

# **CHAPTER - I**

## **INTRODUCTION**

### **1.1 Background of the Study**

The development of any country largely depends upon its economic development. Thus, the primary goal of any nation, including Nepal, is rapid economic development to promote the welfare of the people and the nation as well. Nepal being listed among the least developed country is trying to embark upon the path of economic development by economic growth rate and developing all sectors of economy. Even though, the process of economic development depends upon various factors, however economists are now convinced that capital formation and its proper utilization plays a paramount role for rapid economic development.

For the development of any country, the financial sector of that country is responsible and must be strong. The financial sector is a vast field, which comprises of banks, co-operative societies, insurance companies, stock exchanges, foreign exchange markets, mutual funds etc. these institutions collect idle and scattered money from the general public and finally invests in different enterprises of the national economy that consequently help in reducing poverty, increase in life style of public, increases employment opportunities and thereby developing the society and the country as a whole.

In all modern economics, the banking system plays a central role in the economic function of mobilizing the countries saving; supply a chief means of payment and allocating economic resources. In an attempt to ensure that the banking system will perform these vital functions in an optimal manner. The modern economy demands different types of financial services. A single institution cannot fulfill all the services demanded by the customers. Therefore, different types of banks also emerged in the banking industry specializing different functional areas. The developing economic market shows the need of

commercial banking system for those who have surplus to deposit and for those who want loan. Thus, today's concept the commercial banks have become one of the base of measuring the level of economic development of nation.

For the smooth development of a country it is very important to have adequate savings, which can be invested in productive sector. Due to the low income there is fewer saving. People spend all the money in consumption of necessary item. Some rich people who save money also consume the precise metal and some also hoards it. People have no idea about the investment in productive line. Commercial Banks are the main source, which motivates people to save their earnings. Bank collects the saving of people in the form of deposit collection and invests it in the productive area. They give and take the loan from the people Commercial Banks mobilize their collection in various productive areas.

The proper mobilization and utilization of domestic resources become indispensable for any developing countries aspiring for a sustainable economic development. Similarly, integrated and financial service reaches nook and corners of the country. Banks and other financial institutions are playing vital role in the economic development of the country.

Commercial banks are those financial intermediaries, which collect and utilize of small-scattered savings of the people. They utilize the collected resources by financing on production, distribution and consumption and even some time for the need of the government. Commercial bank's credit in the desired sectors constitutes the significant part of their activities. The generation of high rates of saving and thereby investment is possible only through the commercial bank. They are most effective medium of mobilizing the national resources. Therefore increased effort should be made to mobilize domestic resource through banking sector to decrease the dependence on foreign assistance, saving is not only the collection for the resources to be canalized for the

economic development. Simultaneously, it is the attractive investment for the savers.

The underdeveloped country like Nepal recognized the formula of development of its very late. So, the development of banks in contest of Nepal is relatively new in comparison to that in western countries. The evolution and practice of modern banking system in Nepal is not long and the participation of private sector and foreign collaborators in this field is a recent phenomenon. Even in the short period commercial banks in Nepal are showing greater influence on the economy of the country.

Nepalese banking history started in B.S. 1994 with the establishment of Nepal Bank Limited. It was followed by the establishment of Nepal Rastra Bank the central bank of our country in B.S.2013. To fulfill the growing credit requirement of the country Rastriya Banijya Bank another fully government commercial bank was set up in B.S.2022.NABIL Bank the first joint venture commercial bank in Nepal was incorporated in B.S.2041 in partnership with Dubai Bank Limited. Soon after, on the year B.S. 2042 and B.S. 2043 two joint venture banks Nepal Investment Bank Ltd and Standard Chartered Bank were established as second and third joint venture banks. After 047/048 elected government came into power and launched financial sector reform programme. As a result, the number of commercial banks continued increasing. On the year 049/050 Himalayan Bank Ltd., Nepal SBI Bank Ltd., Nepal Bangladesh Bank Ltd established as joint venture banks .On the year B.S. 2051 Everest Bank Ltd., and Bank of Kathmandu, on the year 2053 Nepal Credit and Commerce Bank Ltd was also established as joint venture bank. Later on Nepalese entrepreneurs also became enthusiastic in banking business and invested on setting up private banks under their ownership and management. On the year 2055 two private banks Lumbini Bank Ltd. And Nepal Industrial & Commercial Bank Ltd. Were registered under the Nepal Rastra Bank. After that, other private banks Machhapuchhre Bank Limited, Kumari Bank Limited, Laxmi Bank Limited, Siddhartha Bank Ltd., Global Bank Limited, Bank of

Asia Ltd., Sunrise Bank Limited, Prime Commercial Bank Ltd., Nepal Merchant Bank Limited were registered till B.S.2065.

This study is basically related to deposit mobilization of commercial banks. The study has been done with special reference to Nepal SBI Bank Limited and Nepal Bangladesh Bank Limited

## **Nepal SBI Bank Limited**

### **Introduction:**

Nepal SBI Bank Ltd. was registered under the company Act, 1964 in 1993. This is Joint- venture of State Bank of India and Nepali promoters. The bank is managed by state Bank of India under the joint-venture and technical services agreement signed between it and Nepali promoters Viz. Employees provident fund and Agriculture Development Bank, Nepal. The state Bank of India is holding its 50% equity.

The main objective of the bank is to carryout modern banking business in the country under the Commercial Bank Act, 1974. The bank provides loan to agriculture, commerce and industrial sector. The bank is one of the largest shareholder based company. The bank started its banking operation on 8<sup>th</sup> July 1993.

### **Performance Review:**

Total accumulated deposit of the bank reached Rs. 3744.51 million in 1997/98 against the accumulated deposit of Rs. 2358.91 million till 1996/97. The net increase in accumulated deposit was Rs. 1385.60 million. The increase was 58.74%. Loan and advances stood Rs. 2314.98 million in 1997/98 against the amount of Rs. 1672.72 million in 1996/97. Loan and advances amount was 61.82% of deposit mobilization in 1997/98. It was 70.91% in 1996/97. The total income of the bank was Rs. 415.93 million in 1997/98. It was Rs. 293.46 million in 1996/97. After tax profit of the bank was Rs. 58.98 million in

1997/98 against the profit of Rs. 44.92 million in 1996/97. The bank declared the dividend of 20% to its shareholders for 1997/98.

### **Objectives of NSBI Bank Ltd:**

- ❑ To play an important role in facilitating Indo- Nepal trade which is growing with the support of large network of branches of SBI in India.
- ❑ To provide a whole range of international banking services to facilitate Nepal's trade and tourism.
- ❑ To participate in the emerging industrial scenario in Nepal where SBI 25 age old exposure, experience and expertise would come in handy.
- ❑ To provide meaningful support to developmental banking in Nepal by collaborating with ADBN and NIDC.

### **Services Offered:**

- ❑ Deposit- current, saving and fixed.
- ❑ Remittances/Money transfer to and from 770 branches of SBI in India
- ❑ Loans/Advances/Properties and deprived sector landings.
- ❑ Consortium lending
- ❑ Letter of credit.
- ❑ Sale and Encasement of Foreign currency Travelers cheques.

The bank is connected with a very wide network of correspondent banks of SBI and can facilitate business with all- important countries from east to west of the globe.

Nepal SBI Bank Ltd. is operating through 13 branches in different sectors of Nepal with one head office in Hattisar, Kathmandu.

### **Nepal Bangladesh Bank Limited**

#### **Introduction:**

Nepal Bangladesh Bank Limited, a joint-venture bank with IFIC Bank Ltd of Bangladesh, was established in 1993 under the company Act, 1964. The main objective of the bank is to carry out commercial banking activities under the commercial Bank Act, 1974. The bank is managed IFIC Bank Ltd. Bangladesh

in accordance with the joint- venture and technical services agreement between it and Nepali promoters.

**Performance Review:**

Total accumulated deposit of the bank reached to Rs. 2365.44 million till 1997/98 against the total deposit of Rs. 1348.98 million till 1996/97. Total investment of the bank was Rs. 6 million in 1996/97. It increased to the extent of Rs. 190.92 million in 1997/98. The loan and advances of the bank also increased from Rs. 1138.04 million in 1996/97 to Rs. 1854.29 million till 1997/98. Loan and advances was 78.39% of total deposit mobilization in 1997/98. It was 84.36 million in 1996/97. The after tax profit of the bank stood Rs. 60.78 million in 1997/98 against the profit of Rs. 21.14 million in 1996/97. The bank announced 15% dividend to its shareholders for the fiscal year 1997/98.

**Objective:**

1. Main objective is to render banking services to the different sectors like industries, traders, businessmen, priority sector, small entrepreneurs and weaker section of the society and every other people who need banking services.

**Services:**

Nepal Bangladesh Bank Ltd. is providing full fledged Commercial Banking services to its clients.

Besides accepting deposits in various forms, following facilities and services are made available by the Bank:

- 1 Consortium Finance
- 2 Working Capital Loan
- 3 Term Loan
- 4 Demand Loan
- 5 Hire Purchase Loan
- 6 Education Loan
- 7 Housing Loan

- 8 Trade Finance
- 9 Letter of Credit
- 10 Bank Guarantee.
- 11 Bills Purchase.
- 12 Remittance Services all over the world.
- 13 Locker facility.
- 14 Telebanking
- 15 ATM (Automated Teller Machine) facility
- 16 ABBS (Any Branch Banking Service) facility
- 17 SMS Banking
- 18 Bearer Certificate of Deposit (BCD).
- 19 Underwriting of shares.

It has also introduced free Accidental Insurance Scheme upto Rs. 5 Lac and Medical Insurance benefits upto Rs. 10 thousand to the Individual Saving Account holders.

### **1.1.1 Contribution of Banking Sector to the Economy (Economic Development)/Role of Commercial Bank**

In the Nepalese economy the main role that commercial banks play are to collect the scattered small amount of capital through different medias and to invest these deposited amount in productive sector with a view to increase the income of the depositors, it also support to increase the saving through the investment of increased extra amount. For the domestic resource mobilization and economic development of the nation's banking institutions definitely contribute and play a vital role to build up the confidence to businessman for promoting their business and industrialists for encouraging to pen new industries. It is a resource for economic development. It maintains economic confidence of various segments and extents credit to people. So, the resource mobilization and its diversification into different channels by financial sector is general and banking sector plays a crucial role.

Saving is income not consumed. It is one of the most important and perhaps the chief sources of investment. Savings are of great significance in a country's development. While high saving results in high economic growth rate, rapid development leads in turn to high savings. Nepal's saving rate is lower as compared to other developing countries, however, even to achieve 5 to 6 percent economic growth rate more than 25 percent annual investment of GDP is considered necessary (NPC: 1998,81). As the country's current domestic savings are about 14 percent, the economic resources are short by nearly 11 percent in proportion of the GDP (NPC, 1998: 81). The situation is such that huge portion of investment has still to be made with external resources.

The savings growth rate depends, among others, on the level of country's per capita income and its growth rate, population growth rate, interest rate on savings or on banking accounts, banking and financial facilities and net factor income etc. The national income is the measure of the money value of goods and services available, in a year, to the nation from the economic activities. Saving is the excess of income over consumption. In other words, it is the part of the income, which is left over after consumption. In addition, investment is the expenditure made for the formation of the fixed capital. Mobilization of saving implies transfer of resources from surplus spending units to deficit units. In this connection, commercial banks play an important role in mobilization of saving. The amount of saving of a typical household in Nepal is small because the people have limited opportunities for investment. They prefer to spend savings on commodities rather than on financial assets. This restricts the process of commercial banks, which might otherwise bring benefits such as reduction of investment risk and increase in liquidity.

Capital formation is regarded as one of the important and principal factors in economic development because it leads to the expansion of market. A rapid rate of capital formation gradually dispense with the need for foreign aid. In fact, capital formation helps in making a country self- sufficient and reduces the burden of foreign aid. The process of capital formation helps in raising



national income. Therefore, capital formation is a necessary pre-requisite for economic growth.

For the smooth development of a country it is very important to have adequate savings, which can be invested in productive sector. Due to the low income there is fewer saving. People spend all the money in consumption of necessary item. Some rich people who save money also consume the precise metal and some also hoards it. People have no idea about the investment in productive line. Commercial banks are the main source, which motivates people to save their earnings. Banks collect the saving of people in the form of deposit collection and invests it in the productive area. They give and take the loan from the people. Commercial banks mobilize their collection in various productive areas.

The success of financial intermediation process in an economy means spending up the process of saving- investment process that brings forth-higher capital formation in productive sectors. These are the essential steps in social and economical development of the country.

### **1.1.2 Deposit Mobilization**

Deposit mobilization is the most dependable and important source of capital formation. The main objective of deposit mobilization is to convert idle saving into active saving. The deposit mobilization support fiscal and monetary policy of the central bank by canalizing the idle money in the productive and developmental projects in the economy. Also helps in money supply, which saves the country from deflation as well as monetary policy of the central bank. Deposit mobilization stands for converting idle savings into active saving. It helps to circulate the idle saving in the productive sectors, which help directly in country's economic development .The increasing bank habit on the people increase the deposit in the banks, which promote economic development. If

there is proper mobilization and utilization of deposit, people will believe the banking system and obviously the banking habit develops on them.

## **1.2 Focus of the Study**

This study entitled to “Deposit mobilization of Commercial Bank (A case study of Nepal SBI Bank Ltd. and Nepal Bangladesh Bank Ltd.) is mainly focused on the deposit mobilization of the available funds of the Commercial banks.

Due to globalization and open liberalization conducted by the country, the country felt the need of financial intermediaries. The company recognized the importance of financial intermediaries consist of commercial banks, insurance, mutual funds, provident fund and financial institutions etc.

The development of a nation depends upon its domestic resources. Banking sector play vital role in allocation and utilization of such resources. The available resources are neither properly mobilized nor fully utilized for the productive purposes. This is one of the main reasons for backwardness of the economy. In fact, assistance from donor countries and institutions is insufficient so proper utilization of domestic resources for the productive purposes are felt indispensable.

The commercial banks can play a vital role in mobilizing the resources in developing as well as developed countries. Those institutions can induce the public to save their valuable fund. They can help to monetize the society. In this way the saving can enter into the banking channel from the informal sector, banks are the financial intermediaries, they collect the surplus money as a form of deposit and provide loan to the deficit sector. In between they follow credit creation process. In this way they bridge the gap between surplus sector and deficit sector.

Investment is the result of deposit fund. That is the deposit funds are mobilized to deficit sector to generate profit. Investment is required to both new and established companies.

Keeping above fact into consideration, this study mainly focus on factors affecting deposit mobilization loan diversification, return to the investor.

### **1.3 Statement of the Problem**

The present situation of Nepal is economically unstable. There is no peace and security in the country. So, the investors are discouraged to invest. Banking industries are facing the problem from the component of external environment such as political, legal, economic and social. The unstable political is the main cause, which is hampering for the growth of banking sector. The corruptions make by the top-level management negligence, over staffing are the some reasons that are facing by the banks.

The numbers of Commercial Banks are being established in response to the economic liberalization policies of the government. These institutions have the tendency to centralize in major cities focusing the activities among the industrialists, traders and entrepreneurs.

Due to some internal and external factors in Nepal, the economic condition of the country is highly disturbed which in turn affects the banking sectors too. The profitable opportunities becomes very low for the banks as well as for the general public which leads to high deposited funds in the banks. But the investment areas are very low for the commercial banks in Nepal.

Interest rate is the major determinants of deposit, which plays vital role on the collection of deposits. Higher interest on deposit encourages savers to save more and lower interest rate discourages saving and results in lower deposit. This behavior suggests that the interest rate should be high enough to promote

the savers to save. However, the interest rates on deposit of commercial banks have declined for last some years.

Another major determinant of the deposit collection is branch expansion by commercial banks. The statistics published by NRB on branch expansion shows that commercial banks are mainly concentrated in Kathmandu valley and some municipalities. Private sector banks have not spread their branches in rural areas as desired. Only two old banks Rastriya Banijya Bank and Nepal Bank Ltd. have nation wide network branches in rural remote areas. For last five/six years many bank branches have been close for bidding services for security reasons. In this way saving mobilization, credit allocation and monetization process have been blocked. People in the rural area are facing the lack of formal financial intermediaries.

The commercial banks are not succeeding perfectly to shift the deposit in profitable sectors. The problem of the study lies on the issues related to Nepal SBI Bank Limited and Nepal Bangladesh Bank Ltd. That they are mobilizing their excess fund and what is their position regarding credit.

The research work intends to explore the following questions:

1. What are the problems faces by commercial bank in deposit mobilization?
- 2 How NSBI Bank Ltd. and NB Bank Ltd. are mobilizing their excess fund and what is their position regarding credit.
3. How deposit mobilization procedure can be improved?

#### **1.4 Objective of the Study**

To every work of study there must be objective or goal. This study also posses some objectives which are as follows:

1. To study the financial position of Nepal SBI Bank Ltd. and Nepal Bangladesh Bank Ltd.

2. To examine the trend of deposit of Nepal SBI Bank Ltd. and Nepal Bangladesh Bank Ltd.
3. To examine the trend of loan and investment position of the selected banks.
4. To suggest applicable and appropriate suggestions for the improvement of the selected commercial banks on the basis of findings.

## **1.5 Importance of the Study**

As the research done in any field, there are several key factors that cannot be avoided, in which importance of the study also occurs mainly the study covers the area of the position of deposit and investment of Nepal SBI Bank Ltd. and Nepal Bangladesh Bank Ltd., so it helps to reveal the financial position of the bank.

The study is important to know how the banks are utilizing their deposits. As the bank are collects the funds from the general public and invests it to the different sector for the generalization of profit. So the study encourage the general public whether to invest further or not. The position of the banks under study with regards to loan and advances and investment can be determined which makes clear about their performance and helps in making any kind of deposit regarding these banks. It will also help to know the actual clear vision of the policy adopted by the bank for better deposit collection and effective utilization of the fund.

The study is important to policy makers to formulate policies and plans on the basis of the performance of these banks and on the basis of the recommendation suggested in the thesis .It is also important to these banks under study to compare each other's performance and plan accordingly for future.

It is important for the investors, customers (Depositors, Loan takers, as well as other types of clients), Competitors, personnel of the bank, stockbrokers,

dealers and market makers etc. to take various decisions regarding deposits and borrowings.

This is important to student and various group those having interested in banking sectors. This study will help to increase their knowledge regarding deposit and investment situations of Nepalese Commercial banks.

## **1.6 Limitation of the Study**

Following are the limitation of the study:

1. This study only covers the study about only two banks: - Nepal SBI Bank Ltd and Nepal Bangladesh Bank Ltd. It does not contribute the other commercial banks.
2. Mainly the study deals with deposit and deposit mobilization of selected banks. As the Subject matter is concentrated on the given topic other subject matter is not covered.
3. The whole study is based on the secondary data, collected from the banks, financial Statements, publications and journals, so it may contain reporting errors.
4. The study is done for the seven years period of time i.e., from mid July 2002 to mid July 2008 therefore, a complete analysis is not possible.
5. The data and information available are very limited for the study.

## **1.7 Organization of the Study**

The whole study is mainly divided into five different chapters.

Chapter I : Introduction

Chapter II : Review of Literature

Chapter III : Research Methodology

Chapter IV : Data Presentation and Analysis

Chapter V : Summary, Conclusion and Recommendations

**CHAPTER I:** Chapter I includes the background of the study, focus of the study, statement of the problem, objectives of the study, significance/importance of the study and limitation of the study.

**CHAPTER II:** This chapter deals with review of literatures, which includes conceptual/theoretical review and review of related studies.

**CHAPTER III:** Chapter III<sup>rd</sup> is Research Methodology, which includes introduction of research methodology, research design, population and sample, sources of data and tools for data analysis.

**CHAPTER IV:** This chapter deals with the various analysis and interpretations of data like, analysis of sources and uses of fund of commercial banks, analysis of deposits, loan & advances and investments of NSBI and NBBL, Financial and Statistical analysis. It also shows major findings of the study.

**CHAPTER V:** It contains the summary of the study, conclusion and recommendation.

The list of Bibliography and appendices are given at the last for references.

## **CHAPTER – II**

### **REVIEW OF LITERATURE**

This chapter includes the review of previous studies, articles and thesis to pertaining to concept and role of commercial bank, deposit and deposit mobilization, loans and advances investments and commercial banking reforms. Past study and knowledge provides foundation to the present study.

#### **2.1 Review from Books and Journals**

##### **Conceptual Review**

Under this heading the concept of the bank and banking transaction are described and information have taken from the different books and journals.

##### **2.1.1 Evolution of Modern Banking**

Modern banking was originated in the middle ages. The first bank was set up in 1157 A. D. in Venice Italy by the name of " Bank of Venice". Subsequently, "Bank of Barcelona" in 1401A.D. was established. In 1694 A.D. "Bank of England" was established as a joint bank. In 1844 A.D. it was established as the first central bank in the world. (Shekhar, 1978)

In spite of the establishment of the "Bank of England" in 1694, the development of modern banking institution had to wait for another century and four decades until the passage of Banking Act of 1833, which provided freedom for the establishment of joint stock banks while banking arouse, it was only in the 19<sup>th</sup> century that the modern joint stock commercial banking system developed in the lending countries of the world. When colonies were established in north or South America, old banking services were transferred to the new world. (Vaidya, 1999)



## **2.1.2 Meaning of Commercial Bank**

Commercial banks are those financial institutions that offer the widest range of financial services:-specially credit, savings, and payments services and perform the widest range of financial functions of any business firm in the economy. This multiplicity of bank services and functions has led to banks being labeled "Financial Supermarkets".

### **2.1.2.1 Functions of Commercial Bank**

Commercial banks are the most important types of financial institution for the nation in terms of aggregate assets. Commercial Banks can be defined from the function it performs. Traditional functions of commercial banks are only concerned with accepting deposits and providing loan. But modern commercial banks work for overall development of trade commerce, services and agriculture also. The business of banking is very broad in modern business age. The number and variety of services provided by bank will probably expand. The main functions of commercial banks are as follows: -

#### **1. Accepting Deposit**

The main function of the commercial banks is to collect the deposit. Commercial Banks accept the deposit from the public who has surplus funds. As stated by Sir John Paget. "It is a fair deduction that no person or body, corporate, or otherwise can be banker who does not 1) takes deposit accounts, (2) take current accounts, (3) issue and pay cheques and (4) collects cheques for his customer. All are related to the acceptance of deposits. Therefore, accepting deposit by banks is the oldest function. A bank accepts deposits in the form of saving, current and fixed deposit.

#### **2. Advancing Loans**

The second major function of Commercial Bank is providing loan to the needy person. Banks advance the loan against the security to the customer. Advancing loan is also known as the function of the deposit mobilization because banks give loan to the people from the deposit that it collects from the public. There is various method of advancing loans e.g. Overdraft, Cash credit, Direct Loans, Discounting Bills of Exchange etc.

### **3. Agency Service**

Agency services are those services provided by the bank on behalf of its customer. A Commercial Bank undertakes the payment of subscription, insurance premium, rent etc, and collection of cheques, bill, salaries, pension, dividends, interest etc. on behalf of the customer. The banks charges the service cost to do these function to its customers. The Commercial Banks also arrange the remit money from place to another by means of cheques, drafts, wire transfer etc.

### **4. Creating Money**

The major function of commercial banks that separates it from other financial institution is the ability to create money and to destroy money, which is accomplished by lending and investing activities. The power of commercial banking system to create money is a great economic significant as it results in the elastic credit system that is necessary for economic progress at a relatively steady growth rate.

### **5. Credit Creation**

Credit Creation is one of the most important functions of the Commercial Banks. In order to earn profits, they accept deposits and advance loans by keeping a small cash reserve ratio for day-to-day transaction as prescribed by the central banks. When a bank advances a loan, it opens an account to draw money by cheque according to his need. By granting a loan, the banks create credit or deposit.

### **6. General Utility Service**

The Commercial Banks perform certain utility function to its customer. Following are the general utility services provided by the Commercial Banks:

- i. Safe keeping of valuables

- ii. Facilitating foreign trade
- iii. Making venture capital loans
- iv. Financial advising
- v. Security brokerage service
- vi. Investment banking and merchant banking
- vii. Payment mechanism
- viii. Pooling and saving
- ix. Extension of credit

Among the major functions of commercial banks, the main functions are the functions of accepting deposit; demand Deposits in commercial banks constitute the major portion of the money supply. Businessmen as funds to meet credit requirement in times of need use Demand Deposits generally. So commercial bank's primary function of money is its base as a means of payment. Finally, funds may be deposited in commercial banks for true saving purposes. Individuals generally accumulate such funds over relatively long periods of time for non-specific purposes such as the proverbial "rainy-day", retirement or unknown personal emergencies.

### **2.1.3 Concept of Deposit & Deposit Mobilization**

Deposit is the starting point of banking transaction. The growth of bank depends primarily upon the growth of its deposits. The volume of funds that management will use for creating income, through loans and investment determines largely by the bank's policy governing deposits. In other words, when the policy is restrictive, the growth of bank is retarded or accelerated with the liberalization in the deposit policy. In banks, the volume of credit extension much depends upon the deposit base of the bank. The deposit creating power of the commercial bank forces to raise the assets give rise to liabilities, Therefore, it is important that commercial bank's deposit policy is the most essential policy for its existence. The deposit creating powers of Commercial Banks forces to raise the assets along with the liabilities side of the balance sheet. In

other words, assets give rise to liabilities. Traditionally, the deposit structure of a Commercial Bank was thought to be determined by the depositors and not by bank management. There are regular changes in this view in the modern banking industry. Thus banks have evolved from relatively passive acceptors of deposits to active bidders for funds. Deposits are one of the aspects of the bank liabilities that management has been influencing through deliberate action. The bulk of the resources employed by a modern bank consist of borrowed money (that is deposits). Which is lent out as profitably as is consistent with safety insofar an increase in deposits provides a bank with additional cash (which is an asset), the increase in cash supplements its loanable resources and permits a more than proportionate increase in its loans.

An increase in deposit may arise in two ways (1) when a bank makes a loan, it may transfer the sum to a current account, this directly creating a new deposit or arrange a line of credit for the borrower upon which will be permitted to draw checks, which, when by third parties. Likewise create new deposits. (2) The largamente of the government expenditure financed central bank may occasion a growth in deposits claims on the government that are equivalent to be paid into the Commercial Banks a deposits. In instance, with the increase in bank deposits goes a increase in the potential liability to pay out cash second case the increase in deposits with the Commercial Bank deposits is accompanied by a corresponding increase Commercial Bank holdings of money claims the equivalent to cash.

Bank deposit is subject to various form of classification. As stated by the Commercial Bank act 2031 directives issued on 2002 "Total Deposit" means Current, savings and Fixed Deposit Account as well as call money and certificate of deposit. The deposits are generally classified based on ownership, security and the availability of funds. Some of the deposit types are explained below:

### **Current Deposit:**

The current deposit account generally opened by the businesspersons. There are allowed to withdraw and deposit their money according to their needs. There is no limitation of withdrawing the money. Therefore, these types of deposits are of those people who may need money at uncertain times.

### **Saving Deposit:**

A saving deposit is one in which middle class people and general server open a limited amount of money that can be withdraw and low level of interest will be provided by bank. This is very common and general deposit account, which is suitable for those classes of people who want to save some portion of their earnings or the money left after the consumption. There is some restriction in withdrawing money at the same time the limitation depends as per nature of the economy and from one country to the even one bank to the other.

### **Fixed Deposit or Time Deposit:**

This is a kind of deposit in which amount will be deposited for a fixed period of time that money cannot be withdrawn before the expiry of the time. So the money deposited in this account can be utilized by banks for medium or long-term credit freely being confident that the depositor will not come to claim until the time lapses. The time deposit is the main source of commercial banks for their credit operation. Investment on medium term and long purposes is possible only through this type of deposit. However, the depositor can take loan under security. In the context of Nepal, fixed deposit has been classified according to the following durations:

- ) 7days
- ) 14 days
- ) 1 month
- ) 2 month
- ) 3 months

- ) 6 months
- ) 1 year
- ) 2 years and above

The rate of interest rate on fixed deposit depends upon the duration of time deposit.

### **Call Deposit:**

Call deposit incorporates the characteristics of current and savings deposit. Current in the sense deposit is withdrawn able at "Call" and savings in a sense the deposit earns "Interest". The companies not entitled to open savings account can open the call accounts. Interest rate on call deposit is negotiable between the bank and the depositor and, hence, is normally not published/announced in public. Interest rate is applied on daily average balance withdrawal restriction is not imposed on call deposit but the balance should not go below an agreed level. (Dahal and Dahal 1999:30)

### **Deposit Mobilization:**

Deposit mobilization is one of the essential tools for the economic development of an underdeveloped and developing countries rather the developed countries. It is because the developed countries deposit collection for capital formation due to developed capital market in every sector. Low national income, low per capita income, lack of technical knowledge, vicious cycle of poverty, lack of irrigation and fertilizer, pressure of population increase, geographical conditions etc. are the main problems of developing countries like Nepal.

Therefore, their need a huge amount of capital and the objective of deposit mobilization is to collect the scattered capital in different form within the country. I t is much more important to canalize the collected deposit in the priority sector of a country. In the context of developing country like Nepal we have to promote our business and other sectors by investing the accumulated

capital towards productive sectors. The need of deposit mobilization is felt to control unnecessary expenditure. If there is no saving, the extra money that the people have, can flow forwards buying unnecessary and luxury goods. Thus, the commercial banks are playing vital role for national development. Deposit mobilization is necessary to increase their activities. To increase saving is to mobilize deposit. It is because if the product of agriculture and industrial product increase, it gives additional income which help to save more and ultimately it plays a good role in deposit mobilization. Mobilization of resources also could be understood as the task of transferring the saving, from those who save to those who are prepared to invest.

Therefore, the main objective of deposit mobilization is to convert idle saving into active saving. When discussing about resource mobilization we are mainly concerned with increasing the income of low-income group of and to make them able to save more and to invest again the collected amount in the development activities.

It is quite understandable that comprehensive and highly objective credit policies are to be prepared and implemented effectively by the commercial banks. However, when the banks are to lend more and more credit as necessity the sources of such loans and advances become a matter of serious consideration. After satisfying the statutory obligations in terms of cash ratio and the like increased loans and advances can be made only if the deposits in the bank augment. Primarily, the deposit of the banking system would increase, if the structural change in the banking habits and practices and other institutional improvements and in progress in the country. Secondly, increase in bank deposits should emanate from increase in advances. It is known fact that every loan creates deposits through of course in different proportion. The range of propensity to deposit out of loans received is between zero and one. Greater the degree of propensity to deposit out of new loans larger will be the deposits with banks. High propensity to deposit out of loans reflects low desire of people to hold cash with themselves in relation to bank deposits. In other

words, this indicates increased banking habit and practices among the public at least of those who benefit through bank loans.

### **2.1.3.1 Significance of Deposit Mobilization**

Deposit mobilization is the starting point of banking transactions. Banking activities can be increased as much as we can mobilize the accumulated deposit effectively. Capital formation is possible through collecting scattered unproductive and small savings from the peoples. This collected fund can be utilized in productive sector to increase employment and national productivity. Deposit mobilization is the most dependable and important source of capital formation.

Following points clearly explain how the deposit mobilization benefits for the development of the economy:

**a. Circulation of Idle Money:** Deposit mobilization helps to circulate idle money. The meaning of deposit mobilization is to convert idle saving into active saving. Deposit mobilization helps the depositor's habit of saving on one side, and it also help to circulate the idle saving in the productive sector on the other. This helps to create incentives to the depositors. Again, investment in productive sector helps directly in country's economic development, and also increases in inverters income.

**b. To Support Fiscal and Monetary Policy:** Fiscal policy of the government and monetary policy of the central bank for economic development of a country can be supported by deposit mobilization. Deposit mobilization helps to canalize idle money in productive sectors. Again, it helps in money supply, which saves the country from deflation and helps central banks objective of monetary policy.

**c. To Promote Cottage Industries:** Deposit mobilization is needed to facilities cottage industries located in rural and urban areas. If the bank utilizes the



collected deposit in the same rural or urban sector for the development of cottage industries, it is helpful not only to promote cottage industries in the area, but also support in the development of the locality as a whole increasing employment and income of the local people.

**d. Capital Formation:** Capital plays a vital role for the development of industries, but in an underdeveloped country, there is always lack of capital to support such possible through deposit mobilization.

**e. Development of Banking Habit:** One important side economic development of a country is to increase banking habit on the people. Deposit mobilization helps in this aspect. If there is proper deposit mobilization, people believe on the bank and banking habit develops on the people.

**f. To Check-up Misutilization of Money:** Mostly our customs and habits are supported by social and religious believes. There is also tendency of copying others and to show their superiority buying unnecessary and luxury item in our society. In such society, deposit mobilization proves a tool to check-up misutilization of money.

**g. To Support Government Development Projects:** Every underdeveloped country's government needs a huge amount of money for development projects. The deposit collected by commercial banks, can fulfill, to some extent, the need of money to the government.

**h. Co-ordination between Different Sectors:** Deposit mobilization helps to collect capital from surplus and capital hoarding sectors. The fund can be invested for the needy sectors (priority sectors). Thus, it helps to fulfill the gap between these two different sectors. The surplus and hoarding sectors are benefited by earning interest in their deposit and the needy sectors by receiving loans and advances.. Thus deposit mobilization helps to keep good co-ordination between different sectors.

**i. Others:** Deposit mobilization support small savers by earning interests, helps to the development of rural economy, protects villagers from being exploitation of indigenous bankers, increases investment incentives, provides facilities to the small farmers to purchase tools and fertilizers etc.

#### **2.1.4 Loan and Advances**

The core function of commercial banking is the granting of credit. The function of commercial bank is not only to collect the deposits from the people but also invest it. Although banks offer wide spectrum of financial services, lending has traditionally been their main function. Banks profess experience, expertise and flexibility in lending, which give them a clear competitive advantage over all other financial institution. Bank credit has been responsible for the development and growth of many small and moderate size business that otherwise would have withered and died by providing credit, banks have contributed to the growth of their respective communities and advance of local well being.

Commercial bank provides loan to the public through which it creates the credit for the community. Commercial banks mobilize their funds mainly in loan and advances. Loan and advances is the risky asset. There is high ratio of risk on granting loan. Since, loan and advances is risky there is the possibility of high rate of return. Banks loan and advances contributes high ratio in the profit of the banks. It is the instrumental in creating and maintaining good deposit relationships, which are essential for the furthering of banks lending. Making loan is the principle economic function of banks. Therefore, how well a bank performs its lending functions has a great deal to do with the economic health of the country because bank loans support the growth of the new business and jobs within the bank's trade territory and promote its economic activity.

After collecting small scattered saving into one bulk it offers loans to commerce, business, industry, agriculture and so on. Bank leads from the deposit, which it receives. Since, it has been said that. "The banks are not lending their own money but furnish advances deposits they receive from the customer." Every commercial bank offer loans and invests funds considering its various aspects. Proper or important attention to any one of these factors may lead to high or low degree of loans achievement whether such factors may be under their jurisdiction or out of their control. The loans offered by the commercial banks are generally of short period. They offer short-term loan for the working capital purpose but they cannot offer loans for long period to purchase basic things such as machines, tools, lands, buildings and so on. This concept of the commercial bank is the old one. Now this concept has been changed. In the present, even in the developed countries as in America the term loan is granted for a period of years, three, five or even ten years. It is used in a small as well as in a large firm.

Though banks loan and advances are the important factor for getting profit to the bank it should not grant loan haphazardly. It should analyze the creditor before sanctioning the loan. A manager must consider 3Cs i.e. character, capacity and capital of the borrower, another thing in lending is always influenced by the safety, recovery and return the four cardinal principles determines the spread of loans and advances. They are: (a) How to be safe (b) how to meet demand (c) how to meet the cost and (d) how to bring about the development in terms of achieving social objectives.

Generally a bank grants two types of loan i.e. short-term loan and long-term loan against the security. Security is necessary in case of the default of the payment. Banks can sell the property if due balance are not repaid in time with the interest.

### **2.1.4.1 Factors Affecting Loans and Advances**

There are various factors that affect while extending loans and advances by the commercial banks some of the factors are explained below:

#### **i) Interest Rate:**

To earn profit commercial banks invest and lend collected savings charging interest on it. Further more it has to meet the operational cost also. The interest rates that bank charges on loans at any time generally reflect the state of economy, i.e. monetary and fiscal policies and the demand offer credit. These forces provide the indication or basis that an individual bank to define their interest rate policies towards different loan portfolio. This is the basic term that bank should prescribe to the borrowers while advancing loans. The volume of deposits also depends up on the interest rate of the bank. The low and high in the interest rate may hamper in the business of both. Interest rate is also changed on the basis of the customer. Usually the bank applies prime rate for their larger and creditworthy customers. Large and preferred clients have traditionally been granted short-term loan at prime rates. On the other hand interest rate is also fixed rate where rate charge do not changeover the life of the loan. As the fixed rate is considered very costly, banks have also the option like floating rate, which linked an open market value. The higher interest rate on loans will keep funds idle with commercial banks therefore optimum interest rate is desirable.

#### **ii) Security:**

Commercial bank offers loan only on strong security. The security received by the commercial banks should be as possible, because if the debtor fails to pay the loan, it has to release the money by selling the security. But the investment principle of the commercial bank should not be based on the faith of regular customer, the nature of business, their capability to repay loan at time and so on.

### **iii) Margin:**

When commercial bank offer loans against Security, it keeps certain percentage gap between the amount of loans offered and the market price of the security is known as margin. Higher the margin the commercial banks are safe but customers get fewer amounts of loans. Thus desirable margin rate should be adapted by the commercial banks.

### **iv) Loan Procedure:**

In banking institutions efficiency in using funds is measured by the ratio of total inflow to total outflow of cash in a given period. This depends on the loans procedure of the commercial bank. If the loan procedure is lengthy complication arises and require more legal formalities, the ratio of inflow to outflow will be low and vice versa.

## **2.1.5 Investment and Investment Policy**

Banks are such type of institutions, which deal in money and substitute for money. They deal with credit and credit instrument. The most important thing for the bank is good circulation of credit. Fluctuate flow of credit and decisions harm the whole economy and the bank as well. Thus to collect fund effectively and its well utilization is the very challenging task for the bank. The decision of an investment of fund may be the question of life and death for the bank. Investment is defined simply to be the sacrifice of current consumption for future consumption whose objective is to increase future wealth. The sacrifice of current consumption place at present with certainty and the investor expects desired level of wealth at the end of his investment horizons. The general principle is that the investment can be retired when cash is needed. The decision to invest now is a must crucial decision as the future level of wealth is not certain. Time and risk are the two conflicting attributes involved in the investment decision. Broadly investment alternatives fall into two categories: real assets and financial assets. Real assets are tangible while

financial assets involve contracts written on pieces of paper such as common stocks, bonds and debentures. Financial assets are bought and sold in organized security markets.

Jack Clark Francis, defines the word investment "An investment is a commitment of money that is expected to generate additional money. Every investment entails some degree of risk, it requires a present certain sacrifice for a future uncertain benefit."

Dr. (Mrs.) Preeti Singh has defined investment in this way, "Investment is the employment of funds with the aim of achieving additional income or growth in value."

Encyclopedia Britannica world book 1 defines the word, Investment "Investment is the use of money to earn income or profit. The term also refers to the expenditures of funds for capital goods such as items as factories form equipment, livestock, and machinery; capital goods are used to produce other goods or services.

Many people invest part of their income for financial gain. Others make investment to protect the purchasing power of their savings against rising prices.

According to Frank K. Reilly, "An investment may be defined as the current commitment of funds for a period of time to derive a future flow of funds that will compensate the investing unit for the time. The funds are committed, for the expected rate of inflation and also for the uncertainty involved in the future flow of funds."

From the above definition, it is clear that an investment means to trade a known rupee amount today for some expected future stream of payment of benefits that will exceed the current outlay by an amount that will compensate the investor for the time. The funds are committed for the expected changes in

prices during the period and for the uncertainty involved in expected future cash flows. Thus investment is the most important function of commercial banks. It is the long-term commitment of the bank in the uncertain and risky environment. It is very challenging task for commercial banks. So a bank has to be very cautious while investing their funds in various sections. The success of the bank depends heavily upon the proper management of its invisible funds.

The investment policy is the most important strategy performed by the banks. The profit and growth of the bank totally depends upon the decision taken by the banks to grant the loan. "Investment policy involves determining the investor's objectives and the amount of his or her investable wealth. Because there is a positive relationship between risk and return for sensible investment strategies, it is not appropriate for an investor to say that his or her objective is to "make a lot of money". What is appropriate for an investor in this situation is to state that the objective is to attempt to make a lot of money while recognizing that there is some chance that large losses may be incurred investment objectives should be stated in terms of both risk and return." Investment policy considers the three factors while investing on the projects they are time, risk and return.

According to Shakespeare Baidhya on sound investment policy. He has said "A sound investment policy of a bank is such that its funds are distributed on different types of assets with good profitability on the one hand and provide maximum safety and security to the depositors and banks on the other hand, moreover, risk in banking sectors tends to be concentrated in the loan portfolio. When a bank gets into serious financial trouble its problem usually spring from significant amount of loan that have become un- collectable due to mismanagement, illegal manipulation of loan, misguided lending policy or unexpected economic downturn. Therefore, the bank investment policy must be such that it ensures that it is sound and prudent in order to protect public funds".

James B. Bexley expresses his view as, "Investment policy fixes responsibilities for the investment disposition of the banks assets in terms of allocating funds for investment and loan and establishing responsibility for day to day management of those assets".

## **2.2 Review of Legislative Provision**

In this section, the review of legislative framework under which the commercial banks has been discussed. This legislative environment has significant impact on the commercial bank's establishment, their mobilization and utilization of resources. All the commercial banks have to conform to the legislative provisions specified in the commercial Bank Act, 2031 and the rules and regulations formulated to facilitate the smooth running of commercial banks. (Nepal Rastra Bank)

### **2.2.1 Central Bank's Directives in Commercial Banking Sector**

#### **New Arrangements on Interest Rates**

According to the directives issued by the Nepal Rastra Bank (NRB) on June 15, 1995 commercial banks require to declare the interest rates offered by them for all the time deposits maintaining up to one-year period. At the same time, commercial banks were given freedom to vary the interest rates on deposits with more than one vary maturity period by one percent on the basis of the negotiation with their clients. Similarly, commercial banks could vary the lending rates for the loans extended to the similar purpose by one percentage point on the basis of the negotiation with their clients. Effective from November 17, 1997 NRB abolished the above provision and made the following arrangements in relation to the interest rates of the commercial banks.

- ) Commercial banks have to inform the NRB and make public through mass media about the interest rates offered on all types of deposits and interest rates charge on various loan headings and purpose immediately



after the changes charge on various loan headings and purpose immediately after the changes made and regularly and compulsory in every three months if the interest rates are not changes.

- ) Commercial banks can vary the interest rate up to 0.5 percent around the prevailing and published interest rates on deposits and lending (including lending on the same heading or for the same purposes) on the basis of the understanding reached with the customers.
- ) Banks are prohibited to state "negotiable" rate while publishing notice on deposit and lending rates except in case of above.

### **Registration of Regional Commercial Banks**

The following new revision on compulsory cash reserve ratio to be maintained by the commercial banks is effective from April 13, 1998

The commercial banks are required to hold cash balance at NRB equivalent to 8 percent of their total domestic current and saving deposit liabilities and 6 percent of their total domestic fixed deposit liability. Besides this, commercial banks are required to maintain 3 percent cash in vault out of their total domestic deposits liabilities.

In case of shortfall on cash reserve as mentioned above, penalty charge will be imposed in accordance with NRB act, 1995 sub-section (2) of section 32.

### **Incentive Banking Program**

With the purpose of assisting in pollution control loan up to Rs. 2.5 million advanced by commercial banks to the projects having objectives of managing dumping sites acquiring and installing waste, proceeding machinery and pollution measurement equipment are included in cottage and small scale industries under Priority Sector Lending. Further, small industries with fixed capital investment up to Rs. 30 million are also included in Priority Sector Lending.

With a view to improve condition of the deprived section of the people residing in the area, commercial banks are directed to disburse credit to various self-employment generating program. Loans up to Rs. 10 thousand an individual basis without collateral and up to Rs 30 thousand based on group guarantee can be disbursed to the veterinary doctor or veterinary health workers for the establishment of at least one veterinary clinic in each village development committee on recommendation of the District Veterinary Office.

### **Deprived Sector Credit**

In order to fulfill their lending obligation, commercial banks can extend deprived sector credit through cooperative association organizations that are licensed from the NRB. Such lending of commercial banks would be counted as the part of deprived and priority sector lending.

### **Policy relating to the establishment of New Commercial Banks**

The NRB has issued the following regular of required of location specific minimum paid-up capital for new banks.

- ) As per the provision, a minimum of Rs. 500 million of paid-up capital required for the operating of a new bank with its headquarter in the Kathmandu valley and its area operation extended throughout the Kingdom of Nepal.
- ) Rs. 120 million is required for a bank to be established with its headquarter in any municipality of the kingdom and its area of operations in any parts of the country except the Kathmandu valley. A minimum paid-up capital of Rs. 50 million required for a new bank to be established with its headquarter in districts. Outside the Kathmandu valley and its area of operations to be maximum of 6 district outside the Kathmandu valley.
- ) Likewise, a minimum paid-up capital of Rs. 30 million is required for existing a new bank outside the Kathmandu valley as well as other

municipalities extending its operations only in the rural areas of the country.

- ) In a commercial bank promoted by domestic investors only, the promoters can invest 70 percent share capital at the maximum and at least 30 percent of the paid up capital has to be floated for general public subscription.
- ) In a commercial bank established under joint venture foreign promoters are required to invest 40 percent of the paid-up capital at the minimum and 50 percent of the paid-up capital at the maximum. However, for the establishment of such bank also at least 30 percent of the paid-up capital has to be floated to the general public.
- ) Any individual, firm, company or company of any group can invest up to 10 percent of the total paid-up capital of any one bank or up to 15 percent of the all paid-up capital of all banks.
- ) Application for the establishment of new banks is to be entertained within the stipulated time period fixed by the NRB.

### **Policies for Commercial Bank's Branches Expansion**

- ) NRB has adopted following policies for the expansion of commercial banks branches.
- ) While opening a new bank branch with the area of municipalities of Kathmandu, Biratnagar, Lalitpur, Bhaktapur, Pokhara, Birgunj and Narayangadh commercial banks required to open (i) at least two branches in adjoining semi-urban area or (ii) at least one branch in rural areas, which is not adjoining to any municipalities.
- ) While seeking permission for the opening of a new branch as per the criteria (i) Commercial banks needed to specify the details including the purposed place for semi-urban or rural branch. Once approved by the NRB, banks allowed opening new branches in urban areas only opening their branches in semi-urban or rural areas.

- ) Banks are not required to open their new branch in semi-urban areas, if they open new branches outside the seven municipalities mentioned above in (i).
- ) Commercial banks established at a regional level, also needed to comply with the above-mentioned rules, (i), (ii) and (iii) for the expansion of their branches.

### **Policies Regarding the Extension Countries of Commercial Banks**

- ) NRB has issued following new regulations relating to the extension countries of commercial banks.
- ) Commercial banks are generally not allowed to open any extension countries within metropolitan and semi metropolitan cities. However, they can open such counters for the stipulated short period to collect deposits only on the special occasions (like trade, fairs and ceremonies, celebration and festivals, pension distribution) with the prior approval of NRB.
- ) Except for the area of metropolitan and semi-metropolitan cities mentioned above in rule (i), commercial banks can open extension counter any where with the approval of NRB. But those counters should be converted onto bank branches expansion. Otherwise, such counters should be automatically closed after two years.
- ) Regarding the working areas of extension counter opened as per clauses (ii), the counter can accept deposits and make payment for the depositors. In addition, they can buy foreign currencies if permitted by the foreign exchange department of NRB.
- ) If extension counter is opened within the area of Royal palace, Hospital and Foreign Diplomatic offices the provisions have (i) and (ii) will not be applied. Likewise, if the counter is opened for the specific purpose like remittance and pension payment for the Nepalese workers abroad those clauses will not be application.

## **About the Qualification of Founder**

- ) Nepal Rastra Bank does not take any types of action over the application of these founder, who are fail to pay the loan of financial organization and who are listed in the black list of lone information center.
- ) Out of total founders, one-third founder should be minimum graduate from Tribhuwan University or other teaching organizations which are affiliated from Tribhuwan University on major subject like economics, law, account, Finance, Banking and statistics or who have the certificate of Chattered Accountant and minimum twenty five percent founders should have an experiences on bank or finance companies or business experiences.
- ) The person should be a director of the license holder banks or finance company from Nepal Rastra Bank and who is a director in any bank or finance company.
- ) The person cannot be a director of a bank or finance company who are working being an auditor of security broker, market maker and bank or the organization who operates financial activities.

## **About the Sale of Founder Share**

- ) The share of founder group can be transferred and sold after three years of bank-operation by lasting a stop exchange and by selling the public share. It should require taking permission from Nepal Rastra Bank to sell the founder share.
- ) The public share should be issue and sold within three years of bank operation. Otherwise the bank cannot announce and distribute bonus and issue of bonus shares.
- ) The shareholders from the founder group and their family members cannot take loan and facilities from the same banks. The family

members mean husband, wife, son, daughter, adopted-son, adopted-daughter, father, mother, stepmother, brother and sister.

### **2.2.2 NRB Rules Regarding Fund Mobilization of Commercial Banks**

To mobilize banks deposits in different sectors as well as the different parts of the nations to prevent them from the financial problem. Central Bank (NRB) established a legal framework by formulating various rules and regulations (Prudential norms). These directives must have direct or indirect impact while making decision. A commercial bank directly related to the fact that how much fund must be collected as paid up capital while being established at a certain place of the nation. How much fund is needed to expand the branches and counters, how much flexible and helpful the NRB rules for it, are also important. But we discuss only those factors, which are related with investment function of commercial banks. The main provisions established by NRB on the form of prudential norms in above relevant area are briefly discussed here under:

#### **1. Provisions for Investment in the Deprived Sector:**

NRB has also directed the commercial banks to provide a part of their priority sector loans to the deprived sector, ranging from 0.25% for the newly established bank to 3.0%. With reference to this provision, the loans extended by commercial banks aggregated Rs. 4.1 billion as at mid-July 2004 that formed 3.4% of their six-month prior total outstanding.

#### **2. Provisions for Credit to the Priority Sector:**

To make credit available to small agricultural, industrial and services sector as well as to create income and employment opportunities. NRB has directed the commercial banks to extend a certain percentage (ranging from 6.25% to 9%) of their total outstanding loans to the priority sector. Almost all the commercial

banks satisfied with priority sector-lending requirement. The total loan extended to the priority sector in FY 2003/04 amounted Rs. 15.4 billion, which was 12.9% of their total outstanding loans of six months ago.

### **3. Provisions for Investment in the Productive Sector:**

Since Nepal is one of the least developed countries we are lack of adequate infrastructure for the development. NRB keeping view about the importance of infrastructure, has decided to the commercial banks to investment at least 40% of their credit to the productive sectors. Loans to the priority sector, agriculture sector, industrials sector has to be included in productive sector investment.

### **4. Provisions for Single Borrower Credit Limit:**

With the objectives to lowering the risk of over concentration of bank loans to a few big borrowers and to increase the access of small and middle size borrowers to the bank loans, NRB directed commercials banks to seat in upper limit on the amount loan financed to an individual firm, company or group of companies. Disbursing loan and advances to borrower's exposes banks to mainly the three kinds of risks i.e. credit risk, yield risk and liquidity risk. According to this, commercial banks are required not to exceed the single limit of 35.0% in the case of fund based credit and 50.0% in the case of non-fund based credit, such as the letter of credit, guarantee, acceptance, letter, commitment has been fixed is a proportion of capital fund of bank. In the case of consortium financing, commercial banks are permitted to extend an addition 10% credit above the limit fixed by the NRB as before.

In additional, Nepal Oil Corporation, Agricultural Inputs Corporation and Nepal Food Corporation, further imports of petrol, diesel, kerosene, fertilizer and foodstuffs have been removed from the restriction of single borrower limit.





Pass:	not due and due up to 3 months
Sub-standard:	from 3 months to 1 years
Doubtful:	from 1 year to 3 years
Loss:	above 3 years

Like wise, NRB has stated that all commercial banks are required to maintain certain reserves for the loans so classified. The loan loss provision requirement is as follows:

<b>Loan Classification</b>	<b>Loan Loss Provision</b>
Pass	1
Sub- standard	25
Doubtful	50
Loss	100

Loan loss provisioning has great effect on the capacity of the banks to create the credit.

### **8. Directives Regarding Interest Rate Spread:**

The interest rate spread is the difference between the interest taken from loan and advance or investment and the interest given to the depositor. As NRB direction lending rate and deposit rate should not exceed 5%. Interest in excess of 5% should be retained in the bank and no dividend will be given out of this money.

#### **2.2.2.1 Fund Mobilizing Procedure of Joint-Venture Banks**

Every bank of world has applied their own fund mobilizing procedure. These procedures are normally as visible in the bank. The bank has adopted the procedure of fund mobilization, which are easy and effective in practical. Generally all banks have some fund mobilizing procedure of the funds mobilizations have presented below serially:

## **Source of Fund**

Bank collects the fund. There are so many sources of fund in the economic activities. In these sources, issuing shares and borrowing loan from different sector. The sources of fund can be classified in two ways: Owner's funds or equity capital of bank and borrowed capital of funds.

### **1. Owner funds (equity capital of bank)**

Following sources are the owned fund sources (equity capital of the bank)

#### **) Ordinary Shares**

Ordinary shares are the bank's a strong and reliable source of funds. Banks promoters issue ordinary shares to the public in fixed number. Banks collects the fund by selling fixed ordinary shares to the public by adopting fixed rules and regulation. This public make shareholder after purchasing the issued share. So banks service a large amount of funds from promoters and ordinary shareholders.

#### **) Preference Share**

Preference shares mean a type of shares, which receive dividend, and after liquidation money before ordinary share. But in Nepal bank cannot issue preference share. But some situation, it can issue preference share by taking permission from Nepal Rastra Bank. If NRB gives the permission bank can collect the fund by issuing preference shares.

#### **) Bonus Share**

Bonus share means company issues the extra share to the shareholder from the saving from profit and reserve fund by capitalizing these funds. Banks issue shares to shareholders instead of banks amount. From the bonus share bank collects some share funds.

### **) Retained Earning**

Bank earns profit by investing the funds in different sector through the principle of profit earning. Banks invests its fund in productive or profitable industries and business. Bank earns some amount from these investments. These earnings are called bank's funds.

### **) Reserve Fund**

Bank separates some share of capital in reserve funds in the time of banking activities. The reserve funds size based on banks earning and rules and regulation. Banks must separate some share of amount from profit in reserve fund. Banks have been earning by investing the reserve funds in liquid sector. So the reserve fund is also kings of sources of funds.

### **) Undistributed Dividend**

Banks do not distribute all profit to the shareholders. Banks invest some amount from profit by not distributing to shareholders. By this, the invested profit makes sources of funds to the banks.

### **Borrowed fund of Bank**

Banks collect the funds from another source except owned funds. Another source is borrowing from different sector. These types of funds collect borrow and debt capital. Following title can illustrate in the funds.

### **) Selling of Debenture**

Debenture means a Rinptra, which is issued by company by keeping or not keeping assets securities for collection of funds. If bank need a fund, it can collect capital by issuing debenture. The money also collects bank capital, which is collected by issuing debenture.

## ) Deposits

The bank performs two-fold functions, that is, the receipt of the deposits and granting the loans. The bank borrows money by accepting different types of deposits. The bank attracts the deposits from the public. The bank not only undertakes to take care of the deposits from the public. The bank not only undertakes to take care of the deposits but also agrees to honors the demands of the depositor for withdraw of money from the deposits. Deposits accepted by the bank are of different types-currents, saving and fixed deposits.

**Current Deposit:** Current deposits as known as demand deposits. A customer can open a current account with a bank by making an initial of Rs. 100. Any amount may be deposited in this account. The bank makes a small charge on the customer having current deposit account.

**Saving Deposit:** In saving deposits, there are restriction on the maximum amount that can be deposited and also withdrawals from the account. The bank may not permit more then one or two withdrawals during a week.

**Fixed Deposit:** A fixed deposits in one where a customer is required to keep a fixed amount with the bank for specific periods. He is not allowed to withdraw the amount before expiry of the period. The rate of interest is higher than on other deposit account, during fixed period the bank is free to make use this money for granting loans and advances.

Loan from the financial institution: NRB is the central bank in Nepal. It is a bank of banks. All banks should operate their banking activities under this so central bank period loan to the banks if needed. The loan provided by central bank is a bank capital.

Loan from the financial institution: Banks can receive loans from financial institutions in the form borrowing financial institutions also provide loan to banks. These loan also a bank capital.

Loan from commercial banks: Bank receives money from other bank in the form of borrowing when need. Bank solves the money problem of another bank by providing loan. That is types of bank capital.

### **) Mobilization of Funds**

Banks utilize its funds in suitable area and sector. Bank cannot get its aim of profit earning without mobilizing its funds in right sectors and different activities.

Many types of activities and other thing can origin for the purpose of receiving invest from the bank. But bank should separate the useful and profitable sector for mobilization of its funds.

Banker being only a financial intermediary, we will not be able to make any profit unless he mobilize funds suitable. It is from out of the interest he earns on loan and advances, he has to pay interest on deposits, meet establishment expenses, meet liquidity of cash balance, and yet allow him some balance from out of which he can build reserve and pay dividend to the shareholder. Unless the banker makes a judicious use of the resources at his command, it is not possible for him to maximize his income. It must also be stated at the outset that the banker is not completely free in the matter of deployment of funds. As commercial organization they are expected to make profit. If there is no profit, there will be adverse criticism against public sector banking, both in and outside the Parliament when these banks are asked to open new branches priority sectors such as small industries and agriculture with a high incidence of bad debts, there is need for counter balancing profit from elsewhere. Therefore, these banks will have to show an ascending order of profits in order to ensure growth with stability. For this purpose the bank will have to allocate land able resources to different segments in such a manner these banks can ensure adequate profitability while at the same time responding to policies laid down in accordance with national objectives. Therefore bank should mobilize its

funds in suitable and profitable banking activities. Mainly a bank has mobilized its funds in following activities.

**a. Liquid Funds:** A bank has kept a volume of amount in liquid funds. The funds have so many responsibilities in banking activities liquid funds has covered following transactions.

- ❖ Cash in hand
- ❖ FC in hand
- ❖ Balance with NRB
- ❖ Balance with domestic bank
- ❖ Call money

**b. Investment:** A bank invests its fund in different banking activities and different fields. Many types of fields are shown in market for investment. But bank invests its funds in profitable and safely activities. Bank invests its fund in following titles.

- ❖ Government securities
- ❖ Share and debenture
- ❖ Joint-Venture

**c. Loan and Advances:** A bank mobilizes its funds by providing different types of loan and advances to customers, by charging fixed interest. Different types of loan and advance are

- ❖ To government enterprises.
- ❖ To private enterprises

Bank manage the different types of loans i.e. providing loan, business loan, and traditional loan to priority area.

**d. Fixed Assets:** Land and buildings are essential for the establishment of bank. Bank's funds are used in buying of furniture, vehicles, computer, and

other concerned instrument, which are related to banking activities. Bank cannot take direct gain from these assets, but bank should buy it. A bank has a need of fund t purpose fixed assets for the new branches of the bank.

**e. Administrative and Miscellaneous Expenses:** Bank should manage a fund for administrative and other miscellaneous expenses. In administrative expenses

- ❖ Salary of employee
- ❖ Allowance
- ❖ Pension
- ❖ Provident fund
- ❖ Stationary
- ❖ Rent
- ❖ Income Tax
- ❖ Donation
- ❖ Insurance
- ❖ Tour expenses
- ❖ Commission

**In miscellaneous expenses**

- ❖ To distribute the dividend to shareholders
- ❖ To bear the loss on Sale and purchase of banking assets
- ❖ Maintenance expenses
- ❖ To pay the interest on borrowed amount
- ❖ Reserve fund

In this way, bank mobilizes its in different activities to achieve its goal of earning profit. In reality, bank's main aim is to earn profit. More and more profit by mobilizing its funds with fully consuming in all banking activities.

## 2.3 Review of Articles

According to Mandira Dali in her article entitled “Lending practices of commercial banking” has included that economic growth has been made for reaching the ambition of our country. This calls for an increasing volume of productive investment. But low saving and low investment being the basic problems of our economy, it is necessary to channels the limited resources in socially productive investment. Our banks seem to e very effortful in this case. So, they have succeeded to mobilize deposits accounts. (Dali, 2057)

According to the former governor of NRB Tilak Rawal, the liquidity position of commercial bank has decrease by about twenty-five percent. In this condition, capital drains seem responsible and political condition also responsible. The president of Nepal bankers association Narendra Bhattarai has expected that the liquidity position of commercial bank has decreased by twenty five percent in comparison to the last year. Bhattarai requested to NRB to implement monetary policy in the current situation of controlling inflation and decreasing liquidity. Tilak Rawal said that NRB has implemented flexible monitory policy and although continuing the policy, because of the BPO is negative, it should be careful and should implement the monetary policy by balancing. But economist Badri Prasad Pokhrel has suggested that if demand is high, it should increase the liquidity. (An article published in Kantipur Daily, 11 Jestha 2064)

On Harvard Business Review (HBR) vol. 69, page 144 it has depict that the banking organization have been unable to adopt efficiently to financial innovation and improvements in IT because of artificial restrictions on banks have tried to maintain their market share by releasing their underwriting standards and increasing their deposit rate. This process has eroded spreads between deposit and loan rate and made it more difficult for all banks to remain profitable. (Harvard Business Review)



On Nov. 2002, vol. 2 no. 6 it has depict that the adoption of market economy has give the birth of the no. of commercial banks in the country. These banks are performing well in the sector of the bonuses. With the slow down of the economy the interest rate are falling down. All the banks are flushed with the funds and looking for the safe and profitable investment. The strength of the commercial banks can be judged by the no. of parameters they are total equity employed, total asset hold, total deposits mobilized etc. whereas performance can be measured with the operating profit ratio, deposit to advance ratio, growth in advances, deposits and operating profits, P/E ratio shows the confidence of the investors in the stock of an individual bank, and so on. The performance of individual bank against this parameter has been ascertained to know their bank ability. (Business Manager)

Radheshyam Pradhan has done a research entitled, "Role of saving, investment and capital formation in economic development." He found that GDP is significantly associated with saving, investment and capital formation both at current prices and in real terms. He further found three important conclusions: First, saving, investment and capital formation have positive impact on economic development. Second, the current values at past values of saving, investment and capital formation have positive impact on economic development but the current values have the largest impact. Third, there is a strong role played by saving and capital formation on economic development while weak role-played by investment. (Radheshyam Pradhan, "Research in finance", 2003)

According to Anil Shah, GM of NABIL Bank Ltd., current trend in banking is retail banking. Consumer financing sector is growing too rapidly, but every thing depends on the security situation. He said that with 17 commercial banks and dozens of other financial institution we are over- banked. Especially given the size of economy is not stagnant but shrinking. He thinks that over the nest

three or four years is a lot of mergers and acquisitions. Anil Shah said that the problem of excess liquidity is a reality. One of the reasons is that there are a lot of people putting money into banks for safety reasons. Secondly, the avenues of investment for individuals are limited. Nepalese people are not playing in the stock market, investing in mutual funds etc. because they can't trust on them and so they come to banks, even at low interest rates. On the other side of the coin, the banks have nowhere to invest because there are no large projects coming up. This is due to the security situation. So there is created huge liquidity and it is true that there is very large liquidity in the market. (Business age, 2008)

## **2.4 Review of Master Degree Thesis**

Pralahad Karki has completed his thesis on "An Analysis of Deposit Mobilization of RBB, Lahan branch Siraha District, Nepal." With the following relevant objectives:

- i. How far the interest rates of deposit and credit have positive relationship with deposit collection and credit extending.
- ii. How far the deposit of RBB, Lahan branch efficiently mobilized.

The relevant conclusions of the study are as follows:

- i. The interest rate has not influenced the deposit collection as well as lending sector of the banks.
- ii. Due to the lengthy lending, the credit experience is unsatisfactory; the C/D ratio has also increased by the nominal percentage. So, the deposit was not efficiency utilized. (Karki, 2005)

Samiksha Thapa did the study entitled "A Comparative Study on Investment of Nepal Bangladesh Bank Limited and other joint venture banks" and the relevant objectives are:

- i. To evaluate the liquidity, assets management efficiency, profitability and risk position of NB bank in comparison to NABIL and NGBL.
- ii. To analyze the relationship between loan and advance total investment with other financial variables of sample banks. To examine the fund mobilization and investment policy of NB bank through off- balance sheet and on- balance sheet activities in comparison to the other two banks.
- iii. To study the various risk in investment and to analyze the deposit utilization trend and its projection for improving the investment policy of NB bank on the basis of the findings of the analysis.

She Finds the Following Points:

- i. The liquidity position of NB bank is comparatively better than that of NABIL and NGBL. It has the highest cash and bank balance to total deposit, cash and bank balance to current assets ratio. It has good deposit collections. The profitability position of NB bank is comparatively worse than that of NABIL and NGBL. The bank maintains its high profit margin for the well begins in future.
- ii. It has made enough loan and advance but it has made the negligible amount of investment in government securities.
- iii. There is significant relationship between deposit and loan and advances and outside asset and net profit of NB bank, NABIL and NGBL. But there is not significant relationship between deposit and investment of NB bank.
- iv. The NB bank is not in better position regarding its on- balance as well as off- balanced activities in compare to NABIL and NGBL. It does not seem to follow any definite policy regarding the management of its assets.
- v. The position of NB bank in regard to utilization of the fund to earn profit is not better in compare to NABIL and NGBL.
- vi. NB bank is not in better position regarding the proportion of fee- based activities to loan and advance in compare with other two banks during the study period. NB bank in terms of recovery of loan is worse in comparison to NABIL and NGBL. (Thapa, 2004)

Bunti Gupta conducted a study on “Deposit and Reinvestment problem of Nepalese commercial banks (with special reference to Nepal SBI Bank Ltd. And Everest Bank Ltd.)” Where the relevant objectives are:

- i. To study deposit position of the banks,
- ii. To analyze the reinvestment position
- iii. To analyze the gap between deposits and loan & advances and investment
- iv. To provide suggestions for the improvement on the basis of findings.

The relevant findings of the study are as follows:

- i. The deposits and its reinvestment in productive sectors by commercial banks are not stable. The increasing deposits are idle in the banks and in turn they are investing these funds in other sectors as government securities.
- ii. The increasing investment and reducing loans and advances from total deposit are great problem for the banks to manage.
- iii. The fluctuation in deposit, loan and advances & investment makes clear about adjustment problem for the banks.
- iv. EBL has good deposit collection; it has maintained moderate investment policy on loan and advances.
- v. Risk and profitability analysis shows that EBL is in better position than NSBI.
- vi. Correlation analysis shows there is significant relationship between deposit, investment and loan and advance of both the banks.
- vii. There is no significance difference between deposit and loan and advances and between deposit and investments. (Gupta, 2007)

Rakhee Shah has done research on “Deposit mobilization and investment by commercial banks in Nepal.” The main objectives of this study are:

- i. To examine the growth of deposit and its relationship with interest rate and branch expansion.

- ii. To analyze commercial bank's loan and investment in terms of their nature (direct & indirect) and purpose.
- iii. To compare the rate of return provided by commercial banks with the return from investment on government securities and stock market.

The relevant findings of the study are as follows:

- i. The interest rate alone is not the reason for affecting deposit. There may be other factors like money supply, inflation rate and other financial instruments, which are also to be considered. The increment in branch expansion leads the increment in amount of deposit.
- ii. Commercial banks have moderate utilization of total deposit. The allocation of funds among the assets has been an objective of the management by maximizing profits and minimizing cost (loss).
- iii. Due to the low return and high risk on stock market and government securities commercial banks diversified total credit towards the loans and advances than investment on securities that is why low investment on securities by commercial banks.
- iv. Declining in the net interest margin is because the decreased in the interest spread rate and C/D ratio. And this declining of the net interest earning per unit of investment made in loans and securities decline on the profitability of the commercial banks. (Shah, 2007)

Pramila Tandukar on her study, "Role of NR in Deposit Mobilization of Commercial Banks (A Study of Nepal Bangladesh Bank Ltd. and Everest Bank Ltd.)" shows the major objectives are:

- i. To examine the role of NRB in deposit mobilization by the commercial banks.
- ii. To analyze the role of NRB in deposit mobilization by the commercial banks.

- iii. To analyze the financial position of the Everest Bank and Nepal Bangladesh Bank Limited in terms of deposit collection and mobilization procedure.
- iv. To evaluate the liquidity, efficiency and profitability and risk position.
- v. To analyze the trends of deposits mobilization towards total investment and loan and advances and its projection for next five years.
- vi. To conduct hypothesis test to find whether there is significant difference between the various important ratios of EBL and NBBL.

Major findings of this study are as follows:

- i. Central banks are required to direct the commercial banks. It is the head of the bank, which operate under the supervision and direction of the central bank.
- ii. Commercial banks should move as per the direction given by the central bank. Banks should have optimum policy to collect the deposit in various accounts.
- iii. If commercial bank does not apply sound investment policy it will be in great trouble in future to collect it in time, hence, the possibility of bankruptcy thereto.
- iv. Banks are important for the nation. It helps in the capital for nation to the nation, which is the important element for the economic growth of the country. Capital helps to solve the various problems arising in the country. (Tandukar, 2007)

## **2.5 Research Gap**

Previous research was related on deposit mobilization of all commercial banks but this topic, deposit mobilization of selected commercial banks is new topic in this sector. This research is related only deposit mobilization. So it's covers the deposit mobilization of selected commercial banks. In this research, only secondary data are used.

## **CHAPTER - III**

### **RESEARCH METHODOLOGY**

This chapter presents research methodology adopted in achieving the objectives stated in the earlier chapter. This chapter contains Introduction or nature of research, research design, population and sample, sources of Data and finally method of analysis.

#### **3.1 Introduction**

In the last two chapters, background of the commercial Banks has already been streamlined and reviews of literature with possible reviews of relevant ideas, theories and finding have also been discussed. This has equipped the researcher with the inputs necessary for the study and helped the researcher to make choice of research methodology to support the study in realistic terms with sound empirical analysis. “Research Methodology” refers to the various sequential steps to be adopted by researcher in studying a problem with certain objectives in view. In other word, research methodology describes the method and process applied in the entire aspect of the study.

This study basically helps to conclude the deposit and deposit mobilization position of NSBI and NBBL the leading banks of Nepal and recommended the useful and meaningful points, so all concerned can achieve something from this study. To accomplish the goal the study follows the research methodology described in this chapter.

#### **3.2 Research Design**

“A research design is the arrangement of condition for collection and analysis of data in manner that aims to combine relevance to the research purpose with economy in procedure.”

Research Design is the plan, structure and strategy of investigations conceived so as to obtain to research question and to control variances. It is the

arrangement of condition for collection and analysis of data. To achieve the objective of this study, descriptive and analytical research design has been used. Some financial and statistical tools have applied to examine facts and descriptive techniques have been adopted to evaluate deposits and deposit mobilization of NSBI and NBBL.

### **3.3 Populations and Sample**

There are altogether 23 Commercial Banks functioning all over Nepal. In this study deposit mobilization of Commercial banks with respects to NSBI and NBBL is studied. 23 Commercial Banks are taken as the population and NSBI and NBBL are chosen as the sample.

The population is as follows:

1. Nepal Bank Ltd.
2. Rastriya Banijya Bank
3. NABIL Bank Ltd.
4. Nepal Investment Bank Ltd.
5. Standard Chartered Bank Nepal Ltd.
6. Himalayan Bank Ltd.
7. Nepal SBI Bank Ltd.
8. Nepal Bangladesh Bank Ltd.
9. Everest Bank Ltd.
10. Bank of Kathmandu Ltd.
11. Nepal Credit and Commerce Bank Ltd.
12. Lumbini Bank Ltd.
13. Nepal Industrial & commercial bank Ltd.
14. Machhapuchher Bank Limited
15. Kumari Bank Limited
16. Laxmi Bank Limited
17. Siddhartha Bank Ltd.
18. Global Bank Ltd.



19. Bank of Asia Ltd.
20. Sunrise Bank Ltd.
21. Prime Commercial Bank Ltd.
22. Nepal Merchant Bank Ltd.

The Samples to be selected are as follows:

1. Nepal SBI Bank Ltd. (NSBI)
2. Nepal Bangladesh Bank Ltd. (NBBL)

### **3.4 Sources of Data**

This study is based on secondary data, which have been collected from various sources covering a period of 7 years, i.e., from 2002 to 2008. The major sources of these data and information are as follows:

- ) Economic Survey published by ministry of Finance, HMG/N ( various issues)
- ) Annual Report of Nepal Rastra Bank (Various issues)
- ) Annual report of Nepal SBI Bank Ltd. (2002-2008)
- ) Annual report of NB Bank Ltd. (2002-2008)
- ) Banking and Financial Statistics published by NRB (2008 )
- ) Various data and information are collected from the journals, periodicals, bulletins, magazines, newspapers
- ) Web sites
- ) Published and unpublished reports/ Thesis

### **3.5 Method of Analysis**

To achieve the objective of the study, various financial and statistical tools have been used in this study. The main purpose of analyzing the data is to change it from an unprocessed form to an understandable presentation.

The various calculated results obtained through financial and statistical tools are tabulated under different headings. Then, they are compared with each other to interpret the results.

### **3.5.1 Financial Tools**

Under this topic it has tried to find out various financial ratios, which are related to the study.

#### **Ratio Analysis**

“Ratio analysis is the main tool of financial statement analysis. Ratio means the numerical of quantities relationship between two items or variables. It can be expressed as percentage, fraction are stated comparison between numbers.”

Ratio analysis is one of the powerful tools of financial analysis. Financial ratio represents the relationship between two accounting figures, expressed mathematically. Ratio analysis is defined as the systematic use of ratios. Like other tools of financial management, ratio analysis involves two types of comparison. First, it is employed to compare present ratio with past and expected figure ratio for same variable. Second, the comparison is done to see the difference exist between ratio of one variable with those of similar variable or with the variable averages of the same period. In this study ratio analysis has been done to examine the utilization of commercial bank’s resources with the help of following ratio:

#### **A. Liquidity Ratio**

The purpose of liquidity ratio is to test the solvency position for the payment of short-term liabilities. Solvency position or liquidity denotes ability for payment of short-term liabilities. There are various ratios under liquidity ratio, which are calculated as follows:

### **(i) NRB Balance to Total Deposit Ratio**

The ratio is computed by dividing NRB Balance by Total Deposit. This can be stated as:

$$\text{NRB balance to total deposit ratio} = \frac{\text{NRB Deposit}}{\text{Total Deposit}}$$

NRB has made the Commercial Banks to deposit certain fund of the Commercial Bank in the Central Bank, which is changing time to time as the demand of the time. It is called NRB deposit.

### **(ii) Total Liquid Fund to Total Deposit Ratio**

Total liquid fund includes cash in hand, FC in hand, Bal. with Dom. Bank, Bal. with other financial ins., Bal. held abroad, call money. This ratio can be computed by dividing total liquid fund by total deposit. This can be stated as:

$$\text{Total liquid fund to total deposit ratio} = \frac{\text{Total Liquid Fund}}{\text{Total Deposit}}$$

## **B. Assets Management Ratio (Activity Ratio)**

This ratio measures how efficiently the bank managers the resources as its command. The following ratios are used under this assets management ratio:

### **i. Credit to Total Deposit Ratio**

This ratio is calculated by dividing loan and advances by total deposit. This ratio can be stated as:

$$\text{Credit to total deposit ratio} = \frac{\text{Loan and Advances}}{\text{Total Deposit}}$$

### **ii. Total Investment to Total Deposit Ratio**

This ratio can be calculated by dividing total investment by total deposit, it can be mentioned as:

$$\text{Total investment to total deposit ratio} = \frac{\text{Total Investment}}{\text{Total Deposit}}$$

### **iii. Total outside Asset to Total Deposit Ratio**

This ratio can be computed by dividing Total outside Assets by Total Deposit.

This ratio can be stated as:

$$\text{Total outside assets to total deposit ratio} = \frac{\text{Total Outside Assets}}{\text{Total Deposit}}$$

### **(iv) Time Deposit to Total Deposit Ratio**

This ratio can be calculated by dividing time deposit by total deposit, it can be mentioned as:

$$\text{Time deposit to total deposit ratio} = \frac{\text{Time Deposit}}{\text{Total Deposit}}$$

## **C. Capital Adequacy Ratio**

The ratio measures the position of return money of depositors. The following ratios are used under this Capital Adequacy ratio:

### **(i) Capital to Total Deposit Ratio**

Capital to total deposit ratio can be calculated by dividing Total Capital by Total Deposit. This ratio can be stated as:

$$\text{Capital to total deposit ratio} = \frac{\text{Total Capital}}{\text{Total Deposit}}$$

## **D. Risk Ratio**

Risk Ratio is very essential element. Risk ratio measures the risk associated with the banking variables. Under this ratio following ratios are analyzed:

### **i. Capital Risk Ratio**

Capital Risk Ratio can be calculated by dividing Share Capital by Risk weighted Assets. This ratio can be stated as:

$$\text{Capital risk ratio} = \frac{\text{Share Capital}}{\text{Risk Weighted Assets}}$$

### **ii. Interest Rate Risk Ratio**

This ratio can be calculated by dividing Interest sensitive assets by interest sensitive liabilities. It can be stated as:

$$\text{Interest Rate Risk Ratio} = \frac{\text{Interest Sensitive Assets}}{\text{Interest Sensitive Liabilities}}$$

### **iii. Credit Risk Ratio**

Credit Risk Ratio can be calculated by dividing Total loan and advances by Total Assets. This ratio can be stated as:

$$\text{Credit Risk Ratio} = \frac{\text{Total Loan and Advances}}{\text{Total Assets}}$$

## **E. Profitability Ratio**

Profitability Ratio measures the overall banking operation of the company in regards to the profit. Following are the some profitability ratio studied in this report:

### **i. Return on Total Loan & Advance Ratio:**

This ratio can be calculated by dividing Net Profit by Loan & advances. This ratio can be stated as:

$$\text{Return on total loan \& advance ratio} = \frac{\text{Net Profit}}{\text{Loan and Advance}}$$

## **ii. Return on Equity Ratio**

Return on Equity Ratio can be calculated by dividing Net Profit by Total Equity Capital. It can be stated as:

$$\text{Return on equity ratio} = \frac{\text{Net Profit}}{\text{Total Equity Capital}}$$

## **iii. Total Interest Earned To Total outside Asset Ratio:**

This ratio can be calculated by dividing Total Interest earned by Total Outside assets. This ratio can be stated as:

$$\text{Total interest earned to total outside asset ratio} = \frac{\text{Total Interest Earned}}{\text{Total Outside Assets}}$$

## **F. Growth Ratio**

Growth ratio represents how well the banks maintaining the economic and financial position. Under this ratio following ratios are analyzed:

- i. Growth Ratio of Total Deposit
- ii. Growth Ratio of Loan & Advances
- iii. Growth Ratio of Total Investment
- iv. Growth Ratio of Net Profit

### **3.5.2 Statistical Tools**

Some important statistical tools are used to achieve the objective of this study. In this study, statistical tools such as Mean, Standard Deviation, Coefficient of Variance, correlation coefficient analysis, trend analysis and hypothesis testing have been used. The basic analysis are written in point below:

- a. Co-efficient of Correlation between different variables
- b. Trend Analysis
- c. Test of Hypothesis

#### **a. Co-efficient of Correlation Analysis and Regression Analysis**

This analysis identifies and interprets the relationship between two or more variables. In the case of highly correlated variables, the effect on one variable may have effect on other correlation variable. Under this topic, Karl Pearson's Co-efficient of Correlation has been used. To find out the relationship the following variables:

- i. Co-efficient of Correlation between deposit and loan and investment
- ii. Co-efficient of Correlation between deposit and total investment
- iii. Co-efficient of Correlation between Outside Assets & Net Profit

This tool analyzes the relationship between these variables and helps the banks to make appropriate policy regarding deposit collection, fund utilization (loan & advance and investment) and maximization of profit.

#### **b. Trend Analysis**

Ratio analysis for any one year may not present an accurate picture of the firm. Therefore we look at the trend analysis of performance over a number of years. Under this analysis we studied trend analysis of following variables:

Trend Analysis of Deposit

Trend Analysis of Loan & Advances

Trend Analysis of Total Investment

#### **c. Test of Hypothesis**

Under this topic, an effort has been made to test the significance regarding the parameter of the population on the basis of sample drawn from the population. Some main hypothesis tests are calculated and decisions are made.

Null Hypothesis, (Ho):  $\sim_1 X \sim_2$  i.e. there is no significant difference between mean ratios of Nepal SBI Bank Ltd. And NB Bank Ltd.

Alternative Hypothesis, (H1):  $\sim_1 \mid \sim_2$  i.e. there is significant difference between mean ratios of Nepal SBI Bank Ltd. And NB Bank Ltd.

The objective of this test is to the significant regarding the population on the basis of sample drawn from the population. This test has been conducted on the various ratios related to the banking business. The following test has been done.

- i. Test of Hypothesis on loans and advance to Total Deposit Ratio between NSBI and NBBL
- ii. Test of Hypothesis on Total Investment to Total Deposit Ratio of NSBI and NBBL
- iii. Test of Hypothesis of Interest earned to Total outside Ratio of NSBI and NBBL.



## **CHAPTER – IV**

### **DATA PRESENTATION AND ANALYSIS**

The whole research is based on the analysis and interpretations of collected data without analysis, interpretation and presentations of the data the thesis don't give any meaning.

This chapter presents the analysis, calculations, interpretations and presentations of the related available data of commercial banks. Some secondary data are calculated on the basis of financial and statistical ratios. The ratios calculations have been done through statistical programmes of the computer.

The main purpose of this chapter is study and evaluates major financial performances that are mainly related to the deposit, investments and credit of NSBI & NBBL. It is notable that all the ratios are not studied under this chapter, only those data and ratios are calculated and analyzed which are very important to evaluate deposits and loans of commercial banks.

#### **4.1 Deposits, Loans and Investment Structure of Nepalese Commercial Banks**

There are 17 registered commercial banks in Nepal. The collection of data from all these banks is very difficult due to the time constraint and unavailability of data. Therefore the evaluations analysis is done for Nepal SBI Bank Ltd. and

Nepal Bangladesh Bank Ltd. in detailed. The short glimpse on the activities of all the commercial bank is presented in the study on the basis of economic survey and published data of Nepal Rastra Bank.

### A. Sources of Funds and Uses of Fund of Commercial Bank

**Table No. : 4.1**

#### Sources of Funds and Uses of Fund of Commercial Bank

S. N.	Purpose	Mid July						
		2002	2003	2004	2005	2006	2007	2008
<b>1</b>	<b>Capital Fund</b>	<b>4955.7</b>	<b>6077.1</b>	<b>6729.2</b>	<b>8230.2</b>	<b>10202.5</b>	<b>11814.6</b>	<b>-10201.7</b>
a	Paid up Capital	2965.9	3767.0	4067.4	5504.1	6431.0	7726.0	8350.0
b	Statutory Reserve	1272.0	1593.6	1976.7	1787.1	2540.0	2820.0	3385.0
c	Others Reserves	717.8	716.5	685.2	939.0	970.6	1192.9	3119.4
d	Retained Earnings*	-	-	-	-	260.9	75.7	-25056.1
<b>2</b>	<b>Deposits</b>	<b>102598.2</b>	<b>127201.8</b>	<b>154943.0</b>	<b>181767.0</b>	<b>185144.7</b>	<b>203879.3</b>	<b>233811.2</b>
a	Current	16310.2	17709.8	20319.5	25100.7	24327.0	28862.5	33729.9
b	Savings	36885.3	50154.1	65703.6	80988.4	83855.6	97238.9	114137.2
c	Fixed	45593.8	54846.7	62204.2	65322.3	64171.4	63287.6	65130.9
d	Call Deposits	1766.9	2165.9	3715.8	7691.8	10531.9	12027.9	18061.1
e	Others	2042.0	2325.3	2999.9	2663.8	2258.8	2462.4	2752.1
<b>3.</b>	<b>Borrowings</b>	<b>887.0</b>	<b>1179.1</b>	<b>3346.6</b>	<b>2308.7</b>	<b>2349.5</b>	<b>3170.4</b>	<b>3023.6</b>
a	NRB	381.4	429.6	428.1	411.8	1167.7	1437.0	713.6
b	Inter Bank	505.6	749.5	2918.5	1896.9	953.4	1599.2	1770.5
c	Foreign Bank	0.0	0.0	-	-	228.5	134.2	521.4
d	Financial Ins.	0.0	-	-	-	-	-	-
<b>4.</b>	<b>Others</b>	<b>36987.1</b>	<b>38000.0</b>	<b>44452.6</b>	<b>59221.3</b>	<b>77221.2</b>	<b>86697.4</b>	<b>113183.6</b>
<b>SOURCES OF FUNDS</b>		<b>145428.0</b>	<b>172458.2</b>	<b>209471.5</b>	<b>251527.2</b>	<b>274917.9</b>	<b>305561.7</b>	<b>339816.7</b>
<b>1</b>	<b>Liquid Funds</b>	<b>33184.1</b>	<b>3903.1</b>	<b>48240.0</b>	<b>55583.3</b>	<b>49937.2</b>	<b>38163.6</b>	<b>46252.8</b>
a	Cash in Hand	2889.6	3310.4	3507.0	4116.9	4881.1	4735.9	4283.8
b	FC in Hand	750.6	634.5	632.1	658.2	613.8	704.5	435.35
c	Bal. with NRB	14103.2	13912.7	16945.1	21440.9	23170.3	16867.6	22728.2
d	Bal. with Dom. Bank	409.0	402.1	676.9	796.1	928.2	683.7	1825.1
e	Bal. with other Fin. Ins.	-	-	-	-	-	-	-
f	Bal. held abroad	9179.7	9451.7	14613.9	44993.9	7016.7	3783.1	2026.4
g	Call Money	5852.0	11381.7	11864.9	13577.3	13327.3	11388.8	14953.8
<b>2.</b>	<b>Investments</b>	<b>10857.5</b>	<b>14252.4</b>	<b>17967.3</b>	<b>25446.5</b>	<b>34209.8</b>	<b>45386.3</b>	<b>49668.6</b>
a	Govt. Securities	10591.7	13222.0	17608.8	25100.9	28573.8	39045.5	42384.3
b	Share, Deb. & Other Inv.	265.8	1030.4	358.5	345.6	5636.0	6340.8-	7284.3
c	NRB Bond	-	-	-	-	-	124522.4	-
<b>3.</b>	<b>Loan &amp; Advances</b>	<b>68618.0</b>	<b>81758.8</b>	<b>96324.9</b>	<b>109121.1</b>	<b>113174.6</b>	<b>2867.7</b>	<b>140031.4</b>
a	Govt. Enterprises	1214.0	1749.4	2114.3	2909.6	2651.1	965.1	2519.4
i	Financial	397.0	490.2	695.0	1209.1	991.2	1902.6	1137.0
ii	Non-financial	817.0	1259.2	1419.3	1700.5	1659.9	120343.4	1382.4
b	Private Sector	64989.0	77501.1	92241.8	104209.3	109043.3	1143.8	136403.5
c	For. Bills P&D	2266.0	2348.2	1820.4	1887.2	1322.2	167.5	1050.4
d	Foreign A.B.C.	149.0	160.1	148.4	115.0	158.0	27722.2	58.2
<b>4.</b>	<b>Interest Accrued</b>	<b>10618.6</b>	<b>12932.7</b>	<b>16125.8</b>	<b>19888.5</b>	<b>23742.8</b>	<b>297.8</b>	<b>34458.5</b>
a	Govt. Enterprises	221.5	299.4	372.0	334.3	308.2	27424.4	180.3
b.	Private Sector	10397.1	12633.3	15753.8	19554.2	23434.6	69767.2	34278.2
<b>5.</b>	<b>Others</b>	<b>22149.8</b>	<b>24421.2</b>	<b>30813.5</b>	<b>41487.7</b>	<b>53853.6</b>	<b>305561.7</b>	<b>69405.3</b>
<b>USES OF FUNDS</b>		<b>145428.0</b>	<b>172458.2</b>	<b>209471.5</b>	<b>251527.1</b>	<b>274917.9</b>		<b>339816.7</b>

\* Figure except NBL, Laxmi, Siddartha & ADB/N as of Mid July 2008.

*Source: Nepal Rastra Bank( Banking and financial statistics, Mid-July 2008, no. 43)*

There are 23 Commercial banks in the country as of mid-July 2008. The number of commercial banks branches as of mid-July 2008 is 423 of which 375 are branches of commercial banks and other 44 Agricultural Development Bank's branches performing commercial banking activities.

Capital funds of these banks have reduced to Rs. –10201.7 million (186.3% decrease) in mid-July 2008 from Rs. 11814.6 million in mid-July 2007( Table 4.1). The drastic decrease in total capital fund in mid-July 2004 as compared to mid-July 2007 is due to Rastriya Banijya Bank's negative retained earning. The retained earning figure of Rastriya Banijya Bank was not included in mid-July 2007. The total capital fund consist of Rs. 8350 million paid up capital, Rs, 3385 million, Statutory Reserves, Rs. 3119.4 million other reserves and Rs. 25056.1 Retained earning loss. Over the period, paid up capital, Statutory Reserves and Other Reserves have increased by 8%, 20% and 161.5% respectively while Retained earnings decreased by quite a large percentage.

Total Deposits have reached Rs. 233811.2 million in mid-July 2008 from Rs. 203879.3 million in mid-July 2007 with growth of 14.7 % of the total deposits in mid-July 2004m current deposit constitutes Rs. 33729.9 million (14.4%) , saving deposit constitutes Rs. 114137.2 million (48.8%), fixed deposit constitute Rs. 65130.9 million (27.9%) and Others ( Call deposit and others) constitutes Rs. 208123.2 million(8.9%). Deposits on average, period of 1998 to 2004, in which the highest growth rate (23.98%) was recorded in the year 2003 and the lowest (1.85%) in the year 2006.

Total Borrowings by commercial banks have shown a mixed trend over the period 2002 to 2008. The total amount of borrowings, which was Rs. 887.0 million in mid-July 2002 has increased to Rs. 3346.6 million in mid-July 2004.

it again decreased to Rs. 2308.7 million in mid-July 2005 and then showed an increasing trend up to mid-July 2007 and decreased to Rs. 3023.6 million in mid-July 2004 of the total borrowings in mid-July 2008, borrowings from NRB, inter-bank borrowings and borrowings from foreign banks constitute 24.2%, 58.6% and 17.2% respectively.

Liquid funds continuously increased from 2002 to 2005 and reached Rs. 55583.3 million from Rs. 33184.1 million. It declined to Rs. 49937.2 million in mid-July 2006, and further declined to Rs. 30762.8 million in mid-July 2007 and increased to Rs. 46252.8 million in mid-July 2008. A continuous rising trend in investments has been observed since 2002. Total investments have reached Rs. 49668.6 million in mid-July 2004 from Rs. 45386.3 million in mid-July 2007 registering a growth of 9.3%.

Loans and Advances, on average, have registered an annual growth rate of 12.62% for the period mid-July 2002 to mid-July 2008. Compute to mid-July 2003, loans and advances went up by 12.45% and reached Rs. 140031.4 million in mid-July 2008.

Out of the total loans advances in mid-July 2008, lending to the private sector and claims on Government enterprises constitute Rs. 136403.5 (97.4%) and Rs. 2519.4 million (1.8%) respectively registering a growth rate of 13.93% in private sector where as the claims on government enterprises decreased by 12.15% in mid-July 2008 compare to mid-July 2007.

Interest accrued, on average, has increased by 21.68% annually between mid-July 2002 to mid-July 2008, recording Rs. 34485.5 million in mid-July 2008 from Rs. 10618.6 million in mid-July 2002.

## **B. Deposits of Commercial Banks**

The different types of deposits of commercial banks are shown below from fiscal year 1998 to 2004. In the table standard deviation is calculated using the

formula S.D. =  $\sqrt{\frac{\sum(X - \bar{X})^2}{n}}$ . Mean is calculated by average = Total Deposit/n

and C.V. is also calculated using the formula C.V. = S.D./Mean in the table.

**Table No. : 4.2**  
**Deposits of Commercial Banks**

(Rs. in Million)

S.N.	Deposits	Mid July						
		2002	2003	2004	2005	2006	2007	2008
1	Current	16310.2	17709.8	20319.5	25100.7	24327.0	28862.5	33729.9
2	Savings	36885.3	50154.1	65703.6	80988.4	83855.6	97238.9	114137.2
3	Fixed	45593.8	54846.7	62204.2	65322.3	64171.4	63287.6	65130.9
4	Call. Deposits	1760.9	2165.9	3715.8	7691.8	10531.9	12027.9	18061.1
5	Others	2042.0	2325.3	2999.9	2663.8	2258.8	2462.4	2752.1
	Total	102598.2	127201.8	154943.0	181767.0	185144.7	203879.3	233811.2
	Mean	20519.64	25440.36	30988.6	36353.4	37428.94	40775.86	46762.24
	S.D.	17930.87	22852.88	27642.53	31351.49	31631.14	35017.56	39515.27
	C.V. (%)	87.38	89.83	89.20	86.24	84.51	85.88	84.50

*Source: Nepal Rastra Bank (Banking and financial statistics, Mid-July 2008, No. 43)*

In table no. 4.2 the deposits of commercial banks are given according to their types for seven years period of time. The above table shows that deposits have reached Rs. 233811.2 million in mid-July 2008 from Rs. 203879.3 million in mid-July 2007 with a growth 14.7% of the total deposits in mid-July 2008, current deposit constitutes Rs. 33729.9 million (14.4%), saving deposits constitute Rs. 114137.2 million (48.8%), fixed deposits constitute Rs. 65130.9 million (27.9%) and others (call deposit and others) constitutes Rs. 20813.1 million (8.9%). Deposits, on average, grew at an annual rate of 14.71% during the period of 2002 to 2008, in which the highest growth rate (23.98%) was recorded in the year 2003 and the lowest (1.85%) in the year 2006. from the CV calculations, deposit fluctuation is average.

## C. Loans and Advances of Commercial Banks

**Table No. : 4.3**

### **Loan and Advances of Commercial Banks**

(Rs. in Million)

S.N.	Loan and Advances	Mid July						
		2002	2003	2004	2005	2006	2007	2008
1	Govt. Enterprises	1214.0	1749.4	2114.3	2909.6	2651.1	2867.7	2519.4
a.	Financial	397.0	490.2	695.0	1209.1	991.2	965.1	1137.0
b.	Non-financial	817.0	1259.2	1419.3	1700.5	1659.9	1902.6	1382.4
2	Private Sector	64989.0	77501.1	92241.8	104209.3	109043.3	120343.4	136403.5
3	For. Bills P&D	2266.0	2348.2	1820.4	1887.2	1322.2	1143.8	1050.4
4	Foreign A.B.C.	149.0	160.1	148.4	115.0	158.0	167.5	58.2
	Total	68618.0	81758.8	96324.9	109121.1	113171.6	124522.4	140031.4
	Mean	17154.5	20439.7	24081.23	27280.28	28293.65	31130.6	35007.85
	S.D.	31901.38	38052.14	45448.63	51299	53842.73	51516.11	58547.34
	C.V. (%)	185.97	186.17	188.73	188.04	190.30	165.48	167.24

*Source: Nepal Rastra Bank (Banking and financial statistics, Mid-July 2008, No. 43)*

The table shows that there is a continuous fluctuation in loan disbursement process till 2008. Loans and advances, on average, have registered an annual growth rate of 12.62% for the period mid-July 2002 to mid-July 2008. Compare to mid-July 2007, loans and advances went up by 12.45% and reached Rs. 140031.4 million in mid-July 2008. Out of the total loans and advances in mid-July 2008, lending to the private sector and claims on government enterprises constitute Rs. 136403.5 (97.4%) and Rs. 2519.4 million (1.8%) respectively registering a growth rate of 13.93% in private sector where as the claims on Govt. enterprises decreased by 12.15% in mid-July 2008 compare to mid-July 2007.

## D. Deposits, Loan & Advance and Investments of Commercial Banks

Table No. : 4.4

### Deposits, Loan & Advance and Investments of Commercial Banks

(Rs. in Million)

S. N.	Purpose	Mid July						
		2002	2003	2004	2005	2006	2007	2008
1	Deposits	102598.2	127201.8	154943.0	181767.0	185144.7	203879.3	233811.2
2	Loan & Advances	68618.0	81758.8	96324.9	109121.1	113174.6	2867.7	140031.4
3	Investments	10857.5	14252.4	17967.3	25446.5	34209.8	45386.3	49668.6
	Loan to deposit %	66.88	64.27	62.17	60.03	61.13	61.08	59.89
	Investment to Deposit %	10.58	11.20	11.60	13.99	18.48	22.26	21.24

*Source: Nepal Rastra Bank (Banking and financial statistics, Mid-July 2008, No. 43)*

The above table shows that the loan of commercial banks was 66.88% of total deposits while investment other areas hold 10.58% of total deposits in FY 2002. In FY 2003 the loan percentage decreases by 2.61% but investment increases by 0.62%. The percentage of loan starts declining tremendously from the FY 2003 to FY 2005. It holds 61.13%, 61.08% and 59.89% in FY 2006, FY 2007 and FY 2008 respectively.

This shows that the commercial banks are unable to invest in the loans. These banks investing in other fields which clear from the above table. The investment in FY 2003 reaches to 11.22%, in FY 2004 investment reaches to 11.60% and in FY 2005, 2006, 2007 and 2008 investment reaches to 13.99%, 18.48%, 22.26% & 21.24%, in FY 2008 investment in other fields is slightly decrease.

The above calculations make it clear that commercial banks are moving towards other investments rather than lending.

## E. Interest rates of Credit and Deposit Rates of Commercial Banks:

The interest rates of commercial banks deposits and credits are highly affecting these days. The following table shows about the interest rates of credit and deposits of commercial banks in different years:

**Table No. : 4.5**

### Structure of Interest rates of Commercial Banks

(% per annum)

Particulars	Mid-July						
	2002	2003	2004	2005	2006	2007	2008
1. Deposit Rates							
Saving Deposit:	6.5-8.5	5.75-8.0	4-6.5	3.3-6.5	2.5-6.25	2.5-6	2.25-5
Time deposit:							
3 months	5-8	4-7.5	4-6	2.5-6	2.5-5.25	2-5	2-4
6 months	6-8.5	6-8	5-6.75	3.5-6.75	2.5-6	2.5-6	2-4.5
1 year	9-10.5	7.25-9.5	6-7.75	4.5-7.75	3.5-7	3-7	2.75-5.75
2 yrs. & above	-	7.25-10.25	5.75-8.5	4.25-8.5	3.25-8	3.25-7.5	3-6
2.Lending Rates							
Industry	13.5-17	11-17	10.5-15.5	7-15	7-14.5	8.5-14	8.5-13.5
Agriculture	14.5-15.5	14-15.5	12-14.5	12.5-14.5	12-14	10.5-14.5	10.5-13
Export bills	12.5-16	7.5-15	7.5-15	7-12.5	6.5-12	4-12.5	4-11.5
Com. Loans	13.5-18	11-17	9-16.5	7-16	7-16	7.5-16	9-14.5
Overdrafts	14.5-20	10-19	10-18	10-18	11-17	10-17	10-16

*Source: NRB quarterly Economic Bulletin( volume XXXVII Mid-October2007/Mid- Jan 2008, Number 1&2, page no. 32)*

The above table shows that the interest rates of credit and deposits are in decreasing trend. The saving deposit's interest rates were used 6.5%-8.5% to 2.5%-5% on the review year. 3 months period fixed deposit's interest rate is decreased to 2%-4% from 5%-8%. 6 months fixed deposit's interest rates decreased to 2%-4.5% from 6%-8.5%. 1 year fixed deposit's interest rates decreased to 2.75%-5.75% from 9%-10.5% and 2 yrs. And above fixed deposit's interest rates decreased to 3%-6% from 7.25%-10.25%. This decrease



in the interest rate is due to highly fluctuating economic condition of the country and highly increased deposits and lower investment opportunities.

Similarly, the interest rate for credit is also declined because banks have very limited opportunities to invest their excess ideal funds, but still they are below the investment level. The credit rate is declining as follows:

	<b>Mid-July 2002</b>	<b>Mid-July 2008</b>
Industry	13.5%-17%	8.5%-13.5%
Agriculture	14.5%-15.5%	10.5%-13%
Export bills	12.5%-16%	4%-11.5%
Com. Loans	13.5%-18%	9%-14.5%
Overdrafts	14.5%-20%	10%-16%

Due to the present situation of the country, commercial banks have lower investment opportunities therefore the interest rates are in declining trend.

## **4.2 Sources and Uses of Funds of Nepal SBI Bank Limited**

### **A. Deposits**

**Table No. : 4.6**  
**Deposits**

(Rs. In Million)

<b>S.N.</b>	<b>Particulars</b>	<b>Mid-July</b>						
		<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>1.</b>	<b>Deposits</b>	<b>3749.1</b>	<b>4362.2</b>	<b>4543.2</b>	<b>6618.4</b>	<b>5572.2</b>	<b>6522.8</b>	<b>7232.1</b>
a.	current	761.7	1404.2	951.0	2359.9	1086.7	1300.0	1712.6
b.	savings	527.2	786.7	1094.9	1259.5	1274.7	1820.7	2024.2
c.	fixed	2383.6	2100.2	2420.3	2929.4	3132.7	3337.6	3371.4
d.	call deposits	0.0	0.0	0.0	0.0	26.3	0.0	0.0
e.	Others	76.6	71.1	77.0	69.6	51.9	64.5	123.9

*Source: Nepal Rastra Bank (Banking and financial statistics, Mid-July 2008, No. 43)*

From the data given in table no. 4.7 above, it is found that the total deposits grow by 16.35% in FY 2002/03 but the growth rate reduced to 4.15% in FY 1999/00. After the tremendous decreased the growth rate sluggishly went up to 45.68% in FY 2004/05. The increase in deposits and reducing investing opportunities leads the bank on canvassing of interest bearing deposit, which resulted in the negative growth rate of deposit i.e., (15.81%) in FY 2005/06. After the negative growth the growth rate went up to 17.06% in FY 2006/07 and again the growth rate reduced to 10.87% in FY 2007/08.

### **B. Deposit mobilization as Investment in different sectors**

**Table No. : 4.7**  
**Deposit Mobilization as Investment in different Sectors of NSBI**  
(Rs. in million)

S.N.	Purpose	Mid-July						
		2002	2003	2004	2005	2006	2007	2008
<b>1</b>	<b>Investment</b>	<b>681.6</b>	<b>202.6</b>	<b>201.8</b>	<b>373.6</b>	<b>521.1</b>	<b>1207.3</b>	<b>1889.4</b>
a.	Govt. sec.	678.6	194.0	192.9	364.7	503.2	1189.4	1871.5
b.	Share & Deb.	3.0	8.6	8.9	8.9	17.9	17.9	17.9
c.	NRB Bond	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Govt. sec./ Total Deposit %	18.10	4.45	4.25	5.51	9.03	18.23	25.88
	Share & Deb./ Total Deposit %	0.08	0.20	0.20	0.13	0.32	0.27	0.25
	NRB Bond/ Total Deposit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0

*Source: NRB (Banking and financial statistics, Mid-July 2008, No. 43)*

The above table show that the investment growth rate of NSBI in FY 2002/03 was (70.28%) but there was increase in growth rate i.e. (0.01%) in the FY 2003/04, it was improved but still shows negative. The tremendous growth is seen in the 2004/05 i. E. 85.13% and again falls down to 39.48% in FY 2005/06. Again, the tremendous growth is seen in the 2006/07 i.e. 131.68% and again falls down to 56.50% in FY 2007/08. This shows the high fluctuation in the investment of the bank during the study period.

The above table shows that Nepal SBI Bank has mobilized its deposit in Govt. securities, and in share & debenture. Nepal Bangladesh Bank mobilizes 18.10%, 4.45%, 4.25%, 5.51%, 9.03%, 18.23, and 25.88% of deposit as investment in Government Securities in the year 2002, 2003, 2004, 2005, 2006, 2007 and 2008. In the year 2002, 2003, 2004, 2005, 2006, 2007 and 2008 NB bank ltd. Invests 0.08%, 0.20%, 0.20%, 0.13%, 0.32%, 0.27% and 0.25% of its total deposit, on share and debenture, it is in fluctuating trend.

**Table No. : 4.8**

**Deposits Mobilization as Loan and Advance in different Sectors**

(Rs. in million)

S.N.	Purpose	Mid-July						
		1998	1999	2000	2001	2002	2003	
<b>1</b>	<b>Loan &amp; Advance</b>	<b>414.9</b>	<b>2930.4</b>	<b>3560.1</b>	<b>4176.3</b>	<b>4593.9</b>	<b>4766.1</b>	<b>5552.5</b>
a.	Govt. Enter.	74.3	88.3	88.3	88.3	87.4	50.0	72.9
b.	Private sector	2297.3	2801.9	3428.8	4002.7	4441.2	4711.1	5418.0
c.	Others	43.3	40.2	43.0	85.3	65.3	5.0	61.6
	Govt. enter/Total Deposit %	1.98	2.02	1.94	1.33	1.57	0.77	1.01
	Pvt. Sector/ Total deposit %	61.28	64.23	75.47	60.48	79.70	72.23	74.92
	Others/ Total deposit	1.15	0.92	0.95	1.29	1.17	0.08	0.85

*Source: NRB ((Banking and financial statistics, Mid-July 2008, No. 43)*

From the above table it is clear that all the types of loans are increasing by the amount, but from analysis of the growth percentage in the different year, there is a continuous decline in the growth rate. In FY 2002/03 the loans percent grew to 21.35%, in FY 2003/04 it increases to 21.49% but it reduced to 17.31% in the FY 2004/05 and continuous to come down t 9.99%, 3.75% in FY 2005/06 and 2006/07 respectively. But in FY 2007/08 loan and advances increases to 16.50%.

The above table shows that NSBI Bank limited provides loan to the different sectors i.e. Govt. Entp., Pvt. Sector and other Sector. NB Bank Limited provide loan to Govt. entp. From its total deposit is 1.98%, 2.02%, 1.94%, 1.33%, 1.57%, 0.77%, and 1.01% in the year 2002, 2003, 2004, 2005, 2006, 2007 and 2008. And in the private sector NB bank ltd. Grant loan 61.28%, 64.23%, 75.47%, 60.48%, 79.70%, 72.23% and 74.92% . From its total deposit in the year 2002, 2003, 2004, 2005, 2006, 2007 and 2008 respectively. In others sector NB Bank Ltd. Granted loan and advances 1.15%, 0.92%, 0.95%, 1.29%, 1.17%, 0.08%, 0.85% in the year 2002, 2003, 2004, 2005, 2006, 2007 and 2008. Loan and advances of NB Bank Ltd. is in fluctuating trend. Loan and advances is the risky asset. There is high ratio of risk on granting loan. Since, loan and advances is risky there is the possibility of high rate of return. Banks loan and advances contributes high ratio in the profit of the banks.

Total loan to deposit in FY 2002/03 is 67.18%. The improvement in the banks policies and reductions in CRR policies by the government enables the bank to increase their loans and advance to the growth rate of 78.36% in the FY 2003/04 but it doesn't hold more than one year and again fall down to 63.10% in FY 2004/05. In the FY 2005/06 the bank start canvassing the interest bearing deposits, which improves their loans and advances positions of the banks and growth rate rose to 82.44% of the total deposits. It is clear from the above table that a deposit has been reduced in FY 2005/06, which gives rise to loans percentage and again falls down to 73.07% in FY 2006/07, but in FY 2007/08 it increased to 76.78%. The surplus idle money of the bank is invested in other sectors i.e. treasury bills etc.

Here, it is clear that when the loan percentages decrease the investments at that particular period increases. The bank makes it clear in their annual reports that the ingesting opportunities are reducing, which force them to avoid excess amount of interest bearing deposits.

## B. Interest Income Rate of NSBI:

The interest income assets of the commercial banks are loans and advances and investment on different securities. Banks lend money at different rates. Rates vary due to the nature of lending. Commercial banks charge certain percent interest on loans and investments. Extra money received from loans and investments are called interest income. Interest income rate has been calculated by dividing interest income by interest earning assets.

We have,

$$\text{Interest Income Rate} = \frac{\text{Interest Income}}{\text{Interest Earning Assets}}$$

Where, Interest earning assets = Loan + Investment

**Table No. : 4.9**

### **Interest income Rate of NSBI** (Rs. in Million)

<b>Year</b>	<b>Int. Income</b>	<b>Int. Earning assets</b>	<b>Int. Income rate %</b>
2002	365.03	3096.5	11.79
2003	403.49	3133	12.88
2004	437.32	3761.9	11.62
2005	444.56	4549.9	9.77
2006	399.63	5115	7.81
2007	469.74	5973.4	7.86
2008	493.60	7441.9	6.63
Mean			9.77

*Source: Annual Report (2002-2008)*

The above table shows that the average interest income rate of NSBIL is 9.77%. Interest income rate of NSBI is in declining trend except 2007. The decreasing trend of interest income rte is due to the decrease in the interest rate of loan and investment.

## C. Interest Expense Rate:

Banks pay interest on deposits and cash borrowing. In this context an attempt has been made to calculate the interest expenses rate on interest bearing

liabilities, which is defined as the sum of fixed deposit, saving deposit and cash borrowing.

We have,

$$\text{Interest Exp. Rate} = \frac{\text{Interest Expenses}}{\text{Interest Bearing Liabilities}}$$

Where,

Interest bearing liabilities = Deposit + Borrowing

**Table No: 4.10**

**Interest Expense Rate of NSBI** (Rs. in Million)

<b>Year</b>	<b>Int. Exp.</b>	<b>Int. Bearing Liabilities</b>	<b>Int. Exp. Rate %</b>
2002	240.75	3749.1	6.42
2003	310.79	4362.2	7.12
2004	281.66	4543.2	6.20
2005	271.80	6618.4	4.11
2006	288.58	5836.4	4.94
2007	291.82	6588.6	4.43
2008	255.92	7232.1	3.54
Mean			5.25

*Source: Annual Report (2002-2008)*

The above table shows that the average interest expense rate is 5.25%. There is declining trend in interest expenses rate from the year 2002 to 2008 except 2003 and 2006. The decline in the interest expense rate is due to the decrease in the interest rates of deposit and borrowing.

#### **D. Net Interest Margin:**

Net interest margin ratio shows the net interest earning per unit of investment made in loans and securities.

We have,

$$\text{Net interest Margin} = \frac{\text{Interest Spread}}{\text{Interest Earning Assets}}$$

Where,

Interest Spread = Interest income – Interest Expense

**Table No: 4.11**

**Net interest Margin of NSBI** (Rs. in Million)

<b>Year</b>	<b>Interest Spread</b>	<b>Int. Earning Assets</b>	<b>Net Int. Margin %</b>
2002	124.28	3096.5	4.01
2003	92.7	3133	2.96
2004	155.66	3761.9	4.14
2005	172.76	4549.9	3.80
2006	111.05	5115	2.17
2007	177.92	5973.4	2.98
2008	237.68	7441.9	3.19
Mean			3.32

*Source: Annual Report (2002-2008)*

The above table shows that the average net interest margin is 3.32%. The net interest margin is in fluctuating trend. The declining net interest margin ratio eventually leads to decline in profitability. Therefore the bank should try to reverse the trend by improving the C/D ratio.

#### **E. Interest Spread Rate:**

Commercial banks pay certain rate of interest on deposits and charge slightly higher interest rate on lending. The difference between these two interest rates (interest rate on deposit and interest rate on lending) is called interest-spread rate.

We have,

Interest Spread Rate = Interest income rate – Interest expense rate

**Table No: 4.12****Interest Spread Rate of NSBI (Rs. in Million)**

Year	Int. Income Rate	Int. Exp. Rate	Int. Spread Rate %
2002	11.79	6.42	5.37
2003	12.88	7.12	5.76
2004	11.62	6.20	5.42
2005	9.77	4.11	5.66
2006	7.81	4.94	2.87
2007	7.86	4.43	3.43
2008	6.63	3.54	3.09
Mean			4.51

Source: Annual Report (2002-2008)

The above table shows that the average interest spread rate of NSBI is 4.15%. Interest spread rate of NSBI is in declining trend except year 2003, 2005 and 2007. It is due to declining of the deposits and lending rates over the years. It affects the net interest margin of the bank but from the borrowers point of view it is good situation for them.

### 4.3 Sources and Uses of Funds of Nepal Bangladesh Bank Limited

#### A. Deposits of NBBL

**Table No. : 4.13****Deposits of NBBL**

(Rs. in million)

S.N.	particulars	Mid-July						
		2002	2003	2004	2005	2006	2007	2008
<b>1.</b>	<b>Deposits</b>	<b>2361.9</b>	<b>4145.2</b>	<b>6455.6</b>	<b>8578.8</b>	<b>9514.0</b>	<b>10548.0</b>	<b>12747.3</b>
a.	current	325.2	375.2	478.2	634.1	864.5	884.2	1137.0
b.	savings	358.9	684.7	1101.9	1694.9	2086.9	2913.6	4225.9
c.	fixed	1497.9	2608.1	4356.5	5236.8	5453.6	5031.6	4875.7
d.	call deposits	53.5	210.3	295.2	682.1	766.0	1439.8	2208.8
e.	Others	126.4	266.9	223.9	330.9	343.0	278.8	299.9

Source: Nepal Rastra Bank (Banking and financial statistics, Mid-July 2008, No. 43)



From the table given above it is found that in FY 2002/03 the deposits growth rate as 75.50%, which decreases to 55.74% in FY 2003/04. The deposit growth reduced to 32.89% in FY 2004/05, t 10.90% in FY 2005/06 and to 10.87% in FY 2006/07. After FY 2006/07 the deposits growth rate increases to 20.85%. The bank's deposits are very slowly growing after FY 2002/03.

## B. Deposit Mobilization as Investment in Different Sectors

**Table No.: 4.14**  
**Deposit Mobilization as Investment in Different Sectors**  
(Rs. in million)

S.N.	Purpose	Mid-July						
		2002	2003	2004	2005	2006	2007	2008
<b>1</b>	<b>Investments:</b>	<b>6.0</b>	<b>708.7</b>	<b>60.0</b>	<b>277.5</b>	<b>1029.4</b>	<b>2276.7</b>	<b>2617.3</b>
a.	Govt. securities.	0.0	0.0	0.0	262.5	891.0	2040.4	2578.9
b.	Share & Deb.	6.0	708.7	60.0	15.0	138.4	236.3	38.4
c.	NRB Bond	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Govt. sec./ Total deposit %	0.0	0.0	0.0	3.06	9.37	19.34	20.23
	Share & Deb./ Total deposit %	0.25	17.09	0.93	0.17	1.45	2.24	0.30
	NRB Bond/Total deposit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0

*Source: NRB ((Banking and financial statistics, Mid-July 2008, No. 43)*

The above table shows that Nepal Bangladesh Bank has mobilized its deposit in Govt. securities, and in share & debenture. Nepal Bangladesh Bank mobilizes 3.06%, 9.37%, 19.34% and 20.23% of deposit as investment in Government Securities in the year 2005, 2006, 2007 and 2008. It is in increasing trend. In the year 2002, 2003, 2004, 2005, 2006, 2007 and 2008 NB bank ltd. Invests 0.25%, 17.09%, 0.93%, 0.17%, 1.45%, 2.24% and 0.30% of its total deposit, on share and debenture, it is in fluctuating trend.

**Table No. : 4.15****Deposit Mobilization as Loan & Advances in Different Sectors**

(Rs. In Million)

S.N.	Purpose	Mid-July						
		2002	2003	2004	2005	2006	2007	2008
1	Loan & Adv.	1957.6	3258.7	4611.8	7347.4	8222.1	8491.9	10253.6
a.	Govt. Entp.	114.4	136.8	180.9	318.9	260.7	283	333.5
b.	Pvt. Sector	1756.1	2854.4	4237.5	6703.4	7708.4	8079.9	9662.1
c.	Others	87.1	267.5	193.4	325.1	253	129.0	258.0
	Govt. Entp./ Total deposit	4.84	3.30	2.80	3.72	2.74	2.68	2.62
	Pvt. Sector/ Total deposit	74.35	68.86	65.64	78.14	81.02	76.60	75.80
	Others/Total deposit	3.69	6.45	2.99	3.79	2.66	1.22	2.02

Source: NRB ((Banking and financial statistics, Mid-July 2008, No. 43)

The above table shows that NB Bank limited provides loan to the different sectors i.e. Govt. Entp., Pvt. Sector and other Sector. NB Bank Limited provide loan to Govt. entp. From its total deposit is 4.48%, 3.30%, 2.80%, 3.72%, 2.74%, 2.68%, and 2.62% in the year 2002, 2003, 2004, 2005, 2006, 2007 and 2008. And in the private sector NB bank ltd. Grant loan 74.35%, 68.86%, 65.64%, 78.14%, 81.02%, 76.60% and 75.80% . From its total deposit in the year 2002, 2003, 2004, 2005, 2006, 2007 and 2008 respectively. In others sector NB Bank Ltd. Granted loan and advances 3.69%, 3.69%, 6.45%, 2.99%, 3.79%, 2.66%, 1.22%, 2.02% in the year 2002, 2003, 2004, 2005, 2006, 2007 and 2008. Loan and advances of NB Bank Ltd. is in fluctuating trend. Loan and advances is the risky asset. There is high ratio of risk on granting loan. Since, loan and advances is risky there is the possibility of high rate of return. Banks loan and advances contributes high ratio in the profit of the banks.

### C. Interest Income Rate of NBBL:

The interest income assets of the commercial banks are loans and advances and investment on different securities. Banks lend money at different rates. Rates vary due to the nature of lending. Commercial banks charge certain percent interest on loans and investments. Extra money received from loans and investments are called interest income. Interest income rate has been calculated by dividing interest income by interest earning assets.

We have,

$$\text{Interest Income Rate} = \frac{\text{Interest Income}}{\text{Interest Earning Assets}}$$

Where, Interest earning assets = Loan + Investment

**Table No.: 4.16**

**Interest income Rate of NBBL** (Rs. in Million)

<b>Year</b>	<b>Int. Income</b>	<b>Int. earning assets</b>	<b>Int. income rate %</b>
2002	277.22	1963.6	14.12
2003	397.57	3967.4	10.02
2004	208.50	4671.8	4.46
2005	810.05	7624.9	10.62
2006	850.53	9251.5	9.19
2007	1083.5	10768.6	10.06
2008	1133.0	12870.9	8.80
Mean			9.61

*Source: Annual Report (2002-2008)*

The above table shows that the average interest income rate of NBBL is 9.61%. Interest income rate of NBBL is in fluctuating trend it is due to the decrease in the interest rate of loan and investment and lending function of the bank.

### D. Interest Expense Rate:

Banks pay interest on deposits and cash borrowing. In this context an attempt has been made to calculate the interest expenses rate on interest bearing liabilities, which is defined as the sum of fixed deposit, saving deposit and cash borrowing.

We have,

$$\text{Interest Exp. Rate} = \frac{\text{Interest Expenses}}{\text{Interest Bearing Liabilities}}$$

Where,

Interest bearing liabilities = Deposit + Borrowing

**Table No: 4.17**

**Interest Expense Rate of NBBL (Rs. in Million)**

<b>Year</b>	<b>Int. Exp.</b>	<b>Int. Bearing Liabilities</b>	<b>Int. Exp. Rate %</b>
2002	175.74	7715.6	2.28
2003	278.01	10013.1	2.78
2004	413.16	14211.1	2.91
2005	510.37	17619	2.90
2006	552.74	18643.4	2.96
2007	607.6	21541.6	2.82
2008	628.8	22827.3	2.75
Mean			2.77

*Source: Annual Report (2002-2008)*

The above table shows that the average interest expense rate is 2.77%. There is declining trend in interest expenses rate from the year 2002 to 2008 except 2003, 2004 and 2006. The decline in the interest expense rate is due to the decrease in the interest rates of deposit and borrowing.

**E. Net Interest Margin:**

Net interest margin ratio shows the net interest earning per unit of investment made in loans and securities.

We have,

$$\text{Net interest Margin} = \frac{\text{Interest Spread}}{\text{Interest Earning Assets}}$$

Where,

Interest Spread = Interest income – Interest Expense

**Table No: 4.18**

**Net Interest Margin of NBBL (Rs. in Million)**

<b>Year</b>	<b>Interest spread</b>	<b>Int. earning assets</b>	<b>Net int. Margin %</b>
2002	101.48	1963.6	5.17
2003	119.56	3967.4	3.01
2004	(204.66)	4671.8	(4.38)
2005	299.68	7624.9	3.93
2006	297.79	9251.5	3.22
2007	475.9	10768.6	4.42
2008	504.2	12870.9	3.92
Mean			2.76

*Source: Annual Report (2002-2008)*

The above table shows that the average net interest margin is 2.76%. The net interest margin is in fluctuating trend. The declining net interest margin ratio eventually leads to decline in profitability. Therefore the bank should try to reverse the trend by improving the C/D ratio.

**F. Interest Spread Rate:**

Commercial banks pay certain rate of interest on deposits and charge slightly higher interest rate on lending. The difference between these two interest rates (interest rate on deposit and interest rate on lending) is called interest-spread rate.

We have,

$$\text{Interest Spread Rate} = \text{Interest income rate} - \text{Interest expense rate}$$

**Table No.: 4.19**

Interest Spread Rate of NBBL (Rs. in Million)

Year	Int. Income Rate	Int. Exp. Rate	Int. Spread Rate %
2002	14.12	2.28	11.84
2003	10.02	2.78	7.24
2004	4.46	2.91	1.55
2005	10.62	2.90	7.72
2006	9.19	2.96	6.23
2007	10.06	2.82	7.24
2008	8.80	2.75	6.05
Mean			4.77

Source: Annual Report (1998-2004)

The above table shows that the average interest spread rate of NBBL is 4.77%. Interest spread rate of NBBL is in declining trend except year 2005 and 2008. It is due to declining of the deposits and lending rates over the years. It affects the net interest margin of the bank but from the borrowers point of view it is good situation for them.

#### 4.4 Financial Analysis

Under this topic it has tried to find out various financial ratios, which are related to the study. The comparison of two joint venture bank i.e. Nepal SBI Bank Limited and NBBL are done.

The calculation of mean, Standard Deviation and Co-efficient of variation is made by using formula. For example: to calculated the mean =  $\frac{\sum X}{N}$  Standard

$$\text{Deviation} = \sqrt{\frac{\sum (X - \bar{X})^2}{n}} \text{ and C.V.} = \frac{\text{S.D.}}{\text{Mean}}$$

## **A. Liquidity Ratio**

The purpose of this ratio is to test the solvency position for the payment of short-term liabilities. Solvency position or liquidity denotes ability for payment of short-term liabilities. A commercial Bank must maintain its satisfactory liquidity position to meet the credit need of the community. Demand for the deposit, withdrawals, pay maturity in time and convert non cash assets into cash to satisfy immediate need without loss to bank and consequent impact on long run profit. Analysis of liquidity needs the preparation of cash budget but liquidity ratios by establishing a relationship between cash and other current assets to current obligation, which provide a channel to measures of liquidity. The following ratios are evaluated and interpreted under liquidity ratios:

### **1. Cash and Bank Balance to Total Deposit Ratio (Cash Reserve Ratio)**

Cash and bank balance to total deposit ratio measures the availability of a banks highly liquid or immediate funds to meet its unanticipated calls on all types of deposits. Cash and bank balance are assets that constitute the bank's first line of defense and consist of cash on hand, foreign cash on hand, cheques and cash items, balance with domestic banks and balance held abroad.

Higher the ratio, the greater will the ability of the bank to meet sudden demand of deposit. But every high ratio is not desirable since bank to pay interest on deposits. This will as so maximize the cost of fund to the bank.

We have,

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

**Table No. 4.20****Cash and Bank Balance to Total Deposit Percent**

(Rs. in million)

F.Y.	Nepal SBI Bank Ltd.			Nepal Bangladesh Bank Ltd.		
	Cash & Bank Balance	Total Deposit	Ratios %	Cash & Bank Balance	Total Deposit	Ratios %
2002	761.56	3749.1	20.31	444.31	2361.9	18.81
2003	1357.8	4362.2	31.13	619.52	4145.2	14.95
2004	890.02	4543.2	19.59	653.67	6455.6	10.13
2005	1945.14	6618.4	29.39	1025.31	8578.6	11.96
2006	1619.96	5572.2	29.07	1759.31	9514.0	18.49
2007	1333.54	6522.8	20.44	899.51	10548.0	8.53
2008	864.42	7232.1	11.95	1488.8	12747.3	11.68
Mean	23.13			13.51		
S.D.	6.45			3.72		
C.V.%	27.89			27.54		

*Source: Annual Report (2002-2008)*

The above table shows that cash and bank balance to total deposit ratios of both the banks are in fluctuating trend NSBI has increasing trend till 2003. The ratios are increase from 20.31% to 31.13% in FY 2003. In FY 2004 the ratio decreased to 19.59% and it increased to 29.39% in FY 2005 then after NSBI has decreasing trend till FY 2008. In FY 2006, FY 2007 and FY 2008 the ratio is 29.07%, 20.44% and 11.95% respectively.

In case of average, it is found that NSBI has maintained higher ratio. The mean ratio of NSBI is 23.13% and mean ratio of NBBL is 13.51%. The C.V. % of NSBI is 30.13%, which is higher than 29.76% of NBBL. It shows that the cash and bank balance ratio of NSBI is more heterogeneous than NBBL.



Comparatively, NSBI has maintained highest ratio, it shows that the improvement or execute modification on the better position regarding the meeting of the demand of its customers on their deposit at any time. That means it operates in higher risks. Through high ratio indicated its high ability but high ratio shows inefficiency, as it has to pay more interest on deposit. Thus NSBI may invest in more productive sectors like short-term marketable security, treasury bills etc. to build up strong and efficient liquidity position.

## **2. Total Liquid Fund to Total Deposit Ratio**

Total liquid fund to total deposit ratio is the indication of the short-term obligation capacity of the demand of the depositor money. Higher ratio shows the higher capacity of payment on demand of the money and vice versa.

We have,

$$\text{Total liquid fund to total deposit} = \frac{\text{Total Liquid Fund}}{\text{Total Deposit}}$$

Where,

Total liquid fund= cash in hand + FC in hand + Bal. with NRB + Bal with Dom. Bank + Bal. with other financial ins. + Bal. held abroad + Call money

Liquid fund is amount kept by bank, which is equivalent to the cash. Banks are required to have liquid fund to meet the short-term obligation to gain the image and satisfaction of the customer.

**Table No.: 4.21**

## Total Liquid Fund to Total Deposit Ratio

(Rs. in million)

F.Y.	Nepal SBI Bank Ltd.			Nepal Bangladesh Bank Ltd.		
	Total Liquid Fund	Total Deposit	Ratios %	Total Liquid Fund	Total Deposit	Ratios %
2002	761.5	3749.1	20.31	436.6	2361.9	18.49
2003	1357.8	4362.2	31.13	602.6	4145.2	14.54
2004	1010.0	4543.2	22.23	636.1	6455.6	9.85
2005	2348.2	6618.4	35.48	1810.1	8578.8	21.10
2006	1403.2	5572.2	25.18	1836.7	9514.0	19.31
2007	1331.6	6522.8	20.41	891.8	10548.0	8.45
2008	775.0	7232.1	10.72	1488.8	12747.3	11.68
Mean	23.64			14.77		
S.D.	7.46			4.61		
C.V.%	31.56			31.21		

*Source: Annual Report (2002-2004)*

From the above table it has found that NSBI bank has maintained average 23.64% as the liquid fund of its total deposit whereas NBBL has made 14.77% as the liquid fund of its total deposit, which shows that the short-term obligation capacity of the NSBI bank is strong than NBBL.

S.D. and C.V. % of NSBI is also higher than the NBBL it shows that the NSBI Bank Ltd. has higher risk than the NBBL.

### **B. Assets Management Ratio (Activity Ratio):**

Assets management ratio (activity ratio) measures how effectively a bank is managing its assets in profitable and satisfactory manner. A commercial bank must manage its assets property to earn high profit. Under assets management ratio (activity ratio) following ratios are analyzed:

## 1. Loan and Advances to Total Deposit:

This ratio measures the extent to which the banks are successful to mobilize their total deposit on loan and advances. Loan and advances are outside asset, which yield profit to the bank. Increment of loan and advances is the main target of all commercial bank. So, higher the ratio better is the mobilization of the funds.

We have,

$$\text{Loan and advances to total deposit} = \frac{\text{Loan and Advances}}{\text{Total Deposit}}$$

**Table No.: 4.22**

### **Loan and Advances to Total Deposit Ratio**

(Rs. in Million)

F.Y.	Nepal SBI Bank Ltd.			Nepal Bangladesh Bank Ltd.		
	Loan and Advances	Total Deposit	Ratios %	Loan and Advances	Total Deposit	Ratios %
2002	2414.9	3749.1	64.41	1957.6	2361.9	82.88
2003	2930.4	4362.2	67.18	3258.7	4145.2	78.61
2004	3560.1	4543.2	78.36	4611.8	6455.6	71.44
2005	4176.3	6618.4	63.10	7347.4	8578.8	85.65
2006	4593.9	5572.2	82.44	8564.4	8732.2	98.07
2007	4766.1	6522.8	73.07	8491.9	10548.0	80.51
2008	5552.5	7232.1	76.78	10253.6	12747.3	80.44
Mean	72.19			82.51		
S.D.	6.90			7.54		
C.V.%	9.56			9.14		

*Source: Annual Report (2002-2008)*

The above table 4.13 shows that the mean ratio of Nepal SBI Bank Limited is 72.19% where as the mean ratio of NBBL is 82.51% which indicates that

NBBL has mobilized around 82.51% of total deposit on these seven years study period and NSBI is able to mobilized only 72.19% of total deposit as the loan and advances. In year 2006 NSBI and NBBL are mobilizing their fund on the maximum level. Higher ratio is not better from the viewpoint of liquidity.

## 2. Total Investment to Total Deposit Ratio:

A commercial bank mobilizes its deposits by investing its fund in different securities issued by Government and other financial institution. This ratio is calculated to know how the banks are mobilizing their deposit in the investment of the various securities. A high ratio indicates the success in mobilizing the fund in securities.

We have,

$$\text{Total investment to total deposit} = \frac{\text{Total Investment}}{\text{Total Deposit}}$$

**Table No.: 4.23**

### **Total Investment to Total Deposit Ratio** (Rs. in Million)

F.Y.	Nepal SBI Bank Ltd.			Nepal Bangladesh Bank Ltd.		
	Total Investment	Total Deposit	Ratios %	Total Investment	Total Deposit	Ratios %
2002	681.6	3749.1	18.18	6.0	2361.9	0.25
2003	202.6	4362.2	4.64	708.7	4145.2	17.10
2004	201.8	4543.2	4.44	60.0	6455.6	0.93
2005	373.6	6618.4	5.64	277.5	8578.8	3.23
2006	521.1	5572.2	9.35	1029.4	9514.0	10.82
2007	1207.3	6522.8	18.51	2276.7	10548.0	21.58
2008	1889.4	7232.1	26.13	2617.3	12747.3	20.53
Mean	12.41			10.63		
S.D.	7.91			8.59		
C.V.%	63.74			80.81		

*Source: Annual Report (2002-2008)*

The above table no. 4.14 can be analyzed that the ratio of all banks on the investment of the collected deposit is in fluctuating trend. NSBI has average investment of 12.41% and NBBL has average 10.63%. This shows that NSBI

has made higher investment. Higher ratio is not better from the viewpoint of liquidity.

### 3. Total outside Asset to Total Deposit Ratio:

Outside asset includes loan & advances and investment in government securities, debentures and bonds. It is the total amount that the bank mobilizes. This is the asset that the commercial bank mobilizes in order to get the profit. So, if the commercial banks are trying to increase the profit of the bank it should be alert to mobilize fund in proper manner. Following table shows the ratio of mobilization of funds during the seven years period of the NSBI and NBBL.

We have,

$$\text{Total outside asset to total deposit ratio} = \frac{\text{Total Outside Asset}}{\text{Total Deposit}}$$

Where, total outside asset = all types of loan granted + all kinds of investment.

**Table No. : 4.24**

#### **Total outside Asset to Total Deposit Ratio**

(Rs. in million)

FY	Nepal SBI Bank Ltd.			Nepal Bangladesh Bank Ltd.		
	Total Outside Asset	Total Deposit	Ratios %	Total Outside Asset	Total Deposit	Ratios %
2002	3096.5	3749.1	82.59	1963.6	2361.9	83.14
2003	3133	4362.2	71.82	3967.4	4145.2	95.71
2004	3761.9	4543.2	82.80	4671.8	6455.6	72.37
2005	4549.9	6618.4	68.75	7624.9	8578.8	88.88
2006	5115	5572.2	91.79	9251.5	9514.0	97.24
2007	5973.4	6522.8	91.58	10768.6	10548.0	102.09
2008	7441.9	7232.1	102.9	12870.9	12747.3	100.97
Mean			84.60			91.49
S.D.			11.07			9.97
C.V.%			13.09			10.90

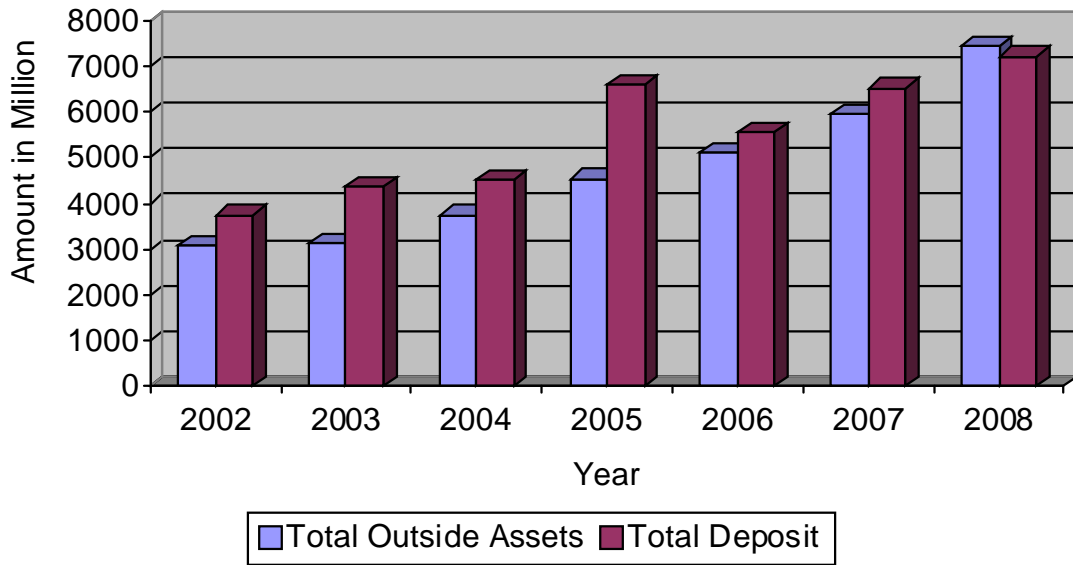
Source: Annual Report (2002-2008)

Above table no. 4.15 shows the capacity of mobilizing the funds collected as deposit of the banks. In average NSBI is mobilizing 84.60% of total deposit

available. In the year 2008 NSBI has mobilized more than 100% of the deposit. This mean it may have excess fund to mobilize on this year than the deposit only. Similarly, NBBL has average mobilization of 91.49%. In the years 2007 and 2008 NBBL has mobilized more than 100% of the deposit. Both bank has mobilize large amount as the outside asset. This indicates that the years 2007 and 2008 may be sound enough for the banks to make investment, which shows that there has emerged new investment opportunity in the country.

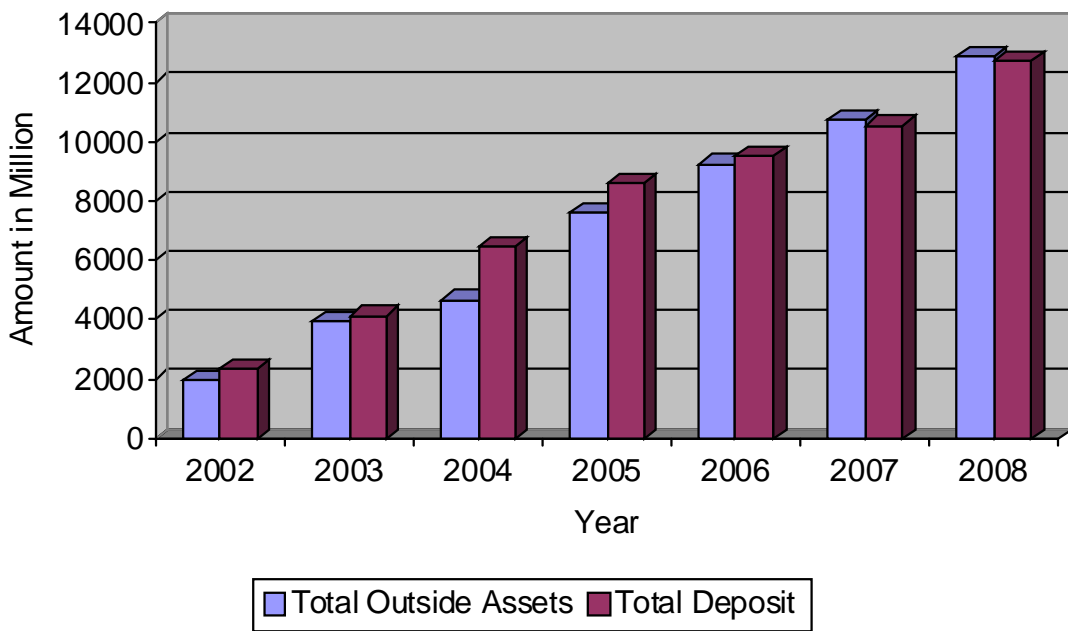
**Figure No. : 4.1**

**Total Outside Asset to Total Deposit Ratio of NSBI**



**Figure No. : 4.2**

**Total Outside Asset to Total Deposit Ratio of NBBL**



**4. Time Deposit to Total Deposit Ratio:**

Time deposit also known as the fixed deposit that a commercial bank obtains from the customer, which is fixed in nature. Time deposit helps the bank to reduce the liquidity and in turn more profitable investment. Time deposit is also known as easy to find out the required liquid asset of the bank because the maturity date is known in advance and bank can calculate when the customer demands the amount. The higher the ratio higher will be the chance of mobilizing the fund with certainty.

We have,

$$\text{Time deposit to total deposit ratio} = \frac{\text{Time Deposit}}{\text{Total Deposit}}$$

**Table No. : 4.25**

**Time Deposit to Total Deposit Ratio**

(Rs. in million)

F.Y.	Nepal SBI Bank Ltd.			Nepal Bangladesh Bank Ltd.		
	Time Deposit	Total Deposit	Ratios %	Time Deposit	Total Deposit	Ratios %
2002	2383.6	3749.1	63.58	1497.9	2361.9	63.42
2003	2100.2	4362.2	48.15	2608.1	4145.2	62.92
2004	2420.3	4543.2	53.27	4356.5	6455.6	67.48
2005	2929.4	6618.4	44.26	5236.8	8578.8	61.04
2006	3132.7	5572.2	56.22	5453.6	9514.0	57.32
2007	3337.6	6522.8	51.17	5031.6	10548.0	47.70
2008	3371.4	7232.1	46.62	4875.7	12747.3	38.25
Mean	51.90			56.88		
S.D.	6.07			9.57		
C.V.%	11.70			16.82		

*Source: Annual Report (2002-2008)*



Above table no. 4.16 shows that NSBI has average 51.90% fixed deposit in its total deposit and NBBL has average 56.88% fixed deposit. Both joint venture banks have more than 50% time deposit in their deposit account. These banks can mobilize the deposit without the risk of demand of the fund. The higher ratio of fixed deposit can also be interpreted that the people of Nepal like to have saving in the time deposit than other deposit it is because banks pay more interest on this type of deposit.

### **C. Capital Adequacy Ratio:**

Capital is the wealth that a bank employs for the production of more wealth. Banks with high capital fund and high capital adequacy ratio are said to be strong because even in the distressed situation, they will be in a position of return money of depositors. Bank capital assures the community that the bank is in a position to meet their credit needs. The purpose of keeping adequate capital is to protect the interest of depositors and creditors by making bank keep more risk free assets and by increasing their capital base. Under this ratio the following ratios are analyzed:

#### **1. Capital to Total Deposit Ratio:**

Capital to total deposit ratio shows the relationship between deposit and the capital that the bank employs. This ratio measures how much capital the bank in respect to the deposit has risen.

We have,

$$\text{Capital to Total Deposit Ratio} = \frac{\text{Total Capital}}{\text{Total Deposit}}$$

**Table No. : 4.26**  
**Capital to Total Deposit Ratio**

( Rs. in million)

FY	Nepal SBI Bank Ltd.			Nepal Bangladesh Bank Ltd.		
	Total Capital	Total Deposit	Ratios %	Total Capital	Total Deposit	Ratios %
2002	139.3	3749.1	3.72	147.1	2361.9	6.23
2003	222.6	4362.2	5.10	177.4	4145.2	4.28
2004	208.8	4543.2	4.60	251.3	6455.6	3.89
2005	243.5	6618.4	3.68	299.7	8578.8	3.49
2006	541.5	5572.2	9.72	595.6	9514.0	6.26
2007	582.9	6522.8	8.94	622.6	10548.0	5.90
2008	823.2	7232.1	11.38	1038.7	12747.3	8.15
Mean	6.73			5.46		
S.D.	2.95			1.53		
C.V.%	43.83			28.02		

*Source: Annual Report (2002-2008)*

The above table no. 4.17 shows that the average capital to total deposit ratio of NSBI is 6.73% and that of NBBL is 5.46%. NSBI has been able to maintain 3.72%, 5.10%, 4.60%, 3.68%, 9.72%, 8.94%, 11.38%. Similarly, NBBL has been able to maintain 6.23%, 4.28%, 3.89%, 3.49%, 6.26%, 5.9%, 8.15% of capital fund for the years 2002, 2003, 2004, 2005, 2006, 2007 and 2008 respectively.

#### **D. Risk Ratio:**

Risk ratio is very essential element. Risk ratio measures the risk associated with the banking variables. A bank raise capital accepts deposit and finally grant loan. These entire things come along with the risk. A bank must consider the risk associate with it. Higher the ratio higher will be the profit and vice versa. Under this ratio following ratios are analyzed:

## 1. Capital Risk Ratio:

Capital risk ratio of a bank indicates how much assets value may decline before the position of deposition and other creditors is jeopardized. Therefore a bank must maintain adequate capital in relation to the nature and condition of its assets, its deposits liabilities and other corporate responsibilities. Capital risk ratio measures banks ability to attract deposits and inter bank funds. It also determines the level of profit, a bank can earn if banks choose to take high capital risk and its ROE will be higher and vice versa. Following is the table showing the capital risk ratio of NSBI and NBBL.

We have,

$$\text{Capital risk ratio} = \frac{\text{Share Capital}}{\text{Risk Weighted Assets}}$$

**Table No. : 4.27**

### **Capital Risk Ratio**

( Rs. in million)

F.Y.	Nepal SBI Bank Ltd.			Nepal Bangladesh Bank Ltd.		
	Share Capital	Risk Weighted Asset	Ratio %	Share Capital	Risk Weighted Asset	Ratio %
2002	119.95	2419.9	4.96	114.12	1957.6	5.83
2003	119.95	2930.4	4.09	111.35	3258.7	3.57
2004	119.95	3560.1	3.37	117.77	4611.8	2.55
2005	143.94	4176.3	3.45	238.16	7347.4	3.24
2006	424.89	4593.9	9.25	357.25	8222.1	4.34
2007	425.16	4766.1	8.92	359.92	8491.9	4.24
2008	426.88	5552.5	7.69	359.92	10253.6	3.51
Mean			5.96			3.90
S.D.			2.39			0.97
C.V.%			40.10			24.87

Source: Annual Report (2002-2008)

Above table no. 4.18 shows that the average capital risk ratio of NSBI and NBBL is 5.96% and 3.9%. The trend if capital risk ratio of both banks is in fluctuating trend. The capital risk ratio denoted the profit earning levels of the banks. Capital risk ratio of NSBI shows that it can earn more profit than that of NBBL since it has lower ratio of capital risk.

## **2. Interest Rate Risk Ratio:**

Interest is one of major factor of earning profit of a bank. A bank pays the interest to the depositor and takes it from the loan. It is major source of income and expenditure depending upon the interest rate, the banks can make investment to maximize their income interest rate structure. There is higher degree of risk related with interest rate and the possibility of loss due to change in interest rate is known interest rate risk. The asset return and values versus the liabilities loss and values may change at different magnitude because of change in market interest rate.

We have,

$$\text{Interest rate risk ratio} = \frac{\text{Interest Sensitive Asset}}{\text{Interest Sensitive Liabilities}}$$

Where,

Interest sensitive asset includes the loaned amount and invested in amount and interest sensitive liabilities include the borrowings and deposit excluding the current deposit.

**Table No. : 4.28**  
**Interest Rate Risk Ratio**

(Rs. in million)

F.Y.	Nepal SBI Bank Ltd.			Nepal Bangladesh Bank Ltd.		
	Interest Sensitive Assets	Interest Sensitive Liabilities	Ratios %	Interest Sensitive Assets	Interest Sensitive Liabilities	Ratios %
2002	2414.9	2987.4	80.84	1957.6	2036.7	96.12
2003	2930.4	2958	99.07	3258.7	3770	86.64
2004	3560.1	3592.2	99.11	4611.8	6002.4	76.83
2005	4176.3	4258.5	98.07	7347.4	7944.7	92.48
2006	4593.9	4749.7	96.72	8222.1	8802	93.41
2007	4766.1	5288.6	90.12	8491.9	9732.1	87.26
2008	5552.5	5519.5	100.69	10253.6	11677.5	87.81
Mean	94.95			88.65		
S.D.	6.57			5.85		
C.V.%	6.92			6.60		

*Source: Annual Report (2002-2008)*

The above table no. 4.19 shows that the interest risk ratio of both of bank is in fluctuating trend. The average interest rate risk ratio of NSBI is shown as 94.95% and the same of NBBL is 88.65%. The average risk of NSBI is higher than that of NBBL. The C.V. of NSBI and NBBL is 7.48% and 7.13% which show the risk of NBBL is less variable than that of NSBI.

### **3. Credit Risk Ratio:**

It is very essential for a bank to inspect the project i.e. risk involves in it to avoid default of non-payment of loan before making investment on them. The main factor while the bank makes the decision on investment to utilize its collected fund is the risk. The risk behind making investment or granting loan or providing is measured by credit risk ratio. Actually, credit risk ratio shows the proportion of non-performing assets in total loan and advances of a bank.

But due to unavailability of related data, the ratio is calculated with the help of loan and advances and total assets.

We have,

$$\text{Credit Risk Ratio} = \frac{\text{Total Loan and Advances}}{\text{Total Assets}}$$

**Table No. : 4.29**  
**Credit Risk Ratio**

(Rs. in million)

F.Y.	Nepal SBI Bank Ltd.			Nepal Bangladesh Bank Ltd.		
	Loan & Advances	Total Assets	Ratios %	Loan & Advances	Total Assets	Ratios %
2002	2414.9	2688.73	89.82	1957.6	2768.92	70.70
2003	2930.4	4122.58	71.08	3258.7	4961.08	65.69
2004	3560.1	5164.52	68.93	4611.8	7585.87	60.79
2005	4176.3	7385.28	56.55	7347.4	10593.75	69.36
2006	4593.9	7021.14	65.43	8222.1	11102.23	74.06
2007	4566.1	7566.33	62.99	8491.9	17932.61	47.35
2008	5552.5	8440.41	65.78	10253.6	14257.97	71.91
Mean	68.65			65.69		
S.D.	9.65			8.52		
C.V.%	14.06			12.97		

*Source: Annual Report (2002-2008)*

In the above table no. 4.20, we can see the capital risk ratio of both bank is in fluctuating trend. The average capital risk ratio of NSBI and NBBL is 68.65% and 65.69%. Higher percentage will be the best so NSBI is in better position than NBBL. The C.V. ratio of NSBI is greater than that of NBBL i.e. 15.18% > 14.01% which indicates that the credit stability of NSBI is inconsistent than NBBL.

## E. Profitability Ratio:

Profitability ratio measures the overall banking operation of the company in regards to the profit profitability ratio is determined by the financial institution to find but their profit earning capacity on various kinds of funds they employee profit indicates the efficiency of the bank. A bank can make the profit through the sound lending policy and the quality of service it provides. Higher is the profit ratio higher will be the efficiency of the bank. Following are the some profitability ratio studied in this report:

### 1. Return on Total Loan & Advance Ratio:

Net profit is totally dependent to the loan and advances of the commercial banks so, calculation of return on total loan and advance is very important to find out the financial condition of the banks. High ratio indicates that the bank is in good condition and can earn more profit in future further and vice versa.

We have,

$$\text{Return on loan and advance} = \frac{\text{Net Profit}}{\text{Loan \& Advances}}$$

**Table No. : 4.30**  
**Return on Total Loan & Advance Ratio**

(Rs. in million)

F.Y.	Nepal SBI Bank Ltd.			Nepal Bangladesh Bank Ltd.		
	Net Profit	Loan & Advances	Ratio %	Net Profit	Loan & Advances	Ratio %
2002	58.97	2414.9	2.44	60.79	1957.6	3.11
2003	16.76	2930.4	0.57	82.73	3258.7	2.54
2004	50.07	3560.1	1.41	139.54	4611.8	3.03
2005	12.49	4176.3	0.30	198.75	7347.4	2.71
2006	40.84	4593.9	0.89	65.78	8222.1	0.80
2007	48.75	4566.1	1.02	71.50	8491.9	0.84
2008	60.85	5552.5	1.09	178.3	10253.6	1.74
Mean			1.10			2.11
S.D.			0.64			0.91
C.V.%			58.18			43.13

Source: Annual Report (2002-2008)

In the above table no. 4.21 it is clear that the average return on loan and advances of NSBI is 1.10% and the same of NBBL is 2.11%. Average return on total loan & advance ratio of NBBL is higher than that of NSBI. This analysis depicts that NSBI is really facing the problems in investing their excess funds in profitable loans and advances.

In average, the mean ratio of NBBL is more than that of NSBI. The coefficient of variation (C.V.) of NSBI is more than that of NBBL i.e. 62.72% > 46.92%. This shows that NBBL's ratios are more consistent and uniform than NSBI.

## 2. Return on Equity Ratio:

Shareholders are the owner of the banks. Equity capital comes from the shareholders side. If the bank can mobilize its equity capital properly, they earn high profit and the faith of the shareholders too. Equity capital is the own capital of the banks. The return on equity capital measures the extent to which a bank is successful to mobilize its capital

$$\text{We have, ROE} = \frac{\text{Net Profit}}{\text{Total Equity Capital}}$$

**Table No. : 4.31**  
**Return on Equity Ratio**

(Rs. in million)

F.Y.	Nepal SBI Bank Ltd.			Nepal Bangladesh Bank Ltd.		
	Net Profit	Total Equity	Ratio %	Net Profit	Total Equity	Ratio %
2002	58.97	139.3	42.33	60.79	147.1	41.33
2003	16.76	222.6	7.53	82.73	177.4	46.63
2004	50.07	208.8	23.98	139.54	251.3	55.53
2005	12.49	243.5	5.13	198.75	299.7	66.32
2006	40.84	541.5	7.54	65.78	595.6	11.04
2007	48.75	582.9	9.02	71.50	622.6	11.48
2008	60.85	823.2	7.39	178.3	1038.7	17.17
Mean			14.70			35.64
S.D.			12.70			20.77
C.V.%			86.39			58.28

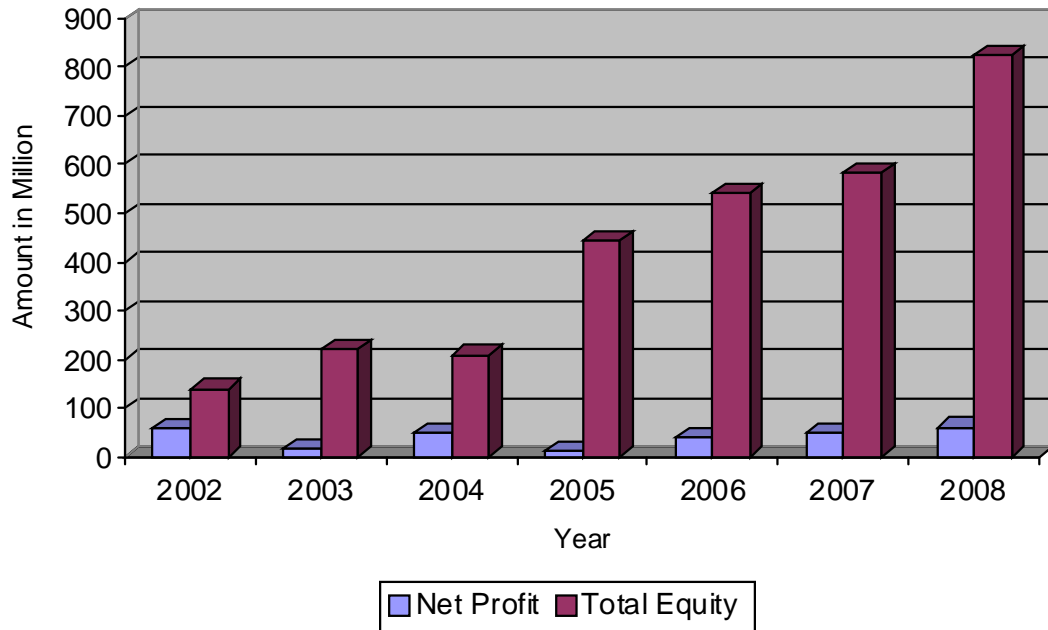
Source: Annual Report (2002-2008)



The above table no. 4.22 shows the average ratio of NSBI is 14.70% and that of NBBL is 35.64%. The trend of return on equity ratio of both bank is in fluctuating trend. The ROE of NBBL is pleasing to the shareholder and in case of EBL it is acceptable.

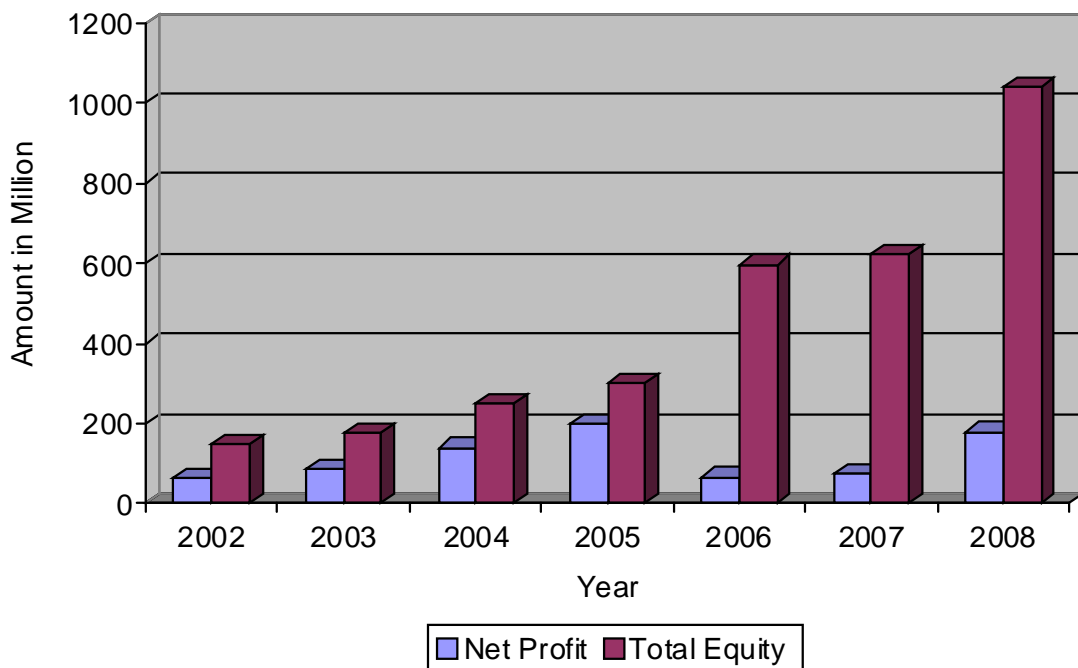
**Figure No. : 4.3**

**Return on Equity Ratio of NSBI**



**Figure No. : 4.4**

**Return on Equity Ratio of NBBL**



### 3. Total Interest Earned to Total Outside Asset Ratio:

This ratio reflects that the extent to which the bank is successful to earn interest as major income on all the outside assets. Higher the ratio higher will be the earning power of total outside assets. This is very important ratio as the main asset is the outside asset of the commercial bank.

We have,

$$\text{Total interest earned to total outside asset ratio} = \frac{\text{Total Interest Earned}}{\text{Total Outside Asset}}$$

**Table No. : 4.32**

#### **Total Interest Earned to Total outside Asset Ratio**

(Rs. in million)

F.Y.	Nepal SBI Bank Ltd.			Nepal Bangladesh Bank Ltd.		
	Interest Earned	Outside Assets	Ratio %	Interest Earned	Outside Assets	Ratio %
2002	365.03	3096.5	11.79	277.22	1963.6	14.12
2003	403.49	3133	12.88	397.57	3967.4	10.02
2004	437.32	3761.9	11.62	208.50	4671.8	4.96
2005	444.56	4576.3	9.71	810.50	7624.9	10.62
2006	399.63	5115	7.81	850.53	3251.5	9.19
2007	469.74	5973.4	7.86	1083.5	10768.6	10.06
2008	493.60	7441.9	6.63	1133.0	12870.9	8.80
Mean			9.76			9.61
S.D.			2.22			2.51
C.V.%			22.75			26.12

*Source: Annual Report (2002-2008)*

The above table no. 4.23 is showing the ratio of total interest earned to total outside asset. The mean earning of NSBI in this seven years period is 9.76% and the same of NBBL is 9.61%. The trend of total interest earned to total outside asset ratio of both banks is fluctuating. It is clear from the above table

that the earning power of both banks is comparable. This ratio of both banks shows the stable.

#### **F. Growth Ratio:**

Growth ratio is directly related to the fund mobilization and investment management of a commercial bank. It represents how well the commercial bank maintaining the economic and financial position. Under this topic following ratios are analyzed:

1. Growth Ratio of Total Deposit
2. Growth Ratio of Loan and advances
3. Growth Ratio of Total Investment
4. Growth Ratio of Net Profit

The calculation procedures of the growth ratios are shown in annex A.

**Table No. : 4.33**  
**Growth Ratio of Total Deposit** (Rs. in Million)

<b>Banks</b>	<b>Fiscal Years (Deposit)</b>							<b>Growth %</b>
	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	
NSBI	3749.1	4362.2	4543.2	6618.4	5572.2	6522.8	7232.1	11.57
NBBL	2361.9	4145.2	6455.6	8578.8	9514.0	10548.0	12747.3	32.44

*Source: See in Annex A*

The above table shows that the growth ratio of total deposit of NSBI is 11.57% and that of NBBL is 32.44%. The deposit growth rate of NBBL is more than that of NSBI. It shows that the performance of NBBL in collecting deposit is better in comparison to NSBI.

**Table No. : 4.34****Growth Ratio of Loan & Advances**

(Rs. in Million)

Banks	Fiscal Years (Loan and Advances)							Growth %
	2002	2003	2004	2005	2006	2007	2008	
NSBI	2414.9	2930.4	3560.1	4176.3	4593.9	4766.1	5552.5	14.89
NBBL	1957.6	3258.7	4611.8	7347.4	8222.1	8491.9	10253.6	31.78

*Source: See in Annex A*

The above table shows that the growth ratio of loan and advances of NSBI is 14.89% and that of NBBL is 31.78%. Again, NBBL's performance in advancing loans is better in comparison to the performance of NSBI. The trend of advancing loan of both banks is in increasing trend.

**Table No. : 4.35****Growth Ratio of Total Investment**

(Rs. in Million)

Banks	Fiscal Years (Total Investment)							Growth %
	2002	2003	2004	2005	2006	2007	2008	
NSBI	681.6	202.6	201.8	373.6	521.1	1207.3	1889.4	18.52
NBBL	6.0	708.7	60.0	277.5	1029.4	2276.7	2617.3	175.39

*Source: See in Annex A*

The investment trend of NBBL is highly fluctuating. It has only Rs. 6 million in the year 1998 and increased tremendously to Rs. 708.7 million in the following year. Then suddenly decreased by huge amount in the year 2000 and advance was only Rs. 60 million. Then again increased to Rs. 277.5 million and then after it is in increasing trend till 2004. On the other hand investment of NSBI is also fluctuating trend but not so much tremendously as of NBBL. The growth ratio of investment of NSBI is 18.52% while the same of NBBL is 175.39%. In this regard it can be concluded that the investment performance of NBBL is much better than NSBI.

**Table No. : 4.36**

**Growth Ratio of Net Profit**

(Rs. in Million)

<b>Banks</b>	<b>Fiscal Years (Loan and Advances)</b>							<b>Growth %</b>
	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	
NSBI	58.97	16.76	50.07	12.49	40.84	48.75	60.85	0.52
NBBL	60.79	82.73	139.54	198.75	65.78	71.50	178.3	19.64

*Source: See in Annex A*

The growth ratio of net profit of NSBI is only 0.52% and that of NBBL is 19.64%. This shows that NSBI is not giving due consideration in the growth of net profit. It may be due to the highly fluctuation in the profits.

#### **4.5 Statistical Analysis**

Under this topic some statistical tools such as coefficient of correlation analysis and regression analysis between different ratios, trend analysis of deposit loan and advance, credit and loan and advances and profit. Hypothesis test (t-test) is also analyzed to achieve the objectives of the study. They are as follows:

##### **A. Coefficient of Correlation Analysis**

Under this chapter, Karl Pearson's coefficient of correlation is used to find out the relationship between deposit and loan & advances, deposit and total investment, outside assets and net profit. The calculation procedure of coefficient of correlation is shown on the annex 'B'.

Probable Error (P.E.) is calculated using standard Error (S.E.) where,

$$S.E. = \frac{1 Z r^2}{\sqrt{n}}$$

$$P.Er. = 0.6745 | S.E.$$

$$6P.Er. = 6 | P.Er.$$

## 1. Coefficient of Correlation between Deposit and Loan & Advances

Deposit and loan & advances are very important liabilities and assets of the bank. Deposit is mobilized as the loan and advances. Proper mobilization of deposit is very crucial function of the commercial banks. Banks can make profit through the loan and advances. The relationship between deposit and loan and advances must be optimum to gain profit. This tool measures the degree of relationship between these two variables. In this analysis, deposit is independent variable (x) and loan & advance is dependent variable (y). The main reason of findings out 'r' between these two variables are to justify whether deposit are significantly used as loan & advances in a proper way or not. The table below shows the value of 'r' and 'r<sup>2</sup>', Probable Error (P.Er.) and 6 P.Er. between deposit and loan and advance of the NSBI and NBBL for the study period.

**Table No. : 4.37**

### **Correlation between Deposit and Loan & Advances**

<b>Bank</b>	<b>r</b>	<b>r<sup>2</sup></b>	<b>P.Er.</b>	<b>6P.Er.</b>
NSBI	0.9292	0.8634	0.0348	0.2088
NBBL	0.9929	0.9859	0.00359	0.02154

*Source: See in Annex I & II*

The above table can be analyzed as follows. In the case of NSBI, it is found that coefficient of correlation between deposit and loan & advances is 0.9292. it shows positive relationship between these two variables. The coefficient of determination (r<sup>2</sup>) is 0.8634 which depicts that the dependent variable i.e. loan and advance is explained by the independent variable i.e. deposit about 86.34%. Similarly-, the probable error (P.Er.) of this bank is 0.0348. it is used to find out the significant of the obtain values. Here, since  $r > P.Er.$  the value of 'r' is significant and the value of 'r' we have is  $r > 6 P.Er.$  it shows that the 'r' is definitely significant.

In the case of NBBL, it is found that the coefficient of correlation between deposit and loan and advances is 0.9929, which shows the positive relationship between these variables. The coefficient of determination ( $r^2$ ) is 98.59%. It mean loan and advance of NBBL is explained by deposit of it is about 98.59%. Since  $r > P. Er.$  And  $r > 6 P. Er.$  the value of the 'r' is definitely significant.

In the conclusion of the calculation we can say that there is a positive relationship between deposit and loan and advances f two banks. If deposit is increase loan and advance will definitely increase. The relationship of the two banks is significant and the value of ' $r^2$ ' shows high percent in the dependent variable, which has been explained by the independent variable. This indicated that the banks are successful in mobilizing the deposits in the proper way as loan and advances. Moreover we can conclude that NBBL has greater correlation coefficient than that of NSBI, which indicate that NBBL is in better condition to grant loan and advances for mobilizing the collected deposits.

### **3. Correlation between Deposit and Investment:**

Coefficient of correlation between deposit and investment measures the degree of relationship between these two variables. Here deposit is independent variable (X) and investment is dependent variable (Coefficient of correlation between deposit and investment measures the degree of relationship between these two variables. Here deposit is independent variable (X) and investment is dependent variable (Y). The objective behind the calculation of this correlation is to find out whether deposit is significantly mobilized as the investment.

The table below shows the value of 'r' and ' $r^2$ ' Probable Error (P.Er.) and 6 P.Er. between deposit and investment of the NSBI and NBBL for the study period.

**Table No. : 4.38**  
**Correlation between Deposit and Investment**

<b>Bank</b>	<b>r</b>	<b>r<sup>2</sup></b>	<b>P.Er.</b>	<b>6P.Er.</b>
NSBI	0.6634	0.4401	0.1427	0.8562
NBBL	0.8262	0.6826	0.0809	0.4854

*Source: See in Annex III & IV*

The above table can be analyzed as follows. The correlation coefficient of NSBI and NBBL is 0.6634 and 0.8262 respectively and both are in positive. It shows the positive relationship between deposit and investment. The coefficient of determination ( $r^2$ ) of NSBI is 0.4401 and that of NBBL is 0.6826. It shows that the relationship between deposit and investment of NSBI is explained by its deposit is 44.015 where as the in case of NBBL deposit explains 68.26% of the investment. Here,  $r > P.Er. < 6 P.Er.$  which means the value of 'r' is definitely significant. That means there is significant relationship between deposit and investment of NSBI. This means, if deposit is increase investment will definitely increase.

Similarly, in the case of NBBL it is  $r > P.Er. > 6 P.Er.$  the value of the 'r' is significant. The relationship is significant. It shows that the correlation of coefficient of these variables is positive and there is significant relationship between them and increment of deposit definitely increase the investment.

In conclusion we can say that the coefficient of correlation and coefficient of determinant of NBBL is higher than that of NSBI. It means that NBBL has greater investment than that of NSBI in mobilizing the deposit.

### **3. Correlation between Outside Asset and Net Profit:**

Coefficient of correlation between outside assets and net profit measures the relationship between these two variables. Here, outside assets are independent variable (X) and net profit (Y) is dependent variable. The purpose of computing coefficient of correlation between outside assets and net profit is to find out whether the net profit is significantly correlated with respective outside assets or not.



The table below shows the value of 'r' and 'r<sup>2</sup>', Probable Error (P.Er.) and 6 P.Er. between outside assets and net profit of the NSBI and NBBL for the study period.

**Table No. : 4.39**  
**Correlation between Outside Assets and Net Profit**

<b>Bank</b>	<b>r</b>	<b>r<sup>2</sup></b>	<b>P.Er.</b>	<b>6P.Er.</b>
NSBI	0.3726	0.1388	0.2196	1.3176
NBBL	0.2505	0.0628	0.2383	1.4298

*Source: See in Annex V & VI*

The table no. 4.30 can be analyzed as follows. In the case of NSBI the coefficient correlation between independent variable (outside assets) and dependent variable (net profit) is positively correlated. That means there is positive relationship between these two variables. The coefficient of determination (r<sup>2</sup>) is 13.88%, which explains, that the outside assets explain only 13.88% of the net profit. The P.Er. is 0.2196 and 6 P.Er. is 1.3176 here  $r > P.Er. < 6 P.Er.$  which means that the value of the 'r' is definitely significant.

In the case of NBBL the coefficient of correlation between outside asset and net profit is also positive. The coefficient of determination (r<sup>2</sup>) is 6.28% about the net profit. The P.Er. of this bank is 0.2383 and 6 P.Er. is 1.4298, here  $r > P.Er. < 6 P.Er.$  which means that the value of the 'r' is definitely significant. In conclusion we can say that the coefficient of correlation of both banks is positive. Since, it has positive correlation net profit can be increase by increasing the outside asset. The value of 'r' of both banks is definitely significant that mean it is sure to be increase the profit if the banks increase their outside asset. In the case of comparison NSBI has higher r and r<sup>2</sup> that mean NSBI is able to better mobilize its outside asset to earn higher profit.

### **B. Trend Analysis:**

Under this topic, analysis of trend of deposit collection, its utilization and net profit of NSBI and NBBL are studied. To utilize deposits a commercial bank may grant loan and advance and investment to the government securities and shares and debentures of other agencies. The objective of this topic is the estimation of the total deposit; loan and advances, investment and net profit for upcoming 5 years are calculated. The calculation procedure of the trend of different variable is shown on the Annex 'C'.

### **1. Trend Analysis of Deposit:**

Under this analysis, an effort has been made to calculate the trend values of deposit of NSBI and NBBL bank for seven years from the mid-July 1998 to mid-July 2004 and forecast for next five years from the mid-July 2005 to mid-July 2009. The following table shows the trend values of deposit for twelve years.

**Table No. : 4.40**

**Estimation of Total Deposit for the Years 2009 to 2013**

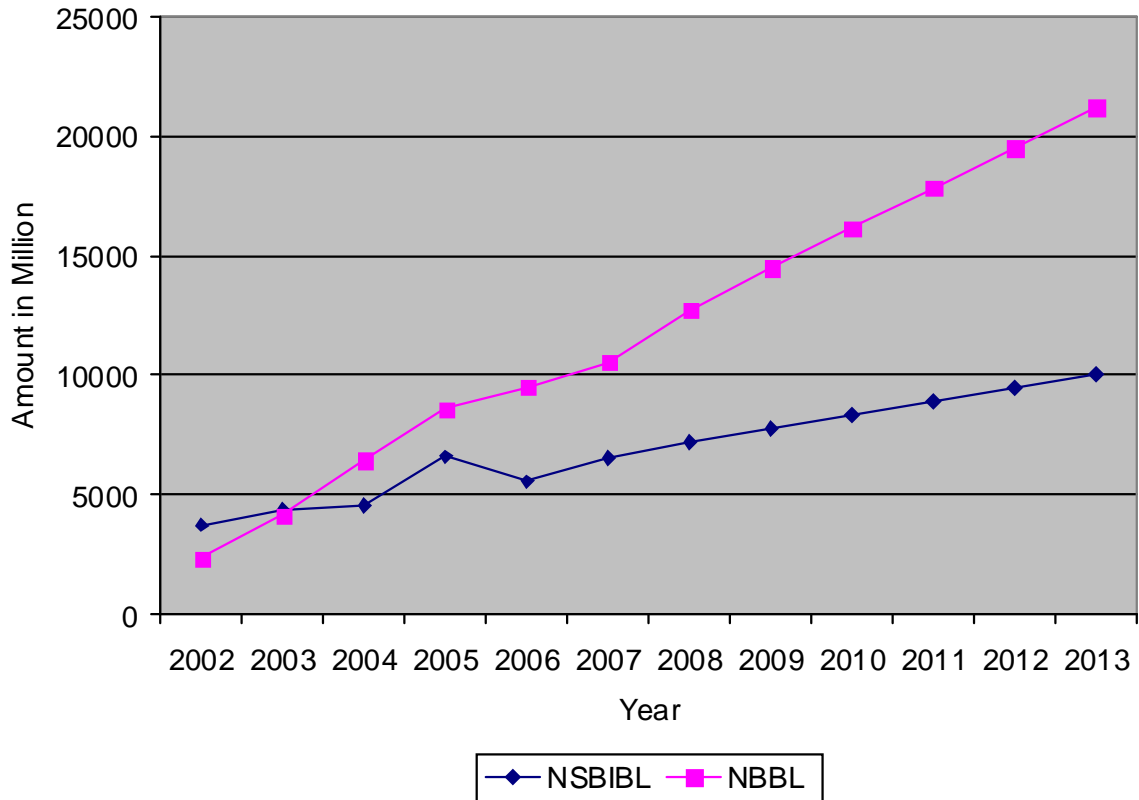
Years	Deposit (Amount in Million)	
	NSBI	NBBL
2002	3749.1	2361.9
2003	4362.2	4145.2
2004	4543.2	6455.6
2005	6618.4	8578.8
2006	5572.2	9514.0
2007	6522.8	10548.0
2008	7232.1	12747.3
2009	7771.41	14481.56
2010	8335.69	16160.85
2011	8899.97	17840.14
2012	9464.25	19519.43
2013	10028.53	21198.72

*Source: See in Annex III & IV*

The above table shows that both bank's deposit is in increasing trend. If other things remain constant the total deposit of NSBI for the year 2013 will be 10028.53 million and will be 21198.72 million of NBBL for the year 2013. The deposit of the NBBL is more than that of NSBI.

**Figure No. : 4.5**

**Estimation of Total Deposit for the Years 2009 to 2013**



## 2. Trend Analysis of Loan and Advances:

Under this topic, an effort has been made to calculate the trend values of Loan and advances of NSBI and NBBL for seven years from mid-July 2002 to mid-July 2008 and forecast for next five years from the mid-July 2009 to mid-July 2013. The following table shows the trend values of loan and advances for twelve years.

**Table No. : 4.41**

**Estimation of Loan and Advances for the years 2009 to 2013**

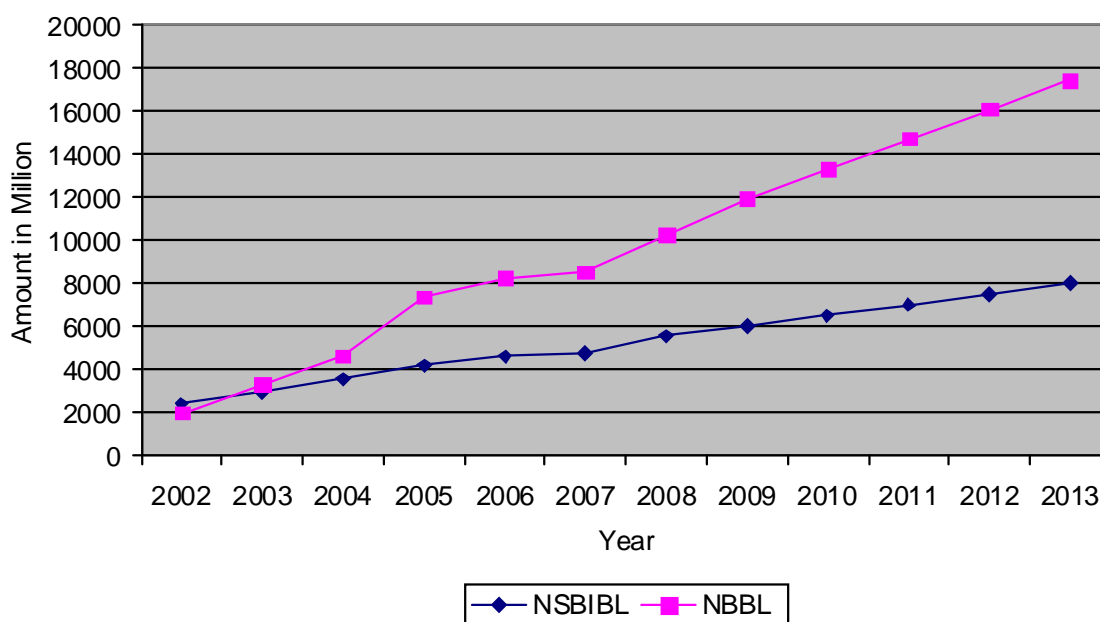
Years	Loan and Advances (Amount in million)	
	NSBI	NBBL
2002	2414.9	1957.6
2003	2930.4	3258.7
2004	3560.1	4611.8
2005	4176.3	7347.4
2006	4593.9	8222.1
2007	4766.1	8491.9
2008	5552.5	10253.6
2009	6010.01	11872.56
2010	6520.22	13264.16
2011	7024.43	14655.76
2012	7528.64	16047.36
2013	8032.85	17438.96

*Source: See in Annex IX & X*

The above table shows that the loan and advances of the banks are in increasing trend. If other things remain constant, the loan and advances of NSBI for the year 2013 will be 8032.85 million. Similarly it will be Rs. 17438.96 million of NBBL for the year 2013. NBBL bank has much more fund available than NSBI. NBBL has loaned much more fund than NSBI.

**Figure No. : 4.6**

**Estimation of Loan and Advance for the Years 2009 to 2013**



### 3. Trend Analysis of Total Investment:

Under this topic, the trend values of total investment for seven years from the mid-July 2002 to mid-July 2008 has been calculated and forecasted for next five years from the mid-July 2009 to 2013.

The following table shows the trend values of total investment for twelve years from mid-July 2002 to 2013 of NSBI and NBBL are shown.

**Table No. : 4.42**

#### **Estimation of Total Investment for the Years 2009 to 2013**

Years	Total Investment (Amount in million)	
	NSBI	NBBL
2002	681.6	6.0
2003	202.6	708.7
2004	201.8	60.0
2005	373.6	277.5
2006	521.1	1029.4
2007	1207.3	2276.7
2008	1889.4	2617.3
2009	1575.68	2702.11
2010	1788.26	3128.51
2011	2000.84	3554.91
2012	2213.42	3981.31
2013	2426	4407.71

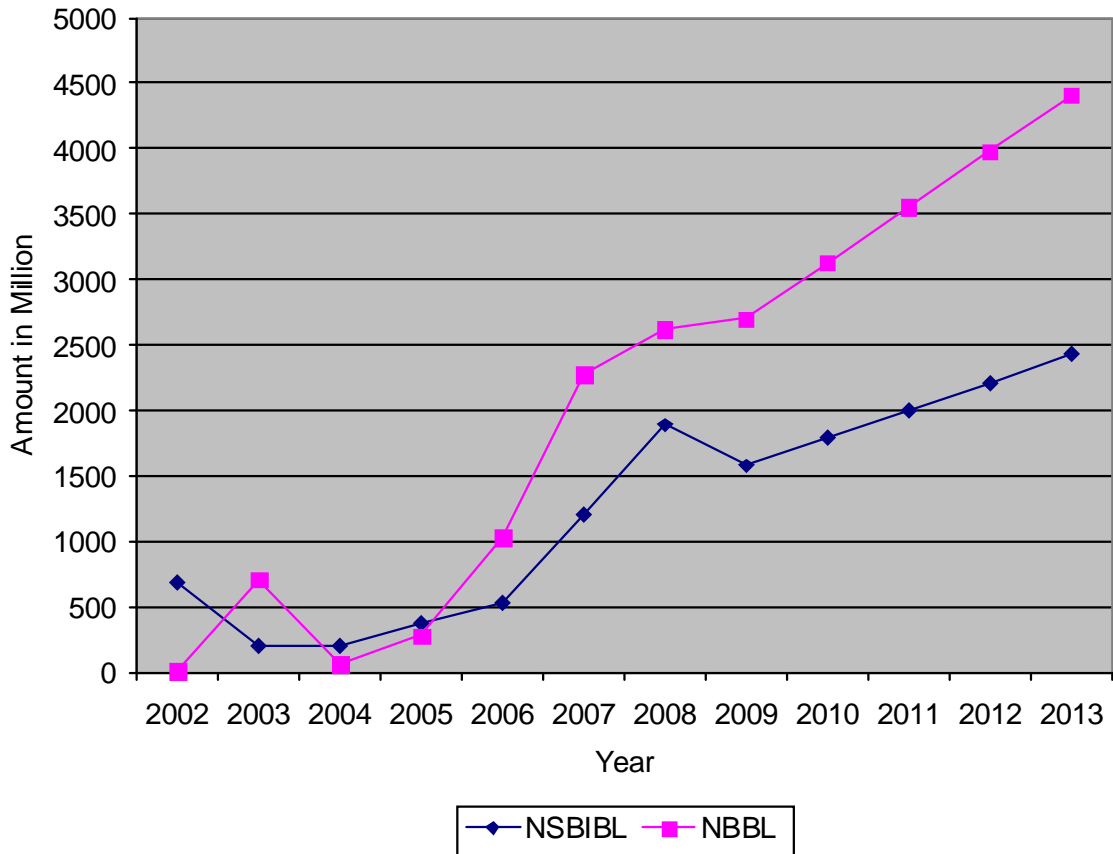
*Source: See in Annex XI & XII*

The above table shows that the total investment of NSBI is in fluctuating trend. It is 681.6 million on the year 2002 and has decreased to 202.6million and to 201.8 million on the year 2003 and year 2004 respectively, then after total investment is in increasing trend till 2008. Similarly, the investment of NBBL is in vast fluctuating trend. It is Rs. 6 million on the year 2002 and has increased to 708.7 and it is 118.12 times more than the previous years. On the

year 2004 it has again decreased to Rs. 60 million and increase to 277.5 and 1029.4 m in the years 2005 and 2006 respectively. Again, it increased to 2276.7m and 2617.3m in the years 2007 and 2008 respectively.

**Figure No. : 4.7**

**Estimation of Total Investment for the Years 2009 to 2013**



#### **4. Trend Analysis of Net Profit:**

The following table shows the trend values of net profit for twelve years from mid-July 1998 to 2009 of NSBI and NBBL are shown.

**Table No. : 4.43**

**Estimation of Profit for the years 2009 to 2013**

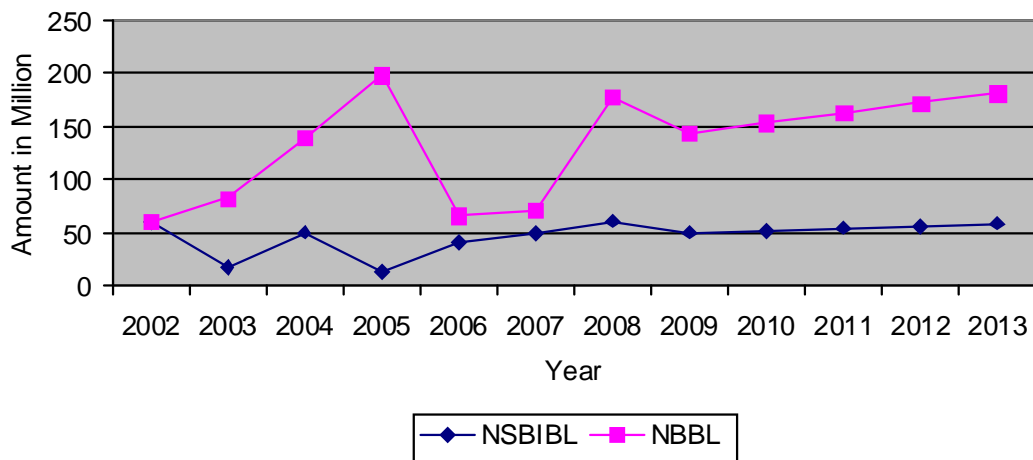
<b>Years</b>	<b>Profit (Amount in million)</b>	
	<b>NSBI</b>	<b>NBBL</b>
2002	58.97	60.79
2003	16.76	82.73
2004	50.07	139.54
2005	12.49	198.75
2006	40.84	65.78
2007	48.75	71.50
2008	60.85	178.3
2009	49.89	144.51
2010	52.05	153.66
2011	54.21	162.81
2012	56.37	171.96
2013	58.53	181.11

*Source: See in Annex XII & XIV*

The above table no. 4.34 shows the net profit of NSBI and NBBL for the year 2009 to 2013. The net profit trend is in increasing trend. Net profit of NSBI will be Rs. 49.89m, Rs. 52.05m, Rs 54.21m, Rs, 56.37, and Rs. 58.53m for the year 2009 to 2013. Similarly, the net profit of NBBL will be Rs. 144.51m, Rs. 153.66m, Rs. 162.81, Rs. 171.96m, Rs.181.11m for the year 2009 to 2013. It is also in increasing trend.

**Figure No. : 4.8**

**Estimation of Profit for the years 2009 to 2013**



**C. Test of Hypothesis:**

Under this topic, effort has been made to test the significance regarding the parameter of the population on the basis of the sample drawn from the population. Some main hypothesis tests are calculated and decisions are made.

Null Hypothesis ( $H_0$ ):  $\hat{\mu}_1 = \hat{\mu}_2$  i.e. there is no significant difference between mean.

Alternative Hypothesis ( $H_1$ ):  $\hat{\mu}_1 \neq \hat{\mu}_2$  there is significant difference between mean.

**t-test**

When a sample is less than 30, generally it is used t-test for small size test, if we use as a large one then is chance of occurring type I error. On this study sampling are taken only for seven years i.e., ( $7 < 30$ ) so we used t-test. The calculation and decision are analyzed here.

**i. Test of hypothesis on loans and advance to total deposit ratios between NBBL and NSBI.**



	NSBI ( $\bar{X}_1$ )	NBBL ( $\bar{X}_2$ )
Mean	72.19	82.51
S.D.	7.45	8.15
n	7	7

**Null Hypothesis ( $H_0$ ):**  $\hat{\mu}_1 = \hat{\mu}_2$  i.e. there is no significant difference between mean ratios of loan and advances to total deposit ratio of NSBI and NBBL.

**Alternative Hypothesis ( $H_1$ ):**  $\hat{\mu}_1 \neq \hat{\mu}_2$  there is significant difference between mean ratios of loan and advances to total deposit ratio of NSBI and NBBL.

Under null hypothesis, test statistics is:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$\text{Where, } S = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}}$$

$$S = \sqrt{\frac{(7 - 1)(7.45)^2 + (7 - 1)(8.15)^2}{7 + 7 - 2}}$$

$$S = 7.81$$

$$\text{Now, } t = \frac{72.19 - 82.51}{7.81 \sqrt{\frac{1}{7} + \frac{1}{7}}}$$

$$t_{\text{cal}} = -2.09$$

Hence,  $|t| < 2.09$

$$\text{Degree of freedom (d.f.)} = n_1 + n_2 - 2 = 7 + 7 - 2 = 12$$

Level of Significance ( $\alpha$ ) = 0.05

The tabulated value of  $t_{0.05}(12) = 2.18$

**Decision:** Since calculated value (2.09) is less than tabulated value (2.18), null hypothesis is accepted. That means there is no significant difference between the mean loan and advances to total deposit ratio of NSBI and NBBL.

**ii. Test of hypothesis on total investment to total deposit ratio of NSBI and NBBL.**

	NSBI ( $\bar{X}_1$ )	NBBL ( $\bar{X}_2$ )
Mean	14.41	10.63
S.D.	8.54	9.28
n	7	7

**Null Hypothesis ( $H_0$ ):**  $\hat{\mu}_1 = \hat{\mu}_2$  i.e. there is no significant difference between mean ratios of total investment to total deposit ratio of NSBI and NBBL.

**Alternative Hypothesis ( $H_1$ ):**  $\hat{\mu}_1 \neq \hat{\mu}_2$  there is significant difference between mean ratios of total investment to total deposit ratio of NSBI and NBBL.

Under null hypothesis, test statistics is:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$\text{Where, } S = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}}$$

$$= \sqrt{\frac{(7 - 1)(8.54)^2 + (7 - 1)(9.28)^2}{7 + 7 - 2}}$$

$$S = 8.92$$

$$\text{Now, } t = \frac{14.41 - 10.63}{8.92 \sqrt{\frac{1}{7} + \frac{1}{7}}}$$

$$t_{\text{cal}} = 1.51$$

$$\text{Degree of freedom (d.f.)} = n_1 + n_2 - 2 = 7 + 7 - 2 = 12$$

Level of Significance ( $\alpha$ ) = 5%

The tabulated value of  $t_{0.05}(12) = 2.18$

**Decision:** Since, the calculated value  $t_{\text{cal}} = 1.51$  is less than tabulated value = 2.18. The null hypothesis is accepted i.e. there is no significance difference

between mean ratio of total investment to total deposit ratio of NSBIL and NBBL.

**iii. Test of hypothesis of interest earned to total outside assets ratio of NSBI and NBBL.**

	NSBI ( $\bar{X}_1$ )	NBBL ( $\bar{X}_2$ )
Mean	9.76	9.61
S.D.	2.40	2.86
n	7	7

**Null Hypothesis ( $H_0$ ):**  $\hat{\mu}_1 = \hat{\mu}_2$  i.e. there is no significant difference between mean ratios of interest earned to total out side assets ratio of NSBI and NBBL.

**Alternative Hypothesis ( $H_1$ ):**  $\hat{\mu}_1 \neq \hat{\mu}_2$  there is significant difference between mean ratios of interest earned to total out side assets ratio of NSBI and NBBL.

Under null hypothesis, test statistics is:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$\text{Where, } S = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}}$$

$$= \sqrt{\frac{(7 - 1)(2.4)^2 + (7 - 1)(2.86)^2}{7 + 7 - 2}}$$

$$S = 2.64$$

$$\text{Now, } t = \frac{9.76 - 9.61}{2.64 \sqrt{\frac{1}{7} + \frac{1}{7}}}$$

Calculated value of t ( $t_{cal}$ )=0.11

Degree of freedom (d.f.) =  $n_1 + n_2 - 2 = 7 + 7 - 2 = 12$

Level of Significance ( $\alpha$ ) = 5%

The tabulated value of  $t_{0.05}(12) = 2.18$

**Decision:** Since, the calculated value  $t_{cal.} = 0.11$  is less than tabulated value  $t_{tab} = 2.18$ . The null hypothesis is accepted i.e. there is no significance difference between mean ratio of interest earned to total outside assets ratio of NSBIL and NBBL.

Mean financial Ratios of NSBI and NBBL

**Liquidity Ratio:**

	<b>NSBI</b>	<b>NBBL</b>
<b>1. Cash &amp; bank balance to total deposit %</b>		
2. Total liquid fund to total deposit %	23.64	14.77

**Assets Management Ratio:**

1.Loan & Adv. To total deposit %	72.19	82.51
2.Total investment to total deposit %	12.41	10.63
3.Total outside assets to total deposit %	84.60	91.49
4.Time deposit to total deposit %	51.90	56.88

**Capital adequacy Ratio:**

1. Capital to total deposit %	6.73	5.46
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**Risk Ratio:**

1.Capital risk ratio %	5.96	3.90
2.Interest risk ratio %	94.95	88.65
3.Credit risk ratio %	68.65	65.69

**Profitability Ratio:**

1. Return on total loan & adv. Ratio %	1.10	2.11
2. Return on equity %	14.70	35.64
3.Total interest to total outside assets %	9.76	9.61

**Growth Ratio:**

Total deposit %	11.57	32.44
Loan & Advance %	14.89	31.78
Total Investment %	18.52	175.39
Net Profit %	0.52	19.64

## 4.6 Major Findings

Deposit, loan and investment structure of Nepalese commercial banks:

- From the average deposit of seven years study period there is a increase of 23.99% in 2003 and in 2004 it decreased to 21.91%, in the FY 2005 it is decreased to 17.31%, the growth rate reached to 2.96% in the FY 2006, then after the growth rate is increased up to 8.94% in 2007 and increased up to 14.86% in FY 2008. The growth rate of deposit is in fluctuating trend.
- The average percentage growth in loan and advances of commercial banks in 2003 is 19.15% it decreases to 17.82% in 2004. The growth rate continuously decreases till 2004 i.e. 3.71%, but it increased to 10.03% in 2007 and it reached to 12.45% in 2008. There is an increasing growth of credit in commercial banks.
- A continuous rising trend in growth rate of investments has been observed since 2005. After 2005 growth rate of investment is in declining trend. It shows that banks are investing more amounts in loan and advances rather than invest in other field.
- The interest rates on deposit and lending have been decreasing for commercial banks these days.

The above analysis results shows the deposits and its mobilization by commercial banks are not stable. They are not caring more profit for commercial bank because interest rates on lending have been decreasing. The increasing deposits are idle in the banks. Commercial banks earn small interest income but they must have to pay more interest expenses than interest income.

### **B. Sources and uses of funds of Nepal SBI Bank Limited**

Deposit of NSBI is in fluctuating trend during the study period. The growth rate reduced in FY 2003/04 to 4.15%. But it increases to 45.68% in FY 2004/05. The bank takes measures against it, which results to negative growth

of deposit in 2005/06 i.e. 15.81%. In FY 2006/07 it increased to 17.06% and in FY 2007/08 it again decreased to 10.87%.

- Nepal SBI Bank Limited mobilizes its deposit as investment in Government securities and in share and debenture. NSBI Bank Limited invest more amount in government securities than in share and debenture.
- NSBI Bank Limited mobilize its deposit as loan and advances in different sector i.e. government enterprises, private sector and other sector then after to government enterprises and lastly to other sector.
- Interest income of NSBI Bank Limited is in increasing trend except in the year 2006.
- An interest expense of NSBI Bank Limited is in fluctuating trend.
- Net interest margin rate of NSBI Bank Limited is also in fluctuating trend till 2006 then after it is in increasing trend.

In Nepal SBI Bank's deposits increased highly till 2004/05, which leads to improve bank's policy in 2005/06. NSBI was successful in decreasing its high deposit, but again it increased in FY 2004/05 and FY 2005/06. In other side, growth rate of loan and advances are in decreasing trend. So, banks are investing their excess fund in other sectors like government securities.

### **C. Sources and uses of fund of NBBL**

The deposits rate of NBBL is in fluctuating trend. The amount of deposit is continuously increasing during the study period even through there is a decline in growth rate.

- NB Bank Limited invests its deposits in government securities and share and debenture. NB Bank Limited mobilizes its deposit in government securities is more than in share and debenture.
- NB Bank Limited provides loan to government enterprises, private sector and other sectors. NB Bank Limited mobilizes its higher portion

of deposit as loan and advances in private sector, then after in other sector and lastly in government enterprises.

- Interest income of NB Bank Limited is in increasing trend it is good situation for the bank.
- An interest expense of NB Bank Limited is also in increasing trend.
- Net interest margin rate of NB Bank Limited is in fluctuating trend. It is negative in the year 2004 it means bank bear more interest expenses than interest income.

In case of NBBL, it shows that the percentage growth in loan and advances is lower than investment. The increasing investment and reducing loans and advances from total deposits are great problem for the banks to manage. The fluctuation in deposit, loan and advances and investment makes clear about adjustment problem for the banks.

#### **A. Liquidity Ratio**

- The mean ratio of cash and bank balance to deposit ratio of NSBI is slightly higher than NBBL. It shows that the liquidity position of NSBI is better than NBBL. NSBI has higher capacity to meet the current obligation than NBBL.
- The mean ratio of total liquid fund to total deposit ratio of NSBI has been found higher than that of NBBL. It shows that the short-term obligation capacity of NSBI is very strong than NBBL.

The above result shows that the liquidity position of NSBI is better than the of NBBL. It may be in a good position to meet the daily cash requirement but it has to bear high cost of fund. At last, it can be concluded that NSBI has good liquidity position.

## **B. Assets Management Ratio**

- ❑ Loan and advances to total deposit ratio of NBBL is higher than that of NSBI. It shows that NBBL has done better mobilization of deposit.
- ❑ The mean ratio of total investment to total deposit ratio of NSBI is higher than that of NBBL. This shows that NSBI has made higher investment.
- ❑ The mean ratio of total outside assets to total deposit ratio of NBBL is higher than that of NSBI. It shows that NBBL has better capacity of mobilizing the funds collected as deposit.
- ❑ The mean ratio of time deposit to total deposit ratio of NBBL is higher than that of NSBI. NBBL has higher ratio it shows that.

In overall study of asset management ratio it can be concluded that NSBI Bank Ltd. is comparatively successful in its deposit mobilization.

## **C. Capital Adequacy Ratio**

The mean ratio of capital to total deposit ratio of NSBI Bank Limited is higher than that of NB Bank Limited. It shows that NSBI Bank Limited is in strong position.

From the above finding, it helps to concluded that NSBI Bank Limited is in better position. It has more capital funds, which denote the banks financial position is strong because even in the distressed situation, NSBI Bank Limited will be in a position of return money of depositors.

### **i. Risk Ratio**

- ❑ The mean ratio of capital risk ratio of NSBI Bank Limited is higher than that of NB Bank Limited. It shows that NSBI Bank Limited can earn more profit than that of NB Bank Limited.
- ❑ The mean ratio of interest rate risk ratio of NSBI Bank Limited is higher than that of NB Bank Limited. It shows that it is less volatile (stable) than that of NB Bank Limited.



- The mean ratio of credit risk ratio of NSBI Bank Limited is higher than NB Bank Limited.

The overall study of risk ratio shows that risk ratio of NSBI Bank Limited is higher than mean it is giving due consideration in increment of profit through the increment of deposit.

### **E. Profitability Ratio**

The major findings from this ratio are as follows:

- The mean ratio of return on total loan and advance ratio of NB Bank Limited is higher than that of NSBI Bank Limited.
- The mean ratio of return on equity ratio of NB Bank Limited is higher than that of NSBI Bank Limited. It shows that NB Bank Limited is pleasing to the shareholders.
- The mean ratio of total interest earned to total outside asset ratio of NSBI Bank Limited is slightly higher than that of NB Bank Limited.

From the profitability analysis, it can be concluded that NB Bank Limited has higher profitability ratio. So, NB Bank Limited has higher efficiency. But it shows that NSBI Bank Limited is really facing the problems in investing their excess funds in profitable loans and advances.

### **F. Growth Ratio**

The major findings from this ratio are as follows:

- The growth ratio of total deposits of NB Bank Limited is higher than of NSBI Bank Limited. It shows that the performance in collecting deposit of NB Bank Limited is in better condition comparison to the NSBI Bank Limited.

- The growth ratio of loan and advances of NB Bank Limited is also higher than that of NSBI Bank Limited. It shows that the performance of NB Bank Limited is continuously improving.
- The growth ratio of investment of NB Bank Limited is giving priority in the investment sector.
- The growth ratio of net profit of NB Bank Limited is also higher than that of NSBI Bank Limited.

From the above findings it is found that NB Bank Limited is in better position than NSBI Bank Limited.

### **Coefficient of Correlation**

The major findings from coefficient of correlation are as follows:

- Coefficient of correlation between deposit and loan and advances fund that it is positive of both banks, which indicate that increase in deposit will increase in loan and advances. The study also suggests that independent variable that is loan and advances are highly depend to the deposit.
- Correlation on coefficient between deposit and investment of both banks is found that it is also positive and it is directly related to the deposit.
- Correlation of correction between outside asset and net profit found that it is positive of both banks, which indicates that increase in outside assets will increase in net profit.

From the above findings, it can be concluded that there is significant relationship between deposit, investment and loan and advance and outside assets and net profit of both banks.

### **Trend Analysis**

- The deposit of both banks is in increasing trend. The deposit of NB Bank Limited in next 5 years will be Rs. 21198.72 million and it will be

Rs. 10028.53 million of NSBI Bank Limited. In future NB Bank Limited will be able to collect more deposit i.e. almost as twice as that of NSBI Bank Limited. NB Bank Limited is found that it is better than NSBI Bank Limited in the sense of collecting deposit.

- The loan and advances of NB Bank Limited in next 5 years will be Rs. 17438.96 million and it will be Rs. 8032.85 million of NSBI Bank Limited. It shows that NSBI Bank Limited will be able to mobilize more funds in the future.
- The total investment of NB Bank Limited in next 5 years will be Rs. 4407.71 million and it will be Rs. 2426 million of NSBI Bank Limited. It shows that NB Bank Limited will be able to mobilize more funds in the future in the investment sector.
- The net profit of NB Bank Ltd. in next 5 yrs. Will be Rs 58.53 M and it will be Rs. 181.11 M of NSBI Bank Ltd. It shows that NSBI Bank Ltd. will be able to earn more profit in the future.

#### **t-test Result**

- There is no significant difference between mean ratio of loan and advances to total deposit ratio of NSBI Bank Limited and NB Bank Limited.
- There is no significant difference between mean ratio of total investment to total deposit ratio of NSBI Bank Limited and NB Bank Limited.
- There is on significant difference between mean ratio of interest earned to total outside assets ratio of NSBI Bank Limited and NB Bank Limited.

From the above findings, it can be concluded that there is no significant difference between two bank's ratios.

## **CHAPTER – V**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Summary**

The purpose of this study has been to investigate the deposit mobilization procedure of Nepal SBI Bank Limited and Nepal Bangladesh Bank Limited. This study is based on secondary data only. The necessary data has been collected for the period of 2002-2004. In this study, the various analysis and interpretation have been done. The financial calculations have been done by using financial tools i.e. Ratio Analysis, Liquidity Ratio, Assets Management Ratio, Capital Adequacy Ratio, Risk Ratio, Profitability Ratio and Growth Ratio. Statistical calculation have been done by using statistical tools like mean, S.D., C.V., Coefficient of correlation, trend analysis and hypothesis.

Commercial banks collect deposit, an idle fund in the market and grant it to the needy person for the productive use. A bank must maintain sound relation between credit and liquidity. Deposit collection and its mobilization as credit is the major function of commercial bank it is the main duty of commercial bank to mobilize the fund optimally. A commercial bank mainly focuses on its two function i.e. collection of deposit through various schemes and granting those amounts as loan to the client by providing various facilities. Commercial banks need to keep the optimum ration between deposit collection procedure and investment policy. A deposit is that liabilities of the commercial banks which is returnable at any time. So, sound investment policy has appeared to be very necessary to the commercial bank. The commercial banks in Nepal are facing the problem in investing in loan and advances. Due to various internal and external factors the banks are not making open investments. Deposits are being excess and idle in these banks.

In the case of NB Bank Limited has collected deposit amounting Rs. 12747.3 million mobilized as loan and advances Rs. 10253.6 million and mobilized as

investment Rs. 2617.3 million and made the net profit Rs. 71.50 million in the FY 2007/08. Similarly NSBI Bank Limited has collected Rs. 7232.1 million and mobilized as loan and advances Rs. 5552.5 million and mobilized as investment Rs. 1889.4 million and made the net profit Rs. 60.85 million in the FY 2007/08. A bank must not forget that deposit is not its own balance but it is repayable so, it has seen that commercial bank must care of deposit and must invest in the productive area. Deposit mobilization plays vital role to survive in the market. Commercial banks' life is totally depend upon the deposit collection policy and the optimum mobilization procedure. Therefore these banks should formulate new strategies.

## **5.2 Conclusion**

In conclusion deposits and its mobilization by commercial banks are not stable. The generalizations that can be made from these findings are limited, as tests were undertaken for only two banks i.e. NSBI Bank Limited and NB Bank Limited. Deposit is the major factor of commercial bank to live in the industry higher the deposit higher will be the chance of the mobilization of deposit and from this bank can earn more profit. The commercial banks in Nepal are facing the problem in investing in loan and advances. Due to internal and external factors the banks are not making open investments. Deposits are being excess and idle in these banks. Bank should not invest their fund haphazardly. It should be careful while advancing loan because loan as the blood of the commercial banks for survival. If commercial bank does not apply sound investment policy it will be in great trouble in future to collect it in time, hence the possibility of bankruptcy thereto.

They are not earning more profit for commercial banks. The increasing deposits are idle in the banks. Commercial banks earn small interest income but they must have to pay more interest expenses than interest income.

The increasing investment and reducing loans and advances from total deposits are great problem for the banks to manage. The fluctuation in deposit, loan and advances and investment makes clear about adjustment problem for the banks. Nepal SBI Bank Limited deposit is in fluctuating trend. Nepal SBI Bank's deposit increased highly till 2004/05, which leads to improve bank's policy. In 2005/06 NSBI Bank Limited was successful in decreasing its high deposit, but still deposits are in increasing trend. Loan and advances are also in fluctuating trend. Investment of NSBI Bank Limited is in increasing trend. It shows that NSBI Bank Limited is investing their excess fund in other sectors. In case of NB Bank Limited percentage growth of loan and advances is lower than investment. The liquidity position of NSBI Bank Limited is better than that of NB Bank Limited. It may be in a good position to meet the daily cash requirement but it has to bear high cost of fund. NSBI Bank Limited is combatively successful in this deposit mobilization because asset management ratio of NSBI Bank Limited has higher than NSBI Bank Limited. It shows that NB Bank Limited has higher efficiency and NSBI Bank Limited is really facing the problems in investing their excess fund in profitable loan and advances. Growth ratio also shows that NB Bank Limited is in better position than NSBI Bank Limited. Coefficient of correlation analysis shows that there is significant relationship between deposit, investment and loan and advances and outside assets and net profit of both banks. Hypothesis is test shows that there is no significant difference between two bank's mean ratios.

### **5.3 Recommendation**

On the basis of analysis and findings of the study, following recommendation can be advanced to overcome weakness, inefficiency and improve present fund mobilization of Nepalese commercial banks with regards to NSBI Bank Limited and NB Bank Limited.

### **5.3.1 Recommendation to Nepal SBI Bank Limited**

- ) Return on loan and advances ratio of NSBI Bank Limited is lower than NB Bank Limited. So, it is recommended to utilize its risky assets and shareholder's fund to gain highest profit margin.
- ) Loan and advances is the largest item of the bank in the asset side of balance sheet which is risky and more profitable too. To be a successful banker a bank must utilize depositors' money as loan and advances. The study shows that loan and advance to total deposit ratio of NSBI Bank Limited is lower than that of NB Bank Limited. To overcome this situation NSBI Bank Limited is strongly recommended to follow the liberal policy and invest its more and more funds in loan and advances.
- ) Deposit collection of NSBI Bank Limited is low comparison to NB Bank Limited is recommended to collect the deposit by initiating various new programs to attract the customer for this it can pay higher interest rate than other banks recently providing.

### **5.3.2 Recommendation to Nepal Bangladesh Bank Limited**

- ) As NB Bank Limited has maintained the ratio of cash and bank balance to total deposit lower than that of NSBI Bank Limited, it is recommended to increase cash and bank balance to meet current obligations and loan demand.
- ) NB Bank Limited has given priority in investment in treasury bills which is risk free but it yields very low return to the bank. So, it is recommended to advance the loan for the profitable project.
- ) NB Bank Limited has not mobilized its funds much more toward private sector in comparison with NSBI Bank Limited. It has highest investment chance of default of payment. The increment of bad loans in NB Bank Limited may have come through the government enterprises. So, it is recommended to be careful while advancing loans to the government enterprises.

### 5.3.3 General Recommendation

- ) Nepal is full of poor people where there is less saving considering it NSBI Bank Limited and NB Bank Limited should target their business segment on the middle family. For this they have to keep the affordable minimum balance to open the account, which will help to expand customer and deposit amount.
- ) The commercial banks i.e. NSBI Bank Limited and NB Bank Limited should go for some new areas of investment like hydro electricity and infrastructure development of the economy as well as banks' operation.
- ) Commercial banks i.e. NSBI Bank Limited and NB Bank Limited are suggested to follow decentralization policy and formulate new plans and policies to develop banks' credit operation.
- ) Commercial banks i.e. NSBI Bank Limited and NB Bank Limited are recommended to activate for increasing foreign investment in Nepal by means of their wide international banking network.
- ) It is recommended that NSBI Bank Limited and NB Bank Limited should develop innovative approach to banks marketing for its well being and sustainability in the market, upgrade the banking facilities as per the changing need of the customers.
- ) Lastly, NSBI Bank Limited and NB Bank Limited are suggested to support the social welfare event to promote the business.



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## APPENDIX – A

$D_n$  = Total Deposit for n year

$D_0$  = Total initial deposit

$g$  = Growth

$N = 7$

Now, We have

$$D_n = D_0 (1 + G)^{n-1}$$

$$D_{2004} = D_{1998} (1 + g)^{7-1}$$

$$7232.1 = 3749.1 (1+g)^6$$

$$(1 + g)^6 = \frac{7232.1}{3749.1}$$

$$(1 + g)^6 = 1.9290$$

$$1 + g = (1.9290)^{1/6}$$

$$1 + g = 1.1157$$

$$g = 1.1157 - 1$$

$$\dots g = 11.57\%$$

Other Ratios are calculated by the same procedure



## APPENDIX – I

### NSBI

#### Correlation between Deposit and Loan and Advances

(Rs. in Million)

Year	Deposit (X)	Loan & Adv. (Y)	(X- $\bar{X}$ )	(Y- $\bar{Y}$ )	(X- $\bar{X}$ ) <sup>2</sup>	(Y- $\bar{Y}$ ) <sup>2</sup>	(X- $\bar{X}$ )(Y- $\bar{Y}$ )
2002	2361.9	1957.6	-5402.5	-4348.56	29187006.25	18909974.07	23493095.4
2003	4145.2	3258.7	-3619.2	-3047.46	13098608.64	9287012.45	11029367.23
2004	6455.6	4611.8	-1308.8	-1694.36	1712957.49	2870855.81	2217578.37
2005	8578.8	7347.9	814.4	1041.24	663247.36	1084180.74	847985.86
2006	9514.0	8222.1	1749.6	1915.94	3061100.16	3670826.08	3352128.62
2007	10548.0	8491.9	2783.6	2189.74	7748428.96	4777459.35	6084225.86
2008	12747.3	10253.6	4982.9	3947.44	24829292.41	15582282.55	196696898.78
Total					80300641.22	56182591.05	66694080.12

$$\bar{X} = \frac{\sum X}{n} = \frac{54350.8}{7} = 7764.40$$

$$\bar{Y} = \frac{\sum Y}{n} = \frac{44143.1}{7} = 6306.16$$

$$(\sum (X - \bar{X})^2) = 80300641.22$$

$$(\sum (Y - \bar{Y})^2) = 56182591.05$$

$$(\sum (X - \bar{X})(Y - \bar{Y})) = 66694080.12$$

Correlation co-efficient can be calculated by using following formula:

$$\begin{aligned}r &= \frac{(\sum XZ)(\sum YZ)}{(\sum XZ)^2 (\sum YZ)^2} \\&= \frac{66694080.12}{\sqrt{80300641.22 \mid 56182591.05}} \\&= \frac{66694080.12}{67167686.33} \\&= 0.9929\end{aligned}$$

Calculated of Probable Error (P.Er)

$$\begin{aligned}\text{P.Er.} &= 0.6745 \mid \frac{(1 Z r^2)}{\sqrt{N}} \\&= 0.6745 \mid \frac{(1 Z 0.9859)}{\sqrt{7}} \\&= 0.00359\end{aligned}$$



## APPENDIX – II

### NBBL

#### Correlation between Deposit and Loan and Advances

(Rs. in Million)

Year	Deposit (X)	Loan & Adv. (Y)	(X- $\bar{X}$ )	(Y- $\bar{Y}$ )	(X- $\bar{X}$ ) <sup>2</sup>	(Y- $\bar{Y}$ ) <sup>2</sup>	(X- $\bar{X}$ )(Y- $\bar{Y}$ )
2002	3749.1	2414.9	-1765.19	-1584.27	3115895.736	2509911.433	2796537.561
2003	4362.2	3930.4	-1152.09	-1068.17	1327311.368	1142269.313	1231319.229
2004	4543.2	3560.1	-971.09	-439.07	943015.7881	192782.4649	426376.4863
2005	6618.4	4176.3	1104.11	177.13	1219058.892	31375.0369	195571.0043
2006	9572.2	4593.9	57.91	594.73	3353.5681	353703.7729	34440.8143
2007	6522.8	4766.1	1008.51	766.93	1017092.42	588181.6249	773456.5743
2008	7232.1	5552.5	1717.81	1553.33	2950871.196	2412834.089	2668325.807
Total					10576598.97	7231057.734	8126027.477

$$\bar{X} = \frac{\sum X}{n} = \frac{38600}{7} = 5514.29 \quad \bar{Y} = \frac{\sum Y}{n} = \frac{27994.2}{7} = 3999.17$$

$$(\sum (X - \bar{X})^2) = 10576598.97$$

$$(\sum (Y - \bar{Y})^2) = 7231057.734$$

$$(\sum (X - \bar{X})(Y - \bar{Y})) = 8126027.477$$

Correlation co-efficient can be calculated by using following formula:

$$\begin{aligned}r &= \frac{(\sum XZ)(\sum YZ)}{(\sum XZ)^2 (\sum YZ)^2} \\&= \frac{8126027.477}{\sqrt{10576598.97} \sqrt{7231057.734}} \\&= \frac{8126027.477}{8745284.317} \\&= 0.9292\end{aligned}$$

Calculated of Probable Error (P.Er)

$$\begin{aligned}\text{P.Er.} &= 0.6745 \sqrt{\frac{(1 - r^2)}{N}} \\&= 0.6745 \sqrt{\frac{(1 - 0.8634)}{7}} \\&= 0.0348\end{aligned}$$

### APPENDIX – III

#### NSBI

#### Correlation between Deposit and Investment

(Rs. in Million)

Year	Deposit (X)	Loan & Adv. (Y)	(X- $\bar{X}$ )	(Y- $\bar{Y}$ )	(X- $\bar{X}$ ) <sup>2</sup>	(Y- $\bar{Y}$ ) <sup>2</sup>	(X- $\bar{X}$ )(Y- $\bar{Y}$ )
2002	3749.1	681.6	-1765.19	-43.74	3115895.736	1913.1876	77209.4106
2003	4362.2	202.6	-1152.09	-522.74	1327311.368	273257.1076	602243.5266
2004	4543.2	201.8	-971.09	-523.54	943015.7881	274094.1316	508404.4586
2005	6618.4	373.6	1104.11	-351.74	1219058.892	123721.0276	-388359.6519
2006	5572.2	521.1	57.91	-204.24	3353.5681	41713.9776	-11827.5384
2007	6522.8	1207.3	100.51	481.96	1017092.42	232285.4416	486061.4796
2008	7232.1	1889.4	1717.81	1164.06	2950871.196	1355035.684	1999633.909
Total					10576598.97	2302020.557	3273365.594

$$\bar{X} = \frac{\sum X}{n} = \frac{38600}{7} = 5514.29 \quad \bar{Y} = \frac{\sum Y}{n} = \frac{5077.4}{7} = 725.34$$

$$(\sum (X - \bar{X})^2) = 10576598.97$$

$$(\sum (Y - \bar{Y})^2) = 2302020.557$$

$$(\sum (X - \bar{X})(Y - \bar{Y})) = 3273365.594$$

Correlation co-efficient can be calculated by using following formula:

$$\begin{aligned}r &= \frac{(\sum XZ)(\sum YZ)}{(\sum XZ)^2 (\sum YZ)^2} \\&= \frac{3273365.594}{\sqrt{10576598.97} \sqrt{2302020.557}} \\&= \frac{3273365.594}{4934323.485} \\&= 0.6634\end{aligned}$$

Calculated of Probable Error (P.Er)

$$\begin{aligned}\text{P.Er.} &= 0.6745 \sqrt{\frac{(1 - r^2)}{N}} \\&= 0.6745 \sqrt{\frac{(1 - 0.4901)}{7}} \\&= 0.1427\end{aligned}$$

## APPENDIX – IV

### NBBL

#### Correlation between Deposit and Investment

(Rs. in Million)

Year	Deposit (X)	Loan & Adv. (Y)	(X- $\bar{X}$ )	(Y- $\bar{Y}$ )	(X- $\bar{X}$ ) <sup>2</sup>	(Y- $\bar{Y}$ ) <sup>2</sup>	(X- $\bar{X}$ )(Y- $\bar{Y}$ )
2002	2361.9	6.0	-5402.5	-990.51	29187006.25	981110.0601	5351230.275
2003	4145.2	708.7	-3619.2	-287.81	13098608.64	82834.5961	1041641.952
2004	6455.6	60.0	-1308.8	-936.51	1712957.44	877050.980	1225704.288
2005	8578.8	277.5	814.4	-719.01	663247.36	516975.3801	-585561.744
2006	9514.0	1029.4	1749.6	753.09	3061100.16	567144.5481	1317606.264
2007	10548.0	2276.7	2783.6	1280.19	7748428.96	1638886.436	3563536.884
2008	12747.3	2617.3	4982.9	1620.79	2482929.41	2626960.224	8076234.491
Total					80300641.22	7290962.225	19990392.41

$$\bar{X} = \frac{\sum X}{n} = \frac{54350.8}{7} = 7764.40$$

$$\bar{Y} = \frac{\sum Y}{n} = \frac{6975.60}{7} = 996.51$$

$$(\sum (X - \bar{X})^2) = 80300641.22$$

$$(\sum (Y - \bar{Y})^2) = 7290962.225$$

$$(\sum (X - \bar{X})(Y - \bar{Y})) = 19990392.41$$

Correlation co-efficient can be calculated by using following formula:

$$\begin{aligned} r &= \frac{(\sum XZ)(\sum YZ)}{(\sum XZ)^2 (\sum YZ)^2} \\ &= \frac{19990392.41}{\sqrt{80300641.22 \mid 7290962.225}} \\ &= \frac{19990392.41}{24196465.48} \\ &= 0.8262 \end{aligned}$$

Calculated of Probable Error (P.Er)

$$\begin{aligned} \text{P.Er.} &= 0.6745 \mid \frac{(\sum Zr^2)}{\sqrt{N}} \\ &= 0.6745 \mid \frac{(\sum Z0.6826)}{\sqrt{7}} \\ &= 0.0809 \end{aligned}$$

## APPENDIX – V

### NSBI

#### Correlation between Outside Asset and Net Profit

(Rs. in Million)

Year	Deposit (X)	Loan & Adv. (Y)	(X- $\bar{X}$ )	(Y- $\bar{Y}$ )	(X- $\bar{X}$ ) <sup>2</sup>	(Y- $\bar{Y}$ ) <sup>2</sup>	(X- $\bar{X}$ ) (Y- $\bar{Y}$ )
2002	3096.5	589.77	-1628.01	177.93	2650416.56	31659.0849	-289671.8193
2003	3133	163.11	-1591.51	-248.73	2532904.08	61866.6129	395856.2823
2004	3761.9	500.65	-962.61	88.81	926618.0121	7887.2161	-85489.3941
2005	4549.9	124.90	-174.61	-286.94	30488.6521	82334.5636	50102.5934
2006	5115	408.44	390.49	-3.4	152482.4401	11.56	-1327.666
2007	5973.4	487.48	1248.89	837.05	1556726.232	700652.7025	1045383.375
2008	7441.9	608.52	2717.39	196.68	7384208.412	38683.0224	534456.2652
Total					15236844.39	923094.7624	1649309.636

$$\bar{X} = \frac{\sum X}{n} = \frac{33071.6}{7} = 4729.51$$

$$\bar{Y} = \frac{\sum Y}{n} = \frac{2882.87}{7} = 411.84$$

$$(\sum (X - \bar{X})^2) = 15236844.39$$

$$(\sum (Y - \bar{Y})^2) = 923094.7624$$

$$(\sum (X - \bar{X})(Y - \bar{Y})) = 1649309.636$$

Correlation co-efficient can be calculated by using following formula:

$$\begin{aligned}r &= \frac{(\sum XZ)(\sum YZ)}{(\sum XZ)^2 (\sum YZ)^2} \\&= \frac{1649309.636}{\sqrt{15236844.39} \sqrt{923094.7624}} \\&= \frac{1649309.636}{3750340.151} \\&= 0.4398\end{aligned}$$

Calculated of Probable Error (P.Er)

$$\begin{aligned}\text{P.Er.} &= 0.6745 \sqrt{\frac{1 - r^2}{N}} \\&= 0.6745 \sqrt{\frac{1 - 0.1934}{7}} \\&= 0.2056\end{aligned}$$



## APPENDIX – VI

### NBBL

#### Correlation between Outside Asset and Net Profit

(Rs. in Million)

Year	Deposit (X)	Loan & Adv. (Y)	(X- $\bar{X}$ )	(Y- $\bar{Y}$ )	(X- $\bar{X}$ ) <sup>2</sup>	(Y- $\bar{Y}$ ) <sup>2</sup>	(X- $\bar{X}$ )(Y- $\bar{Y}$ )
2002	1963.6	60.76	-5339.07	-53.12	28505668.46	2821.73	283611.40
2003	3967.4	82.73	-3335.27	72.64	11124025.97	5276.57	-242274.01
2004	4671.8	139.54	-2630.87	25.63	6921476.96	656.90	-67429.20
2005	7624.9	198.75	322.23	84.84	103832.17	7197.83	27337.99
2006	9251.5	65.78	1948.83	-48.13	3797938.37	2316.50	-93797.19
2007	10768.6	71.50	3465.93	-42.41	12012670.76	1798.61	-146990.09
2008	12870.9	178.30	5568.23	64.39	31005185.33	4146.07	358538.33
Total	51118.7	797.39			93470798.02	24214.21	118997.23

$$\bar{X} = \frac{\sum X}{n} = \frac{51118.7}{7} = 7302.67$$

$$\bar{Y} = \frac{\sum Y}{n} = \frac{797.39}{7} = 113.91$$

$$(\sum (X - \bar{X})^2) = 93470798.02$$

$$(\sum (Y - \bar{Y})^2) = 24214.21$$

$$(\sum (X - \bar{X})(Y - \bar{Y})) = 118997.23$$

Correlation co-efficient can be calculated by using following formula:

$$\begin{aligned}r &= \frac{(\sum XZ)(\sum YZ)}{(\sum XZ)^2 (\sum YZ)^2} \\&= \frac{118997.23}{\sqrt{93470798.02} \cdot 24214.21} \\&= \frac{118997.23}{475034.878} \\&= 0.2505\end{aligned}$$

Calculated of Probable Error (P.Er)

$$\begin{aligned}\text{P.Er.} &= 0.6745 \cdot \frac{(\sum Zr^2)}{\sqrt{N}} \\&= 0.6745 \cdot \frac{(\sum Z0.0628)}{\sqrt{7}} \\&= \mathbf{0.2389}\end{aligned}$$

## APPENDIX – VII

### Estimation of Deposit for the Year 2009 to 2013 of NSBI

*(Rs. in Million)*

Year	Deposit (Y)	Year (X)	XY	X <sup>2</sup>
2002	3749.1	1	3749.7	1
2003	4362.2	2	8724.4	4
2004	4543.2	3	13629.6	9
2005	6618.4	4	26473.6	16
2006	5572.2	5	27861.0	25
2007	6822.8	6	39136.8	36
2008	7232.1	7	50624.7	49
<b>Total</b>	<b>38600</b>	<b>28</b>	<b>170199.8</b>	<b>140</b>

Here, Actual equation of the linear trend is  $y = a + bx$

Two normal equation are:

$$Y = n a + b x$$

$$XY = a X + b X^2$$

Putting the values on normal equation from the above table

$$38600 = 7 a + 28 b \dots\dots\dots(i)$$

$$170199.8 = 28 a + 140 b \dots\dots\dots(ii)$$

To solve the above equation we multiply equation (i) by y and subtract, we get:

$$\begin{aligned}
 154400 &= 28 a + 112 b \\
 - 170199.8 &= -28 a -140 b \\
 \hline
 - 15799.8 &= - 28 b
 \end{aligned}$$

Therefore, the value of  $b = 564.28$

Substituting the value of 'b' in equation (i)

$$38600 = 7a + 28 \times 564.28$$

$$= \frac{22800.16}{7}$$

$$= 3257.17$$

Thus, the required trend is  $y = a + bx$

$$Y = 3257.17 + 564.28x$$

Forecasting the deposit for the upcoming next 5 years

$$Y_{2009} = 3257.17 + 564.28 \times 8 = 7771.41 \text{ million.}$$

$$Y_{2010} = 3257.17 + 564.28 \times 9 = 8335.69 \text{ million.}$$

$$Y_{2011} = 3257.17 + 564.28 \times 10 = 8899.97 \text{ million.}$$

$$Y_{2012} = 3257.17 + 564.28 \times 11 = 9464.25 \text{ million.}$$

$$Y_{2013} = 3257.17 + 564.28 \times 12 = 10028.53 \text{ million.}$$

## APPENDIX – VIII

### Estimation of Deposit for the Year 2009 to 2013 of NBBL

*(Rs. in Million)*

Year	Deposit (Y)	Year (X)	XY	X <sup>2</sup>
2002	2361.9	1	2361.9	1
2003	4145.2	2	8290.4	4
2004	6455.6	3	19366.8	9
2005	8578.8	4	34315.2	16
2006	9514.0	5	47570	25
2007	10548.0	6	63288	36
2008	12747.3	7	89231.1	49
Total	54350.8	28	264423.4	140

Here, Actual equation of the linear trend is  $y = a + bx$

Two normal equation are:

$$Y = n a + b \ x$$

$$XY = a \ X + b \ X^2$$

Putting the values on normal equation from the above table

$$54350.8 = 7 a + 28 b \dots\dots\dots(i)$$

$$264423.4 = 28 a + 140 b \dots\dots\dots(ii)$$

To solve the above equation we multiply equation (i) by y and subtract, we get:

$$\begin{array}{r}
 217403.2 = 28 a + 122 b \\
 - 264423.4 = -28 a - 140 b \\
 \hline
 - 47020.2 = -28 b
 \end{array}$$

$$b = \frac{47020.2}{28}$$

Therefore, the value of 'b' = 1679.29.

Substituting the value of 'b' in equation (i) we get

$$54350.8 = 7a + 28 \times 1679.29$$

$$54350.8 = 7a + 47020.12$$

$$a = \frac{4330.68}{7}$$

$$\dots a = 3257.17$$

Thus, the required trend is  $y = a + bx$

$$Y = 1047.24 + 1679.29x$$

Forecasting the deposit for the upcoming next 5 years

$$Y_{2009} = 1047.24 + 1679.29 \times 8 = 14481.56 \text{ million.}$$

$$Y_{2010} = 1047.24 + 1679.29 \times 9 = 16060.85 \text{ million.}$$

$$Y_{2011} = 1047.24 + 1679.29 \times 10 = 17840.14 \text{ million.}$$

$$Y_{2012} = 1047.24 + 1679.29 \times 11 = 19519.43 \text{ million.}$$

$$Y_{2013} = 1047.24 + 1679.29 \times 12 = 21198.72 \text{ million.}$$

## APPENDIX – IX

### Estimation of Loan and Advances for the Year 2009 to 2013 of NSBI

*(Rs. in Million)*

Year	Year (X)	Loan & Advances (Y)	XY	X <sup>2</sup>
2002	1	2414.9	2414.9	1
2003	2	2930.4	5860.8	4
2004	3	3560.1	10680.3	9
2005	4	4176.3	16705.2	16
2006	5	4593.9	22969.5	25
2007	6	4766.1	28596.6	36
2008	7	5552.5	38867.5	49
<b>Total</b>	<b>28</b>	<b>27994.2</b>	<b>126094.8</b>	<b>140</b>

Here, Actual equation of the linear trend is  $y = a + bx$

Two normal equation are:

$$Y = n a + b \ x$$

$$XY = a \ X + b \ X^2$$

Putting the values on normal equation from the above table

$$27994.2 = 7 a + 28 b \dots\dots\dots(i)$$

$$126094.8 = 28 a + 140 b \dots\dots\dots(ii)$$

To solve the above equation we multiply equation (i) by y and subtract, we get:

$$111976.8 = 28 a + 112 b$$

$$\underline{-126094.8 = -28 a - 140 b}$$

$$- 14118 = - 28 b$$

$$b = \frac{14118}{28}$$

Therefore, the value of 'b' = 504.21

Substituting the value of 'b' in equation (i) we get

$$27994.2 = 7 a + 28 | 504.21$$

$$\dots a = 1982.33$$

Thus, the required trend is  $y = a + bx$

$$Y = 1982.33 + 504.21x$$

Forecasting the deposit for the upcoming next 5 years

$$Y_{2009} = 1982.33 + 504.21 | 8 = 6016.01 \text{ million.}$$

$$Y_{2010} = 1982.33 + 504.21 | 9 = 6520.22 \text{ million.}$$

$$Y_{2011} = 1982.33 + 504.21 | 10 = 7024.43 \text{ million.}$$

$$Y_{2012} = 1982.33 + 504.21 | 11 = 7528.64 \text{ million.}$$

$$Y_{2013} = 1982.33 + 504.21 | 12 = 8032.85 \text{ million.}$$



## APPENDIX –X

### Estimation of Loan and Advances for the Year 2009 to 2013 of NBBL

*(Rs. in Million)*

Year	Year (X)	Loan & Advances (Y)	XY	X <sup>2</sup>
2002	1	1957.6	1957.6	1
2003	2	3258.7	6517.4	4
2004	3	4611.8	13835.4	9
2005	4	7347.4	29389.6	16
2006	5	8222.1	41110.5	25
2007	6	8491.9	50951.4	36
2008	7	10253.6	71775.2	49
Total	28	44143.1	215537.1	140

Here, Actual equation of the linear trend is  $y = a + bx$

Two normal equation are:

$$Y = n a + b \ x$$

$$XY = a \ X + b \ X^2$$

Putting the values on normal equation from the above table

$$44143.1 = 7 a + 28 b \dots\dots\dots(i)$$

$$215537.1 = 28 a + 140 b \dots\dots\dots(ii)$$

To solve the above equation we multiply equation (i) by y and subtract, we get:

$$176572.4 = 28 a + 112 b$$

$$\underline{-215537.1 = -28 a - 140 b}$$

$$-38964.7 = -28 b$$

$$b = \frac{38964.7}{28}$$

Therefore, the value of 'b' = 1391.60

Substituting the value of 'b' in equation (i) we get

$$44143.1 = 7 a + 28 | 1391.60$$

$$\dots a = \frac{5178.3}{7}$$

$$\dots a = 739.76$$

Thus, the required trend is  $y = a + bx$

$$Y = 739.76 + 1391.60x$$

Forecasting the deposit for the upcoming next 5 years

$$Y_{2009} = 739.76 + 1391.60 | 8 = 11872.56 \text{ million.}$$

$$Y_{2010} = 739.76 + 1391.60 | 9 = 13264.16 \text{ million.}$$

$$Y_{2011} = 739.76 + 1391.60 | 10 = 14655.76 \text{ million.}$$

$$Y_{2012} = 739.76 + 1391.60 | 11 = 16047.36 \text{ million.}$$

$$Y_{2013} = 739.76 + 1391.60 | 12 = 17438.96 \text{ million.}$$

## APPENDIX –XI

### Estimation of Investment for the Year 2009 to 2013 of NSBI

*(Rs. in Million)*

Year	Year (X)	Investment (Y)	XY	X <sup>2</sup>
2002	1	681.6	681.6	1
2003	2	202.6	405.2	4
2004	3	201.8	605.4	9
2005	4	373.6	1494.4	16
2006	5	521.1	2605.5	25
2007	6	1207.3	7243.8	36
2008	7	1889.4	13225.8	49
Total	28	5077.4	26261.7	140

Here, Actual equation of the linear trend is  $y = a + bx$

Two normal equation are:

$$Y = n a + b \ x$$

$$XY = a \ X + b \ X^2$$

Putting the values on normal equation from the above table

$$5077.4 = 7 a + 28 b \dots\dots\dots(i)$$

$$26261.7 = 28 a + 140 b \dots\dots\dots(ii)$$

To solve the above equation we multiply equation (i) by y and subtract,  
we get:

$$20309.6 = 28 a + 112 b$$

$$\underline{-26261.7 = -28 a - 140 b}$$

$$-5952.1 = -28 b$$

$$b = \frac{5952.1}{28}$$

Therefore, the value of 'b' = 212.575

Substituting the value of 'b' in equation (i) we get

$$5077.4 = 7 a + 28 | 1391.60$$

$$7 a = 5077.4 - 5952.1$$

$$\dots a = \frac{Z874.7}{7}$$

$$\dots a = Z124.96$$

Thus, the required trend is  $y = a + bx$

$$Y = Z124.96 + 212.575x$$

Forecasting the deposit for the upcoming next 5 years

$$Y_{2009} = Z124.96 + 212.58 | 8 = 1575.68 \text{ million.}$$

$$Y_{2010} = Z124.96 + 212.58 | 9 = 1788.26 \text{ million.}$$

$$Y_{2011} = Z124.96 + 212.58 | 10 = 2000.84 \text{ million.}$$

$$Y_{2012} = Z124.96 + 212.58 | 11 = 2213.42 \text{ million.}$$

$$Y_{2013} = Z124.96 + 212.58 | 12 = 2426 \text{ million.}$$

## APPENDIX –XII

### Estimation of Investment for the Year 2009 to 2013 of NBBL

*(Rs. in Million)*

Year	Year (X)	Investment (Y)	XY	X <sup>2</sup>
2002	1	6.0	6.0	1
2003	2	708.7	1417.4	4
2004	3	60.0	180.0	9
2005	4	277.5	1110	16
2006	5	1029.4	5147	25
2007	6	2276.7	13660.2	36
2008	7	2617.3	18321.1	49
Total	28	6975.6	39841.7	140

Here, Actual equation of the linear trend is  $y = a + bx$

Two normal equations are:

$$Y = n a + b \ x$$

$$XY = a \ X + b \ X^2$$

Putting the values on normal equation from the above table

$$6975.6 = 7 a + 28 b \dots\dots\dots(i)$$

$$39841.7 = 28 a + 140 b \dots\dots\dots(ii)$$

To solve the above equation we multiply equation (i) by 4 and subtract, we get:

$$27902.4 = 28 a + 112 b$$

$$\underline{-39841.7 = -28 a - 140 b}$$

$$-11939.3 = -28 b$$

$$b = \frac{11939.3}{28}$$

Therefore, the value of 'b' = 426.40

Substituting the value of 'b' in equation (i) we get

$$6975.6 = 7 a + 28 | 1391.60$$

$$7 a = 6975.6 - 11939.2$$

$$\dots a = \frac{Z4963.6}{7}$$

$$\dots a = Z709.09$$

Thus, the required trend is  $y = a + bx$

$$Y = Z709.09 + 426.40 x$$

Forecasting the deposit for the upcoming next 5 years

$$Y_{2009} = -709.09 + 426.40 | 8 = 2702.11 \text{ million.}$$

$$Y_{2010} = -709.09 + 426.40 | 9 = 3128.51 \text{ million.}$$

$$Y_{2011} = -709.09 + 426.40 | 10 = 3554.91 \text{ million.}$$

$$Y_{2012} = -709.09 + 426.40 | 11 = 3981.31 \text{ million.}$$

$$Y_{2013} = -709.09 + 426.40 | 12 = 4407.71 \text{ million.}$$

## APPENDIX –XIII

### Estimation of Net Profit for the Year 2009 to 2013 of NSBI

*(Rs. in Million)*

Year	Year (X)	Net Profit (Y)	XY	X <sup>2</sup>
2002	1	589.77	589.77	1
2003	2	163.11	326.22	4
2004	3	500.65	1501.95	9
2005	4	124.90	499.60	16
2006	5	408.44	2042.20	25
2007	6	487.48	2924.88	36
2008	7	608.52	4259.64	49
Total	28	2882.87	12144.26	140

Here, Actual equation of the linear trend is  $y = a + bx$

Two normal equations are:

$$Y = n a + b \ x$$

$$XY = a \ X + b \ X^2$$

Putting the values on normal equation from the above table

$$2882.87 = 7 a + 28 b \dots\dots\dots(i)$$

$$12144.26 = 28 a + 140 b \dots\dots\dots(ii)$$

To solve the above equation we multiply equation (i) by y and subtract, we get:

$$11531.48 = 28 a + 112 b$$

$$\underline{12144.26 = 28 a + 140 b}$$

$$-612.78 = - 28 b$$

$$b = \frac{612.78}{28}$$

Therefore, the value of 'b' = 21.89

Substituting the value of 'b' in equation (i) we get

$$2882.87 = 7 a + 28 | 21.89$$

$$7 a = 2882.87 - 612.92$$

$$\dots a = \frac{2269.95}{7}$$

$$\dots a = 324.28$$

Thus, the required trend is  $y = a + bx$

$$Y = 324.28 + 21.89x$$

Forecasting the net profit for the upcoming next 5 years

$$Y_{2009} = 324.28 + 21.89 | 8 = 499.4 \text{ million.}$$

$$Y_{2010} = 324.28 + 21.89 | 9 = 521.29 \text{ million.}$$

$$Y_{2011} = 324.28 + 21.89 | 10 = 543.18 \text{ million.}$$

$$Y_{2013} = 324.28 + 21.89 | 11 = 565.07 \text{ million.}$$

$$Y_{2014} = 324.28 + 21.89 | 12 = 586.96 \text{ million.}$$



## APPENDIX –XIV

### Estimation of Net Profit for the Year 2009 to 2013 of NBBL

*(Rs. in Million)*

Year	Year (X)	Net Profit (Y)	XY	X <sup>2</sup>
2002	1	60.79	60.79	1
2003	2	82.73	165.46	4
2004	3	139.54	418.62	9
2005	4	198.75	795.00	16
2006	5	65.78	328.90	25
2007	6	71.50	429.00	36
2008	7	178.30	1248.1	49
Total	28	797.39	3445.87	140

Here, Actual equation of the linear trend is  $y = a + bx$

Two normal equations are:

$$Y = n a + b \ x$$

$$XY = a \ X + b \ X^2$$

Putting the values on normal equation from the above table

$$797.39 = 7 a + 28 b \dots\dots\dots(i)$$

$$3445.87 = 28 a + 140 b \dots\dots\dots(ii)$$

To solve the above equation we multiply equation (i) by y and subtract,  
we get:

$$3189.56 = 28 a + 112 b$$

$$\underline{3445.87 = 28 a + 140 b}$$

$$-256.31 = - 28 b$$

$$b = \frac{256.31}{28}$$

Therefore, the value of 'b' = 9.15

Substituting the value of 'b' in equation (i) we get

$$797.39 = 7 a + 28 | 9.15$$

$$797.39 = 7 a + 256.20$$

$$7 a = 797.39 - 256.2$$

$$\dots a = \frac{541.19}{7}$$

$$\dots a = 77.31$$

Thus, the required trend is  $y = a + bx$

$$Y = 71.31 + 9.15x$$

Forecasting the net profit for the upcoming next 5 years

$$Y_{2009} = 71.31 + 9.15 | 8 = 144.51 \text{ million.}$$

$$Y_{2010} = 71.31 + 9.15 | 9 = 153.66 \text{ million.}$$

$$Y_{2011} = 71.31 + 9.15 | 10 = 162.81 \text{ million.}$$

$$Y_{2012} = 71.31 + 9.15 | 11 = 171.96 \text{ million.}$$

$$Y_{2013} = 71.31 + 9.15 | 12 = 181.11 \text{ million.}$$