and branches throughout the country. These two banks had the largest network and they have their operations even in remote areas of the country. As the financial market was barred for private sectors till the mid 1980's, these two banks were the only two players in the banking industry.

Till the early 1980s, the financial sector was not opened up for private sectors. It was in the year 1984, when the Nepal Government, after a lot of deliberation threw open the banking sector to the private players. The economic reforms initiated by the Government in mid-1980s have changed the landscape of several sectors of the Nepalese economy and the banking industry was no exception. In the context of banking development in Nepal, the 1980s saw a major structural change in financial sector policies, regulations and institutional developments. Nepal Government emphasized the role of the private sector for the investment in the financial sector. These policies opened the doors for foreigners

to enter into banking sector under joint venture. As a result of this policy, large number of banks and financial institutions mushroomed across the country. Under this policy, Nepal Government first opened up the banking sector to foreign investors. The opening up of the financial market to foreign joint venture banks in the mid-80s, ending the monopoly of the two state-owned banks (one fully and other partially), namely Rastriya Banijya Bank (RBB) and Nepal Bank Ltd. (NBL), is a notable step after which a number of private and foreign affiliated joint venture banks emerged. The first phase of the financial sector reform was initiated in Nepal under the liberal economic policy of Nepal Government in the mid-1980s. Under this policy, the Government of Nepal first opened up the banking sector to the foreign investors and in 1984, the third commercial bank in Nepal or the first foreign joint venture bank was set up as the Nepal Arab Bank Limited (presently known as Nabil Bank limited) was established. The Nepal Arab Bank was co-owned by the Emirates Bank International Limited (Dubai), the Nepalese government, and the Nepalese public. The establishment of this joint venture brought foreign investment in the banking industry and modern banking practices and technical skills. Subsequently after the establishment of Arab Bank, another bank namely Nepal Indosuez Bank Limited, in a joint venture with Credit Agricola Indosuez, France was established in the year 1986. The bank is presently known as Nepal Investment Bank Limited.

Nepal Grindlays Bank Limited (now called Standard Chartered Bank Nepal Limited) was established in the year 1987, as a joint venture commercial bank. The banking operations of these three foreign commercial banks helped the economy to get the most modern of banking services thereby increasing the competitive environment in the banking sector in Nepal especially in the Kathmandu Valley where about 50 percent of the economic activities of the country generally transpired. Since then there has been a tremendous growth in the number of financial institutions in Nepal.

Commercial banks in Nepal were allowed for the first time in July 1985, to accept current and fixed deposits in foreign currencies (U.S. dollar and sterling pound) in accounts maintained with them. The interest rates of commercial banks before May 26, 1986 were totally controlled by the Nepal Rastra Bank (NRB) which happened to be the Central

Bank of the country. The NRB on May 26, 1986 deregulated the interest rate regime in Nepal by authorizing commercial banks to fix interest rates at any level above certain prescribed levels. Such bold steps taken by NRB had a far reaching impact on the development of the financial sector of Nepal as evidenced by its growth in assets and banking activities.

NRB strengthened its regulation and supervision of banking and financial institutions. Commercial banks were required to increase their capital adequacy ratio (CAR) gradually. They were required to maintain CAR of 2.5 percent by mid-July 1989 and three percent in mid-July 1990.

Since the restoration of democracy, the Democratic Government under its open and liberal economic policy gave more emphasis on the liberalization of the financial sector of the country. Resultantly, the financial sector in Nepal grew rapidly since the 1990s. However, the number of banking and non-banking financial institutions has increased drastically since then. There were five commercial banks, two development banks, two insurance companies, and a few other financial and quasi-financial institutions till mid-July 1990. There were 11 commercial banks, two development banks, Regional Rural Development Banks (RRDBs), 44 finance companies, two insurance companies, 29 saving and credit co-operative societies and 30 NGOs licensed by NRB and few other financial and quasi-financial institutions as on mid-July 2000. There has been a tremendous increase in the volume of financial transactions and financial markets as well.

The commitments of Nepal Government in the financial sector liberalization gave the needed boost in the confidence of the private sector for the establishment of commercial banks in the private sector. The Himalayan Bank Limited and Nepal SBI Bank Limited were established in 1993 and Nepal Bangladesh Bank Limited and Everest Bank Limited in 1994. All of them were established as joint venture commercial banks. The Nepal Housing Development Finance Company was established in the public sector as the first finance company under the Finance Company Act 1986. Soon after the establishment of the first finance company, five finance companies were established in the private sector

in 1993. The rural development banks were established in five development regions to provide micro-finance services to the poor and the ultra-poor women. To provide limited banking services in the un-banked rural areas, saving and credit co-operative societies started to get operating licenses from NRB since 1993 and by 1995, there were 10 such financial institutions. Even the NGO's got licenses for micro-credit operations in 1994 and within two years' period, 30 NGOs got operating licenses to undertake limited banking transactions. The separate act for development banks was felt necessary and it was enacted in 1996.

The establishment of finance companies not only improved competitions in the deposit and credit services, they also helped in the capital market through listing their shares. Their shares are being traded along with the shares of commercial banks. They have been providing merchant banking services such as underwriters and market makers. NRB further liberalized the restrictive measures for providing banking and non-banking financial institutions and especially development banks and finance companies more freedom in their business operations. The commercial banks were required to increase CAR to 3.5 percent at mid-July 1991 and four percent at mid-July 1992. The credit ceiling was removed in 1991 except for government and non-financial government enterprises under the policy of indirect monetary control. NRB laid more emphasis on open market operations as main monetary policy instrument (Nepal Rastra Bank, 1996).

Under this financial sector reforms, three joint venture commercial banks were established and they started to provide modern banking services to their customers. They started to compete with Nepal Bank Limited (NBL) and Rastriya Banijya Bank (RBB), one fully owned and another 51 percent owned by Nepal Government and among them to provide modern and efficient banking services. As a result, they attracted more of the good clients/customers (depositors and borrowers) of the RBB and NBL. The two public banks were ailing even before the establishment of the joint venture commercial banks. In mid-January 2009, the number of commercial banks reached to 25. There were 59 development banks and five regional rural development banks. There were 78 financial companies, 12 micro-credit development banks, 16 saving and credit co-operatives and

45 NGOs licensed by NRB for limited banking operations in the country. The capital market increased due to listing the shares of commercial banks and finance companies. Further, the number of commercial banks is 25 based on the applications for establishment of new banks as well as for the up-gradation of other financial institutions; the number is likely to grow in the near future as well.

Table 1.1
List of Commercial Banks Operating in Nepal

| S.N. | Name of Bank | Operation Date (A.D.) | Head Office |
|-------------|--|----------------------------------|-----------------------------|
| 1 | Nepal Bank Limited | 11/15/1937 | Dharmapath, Kathmandu |
| 2 | Rastriya Banijya Bank Ltd. | 01/23/1966 | Singhdarbarplaza, Kathmandu |
| 3 | NABIL Bank Ltd. | 07/01/1984 | Kantipath, Kathmandu |
| 4 | Nepal Investment Bank Ltd. | 02/27/1986 | Durbar Marg, Kathmandu |
| 5 | Standard Chartered Bank Nepal Ltd. | 01/30/1987 | Naya Baneshwar, Kathmandu |
| 6 | Himalayan Bank Ltd. | 01/18/1993 | Thamel, Kathmandu. |
| 7 | Nepal SBI Bank Limited | 07/07/1993 | Hattisar, Kathmandu. |
| 8 | Nepal Bangladesh Bank Limited | 06/05/1993 | Naya Baneshwar, Kathmandu |
| 9 | Everest Bank Limited | 10/18/1994 | Lazimpat, Kathmandu. |
| 10 | Bank of Kathmandu Limited | 03/12/1995 | Kamaladi, Kathmandu. |
| 11 | Nepal Credit and Commerce Bank Limited | 10/14/1996 | Siddharthanagar, Rupandehi. |
| 12 | Lumbini Bank Limited | 07/17/1998 | Narayangadh, Chitawan. |
| 13 | Nepal Industrial and Commercial Bank Limited | 07/21/1998 | Biratnagar, Morang. |
| 14 | Machhapuchhre Bank Limited | 10/03/2000 | Prithivichowk, Pokhara. |
| 15 | Kumari Bank Limited | 04/03/2001 | Putalisadak, Kathmandu. |
| 16 | Laxmi Bank Limited | 04/03/2002 | Adarshanagar, Birgunj. |
| 17 | Siddhartha Bank Limited | 12/24/2002 | Kamaladi, Kathmandu |
| 18 | Agricultural Development Bank of Nepal | 03/16/2006. | Ramshahapath, Kathmandu. |
| 19 | Global Bank Ltd. | 01/02/2007 | Birgunj, Parsa |
| 20 | Citizens Bank Ltd. | 06/21/2007 | Kamaladi, Kathmandu |
| 21 | Prime Commercial Bank Ltd. | 09/24/2007 | New Road, Kathmandu |
| 22 | Sunrise Bank Ltd. | 10/12/2007 | Gairidhara, Kathmandu |
| 23 | Bank of Asia Nepal Ltd. | 10/12/2007 | Tripureshwor, Kathmandu |
| 24 | Development Credit Bank Ltd. | 01/23/2001 | Kamaladi, Kathmandu |
| 25 | NMB Bank Ltd. | 11/26/1996 | Babarmahal, Kathmandu |

Source: NRB, Banking & Financial Statistics, Mid-July 2008

The commercial bank in Nepal possesses very unique features. On the basis of ownership, the commercial banks in Nepal can be broadly classified into two categories: Public Banks and Private Banks. The banks whose majority of the shares are held and controlled by the Government/State are labeled as Public Banks while on the other hand the banks that are owned and controlled by the private sector are termed as Private Banks. The private commercial banks can be further sub grouped into Local Private Banks (Domestic Banks) and Joint Venture Banks. The banks with the domestic private investment are called Local Private Banks while the banks formed with the investment of private investment along with foreign (international) investment are called Joint Venture Banks.

In Nepal, there are 26 commercial banks currently in operation (including KIST), out of which 3 belong to the public sector and the remaining 23 belong to the private sector. Among the 23 private banks, seven are joint venture in nature (See Table 1.3 and 1.4). All these banks work under Commercial Banking Act 1974, getting operating license and approval from the NRB and adhering with the related laws, rules and regulations, policies, provisions, procedures as well as sectoral targets. The entry of joint-venture investment have expanded the commercial banking network, operations and activities and increased competition in the Banking industry of Nepal. The financial health of the public banks was very poor and thus a reform program was initiated in these two banks under the Financial Sector Reform Project (FSRP) with the aid of World Bank. Despite their poor and declining performance, they still have dominated the commercial banking sector due to their historically established wide and stabilized network and operations throughout the country.

Figure 1.1

Pattern of Ownership of Commercial Banks

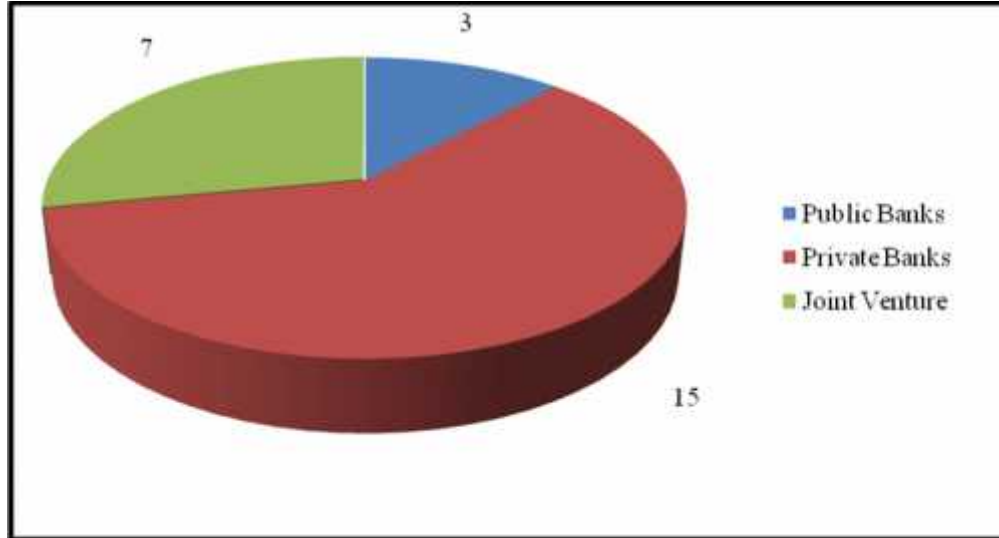


Table 1.2

Position of Capital Structure of Public Sector Commercial Banks in Nepal

| Name of Commercial Bank | Pattern of Ownership | Participating foreign Bank and Financial Institutions |
|--|------------------------------------|--|
| Nepal Bank Ltd. | Government - 49% Nepalese – 51% | - |
| Rastriya Banijya Bank | Government - 100% | - |
| Agricultural Development Bank of Nepal | Government -100% | - |

Source: NRB, Banking and Financial Statistics, Mid January 2009

Table 1.3**Position of Capital Structure of Foreign Joint Venture Commercial Banks in Nepal**

| Name of Commercial Bank | Pattern of Ownership | Participating foreign Bank and Financial Institutions |
|------------------------------------|---|--|
| Nabil Bank Ltd. | Nepalese - 50% Foreign Joint Venture – 50% | NB International, Ireland. |
| Standard Chartered Bank Nepal Ltd. | Nepalese - 25% Foreign Joint Venture – 75% | Standard Chartered Group. |
| Himalayan Bank Ltd. | Nepalese - 80% Foreign Joint Venture – 20% | Habib Bank Ltd., Pakistan. |
| Nepal SBI Bank Ltd. | Nepalese- 50% Foreign Joint Venture – 50% | State Bank of India, India. |
| Nepal Bangladesh Bank Ltd. | Nepalese - 75% Foreign Joint Venture – 25% | IFIC, Bangladesh. |
| Everest Bank Ltd. | Nepalese - 80% Foreign Joint Venture – 20% | Punjab National Bank, India. |
| Nepal Merchant Bank Ltd. | Nepalese -85% Foreign Joint Venture -15% | Yong Lian Realty SDN BHD of Malaysia |

Source: NRB, Bank and Financial Institution Department, 2009

Table 1.4**Position of Capital Structure of Domestic Commercial Banks in Nepal**

| Name of Commercial Bank | Pattern of Ownership |
|---|-----------------------------|
| Nepal Investment Bank Ltd. | Nepalese - 100% |
| Bank of Kathmandu Ltd. | Nepalese - 100% |
| Nepal Credit and Commerce Bank Ltd. | Nepalese - 100% |
| Nepal Industrial and Commercial Bank Ltd. | Nepalese - 100% |
| Lumbini Bank Ltd. | Nepalese - 100% |
| Machhapuchere Bank Ltd. | Nepalese - 100% |
| Kumari Bank Ltd. | Nepalese - 100% |
| Laxmi Bank Ltd. | Nepalese - 100% |
| Siddratha Bank Ltd. | Nepalese - 100% |
| Global Bank Ltd. | Nepalese - 100% |
| Citizens Bank Ltd. | Nepalese - 100% |
| Prime Commercial Bank Ltd. | Nepalese - 100% |
| Sunrise Bank Ltd. | Nepalese - 100% |
| Bank of Asia Nepal Ltd. | Nepalese - 100% |

Source: NRB, Banking and Financial Statistics, Mid January 2009

1.3 Focus of the Study

Financial Management is that managerial activity which is concerned with planning and controlling of the firm's financial resources. Evaluation of financial performance is a study of overall position of any organization. It is closely related to the decision making. In modern context, it gives vital support for the investment decisions, financing decisions and dividend decisions. Financial performance analysis is undergone with the help of periodically made financial statements of the firm.

Keeping in light the importance of the banking system in the economy, it is important to analyze to what extent the position and performance of the banking sector has been strengthened and how well they are performing according to the national goals for economic development laid down to this sector. The primary focus of the present research is to evaluate empirically the financial performance of the commercial banks of Nepal dividing into three categories, i.e. public sector, domestic commercial banks and foreign joint venture banks. Using the data set published by the commercial banks in their annual reports and NRB in its supervision annual reports and banking and financial statistics, this paper examines the financial health of the different sub groups of Nepalese commercial banks in the CAMEL (Capital, Assets Quality, Management Quality, Earnings, Liquidity) framework.

1.4 Statement of the Problem

In view of the afore mentioned deposition about the performance of commercial banks and with a view to assess their performance from year based on relatives, the following questions are proposed to be addressed in the course of this research study.

1. How are the Commercial Banks performing in Nepal?
2. Are the performances of commercial banks of Nepal equal, under the same working environment?
3. How efficiently are the commercial banks of Nepal utilizing their assets?

4. Do the investors consider the firm's profitability safe for investing their money in the share of the bank?
5. Are the Commercial Banks in Nepal meeting the statutory minimum capital adequacy requirement as directed by the Central Bank of Nepal (NRB)?

1.5 Objective of the Study

The principle objective of this research is to examine, discuss and evaluate the financial performance of the commercial banks of Nepal. Therefore, to attain the mentioned objective, following specific objectives have been set:

-) To assess the performance of commercial banks in Nepal.
-) To examine the trend of operations and performance.

Thus, the objective sought to be addressed in the study would cover overall ratios to be classified and analyze the study.

To obtain the above mentioned objectives, the following hypothesis has been set out.

1. All the sub group of commercial banks in Nepal, namely Public Sector Banks, Domestic Banks and Foreign Joint Venture Banks, operating in Nepal under the same working environment are equally profitable.
2. With regard to management operation of the banking business, all the sub groups of the Nepalese Commercial Banks are equally risk lovers.

The attitude towards risk is measured in terms of the following criteria, Liquidity risk, Capital risk, Credit Risk.

1.6 Significance of the Study

The study is limited to assessing the parameter of commercial banks in Nepal in respect of the research variables proposed to be explored during the course of the research and such may not lend itself to universal applicability to banks in other parts of the world. However, for nascent and emerging economies, it may prove to be an indicative channel. The study when complete would serve as a guide to commercial banks in Nepal to focus

on such parameter of performance as were studied during the process of the research in order to improve the overall levels, quality, magnitude and directions of performance and improvements in them.

1.7 Limitations of the Study

The research is limited in respect of availability of short span of time for completion of the research and in view of this constraints, the research study has been limited to one involving a broad based approach of assessing the macro parameter of performance of banks in Nepal and for suggesting improvement therein.

In addition, the research for evaluating the performance measures of commercial banks has been conducted under the following limited factors:

1. The study is mainly based on secondary data. So, the result depends on the availability and reliability of the secondary data.
2. The study is confined for a time span of five years i.e. 2004 to 2008.
3. The other limitation was non-availability of up-to-date data and information. The non-availability of data limited the scope of analysis to the maximum extent.
4. Inadequacy of data and lack of homogeneity in the data was another limitation that came across during the research. Data and figures published by different sources differ from each other. Figures published by the central bank and the respective sampled commercial banks do not tally sometimes. Because of this, the total in many places is not equal.

1.8 Organization of the Study

This study will be organized into five chapters which are as follows:

Chapter – I Introduction

Chapter one includes the introduction and general background of the study, focus of the study, statement of the problem, objectives of the study, significance of the study and limitation of the study.

Chapter – II Review of Literature

Chapter two includes review of literature. In this chapter, the review from books, journals, thesis and independent studies are taken into account.

Chapter – III Research Methodology

Chapter three describes the methodology aspect of the study. It includes the research design, data collection procedures, tools for analysis, method of analysis and presentation.

Chapter – IV Presentation and Analysis of Data

Chapter four incorporates the main body of study i.e. data presentation and analysis. This chapter highlights the objective data presentation, analysis and interpretation. Major findings of the study are also presented in this chapter.

Chapter – V Summary, Conclusion and Recommendations

Chapter five includes the summary and conclusion of the research. And finally suggestions and recommendation are given.

CHAPTER - II

REVIEW OF LITERATURE

2.1 Industry/Organizational/Population Background & Perspectives

Bank simply refers to an institution, which deals with money by accepting various types of deposit, disbursing loan and rendering other financial services. Since banks are rendering a wide range of services to the people of different walks of life, they have become an essential part of the modern society.

As per banking regulation act of India- “Banking means the accepting for the purpose of lending or investment of deposit of money from the public repayable on demand or otherwise, and withdraw able by cheque, draft or otherwise”

As per U.S. Law- “Any institution offering deposits subject to withdrawal on demand and making loans of a commercial or business nature is a bank”.

Nepalese commercial banking sector comprises all those banking institutions included in the commercial banking activities. Though today the other banking and financial institutions, mainly branches of Agricultural development Bank of Nepal (ADB/N) are permitted to commercial banking activities to some extent, generally they have some clearly defined, specialized area of functioning.

The financial reforms initiated by the government in the mid 1980’s have changed the landscape of various sectors of the economy and the banking sector was no exception. In the case of Nepalese Banking sector, many banking and other sectors of the economy had undergone into major changes in the competitive business environment after the liberalization process. Prior to the liberalization process, many organizations were either owned by the government or operating in a highly regulated and least competitive environment. There was no pressure on these organizations to improve the quality and efficiency of its operations or by eliminating services that were making losses. The public

sector enterprises were getting direct subsidies and provisions from the government for equalizing their operational losses.

Privatization of some of the state owned banks and deregulation in the 1980's changed the competitive business environment in Nepal. Large number of joint venture commercial banks and development banks were established and the process is being continued.

Despite the slowdown in the Nepalese economy due to decline in the agricultural production, political instability and conflict in the country, there has been a significant growth in the number of financial institutions in the country. The growth of Commercial Banks in Nepal in the last two decades remained phenomenal, particularly after the 1990 when financial sector reform process was followed aggressively. There were only 2 Commercial Banks operating in the country till the mid-July 1980, which increased to 5 by 1990, 18 by mid-July 2006, including Agricultural Development Bank of Nepal and increased to 25 by mid-January 2009.

The number of commercial bank branches reached to 481 in 1989/99 but declined to 375 as at mid-July 2005 mainly due to closure and merger of bank branches owing to security reasons, following the intensification of internal conflicts. However the year 2005/2006 witnessed a rise in bank branches to 390 as at mid-July 2006. In addition there were 47 branches of Agricultural Development Bank of Nepal (ADB/N) performing commercial banking transactions. Further, due to the establishment of more commercial banks in Nepal it reached to 617 bank branches as at mid-January 2009. However the financial facilities provided by the commercial banks were largely been concentrated in the Central Development Region of the country were 302 bank branches operated their business followed by the Western and Eastern Development Region with 120 and 119 branches in mid-January 2009. The number of bank branches in Mid-Western and Far-Western Development Region has 48 and 28. (See Table 2.1)

Table 2.1

Distribution of Commercial Banks (Development Region wise)

| | Development Regions | | | | | |
|---------------------------|---------------------|---------|---------|-------------|-------------|-------|
| | Eastern | Central | Western | Mid-Western | Far-Western | Total |
| Commercial Bank Branches | 109 | 267 | 106 | 44 | 26 | 552 |
| Banking Offices of ADB/N. | 10 | 35 | 14 | 4 | 2 | 65 |

Source: NRB, Banking & Financial Statistics, Mid-January 2009

The total assets/liabilities of the banking system witnessed a continuous uplift in the financial business. The growth of assets/liabilities of commercial banks was marginally higher in the year 2009 as compared to that of previous year. The total assets/liabilities, which was Rs.428,546.85 in mid-July 2006 expanded to Rs.490,445.88 million in mid-July 2007 and to Rs.566,471.84 million in the fiscal year mid-July 2008. The rate of growth of total assets/liabilities was 15.50 percent in mid-July 2008 as compared to mid-July 2007.

Table 2.2 shows some of the major components of assets/liabilities of the financial system for the last five years:

Table 2.2

Deposits and Loans & Advances of the Nepalese Financial System

| S.N. | Particulars | 2004 | 2005 | 2006 | 2007 | 2008 |
|-------------|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| 1 | Deposits (in Millions) | 258742.3 | 284115.2 | 327925.3 | 391152.6 | 508905.7 |
| | Share of Commercial Banks (in Millions) | 233903.04 | 252294.3 | 291197.66 | 337564.7 | 425954.07 |
| | Share of Commercial Banks in Percentage | 90.40% | 88.80% | 88.80% | 86.30% | 83.70% |
| 2 | Loans and Advances (in Millions) | 184389.1 | 209053.7 | 230509 | 291605.8 | 391537.7 |
| | Share of Commercial Banks (in Millions) | 139951.32 | 163689.05 | 176800.4 | 231826.6 | 306574.02 |
| | Share of Commercial Banks in Percentage | 75.90% | 78.30% | 76.70% | 79.50% | 78.30% |
| 3 | Total Assets & Liabilities (in Millions) | 387432.2 | 474325.9 | 505958.5 | 582477.3 | 706324.0 |
| | Share of Commercial Banks (in Millions) | 339778.04 | 411240.55 | 428546.85 | 490445.88 | 566471.84 |
| | Share of Commercial Banks in Percentage | 87.7% | 86.7% | 84.7% | 84.2% | 80.2% |

Source: NRB, Banking and Financial Statistics, Mid-January 2009

Commercial Banks in Nepal are taking a dominant role in the major components of assets and liabilities. Commercial Banks alone held 83.70 percent of total deposits, 78.30 percent of the total loans and advances and 80.2 percent of the total assets and liabilities respectively in fiscal year 2008.

The composition of the total liabilities shows as usual, deposit hold dominant share of 83.7 percent of total liabilities in mid – July 2008. Deposits reached to Rs.425,954.07 million mid-July 2008 from Rs.337,564.7 million in mid-July 2007. Total Deposit of commercial banks increased by 26.18 percent in 2008 as compared to a growth of 15.92 percent in 2007.

Of the components of total deposits, saving deposit with increasing trend held the maximum share in total deposit (50.30 percent) followed by fixed deposit (24.31 percent) and current deposit (12.71 percent) as at mid-July 2009.

The following Table 2.3 highlights on the profitability and the NPL percentage of the commercial banks of Nepal.

Table 2.3
Soundness Indicators of Nepalese Commercial Banks

| S.N. | Particulars | 2004 | 2005 | 2006 | 2007 | 2008 |
|------|---|--------|--------|---------|--------|---------|
| 1 | NPL as percentage of total Loans. | 22.8% | 18.94% | 14.22% | 9.65% | 6.08% |
| 2 | Profitability (In Millions) | 3707 | 5205 | 7983.51 | 8797.9 | 11911.7 |
| 3 | Capital Adequacy Ratio in Percentage | -9.07% | -6.33% | -5.03% | -1.71% | 4.04% |
| | (as percentage of Risk Weighted Assets) | | | | | |

Source: NRB, Banking and Financial Statistics, Mid – July 2008

The NPL of the banking system was 6.08 percent of the total loans and advances amounting to Rs.306, 574.02 million in mid-July 2008. The aggregate non performing loan which stood at Rs. 25,580.50 million in 2006 decreased to Rs.18,648.50 million in 2008. Percent of NPL to Credit of commercial banks as a whole decreased in the later fiscal years, but still they were unsatisfactory. The unsatisfactory level of NPL of the commercial banks as a whole was mainly due to the high percentage of NPL of the two state owned banks, Rastriya Banijya Bank and Agricultural Development Bank Nepal. The NPL to total loans and advances ratio of the Nepalese Commercial banks which was 6.08 percent of the total loans and advances was alarming and the Nepalese Banking System was at big risks. (See Table 2.3)

In mid July 2008, the net profit of the banking system increased significantly by higher rate of 35.39 percent compared to 10.20 percent in the last year. By the end of mid July 2008 the net profit amount to Rs. 11911.7 million. It was Rs. 8797.9 in mid July 2007.

The consolidated capital adequacy of commercial banks improved remarkably and turned to positive of 4.04 percent in the mid July 2008 as against the continued negative figures in the preceding years.

The capital adequacy position of the private commercial banks is satisfactory. However because of continuous large increase in the risk assets of these banks, their Capital Adequacy Ratio is declining. It is the public commercial banks that are responsible for ruining the capital base of the entire banking industry of Nepal. The huge negative capital funds of the two banks namely Rastriya Banijya Bank and Nepal Bank Limited converted the total capital base of the banking system to be negative. The public banks, due to their inherent problems, have suffered massive losses in the past, which are reflected in their negative reserves. Although, these banks have started to improve their financial conditions, it is far from an acceptable standard.

2.2 Concentrations in the Banking Sector

It has only been a couple of decade since the private banks came into existence in Nepal. But, their number has far outgrown the number of public banks and is still in growing trend. Though the public banks in Nepal are far out weight by the number of private banks, these two banks are still the largest banks in all aspects from deposit and credit mobilization to the number of branches in operation. But, the concentrations in the two public banks are slowly but surely getting diluted every year.

The commercial banks selected for the research are as follows:

Table 2.4
The Nepalese Commercial Banks Under Study

| | |
|------------------------------------|--------------------------------------|
| Public Sector Banks |) Nepal Bank Ltd. |
| |) Rastriya Banijya Bank |
| Domestic Banks |) Nepal Investment Bank Ltd. |
| |) Laxmi Bank Ltd. |
| Foreign Joint Venture Banks |) Nabil Bank Ltd. |
| |) Standard Chartered Bank Nepal Ltd. |

2.2.1 Nepal Bank Limited (NBL)

Nepal Bank Limited (NBL) was the first and the oldest commercial banks in Nepal. It was established in 1937 AD under the semi-ownership of government along with general public and private participation and marked the beginning of an era of formal banking in Nepal. The government owned 51 percent of the shares in the bank and controlled its operations to a large extent. The bank is one of the largest commercial banks in Nepal having an extensive banking network with 99 branches in the 52 districts of the country. Through its extensive branch network, NBL has been contributing to Nepal's economic development by providing banking services throughout the country.

Despite being the oldest and one of the largest banks of Nepal, the bank suffered massive difficulty in terms of unpaid loan and fell profits. Thus, the Bank was put under the control of Nepal Rastra Bank, the central bank of Nepal which hired services of Bank of Scotland (Ireland), ICC Consulting from 2002 for the management of the bank for an initial period of two years. The period was extended and the bank was managed by the same till 2007. Now, it is under the management of the NRB.

2.2.2 Rastriya Banijya Bank (RBB)

Rastriya Banijya Bank (RBB), one of the largest commercial banks of Nepal was established on 23rd January, 1966 under the RBB Act. Rastriya Banijya Bank is a fully state owned bank owned by Nepal Government and had total controlling stake in RBB.

RBB's main objectives are to provide banking services throughout Nepal and contribute in the socio economic development of the country. RBB provides various banking services to a wide range of customers including banks, insurance companies, industrial trading houses, airlines, hotels, and many other sectors.

RBB has Nepal's most extensive banking network with over 114 branches in 63 districts of the country within which 21 branches are in the Kathmandu Valley. The Branch Operations Department is responsible for supervising the 114 branch network. The Internal Audit Department monitors the work of the branches and regional offices through its extensive branch network. RBB has been contributing to Nepal's economic development by providing banking services throughout the country. RBB is committed towards the satisfaction of its customers by providing modern banking facilities. At the same time, the Bank is equally committed to the economic growth and development of the country. RBB has the largest network and it has its operations even in the remote areas of Nepal. The Bank aims to reach every rural and urban corner of Nepal to accommodate the requirement of the people. The Bank's extensive branch network and international connections are designed to transact banking activity between any part of the country and any part of the world.

2.2.3 Nepal Investment Bank Limited (NIBL)

NIBL, previously known as Nepal Indosuez Bank Ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50 percent of the capital of NIBL) was Credit Agricole Indosuez, a subsidiary of one of the largest banking group in the world. With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen, has acquired, on April 2002, the 50% shareholding of Credit Agricole Indosuez in Nepal Indosuez Bank Ltd. The name of the bank has been changed to Nepal Investment bank Limited upon approval of the bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office with the following shareholding structure.

1. A group of Companies holding 50 percent of the Capital
2. Rastriya Banijya Bank holding 15 percent of the capital

3. Rastriya Beema Sansthan holding the same percentage
4. The remaining 20 percent being held by the general public (NIBL is a company listed on the Nepal Stock Exchange)

Nepal Investment Bank Limited was awarded with the Bank of the Year 2003 and Bank of the Year 2005 Award by the London Based Financial Times Group.

2.2.4 Laxmi Bank Limited (LBL)

Laxmi Bank was incorporated in April 2002 as a commercial bank. The current shareholding comprises of promoters holding 55.42%, Citizen Investment Trust holding 9.02% and the general public holding 35.56%. Promoters represent Nepal's leading business families with diversified business interests. The banks shares are listed and actively traded in the Nepalese Stock Exchange.

Laxmi Bank has grown with branches in Birgunj, Banepa, Pokhara, Biratnagar, Narayanghat, Pulchowk, Lalitpur and more. Following the merger with Hisef Finance Ltd., a decade old first generation finance company, its office in Hattisar, Kathmandu was converted to that of Laxmi Bank. This office was converted to a full branch and our corporate office in October 2005.

2.2.5 Nabil Bank Limited

Nabil Bank Limited, the first joint venture bank of Nepal, started its operations in July 1984. It is the first joint venture bank in Nepal with collaboration of Dubai Bank Limited (later acquired by Emirates Bank International Limited, Dubai). It has revolutionized the banking sector in Nepal by introducing customer focused marketing strategies. Now, it is incorporated with NB International Limited, Ireland. The bank has 26 branches throughout the Nepal.

Nabil was incorporated with the objective of extending international standard modern banking services to the various sectors of the society. Pursuing its objectives, Nabil

provides a range of commercial banking services throughout its 26 points of representation across the country and over 170 reputed correspondent banks across the globe.

Nabil, a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measures as a focal objective while doing business.

Operations of the bank including day-to-day operations and risk management are managed by highly qualified and experienced management team. Bank is fully equipped with modern technology which includes ATMs, Credit cards, state-of-art, world renowned software from Infosys Technologies System (Bangalore, India), internet banking system and Tele-banking system.

2.2.6 Standard Chartered Bank Nepal Limited (SCBNL)

Standard Chartered Bank Nepal Limited has been in operation in Nepal since 1987 when it was initially registered as a joint-venture operation. Today the bank is an integral part of Standard Chartered Group who has 75 percent ownership in the company and the remaining 25 percent are owned by the Nepalese public. The Bank enjoys the status of being the largest international bank currently operating in Nepal.

2.3 Related Studies

The review of literature basically highlights the existing literature and research work related to the present research being conducted with the view of finding out what had been already explained by the authors and researchers and how the current research adds further benefits to the field of research. This review of literature had been classified into two sub-groups as follow,

- i. Theoretical review
- ii. Review of related articles/journal/booklets

2.3.1 Theoretical Review

Finance is concerned with those activities related to money. Previously finance was limited for procurement of long term fund. Due to industrialization, technological innovations and intense competition, there has been a vast change in the philosophy of management. Likewise the discipline of financial management has undergone an unprecedented change. "Financial management is that managerial activity which is concerned with planning and controlling of the firm's financial resources".

Evaluation of financial performance is a study of overall financial position of any organization. It is closely related to the decision making. In the modern context, it gives vital support for the investment decisions, financing decisions and dividend decisions. Financial performance analysis is undergone with the help of periodically made financial statements of the firm.

2.3.1.1 Financial Statements

The Financial Statements are the means of presentation of a firm's financial condition and basically consist of two types of statements - The Balance Sheet & Income Statement. These are prepared to report the overall business activities as well as financial status of the firm for a specified period to its stakeholders. These contain summary of information regarding financial affairs that is organized systematically. The top management is responsible for preparing these statements. "The basic objective of financial statements is to assist in decision making. The analysis and interpretation of financial statements depend on the nature and type of information available there in".

Hence financial statement refers to any formal and original statement that discloses the financial information related to any business concern during a period. The income statements and balance sheet usually prepared at the end of each financial year show the firm's financial position.

a. Balance Sheet

Balance sheet is one of the basic financial statements of an enterprise. It is also called the fundamental accounting report. As the name suggests, the balance sheet provide information about financial standing or a position of a firm at a particular point of time usually end of the financial year. It can be visualized as a snapshot of the financial status of a company (Khan and Jain, 1993).

Balance sheet summarizes the assets, liabilities and owner's equity of a business at a moment of time, usually at the end of the financial year. Balance sheet is a financial statement, which contains information regarding different capital expenditures made on purchase of assets on particular date and information regarding various sources of funds acquired by the business concern to finance these assets and also the different sources of capital and liabilities at that particular point of time.

b. Income Statement

Income statement is designed to portray the performance of the business firm for a specific period of time i.e. for a year or month or quarter. The business revenues and expenses resulting from the accomplishment of the firms operation are shown in the income statements. It is the "Scoreboard" of the firm's performance during particular period of time. It shows the summary of revenues, expenses and net income or loss of a firm for a particular period of time. Income statement also serves as a true measure of the firm's profitability.

2.3.1.2 Financial Analysis

Financial analysis is the process of determining financial strengths and weaknesses of a company by establishing strategic relationship between the components of a balance sheet and profit and loss statement and other operative data.

In the word of Myer, "Financial statement analysis is largely a study of relationship among the various financial factors in a business as disclosed by a single set of statements and a study of the trends of these factors as shown in a series of statement".

Financial statement analysis involves the use of various financial statements. These statements perform several things. First, the balance sheet summarizes the assets, liabilities and owner's equity of a business at a moment in time, usually the end of a year or a quarter. Next, the income statement summarizes the revenues and expenses of the firm over a particular period of time, again usually a year or quarter. While the balance sheet represents a snapshot of the firm's financial position at a moment in time, the income statement depicts a summary of the firm's profitability over time. From these two statements, certain derivative statements can be produced, such as statement of retained earnings, sources and uses of funds statements and statement of cash flows etc (Van Horne, 1996).

"Financial analysis is the process of identifying the financial strengths and weaknesses of the firm by properly establishing relationship between the items of the balance sheet and profit and loss account". Analyzing financial statements is a process of evaluating relationship between component parts of financial statements to obtain a better understanding of a firm's position and performance (Metcalf, 1976).

Financial statement analysis allows managers, investors and creditors as well as potential investors and creditors to reach conclusion about the recent and current status of a corporation. The checking of financial performance in a business deserves much attention in carrying out the financial position. It also requires to retrospective analysis for the purpose of evaluating the wisdom and efficiency of financial planning. Analyzing of what has happened should be of great value in improving the standards, techniques and procedures of financial control involved in carrying out finance functions.

The four basic statements contained in the annual report are the balance sheet, the income statement, the statement of the retained earnings and the statement of cash flows. Investors use the information contained in these statements to form expectations about the future levels of earnings and dividends and about the risks of these expected values. Financial statement analysis generally begins with the calculation of a set of a financial

ratios designed to reveal the relative strength and weakness of a company as compared to other companies in the same industry, and to show whether the firm's position has been improving or deteriorating over time (Weston, 1996). Financial analysis is that sort of calculation which is done with the help of annual report. And the annual report would contain the essentials for such analysis. So the data retrieved from the annual report is indispensable for the financial analysis.

It is both an analytical and judgmental process that helps answer questions that have been properly posed. Therefore, it is means to end. Apart from the specific analytical answer, the solutions to financial problems and issues depend significantly on the views of the parties involved, the related importance of the issue and on the nature and reliability of the information available (Helfert, 1992).

Financial appraisal is a scientific evaluation of profitability and financial strength of any business concern. Financial appraisal is the process of scientifically making a proper, critical and comparative evaluation of the profitability and financial health of a given concern through the application of the techniques of financial statement analysis. A complete financial analysis and interpretation of financial statement involves the assessment of past business performance, an evaluation of the present condition of the business and the predictions about the future potential for achieving expected or desired results (Jain, 1996).

The analysis and interpretation of financial statement depicts the actual position of a firm regarding the objectives of that firm within a specified period of time. Financial appraisal is a process of synthesis and summarization of financial and operative data with a view to get an insight into the operative activities of a business enterprise. It is a technique of X-raying the financial position as well as progress of a concern, as observed by Robert H. Wessel.

"The main function of financial analysis is the pinpointing of the strengths and weakness of a business undertaking by regrouping and analysis of figures contained in financial

statements by making comparison of various components and by examining their contents. This can be used by financial managers as the basis to plan future financial requirement by means of forecasting and budgeting procedures”.

"Financial statement analysis involves a comparison of firm’s performance with that of other firms in the same line of business which often is identified by the firm's industry classification. Generally speaking, the analysis is used to determine the firm's financial position in order to identify its current strengths and weakness and to suggest actions that might enable the firm to take advantage of the strengths and correct its weaknesses"(Weston, 1996).

"Financial analysis is used primarily to gain insight into operating and financial problems confronting the firms with respect to these problems. We must be careful to distinguish between the cause of problem and symptom of it. It is thus an attempt to direct the financial statements into their components on the basis of purpose in the one hand and establish relationships between these components and between individual components and totals of these items on the other. Along with this, a study of various important factors over the past several years is also undertaken to have clear understanding of changing profitability and financial condition of the business organization” (Hampton, 1998).

Thus, Jain (1996) says "Much can be learnt about business performance and financial position through appraisal of financial statements, the appraisal or analysis of financial statements spotlights the significant facts and relationship concerning managerial performance, corporate efficiency, financial strength and weakness and credit worthiness that would have otherwise been buried in a maze of details”.

2.3.1.3 Objectives of Financial Analysis

Financial analysis enables us to explore various facts related to the past performance of business and predicts about the future potentials for achieving expected results. Major objectives of analysis of financial statement are to assess various factors in relation to the business firm as presented below.

1. The present and future earning capacity or profitability of the concern
2. The operational efficiency of the concern as a whole, and of its various parts or departments.
3. The short-term and long-term solvency of the concern.
4. The comparative study regarding to one firm with another firm.
5. The possibility of developments in the future making future forecasts and preparing budgets.
6. The financial stability of business concern,
7. The real meaning and significance of financial data,
8. The long term liquidity of its fund.

2.3.1.4 Need of Financial Analysis / Financial Statement Analysis

The need for the analysis of financial statement arises in order to address the following questions,

1. How was the firm doing in the past? Was there any problem? If so, in what Area?
2. How it is doing at present? Is it doing better compared to the past performance, competitors and industry average? Is there any problem at present? If so, in what areas?
3. What about the future? Is there any likely problem on the way in the future? What will its position be in the future?
4. What corrective actions can be taken now to solve the problems and improve the performance? How will the recommendation of any course of actions or changes in the policy or practice help solve problems and improve the company's position?
5. What are the expected results of recommendations? Are there any improvements?

2.3.1.5 Significance of Financial Analysis

Significance of analysis lies on the objectives of financial analysis of any firm. The facts discovered by the analysis are perceived differently by different groups associated with the concern. The facts and the relationships concerning managerial performance, corporate efficiency, financial strengths and weaknesses and credit worthiness are interpreted on the basis of objectives in the hand.

Such analysis leads management of an enterprise to take crucial decisions regarding operative policies, investment value of the firm, internal financial control system and bargaining strategy for funds from external sources.

The parties that are benefited by the results or conclusion drawn from the analysis of financial performance can be numerated as,

Top Management

The responsibility of the top management is to evaluate:

-) Are the resources of the firm has been used effectively and efficiently?
-) Is the financial condition of the firm sound enough?

On the basis of past facts, firms can anticipate their future. Hence, top management can measure the success or failure of a company's operations, determine the relative efficiency of various departments, process and products appraise the individual's performance and evaluate the system of internal audit.

Creditors

The creditors can find out the financial strength and capacity of the borrower to meet their claims. Trade creditors are interested in the firm's ability to meet their claims over a short span of time. The suppliers of long term debt focus upon the firm's long term solvency and survival. A lending bank through and analysis of these statements can decide whether the borrower retains the capacity of refunding the principal and paying interest in time or not.

Shareholders

The shareholders, who have invested their money in the firm's shares, are most concerned about the firm's earning. They evaluate the efficiency of the management and determine about the necessity for the change. In large company the shareholder's interest is to decide whether to buy, sell or hold the shares. They wish to buy the shares in case of sound performance of the firm where as they simply intend to hold the shares in the condition of satisfactory performance. But they are hurried to sell the shares in case of poor performance.

Economists

To diagnose the prevailing status of business and economy, economists analyze the financial statements (of any firm). The government agencies analyze them for the purpose of price regulation; rate setting and similar other purposes.

Labor Unions

Productivity is the synonym of well-motivated labors. Labor unions are interested in rights and benefits of labor to enhance the moral of labors. For further motivation they expect increase in wages, fringe benefits and so on. These benefits are affected by the company's profitability condition. Therefore the union assesses the financial condition of the firm to determine whether the firm is in the situation or not to make such facilities available.

2.3.1.6 Process of Financial Analysis

Financial analysis basically financial statement analysis, is a technique of answering various questions regarding the performance of a firm in the past, present and the future on the basis of past performance. The analysis recommends the steps to be taken by financial managers while undergoing the assessment of financial position.

The questions, that as elucidated above create the need to follow certain steps such as first identification and analysis of problem in order to come up with appropriate recommendations, and then to project the expected results and examine them if there are improvements before implementing such recommendations.

2.3.1.7 Types of Financial Analysis

“The nature of financial analysis differs according to the purpose of the analyst. “a distinction may be drawn between various types of financial analysis either on the basis of material used for the same or according to the modus operandi of the analysis”.

According to Material Used

External Analysis

It is made by those who do not have access to the detailed records of the company. This group, which has to depend almost entirely on published financial statements, includes investors, credit agencies and governmental agencies regulating a business in a nominal way.

Internal Analysis

The internal analysis is accomplished by those who have access to the books of accounts and all other information related to the business. While conducting this analysis, the analyst is a part of the enterprise he is analyzing. Analysis for managerial purpose is the internal type of analysis and is conducted by executives and employee of the enterprise as well as governmental and court agencies which may have major regulatory and other jurisdiction over the business.

According to Modus Operandi Analysis

Horizontal Analysis

When financial statements for a number of years are reviewed and analyzed, the analysis is called horizontal analysis. As it is based on data from year to year, rather than on one date or period of times as a whole, this is also known as dynamic analysis.

Vertical Analysis

It is frequently used for referring to ratios developed for one date or for one accounting period. It is also called static analysis.

Besides the types of financial analysis on the basis of material used and modus operandi, S.P Jain and K.L. Narang have categorized on the basis of objective of the study.

According to Objective

Long Term Analysis

This is made in order to study the long term financial stability, solvency and liquidity as well as profitability and earning capacity of a business concern. For the long run success of a business concern, this analysis helps in the long term financial planning.

Short Term-Analysis

This is made to determine the short-term solvency, stability and liquidity as well as earning capacity of the business. This analysis is helpful for short term financial planning.

2.3.1.8 Techniques of Financial Statement Analysis

The fundament of the analytical technique is to simplify or reduce the data under review to the understandable terms. There are various tools and techniques of financial statement analysis, each of which is used according to the purpose for which the analysis is carried out. The widely used techniques are as follows:

1. Ratio Analysis
2. Du Pont System of Financial Statement Analysis
3. Common Size Analysis
4. Funds Flow Analysis
5. Cash Flow Analysis

Ratio Analysis

Ratio analysis has been used as a major tool in the interpretation and evaluation of financial analysis. The term ratio refers to the numerical quantitative relationship between the two items/variables. A ratio is calculated by dividing one item of the relationship with the other base. In financial analysis, a ratio is used as a yardstick for the evaluation of financial performance of the firm. The analysis of financial ratio involves two types of comparison. First, the present ratio may be compared with the past and expected future ratios for the same company and second, the method of comparison involves comparing

the ratios of one firm with those of similar firm or with industry averages at the same point, in time. Such comparison gives insight into the financial performance of the firm. Ratio analysis is widely in use. It may not give the entire picture of an enterprise. Ratios themselves are not conclusion. They are only the means. The Ratios are calculated from data available in the financial statement of an enterprise. The Ratio completed from the available data are numerical, there should not be the tendency to regard them as a precise portrayals of a firm true financial status. For some firms, accounting data may closely approximate economic reality, for others, it is necessary to go beyond the figures in order to obtain their financial condition of performance.

Types of Ratios

Different Ratios can be calculated from the available data in the financial statement. Broadly Ratios are classified in four groups. They are:

Liquidity Ratio

Liquidity refers to the ability of enterprises to pay its current liabilities. Liquidity implies the utilization of such funds of the firm which are idle or in very little amount. A proper balance between the two contradictory requirements i.e. liquidity and profitability are required for the efficient financial management. The more current assets associated with high liquidity and low profitability and vice versa. The less current Ratio and quick Ratio are the most widely used ratios for the general purpose to measure the liquidity position of an enterprise.

Capital Structure/Leverage Ratios

The Capital Structure/Leverage Ratio is associated with the long -term solvency of an enterprise. The long -term creditors would judge the soundness of a firm on the basis of long term financial strength measured in terms its ability to pay the interest regularly as well as repay the installment of principal due to dates or in one lump sum at the time of maturity. Leverage Ratios show how much of an enterprise's fund are financed by debt & equity. These Ratios also show the prospects for future financing.

The Capital Structure Ratio indicates the soundness of capital structure of an enterprise. It can be calculated on two ways. The first approach is to examine what proportion of borrowed capital occupies the capital structure i.e. calculated the Debt to Total Capital Ratio. The second approach is to examine the number of times the interest earned covered by earnings and to calculate the fixed charges covered by earnings.

Activity Ratio

An Activity Ratio may be defined as the test of relationship between sales and various types of Activity Ratios. Activity Ratios are employed to evaluate the efficiencies with which the firm manages and utilizes its assets. These Ratios are also called Turnover Ratios because they indicate the speed with which the assets are being covered or turned over into sales. So Activity Ratios presume that there exists an appropriate relationship between sales and various assets. The more important Activity Ratios for general - purpose analysis are Inventory Turnover Ratio, Total Assets Turnover Ratio, Fixed Assets Turnover Ratio, Capital Employed Turnover Ratio etc.

Profitability Ratio

Profitability is very important aspect of management of any enterprise. It shows the overall performance of an enterprise. The Profitability Ratios are calculated to measure the operative effectiveness of an enterprise. Besides management of the company, creditors and owners are interested in the Profitability Ratios of the firm. Profitability Ratios can be calculated on the basis of either sales or investment. The important Profitability Ratios, calculated in relation to sales are Net Profit Margin, Gross Profit Margin, and Operating Expenses Ratio etc. Similarly, the important Profitability Ratios, calculated in relation to investment are Return on Shareholders' Equity, Return on Capital Employed, and Return on Fixed Assets etc. Together these Ratios indicate the firm's efficiency of operation (Panday, 1998).

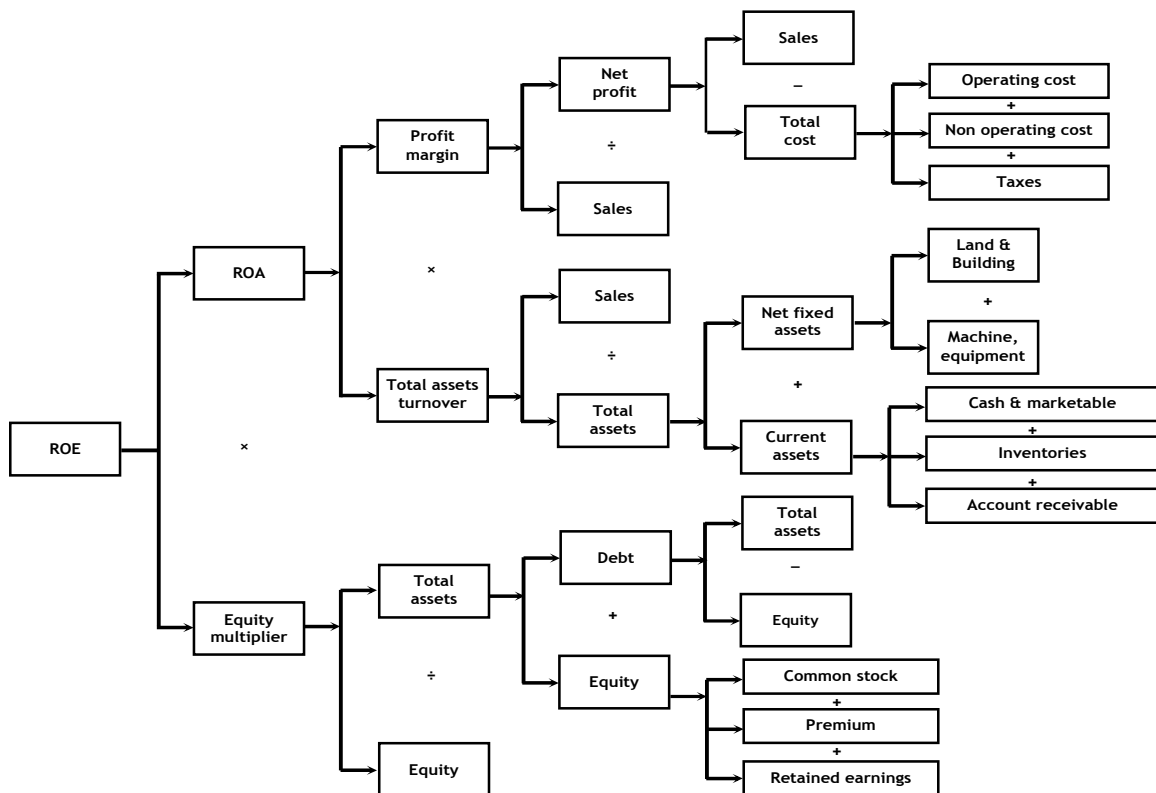
Du Pont System of Financial Statement Analysis

"The Du Pont system is designed to show how the profit margin on sales, the assets turnover ratio and the use of debt interact to determine the rate of return on equity" (Weston, 1996: 307).

The Du Pont system of financial statement analysis is developed by the financial experts of the Du Pont Company by putting together the effects of profitability, investment and the equity ratios. The approach is based on the relationship among the three basic areas of the firm such as (i) cost controlling area (ii) Assets management area and (iii) Financial leverage area. The directed to address the concern of the shareholders; hence its main focus is on the return on equity (ROE). The ROE is analyzed in terms of the factors that directly affect the ROE. The factors such as costs, assets utilization and leverage ratio are the grounds on which several test are made to see how the ROE is affected by such factors. The following modified Du Pont Chart presents the relationship among these factors and ROE.

Figure 2.1

Chart of Du Pont System of Financial Analysis



Source: Weston & Brigham, 2003: 99

For a business firm, the return on assets (ROA) is the rate of return on the total investment that includes both equity and debt capital. The ROA does not reflect the actual rate of return to equity holders. What reflects the return for stock holders is the

return on their money (i.e. ROE), which is generally higher than the ROA. Thus ROA is an overall measure and reflects the overall performance of the company. The Du Pont system addresses the concerns of stockholder and focuses on ROE.

Du Pont equation defines ROE as a product of ROA and equity multiplier and ROA as a product of profit margin and total assets turnover.

The Du Pont equation is as follows:

$$\begin{aligned} \text{ROE} &= \text{ROA} \times \text{Equity Multiplier} \\ &= \text{Profit Margin} \times \text{Total Assets Turnover} \times \text{Equity Multiplier} \\ &= \frac{\text{Net Profit}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Total Assets}} \times \frac{\text{Total Assets}}{\text{Equity}} \end{aligned}$$

Common Size Analysis

The common size analysis is another technique of analyzing the items of financial statement on relative terms. Under this method, the percentage of every item in the income statements and balance sheets is carried out for past several years to determine the performance trend of each item during the period under analysis. After analyzing the rising, falling or constant trend of efficiency in the business operation one can make comparison with the industry average or competitors.

The common size analysis is carried out for a period of one or more. The income statement items are divided by sales and expressed as a percentage of sales. The balance sheets items are divided by total assets and expressed as percentage of total assets. These percentages for a company are compared with the standard measures such as percentages calculated in the same manner industry and the competitors.

Thus, the comparison shows the company's performance relative to competitors as well as compared to its own past record.

Funds Flow Analysis

Funds flow analysis is the statement of changes in financial position of any organization that determines only the sources and used of fund between two dates of balance sheet. It is prepared to uncover the information that financial statements fail to describe clearly. It describes the sources from which funds were derived and used to which these funds were put.

The statement is prepared to summarize the changes in assets and liabilities resulting from financial and investment transactions during the period as well as those changes occurred due to the changes in owner's equity. It also uncovers the way of using financial resources during the period by the firm.

Method of preparing funds flow statement depends essentially upon the sense in which the term 'fund' is used. There are three concept of fund: cash concept, total resources concept and working capital concept. According to cash concept, the word fund is synonymous with cash. Total resources concept refers total assets and resources as fund. The term 'fund' represents only to working capital on the stated last concept However, working capital concept of fund has gained wide acceptance as compared to the other concepts. Therefore any transaction that increases the amount of working capital is taken as source of fund while conducting funds flow analysis. Any transaction that decreases working capital is treated as application. But, any transaction that affects current liabilities or current assets without resulting any changes in working capital is not taken as sources or use.

Cash Flow Analysis

This statement is carried out to know clearly the various items of inflow outflow of cash. It is different from funds flow analysis in the sense, the analysis relates to the movement of cash rather than the inflow and outflow of working capital.

It deals the causes of changes in cash position for the period of two balance sheets date in brief. At the time of preparing cash flow statement, only cash receipt from debtors against credit deals are considered as the source of cash. Similarly, cash purchases and cash

payments to suppliers for credit purpose are regarded as the uses of cash. The same holds true for expenses and incomes outstanding and prepaid expenses are not to be considered under this analysis.

2.3.1.9 Limitations of Financial Analysis

Financial performance analysis is of great significance for investor, creditor, management, economist, and other parties having interest in business. It helps management to evaluate its efficiency in past performance and takes decision relating to the future (Jain, 1989). However, it is not free from drawbacks. Its limitations are listed below.

Historical Nature of Financial Statements

The basic nature of statements is historical. Past can never be a precise and can never be perfectly helpful for the future forecast and planning.

No Subject for Judgment

Financial analysis is a tool to be used by experts, analysts etc. to evaluate the financial performance of firm. That's why it may lead to faulty conclusion if used by unskilled analyst.

Reliability of Figures

Reliability of analysis depends on reliability of the figures of the financial statements under scrutiny. The entire working of analysis will be vitiated by manipulation in the income statement, window dressing in the balance sheet, questionable procedures adopted by the accountant for the valuation of fixed assets and such other facts.

Single year analysis is not much Valuable

The analysis of these statements relating to single year only will have limited use and value. From this, one cannot draw meaningful conclusion.

Result may have Different Interpretation

Different users may differently interpret the result derived from the analysis. For example, a high current ratio may suit the banker but it may be the cause of inefficiency of the management due to under-utilization of fund.

Change in Accounting Methods

Analysis will be effective if the figures derived from the financial statements are comparable. Due to change in accounting methods the figures of current period may have no comparable base, and then the whole exercise of analysis will become futile.

Pitfall in inter-firm Comparison

When different firms are adopting different procedures, records, objectives, policies and different items under similar heading, comparison will be more difficult. If done, it will not provide reliable basis to assess the performance, efficiency, profitability and financial condition of the firm as compared to the whole industry.

Price level change reduces the Validity of Analysis

The continuous and rapid changes in the value of money, in the present day, economically also reduces the validity. Acquisition of assets at different level of prices make comparison useless as no meaningful conclusion can be drawn from a comparative analysis of such items relating to several accounting periods.

Selection of Appropriate Tool

There are different tools of analysis available to the analyst. The tools to be used in a particular situation depend on skill, training, intelligence and expertise of the analyst. If wrong tool is used, it may lead to wrong conclusion. This may be harmful to the interest of business.

"Financial analysis is the assessment of a firm's past, present, and anticipated future financial condition. Its objectives are to determine the firm's financial strengths and to

identify its weakness. Alternatively, financial analysis may come from outside the firm in an effort to determine the firm's credit worthiness or investment potential" (Petty, Keown, Scottand, Martin, 1993: 442).

Financial Analysis, which relates the item presence in the balance sheet and income statement to one another, permits the charting of firm's history and the evaluation of it's present position. It also allows the financial manager to anticipate reaction of investors and creditors and thus to gain insight into how attempts to require funds are likely to be received.

Pandey, (1999) in his book, "*Financial Management*" has stated that, "the financial statements provide a summarized view of the financial operation of the firm. Therefore, much can be learnt about a firm and careful examination of its financial statements as invaluable documents/performance reports. The analysis of financial statements is, thus, an important aid to financial analysis. He also adds ratio analysis is the main tool of financial statement analysis".

Financial performance is an analysis of better understanding of firms positions i.e. its strength and weakness. Thus it involves the use of various financial statements. First, the balance sheet, which represents a snapshot of the firm's financial position at the moment and time and next, then income statements, depicts a summary of the firm's profitability overtime.

According to R.W. Metcalf and P.L. Titard, "Financial Performance analysis is a key process of evaluating the relationship between component parts of a financial statement to obtain a better understanding of a firm's position and performance."

2.3.2 Review of Related Studies

In addition to financial performance, there are various studies on financial aspect, which deals in the context of Nepalese commercial Joint ventures banks. The major findings of the approaches used in these important studies are reviewed briefly.

Joshi (1989) through his thesis "*A Study on Financial Performance of Commercial Banks*" concluded the liquidity position of commercial banks is satisfactory local commercial banks have been found relatively highly leveraged compare to the joint venture banks, loans and advances have been their main form of the investment. Two third assets have been used for earnings purpose.

Bohara (1992) conducted "*A Comparative Study of Financial Performance of Nepal Arab Bank Ltd. and Nepal Indosuez Bank Ltd*". This thesis analyzed liquidity ratio, activity ratio, coverage, profitability, earning per share (EPS), dividend per share (DPS), etc. The time period of the study conducted was from fiscal year 1986/ 87 to 1990/ 91. It was concluded that the bank profit could not be judged solely by profit. It was entered by maintaining adequate liquidity and safety, but also by group of contribution of community, to the government and to national economy or to social and national priorities. It was found that both the banks are maintaining adequate liquidity to meet short term obligations and capital adequacy requirements are met by both. The recommendations given by the writer to both the banks was that they should come forward to earn operating profit by increasing operating efficiency. Another thing was that both NABIL and NIBL should increase their equity base, since their equity base is not increasing faster as compared to the deposit growth at present.

Gautam (1997) in his dissertation "*Dividend policy in commercial Banks A comparative study of NCBL, NIBL and NIBL*" concluded that average earning per share of all banks is satisfactory. Dividend per share is not too much unsatisfactory. He found that there is no consistency in dividend payment and its growth rate is not static as well. He further concluded that, there is no prominent difference in DPS and DPR all three banks. However, there is no uniformity in EPS. The three commercial banks have not a clearly defined dividend policy. Moreover, not a single bank seen to follow any of prevailing dividend policy as developed and established in our discipline.

Acharya (1997), study entitled “*A Comparative Study of Financial Performance of Joint Venture Banks (JVBs) in Nepal*” especially on NABIL and NIBL concluded that the liquidity position of both the banks is below normal standard of 2:1 (i.e. unsatisfied), comparatively this ratio of NIBL is better on an average. Both the banks are found to be efficient and utilized most of their total assets.

Singh (2000) study entitled “*A Comparative Evaluation of Financial Performance of Nepal Arab Bank Ltd and Nepal Grindlays Bank Ltd*” reveals that the liquidity position in terms of current ration of both the banks is below the normal standards. The researcher's main objective was to analysis the income and expenditure of both banks. Its objective was also to analyze how these banks use their sources. According to the analysis of turnover ratios, NABIL invests 57 percent of deposits whereas NGBL invests 41 percent on the loans and advances. In this portfolio, NABIL is performing better liquidity position. Profitability ratios of both the banks reveal positive reform during the study period, but the progress is higher in NGBL whereas NABL seems more efficient in utilizing its capital employed in generating interest income. As NABIL has acquired more funds, it has also raised more capital by issuing shares, bonus shares and retaining earnings.

Malla (2004) has conducted a thesis on “*Financial Performance of Commercial Banks With Special Reference to Himalayan Bank and Nabil Bank*” to examine the financial performance of HBL Bank and Nabil Bank. The specific objectives of the study were;

1. To examine the financial position of the banks under study.
2. To evaluate the liquidity, efficiency of assets management and profitability position of the bank under study.
3. To provide suggestion and recommendations on the basis of findings,

The main conclusions of the study were as follows,

The overall liquidity strength of HBL can be considered the better than that of Nabil. However, the liquidity risk is most likely in Nabil, arising from its interest rate. Since the market is highly sensitive towards the interest rate and Nabil has generally been offering

low interest rate as compared to other banks. If Nabil cannot tie up its saving deposits saving holders from its advances and personalized banking system, the failure in liquidity in Nabil is most likely than HBL in coming future.

The analysis of strength of HBL in loan and advances is the best. The ratio of loan and advances to total assets investment to loan and advances and loan and advances to shareholder's equity indicate the superior performance of HBL in its lending activities as compared to Nabil despite low volume of non interest bearing deposit in its capital mix. However the loan and advances and advances and investment to total deposit ratio have upgraded the performance of Nabil.

The mean ratio of investment to loan and advances of Nabil is higher than the combined mean ratio and that of HBL is lower than combined mean. This indicates that investment of Nabil is higher than that of HBL.

The ratio of loan and advances and investment to deposit ratio of Nabil is higher than that of HBL. This indicates that Nabil has been able to mobilize its funds more significantly than that of HBL.

Comparing the net profit and total expenses of these two banks, Nabil has the highest total net profit throughout the year and also the highest total expenses. Nabil has adopted risk avoiding concept and is headed towards investment in government securities where as HBL is heading towards increasing advances with the concept of risk taking.

The mean ratio of interest income to total income ratio has concluded that the contribution of interest income in total income mix of HBL is the highest. This means that major portion of total income of HBL is highly dependent on loan and advances. The interest expenses to total deposit ratio indicates that the total cost of funds in HBL is the highest than that of Nabil. This shows that HBL has been unable to collect low cost deposit.

Joshi (2005) in her thesis, "*Investment Policy of Commercial Bank in Nepal, A Comparative Study of Everest Bank with Nabil Bank and Bank of Kathmandu*" derived the following findings:

1. The liquidity position of the EBL is comparatively better than Nabil and BOK. It has the highest cash and bank balance to total deposits, cash and bank balance to current assets ratio. EBL has good deposit collection and has made enough investment on government securities but it has maintained moderate investment policy on loan & advances.
2. From the analysis of assets management ratio or activity ratio, it can be concluded that EBL is comparatively average successful in its on balance operation in compared to Nabil and BOK. The mean ratio of loan & advances to total deposit of EBL is the higher than Nabil and lower than BOK but total investment to total deposit of EBL is higher than BOK but lower than Nabil. The mean ratio of investment on shares and debentures to total working fund of EBL is higher than Nabil and lower than BOK.
3. In an analysis of profitability, total interest earned to total outside assets of EBL is lowest at all. But overall analysis of profitability ratios, EBL is average profitable in comparison to other compared banks i.e. Nabil and BOK. From the view point of risk ration, EBL has higher capital risk ratio but average of credit risk ratio in compared to Nabil and BOK.
4. From the growth ratio analysis it can be concluded that EBL has maintained high growth ratios in total deposit, loan and advances and net profit but it has moderate position in investment. It means that the bank is successful in increasing its sources of fund and its mobilization.
5. The trends analysis of deposit, loan and advances, total investment and net profit and projection for next five years of EBL, Nabil and BOK reveals that the position of EBL is regarding to utilization of funds to earn profit is not better in comparison to Nabil but better than that of BOK.

2.4 Research Gap

There are various factors that affect the performance of the commercial banks. The directives of NRB change over time and commercial bank should adopt their policy with the changing time. So, up-to-date study over the change of time frame is major concern for the researcher and concerned organization. This study covers the financial analysis of the commercial banks in Nepal, which is sub divided into 3 categories viz Public Bank, Domestic Bank and Foreign Joint Venture Bank in the CAMEL Frame work than that of studies previously conducted.

Thus the previous studies can't be ignored because they provide the foundation to present study. In other words, there has to be continuity in research. This continuity in research is ensured by linking the present study with the past research studies. It is clear that the new research cannot be found on that exact topic, i.e. Evaluation of Financial Performance of Commercial Banks in Nepal. Therefore, to fulfill this gap, this research topic has been selected. To complete this research work: many books, journals, articles and various published and unpublished dissertations are followed as guideline to make the research easier and smooth. In this regard, here it is going to analyze the financial analysis of different sub sectors banks in Nepal in the CAMEL Frame work where "M" a qualitative nature which is very complex to analyze. Therefore, this study puts its effort to find out that which type of sub sector bank is doing better in the Nepalese Market.

CHAPTER - III

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology refers to the four various sequential steps to be adopted by the researcher in studying a problem with certain objectives in view. According to Dr. V. P. Michael, “Research is a process of systematic and in-depth study or search for any particular topic, subject, or area of investigation”.

Research methodology describes the methods and processes in the entire aspect of the study. In other words, research methodology is a systematic way to solve the research problem. It refers to the various sequential steps to be adopted by the researcher in studying the problems with certain objectives. It is the methods or process applied to solve the defined research process. A focus is given to research design, sample selection, data collection procedures, data processing, etc. This chapter highlights the research methodology used for the study of evaluation of financial performance of Commercial Banks of Nepal.

3.2 Research Design

The study attempts to analyze and summarize the position and performance ratios of the banking sector of Nepal. Hence, based upon the time-series data available, it aims to infer to what extent the position and performance of the banking sector has been strengthened or weakened over the time. The financial performance of the commercial banks is analyzed using both Descriptive and Diagnostic approach. A descriptive financial analysis has been used in the study to describe, compare, measure, highlight the past performance and classify the financial situations of the Nepalese Commercial Banks. In diagnostic analysis, the hypothesis concerning parameters of performance measures like capital, asset quality, earning and liquidity risks are tested.

3.3 Research Variables/Measurements

To accomplish afore mentioned objectives of the study, the research variables used in this study includes the financial statement analysis of the concerned commercial banks. Keeping in light the objectives of the research, the secondary data were classified and tabulated. For further processing and analyzing the collected raw data for the purpose of managing study smoothly in the process of inferring the position and performance of the banking sector as per the aim of the study, various financial, mathematical and statistical tools and techniques like ratios, average, trends are used. Analysis of variance (ANNOVA) was used to test the hypothesis. A brief discussion of the tools and techniques used in the study are as follows;

3.3.1 Ratios

3.3.1.1 Capital Adequacy

The first component, capital adequacy ultimately determines how well financial institutions can manage with shocks to their balance sheets. Capital Adequacy Ratio (CAR) is a measure of any financial institution's financial strength.

Any commercial bank should have adequate capital to support the stability and sustainability of its operation. CAR is the ratio which determines the capacity of the bank in terms of meeting the time liabilities and other risk such as credit risk, operational risk, etc. In simplest word, a bank's capital is the "cushion" for potential losses, which protect the bank's depositors (or other lenders). Capital Adequacy is a measure of a commercial bank's capital as a percentage of its risk weighted assets, such as the loans it has provided and the securities it holds. Thus, this parameter indicates whether a particular bank has enough capital to absorb unexpected losses. This is required to maintain depositor confidence and preventing the bank from going bankrupt. Banking regulators in most countries define and monitor CAR to protect depositors, thereby maintaining confidence in the banking system.

3.3.1.2 Asset Quality

Asset Quality had direct impact on the financial performance of any financial institution. The health of financial institutions depends largely on the quality of assets held by them

and the quality of assets held depends on the financial health of their borrowers. One of the important factors that affect the health of any financial institutions is credit risk. The extent of credit risk depends on the quality of assets held by the commercial banks. The quality of assets held by the commercial banks depends on exposure to specific risks, trends in non-performing loans, financial health and of their borrowers. Some indicators to measure the quality of assets held by the commercial banks are composition of assets, non-performing loan to total loan ratio, net non-performing loan to total loan ratio.

3.3.1.3 Non-Performing Loan Ratio

It is noted that the stability of the banking system cannot be ensured unless and until the banks and financial institutions run in the prudent and sound manner. Banks cannot maintain their financial health if there are a lot of defaulters on its portfolio of loans and advances. A lot of defaulters in the loan portfolio indicate poor and weak health of the institution.

$$\text{Non-Performing Loan Ratio} = \frac{\text{NPA}}{\text{TLA}}$$

Where NPA = Non-Performing Assets (Loans and Advances)

TLA = Total Loans and Advances

3.3.1.4 Earnings

Profit is the lifeblood of any industry. The quality and trend of earnings of an institution largely depends on how well the management manages the assets and liabilities of the institution. Profits are essential for the smooth operations of the business and for its growth and expansion. An important function of earnings is to provide reserves for losses and contingencies that may arise during the operation of the bank. Finally, just as in the case of other businesses, profits act as a stimulant to management to expand and improve the business, reduce costs, and improve services. Profitability ratios focus on how well the business is performing in terms of profit. Good earnings performance would inspire the confidence of the depositors, investors, creditors, and the public at large.

There are various indicators that can be used to measure the profitability of the banks, all of which have some advantages as well as shortcomings. Some of the popular key ratios of profitability are Return on assets, return on shareholder's equity, which gives an idea of the quality of earnings.

a. Return on Assets (ROA)

Return on assets is very important indicator of profitability which measures the earnings of the firm generated from using invested capital, i.e. assets. This ratio indicates how profitable the company is relative to its total assets. It gives an overall idea as to how efficiently the firm is able to utilize its assets to generate revenues. ROA is derived by dividing the firm's net profit by its total assets. It is expressed as percentage and is sometimes also referred to as "return on Investment." A high ROA number indicates high profit margin and high turnover of total assets and vice-versa. The higher the ROA number, the better it is for the firm because it is earning more profit on less investment. As per the conventional rules, ROA of commercial banks should fall in the range of less than three and equal to two in order to be satisfactory earning performance.

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

b. Return on Shareholder's Equity (ROE)

The Return on Equity is one of the most important return measures of bank because it is influenced by how well the banks have performed on all other return categories and indicate whether a bank can compete for private sources of capital in the economy.

Return on equity measures return on investment but targeting on ordinary shareholders. This ratio is specifically for shareholders and is aimed at measuring the return they should expect from their shares in the business. The Return on equity is the most important return measure of banks because it is influenced by how well the banks have performed on all other returns categories and indicates whether a bank can compete for private resources of capital in the economy. Calculated by dividing the net income by the total equity, it reflects the income earned from its internal sources.

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Net Worth}}$$

c. Earnings per Share

Rate of return on assets is a key indicator of measuring a bank's profitability. However, it does not measure precisely how well the bank is performing for its owners. For this reason, bankers and stakeholders look closely at earnings per share. This is an appropriate method to measure how a bank has done compared to previous years. The earnings per share is another ratio that was calculated to see how well the banks get return from a unit share. It was computed as the ratio of net profit after tax to the number of shares.

$$\text{EPS} = \frac{\text{Net Profit}}{\text{Number of Shares}}$$

One limitation of EPS is that it is difficult to compare banks on the basis of EPS, however, because dividend-payout ratios may be different in different banks. If one bank has a high payout ratio and another one has a low payout ratio, then the percentage growth in earnings for the first, all else remaining constant, would not be as great as for the second because of the smaller increase in the first bank's capital base in the previous year. Another weakness of the EPS method of comparing banks is evident in the case of rapidly growing banks which must add outside equity capital in order to maintain an adequate equity base. The new shares will dilute EPS so that for two or three years after the new issue is sold, EPS will not be a fair indicator of the bank's performance.

3.3.1.5 Liquidity Ratio

Banks are in a business where liquidity is of prime importance. Any financial institutions must always be liquid to meet the depositors' and creditors' demand to maintain public confidence. There needs to be an effective assets and liabilities management system to minimize the maturity mismatches between assets and liabilities and to optimize returns. As liquidity has inverse relationship with profitability, financial institutions must strike a balance between liquidity and profitability. Banks must be able to manage demand and supply of funds. Cash balance, bank balance and investment in government bonds are the most liquid form of assets.

Liquidity is the ability of a firm to meet its current/short-term obligations when they fall due. A company should have enough cash and other current assets, which can be easily converted into cash so that it can meet its due obligations. In case of commercial banks, short term obligations are current deposits, saving deposits, short term loans and sources of meeting these obligations are cash and bank balance, money at call and short notice, investment in government securities and bills discounted and purchased.

From these ratios, much insight can be obtained into the present cash solvency of the firm and the firm's ability to remain solvent in the event of adversity. In the case of commercial banks, first type of liquidity risk arises when depositors of commercial banks seek to withdraw their money and the second type does when commitment holders want to exercise the commitments recorded off the balance sheet. Commercial banks have to borrow the additional funds or sell the assets at fire sale price to pay off the deposit liabilities. They become insolvent if sale price of the assets are not enough to meet the liability withdrawals. The second type of liquidity risk arises when demand for unexpected loans cannot be met due to the lack of the funds. Commercial banks can raise the funds by running down their cash assets, borrowing additional funds in the money markets and selling off other assets at distressed price. Both liquidity risks affect the health of commercial banks adversely.

Therefore, managing liquidity is among the most important activities conducted by the banks. Liquidity of the bank should be maintained according to the standards. Excess liquidity as well as lack of liquidity can be considered as bad symptoms to the bank. If the bank does not hold enough liquidity, it will not be able to meet its obligations, take advantage of favorable business opportunities and meet emergencies. On the other hand, a high degree of liquidity maintained to minimize such liquidity risks seriously affects the profit earning capacity of commercial banks. Returns on highly liquid assets are almost zero. In such a case, assets remain idle which adds nothing to the bank's earnings. So maintaining the right balance between liquidity position and profitability is very important. It is mandatory for commercial banks to maintain a certain percentage of their deposits as reserves with the NRB according to its regulations.

In this study, different liquidity ratios like current ratio, cash and bank balance to total deposit ratio, total loan to total deposit ratio are used to evaluate the liquidity position of the commercial banks.

a. Cash and Bank Balance to Total Deposit Ratio

This ratio is employed to measure whether the banks' cash balance is sufficient to cover unexpected demand made by the depositors. It is calculated by dividing cash and bank balance by total deposit.

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

A higher ratio shows higher liquidity and greater ability of the bank to meet unexpected demand made by the depositors.

b. Loan and Advances to Total Deposit Ratio or Credit to Deposit Ratio (CDR)

The CDR reveals the efficiency with which the commercial and financial intermediaries are tapping savings from the available sources and channelizing them to various productive activities of the economy.

The ratio tries to find out to what extent the bank is able to utilize the depositor's funds to earn profit, by providing loans and advances. It is computed by dividing the total amount of loans and advances by total deposit. Higher ratio indicates proper utilization of funds whereas low ratio is the signal that the company has more funds than it really needs for its operations.

$$\text{Loans and Advances to Total Deposit Ratio} = \frac{\text{Loans and Advances}}{\text{Total Deposit}}$$

3.3.2 Statistical Tools

3.3.2.1 Average

The most popular and widely used measure of representing the entire data by the value is known as an average. Its value is obtained by adding together all items and by dividing this total by the number of items. The purpose of computing the average value for set of observation is to obtain a single value which is representative of all the items and which the mind can grasp simply and quickly. The single value is the point of location around which the individual items cluster. Since, average reduce the mass of data to a single figure, they are very useful for the purpose of making comparative study.

Symbolically,

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

Where,

$\sum X$ = the sum of observations

N = Number of observation.

3.3.2.2 Standard Deviation

The standard deviation measures the absolute value of risk .i.e. variability of the returns from the mean returns. It is also known as root mean square deviation for the reasons that it is the square root of the mean of the squared deviations from arithmetic means. A large S.D. means a lower degree of homogeneity of the observation of a series and vice versa.

Symbolically,

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

Where,

X =observation

\bar{X} =Mean or Average

n = number of observations

3.3.2.3 Test of Hypothesis

To test whether there is statistically significant correlation between the related variable of the different sub groups of Nepalese commercial Banks, F – test is done. The F –test, sometimes called Variance Test Ratio is based on F distribution.

R. A. Fisher introduced the variance in the analysis of statistical data. Fisher developed an elaborated technique of analyzing the variance of two or more series for the purpose of studying their characteristics.

In the analysis of variance, an attempt is made to try to find out whether the means given by a number of samples are significantly different from one another. The technique of variance analysis developed by Fisher is very useful to study the significance of the differences of the mean value of samples.

F test is calculated by dividing the variance between samples by variance within samples. The following formula is used,

$$\text{F-test} = \frac{\text{Variance between the Samples}}{\text{Variance within the Samples}}$$

For the analysis of variances (ANNOVA) following formula is used,

$$\text{Correction Factor (c.f.)} = \frac{T^2}{n}$$

$$\text{Total Sum of Squares (SST)} = \sum(x_1^2 + x_2^2 + x_3^2) - \frac{T^2}{n}$$

$$\text{Sum of Squares between Samples (SSC)} = \frac{\sum(x_c)^2}{n} - \frac{T^2}{n}$$

$$\text{Sum of Squares within samples (SSE)} = \text{Total sum of Squares (SST)} - \text{Sum of Squares between samples (SSC)}$$

Table 3.1

Analysis of Variance (ANNOVA) Table

| Source of Variation | SS (Sum of Squares) | V Degrees of freedom | MS Mean Square | Variance Ratio of F |
|----------------------------|-----------------------------|-----------------------------|-----------------------|----------------------------|
| Between Samples | SSC | $V_1 = c-1$ | $MSC = SSC / (c-1)$ | |
| Within Samples | SSE | $V_2 = n-c$ | $MSE = SSE / (n-c)$ | MSC / MSE |
| Total | SST | n-1 | | |

Where,

SST = Total Sum of squares

SSC = Sum of Squares between samples

SSE = Sum of Squares within samples

MSC = Mean sum of Squares between samples

MSE = Mean Sun of Squares within samples.

3.4 Data Collection Methodology

3.4.1 Sample size

At present there are 25 commercial banks operating in Nepal. Out of this, Rastriya Banijya Bank is wholly owned by Nepal Government while Nepal Government has controlling stake in Nepal Bank Limited. There are 22 private commercial banks out of which 7 are joint venture banks in collaboration with the foreign investment partners and the remaining 15 are fully owned by the Nepalese investors.

To attain the objectives of the research, the population has been defined in terms of the whole banking industry of Nepal comprising of 25 commercial banks. For the purpose of this research, two public commercial banks, two domestic commercial banks and two joint venture commercial banks were randomly selected.

3.4.2 Data Collection Procedures

The study is based specially on secondary data collected from the relevant organizations and library searches. The annual report data of the concerned commercial banks, for the period 2004-2008, are used for deriving the key financial ratios in order to evaluate and

assess the performance of the Nepalese Commercial Banks. The data would be collected keeping in view the objectives of the study principally based on secondary data analysis, covering published reports and publications of the Nepal Rastra Bank, the websites of commercial banks in Nepal and Nepal Rastra Bank. The supplementary data would be obtained from published records of concerned banks, booklets, journals, similar previous dissertations relating to this study, and from organizations like Stock Exchange Center in Nepal and Nepal Rastra Bank. In addition, foreign sources are tapped as well such as reports and publications of World Bank, Asian Development Bank (ADB) and International Monetary Fund (IMF) and others.

However, to justify and complement the secondary data and information, primary data and information were also gathered by visiting key informants and officials of the relevant banking offices.

CHAPTER - IV

PRESENTATION AND ANALYSIS OF DATA

In this chapter, data collected from secondary sources are presented and analyzed by using financial and statistical tools and techniques. The collected data were categorized, processed and analyzed using appropriate tools, techniques and methods. Based upon the primary findings of different statistical and financial measurements, the data were categorized and arranged through suitable tables and graphs for further processing and analysis. Hence the descriptive presentations are used followed by complimenting tables and graphs wherever possible to analyze the position and performance of the commercial banks under study, effectively and efficiently

A. Data Presentation

The analysis of the present study is based on the CAMEL framework. But in this study, the “M” component has been exempted due to the presence of much more complication. In the study, financial performance check up of the sampled banks focuses on the four components: Capital Adequacy, Asset Quality, Earnings and Liquidity (CAEL). So, analysis of the financial performance of the sampled commercial banks of Nepal is carried within the overall framework of the CAEL. Indicators of each component also have been used according to the financial data disclosed in the annual reports of sampled commercial banks. Other than the CAEL framework, average, trend analysis, and one way analysis of variance (ANNOVA) are used in this study to evaluate the financial performance and soundness of the sampled commercial banks.

4.1 Capital Adequacy Ratio (CAR)

The Total Capital of commercial banks is the sum of Core Capital and Supplementary Capital. In this study, Total Capital Ratios were used as indicators to determine the capital adequacy of the sampled commercial banks.

The minimum capital adequacy ratio (CAR), as set by the Nepal Rastra Bank, required to be maintained by all the commercial banks of Nepal in the FY’02 was nine percent. With

the passage of time, it increased to 10 percent in FY'03 and again to 11 percent in FY'04-08. (See Table 4.1)

Table 4.1

Minimum CAR to be maintained by Commercial Banks of Nepal as per NRB

| Year | Minimum CAR as directed by the Central Bank (NRB) |
|-------------|--|
| 2002 | 9% |
| 2003 | 10% |
| 2004 | 11% |
| 2005 | 11% |
| 2006 | 11% |
| 2007 | 11% |
| 2008 | 11% |

Source: Nepal Rastra Bank, Banking Supervision Annual Report, 2002-2008

Table 4.2 shows the CAR of the sampled commercial banks for the entire study period. It was analyzed by comparing the CAR of the sampled commercial banks with the minimum Capital Adequacy Ratio as directed by the Nepal Rastra Bank for the respective fiscal years. The Total Capital Adequacy Ratio of the two public sector banks (Nepal Bank Limited and Rastriya Banijya Bank Limited) throughout the period of study was less than the minimum CAR ratio as directed by the Nepal Rastra Bank. It could not meet the minimum capital adequacy standard set by the NRB in all the studied period (2004-2008).

In general, all the Domestic Banks and the Joint Venture Banks under study met the Capital adequacy ratio as directed by the Nepal Rastra Bank throughout the study period.

Table 4.2**Total Capital Adequacy Ratio of the Sampled Commercial Banks for the Study
Period in Percentage**

| Year | NBL | RBB | NIBL | LBL | Nabil | SCBNL | Average |
|----------------|---------------|---------------|--------------|--------------|--------------|--------------|----------------|
| 2004 | -28.25 | -44.28 | 11.18 | 29.19 | 13.56 | 15.99 | -0.43 |
| 2005 | -24.97 | -42.12 | 11.58 | 20.88 | 12.44 | 16.36 | -0.97 |
| 2006 | -19.54 | -34.12 | 11.97 | 14.96 | 12.31 | 14.91 | 0.08 |
| 2007 | -37.97 | -42.61 | 12.12 | 12.43 | 12 | 15.71 | -4.72 |
| 2008 | -33.05 | -36.56 | 11.63 | 11.17 | 11.1 | 13.15 | -3.76 |
| Average | -28.75 | -39.94 | 11.70 | 17.73 | 12.28 | 15.22 | -1.96 |

Source: Annual Reports of Respective Commercial Banks, 2004-2008

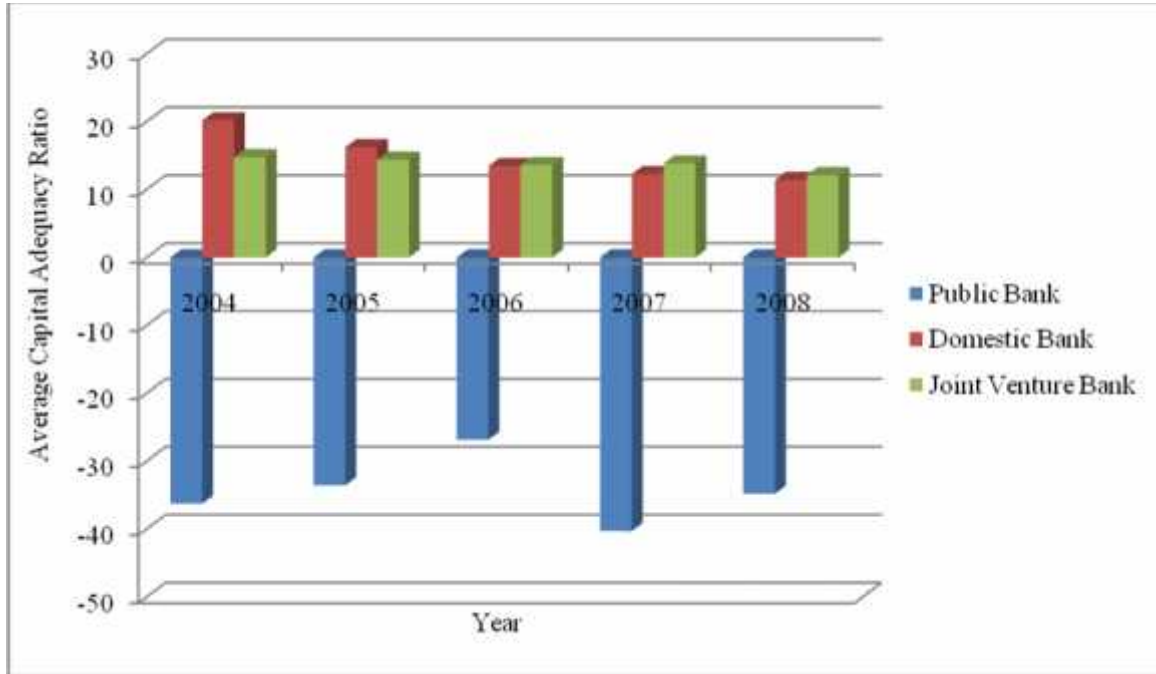
Capital Adequacy Ratio, as measured by Capital to Risk Weighted Assets Ratio of the Public Sector Bank as a whole, for the entire period of study (2004-2008) was negative (-34.34 percent). The Domestic Commercial Banks and Joint Venture Commercial Banks had average CAR of 14.71 percent and 13.75 percent respectively. From among the different groups of commercial banks, Domestic Banks had the highest average CCAR (Capital to risk weighted assets) of 14.71 percent while the Public sector banks had the lowest average CAR of -34.34 percent during the study period. (See Table 4.3)

Table 4.3**Average Capital Adequacy Ratio of the Different Sub Groups of Commercial Banks**

| Year | Public Banks | Domestic Banks | Foreign Joint Venture Banks |
|----------------|---------------------|-----------------------|------------------------------------|
| 2004 | -36.26 | 20.18 | 14.77 |
| 2005 | -33.54 | 16.23 | 14.40 |
| 2006 | -26.83 | 13.46 | 13.61 |
| 2007 | -40.29 | 12.27 | 13.85 |
| 2008 | -34.80 | 11.40 | 12.12 |
| Average | -34.34 | 14.71 | 13.75 |

Figure 4.1

Average Capital Adequacy Ratio of the Different Sub Groups of Commercial Banks



Test of Hypothesis

Ho (Null hypothesis): There is no significant difference between the averages Capital Adequacy Ratio of the different sub groups of commercial banks.

Ha (Alternative Hypothesis): There is significant difference between the average Capital Adequacy Ratio of the different sub-groups of commercial banks.

Table 4.4

Test of Analysis of Variance for Average CAR of Different Sub Groups of Commercial Banks

| Source of Variation | Sum of Square | Degree of Freedom | Mean Square | F |
|---------------------|----------------|-------------------|-------------|-------------------|
| Between Samples | 7866.7505 | 2 | 3933.37525 | 225.915933 |
| Within Sampled | 208.9295 | 12 | 17.4107917 | |
| Total | 8075.68 | 14 | | |

Table 4.4 showed that table value of F for $V_1=2$ and $V_2=12$ at five percent level of significance was 3.8853. Table 4.4 showed that the calculated value of F is more than the table value and hence the difference in the mean Capital Adequacy Ratio of the sub groups of commercial banks is significant. It therefore signified that, capital adequacy ratio of all the different sub groups of Commercial Banks of Nepal is different. Hence the one way analysis of variance showed that the null hypothesis was rejected at five percent level of significance.

4.2 Asset Quality

4.2.1 Total deposits of the Commercial Banks

The total deposit is one of the indices that mirror the effectiveness with which the savings available with the public are mopped up by the financial intermediaries.

Table 4.5

Total Deposits of the Sampled Commercial Banks for the Study Period in Million

| Year | 2004 | 2005 | 2006 | 2007 | 2008 | Growth Rate (%) | Average |
|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|----------------|
| Banks | | | | | | | |
| NBL | 36288.5 | 34744.2 | 35444.9 | 38715.2 | 41451.7 | 14.22 | 37328.9 |
| RBB | 40313.6 | 43489.2 | 45700.7 | 50192.6 | 57990.8 | 43.85 | 47537.38 |
| NIBL | 11706.3 | 14254.8 | 18927.3 | 24488.9 | 34451.8 | 194.3 | 20765.82 |
| LBL | 1684.3 | 3028.6 | 4444.3 | 7611.7 | 10917.2 | 548.17 | 5537.22 |
| Nabil | 14098 | 14586.6 | 19348.4 | 23342.4 | 31915.04 | 126.38 | 20658.088 |
| SCBNL | 21161.4 | 19344 | 23050.5 | 24640.3 | 29743.9 | 40.55 | 23588.02 |

Source: Annual Report of Respective Commercial Banks, 2004-2008

The above Table 4.5 illustrates the total deposits of the sampled commercial banks for the study period (mid-July 2004-2008) and provides the rate of growth of deposits based on FY 2004 as the base year. The average total deposit mobilized by Nepal Bank Limited was Rs.37328.9 million, exhibiting a growth rate of 14.22 percent in the year 2008 as compared to year 2004. The growth rate was 43.85 percent for Rastriya Banijya Bank with an average total deposit of Rs.47537.38 million.

Furthermore, the average total deposit of Nepal Investment Bank Limited was Rs. 20765.82 million with comparatively high growth rate of 194.30 percent in the year 2008 as compared with the year 2004. Similarly, Laxmi Bank Limited reported a high growth rate of 548.17 percent with an average total deposit of Rs. 5537.22 million. However, the bank with the highest rate of growth of deposits does not necessarily mean having high average total deposits.

Furthermore, the table indicated the growth rates of Nabil Bank Ltd. and Standard Chartered Bank Ltd. were 126.38 percent and 40.55 percent respectively.

To rank the banks on the basis of their average total deposits, Rastriya Banijya Bank had the highest average deposits of Rs. 47537.38 million, followed by Nepal Bank Limited with Rs. 37328.90 million where as Laxmi Bank had the lowest average total deposit of Rs. 5537.22 million under the study period.

Table 4.6
Average Total Deposits of the Different Sub Groups of Commercial Banks

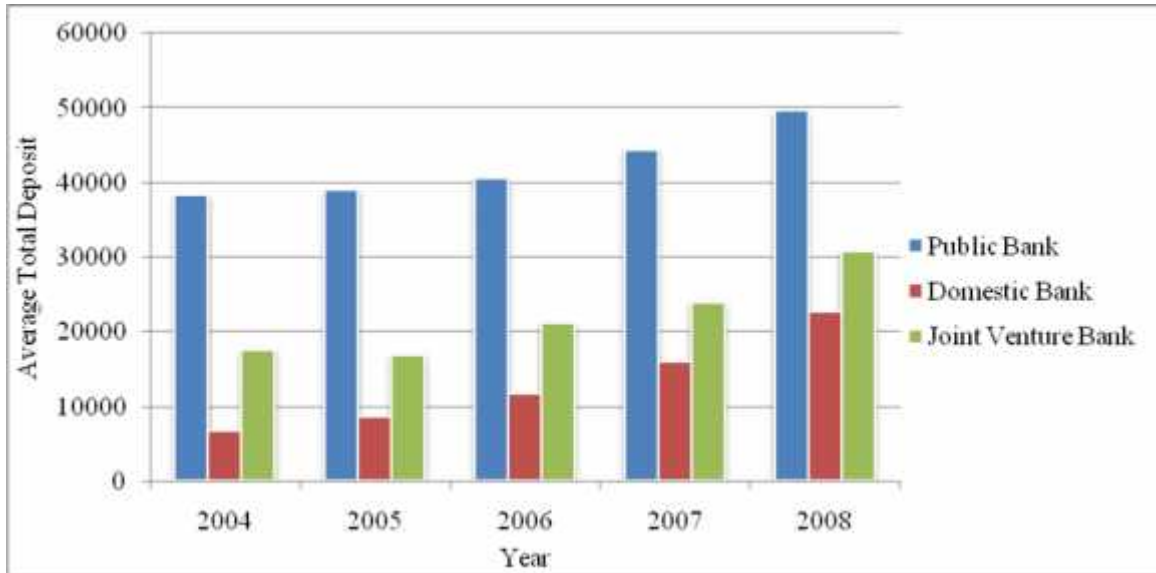
| Year | Public Banks | Domestic Banks | Foreign Joint Venture Banks |
|----------------|---------------------|-----------------------|------------------------------------|
| 2004 | 38301.05 | 6695.3 | 17629.7 |
| 2005 | 39116.7 | 8641.7 | 16965.3 |
| 2006 | 40572.8 | 11685.8 | 21199.45 |
| 2007 | 44453.9 | 16050.3 | 23991.35 |
| 2008 | 49721.25 | 22684.5 | 30829.47 |
| Average | 42433.14 | 13151.52 | 22123.054 |

It is clear from the above table 4.6 that the Public Sector Commercial Banks had the highest average total deposit of Rs.42433.14 million in absolute terms with a growth rate of 29.81 percent where as domestic commercial banks had the lowest average total deposits of Rs. 13151.52 million, exhibiting the highest growth rate of 238.81 percent, during the period of study. On the other hand, foreign joint venture banks had average total deposit of Rs. 22123.05 million, which was lower than the public sector banks but

higher than the domestic banks. It reported a growth rate of 74.87 percent in the year 2008 as compared to the year 2004.

Figure 4.2

Average Total Deposits of the Different Sub Groups of Commercial Banks



4.2.2 Total Credit of the Commercial Banks

The volume of total bank credit disbursed shows the extent to which the productive sector has availed itself of credit from the commercial banks and other financial intermediaries.

Table 4.7

Total Credit of Sampled Commercial Banks for the Study Period in Millions

| Year | 2004 | 2005 | 2006 | 2007 | 2008 | Growth Rate (%) | Average |
|--------------|---------|---------|---------|---------|---------|-----------------|----------|
| Banks | | | | | | | |
| NBL | 19108 | 17456 | 12180.4 | 13377.5 | 15480.6 | 81.01 | 15520.5 |
| RBB | 26514.4 | 28614 | 26863.8 | 25214.8 | 27353.6 | 3.16 | 26912.12 |
| NIBL | 7174.4 | 10295.4 | 13007.2 | 17482 | 27145.5 | 278.36 | 15020.9 |
| LBL | 1701 | 2700.8 | 4274.3 | 6527.5 | 9784 | 475.19 | 4997.52 |
| Nabil | 8635.1 | 11078 | 13021.3 | 15657.1 | 21514.6 | 149.15 | 13981.22 |
| SCBNL | 6662 | 8213.5 | 8905.1 | 10538.1 | 13355 | 100.46 | 9534.74 |

Source: NRB, Banking & Financial Statistics Mid July 2008

Table 4.7 depicts the total credit of the sampled commercial banks for the study period (mid-July 2004-2008) and provides the rate of growth of credit based on FY 2004 as the base year. The average total credit of Nepal Bank Limited was Rs. 15520.5 million, exhibiting a growth rate of 81.01 percent in the year 2008 as compared to year 2004. The growth rate is 3.16 percent for Rastriya Banijya Bank with an average total credit of Rs. 26912.12 million.

Among the Domestic Commercial Banks, the average total credits of Nepal Investment Bank Limited was Rs. 15020.9 million with comparatively high growth rate of 278.36 percent in the year 2008 as compared with fiscal year 2004. Similarly, Laxmi Bank Limited reported a high growth rate of 475.19 percent with an average total credit of Rs. 4997.52 million. However, the bank with the highest rate of growth of credit does not mean having high average of total credit.

Furthermore, the table indicated the growth rates of Nabil Bank Ltd. and Standard Chartered Bank Ltd. are 149.15 percent, 100.46 percent respectively.

It is clear from the table that Rastriya Banijya Bank (RBB) had the highest average of total credits, where as Laxmi Bank Ltd. had the lowest average total credits during the study period.

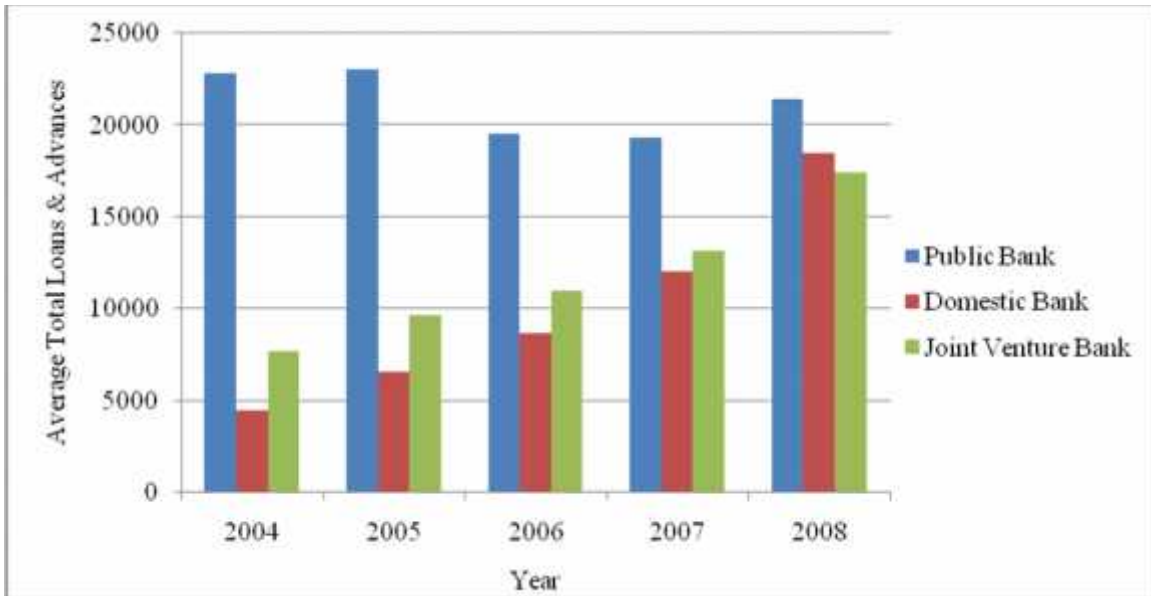
Table 4.8
Average Total Credit of the Different Sub Groups of Commercial Banks

| Year | Public Banks | Domestic Banks | Foreign Joint Venture Banks |
|----------------|---------------------|-----------------------|------------------------------------|
| 2004 | 22811.2 | 4437.7 | 7648.55 |
| 2005 | 23035 | 6498.1 | 9645.75 |
| 2006 | 19522.1 | 8640.75 | 10963.2 |
| 2007 | 19296.15 | 12004.75 | 13097.6 |
| 2008 | 21417.1 | 18464.75 | 17434.8 |
| Average | 21216.31 | 10009.21 | 11757.98 |

Table 4.8 shows the average total credits of the different sub-groups of commercial banks. It was found that the Public Sector Bank had the highest average total credits of Rs. 21216.31 million with growth rate of 93.88 percent and the Domestic banks had the lowest average total credit of Rs. 10009.21 million, exhibiting the highest growth rate of 316.08 percent during the period of study. Similarly, the foreign joint venture had average total credits amounting to Rs. 11757.98 million, exhibiting a growth rate of 127.95 percent in the FY 2008 as compared to FY 2004.

Figure 4.3

Average Total Loans & Advances of the Different Sub Groups of Commercial Banks



4.2.3 Non- Performing Loans and Advances of the Nepalese Commercial Banks

Table 4.9

Non-Performing Loan of the Sampled Commercial Banks for the Study Period

| Year | 2004 | 2005 | 2006 | 2007 | 2008 | Average |
|----------------|-------------------|------------------|------------------|------------------|---------------|------------------|
| Banks | | | | | | |
| NBL | 9640.08 | 8372 | 2262.18 | 1856 | 1410.8 | 4708.212 |
| RBB | 14470.52 | 13689.3 | 8045.5 | 6876.5 | 5951.8 | 9806.724 |
| NIBL | 181.44 | 280.87 | 272.49 | 421.97 | 309.4 | 293.234 |
| LBL | 0 | 44.49 | 33.5 | 23.1 | 12.7 | 22.758 |
| Nabil | 286.68 | 144.51 | 182.6 | 178.3 | 171.4 | 192.698 |
| SCBNL | 252.2 | 226.31 | 195.9 | 197.1 | 128.7 | 200.042 |
| Total | 24830.92 | 22757.48 | 10992.17 | 9552.97 | 7984.8 | 15223.668 |
| Average | 4138.48667 | 3792.9133 | 1832.0283 | 1592.1617 | 1330.8 | 2537.278 |

Source: NRB, Banking & Financial Statistics Mid July 2008

In a healthy financial system, the level of NPL should be contained within five percent. The financial sector reform program focused its efforts at reducing the level of NPL to this minimum level. Therefore, it was a challenging task for Nepalese authorities to date. With marginal improvement, the level of non-performing loans and advances remained at a significantly high level. According to Table 4.9, the aggregate non-performing loan of the sampled commercial banks in Mid-July 2008 was Rs. 7984.8 million. The volume of NPL of the commercial banks as a whole, which was Rs. 24830.92 million in 2004, the volume of NPL underwent a positive decreasing trend. It decreased to Rs. 22757.48 million in 2005, reached to Rs. 10992.17 million in 2006, Rs. 9552.97 million in 2007 and Rs. 7984.8 million in 2008. The unsatisfactory and high level of NPL in the commercial banks was mainly due to the high percentage of NPL of the two public banks- Nepal Bank Ltd. and Rastriya Banijya Bank Ltd. Nepal Bank Ltd. had an average NPL of Rs. 4708.212 million while Rastriya Banijya Bank had an average NPL of Rs. 9806.724 million over the study period.

Table 4.10
Non-Performing Loans to Total Credits Ratio of the Sampled Commercial Banks
for the Study Period

| Year | NBL | RBB | NIBL | LBL | Nabil | SCBNL | Average |
|----------------|------------|------------|-------------|------------|--------------|--------------|----------------|
| 2004 | 53.74 | 57.64 | 2.47 | 0 | 3.35 | 3.77 | 20.1616667 |
| 2005 | 49.64 | 50.7 | 2.69 | 1.63 | 1.32 | 2.69 | 18.1116667 |
| 2006 | 18.18 | 34.83 | 2.07 | 0.78 | 1.38 | 2.13 | 9.895 |
| 2007 | 13.49 | 27.65 | 2.37 | 0.35 | 1.12 | 1.83 | 7.80166667 |
| 2008 | 8.95 | 21.65 | 1.12 | 0.13 | 0.79 | 0.92 | 5.59333333 |
| Average | 28.8 | 38.494 | 2.144 | 0.578 | 1.592 | 2.268 | 12.3126667 |

Source: NRB, Banking & Financial Statistics Mid July 2008

Table 4.10 exhibits the average NPL as a percentage of the total credit of the sampled commercial banks for the period 2004-2008. The total average NPL to Credit ratio of the sampled commercial banks as a whole for the study period showed a positive trend with the average NPL to credit ratio continuously decreasing over the study period. The NPL of the total commercial banks as a whole decreased to 5.59 percent in 2008 from an alarming 20.16 percent in 2004.

Analyzing the NPL to Credit Ratio of the different individual sampled commercial banks, it was found that the Nepal Bank Ltd. had its ratio ranging from a maximum of 53.74 percent in 2004 to a minimum of 8.95 percent in 2008. Its average NPL to Credit ratio was 28.8 percent over the period of study. The other public bank, Rastriya Banijya Bank had a maximum NPL to credit ratio of 57.64 percent in 2004 and a minimum of 21.65 percent in 2008. Both the two public banks' NPL ratio showed a declining trend.

Among the domestic banks, Nepal Investment Bank Ltd. had a maximum NPL ratio of 2.69 percent in 2005 and a minimum ratio of 1.12 percent in 2008. Its average NPL ratio over the period of study was found to be 2.144 percent. Laxmi Bank Ltd. had NPL ratio ranging from a maximum of 1.63 percent in 2005 to a minimum of zero percent in fiscal

year 2004. Its average NPL for the study period was 0.578 percent. The NPL status of Laxmi Bank Ltd. was satisfactory.

Among the Joint Venture Banks, the NPL ratio of Nabil Bank Ltd. showed a declining trend. Its NPL ratio ranged from a maximum of 3.35 percent in 2004 to a minimum of 0.79 percent in 2008. Its average for the period of study was 1.592 percent. Similarly, the NPL ratio of Standard Chartered Bank Nepal Ltd. ranged from 3.77 percent to .92 percent.

Analyzing the average NPL ratio of the individual sampled commercial banks of Nepal, it was found that the two public banks Nepal Bank Ltd. and Rastriya Banijya Bank Ltd. had the highest NPL ratio of 28.8 percent and 38.494 percent respectively. Laxmi Bank Ltd. had the lowest average NPL ratio of 0.578 percent over the period of study.

Table 4.11

Trend of NPL to Total Credit of the Different Sub Groups of Commercial Banks

| | Fiscal Year | | | | | Change | Change | Change | Change |
|----------------------------|--------------|--------------|---------------|--------------|--------------|---------------|--------------|--------------|--------------|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2005 | 2006 | 2007 | 2008 |
| Banks | | | | | | (%) | (%) | (%) | (%) |
| Public Banks | | | | | | | | | |
| NBL | 53.74 | 49.64 | 18.18 | 13.49 | 8.95 | 7.62 | 63.37 | 25.79 | 33.65 |
| RBB | 57.64 | 50.7 | 34.83 | 27.65 | 21.65 | 12.04 | 31.3 | 20.61 | 21.69 |
| Average | 55.69 | 50.17 | 26.505 | 20.57 | 15.3 | 9.91 | 47.16 | 22.39 | 25.61 |
| Local Private Banks | | | | | | | | | |
| NIBL | 2.47 | 2.69 | 2.07 | 2.37 | 1.12 | -8.9 | 23.04 | -14.49 | 52.74 |
| Laxmi Bank | 0 | 1.63 | 0.78 | 0.35 | 0.13 | 0 | 52.14 | 55.12 | 62.85 |
| Average | 1.235 | 2.16 | 1.425 | 1.36 | 0.625 | -74.89 | 34.02 | 4.56 | 54.04 |
| Joint Venture Banks | | | | | | | | | |
| NABIL | 3.35 | 1.32 | 1.38 | 1.12 | 0.79 | 60.59 | -4.54 | 18.84 | 29.46 |
| SCBL | 3.77 | 2.69 | 2.13 | 1.83 | 0.92 | 28.64 | 20.81 | 14.08 | 49.72 |
| Average | 3.56 | 2.005 | 1.755 | 1.475 | 0.855 | 43.67 | 12.46 | 15.95 | 42.03 |

Source: NRB, Banking & Financial Statistics, Mid July 2008

Like the general decreasing trend observed in the NPL of the sampled commercial banks as a whole, the sub-groups of commercial banks also reported similar trend. The average

NPL of the public commercial banks decreased by 9.91 percent in 2005, 47.16 percent in 2006, 22.39 percent in 2007 and 25.61 percent in 2008.

Similarly in the case of domestic commercial banks, the average NPL decreased by 34.02 percent in 2006, 4.56 percent in 2007 and 54.04 percent in 2008.

Joint Venture Banks also reported similar decreasing trend with the average NPL decreasing by 43.67 percent in 2005, 12.46 percent in 2006, 15.95 percent in 2007 and 42.03 percent in 2008.

Table 4.12

Average NPL to Total Credit of the Different Sub Groups of Commercial Banks

| Year | Public Banks | Domestic Banks | Foreign Joint Venture Banks |
|----------------|---------------------|-----------------------|------------------------------------|
| 2004 | 55.69 | 1.23 | 3.56 |
| 2005 | 50.17 | 2.13 | 2 |
| 2006 | 26.5 | 1.42 | 1.75 |
| 2007 | 20.57 | 1.36 | 1.47 |
| 2008 | 15.3 | 0.62 | 0.85 |
| Average | 33.646 | 1.352 | 1.926 |

Analyzing the NPL to Credit ratio of the different sub groups of commercial banks, it was found that the aggregate average NPL to Total Credit of the different sub-groups of the commercial banks namely, Public Banks, Domestic Banks and Joint Venture Banks over the entire period of study were 33.64 percent, 1.35 percent and 1.92 percent respectively. The public sector banks had the highest percentage (33.64 percent) and the domestic banks had the lowest percentage of NPL (1.35 percent). But the variability on the return was highest in the case of public sector banks and lowest in the case of domestic commercial banks.

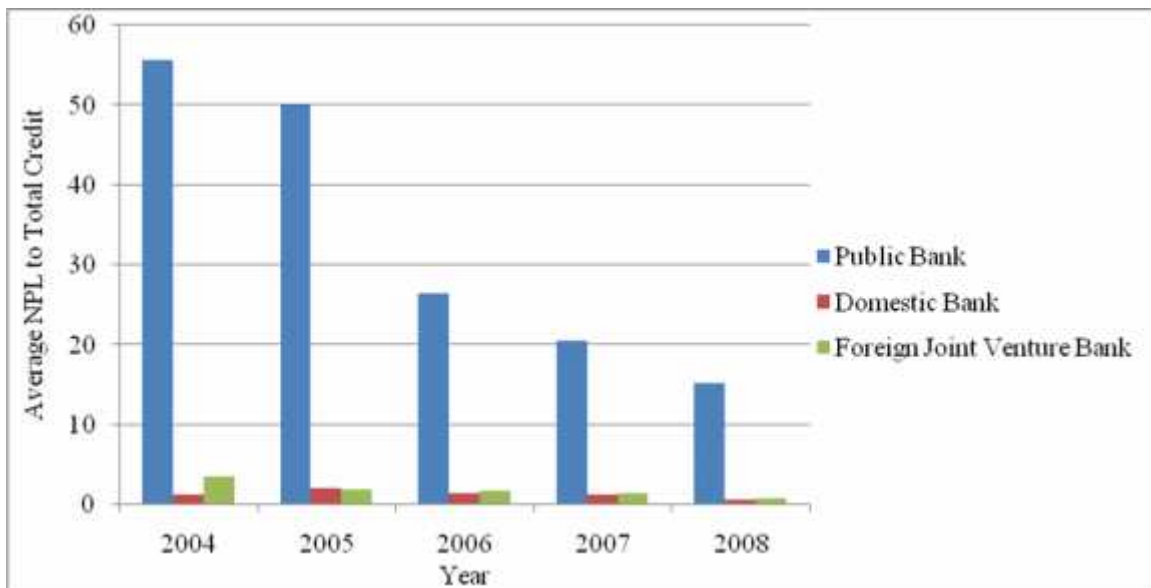
Rastriya Banijya Bank and Nepal Bank Limited suffered from high level of NPL problems. In order to strengthen the credit operations and enhance risk skills, the bank was controlled by foreign management teams with strengthened credit unions. The management team was given targets to lower down the level of NPL and recover/restructure the problem loans. Due to these efforts made by the management

teams, the level of NPL in RBB and NBL decreased. NBL and RBB both had NPL higher than 50 percent of total loans in mid-July 2004 and 2005. However, it decreased in mid-July 2006 as the result of the restructuring of the two banks. The average percent of NPL to total loans and advances decreased in the case of public banks in the year 2006. The average percent of NPL of the public banks, which was 55.69 percent in fiscal year 2004 decreased to 15.30 percent in 2008.

Similarly, the overall average NPL percent of the Domestic private banks experienced a positive trend. The overall average NPL which stood at 1.23 percent in 2004 increased to 2.16 percent in 2005 and decreased to 1.42 percent in 2006 and reached to 0.62 percent in 2008. The average NPL of the aggregate local private banks was 1.352 percent over the entire study period. Like the general positive decreasing trend in the level of average NPL percent of the public and local private banks, the level of average NPL of the joint venture banks witnessed a decreasing trend as well. The NPL which stood at 3.56 percent in 2004 decreased to 2.00 percent in 2005 and 0.85 percent in 2008. The total average NPL of the joint venture banks was 1.926 percent over the period of study.

Figure 4.4

Average NPL to Total Credit of the Different Sub Groups of Commercial Banks



Test of Analysis of Variance

H₀ (Null hypothesis): There is no significant difference between the average NPL of the sub groups of commercial banks.

H_a (Alternative Hypothesis): There is significant difference between the average NPL of the sub-groups of commercial banks.

Table 4.13

Test of Analysis of Variance for Average NPL to Total Credit of the Different Sub Groups of Commercial Banks

| Source of Variation | Sum of Squares | Degree of Freedom | Mean Squares | F |
|---------------------|--------------------|-------------------|--------------|--------------------|
| | | | | |
| Between Samples | 3415.65 | 3-1=2 | 1707.825 | 5.700445602 |
| Within Samples | 3595.14 | 15-3=12 | 299.595 | |
| | | | | |
| Total | 7932.859752 | 14 | | |

The Table value of F for V₁=2 and V₂=12 at five percent level of significance was 3.8853. Since the calculated value of F is more than the table value and hence the difference in the mean NPL of the sub groups of commercial banks is significant. Hence the one way analysis of variance showed that the null hypothesis was rejected at five percent level of significance. It therefore signified that the Asset Quality as measured as NPL are different for the sub groups of sampled commercial banks of Nepal, i.e. the NPL of the Public Sector Banks are significantly higher than the domestic and foreign joint venture commercial banks of Nepal.

4.3 Earnings (Profitability)

4.3.1 Return on Assets (ROA)

The return on assets is a key indicator of profitability which measures the earnings of the firm generated from using invested capital, i.e. assets.

Table 4.14

Return on Assets of the Sampled Commercial Banks for the Study Period

| Year | NBL | RBB | NIBL | LBL | Nabil | SCBNL | Average |
|----------------|------------|------------|-------------|------------|--------------|--------------|----------------|
| 2004 | 0.18 | -11.32 | 1.15 | 0.4 | 2.73 | 2.27 | -0.77 |
| 2005 | 3.68 | 2.31 | 1.44 | 0.69 | 3.06 | 2.46 | 2.27 |
| 2006 | 3.36 | 1.88 | 1.64 | 0.68 | 3.23 | 2.56 | 2.23 |
| 2007 | 0.58 | 3.07 | 1.82 | 0.76 | 2.72 | 2.42 | 1.90 |
| 2008 | 0.57 | 2.94 | 1.79 | 0.94 | 2.32 | 2.45 | 1.84 |
| Average | 1.67 | -0.22 | 1.57 | 0.69 | 2.81 | 2.43 | 1.49 |

Source: Annual Reports of Respective Commercial Banks and Banking Supervision, NRB

Table 4.14 summarizes the Return on Assets ratio of each sampled commercial banks throughout the period of study (Mid-July 2004-2008). The total average ROA of the sampled commercial banks for the study period showed a negative trend. The average ROA of the entire commercial banks as a whole was negative (-0.77 percent) in 2004, which increased to peak to 2.27 percent on 2005 and decreasing gradually throughout the period of study and reached to 1.84 percent in 2008.

The return on asset of Nepal Bank Ltd. was found to be varied from a minimum of 0.18 percent in 2004 to a maximum of 3.68 percent in 2005. It had an average ROA of 1.67 percent over the entire study period.

The ROA ratio of Rastriya Banijya Bank ranged from a maximum of 3.07 percent in 2007 and a minimum of -11.32 percent in 2002. Its average ROA ratio was -0.22 percent over the entire period of study. The ROA ratio of these two public banks, Nepal Bank Limited and Rastriya Banijya Bank showed that relative to other commercial banks they were weak in earning performance during the study period. As per the conventional rule of rating, commercial banks having the ROA of less than one percent fell in the marginal

earning performance zone. So, earning performance of these two public banks was marginal during the study period.

The ROA of Nepal Investment Bank Ltd. ranged from a minimum of 1.15 percent in 2004 to a maximum of 1.82 percent in 2007. Its average ROA ratio over the period of study was 1.57 percent.

The ROA ratio of Laxmi Bank ranged from a maximum of 0.94 percent in 2008 to a minimum of 0.4 percent in 2004. Its average ROA ratio over the period of study stood at 0.69 percent. It's observed ROA ratio in all the fiscal year was less than one percent. Profitability indicators of Laxmi Bank Ltd. showed that relative to other commercial banks, it was weak in earning performance during the study period. As per the conventional rule of rating, the commercial banks having the ROA of less than one percent fell in the marginal earning performance zone. So, earning performance of Laxmi Bank Ltd. was marginal during the study period.

Nabil Bank had a minimum ROA ratio of 2.32 percent in 2008 and a maximum of 3.23 percent in 2006. Its average ROA ratio was 2.81 percent over the study period.

The ratio of Standard Chartered bank Ltd. also had their return on assets ratios ranging from 2.27 percent to 2.56 percent.

Analyzing the return on assets ratio of the sampled commercial banks, it was found that Nabil Bank Ltd. had the highest average ROA ratio of 2.81 percent where as Rastriya Banijya Bank had the lowest ROA ratio of -0.22 percent over the period of study.

Table 4.15

Average ROA of the Different Sub Groups of Sampled Commercial Banks

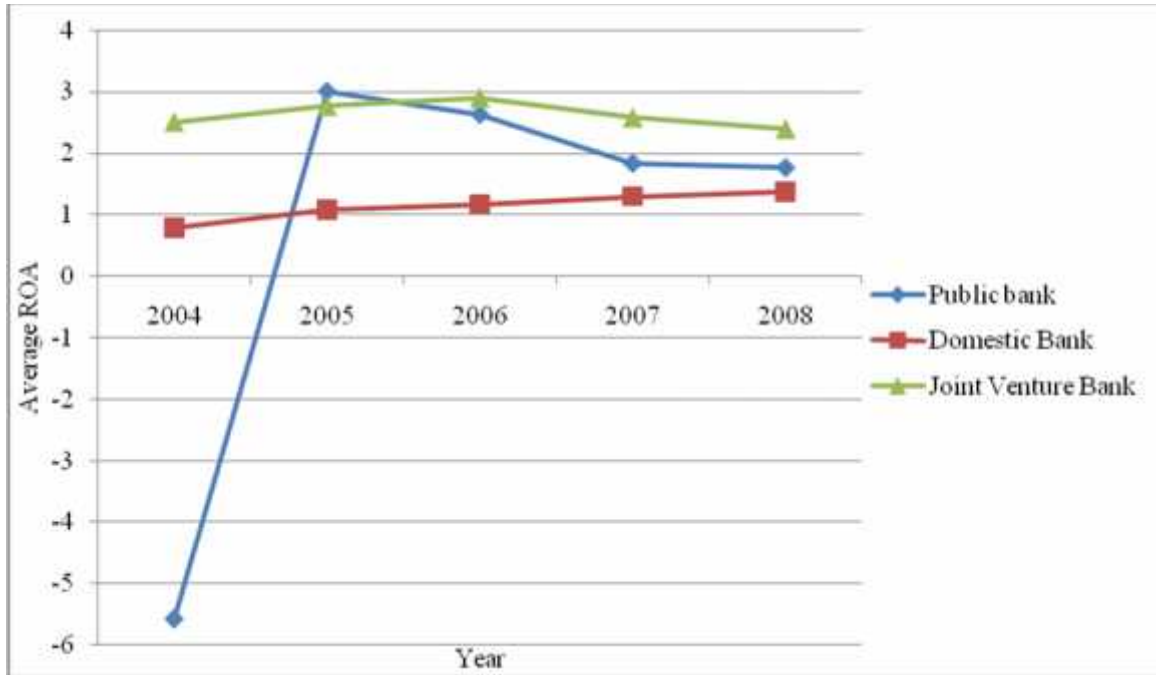
| Year | Public Banks | Domestic Banks | Foreign Joint Venture Banks |
|----------------|---------------------|-----------------------|------------------------------------|
| 2004 | -5.57 | 0.775 | 2.5 |
| 2005 | 2.995 | 1.065 | 2.76 |
| 2006 | 2.62 | 1.16 | 2.895 |
| 2007 | 1.825 | 1.29 | 2.57 |
| 2008 | 1.755 | 1.365 | 2.385 |
| Average | 0.725 | 1.131 | 2.622 |

According to Table 4.15, the average ROA of the sub-groups of commercial banks namely public banks, domestic banks and joint venture banks for the entire period of study were 0.725 percent, 1.131 percent and 2.622 percent respectively. From amongst the studied group of commercial banks, the joint venture banks had the highest ROA average. It implied that the joint venture banks were successful in generating more profit than other sub groups of commercial banks by efficiently utilizing its total assets.

The total ROA of the sub-groups of commercial banks showed positive increasing trend. The average ROA of the public banks was -5.57 percent in fiscal year 2004, which increased to 2.995 percent in 2005 and gradually decreasing to 1.755 percent in 2008. Local private banks and joint venture banks reported increasing trend. The average ROA of local private banks reached to 1.365 percent in 2008 from 0.775 percent in 2004. The average ROA of the joint venture banks had ROA of 2.5 percent in 2004 and increased to 2.385 percent in 2008.

Figure 4.5

Average ROA of the Different Sub Groups of Commercial Banks



Test of Analysis of Variance

H0 (Null hypothesis): There is no significant difference between the average ROA of the sub groups of commercial banks.

Ha (Alternative Hypothesis): There is significant difference between the average ROA of the sub-groups of commercial banks.

Table 4.16

Test of Analysis of Variance for Average ROA of the Different Sub Groups of Commercial Banks

| Source of Variation | Sum of Squares | Degree of Freedom | Mean Squares | F |
|---------------------|----------------|-------------------|--------------|--------------------|
| Between Samples | 10.02372333 | 3-1=2 | 5.011861665 | 0.713505252 |
| Within Samples | 84.29137667 | 15-3=12 | 7.024281389 | |
| Total | 94.3151 | 14 | | |

The Table value of F for V1=2 and V2=12 at five percent level of significance was 3.8853. Since the calculated value of F is less than the table value of F, the null hypothesis H0 is accepted. Hence the difference in the mean ROA of the sub groups of commercial banks is not significant. Hence the one way analysis of variance showed that the null hypothesis was accepted at five percent level of significance. That is, in terms of profitability measure, the ROA can be considered to be similar for all the sub groups of the commercial banks of Nepal.

4.3.2. Return on Equity (ROE)

Table 4.17

Return on Equity of the Sampled Commercial Banks for the Study Period

| Year | NBL | RBB | NIBL | LBL | Nabil | SCBNL | Average |
|----------------|------------|------------|-------------|------------|--------------|--------------|----------------|
| 2004 | 2.56 | 21.61 | 20.93 | 1.91 | 34.7 | 35.96 | 19.61 |
| 2005 | -7.88 | -4.85 | 19.67 | 4.11 | 31.29 | 33.89 | 12.71 |
| 2006 | -19.16 | -6.55 | 24.77 | 5.21 | 33.88 | 37.55 | 12.62 |
| 2007 | -3.63 | -9.77 | 26.68 | 7.59 | 35.9 | 32.68 | 14.91 |
| 2008 | -3.98 | -11.41 | 25.93 | 10.38 | 36.3 | 32.85 | 15.01 |
| Average | -6.42 | -2.19 | 23.60 | 5.84 | 34.41 | 34.59 | 14.97 |

Source: Annual Reports of Respective Commercial Banks (2004-2008)

The above table 4.17 summarizes the Return on equity ratio of each sampled commercial banks throughout the period of study. The average ROE of the sampled commercial banks has experienced a declining trend from 19.61 percent in 2004 to 12.62 percent in 2006 and slightly increased to 14.91 percent in 2007 and further increased to 15.01 percent in 2008.

From Table 4.17, the ROE of the sampled commercial banks was analyzed. Nepal Bank Ltd. had maximum ROE ratio of 2.56 percent in 2004 that went down to -7.88 percent in 2005 and dropped drastically to a minimum of -19.16 percent in 2006. It had an average ROE of -6.42 percent over the period of study.

Rastriya Banijya Bank had ROE ratio ranging from a maximum of 21.61 percent in 2004 to a minimum of -11.41 percent in 2008. It can be inferred from the result that either the internal source of RBB increased or the net profit had diminished. Its average over the entire period of study was -2.19 percent.

The ROE ratio of Nepal Investment Bank Ltd. was satisfactory over the period of study. The ROE ratio of NIBL was ranged from a maximum of 26.68 percent in 2007 to a minimum of 19.67 percent in 2005. Its average over the entire period of study was 23.60 percent.

Laxmi Bank had a minimum ROE ratio of 1.91 percent in 2004 which increased gradually and constantly throughout the period of study, its ROE ratio reached to 10.38 percent in 2008.

Nabil Bank Ltd. had more or less a constant ROE ratio over the study period. It had ROE ratio of 34.7 percent in 2004 which decreased to 31.29 percent in 2005 and gradually increased and reached to 36.30 percent in 2008. Its average ROE ratio was 34.41 percent for the period of study.

Standard Chartered Bank Nepal Ltd. had its ROE ratio ranging from a maximum of 37.55 percent in 2006 to a minimum of 32.68 percent in 2007. Its average ROE for the period of study was 34.59 percent.

Table 4.18

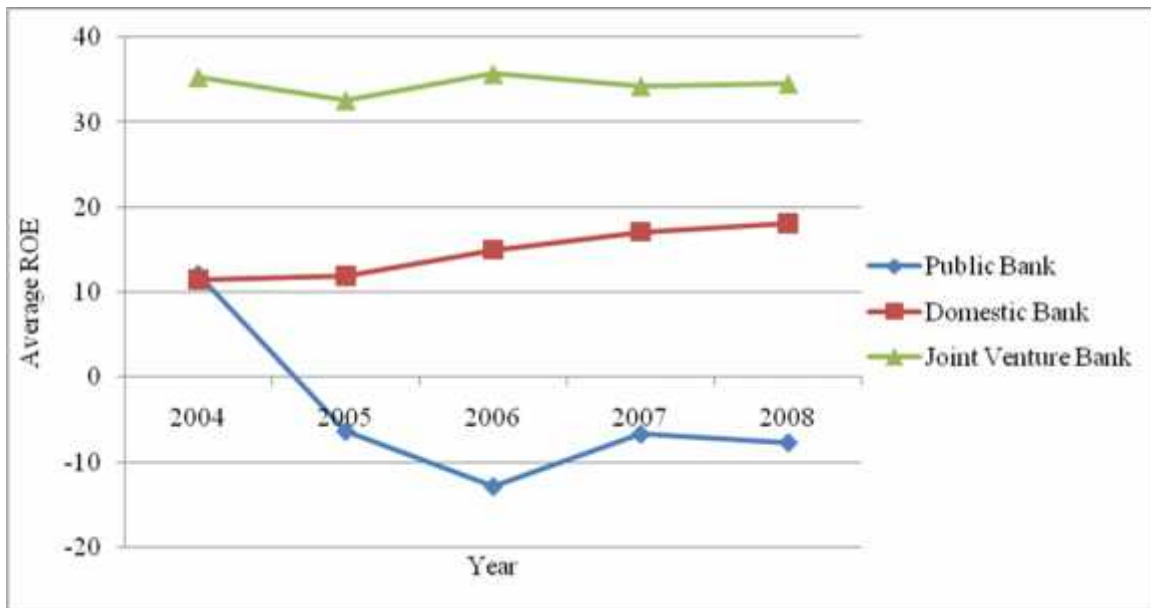
Average ROE of the Different Sub Groups of Commercial Banks

| Year | Public Banks | Domestic Banks | Foreign Joint Venture Banks |
|----------------|--------------|----------------|-----------------------------|
| 2004 | 12.085 | 11.42 | 35.33 |
| 2005 | -6.365 | 11.89 | 32.59 |
| 2006 | -12.855 | 14.99 | 35.715 |
| 2007 | -6.7 | 17.135 | 34.29 |
| 2008 | -7.695 | 18.155 | 34.575 |
| Average | -4.306 | 14.718 | 34.5 |

As per Table 4.18, the average ROE of the sub groups of sampled commercial banks namely, Public banks, Domestic banks, and Joint Venture Banks for the entire period of study were -4.306 percent, 14.718 percent and 34.5 percent respectively.

Figure 4.6

Average ROE of the Different Sub Groups of Commercial Banks



Test of Analysis of Variance

H₀ (Null hypothesis): There is no significant difference between the average ROE of the sub groups of commercial banks.

Ha (Alternative Hypothesis): There is significant difference between the average ROE of the sub-groups of commercial banks.

Table 4.19
Test of Analysis of Variance for Average ROE of the Different Sub Groups of Commercial Banks

| Source of Variation | Sum of Squares | Degree of Freedom | Mean Squares | F |
|---------------------|------------------|-------------------|--------------|------------------|
| Between Samples | 3765.2429 | 3-1=2 | 1882.6215 | 5.9964283 |
| Within Samples | 3767.4856 | 15-3=12 | 313.95713 | |
| Total | 7532.7285 | 14 | | |

The Table value of F for $V_1=2$ and $V_2=12$ at five percent level of significance was 3.8853. Since the calculated value of F is more than the table value and hence the difference in the mean ROE of the sub groups of commercial banks is significant. Hence the one way analysis of variance showed that the null hypothesis was rejected at five percent level of significance. It therefore signified that the profitability measured as Return on Equity are different for the sub groups of sampled commercial banks of Nepal, i.e. the ROA of the joint venture banks are higher than the public and domestic commercial banks of Nepal.

4.3.3 Earnings per Share (EPS)

The earnings per share is another ratio that was calculated to see how well the banks get return from a unit share. It was computed as the ratio of net profit after tax to the number of shares.

Table 4.20

Earnings per Share of the Sampled Commercial Banks for the Study Period

| Year | NBL | NIBL | LBL | Nabil | SCBNL | Average |
|----------------|------------|-------------|------------|--------------|--------------|----------------|
| 2004 | 186.76 | 51.7 | 1.9 | 92.61 | 143.55 | 95.30 |
| 2005 | 455 | 39.5 | 4.34 | 105.49 | 143.14 | 149.49 |
| 2006 | 317 | 59.35 | 5.8 | 129.21 | 175.84 | 137.44 |
| 2007 | 59.66 | 62.57 | 10.75 | 137.08 | 167.37 | 87.49 |
| 2008 | 62.89 | 57.87 | 16.45 | 108.31 | 131.92 | 75.49 |
| Average | 216.26 | 54.20 | 7.85 | 114.54 | 152.36 | 109.04 |

Source: Annual Reports of Respective Commercial Banks 2004-2008

From Table 4.20, the earnings per share of the commercial banks can be compared. The EPS of Rastriya Banijya Bank was not available because its shares are not traded in the market. Rastriya Banijya Bank is a Government owned bank whose share is only sold to the staffs of the bank.

The total average earnings per share of the sampled commercial banks for the study period showed a decreasing trend. The average earnings per share of the entire commercial banks was Rs.95.30 in the fiscal year 2004 and reached to Rs.75.49 in fiscal year 2008.

From Table 4.20, the earnings per share of the commercial banks can be studied and compared. Like the general, it was observed fluctuation in the entire group of commercial banks as a whole, the earnings per share of all the individual sampled commercial banks experienced similar trend as well. The earnings per share of Nepal Investment Bank Limited were Rs.51.7 in 2004, decreased to Rs.39.50 in 2005 and again increased to Rs.59.35 in 2006 and reached to Rs.62.57 in 2007 and decreased to Rs.57.87 in 2008. Its ratio ranged from a minimum of Rs.39.50 in 2005 to a maximum of Rs.62.57 in fiscal year 2007. The average total earning per share of NIBL over the study period was found to be Rs.54.20.

The earnings per share of Laxmi Bank Limited, was consistently increasing over the study period and reached to Rs.10.75 in 2007 and Rs.16.45 in the FY 2008. This indicated that the bank earned Rs.16.45 for each share of Rs.100 invested by the shareholders. This ratio increased by 53.02 percent in 2008 as compared to the previous year's ratio. This was the result of the increase in the net profit of the bank. Laxmi Bank's average total earnings per share over the study period were Rs.7.85.

Among the foreign joint venture banks, the EPS of Nabil Bank Ltd. ranged from a minimum of Rs.92.61 in 2004 to a maximum of Rs.137.08 in 2007. It had an average EPS of Rs.114.54 for the entire period of study.

Similarly, the EPS of SCBNL ranged from a minimum of Rs.131.92 in 2008 to a maximum of Rs.175.84 in 2006. It had an average EPS of Rs.152.36 for the entire period of study. The maximum increase in earnings per share was seen in the case of SCBNL when its earning per share increased from Rs.143.14 in 2005 to Rs.175.84 in 2006.

Table 4.21
Average EPS of the Different Sub Groups of Commercial Banks

| Year | Public Banks | Domestic Banks | Foreign Joint Venture Banks |
|----------------|---------------------|-----------------------|------------------------------------|
| 2004 | 186.76 | 26.8 | 118.08 |
| 2005 | 455 | 21.92 | 124.315 |
| 2006 | 317 | 32.575 | 152.525 |
| 2007 | 59.66 | 36.66 | 152.225 |
| 2008 | 62.89 | 37.16 | 120.115 |
| Average | 216.262 | 31.023 | 133.452 |

As per Table 4.21, it was found that the average EPS of the sub groups of the sampled commercial banks namely public banks, domestic banks and joint venture banks for the period study was Rs. 216.262, Rs. 31.023 and Rs. 133.452 respectively.

From analyzing the EPS of the sub groups of the sampled commercial banks, it was found that the mean EPS of joint venture bank group was Rs.133.452, which was the highest among the studied groups. Domestic banks had the lowest mean EPS of Rs.31.023.

Test of Analysis of Variance

H₀ (Null hypothesis): There is no significant difference between the average EPS of the sub groups of commercial banks.

H_a (Alternative Hypothesis): There is significant difference between the average EPS of the sub-groups of commercial banks.

Table 4.22

Test of Analysis of Variance for Average EPS of the Different Sub Groups of Commercial Banks

| Source of Variation | Sum of Squares | Degree of Freedom | Mean Squares | F |
|---------------------|------------------|-------------------|--------------|------------------|
| Between Samples | 86104.47 | 3-1=2 | 43052.235 | 1.4388753 |
| Within Samples | 359049.06 | 15-3=12 | 29920.755 | |
| Total | 445153.53 | 14 | | |

The Table value of F for V₁=2 and V₂=12 at five percent level of significance was 3.8853. Since the calculated value of F is less than the table value and hence the difference in the mean EPS of the sub groups of commercial banks is not significant. Hence the one way analysis of variance showed that the null hypothesis was accepted at five percent level of significance. That is, in terms of profitability measure, the EPS can be considered to be statistically similar for all the sub groups of the commercial banks of Nepal.

4.4 Liquidity

4.4.1 Cash & Bank Balances to Total Deposit

Table 4.23

Cash & Bank Balance to Total Deposit of the Sampled Commercial Banks for the Study Period in Percentage

| Year | NBL | RBB | NIBL | LBL | Nabil | SCBNL | Average |
|----------------|------------|------------|-------------|------------|--------------|--------------|----------------|
| 2004 | 16 | 17 | 11 | 23 | 7 | 10 | 14.00 |
| 2005 | 17 | 13 | 9 | 15 | 4 | 5 | 10.50 |
| 2006 | 16 | 16 | 12 | 6.17 | 3 | 4 | 9.53 |
| 2007 | 16 | 12.21 | 10 | 5.07 | 6 | 8 | 9.55 |
| 2008 | 16 | 15.98 | 11 | 15.39 | 12 | 7 | 12.90 |
| Average | 16.20 | 14.84 | 10.60 | 12.93 | 6.40 | 6.80 | 11.29 |

Source: Annual Reports of Respective Studied Commercial Banks (2004-2008)

The Cash and Bank Balance to Total Deposit Ratio of the entire commercial banks as a whole experienced a declining trend till 2006 and increasing trend in next two years. The average liquidity ratio of the commercial banks decreased to 10.50 percent in 2005 from 14 percent in 2004. It further decreased to 9.53 percent in 2006, and increased slightly to 9.55 percent in 2007 and reached to 12.90 percent in the 2008.

The liquidity ratio, as compiled in the above table, for all the studied commercial banks was computed. The Cash and Bank balance to Total Deposits of Nepal Bank Limited (NBL) was 16 percent in 2004, 2006, 2007 and 2008 and 17 percent in 2005. Its ratio showed constant position. It had an average Cash and Bank Balance to Total Deposit ratio of 16.20 percent over the entire period of study (2004-2008). Rastriya Banijya Bank, a state owned bank, had its cash and bank balance to total deposit ratio ranging from a minimum of 12.21 percent in 2007 to a maximum of 17 percent in 2004. As on mid-July 2008, liquidity ratio of RBB was 15.98 percent, which was higher than the level of 12.21 percent as attained on mid-July 2007. Its average ratio during the study period (2004-2008) was 14.84 percent.

Among the domestic commercial banks, Nepal Investment Bank Limited (NIBL) had its cash and bank balance to total deposit ratio ranging from a minimum of 9 percent in 2005 to a maximum of 12 percent in 2006. Its liquidity ratio, as measured by cash and bank balance to total deposit, as on mid-July 2008 was 11 percent which was higher than the level of 10 percent as attained on mid-July 2007. The liquidity of NIBL is in fluctuating trend in the study period. Its average liquidity ratio was 10.60 percent during the fiscal year 2004-2008.

Laxmi Bank Ltd. ratio ranged from a minimum of 5.07 percent in 2007 and a maximum of 23 percent in 2004. Cash and Bank Balance to Total Deposit ratio, with decreasing trend, from 23 in 2004 reached to 5.07 percent in 2007 and dramatically increased in the year 2008 to 15.39 percent. Its average ratio was 12.93 percent during the fiscal year 2004-2008.

Joint Venture Bank is experiencing different trend not as like public and domestic banks. Nabil Bank Ltd. had its ratio ranging from a minimum of 3 percent in 2006 to a maximum of 12 percent in 2008. Its ratio as on mid-July 2008 was 12 percent, which was higher than other fiscal year. Its average ratio was 6.40 percent during the period 2004-2008. Similarly, Standard Chartered Bank Nepal Ltd. had attained a maximum cash and bank balance to total deposit ratio of 10 percent in 2004 and a minimum of 4 percent in 2006. Its ratio decreased from 10 percent in 2004 to 4 percent in 2006 and from 2006, it increased to 8 percent in 2007 and came down to 7 percent in 2008. Its average ratio during the period 2004-2008 was 6.80 percent.

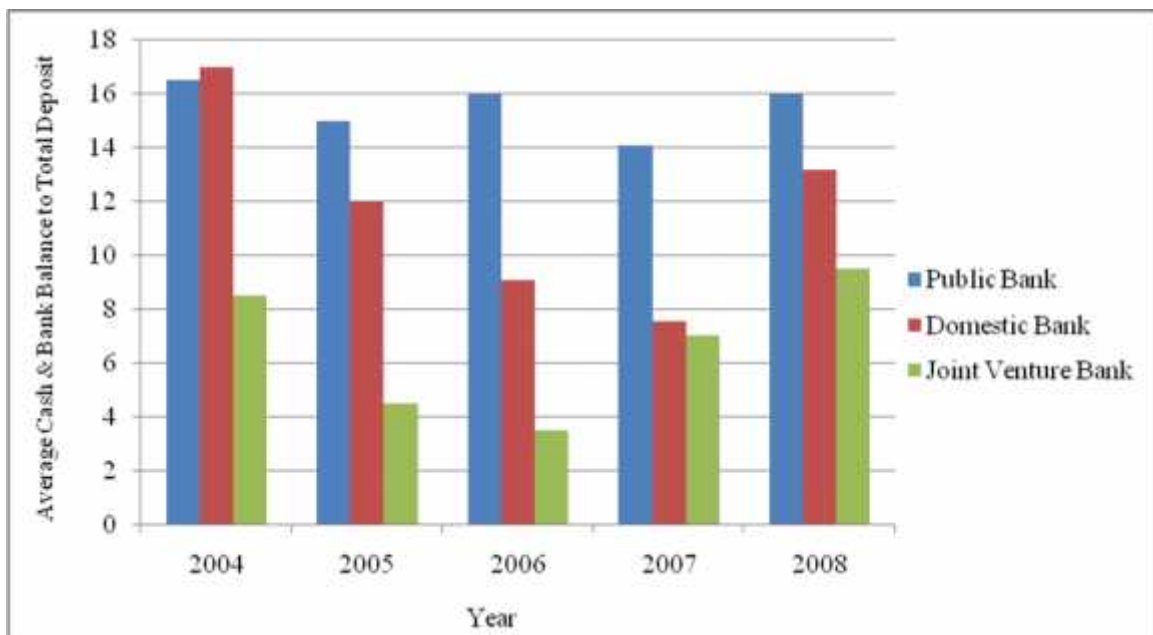
Table 4.24
Average Cash & Bank Balance to Total Deposits of the Different
Sub Groups of Commercial Banks

| Year | Public Banks | Domestic Banks | Foreign Joint Venture Banks |
|----------------|---------------------|-----------------------|------------------------------------|
| 2004 | 16.5 | 17 | 8.5 |
| 2005 | 15 | 12 | 4.5 |
| 2006 | 16 | 9.085 | 3.5 |
| 2007 | 14.105 | 7.535 | 7 |
| 2008 | 15.99 | 13.195 | 9.5 |
| Average | 15.519 | 11.763 | 6.6 |

As per Table 4.24, the average Cash and Bank balance to Total Deposit ratio of the different sub groups of commercial banks namely Public Banks, Domestic Banks and Foreign Joint Venture Banks for the entire period of study were 15.52 percent, 11.76 percent and 6.6 percent respectively. From among the studied groups, public bank had the highest average ratio of 15.52 percent and the joint venture banks had the lowest average ratio of 6.60 percent.

Figure 4.7

Average Cash & Bank Balance to Total Deposit of the Different Sub Groups of Commercial Banks



Test of Analysis of Variance

H0 (Null hypothesis): There is no significant difference between the average Cash to Total Deposit Ratios of the sub groups of commercial banks.

Ha (Alternative Hypothesis): There is significant difference between the average Cash to Total Deposit Ratios of the sub-groups of commercial banks.

Table 4.25

Test of Analysis of Variance for Average Cash & Bank Balance to Total Deposits of the Different Sub Groups of Commercial Banks

| Source of Variation | Sum of Squares | Degree of Freedom | Mean Squares | F |
|---------------------|------------------|-------------------|--------------|------------------|
| Between Samples | 200.5212 | 3-1=2 | 100.2606 | 0.6022317 |
| Within Samples | 1997.7813 | 15-3=12 | 166.48178 | |
| Total | 2198.3025 | 14 | | |

The Table value of F for V1=2 and V2=12 at five percent level of significance was 3.8853. Since the calculated value of F is less than the table value and hence the difference in the mean Cash to Deposit ratio of the sub groups of commercial banks is not significant. Hence the one way analysis of variance proved that the null hypothesis was accepted at five percent level of significance. It signified that Liquidity risks, measured as cash to total deposit, can be considered to be similar for the sub groups of commercial banks of Nepal.

4.4.2 Credit to Deposit Ratio

The credit to deposit ratio reveals the efficiency with which the commercial banks and financial intermediaries are tapping savings from the available sources and channelizing these to various productive activities of the economy.

Table 4.26

Credit to Deposit Ratios of the Sampled Commercial Banks for the Study Period

| Year | NBL | RBB | NIBL | LBL | Nabil | SCBNL | Average |
|----------------|-------|-------|-------|-------|-------|-------|---------|
| 2004 | 50.2 | 66.43 | 63.68 | 87.49 | 60.55 | 31.63 | 60.00 |
| 2005 | 46.94 | 66.5 | 73.33 | 88.79 | 75.05 | 43.49 | 65.68 |
| 2006 | 34.72 | 59.44 | 69.63 | 95.66 | 68.63 | 39.92 | 61.33 |
| 2007 | 35.26 | 50.44 | 72.56 | 85.78 | 68.13 | 43.78 | 59.33 |
| 2008 | 37.69 | 47.48 | 79.91 | 86.16 | 68.18 | 46.95 | 61.06 |
| Average | 40.96 | 58.06 | 71.82 | 88.78 | 68.11 | 41.15 | 61.48 |

Source: Annual Reports of the Respective Commercial Banks (2004-2008)

The above table 4.26 depicts the credit to deposit ratio of the commercial banks for the study period. The average credit to deposit ratio of Nepal Bank Ltd. ranged from a minimum of 34.72 percent in fiscal year 2006 to a maximum of 50.20 percent in 2004. Its average credit to deposit ratio for the entire period of study was 40.96 percent. However, as mid-July 2008, credit to deposit ratio of NBL was 37.69 percent which was higher than the level of 35.26 percent as attained in the previous year. The other public bank, Rastriya Banijya bank which is a state owned bank had its ratio ranging from a minimum of 47.48 percent in 2008 to a maximum of 66.50 percent in 2005. Its average was 58.06 percent during the period 2004-2008.

Among the domestic commercial banks, Nepal Investment Bank Ltd. ratio ranged from a minimum of 73.33 percent in 2005 to a maximum of 79.91 percent in 2008. Its average was 71.82 percent during the entire period of study.

Laxmi Bank average Credit to Deposit ratio for the entire period of study was 88.78 percent. It had its ratio ranging from a minimum of 85.78 percent in 2007 to a maximum of 95.66 percent in 2006. As on mid-July 2008, its ratio was 86.16 percent which was higher than the level of 85.78 percent as attained in the previous year.

Among the foreign joint venture banks, the total average credit to deposit ratio of Nabil Bank Ltd. and Standard Chartered Bank Nepal Ltd. for the entire period of study (2004-2008) was 68.11 percent and 41.15 percent. Nabil Bank had its credit to deposit ratio ranging from a minimum of 60.55 percent in 2004 to a maximum of 75.05 percent in fiscal year 2005.

Similarly, credit to deposit ratio of Nepal Standard Chartered Bank Nepal Ltd., with an increasing trend, had its ratio ranging from a minimum of 31.63 percent in 2004 to a maximum of 46.95 percent in 2008.

Table 4.27

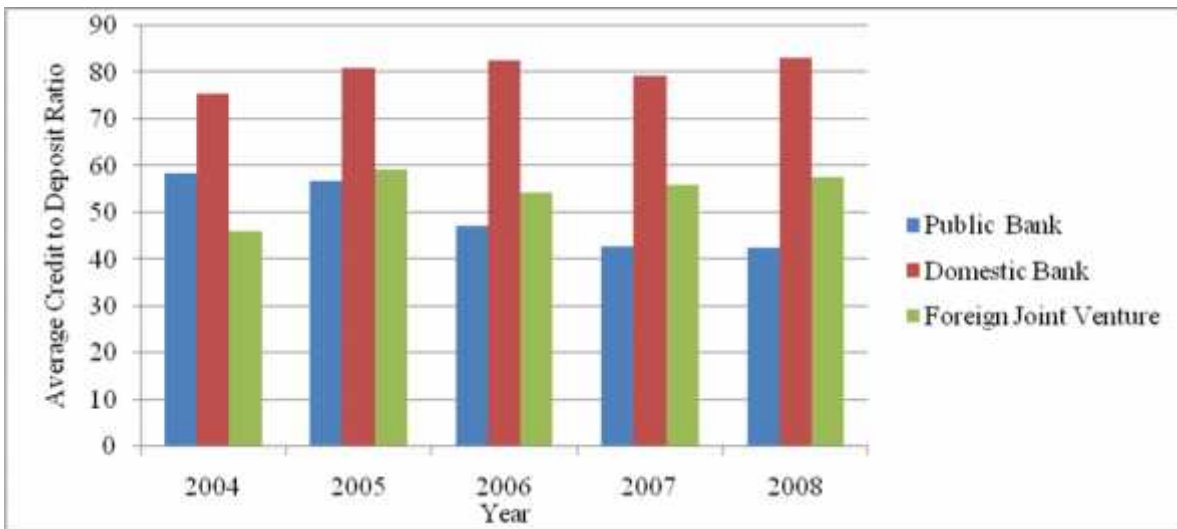
Average Credit to Deposit Ratios of the Different Sub Groups of Commercial Banks

| Year | Public Banks | Domestic Banks | Foreign Joint Venture Banks |
|----------------|--------------|----------------|-----------------------------|
| 2004 | 58.315 | 75.585 | 46.09 |
| 2005 | 56.72 | 81.06 | 59.27 |
| 2006 | 47.08 | 82.645 | 54.275 |
| 2007 | 42.85 | 79.17 | 55.955 |
| 2008 | 42.585 | 83.035 | 57.565 |
| Average | 49.51 | 80.299 | 54.631 |

Table 4.27 exhibits the credit to deposit ratio of the different sub groups of commercial banks for the entire period of study. The average credit to deposit ratio of the public banks, domestic banks and joint venture banks for the study period (2004-2008) was 49.51 percent, 80.29 percent and 54.63 percent. From among the different groups of commercial banks, domestic banks had the highest credit to deposit ratio (80.29 percent) where as on the other hand the public sector banks had the lowest ratio (49.51 percent).

Figure 4.8

Average Credit to Deposit Ratio of the Different Sub Groups of Commercial Banks



Test of analysis of Variance

Ho (Null hypothesis): There is no significant difference between the averages Credit to Deposit Ratio of the sub groups of Commercial Banks.

Ha (Alternative Hypothesis): There is significant difference between the average Credit to Deposit Ratio of the sub-groups of Commercial Banks.

Table 4.28
Test of Analysis of Variance for Average Credit to Deposits of the Different Sub Groups of Commercial Banks

| Source of Variation | Sum of Squares | Degree of Freedom | Mean Squares | F |
|---------------------|-----------------|-------------------|--------------|------------------|
| Between Samples | 2721.722 | 3-1=2 | 1360.861 | 0.2861627 |
| Within Samples | 57066.608 | 15-3=12 | 4755.5507 | |
| Total | 59788.33 | 14 | | |

The Table value of F for $V_1=2$ and $V_2=12$ at five percent level of significance was 3.8853. Since the calculated value of F is less than the table value and hence the difference in the mean Total Capital ratio of the sub groups of commercial banks is not significant. Hence the one way analysis of variance proved that the null hypothesis was accepted at five percent level of significance. It signified that Liquidity risks, measured as credit to deposit ratio, can be considered to be similar for the sub groups of commercial banks of Nepal.

B. Data Analysis

4.5 Capital Adequacy Ratio

The average Capital Adequacy Ratio (CAR) of the sub groups of commercial banks namely public sector banks, domestic banks and joint venture banks, throughout the period of study were -34.34 percent, 14.71 percent, and 13.75 percent respectively. From the analysis of the average CAR of the sub-groups of sampled commercial banks, it was found that the domestic commercial banks had the highest average ratio of 14.71 percent and public sector commercial banks had the lowest average ratio of -34.34 percent during the study period. Capital of the public sector banks (NBL and RBB) was negative due to the heavy accumulated losses in the past. Thus, the public sector banks have yet to meet the statutory capital adequacy ratio as set by the Nepal Rastra Bank (Central Bank of

Nepal). From the analysis of the CAR of the sub groups of commercial banks in Nepal, it can be concluded that the domestic and foreign joint venture banks are well capitalized and have a stronger capital base than the public sector commercial banks. In general, the domestic and foreign joint venture banks have met the capital adequacy requirement.

The one way analysis of variance test rejected the null hypothesis and proved that there was significant difference between the average CAR of the sub groups of commercial banks. It signified that CAR of all the sub groups of commercial banks of Nepal was statistically different at five percent level of significance.

4.6 Asset Quality

4.6.1 Non-Performing Loans and Advances

The average Credit to Non-performing loans and advances of the different sub groups of commercial banks namely public sector banks, domestic banks and joint venture banks, throughout the period of study were 33.646 percent, 1.352 percent, and 2.622 percent respectively. From the analysis of the average Non-performing loans and advances to Credit ratio of the sub-groups of sampled commercial banks, it was found that the public sector banks had the highest average ratio of 33.646 percent and domestic commercial banks had the lowest average ratio of 1.352 percent throughout the period of study.

Analyzing the share of NPL of the Nepalese banking system, out of total NPL of Rs.18,648.50 million, the two public sector banks(Nepal Bank Limited and Rastriya Banijya Bank) held around Rs. 6,240.6 million (33.646 percent of NPL) in the fiscal year 2008. Nepal Bank Limited had NPL amounting to Rs.1,110.8 million (5.95 percent of the total NPL of the banking industry) and Rastriya Banijya Bank had NPL of Rs.5,129.8 million (27.50 percent of the total NPL of the Nepalese banking system in fiscal year 2008).

The one way analysis of variance test rejected the null hypothesis and proved that there was significant difference between the average Credit to Non-performing loans and advances ratios of the different sub groups of commercial banks. It signified that the

average Credit to Non-performing loans and advances ratios was considered to be statistically different for the different sub groups of sampled Commercial Banks of Nepal, i.e. the public sector banks were suffering from a high level of Non-performing loans and advances problem than the domestic banks and joint venture banks.

4.6.2 Total Deposits

All major sub groups of banks namely public sector banks, domestic commercial banks and foreign joint venture banks experienced positive trend during the period of study. The average deposits of the different sub groups of commercial banks of Nepal, public sector banks, domestic banks and foreign joint venture banks for the entire period of study were 42433.14 million, 13151.52 million and 22123.054 million in absolute terms respectively. From among the groups, public sector bank had the highest average total deposits of Rs.42433.14 million where as domestic banks had the lowest average deposits with Rs. 13151.52 million.

In the case of public sector banks, average total deposits experienced a positive and increasing trend during the period of study. It was found that their deposits have been steadily growing throughout the period of study. Their average deposit in the FY 2004 stood at Rs.38301.05 million increased to Rs.39116.70 in FY 2005 and reached to Rs.49721.25 million in FY 2008.

On the other hand, domestic banks had the lowest average total deposits among the studied groups. Like the general increasing trend in the average total deposits of the public banks, the average total deposits of domestic banks experienced similar trend as well throughout the study period. Their average deposits reached to Rs.22684.5 million in FY 2008 from Rs.6695.3 million in FY 2004.

The average deposits of joint venture experienced a growing trend too. The average deposit which was Rs.17,629.7 million in FY 2004 increased to Rs.21,199.45 million in FY 2006 and reached to Rs. 30,829.47 million in FY 2008. Their total average deposit for the entire period of study stood at Rs. 22,123.054 million. Comparatively, its total

average deposit was much higher than the domestic banks and less than the public sector banks.

Analyzing the time series data of the sources of funds of the commercial banks, it revealed that most of the commercial banks under study had their total deposits as its major source of funds.

4.7 Profitability Ratios

4.7.1 Return on Assets

The performance of foreign joint venture banks was better than the public sector banks and the local domestic commercial banks in terms of profitability as measured by return on assets.

The average Return on Assets (ROA) of the sub groups of commercial banks namely public sector banks, domestic banks and joint venture banks, throughout the period of study were 0.725 percent, 1.131 percent, and 2.622 percent respectively. From the analysis of the ROA ratio of the sub-groups of sampled commercial banks, it was found out that the foreign joint venture banks had the highest average ratio of 2.622 percent and public sector commercial banks had the lowest average ratio of 0.725 percent throughout the period of study. It implies that, on an average, joint venture commercial banks earned the highest percentage (2.622 percent) of net profit by efficiently utilizing its total assets.

The one way analysis of variance test accepted the null hypothesis and proved that there was no significant difference between the average ROA ratios of the sub groups of commercial banks. It signified that the profitability measured as Return on Assets were considered to be similar for the sub groups of sampled commercial banks of Nepal, i.e. the ROA of joint venture banks were higher than the public and domestic commercial banks of Nepal.

4.7.2 Return on Equity

The average Return on Equity (ROE) of the sub groups of commercial banks namely public sector banks, domestic banks and joint venture banks, throughout the period of study were -4.306 percent, 14.718 percent, and 34.5 percent respectively. From the analysis of the ROE ratio of the sub-groups of sampled commercial banks, it was found that the foreign joint venture banks had the highest average ratio of 34.5 percent and public sector banks had the lowest average ratio of -4.306 percent throughout the period of study.

The one way analysis of variance test rejected the null hypothesis and proved that there was significant difference between the average ROE ratios of the sub groups of commercial banks. It signified that the profitability measured as Return on Equity was considered to be statistically different for the different sub groups of sampled Commercial Banks of Nepal, i.e. ROE of the joint venture banks were higher than the public and domestic commercial banks of Nepal.

4.7.3 Earnings per Share

Public sector commercial banks were performing better than the domestic and foreign joint venture banks in terms of profitability as measured by EPS. The average EPS of the different sub groups of Nepalese commercial banks namely public sector bank, domestic banks and foreign joint venture banks for the study period were Rs. 216.262, Rs.31.023 and Rs.133.452 respectively. Among the sub groups of commercial banks in Nepal, public sector banks had the highest average EPS of Rs.216.262 and domestic banks had the lowest average of Rs. 31.023 over the period of study 2004-2008.

The one way analysis of variance test rejected the null hypothesis and proved that there was significant difference between the average EPS ratios of the sub groups of commercial banks. It signified that the profitability measured as EPS was considered to be statistically different for the different sub groups of sampled Commercial Banks of Nepal, i.e. ROE of the public sector banks were higher than the domestic commercial banks and foreign joint venture banks of Nepal.

4.8 Liquidity Ratios

4.8.1 Credit to Deposit Ratio

The average Credit to Total Deposit ratio of the sub groups of commercial banks namely public sector banks, domestic banks and joint venture banks, throughout the period of study were 49.51 percent, 80.299 percent, and 54.631 percent respectively. From the analysis of the Credit to Total Deposits of the sub-groups of sampled commercial banks, it was found that the domestic commercial banks had the highest average ratio of 80.299 percent and public sector banks had the lowest average ratio of 49.51 percent during the study period.

The one way analysis of variance test showed that the null hypothesis was accepted at five percent level of significance and proved that the average credit to total deposits ratio of the sub groups of commercial banks in Nepal were similar. That is, liquidity risk, measured as Credit to Deposit ratio, was statistically similar for the public commercial banks, domestic commercial banks and joint venture commercial banks of Nepal.

4.8.2 Cash and Bank Balance to Total Deposit Ratio

The average Cash and Bank Balance to Total Deposit ratio of the sub groups of commercial banks namely public sector banks, domestic banks and joint venture banks, throughout the period of study were 15.519 percent, 11.763 percent and 6.6 percent respectively. From the analysis of the Cash and Bank Balance to Total Deposits of the sub-groups of sampled commercial banks, it was found that the public sector banks had the highest average ratio of 15.519 percent and joint venture banks had the lowest average ratio of 6.6 percent during the study period.

The one way analysis of variance test proved that there was no significant difference between the average Cash and Bank Balance to Total Deposit Ratios of the sub groups of commercial banks. It signified that liquidity risks, measured in terms of cash to total deposit ratio, can be considered to be similar for the sub groups of commercial banks of Nepal. Therefore it can be concluded that the public sector commercial banks, domestic

commercial banks, and the foreign joint venture commercial banks were operating at the same level of liquidity risk.

From analyzing the findings of the performance of commercial banks in Nepal on the basis of financial parameters, it can be concluded that the public sector banks as a whole had a very poor performance and also had low capital base as compared to the domestic banks and foreign joint venture banks. The public sector banks were suffering from a high level of NPL which is an indicator of financial crisis.

4.9 Major Findings under CAMEL Framework

In order to summarize the classification of the Nepalese Commercial Banks based on rank of their activities and profitability ratios, Table 4.29 contains ranks of the positions for these commercial banks. From the table, it was found that Laxmi Bank ranked first in terms of Capital Adequacy Ratio, maintaining low level of NPL as percentage of total loans and advances and in terms of maintaining a good liquidity position (measured by credit to deposit ratio).

The two public sector banks (Nepal Bank Limited and Rastriya Banijya Bank) performed well in terms of mobilizing deposits and lending activity. Rastriya Banijya Bank ranked first in both mobilizing the highest deposits and credit. Nepal Bank Limited followed Rastriya Banijya Bank in terms of deposits and credits. In terms of liquidity position (measured by cash and bank balance to total deposit) Nepal Bank Limited ranked first and followed by Rastriya Banijya Bank. Similarly, in terms of profitability measured from EPS Nepal Bank Limited stood first whereas Rastriya Banijya Bank's share are not traded in the market. However the two public sector banks scored poorly in terms of Capital Adequacy Ratio (CAR), Non-Performing Loans to Total Credit (NPL/TC) and Return on Equity (ROE). Rastriya Banijya Bank ranked the last in terms of maintaining CAR and NPL/TC and Nepal Bank Limited was right behind where as in terms of ROE, Nepal Bank Ltd. ranked last and followed by Rastriya Banijya Bank.

Nabil Bank Ltd. and Standard Chartered Bank Nepal Limited have performed well in terms of profitability as measured by Return on Assets and Return on Equity. Nabil Bank Ltd. ranked first in terms of Return on Assets and second in Return on Equity. On the other hand, Standard Chartered Bank Ltd. ranked first in terms of Return on Equity and second in terms of Return on Assets. (See Table 4.29)

Table 4.29

Ranks of the Sampled Commercial Banks on the Basis of Financial Indicators

| Commercial Banks | NBL | RBB | NIBL | LBL | NABIL | SCBNL |
|---------------------------------|-----|-----|------|-----|-------|-------|
| Particulars | | | | | | |
| CAR | 5 | 6 | 4 | 1 | 3 | 2 |
| Total Deposits | 2 | 1 | 4 | 6 | 5 | 3 |
| Total Credits | 2 | 1 | 3 | 6 | 4 | 5 |
| NPL (as percent of total loans) | 5 | 6 | 3 | 1 | 2 | 4 |
| ROA | 3 | 6 | 4 | 5 | 1 | 2 |
| ROE | 6 | 5 | 3 | 4 | 2 | 1 |
| EPS | 1 | N/A | 4 | 5 | 3 | 2 |
| Cash/Deposit | 1 | 2 | 4 | 3 | 6 | 5 |
| Credit/Deposit | 6 | 4 | 2 | 1 | 3 | 5 |

Table 4.30 below exhibits the ranking of the different sub groups of commercial banks based on the financial parameters. Analyzing the ranking position of the different sub groups of commercial banks in Nepal, namely public sector banks, domestic banks and foreign joint venture banks, based on financial parameters, domestic commercial banks ranked first position in terms of CAR, maintenance of low level of NPL, and good liquidity position as measured by Credit to Deposit ratio. However, it ranked last in terms of profitability as measured by EPS, and in terms of deposit mobilization and credit.

The public sector bank ranked first in terms of deposit mobilization and credits, in terms of profitability (measured by EPS) and liquidity position (measured by Cash and bank balance to Total Deposit). But it ranked last in terms of CAR, high level of NPL, profitability (ROA, ROE) and liquidity level (Credit to Deposit ratio).

Similarly the foreign joint venture banks ranked first with respect to profitability as measured by ROA and ROE. It scored poor in maintaining Cash Balance to total Deposit ratio. (See Table 4.30)

Table 4.30

Ranks of the Different Sub Groups of Commercial Banks

| Sub-sector of Commercial Bank | Public Sector Banks | Domestic Banks | Foreign Joint Venture Banks |
|--------------------------------------|----------------------------|-----------------------|------------------------------------|
| Particulars | | | |
| CAR | 3 | 1 | 2 |
| Total Deposits | 1 | 3 | 2 |
| Total Credits | 1 | 3 | 2 |
| NPL (as percent of total loans) | 3 | 1 | 2 |
| ROA | 3 | 2 | 1 |
| ROE | 3 | 2 | 1 |
| EPS | 1 | 3 | 2 |
| Cash/Deposit | 1 | 2 | 3 |
| Credit/Deposit | 3 | 1 | 2 |

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This unit is divided into three sections. The first section provides the brief summary of the study. The second section demonstrates the conclusion of the study and third section contains recommendation.

5.1 Summary

The study was conducted with objective to analyze the financial performance of the different sub groups namely Public Sector Banks, Domestic Commercial Banks and Foreign joint Venture Banks in Nepal with CAMEL framework. Five years data are covered in the study. The study is based on secondary data and the data obtained were analyzed using various financial tools. CAMEL is a technique of evaluating the soundness of financial institutions. The bank's financial soundness is judged being based on some factors – capital adequacy, assets quality, management quality, earnings, liquidity position and sensitivity to market risk.

The study was conducted with the general objective to analyze the financial performance of the different sub groups namely Public Sector Banks, Domestic Commercial Banks and Foreign Joint Venture Banks in Nepal. Moreover, the specific objectives of the study were to examine the capital adequacy of the bank, to assess the quality of the bank's assets, to analyze the efficiency of the bank's management, to evaluate the earnings of the banks, to find out the liquidity position of the banks in the period of 2004 to 2008A.D. Different materials were reviewed to build up the conceptual foundation and to find out the clear destination of the research work. Review of concept of banking origin and historical growth of banking, evaluation of banking in Nepal, concept of bank, concept of commercial bank, functions of commercial banks, concept of financial performance analysis, financial statement, balance sheet, assets, liabilities, income statements, financial performance analysis, types of financial analysis, trend analysis, ratio analysis, funds flow analysis, concept of financial performance analysis in the framework of

CAMEL, concept of capital adequacy, assets quality, management soundness, earnings, liquidity were reviewed as conceptual review.

The research covers only five years period from the year 2004 to 2008 A.D. It is concerned with the financial performance analysis of the commercial banks. The study was designed within the framework of case study analysis research design and the analysis has been made in the same way. For the purpose of study; NBL, RBB, NIBL, LBL, NABIL and SCBNL are taken as a study unit by applying convenient sampling technique out of 26 commercial banks (including KIST). The required data and information were collected from secondary sources. Financial ratios have been implied to get the meaningful result of the collected data in the research work.

The risk based CAR disclosed that Public Sector Banks have not maintained the required capital adequacy fund throughout the study period where as other sub groups Domestic Commercial Banks and Foreign Joint Venture Banks had the adequate and sufficient core capital ratio.

The quality of assets under Total Deposit and Total Loan & Advances shows that Public Sector Banks ranked first followed by Domestic Commercial Banks and Foreign Joint Venture Banks. Similarly, under NPL to Total Credit Ratio Domestic Commercial Banks had maintained low level of NPL and ranked first where as Foreign Joint Venture Bank as second and Public Sector Banks on third position.

With respect to profitability as measured by ROA and ROE the earning to Foreign Joint Venture Banks showed an extra ordinary performance and followed by Domestic Commercial Banks and Foreign Joint Venture Banks. In terms of profitability measured by EPS Public Sector Banks lead other sub groups Foreign Joint Venture Banks and Domestic Commercial Banks.

The liquidity ratio showed that the Public Sector Banks has strong liquidity position compared to the Domestic Commercial Banks and Foreign Joint Venture Banks as

measured by Cash & Bank Balance to Total Deposit. Under Total Credit to Total Deposit Ratio showed that Domestic Commercial Banks lead to the Foreign Joint Venture Banks and Public Banks.

5.2 Conclusion

The performance evaluation of the different sub groups of commercial banks namely Public Sector Banks, Domestic Commercial Banks and Foreign Joint Venture Banks in Nepal showed that the Public Sector Banks as a whole had a very poor performance and also had low capital base.

1. The financial system witnessed a tremendous increase in the number of financial institutions in the last three decades especially since the financial liberalization in the 1980's. However, the research was able to establish that the capital base of majority of the commercial banks of Nepal was minimum and lower than the prudential level as supposed to be maintained by the commercial banks according to the Nepal Rastra Bank. From the analysis of the average CAR of the different sub-groups of sampled commercial banks of Nepal, the research show that the domestic commercial banks had the highest average capital adequacy ratio of 14.71 percent and public sector commercial banks had the lowest average ratio of -34.34 percent during the study period. It can be concluded that the public sector banks were not efficiently capitalized, had a poor capital base and did not meet the minimum CAR requirement standard as set by the Government. The capital adequacy positions of the domestic and foreign joint venture banks were found to be satisfactory. The domestic and the foreign joint venture banks, in general, were well capitalized. The domestic commercial banks and the foreign joint venture commercial banks had comparatively higher CAR than the public sector banks and complied with the statutory capital adequacy ratio of the Central Bank (NRB) as well. However, because of continuous large increase in the risk assets of these banks, their capital adequacy ratio was declining.

2. The Commercial Banks of Nepal were suffering from a high level of Non-Performing Loans (NPL) problems. From the analysis of the non-performing loans of the different sub groups of commercial banks in Nepal, the research found that the Non-performing loans and advances ratios were statistically different for the different sub groups of sampled commercial banks of Nepal, i.e. the public sector banks were suffering from a high level of Non-performing loans and advances problem than the domestic banks and joint venture banks. The level of NPL of the Banking System declined over the period of study; however it was still a long way from being satisfactory. With regard to the quality of the portfolio of loans of the commercial banks, public sector banks were the worst. The volume of NPL of the domestic banks and foreign joint venture banks was far less than that of the public sector banks.
3. In terms of deposit mobilization, it was found that the different sub groups of commercial banks under study have been efficiently and effectively mobilizing deposits from the households. The total deposits of the different sub groups of commercial banks in Nepal witnessed continuous growth during the study period. This indicated an increasing awareness among the public to save their money in the banks rather than investing it in non-productive assets like jewellery and holding their money at home.
4. The performance of foreign joint venture banks was better than the public sector banks and the local domestic commercial banks in terms of profitability as measured by return on assets. The foreign joint venture banks had the highest average Return on Assets ratio of 2.622 percent and public sector commercial banks had the lowest average ratio of 0.725 percent throughout the period of study. It implied that, on an average, joint venture commercial banks earned the highest percentage (2.622 percent) of net profit by efficiently utilizing its total assets.
5. Return ratios as measured by Return on Equity showed that most of the time foreign joint venture banks had higher return than the Nepalese domestic and public sector

banks. From the analysis of the ROE ratio of the sub-groups of sampled commercial banks, it can be concluded that the foreign joint venture banks had the highest average ROE ratio of 34.5 percent and public sector banks had the lowest average ROE ratio of -4.306 percent throughout the period of study.

6. Liquidity Risk Ratio (measured by Cash and Bank Balance to Total Deposit Ratio) when compared among the Nepalese public sector and domestic banks with foreign joint venture banks showed that on average, domestic banks had higher liquidity risk than the public and joint venture banks. In the analysis, Credit to Deposit Ratio showed that on average, public sector banks had higher liquidity position than that of the domestic and joint venture banks.

5.3 Recommendations

Among various financial institutions in Nepal such as commercial banks, development banks, insurance corporations, provident fund organizations and other institutions, the commercial banks were found to be the most important from amongst institutions with high asset holdings and with bank branches established in almost all the remote parts of the country. Investors can have an easy access to the banks, especially the small investors. The level of resource mobilization by banks in Nepal, as revealed by the study, needs to be scaled up by the Commercial Banks.

The performance evaluation of the different sub groups of commercial banks namely public sector banks, domestic commercial banks and foreign joint venture banks in Nepal showed that the public sector banks as a whole had a very poor performance and also had low capital base. The financial sector reform initiated by the Government in the mid 1980's opened the door of the banking industry to the foreign banks with the objective of creating healthy competition in the banking industry. Therefore the Nepalese Banks, both public as well as private banks have to compete with efficient services and sound performance if they want to survive in the market. In the case of state owned banks (public sector banks), there should be no direct subsidies and minimum provision from the Government for their survival. Therefore, it is recommended that the concerned

authority should take steps towards the modernization of the Nepalese Public Sector Banks so that they are able to compete with foreign banks.

The Nepalese financial system has witnessed a vigorous growth in the number of banks and financial institutions in the last one and a half decade. However, the research reveals that the capital base of majority of the banks was minimum and lower than the prudential level as set by the Government (Nepal Rastra Bank). The low level of capital adequacy of the public sector bank is alarming. Nepal Rastra Bank has issued guidelines requiring banks to have paid up capital of Rs.1 billion by the FY 2009.

Adequate capital is essential for banks to operate in a sound manner. The concerned banks should take adequate efforts to maintain strong capital base. One way to raise adequate capital would be by issuing more number of shares to the public. By analyzing the shares issued by the various commercial banks and financial institutions, it was mostly found that they are oversubscribed by 40-50 times. This implied that the general investors and public have massive faith in the financial institutions. But the main problem lies with the promoters. In most cases, it looks like the banks are not run as a bank but as a private limited company. The bank seems to be operated as their private property by the big promoters. The promoter instead of retaining 51 percent of the shares; it should lessen it and start issuing more shares to the public. The concerned and ailing banks have to make further efforts to increase their capital base if they aspire to survive in the long- run. In the case of Public sector banks, it is suggested that the government reduce its ownership in the financial system and the capital of the two public sector banks be open to the public and foreign banks. The Government should encourage the public sector banks to raise capital through public issues. The weak and vulnerable banks can also increase their capital base and core capital through consolidation and Merger.

A policy should be in implementation that if the bank is not able to maintain adequate capital then it should be down-graded to the level of “B” class development banks.

Non-Performing Loans and Advances (NPL)

Loan default and dishonesty in business practices in commercial banks is a result of various factors, among which the important ones are the political factors, personal approach in getting loan, loan in housing and real estate, lack of competition and lack of entrepreneurship attitude. Political and personal factors are highly prevailing in Nepalese investment environment. Commercial banks should take this function with purely business attitude and should perform lending operation efficiently with proper analysis of the borrowers so that chance of loan default is minimized. Further, commercial banks should focus on development of the nation with the development of itself by lending in the productive sector after analysis and proper discussion with the experts.

Strengthening Loan Recovery Processes

The high level of NPL in the Nepalese banking system is an indicator of financial crisis and it should be resolved as quickly as possible. To overcome this very situation, great effort needs to be taken in the recovery of loan and advances by the banks and financial institutions themselves. Recovery of distressed loan is a challenging task for banks and financial institutions. In the context of Nepalese banking experiences, it was found that almost in all the big loans of the banks, borrowers were appealing in the court to restrain the recovery process. Therefore, to materialize the recovery process, the judiciary has an extremely important role to play in Nepal. This is because the stay order can restrain the recovery process and vacant of stay orders can help the banks to recover the loans. Therefore, the role of judiciary has been extremely important in resolving the problem of NPL s of the financial system. The problem of the high level of NPL in the banking industry can be resolved if the judiciary provide adequate support to the banks and financial institutions in resolving the recovery problems in the systematic manner. Therefore, the judiciary process has to be kept simple, easy, quick and transparent. It is recommended to issue the court's stay orders validated only for a specified period. There should be a development in the system where the court's stay orders would be issued only in extremely important cases where there will be an extraordinary situation where the court feels that it is extremely important to issue stay order in order to protect the interest of the society.

Credit Collection Bureau

The banks experience many difficulties in recovering the loans. Therefore, it would be a great step to work out a suitable mechanism through which the overdue loans can be realized within the stipulated time. Large amount of doubtful and bad debts are being blocked in terms of unproductive assets. It is therefore recommended that with special legislation a “Credit Collection Bureau” should be established that will take the responsibility of collecting the loans of the bank on the basis of some charge.

Creating Increased Opportunities

With respect to Deposit mobilization, the commercial banks in Nepal can be creative and come up with different deposit schemes that give incentives to the depositors and attract the fund as deposit items, so that both the banks as well as the savers are benefited. They should come up with new and innovative products to mobilize the rural small deposits in the financial crunch and in the same time the deposit should be tracked and banking system should retain the same.

Credit Management

Banks should follow efficient credit management in order to run the banking business properly. The bank has to take adequate efforts to avoid incurring losses by making wrong lending. Proper credit management helps the bank in avoiding these wrong lending. There should be a proper analysis of the project that it is financing, or if the borrowers are not trustworthy.

Nepal has a small economy and currently 26 commercial banks (including KIST) operating in this small economy means intense and cut throat competition among the banks. Competition in the financial markets has intensified with the entry of new joint venture banks and domestic banks and other financial intermediaries. The Nepalese commercial banking sector has become very competitive. Therefore banks have to come up with higher efficiency in the quality of their operational services and should be adapting differentiation strategy if it wishes to sustain in the financial markets in the long run.

As foreign banks will be entering the Nepalese market, banks should look to train, develop and motivate their human resource in order to stay competent. All banks should look to adopt more proactive risk management policies in light of high country risk in Nepal.

Banks can use better and advanced technology in order to reach more customers and also provide services with greater efficiency.

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ANNEXURE

Annex - 1

Test of Analysis of variance for Capital Adequacy Ratio

| Sector of Commercial Banks | Public banks | | Domestic banks | | Joint Venture Banks | |
|----------------------------|----------------|-------------------|----------------|-------------------|---------------------|-------------------|
| Years | X1 | (X1) ² | X2 | (X2) ² | X3 | (X3) ² |
| 2004 | -36.26 | 1314.7876 | 20.18 | 407.2324 | 14.77 | 218.1529 |
| 2005 | -33.54 | 1124.9316 | 16.23 | 263.4129 | 14.4 | 207.36 |
| 2006 | -26.83 | 719.8489 | 13.46 | 181.1716 | 13.61 | 185.2321 |
| 2007 | -40.29 | 1623.2841 | 12.27 | 150.5529 | 13.85 | 191.8225 |
| 2008 | -34.8 | 1211.04 | 11.4 | 129.96 | 12.12 | 146.8944 |
| Total | -171.72 | 5993.892 | 73.54 | 1132.3298 | 68.75 | 949.4619 |

$$\begin{aligned}
 \text{Sum of all the items of the various samples (T)} &= X_1 + X_2 + X_3 \\
 &= -171.72 + 73.54 + 68.75 \\
 &= -29.43
 \end{aligned}$$

$$\begin{aligned}
 \text{Correction Factor } T^2/N &= (-29.43)^2/15 \\
 &= 57.74
 \end{aligned}$$

$$\begin{aligned}
 \text{Total Sum of Squares} &= X_1^2 + X_2^2 + X_3^2 \\
 &= 5993.89 + 1132.33 + 949.46 \\
 &= 8075.68
 \end{aligned}$$

$$\begin{aligned}
 \text{Sum of Squares between the Samples} &= (X_1)^2/N + (X_2)^2/N + (X_3)^2/N - T^2/N \\
 &= ((-171.72)^2/5 + (73.54)^2/5 + (68.75)^2/5) - 57.74 \\
 &= 7924.4905 - 57.74 \\
 &= 7866.7505
 \end{aligned}$$

$$\begin{aligned}
 \text{Sum of Squares within Samples} &= \text{Total Sum of Squares} - \text{Sum of Squares between samples.} \\
 &= 8075.68 - 7866.7505 \\
 &= 208.9295
 \end{aligned}$$

$$F = \frac{\text{Variance between Samples}}{\text{Variance within Samples}}$$

| Source of Variation | Sum of Square | Degree of Freedom | Mean Square | F |
|---------------------|----------------|-------------------|-------------|-------------------|
| Between Samples | 7866.7505 | 3-1=2 | 3933.37525 | 225.915933 |
| Within Sampled | 208.9295 | 15-3=12 | 17.4107917 | |
| Total | 8075.68 | 14 | | |

Annex - 2
Test of Analysis of variance for Non-Performing Loan (NPL)

| Sector of Commercial Banks | Public banks | | Domestic banks | | Joint Venture Banks | |
|----------------------------|---------------|-------------------|----------------|-------------------|---------------------|-------------------|
| | X1 | (X1) ² | X2 | (X2) ² | X3 | (X3) ² |
| Year | | | | | | |
| 2004 | 55.69 | 3101.3761 | 1.23 | 1.5129 | 3.56 | 12.6736 |
| 2005 | 50.17 | 2517.0289 | 2.13 | 4.5369 | 2 | 4 |
| 2006 | 26.5 | 702.25 | 1.42 | 2.0164 | 1.75 | 3.0625 |
| 2007 | 20.57 | 423.1249 | 1.36 | 1.8496 | 1.47 | 2.1609 |
| 2008 | 15.3 | 234.09 | 0.62 | 0.3844 | 0.85 | 0.7225 |
| Total | 168.23 | 6977.8699 | 6.76 | 10.3002 | 9.63 | 22.6195 |

$$\begin{aligned} \text{Sum of all the items of the various samples (T)} &= X1+X2+X3 \\ &= 168.23+6.76+9.63 \\ &= 184.62 \end{aligned}$$

$$\begin{aligned} \text{Correction Factor } T^2/N &= (184.62)^2/15 \\ &= 2272.30 \end{aligned}$$

$$\begin{aligned} \text{Total Sum of Squares} &= X1^2 + X2^2 + X3^2 \\ &= 6977.87+10.30+22.62 \\ &= 7010.79 \end{aligned}$$

$$\begin{aligned} \text{Sum of Squares between the Samples} &= (X1)^2/N + (X2)^2/N + (X3)^2/N - T^2/N \\ &= ((168.23)^2/5 + (6.76)^2/5 + (9.63)^2/5) - 2272.30 \\ &= 5687.95 - 2272.30 \\ &= 3415.65 \end{aligned}$$

$$\begin{aligned} \text{Sum of Squares within Samples} &= \text{Total Sum of Squares} - \text{Sum of Squares between samples.} \\ &= 7010.79 - 3415.65 \\ &= 3595.14 \end{aligned}$$

$$F = \frac{\text{Variance between Samples}}{\text{Variance within Samples}}$$

| Source of Variation | Sum of Squares | Degree of Freedom | Mean Squares | F |
|---------------------|--------------------|-------------------|--------------|--------------------|
| Between Samples | 3415.65 | 3-1=2 | 1707.825 | 5.700445602 |
| Within Samples | 3595.14 | 15-3=12 | 299.595 | |
| Total | 7932.859752 | 14 | | |

Annex - 3
Test of Analysis of variance for Returns on Assets (ROA)

| Sector of Commercial Banks | Public banks | | Domestic banks | | Joint Venture Banks | |
|----------------------------|--------------|-------------------|----------------|-------------------|---------------------|-------------------|
| | X1 | (X1) ² | X2 | (X2) ² | X3 | (X3) ² |
| Years | | | | | | |
| 2004 | -5.57 | 31.0249 | 0.775 | 0.600625 | 2.5 | 6.25 |
| 2005 | 2.995 | 8.970025 | 1.065 | 1.134225 | 2.76 | 7.6176 |
| 2006 | 2.62 | 6.8644 | 1.16 | 1.3456 | 2.895 | 8.381025 |
| 2007 | 1.825 | 3.330625 | 1.29 | 1.6641 | 2.57 | 6.6049 |
| 2008 | 1.725 | 2.975625 | 1.365 | 1.863225 | 2.385 | 5.688225 |
| Total | 3.595 | 53.165575 | 5.655 | 6.607775 | 13.11 | 34.54175 |

$$\begin{aligned} \text{Sum of all the items of the various samples (T)} &= X1+X2+X3 \\ &= 3.595+5.655+13.11 \\ &= 22.36 \end{aligned}$$

$$\begin{aligned} \text{Correction Factor } T^2/N &= (22.36)^2/15 \\ &= 33.33130667 \end{aligned}$$

$$\begin{aligned} \text{Total Sum of Squares} &= X1^2 + X2^2 + X3^2 \\ &= 53.165575+6.607775+34.54175 \\ &=94.3151 \end{aligned}$$

$$\begin{aligned} \text{Sum of Squares between the Samples} &= (X1)^2/N + (X2)^2/N + (X3)^2/N - T^2/N \\ &= ((3.595)^2/5 + (5.655)^2/5 + (13.11)^2/5) - 33.33130667 \\ &= 43.35503 - 33.33130667 \\ &= 10.02372333 \end{aligned}$$

$$\begin{aligned} \text{Sum of Squares within Samples} &= \text{Total Sum of Squares} - \text{Sum of Squares between samples.} \\ &= 94.3151 - 10.02372333 \\ &= 84.29137667 \end{aligned}$$

$$F = \frac{\text{Variance between Samples}}{\text{Variance within Samples}}$$

| Source of Variation | Sum of Squares | Degree of Freedom | Mean Squares | F |
|---------------------|----------------|-------------------|--------------|--------------------|
| Between Samples | 10.02372333 | 3-1=2 | 5.011861665 | 0.713505252 |
| Within Samples | 84.29137667 | 15-3=12 | 7.024281389 | |
| Total | 94.3151 | 14 | | |

Annex - 4
Test of Analysis of variance for Return on Equity (ROE)

| Sector of Commercial Banks | Public banks | | Domestic banks | | Joint Venture Banks | |
|----------------------------|---------------|-------------------|----------------|-------------------|---------------------|-------------------|
| | X1 | (X1) ² | X2 | (X2) ² | X3 | (X3) ² |
| Year | | | | | | |
| 2004 | 12.085 | 146.04723 | 11.42 | 130.4164 | 35.33 | 1248.2089 |
| 2005 | -6.365 | 40.513225 | 11.89 | 141.3721 | 32.59 | 1062.1081 |
| 2006 | -12.855 | 165.25103 | 14.99 | 224.7001 | 35.715 | 1275.5612 |
| 2007 | -6.7 | 44.89 | 17.135 | 293.60823 | 34.29 | 1175.8041 |
| 2008 | -7.695 | 59.213025 | 18.155 | 329.60403 | 34.575 | 1195.4306 |
| Total | -21.53 | 455.9145 | 73.59 | 1119.701 | 172.5 | 5957.113 |

$$\begin{aligned} \text{Sum of all the items of the various samples (T)} &= X1+X2+X3 \\ &= -21.53+73.59+172.5 \\ &= 224.56 \end{aligned}$$

$$\begin{aligned} \text{Correction Factor } T^2/N &= (224.56)^2/15 \\ &= 3361.8129 \end{aligned}$$

$$\begin{aligned} \text{Total Sum of Squares} &= X1^2 + X2^2 + X3^2 \\ &= 455.9145+1119.701+5957.113 \\ &= 7532.7285 \end{aligned}$$

$$\begin{aligned} \text{Sum of Squares between the Samples} &= (X1)^2/N + (X2)^2/N + (X3)^2/N - T^2/N \\ &= ((-21.53)^2/5 + (73.59)^2/5 + (172.5)^2/5) - 3361.8129 \\ &= 7127.0558 - 3361.8129 \\ &= 3765.2429 \end{aligned}$$

$$\begin{aligned} \text{Sum of Squares within Samples} &= \text{Total Sum of Squares} - \text{Sum of Squares between samples.} \\ &= 7532.7285 - 3765.2429 \\ &= 3767.4856 \end{aligned}$$

$$F = \frac{\text{Variance between Samples}}{\text{Variance within Samples}}$$

| Source of Variation | Sum of Squares | Degree of Freedom | Mean Squares | F |
|---------------------|-----------------|-------------------|--------------|-----------------|
| Between Samples | 3765.2429 | 3-1=2 | 1882.6215 | 5.996428 |
| Within Samples | 3767.4856 | 15-3=12 | 313.95713 | |
| Total | 7532.729 | 14 | | |

Annex - 5
Test of Analysis of variance for Earning Per Share (EPS)

| Sector of Commercial Banks | Public banks | | Domestic banks | | Joint Venture Banks | |
|----------------------------|----------------|-------------------|----------------|-------------------|---------------------|-------------------|
| | X1 | (X1) ² | X2 | (X2) ² | X3 | (X3) ² |
| Year | | | | | | |
| 2004 | 186.76 | 34879.298 | 26.8 | 718.24 | 118.08 | 13942.886 |
| 2005 | 455 | 207025 | 21.92 | 480.4864 | 124.315 | 15454.219 |
| 2006 | 317 | 100489 | 32.575 | 1061.1306 | 152.525 | 23263.876 |
| 2007 | 59.66 | 3559.3156 | 36.66 | 1343.9556 | 152.225 | 23172.451 |
| 2008 | 62.89 | 3955.1521 | 37.16 | 1380.8656 | 120.115 | 14427.613 |
| Total | 1081.31 | 349907.8 | 155.115 | 4984.678 | 667.26 | 90261.05 |

$$\begin{aligned} \text{Sum of all the items of the various samples (T)} &= X1+X2+X3 \\ &= 1081.31+155.115+667.26 \\ &= 1903.685 \end{aligned}$$

$$\begin{aligned} \text{Correction Factor } T^2/N &= (1903.685)^2/15 \\ &= 241601.11 \end{aligned}$$

$$\begin{aligned} \text{Total Sum of Squares} &= X1^2 + X2^2 + X3^2 \\ &= 349907.8+4984.678+90261.05 \\ &= 445153.53 \end{aligned}$$

$$\begin{aligned} \text{Sum of Squares between the Samples} &= (X1)^2/N + (X2)^2/N + (X3)^2/N - T^2/N \\ &= ((1081.31)^2/5 + (155.115)^2/5 + (667.26)^2/5) - 241601.11 \\ &= 327705.58 - 241601.11 \\ &= 86104.47 \end{aligned}$$

$$\begin{aligned} \text{Sum of Squares within Samples} &= \text{Total Sum of Squares} - \text{Sum of Squares between samples.} \\ &= 445153.53 - 86104.47 \\ &= 359049.06 \end{aligned}$$

$$F = \frac{\text{Variance between Samples}}{\text{Variance within Samples}}$$

| Source of Variation | Sum of Squares | Degree of Freedom | Mean Squares | F |
|---------------------|-----------------|-------------------|--------------|-----------------|
| Between Samples | 86104.47 | 3-1=2 | 43052.235 | 1.438875 |
| Within Samples | 359049.06 | 15-3=12 | 29920.755 | |
| Total | 445153.5 | 14 | | |

Annex - 6
Test of Analysis of variance for Cash & Bank Balance to Total Deposit

| Sector of Commercial Banks | Public banks | | Domestic banks | | Joint Venture Banks | |
|----------------------------|---------------|-------------------|----------------|-------------------|---------------------|-------------------|
| | X1 | (X1) ² | X2 | (X2) ² | X3 | (X3) ² |
| Year | | | | | | |
| 2004 | 16.5 | 272.25 | 17 | 289 | 8.5 | 72.25 |
| 2005 | 15 | 225 | 12 | 144 | 4.5 | 20.25 |
| 2006 | 16 | 256 | 9.085 | 82.537225 | 3.5 | 12.25 |
| 2007 | 14.105 | 198.95103 | 7.535 | 56.776225 | 7 | 49 |
| 2008 | 15.99 | 255.6801 | 13.195 | 174.10803 | 9.5 | 90.25 |
| Total | 77.595 | 1207.881 | 58.815 | 746.4215 | 33 | 244 |

$$\begin{aligned} \text{Sum of all the items of the various samples (T)} &= X1+X2+X3 \\ &= 77.595+58.815+33 \\ &= 169.41 \end{aligned}$$

$$\begin{aligned} \text{Correction Factor } T^2/N &= (169.41)^2/15 \\ &= 1913.3165 \end{aligned}$$

$$\begin{aligned} \text{Total Sum of Squares} &= X1^2 + X2^2 + X3^2 \\ &= 1207.881+746.4215+244 \\ &= 2198.3025 \end{aligned}$$

$$\begin{aligned} \text{Sum of Squares between the Samples} &= (X1)^2/N + (X2)^2/N + (X3)^2/N - T^2/N \\ &= ((77.595)^2/5 + (58.815)^2/5 + (33)^2/5) - 1913.3165 \\ &= 2113.8377 - 1913.3165 \\ &= 200.5212 \end{aligned}$$

$$\begin{aligned} \text{Sum of Squares within Samples} &= \text{Total Sum of Squares} - \text{Sum of Squares between samples.} \\ &= 2198.3025 - 200.5212 \\ &= 1997.7813 \end{aligned}$$

$$F = \frac{\text{Variance between Samples}}{\text{Variance within Samples}}$$

| Source of Variation | Sum of Squares | Degree of Freedom | Mean Squares | F |
|---------------------|-----------------|-------------------|--------------|-----------------|
| Between Samples | 200.5212 | 3-1=2 | 100.2606 | 0.602232 |
| Within Samples | 1997.7813 | 15-3=12 | 166.48178 | |
| Total | 2198.303 | 14 | | |

Annex - 7
Test of Analysis of variance for Credit to Deposit

| Sector of Commercial Banks | Public banks | | Domestic banks | | Joint Venture Banks | |
|----------------------------|---------------|--------------------|----------------|-------------------|---------------------|-------------------|
| | X1 | (X1) ² | X2 | (X2) ² | X3 | (X3) ² |
| Year | | | | | | |
| 2004 | 58.315 | 3400.639225 | 75.585 | 5713.092225 | 46.09 | 2124.2881 |
| 2005 | 56.72 | 3217.1584 | 81.06 | 6570.7236 | 59.27 | 3512.9329 |
| 2006 | 47.08 | 2216.5264 | 82.645 | 6830.196025 | 54.275 | 2945.775625 |
| 2007 | 42.85 | 1836.1225 | 79.17 | 6267.8889 | 55.955 | 3130.962025 |
| 2008 | 42.585 | 1813.482225 | 83.035 | 6894.811225 | 57.565 | 3313.729225 |
| Total | 247.55 | 12483.92875 | 401.495 | 32276.712 | 273.16 | 15027.6879 |

$$\begin{aligned} \text{Sum of all the items of the various samples (T)} &= X1+X2+X3 \\ &= 247.55+401.495+273.155 \\ &= 922.2 \end{aligned}$$

$$\begin{aligned} \text{Correction Factor } T^2/N &= (922.2)^2/15 \\ &= 56696.856 \end{aligned}$$

$$\begin{aligned} \text{Total Sum of Squares} &= X1^2 + X2^2 + X3^2 \\ &= 12483.93+32276.71+15027.69 \\ &= 59788.33 \end{aligned}$$

$$\begin{aligned} \text{Sum of Squares between the Samples} &= (X1)^2/N + (X2)^2/N + (X3)^2/N - T^2/N \\ &= ((247.55)^2/5 + (401.495)^2/5 + (273.155)^2/5) - 56696.856 \\ &= 59418.578 - 56696.856 \\ &= 2721.722 \end{aligned}$$

$$\begin{aligned} \text{Sum of Squares within Samples} &= \text{Total Sum of Squares} - \text{Sum of Squares between samples.} \\ &= 59788.33 - 2721.722 \\ &= 57066.608 \end{aligned}$$

$$F = \frac{\text{Variance between Samples}}{\text{Variance within Samples}}$$

| Source of Variation | Sum of Squares | Degree of Freedom | Mean Squares | F |
|---------------------|-----------------|-------------------|--------------|--------------------|
| Between Samples | 2721.722 | 3-1=2 | 1360.861 | 0.286162654 |
| Within Samples | 57066.608 | 15-3=12 | 4755.550667 | |
| Total | 59788.33 | 14 | | |