# CHAPTR ONE INTRODUCTION 

## 1. General background of the study

The banking sector is an important part of the national economy. Banks take deposits, support the payment system and provide the largest source of funds on the market. Safe and sound banking system is of crucial importance for the financial stability and sustainable development. Nepal has a special characteristic of bank dominated financial sector. As the domestic capital and stock markets are in the initial stage of development, the banking sector largely dominates the entire financial sector.

Main objective of the bank is to mobilize idle resources into productive sectors by collecting the funds from scattered sources. Bank accepts the deposit in numerous forms depending upon the nature of savers and the strategy of the bank itself. Some of the common type of deposits are current deposit, fixed deposit and call deposit. The interest rate of the deposit varies to the different banks as the central bank has freed up the commercial banks to determine the interest rate of their own.

In the mid July 2008, total deposit of commercial banks increased significantly by 26.25 percent compare to 15.88 percent growth in the previous year. As of mid July 2008 it reached to Rs. 426080.3 million from Rs. 337497.2 in the last year. The increasing amount of liquidity has been considered as the major problem in banking sector. 'Commercial banks are currently holding about Rs. 426.08 billion. 'In the mean time total liquidity held by the commercial banks is about Rs. 66.88 billion. It means the $15.69 \%$ of total deposit are in liquid fund.

In modern age, economic condition is one of the most remarkable distinctions. In this universe, there are a number of countries whose economic condition is very high with per capita income of more than US $\$ 30,000.00$ while there are such countries whose
economic condition is very poor with per capita income of less than $\$ 200$ per annum. Of course, these countries are trying to lift up their economic condition. These countries are suffering from numerous problems. However, recently, significant improvement has been seen in the global economic and financial scenario.

Capital formation, considered to be one of the important factors in economic development leads to increase the size of national output, income and employment solving the problem of inflation, balance of payments and making the economy free from any burden of foreign debts. Domestic capital formation helps in making a country selfsustainable.
"Capital formation was the accumulation of capital. Profit made by the business community constituted the major part of saving of the community and that savings was assumed to be invested. They thought capital formation indeed plays a decisive role in determining the level and growth of national income and economic development" (American institute of banking, 1972, p:162). It seems unquestionable that the insufficient capital accumulation is the more serious limiting factors in developing countries. In the view of many economists, capital occupies the central and strategic position in the process of economic development. .It seems unquestionable that the insufficient capital accumulation is the more serious limiting factor in undeveloped countries.

In the view of many economists, capital occupied central and strategic position in the process of economic economy lie in the rapid expansion of the rate of its capital investment. So that it development in an under developed attains a rate of growth of output which exceeds the rate of growth of population by the significant margin only with such a rate of capital investment will the living standard begin to improve in a developing country. In developing countries the rate of saving is quite low and exiting institution are half successive in mobilizing such saving as most people have incomes so low that vertically all current income be spent in marinating a substantial level of consumption.
"For the development of the nation it is required to have enough capital, without adequate capital investment may not be possible, formation of the adequate capital through the financial institution like finance company banks etc is important" (Encyclopedia 1966, p:232).

Generally Bank is an institution, the essential operation of which is to make the monetary transaction possible in a sound and effective way. Bank accepts deposits of money from those who save and lend to those who need credit for some purpose. Bank accumulates idle money from general public by offering attractive or sound interest and lends it to the fund seekers in the economy Investment in fixed assets would be possible where by productivity could grow, employment could be generated and finally national economy could be enhanced. Banks are also found to be involved in a number of agency services of remitting and collecting cash on be half of its clients by opening bank drafts and letter of credit facility etc.

Besides, the main task of bank is to mobilize idle resources into productive sector by collecting it from scattered sources and generating profit. Banks also facilitates people to carry out their financial transaction in every sector such as organization, industries, agriculture trade and needy people as well. Bank accepts deposits in numerous forms depending upon the nature of savers and banks own product offering strategy .Some of the common deposits are saving, fixed and call deposits etc. the cost of deposits to the banks varied as central bank has freed up the commercial bank to offer the interest rate on their own.

However, it's said that the average cost of deposits for the bank is $4 \%$.Development of nation banking sector of that country is responsible and must be strong. The financial sector like bank is a vast field, which helps in reducing poverty, increase in life style of people, increase employment opportunities and there by developing the society of a country as a whole development of a country depends upon adequate saving and invested in productive sector which is inspired by banking activities. Due to the low income there is fewer saving .people spend all the money in consumption of necessary items. People
who have a lot of money also consume precious goods; people have no idea the investment in productive line. Banks are the main sources which motivate people to save their earnings. Banks collect the saving of people in the form of deposits collection and investment in the productive area. They give the loan to the people; banks mobilize deposit collected from people.

The importance of the banking as the nerve centre of economic development cannot be over emphasized and it is said that which are the need of and great wealth of country has got to be kept very scared just as water of irrigation good banks are for the country's and trade. The development of a country is always measured by its economic development through indices. Therefore every country has given emphasis on uplifting of a country can hardly be carried forward with out the assistances of financial institution. They are the indispensable part of the development process It is the fact that the unorganized financial system leads the country. Therefore, central bank plays a major role and keeping the financial system of a country organized by providing those guidelines and directions.

Recognizing the true fact of developing country," Nepal cannot ignore the importance of commercial banks. Realizing it, HMG of Nepal has been adopted the economy liberalization policy. Due to liberalization policy made by government, the number of bank has been increased and there has emerged the tough competition among them" (Banking and financial statistics, 1997, p: 37).

### 1.1.1 Historical Development of commercial banks in Nepal

The word 'bank' generally denotes commercial bank. It is believed that the word 'bank' was derived from the French word 'Benque' and Italian word 'Banqo'. Literally, a bank means doing the transaction of money sitting on a bench. The first bank of its kind was established on 1148 A.D. in Genoa and on 1157 in Venus. However, in Nepalese context, the first conventional bank in Nepal was the Nepal Bank Limited, established in 1937 A.D. followed by Rastriya Banijya Bank in 1966 A.D. These two banks are the pioneers of Nepalese banking industries. The economic liberalization policy adopted in the mid

1980s brought about a surge in the banking industry. A large number of commercial banks were established and the number continues to grow even today. Prior to the establishment of this bank, the banking needs of people, were fulfilled to certain extent only by organized financial institution the 'Tezarath Addha' was established to give loan facilities to the government staff and afforded loan facilities to the public in general in the term of interest but 'Tezarath Addha' did not accept money from public. the services offered by it were not sufficient. Actually, the formation of high quality board, 'Udhyog Parisad' was indeed a land mark in opening a new avenue in the field of banking and commerce accordingly. Since then, Nepalese have been able to enjoy the banking services in an organized way.

Saving account is considered to be the major source of funds for banks. Many of the bank's deposit structure here in Nepal shows that about eighty percent of their total deposit liabilities comes from this account. This account provides some interest to the depositors on their deposited money as they are bound by the rules regarding the operation of their accounts. The volume of such deposits is very high in commercial banks operating within the boundary of Nepal.
"In modern times, commercial banking occupies quite an important place in the financial framework of every economy because of the continuing challenge presents to those who are responsible for managing the affairs of the banks and to those who observe and study their performance. The character of banking has kept on meandering through times and the working of the commercial banks reflects the changing character of the credit mechanism which is itself the outcome of the economic changes taking place in the economic system. Consequently, commercial bank's workings must be flexible to enable them to face the new economic problem and policy issue in order to play their useful role in the economy"(vaish, 1999, p:540)

The recent trend in the banking industry has been observed that the portion of idle cash they are holding is mounting. For instance: commercial banks are currently holding about eighty one percent of the total deposits held by entire depository institution, which turns
out to 219 billion rupees. In the mean time, the total loan outstanding and investments of commercial banks is about 180 billion rupees only. This clearly shows the level of deposit management by commercial banks and it requires something to be done immediately.

### 1.1.2 An Introduction to the Selected Commercial Banks

Two commercial banks have been chosen with an aim to attain the basic purposes of the study. Nepal Bank Ltd is considered as the wide area serving bank in Nepal. This bank is selected as the sample bank because this is most popular government owned bank in Nepal. On the other hand Nepal Investment Bank represents the private owned commercial bank that is considered as the well managed banks among the private sector and joint venture banks. The selection of sampled banks has been made with an attempt to achieve the maximum variety in respect to their investments and loans characteristics. A brief introduction to these banks has been made in the following paragraphs.

### 1.1.2.i Nepal Bank Limited

Nepal bank limited (NBL) is the first bank established in Nepal. The bank was established under 'Nepal Bank Law 1937 (i.e. 1994 B. S.). In that time government felt the need of a bank for regulating the fund related activities for the economic development of the country. In the beginning the authorized capital of the bank was ten-million and the paid up capital was eighty-lakhs and twenty thousand only.

The latest statistics of NBL shows that the bank has a total capital fund of RS.-6008.30 million that includes paid up capital of RS. 380.4 million, accumulative profit (loss) Rs. 8023.44, general reserve of RS. 1379.99 million, retained earning of RS.0, exchange equalization fund Rs. 51.02 and other reserves of RS.203.74 million. This bank has total deposit of RS. 49829.39 million and borrowing of RS.1820.08 million. Likewise it has investment of RS. 16570.76 million and loan and advance of RS. 13251.96 million.

Nepal Bank Ltd. being the first commercial bank has been serving the people from very beginning of its establishment. But due to the lack of managerial strength and some other
lapses this bank is facing the great problem. The management of Nepal Bank Limited was taken over by Nepal Rastra Bank on 2058/12/1 (Mid March 2001). It has formed 3 members Management Committee for the operation of the bank. Subsequently, under the Financial Sector Reform Program of HMG/N, it has appointed Bank of Scotland (Ireland) Limited, ICC Consulting for restructuring and operation of the bank effective July 22, 2002 for the initial period of 2 years subject to renewal. On expiry of the contract of ICC Consulting on July 22, 2007, the NRB has appointed 3 member Management Team for operation of the bank. This team is seemed to be successful in minimizing the default of recovery of loan and this management is trying to make the bank as competent as other multinational banks operating in Nepal.

### 1.1.2.ii Nepal Investment Bank Nepal Limited

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

With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen, has acquired on April 2002 the 50\% shareholding of Credit Agricole Indosuez in Nepal Indosuez Bank Ltd.

The name of the bank has been changed to Nepal Investment Bank Ltd. upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office with the following shareholding structure.

- A group of companies holding 50\% of the capital
- Rashtriya Banijya Bank holding $15 \%$ of the Capital.
- Rashtriya Beema Sansthan holding the same percentage.
- The remaining $20 \%$ being held by the General Public (which means that NIBL is a Company listed on the Nepal Stock Exchange).

People believe that NIBL, which is managed by a team of experienced bankers and professionals having proven track record, can offer them what they are looking for. They are sure that their choice of a bank will be guided among other things by its reliability and professionalism.

The latest statistics of NIBL shows that bank has a total capital fund of Rs. 2686.79 million that includes Rs. 1203.92 million's paid up capital, Rs. 468.78 million's accumulated profit and loss, Rs 655.86 million general reserve fund, Rs. 27.84 milliion exchange fluctuation fund Rs. 330.36 million debenture \& bond. Likewise it has investment of RS. 6874.02 million and loan and advance of RS. 26996.65 million.

### 1.2 Focus of the study

This study focuses on the history of the deposit mobilization of total commercial banking system and two sampled banks NBL and NIBL. This study is made the especial aim of observing the deposit mobilization position of total commercial banking system in Nepal and comparing the deposit mobilization position of NBL representing the government owned commercial bank and NIBL representing the private sector commercial bank. Therefore the study certainly focuses on the elements related to deposit mobilization. The study focuses on the analysis of efficiency of deposit mobilization of total commercial banking system and two sampled banks.

### 1.3 Statement of the Problem

Within the sphere of the proposed study, there exist a considerable number of problems regarding the commercial banks, services they offer such as different deposit types, their features etc., and their relationship with customers. For example: It's said that banks are not being able to fully utilize their deposits fund in to productive sectors. In other words, they are said to be more focused on retail banking rather than in corporate banking. Similarly, banks are holding major portion of their deposits liabilities as the cost bearing deposits. Likewise, it can be generalized that banks are not being able to manage their liquid assets efficiently.

Precisely, these problems could be numerically categorized into the following four broad groups, and they are being explained as well.

## I. Banks Have Not Been Able to Utilize Their Deposits Efficiently:

The recent trend observed in banking industry is that they have not been able to fully utilize their deposit fund by mobilizing it into productive sectors. Due to the deteriorating economic scenario, management of the banks, and the attitude of the board of directors, they have been able to lend about 70 percent of total deposits only.

## II. Portion of Cost Bearing Deposits to Total Deposits is high:

Referring to the Banks' composition of deposit liabilities, it can be said that they are holding too much of cost bearing deposits.

## III. Safety of the Public Funds:

Banks are merely the financial intermediaries that accept the deposits from the savers and invest or lend the funds to the funds seekers in the economy. Therefore, issues related to the banks' investments, and lending certainly affect the Protection of funds deposited by the savers. Definitely, there are some rules and regulations prescribed by the central bank such as the recent one which compels the banks to issue their capital equal to a billion rupees. However, banks' loan investments, capital structures, existing management slacks etc. do not represent that the public funds deposited at the banks are safe.

## IV. Excessive Money Creation:

Commercial banks deserve the power to create money and credit because the public readily accept claims on bank deposits, particularly checks, credit and debit cards, and computer entries, in payment for goods and services. In addition, the law requires individual banks to hold only a fraction of the amount of deposits received from the public as cash reserves, thus freeing up a majority of incoming funds for making loans and other investments.

This capacity of banks to create money and deposits has a number of important influences on the financial system and the economy as a whole. Banks can invest up to their money or deposit multiplier and money created by banks is also instantly available for spending. Therefore, unless carefully controlled by the central bank, it can fuel inflation.

### 1.4 Objectives of the Study

The role of Commercial Banks in mobilizing and utilizing scattered resources of nation is praiseworthy one. So the commercial banks work for the collection and mobilization of funds. Commercial banks can run effectively only when they can mobilize the deposits effectively for any kind of research work or study, first of all the objectives should be determined. This study aims to analyze how far the commercial banks have been able to achieve the objective of' effective mobilization of deposits. It shows the way to achieve desired goals.

The main objectives related to the study are presented below:

- To analyze the financial factors like liquidity management, efficiency and profitability position in relation to deposit mobilization of commercial banks.
- To observe the deposit mobilization position of government owned commercial bank and private sector commercial banks in Nepal specially reference on Nepal Bank Ltd. \& Nepal Investment Bank Ltd.
- To identify the formation of deposit liabilities
- To observe the trend of deposit and loan investment.
- To provide suggestion and recommendation for the improvement of the future performance of deposit mobilization on the basis of major finding.


### 1.5 Importance/significance of the study

This study is aimed to find out the deposit mobilization position of commercial Banks. So it helps to generalize the financial position of the commercial Banks that certainly will be beneficial for the individual and organization working in various sectors.

The quality and coverage of a bank's fund mobilizing policy reflects the degree of healthiness of the bank and eventually the national economy. In order to accomplish the optimum utilization of the scarce economic resource, the capital, banks must successfully formulate their fund mobilizing policy and effectively implement it as well. So, the role of commercial banks in supplying the credit in the economy is vital.

The proposed study is believed to be beneficial for a number of individuals, groups, and organizations directly or indirectly. Some of the direct beneficiaries of the study could be named as lenders, creditors, investors, and depositors of the banks. However, borrowers can also achieve some sort of advantages from the study. These beneficiaries and the kind of benefits they receive from the proposed study are being explained as follows:

## I. Investors

Investors, the owners of the banks could be benefited from the study as the study aims to identify the overall deposits fund management by the banks. In other words, it facilitates to understand the investors the exact cost and composition of the deposit liabilities.

## II. Depositors:

Depositors are the primary supplier of the funds in the banking system. They could also be benefited from the study as it tries to identify the status of their deposits i.e. those sectors where their money has been invested.

## III. Borrowers:

Borrowers are the fund seekers in the economy who are believed to be involved in the economic transactions very actively. They can receive the advantages from the study as well by acquiring the information about the current and expected cost of capital in the market.

## IV. Further studies:

Those related issues such as the cost and composition of deposits, trend analysis of deposits, etc. of commercial banks might facilitate to advance the study ahead.

## V. Policy makers:

This study is aimed to find out the deposit mobilization position of commercial banks and is expected to find the reasons of weak performance in some extent, if any .That will certainly help the policy makers to take the right steep for the betterment of the condition.

### 1.6 Limitations of the Study

The study has focused on its objective to observe the deposit mobilization position of commercial banks. As the study is more objective and is made for the fulfillment of academic requirement it posses numbers of limitations. Some specific limitations are as follows:
I. The research work will be made on the basis of latest five years' data from fiscal year 2003/04 to 2007/08.
II. Study is made on the basis of secondary data only.
III. Time is a limit for the study.
IV. The usage of transaction period of the selected banks has been determined by the specific nature and availability of data.
V. Simple statistical and financial tools are used for the analysis.

### 1.7 Organization of the study

This unit considers the total considerations of the research report. This report is organized on five chapters. These five chapters consider:

## Chapter One - Introduction

This chapter will includes the general background of study, historical development of commercial bank in Nepal, brief introduction of Nepal Bank Ltd. \& Nepal Investment

Bank Limited, Statement of the problem, objective of the study, importance of the study, limitation of the study, and organization of the study.

## Chapter Two - Review of literature

The relevant literatures will have been reviewed in this chapter. It contains conceptual frame work of deposit mobilization, concept of commercial banking, review of articles, review of past related thesis and research gap.

## Chapter Three - Research methodology

This part will includes the research design, data sources, population and sample, data collecting procedure, and data analysis procedures of the study.

## Chapter Four - Data presentation and analysis

This is the major chapter of the study. It contains the presentation of data and analysis of the data that specify the findings of the study. Data are presented on the basis of objective of the study. This chapter contains the major findings of the study too. It helps the searcher to find out what is going on about the deposit mobilization in Nepal and selected commercial banks.

## Chapter Five- Summary, conclusions and recommendations.

This Chapter will be devoted to the summary of the research, conclusion derived on the basis of data analyzed and recommendation for improvement to the Nepal Investment Bank Ltd.

## CHAPTER - TWO

## REVIEW OF LITERATURE

In this chapter, the emphasis is given to review of major relevant literature on the deposit liabilities and their analyses. Different definitions or opinions expressed by experts in respect of deposit mobilization are considered to be relevant for the proposed study.

To develop the concept and ideas about the selected topic, the review of relevant material is very important and crucial. In fact, review of literature begins with a search for a suitable topic and continuous throughout the duration of the research, either a dissertation of a thesis. Review of literature means reviewing research studies or other relevant propositions in the related areas of the study so that all the past studies, their conclusion deficiencies may be known and further search can be conducted.

So, in this chapter, the emphasis is given to review of major relevant literature on the deposit liabilities and their analyses. Different definitions or opinions expressed by experts in respect of deposit mobilization are considered to be relevant for the proposed study.

Similarly, this chapter also sheds light on some of the rules and regulations prescribed by the central bank regarding the commercial banks' deposit liabilities and their mobilization aspects.

This chapter is basically concerned with review of literature relevant to the topic "Deposit Mobilization of Nepal Investment Bank Ltd. and Nepal Bank Ltd". Every study is very much based on past knowledge. The previous studies can not be ignored because they provide the foundation to the present study. In other words, there has to be continuity in research. This continuity in research is ensured by linking the present study with the past studies.
"Literature Review is basically a "Stock Taking" of available literature in one's field of research. The literature survey thus provides us with the knowledge of the status of their field of research" (Wolf and Pant 2000, p:30). Therefore, this chapter has its own importance in the study.

### 2.1 Conceptual Review

An attempt has been made to look in to a number of related books and the bank publications, especially of those related to the deposits collection and mobilization aspects, and central bank's rules and regulations that abide the commercial banks on this regard. In addition, some sort of personal intuition has also been made.

### 2.1.1. Concept of Commercial Bank

Bank is considered as the backbone in the development of the national economy now a day. It is a financial institution, which acts as a transaction of money by accepting various types of deposit, disbursing loans and rendering other financial services. Bank is a business organization where monetary transaction occurs. It creates funds from its clients saving and lends the same to needy person or business companies in term of loans, advances and investment. So proper financial decision making is more important in banking transaction for its efficiency and profitability. Most of the financial decision making are concerned with lending policy and loan management. It plays the vital role in the business succession, so efficient management of lending policy is needed.
"A Commercial banker is a dealer in money and substitutes for money, such as cheque or bill of exchange. He also provides a variety of financial services" (The New Encyclopedia Britannica, 1985 vol. 14, p:605).
"Commercial bank" a bank dealing with the general public, accepting deposit from and making loans to large numbers of household and small firms. Such banks are known in the UK as retail or high street banks. They also provide various services for depositors, including provision of cash and credit cards, storage facilities for valuables and documents, foreign exchange, stock broking, mortgage finance and executor services.

Commercial banks are contrasted with central banks, and with investment, merchant and other specialist banks which deal little with the general public "(Oxford dictionary of economics 2004, p: 65).
"A Bank is a business organization that receives and holds deposits of funds from others make loans or extends credits and transfer funds by written order of depositors" (Encyclopedia America 1984-85, vol.13, p:302).
"The American institute of banking has laid down for functions of the commercial banks i.e. Receiving and handling deposits handling payment for its clients, granting loans and investment and creating money by extension of credit" (Encyclopedia America 1984-85, vol.14, p: 605). Principally, commercial bank accepts deposits and provides loans, primarily to business firms thereby facilitating the transfer of funds on the economy. In the Nepalese context, commercial bank act, 1974 defines "a commercial bank as one which exchanges money, deposits money accepts deposits, grants loans, and performs commercial banking functions".

The term commercial bank is also misleading because the fact that commercial bank performs not only one but many type pf functions. Today the commercial banks not only issue the transfer deposits through cheques but they also operate underwriters to new equity issue deal facilities handle tax matters on behalf of their clients etc" (Vaish, 1993, p: 245).

Commercial Banks are those banks who pool together the savings of the community and arrange for their productive use. They supply the financial needs of moderns business by various means. They accept deposits from the public on the condition that they are repayable on demand of on short notice. Commercial Banks are restricted to invest their funds in corporate securities. Their business is confined to financing the short terms needs of trade and industry such as working capital financing. They can not finance in fixed assets. They grant loans in the forms of cash credits and overdrafts. Apart from financing they also render services like collection of bills and checks, safe keeping of valuables financing advising etc. to their customers.

A commercial bank can be defined as an institution which deals in money in words of Crowther "Banks collect money from those who have it to spar or who are saving it out of their income and lend this money out against goods security to those who requires it" (Crowther, 1985, p:58).
"Commercial banks are those who pool together the savings of the community and arrange for their productive use. They supply the financial need of modern business by various means. They accept deposits from the public on the condition that they are repayable on demand of on short notice. Commercial banks are restricted to invest their funds in corporate securities. Their business is confined to financing the short term needs of trade and industry such as working capital financing. They cannot finance in fixed assets. They grant loans in the form of cash credits and overdrafts. "Accepting the financing, the Bank also renders services like collection of bills and cheques, safe keeping of valuables, financial advising etc. to their customers" (Vaidya, 2001, p:38).

### 2.1.1.1. Role of Commercial Banks in Nepal

For all countries of the world and more so far the developing countries like Nepal, fast Economic Development is one of the most important aspects of developmental activities. However, it is obvious that unless the development of the important sector like agriculture, industry, trade, and commerce are achieved, envenomed development is impossible. For all the development, the regular supply of financial resources is a prerequisite.

Finance is thus like fuel for providing energy to move tempo of economic development and institutions naturally, serve as reservoir for supplying and controlling the stream of that fuel i.e. finance the commercial banks which are the financial institutions dealing with activities of agriculture industry, trade and commerce play the most important role for the business activities of the world. The objectives of the commercial banks are to mobilize the idle resources in productive uses collecting them from scattered and various sources. Its role in economic development is thus immense in order to bring out mobility of resources to meet the ever increasing needs of financing or the various economic activities.

These institutions are now trying best to contribute more and more services and facilities for the uplifting of national economy. They have become the core of financial system by holding the deposits; they make fund available through their lending and investing activities to different borrowers like individuals, business firms and even to the government. They ultimately facilitate the flow of goods and services from producer to consumers and to the financial activities of the government. It is quite clear that commercial banks are the most important institutions of capital formation that imply mainly saving, investment and productions which ultimately lead to the economic development of a country.

The role of commercial banking in the economy is obviously a prime prerequisite for the formulations of the bank policy as the role shapes, the nature and character of the bank. The deposit minded bankers may overstress conservation liquidity while the loan minded banker may under emphasize safety. Often Commercial Bank performs a number of interrelated functions. There are not only the custodians of the community's money but the suppliers of its liquidity. For these banks customers who seldom borrow money from the bank an important function may be the acceptance and safe keeping of deposits.

But those customers who often take loans from the bank, the credits creation function may be the most important. "The commercial bank is different from the other banks especially from central bank. In appearance the main distinction between Central Bank and a Commercial Bank is that now-a-days the Central bank does not much banking, but the more fundamental difference is one of aim.

The main objective of the Commercial Bank is to make profit whereas the Central Bank thinks of the effects of its operations on the working of the economic system. The Commercial has the shareholders and is expected to the best it can for them but the Central Bank by contrast is usually owned by the government. The Commercial Bank may be few or many and they are to be found business with the general public all over the country. But, there is only one central bank in each country. Its market operations are
mainly impersonal and are confided to what is necessary for influencing the country's financial business in the directions citrated by economic policy" (Sayers, 1972, p:17-18).

Commercial Banks are those banks that are engaged in commercial banking transactions and exclude from this description such banks are established for achieving certain specific goals such as co-operatives, agricultural and industrial banks, much wider activities in relation to the Economic Development of the country have been empowered to the banks. Apart from strictly performing commercial functions, Commercial Banks so described in the act are empowered to perform such functions as undertaking of agency business. In the issue of Shares \& Debentures for public corporations guaranteeing \& underwriting foreign exchange business under the restriction imposed by Foreign Exchange Act, Rules, Orders \& Notifications; advancing loans for period not exceeding one year against the security of the jewelers, gold \& silver ornaments the mortgage of land \& buildings, for acquiring plant \& machinery ; and receiving deposits of government money according to the order of Nepal government in those places where there are no branches of the NRB or RBB or where the NRB gives its consent to remit through bills of exchange and checks in Nepal and foreign countries and so on.

The lending policies of Nepalese banks resemble more closely to those of the $19^{\text {th }}$ century London Banks than $21^{\text {st }}$ century developing institutions. In a way, it would seen apparent that accelerated private sector investment is dependent on the commercial banks giving more emphasis in medium \&long term credit for equipment \& construction \& more liberal policy on the requests of collateral. In these respects, in recent years the NRB has been doing some useful services with its development oriented approach but it goes without saying that there is a long way to go to this particular field.

Thus Role of Commercial Banks in Nepal has been helping farmers by providing different facilities in Nepal. These helps are in the fields of cultivation, exporting rice, jute, paddy etc. \& providing facilities regarding better market for their product, helping to start livestock, poultry firm, rice mills, animal husbandry, bee firm etc. \& also provide the guidance for them.

The role of Commercial Banks is indispensable for industrial development of Nepal. Due to insufficiency of capital, industries are depending more \& more upon the supply of capital by the banks. It would not be exaggeration to state that commercial banks are mainly responsible for whatever the financial institutions like ABD/N, NIDC have already been established for the development of agricultural \& industrial sector of the country. The commercial banks are also continuously participating in these activities.

Being a mountainous country many places are in very remote area \& sometimes it takes a long times and weeks to approach some of the places. Due to lack of transport \& communication facilities $\&$ other geographical causes, the country has been still facing the problem of imbalances economic growth. The scattered capital of the country is unable to solve the problem of imbalance of the economy growth. Commercial Banks have their appropriate role to play here by expanding their branches in the differently hilly \& Terai regions availing loan to the local people. In industrial sector, Commercial Banks are providing the necessary financial help for the industrial establishment in the country. They provide short \& medium term loan to purchase machineries, tools, raw materials etc. \& introduce new \& developed techniques of production.

Without the development of foreign trade, Economic Development of a country will not be possible. Nepal has focused its trade with India \& Tibet only few years ago. Today, Nepal has extended with different countries of the world. Commercial Banks has promoted the domestic \& foreign trade of Nepal by spreading their braches all over the country \& extending close relations with many renowned institutions by providing them facilities of BD, LC, Bank overdraft, TT etc.

Commercial Banks are also helping for the development of transport by providing funds for transport Industry. Similarly, Banks are playing important role in tourism industries by helping to expand Hotel facilities, dealing with foreign exchange \& accepting traveler cheques from the tourists.

So, the role of Commercial Banks is extremely important for the development of industries, trade, commerce, agriculture etc. of the country. In fact, no nation can develop itself without the development of these banks. It is not only true in the capitalist countries but also true in the socialist countries \& the mixed economic countries like Nepal as well.

### 2.1.1.2 Functions of Commercial Banks

Commercial Banks are directly related with the people. Commercial Bank is an important bank. Its functions are very attractive for people. Although these banks are truly inspired with the objectives of gaining profit, here Commercial Banks are also established to accelerate common people's economic welfare \& facility, to make available loan, Industry \& Commerce \& to provide the banking services to the public \& the state. Along with other functions, the main functions of commercial banks are to accept deposits from the people \& to lend to those who demand it. Numerically, these functions could be categorized into the following functions:
i. Credit creation
ii. Advancing loans
iii. Agency Service
iv. Credit creation
v. General utility service

### 2.1.1.2.a Credit Creation by Commercial Banks

The creation of credit or deposit is one of the most important functions of commercial banks. Bankers are dealer of money who deal others people's money. Banks generate profits by accepting cash through demand deposits and advance loan on credit to customers. When a bank advances a loan, it does not pay the amount in cash. But it opens a current account in his name and allows him to withdraw the required sum by checks. But very often, the customer retains certain amount with the bank in a deposit. In this way, the bank creates credit on deposits the process is explained how the credit is created by the help of deposits.

Bank deposits arise in two ways: the first when the banker receives cash in credits a customer's account, it is known as primary or a simple deposit. Such primary deposits are made from the initiative of depositors. The second, when banks advance loans, discouts bills, provide overdrafts facilities, make investments through bonds and securities. This is called derived deposits or derivative deposits. They add to the supply of money. Banks actively create such deposit.

In the modern banking industry, actual cash withdraws from the deposit are very negligible. The bank usually synchronizes the withdrawals and deposits from their past experiences. Thus a bank lends a large part of the money he receives in deposits. If the bank has more primary deposit, he can lend more keeping small cash in reserve day to day transactions. The bank knows the customers will withdraw money by cheques which will be deposited by his creditors in the same bank or some other bank where they have their accounts. Such cheques which are deposited in others bank are settled through clearing houses. The same procedure is follows in other banks. In this way, the bank is able to create credit or deposit by keeping small cash in reserves \& lending the remaining amount. Therefore, the loans make an increase in the total amount of deposits. These deposits are called derived deposits.

On the other hand, when a bank advances money by discounting a bill of exchange, the proceeds of the bill are credited to the customer's account. The deposits of the customers will then increase. More deposit can make more lending by banks. This is also one of the ways of creating credit.

We know that the bank provides overdraft facility to a customer on the basis of some security. The bank enters the amount of the overdraft in the existing account of the customers \& the customer is allowed to overdraw his account up to the fixed limit subject to the condition that the amount overdrawn from time to time is more than fully covered by the market value of the securities lodged with the bank. The amount may be used to buy goods \& services. He can make payment by issuing cheques in settlement of his
transactions. This process gives the bank an additional supply of money which did not exist before.
"A bank also creates a deposit by making investments by buying government bonds\& securities. The bank pays for the bond through a cheque on itself to the central bank. If it buys security from others, it creates the amount in the account of the seller, provided he is the bank's customers. Otherwise it pays by cheque which is deposited in some other bank. In all such cases, liabilities \& assets in the banking system on the whole are increased. Thus loans by create deposits or credit is created by banks" (Vidya, 2001, $\mathrm{p}: 42-44$ ).

When funds are plentiful, market rate generally tend to decline, banks seek loan aggressively \& therefore lower their rates induce marginal borrower to come into the market. When funds are scarce banks arise their rates \& come potential borrower may differ the use of credit or seek it elsewhere.

Some writers stress on the fulfillment of credit needs of various sectors which insure investment. The investment lending policy of commercial bank is based on the profit maximization as well as the enhancement of the country.

### 2.1.1.2.b Lending

Lending as the fundamental function of bank is the cause of the origin of the banking. In the past, Commercial banks used to finance for short- term, however, banks lending operation have changed considerably over the years. They have started advancing loan to industrial, agriculture and priority sectors too. In the addition to deposit services and financing activities, banks provide some additional services to their customers. Along with the change in time the primary function of lending is change to other portfolios like credit cards, merchant banking, retail banking, traveler cheques etc.
"Lending is the essence of commercial banking, and consequently the formulation and implementation of sound policies are among the most important responsibilities of bank
directors and management. Well conceived lending policies and careful lending practices are essential if bank is to perform its credit creating function effectively and minimize the risk inherent in any extension of credit" (Crosse, 1963: 87).
"The term loan means the disbursement of amount; direct of indirect guarantee and right to recover the loan against its interest or other charges; refinancing against the collateral given for loan or investment; renew or restructure of loan; and guarantee issued or commitment made for clearance of loan. It also denotes any kind of credit." (Bank and Financial Institution's Act; 2006: 5)

This definition emphasize the need of sound lending policies for effective lending to minimize the risk involved, for this management must be careful and well knowledge.

Credit is financial assets resulting from the delivery of cash or other assets by a lender to a borrower in return for an obligation of repay on specified on demand. Banks generally grants credit on four ways.

1) Overdraft.
2) Cash Credit.
3) Direct Credit.
4) Discounting of Bills.

### 2.1.2. Deposits

It is important that the commercial banks deposit policy is the most essential policy for its existences. The growth of banks depends primarily upon the growth of its deposit. The volume of funds that management will use for creating income, through loans and investment is determined largely by the bank policy governing deposits. When the policy is restrictive, the growth of bank is restarted or accelerated with the liberalization in the deposit policy.

In banking business the volume of credit extension much depends upon the deposit base of a bank. The deposit creating power of commercial bank forces to rise the assets give to liabilities. Traditionally, the deposit structure of a commercial bank was through to be
determined by the depositor, and not by bank management. There is 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 aspect of the bank liabilities that management has been influencing through deliberate actions.
" The deposit creating power of commercial banks forces to raise the assets along with the liabilities side of the balance sheet. In other words, assets give raise to liabilities. Traditionally, the deposit structure of a commercial bank was though to be determined by the depositors and not by bank management. There are regular changes in this view in the modern banking industry "(Vidya; 1999, p:68).

Thus, banks have evolved from relatively passive acceptors of deposits to active bidder for funds. Deposits are one of the aspects of the bank liabilities that management has been influencing through deliberate action.

### 2.1.2.1 Types of Deposits

At the outset it is necessary to know what a deposit is. Commercial bank Act 2031, defines deposits is the amounts deposited in a current, saving or fixed a/c of a bank or financial institution. People in general, the businessmen; the industrialist \& other individuals deposit money in a bank. Bank, flows such amount as loan \& invest in different sectors to earn profit. Usually, a bank accepts three types of deposits. They are current, saving \& fixed deposits. But in other countries we find more than three deposits. In Nepal, banks grant permission to their customers to open three types of a/c under various terms \& conditions. This classification is made on different theoretical \& financial basis. Therefore, deposits of bank are classified on the following basis:

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## i. Demand Deposits

The deposit in which an amount is immediately paid at the time of any a/c holder's demand is called demand deposits. In another words, we can say this type of demand deposit as current a/c. current a/c means an a/c of amounts deposited in a bank, which may be drawn at any time on demand. Its transaction is continual \& such deposit can't be invested in the productive sector, so such type of amount remains as stock in the bank. Though the bank can't gain profit by investing it in new sector after taking from the customers, this facility is given to the customer. Therefore, the bank doesn't give interest on this account. From such deposit, the merchant \& traders are benefited more than the individual. The bank should pay as many times as the checks is sent until there is deposit in his a/c. the bank can't impose any condition \& restrictions in demand deposit. An institution or an individual, who usually needs money daily, precedes their acts \& transaction through such deposit. The current $\mathrm{a} / \mathrm{c}$ is very important for the customers of bank.

In any institution, which carries out cash transaction, there is possibility of corruption; misuses \& fraud. There should be a provision of separate employees for the recovery of the cash \& for the payment of the cash. The current $\mathrm{a} / \mathrm{c}$ is necessary to collect and buy the bills, to use the facility of over-draft, letter of credit, remittance etc. Current deposit on the one hand, saves time \& labor \& on other hand, the bank keeps the accurate of the a/c holders, so it is a great facility for the customers. Therefore, it has a great importance.

## ii. Saving Deposits

The bank can collect capital through the saving deposit as well. This deposit is also important \& its necessity \& scope is not negligible. According to the Commercial bank Act 2031, saving accounts means an a/c of amounts deposited in a bank for savings purposes. This account is suitable \& appropriate for the people of middle class, farmers and the labors who have low income, official \& small businessmen. This saving deposit bears the features of both of the current \& fixed period deposits. Generally, most accounts are opened saving deposit in a bank.

Therefore, the deposit is popular in people in general. According to internal rules or banks some banks demand a small amount \& some banks demand a great deal of money to open saving account. Different banks have made different rules. Some banks have made one hundred thousand, some banks have made two hundred thousand, some have three hundred thousand, some have five hundred thousand \& some have not fixed the limitation. So, there is divergence as to how much amount of money can be withdrawn. Banks give some interest on it.

## iii. Fixed Deposits

Under the commercial Bank Act 2031: Fixed Account means an account of amounts deposited in a bank for certain period of time. The customers opening such account deposit their money in this account, for a fixed period. In the other words, it is called time deposit because this account is deposited for a certain period.

Usually, only the person or institution who wants to gain more interest opens such type of account. The period of time can be 3 months, 6 months, 9 months, 1 year, 2 years, 3 tears, 4 years, 5 years etc. More interest rate is payable in this deposit than other deposit. Both parties the bank \& the customers can take benefit from this deposit. The banks invest this money on the productive sector $\&$ gains profit $\&$ the customers too can be made his financial transaction stronger by getting more interest from this deposit. The amount in the saving deposit must be returned to the customers after date is expires. The amount can't be withdrawn before the fixed time

### 2.1.2.2. Deposits Mobilization

"Collecting scattered small amount of capital through different Medias \& investing the deposited fund in productive sector with a view to increase the income of the depositor is meant deposit mobilization. In the other words, investing the collecting fund in the productive sectors \& increasing the income of the depositor, it also supports to increase the saving through the investment of increased extra amount" (NRB, 1984 no.24, p:1012).

When we discuss about Deposit Mobilization, "we are concerned with increasing the income of the low income group of people \& to make them able to save more \& to invest again the collected amount in the development activities. The main objective of Deposit Mobilization is to convert idle saving into active saving " (NBL, 2037 N0.4, p:7).

Saving refers to that part of the total income which is more than the expenditure of the individual. In other words, saving $=$ Total income - total expenditure. Basically saving can be divided into two parts: Voluntary saving \& Compulsory Savings. Amount deposited in different accounts of Commercial Bank, investment in government securities are some examples of voluntary saving. A commercial bank collects deposit through different accounts like fixed, saving \& current.

In developing countries there is always shortage of the capital for the development activities. There is need of development in all sectors. It is not possible to handle \& develop all the sectors by the government alone at a time, Private people also can not undertake large business because the per capita income of the people is very low while their propensity consumes is very high. Due to the low income their saving is very low and capital formation is also very low. So their saving is not sufficient for carrying on development work.

To achieve the higher rate of growth and per capita income, economic development should be accelerated. "Economic development may be defined in a very broad sense as a process of raising income per head through the accumulation of capital (Johnson, 1965, p:11). but how capital can accumulate in the development countries there are two ways one from the external and other from the internal sources. In the first gap foreign Aid, Loans and grants are the main. While in the later, financial institution operating with in the country, play in a dominant role. In the context of Nepal, commercial bank is the main financial institution which can play very important role in the resource mobilization for the economic development in the country. Trade, industry, agriculture and commerce should be developed for the economic development.

Economic development so defined is necessary and sufficient to generate rate of saving and investment. The generation of high rates of saving and there by investment is possible only through the commercial banks. Commercial banks occupies greater role in economic development by generating the saving towards the desired sectors from one place to another, communicating with its branches and agencies in different part of the country and the world and advising to the commercial people." Increasing the income of the low income group of people and making them able to save more, deposit mobilization helps to invest the collected deposit in desired sector" (NRB, 1984, no.24, p:25).

The saving growth rate depends among others, on the level of country's per capita income and its growth rate, population growth rate, interest rate in saving or, on bank account, banking and financial facilities and net factor income etc. The national income is the measure of the nation from the economic activities. Saving is the excess if income over consumption. Investment is the expenditure made for the formation of fixed capital. Mobilization of saving implies transfer of resources from surplus spending unit to deficit units. In this connection, financial intermediaries play an important role in mobilizing of voluntary saving.

The amount of saving of a typical household in Nepal is a small because the people have limited opportunities for investment. They prefer "to spend saving on commodities rather than on financial assets. These restricts the process of financial intermediation, which might otherwise bring such as reduction of investment risk and increase in liquidity when capital is highly mobile internally, saving from abroad can also finance the investment needed at home. When capital is not mobile internally, saving from abroad will limit investment at home.

Insurance of bank deposits, creation of proper atmosphere can increase deposits and the development of severity of capital markets with the helps of banks will prove effective in mobilizing the available floating resources in the country (Ghosal and Sharma, 1965, p:92). Capital formation is possible through collecting scattered unproductive and small saving from the people. This collected fund can be utilized in productive sector to
increase employment and national productivity. Deposit mobilization is the most dependable and important sources of capital formation (RBB, 2055 No.4, p:14). Banking transaction refers to the acceptance of deposits from the people for granting loan and advances, and returning the accepted deposit at demand or after the expiry of a certain period.

According to banking rules and regulations, this definition clearly states that Deposit mobilization is the starting point of banking transactions. Banking activities can be increase as much as we can mobilize the accumulated deposit effectively.

Deposit, such as current, saving and fixed are the main part of the working Capital. it is due to this reason that banks keep their deposit mobilization campaign always in full swing taking resort every possible means laying at their deposal. "A Commercial bank changes the scattered unproductive small saving into Lon able \& active savings. The bank not only collect saving, but also it provides incentives to the saver \& help them to be able to save more" (RBB, 2054 No.3, p:15). Commercial banks are set up with a view to mobilize national resources. The first condition of National Economic Development is to be able to collect more \& more deposit. In this context, the yearly increasing rate of commercial banks deposit clearly shows the satisfactory progress of deposit mobilization.

### 2.1.2.2.1 Need for Deposits Mobilization

The following are some reasons for why Deposit Mobilization is needed in a developing country like Nepal. Workshop report "Deposit Mobilization why \& how" Group "A" states the following points as the need for deposit mobilization (NRB, 1984, No.24, p:1012).

Capital is needed for the development of any sector of the country. The objective of Deposit Mobilization is to collect the scattered capital in different forms within the country.

It is much more important to canalize the collected deposit in the priority sector of a country. In our developing country's we have to promote our business \& 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 \& luxury goods. So, the government also should help to collect more deposit, steeping legal procedures to control unnecessary expenditures.

Commercial banks are playing a vital role for National Development. Deposit mobilization is necessary to increase their activities. Commercial banks are granting loan not only in productive sectors, but also in other sectors like food grains, gold \& silver etc. though these loans are traditional in nature \& are not helpful to increase productivity, but it helps, to some extent, to mobilize bank deposit.

To increase saving is to mobilize deposit. It is because if the production of agricultural \& industrial products increases, it gives additional income, which helps to save more, \& ultimately it plays a good role in deposit mobilization. Deposit mobilization plays a vital role for the economic development of an under developed \& developing country, rather than developed on e. it is because, a developed country does not feel the need of deposit mobilization for Under Developed Country (UDC) \& developing country.

Deposit mobilization plays a great role in such countries. Low National Income, Low per Capita Income, lack of technical know, vicious cycle of poverty, lack of irrigation \& fertilizer, pressure of population increase, geographical condition etc. are the main problem of Economic Development of an UDC like Nepal. So far the developments of these sectors concerned, there is needs of more capital. Again, instead of the development of a particular sector, the development of every sector should go side by side. So, the development process of these sectors on one side \& to accumulate the scattered \& unproductive sectors deposit on the other is the felt need of an UDC. We can take this in out country's present context.

### 2.1.2.2.2 Advantages of Deposit Mobilization

Following points as the advantages of deposit mobilization:

## i) Circulation of Idle Money

Deposit mobilization helps to circulate idle money. The meaning of deposit mobilization is to convert idle saving into active saving. It helps the depositors' habit of saving on one side, and it also helps to circulate the idle saving into productive sector on the others. This helps to create incentives to the depositors. Again, investment in productive sector helps to develop a country's economic development, and also increase in investors' income.

## ii) Formation of Capital

Capital plays a vital role for the development of industries. But in an underdeveloped country, there is always lack of capital to support such industries. Capital formation and industrialization is possible through deposit mobilization.

## iii) To Support Government Development Project

Every underdeveloped country's government needs a huge amount of money for development project. The deposit collected by the commercial banks can fulfill to some extent the need of money to the government.

## iv) Development of Banking Habit

One important side of economic development of a country is to increase banking habit in the people. Deposit mobilization helps in these aspects. If there is proper deposit mobilization, people believe on the bank and banking habit develops on the people.

## v) 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. It helps to canalized
idle money into productive sectors. Again it helps in the money supply, which saves the country from deflation and helps central banks objectives of monetary policy.

## vi) To Check up Miss Utilization of Money

Mostly our customs and habit are supported by social and religious believes. There is also tendency of copying others and to show there superiority buying unnecessary and luxury items in our society. In such society, deposit mobilization proves a tool to check up miss utilization of money.

## vii) Co-ordination between Different Sectors

It helps to collect capital from surplus and capital hoarding sector. The fund can be invested for the needy sectors. Thus, it helps to fulfill the gap between these two different sectors. Earning interest in their deposit and the needy sector by receiving loans and advances benefits the surplus and hoarding sectors, thus it helps to keep good coordination between different sectors.

## viii) To Promote Cottage Industries

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

## ix) Others

Deposit mobilization supports small savers by earning interests, helps to the development of rural economy, protects villagers from being exploitation of indigenous bankers, increase investment incentives, and provides facilities to the small farmers to purchase tools and fertilizers.

### 2.2. Review of Related Studies

This part consists of a review of past studies conducted by other researchers which are relevant to the topic.

### 2.2.1 Review of Articles

Fry, in the article, "Resources M obilization \& Financial Development in Nepal" says that the interest rate fixing authorities causes adverse effect on income distribution. Interest rate affects the savings \& its mobilization. A high interest rate diverts the resources from unproductive tangible assets into financial claim. For Nepalese people \& Nepalese undeveloped money \& capital market, interest can be taken as an important weapon in mobilizing the internal resources. Higher interest rate pushed people to some money \& it allows people to invest into best opportunities (Fry, 1974, p:15).

Joshi the chief officer of NRB in the topic "Rural Saving M obilization in Nepal" states that: The ability to save \& the incentive to save are the two major determinants of saving. The incentive to save as reflected in NRB real interest rate policy can be stretched for with profit. It is highly probable that the further increase in the growth rate of financial saving can materialize if a flexible policy is pursued to keep real interest rate at a positive level (Joshi, 1994, p:65-66).

Bajracharya, through his article "M onetary Policy \& Deposit M obilization in Nepal" has concluded that the mobilization of domestic savings is one of the monetary policies in Nepal. For this purposes commercial banks stood as the vital \& active financial intermediary for generating resources in the form of deposit of the private sector so for proving credit to the investor's in different aspects of economy (Bajracharya, 2047 BS, p:93-97).

Eventually the deposit expansion is to be bounded constrained by the low saving ability of the people as indicated by stagnant per capita GDP over the past decade. For a sustained growth of deposits or of overall saving rate what is needed more is to increase
the income level of the people in order therefore to make saving mobilization strategy effective \& successful policy measures should be taken considering two aspects of the strategy. In short run, policy should focus on the appropriate steps to tap saving within the existing banking framework while the long run measures should be adopted with a review to raising the investment rate \& making it more productive.

The researchers suggest the following points to increase and to extend volume of credit;
a. Credit planning.
b. Effective publicity and attractive prizes.
c. Extend the house saving account.
d. Revision in interest rate policy.
e. Win the confidence of local people.
f. Branch expansion policy.
g. Investment in priority sector.

Pradhan, in his article "Deposit Mobilization, its Problem and Prospects" has presented that deposit is the life-blood of every financial institutions, like commercial bank, finance company, and co-operative or non-government organization. He further adds in consideration of most of banks and finance companies, the latest figure dopes produce a strong feeling that serious review must be made of problems and prospects of deposit sector. Leaving few joint venture banks, other organizations rely heavily, on the business deposit and credit disbursement (Pradhan, 2053 BS, p:9-10).

The writer has highlighted following problems of deposit mobilization in Nepalese context.
i. Most of the Nepalese do not go for saving in institutional manner, due to the lack of good knowledge. However, they are very much used of saving be it in the form of cash or ornaments. Their reluctance to deal with institutional system is governed by
the lower level of understanding about financial organization process, withdrawn system, and availability of deposing facilities and so on.
ii. Due to lesser office hours of banking systems people prefers holding and cash in the personal possession.
iii. No more mobilization and improvement of the employment of deposits and loan sectors.
ii. Unavailability of the institutional services in rural areas.

The writer has also recommended for the prosperity of deposit mobilization which are as follows;
a. By providing sufficient institutional services in the rural areas.
b. By cultivating the habit of using rural banking unit.
C. By adding services hour system to bank.
d. NRB could also organize training programs to develop skilled man power.
E. By spreading co- operative to the rural areas for development of mini-branch services to these backward areas.

Kafle in his article entitled "NRB and its Policies for Monetary Control" opines that liberalization, the effect on deposit seems to be positive in the later period as it increased from 17.74 to $21062 \%$ of nominal GDP. And, this, there was a positive effect on saving mobilization, however in the case of loan and advances, commercial banks were found to be underlet because the percentage of loans and advances to nominal GDP was only $100.6 \& 11.9$ in the two period respectively (Kafle, 2053 B.S. p:15).

MR. Bhatta, on his article "financial policies to prevent financial crisis" has given more emphasis on Nepalese financial market sector. He has mention the financial crisis occurred in China, Mexico, South Asia, Russian Federation Ecuador, Brazil \& Argentina. This crisis affected all this economic by posing negative effect in their real output. He has
also focused on Nepalese financial market, which is directly effected by the national and international events. The most effected event was September 11 incident in the U.S.A., have added more to the fragility in the global financial market. In present context in many part of the world, the move towards liberalization is getting its momentum on one hand and process of economic development is being threatened due to various anticipated incidents on the other. He has define a financial crisis is a description to financial markets in which adverse selection and moral hazard problems become much worse, so that financial markets are unable to efficiently channel funds to those who have the most productive investment opportunities.

He has given light on the dynamics of financial crisis dividing it into three stages. Also he has suggested the policies to prevent financial crisis. Following policies are supposed to be applicable for preventing financial crisis.
1.Prudential supervision.
2.Legal and judicial system.
3.Encouraging market based discipline.
4.Monetary policy and price stability.
5.Limitation of too-big -to fail in the corporate sector.
6.Restrictions on foreign denominated debt.
7.Accounting standards \&disclosure requirements.
8.Capital controls. Sequencing financial liberalization etc.
9.Reduction of the role of the state owned financial institution.
10.Entry of foreign banks.
11.Exchange rate regimes and foreign exchange reserves.

Lastly he has conducted that there is no doubt that the key to preventing future financial crisis is to implement sound domestic economic policies and build robust financial institutions. The experiences of the crisis hit countries, especially during the decade of nineties, has proved that a country opening to liberalized economic policy should adopt
sequencing policies constraining the pace of participation on the global market place until a sound domestic infrastructure can be put into place (Bhatta,2054 B.S.).

Shrestha, in her Ph.D thesis entitled. "Investment planning of Commercial Banks in Nepal." has concluded that bank portfolio (loan and investment) of commercial banks has been influenced by the variable securities rates. Investment planning and operation of commercial banks in Nepal has not been found satisfactory in terms of profitability, safety, liquidity, productivity, and social responsibility. To overcome this problem she has suggested "commercial; bank should take their investment function with proper business attitude and should perform landing and investment operation efficiently with proper analysis of the project.

Mr. Shrestha, Deputy Chief officer of NRB Banking operation department, has given a short glimpse on the "Portfolio Management in Commercial Banks, Theory and Practice" Shrestha has highlighted issue in the article.

The portfolio management becomes very important both the individual and the institutional investors. Invest would like to select a best mix of invests assets subject to the following aspects.
-Higher return which is comparable with alternative opportunities available according to the risk class of investors.
-Good liquidity with adequate safety of investment.
-Certain capital gain.
-Maximum tax concession.
-Flexible investment.
-Economic efficient and effective investment mix.

In view of above aspects 'following strategies are adopted'
-Do not hold any single security; try to have a portfolio of different securities.
-Do not put all the eggs in the one basket; to have diversified investment.
-Choose such a portfolio of securities, which insures maximum return with minimum risk or lower of return with added objectives of wealth maximization.

However, Mr. Shrestha has also presented following approach to be adopted for designing a good portfolio and its investment.

- To find out the invisible assets (generally securities) having scope for the Better returns depending upon individual characteristics like age, health, Need, disposition, liquidity, tax liability etc.
- To find out the risk of securities depending upon the attitude of investor towards risk.
- To develops alternative investment strategies for selecting a better Portfolio, which will insure a trade-off between risk and return so as to attach the primary objectives of wealth maximization at lower risk.
- To identify of securities for investment to refuse volatility of return and risk.

Shrestha has presented two types of investment analysis technique; i.e. fundamental analysis and technical analysis to consider any securities such as equity, debenture or bond and other money and capital market instrument. He has suggested that the bank having international network can also offer access to global financial markets. He has pointed out the requirements of skilled manpower, research and analysis team and proper management information system (MIS) in any commercial banks to get success in portfolio management and customer confidence.

According to Shrestha, the portfolio management activities of Nepalese commercial banks at present are in nascent stage however, on the other hand, most of the banks are not doing such activities so for because of following reasons.
1.Unawareness of the clients about the services available.
2.Hesitation of taking risk by the clients to use such facilities.
3.Lack of proper techniques to run such activities in the best and successful manner.
4.Less developed capital market and availability of new financial instruments in the financial markets

Regarding the joint venture commercial banks, they are very eager to provide such services but because of above mentioned problems very limited opportunities are available to the banks for exercising the portfolio management.

Shrestha has drowned following conclusion-

1) The survival of the banks depends upon its own financial health and various activities.
2) In order to develop and expand the portfolio management activities successfully, the investment management mythology of a portfolio manager should reflects high standard and give their clients the benefits of global strength, local insights and prudent philosophy.
3) With the disciplined and systematic approval to the selection of appropriate countries, financial assets and the management of various risks; the portfolio manager could enhance the opportunities for each investor to earn superior return over time.
4) The Nepalese banks having greater network and access to national and international capital markets have to go for portfolio management activities for the increment of their fee based income as well as to enrich the clients based and to contribute in national economy.

### 2.2.2 Review of Previous Thesis

In time of research of secondary sources it found that some student from T.U. and other management campus have conducted several thesis works. Some of them are supposed to be relevant for this study is presented below.

A study conducted by Pradhan entitled; (A study on investment policy of NABL, 1980) has tried to find out to what extent NBL has been able to utilized mobilized deposits. This is concerned only from 2029 to 2034 B.S. and mainly based on secondary data various
statistical tools; Coefficient of correlation for testing the relationship between the deposit and loan and advances, ratio analysis to compare different factors like loan and advances and deposit, bank's liquidity position, profitability condition etc.

The writer found that there is a greater relationship between deposits and loan and advances. Increase in deposits leads to increase in the loan and advances but when immense increase in the deposits leads to little bit increase in loan and advances. The writer also found that it could invest only $2.98 \%$ on the priority sector in 2034B.S. bank could not mobilize its resources. In this thesis, the writer recommended that the bank 'should invest more on agriculture sector and further says the bank should make clear policy to provide the loan. The bank should invest on risky sector to earn more profit and increase the rate of interest in deposit side and decrease in loan and advances.
M.N. Karmacharya, in this thesis paper," (A study on the deposit mobilization by the Nepal bank Ltd. 1998) during eight years study period has concluded that the utilization side of Nepal Bank Ltd. has been weak as compare to the collection of resources. He has mentioned that the bank has successfully mentioned its liquid assets position but couldn't mobilize its resources efficiently. He has suggested to set-up more banking branches to increase the deposit collection and long-term as well as short-term credit. He has recommended not to consider security factor only but to provide loan to genuine project without security (Karmacharya,1988).

Mr. Raja Ram Khadka in his thesis paper, (A study on the investment policy of Nepal Arab Bank ltd. In comparison other joint venture banks in Nepal,1998) He has compared investment policy of NAB ltd. with Nepal Grind lays Bank Limited (NGB) and Nepal Indosuez Bank Ltd. his study is based on five years period from 1992 to 1996. He has taken only two banks to compare the investment policy NAIL among thirteen commercial banks in Nepal.

Mr. Khadka has suggested to the joint venture banks to be careful in increasing profit in real sense to maintain the confidence of shareholders, depositors and customers. He has strongly recommended NABIL to utilizing risk assets and shareholders funds to gain
highest profit margin, reduce its expenses, and cheaper fund for more profitability. He has recommended investing its fund in different sector of investment and administering various deposit schemes, house building deposit scheme etc (Khadka, 1998).

Samiksha Thapa, in her thesis paper, (A comparative study on investment policy of Nepal Bangladesh bank ltd. and other joint venture banks of Nepal, 2000) has compared the investment activities NBBL with only two of the joint venture banks. By taking five years data, she has recommended in two ways, first statement recommendation and second theoretical recommendation. In statement recommendation, she has suggested about investment in government securities, OBS operation loan recover act, sound credit collection policy, project oriented approach, effective portfolio management, innovative approach to bank marketing and banking facilities. In theoretical recommendation she has suggested about liberal lending policy and cost management strategy

This study conducted by Pant entitled, "A study of deposit collection and utilization of commercial banks in Nepal" with the main objectives:
1.To find out whether commercial banks have been able to collect deposit from different sector.
2.To find out whether banks are to satisfy financial need of economy.
3.To find out relationship between deposits and loans. .

For the purpose of study, activities of NBL and RBB are taken together the period of 14 years. Only secondary data are used in this study to gather the required information regarding existing position of commercial banks.

The writer found that deposits are collected much from individuals and deposits from organization is very low, similarly more loans are granted to the commercial sector and a little amount to the agriculture and industrial by commercial banks. They cannot utilize
the deposit properly. The writer further found, there is positive relation between deposits and loan.

The writer recommended that commercial banks should not limit their lending activities in only business sectors. Commercial banks also offer long term loans not only short term period. At last, he suggest that the fully interest rates should be changed by making it's more suitable to expand the services of commercial banks in all sectors (Thapa, 2000).

Agrawal, in the thesis entitled, (A study on deposit and investment position of Yeti
Finance Company Ltd., 2002) has tried to examine the trend of deposit position and investment position of the Yeti finance company. That study was conducted on the basis of secondary data and used various financial tools to analyze the data. Study just covered only period of five years i.e. 1997 to 2001 (Agrawal, 2000).

The researchers have found that the deposit policy is not stale but has highly fluctuating trend and investment is gradually in increasing trend. The researcher found there is highly positively correlation between total deposit and total investment the researcher concluded that Finance Company has been found profit oriented, ignoring the social responsibility which is not a fair strategy to sustain in long run. Therefore, it is suggested the company should involve in social program which helps the deprive people who are depended helps in agriculture. Agriculture is the paramount of Nepalese economy so that any finance company should not forget to invest in this sector. In order to do so, they must open their branches in remote area with an objective of providing cheaper financing services.

Tandukar, in the thesis entitled (Role of NRB in deposit mobilization of commercial banks, 2003) has tried to examine role of NRB in deposit collection by the commercial banks and to analyze the trend, of deposits mobilization towards total investment and loan and advances. Projection is for five years i.e.(1998 to 2002). The data used in those studies is both secondary and primary nature. The researcher used different financial tools such as liquidity ratio, profitability ratio, risk ratio and coefficient of correlation, trend analysis as statistical tools. The researcher took 17 commercial banks as population and two banks i.e. NBBL and EBL as sample banks. The researcher has found that it can be said that all new directives of NRB of commercial banks are effective and it is good
for both nation and the future of the banks but the loan classification and provisioning seems to be little bit uncomfortable to the commercial banks. Deposit and loan and advances of NBBL are higher than EBL but in case of the investment EBL is able to mobilize more funds than NBBL in this sector.

The researcher has recommended to NBBL that diversification of loan and investment is highly suggested to the bank. As NBBL has given priority in investment in treasury bills which is risk free but it yields very low return to the bank and recommended to EBL to collect the deposit by initiating various new program to attract the customer for this it can play a higher interest rate than other banks recently providing (Tandukar, 2003).

Manoj Dahal, in the thesis entitled, (Fund Mobilization of NBL \& SCBNL, 2007) has tried to examine the trend of deposit position and investment position of NBL and SCBNL. That study was conducted on the basis of secondary data and used various financial tools to analyze the data. Study just covered only period of four years i.e. 2003 to 2007 (Dahal , 2007).

The researchers have found that all commercial banks operating in Nepal are facing problem due to the violence \& political instability. But this problem of NBL is great because this bank is government owned commercial banks and serving in remote area with the large no of branches so this bank didn't properly utilize fund then the private sector commercial banks SCBNL.

### 2.3 Research Gap

The purpose of this research is to develop some expertise in one's area, to see what new contribution can be made and to receive some idea, knowledge and suggestion in deposit mobilization of commercial banks in Nepal base on the sample commercial banks. Thus, the previous studies can not be ignored because they provide the foundation to the present study. This research is ensured by linking the present study with the past research studies. Here, it is clear that the same titled is found but the studies of Deposit mobilization compare between Nepal Bank Ltd. and Nepal Investment Bank Ltd. are not found. The new objectives are chosen for this study, which was never studied before, about the sample banks. Therefore, to fulfill this gap, this research is selected.

## CHAPTER - THREE

## RESEARCH METHODOLOGY

### 3.1 Introduction

"Research methodology refers to various sequential steps to adopt by a researcher in studying a problem with certain objectives in view"( K othari, C.R. "Quantitatives Techniques" New Delhi: Vikash publishing house Pvt. Ltd. 1992). In other words, research methodology describes the method and process applied in the entire aspect of the study. It is the process of arriving at a solution of the problem through planned and systematic dealing with the collection, analysis, and interpretation of facts and figures. Research is a systematic method of finding right solutions for the problem where as research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. In other words, research methodology refers to the various methods of practices applied by the researcher in the entire aspect of the study.

The basic objectives of this study is to evaluate the fund mobilizing policy of Nepal Investment bank has got in the whole commercial JVBS of Nepal \& recommend the useful \& meaningful, points. So that all concerned can achieve something from this study. To accomplish this goal, the study follows the research methodology described in this chapter.

### 3.2 Research Design

A research design is the specification of methods and procedures for acquiring the information needed. It is the overall operational pattern of framework for the project stipulates what information is to be collected from which sources and by what procedures. Thus a research design is a plan for the collection and analysis of data. This study is designed to the study on deposit mobilization of commercial banks with reference to Nepal Investment Bank Ltd. and Nepal Bank Ltd. A descriptive and
analytical survey will be done. The justification for the choice of these methods is preferred because it includes reliable data and information covering a long time and avoids numerous complex variables.

Basically, the proposed study is mainly based on two types of research design namely descriptive and analytical. Descriptive research design describes the general attitude of the Nepalese depositors, business environment, problems regarding the deposits mobilization aspects etc. Similarly, the analytical research design makes a through analysis of gathered facts and information and critically evaluates it as well.

Some statistical \& accounting tools have also been applied to examine facts and descriptive techniques have been adopted to evaluate funds mobilizing performance of Nepal Bank Ltd \& Nepal Investment Bank Ltd. These are compared with the deposit mobilization position of commercial banks in aggregate.

### 3.3 Sources of Data

This study is conducted on the basis of secondary data. The data relating to the investment, deposit, loan \& advances, assets, \& profit are directly obtained from the balance sheet \& profit \& loss a/c of concerned bank's annual reports. Supplementary data \& information are collected from number of institution \& regulating authorities like NRB, security exchange board, Nepal stock exchange Ltd, Internet, Ministry of finance budget speech of different fiscal years, economic survey \& national planning commission etc.

According to the need \& objectives, all the secondary data are compiled. Processed \& tabulated in time series. In order to judge the reliability of data provided by the banks \& other sources, they were compiled with the annual reports of auditors. Formal \& informal talks to the concerned head of the department of the bank were also helpful to obtain the additional information of the related problem.

Similarly, various data \& information are collected from the periodic economic journals, managerial magazines \& other published \& unpublished reports \& documents from various sources. This research study would be based on the secondary data that are available in the published form.

Specifically, the required data for the study has been collected from the concerned organizations and a number of publishers. In other words, it has been gathered from a number of books, journals, articles, reports, etc. Some of the major types and sources of data are as follows:

- Annual report of Nepal bank Ltd.
- Annual Reports of Nepal Investment Bank Ltd.
- Banking and financial statistics of Nepal Rastra Bank.
- Central Bank's directives to Commercial Banks:
- Statistics Nirdesika 2059
- Consortium Financial Directive
- Main Economic Indicators
- Recent macro economic situation of Nepal, 2004/2005


### 3.4 Population \& Sampling of the study

There are twenty five commercial banks operating in Nepal in mid July 2008 which accept about 81 percent of the total deposits and sanction 71 percent of total loans and advances out of the total depository institutions. Out of these twenty five banks operating in the nation, two commercial banks representing the government sector and private sector Nepal bank limited and Nepal Investment Bank Limited respectively are selected as the base for the study. The deposit mobilization positions of these two banks are studied comparatively with the deposit mobilization of aggregate commercial banks within the country.

### 3.5 Method of Analysis

To achieve the objectives of the study, various financial, statistical \& accounting tools have been used in this study. The analysis of data will be done according to pattern of
data available. Because of limited time \& resources, simple analytical statistical tools such as graph, percentage, Karl Pearson's coefficient of correlation, \& the method of least square, are adopted in this study. Especially descriptive analysis method is used for the study.

The various calculated results obtained through financial, accounting \& statistical tools tabulated under different heading and these are compared with each other. Major tools used for the analysis of collected data are:

### 3.6 Necessary tools and techniques for the study

This thesis work is based on financial as well as statistical analysis. Some major tools and techniques applied for making the thesis work more presentable are briefly considered below

### 3.6.1 Financial analysis (Ratio Analysis)

In this unit the financial position of the banks are observed. Especially the ratio analysis technique is applied for financial analysis of total commercial banking system and sampled banks in this unit. An arithmetical relationship between two figures is known as ratio. It is computed by dividing one item of relationship with the other. Ratio simply means one number expressed in terms of another.

Ratio analysis is a technique of analysis \& interpretation of financial statement. To evaluate the performances of an organization by creating the ratios from the figure of different accounts consisting in balance sheet \& income statement is known as ratio Analysis. Ratio analysis is also very helpful for decision making. From the information provided by ratio analysis with the help of financial statement are very useful for making decision on any financial activity. Due to inter-firm comparison ratio analysis also serves as a stepping stone to remedial measures. It helps management in evolving future market strategies'.

## I. Liquidity Ratios

It measures the capacity of firms to meet its cash obligation. Commercial banks 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 or long run profit. Following ratios are calculated.

## Analysis of Liquid Assets as a Portion of Total Assets;

Liquid assets consist of liquid funds, government securities and NRB bonds it is the obligation of the banks. Highest will be the ratio highest will be the investment. It can be calculated as

$$
\text { Liquid assets to total assets ratio }=\underline{\text { liquid assets }} \underset{\text { Total assets }}{ }
$$

## Analysis of Return on liquid assets ratio

Return on liquid assets measures the profit earning capacity by utilizing its liquid assets. Return will be higher if the banks liquid assets is well managed and efficiently utilized. Higher will be the return better will be the financial position of the bank. The higher ratio shows the better earning capacity of the bank. We can find the return on liquid assets ratio by using the formula:

$$
\text { Return on liquid assets }=\frac{\text { Net profit }}{\text { Liquid assets }}
$$

## Analysis of Liquid fund to total deposit ratio

Liquid fund is said to be the first line defense of every bank. The ratio between the liquid fund and total deposit measures the ability of a bank to meet the unanticipated call on all types of deposit. This ratio is calculated by;

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

## ii. Assets Management Ratios

Assets management ratio measures the efficiency of the bank to manage its assets in profitable and satisfactory manner. A commercial bank must manage its assets properly to earn high profit. By the above analysis the mean ratio of total deposit to total assets ratio describes the banks have adequate deposit to meets its assets management. All the banks have adequate ratio of total deposit to total assets.

## Analysis of Total Deposit as a Composition of Total Liabilities;

Total deposit and total liabilities are the most essential liabilities of the commercial banks. Higher the ratio higher will be the financial position of the organization; if ratio will higher banks expand deposit in various sectors with heavily ratio. It can be calculated as:

$$
\text { Total deposit to total liabilities }=\frac{\text { Total deposit }}{\text { Total liabilities }}
$$

## Analysis of Total investment to Total Deposit Ratio;

Commercial bank mobilizes its deposits by investing its deposit in different securities issued by government and other financial or non financial companies. This ratios measures the extent to which the banks are able to mobilized their deposit on investment in various securities a high ratio indicates the success in mobilizing deposit in investment and vice versa. We have,

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

## Analysis of Loan and Advances to Total Assets Ratio;

Loan and advances is an important part of total assets. Commercial banks must be very careful in mobilizing its total assets as loan and advances in appropriate level to generate profit. This ratio reflects the extent to which the commercial banks are success, in mobilizing their assets, on loan and advances for the purpose, of income generation. A
high ratio indicates better mobilization of assets on loan and advances and vice versa. We have,

$$
\text { Loan and advances to total assets ratio }=\frac{\text { loan and advances }}{\text { Total assets }}
$$

## Analysis of Loan and advance to total deposit ratio

The ratio measures the extent to which the banks are able to mobilize their deposit on loan and advances. A high ratio of loan and advances to total deposit indicates better mobilization of collected deposits and vice versa. But, it should be noted that too high ratio might not be better from its liquidity point of view. This ratio is calculated by using following equation:

$$
\text { Loan and advances to total deposit ratio }=\frac{\text { loan and advances }}{\text { Total deposit }}
$$

## Analysis of Investment on government bond to total deposit ratio

Commercial banks are investing into various sectors. Government bond is the one of the most secure sector for the investment. There is no doubt of repayment of the government bond. So, the investment in government securities is relatively better than investment in debenture and shares of other company. The ratio of investment on government bond to total deposit shows the portion of the deposit that is invested in government bond. Higher the ratio higher will be the chance of repayment of investment and that prevents the bank from the defaulters. The ratio can be calculated by using following equation:

Investment on government bond to total deposit ratio $=$ Invt. On gov. bond Total deposit

## iii. Profitability Ratios

The ultimate objective of all the commercial banks is to earn profit. It is true that, no bank can survive without profit. Profit is the indicator of efficient operation of bank. The bank acquires profit by providing different services to its customer or by making investment on different sectors. Sufficient profit is required for liquidity management,
grab investment opportunities, expand banking transaction, provide development fund to the government, overcome the future financial problems and for meeting the internal obligation of the bank. It measures the efficiency of bank. The ratios, which are related to the deposit mobilization, are studied in this unit

## Analysis of Interest Income to Total Income ratio

Total income is aggregate income of the bank that is earned by utilizing the available resources and management technique of the bank. Interest income is the part of total income that is earned by mobilizing the deposit and other funds to the loan and advances. Interest income is the major income of the bank. The interest income to total income ratio shows the portion of interest income in total income. This ratio shows the efficiency of bank to mobilize the deposits or other funds to loan and advance. Higher the ratio higher will be the earning power and vice versa. This ratio can be calculated by using following equation:

$$
\text { Interest income to total income ratio }=\frac{\text { Interest income }}{\text { Total income }}
$$

## Analysis of Return on Total Assets ratio

Return on total assets ratio measures the profit earning capacity by utilizing available resources. This ratio measures the financial position of the banks and shows the assets management capacity of the bank. If the bank's total assets are well managed the ratio will be higher. This ratio is calculated by using following equation:

$$
\text { Return on total assets }=\frac{\text { Net profit }}{\text { Total assets }}
$$

## Analysis of Return on loan and advance ratio

Return on loan and advances ratio measures the earning capacity of the commercial banks. Deposit mobilized on loan and advances is well recognized. But the Nepalese banks are facing the problems of default of payment of loan and advance. So the ratio of return on loan and advance is calculated and analyzed here. This ratio shows the earning
and recovering efficiency of the bank. To measure the efficiency; higher the ratio higher will be the efficiency and vice versa. The ratio can be calculated by using following equation:

$$
\text { Return on loan and advances ratio }=\frac{\text { Net profit }}{\text { Loan \& adv. }}
$$

## Analysis of Interest Expenses to Total Expenses ratio

Total expenses measures the efficiency of the bank if expenses are higher return will be lower and vice versa. Interest expenses are the unavoidable part of total expenses of the commercial bank. The portion of interest expenses among the total expenses shows the depository position of the bank. If the ratio of interest expenses to total expenses is high the bank has enough deposit and if the ratio is low the bank is unable to have enough deposit. On the other hand this ratio shows the efficiency of the bank to manage the expenses. If the ratio is small the bank is able to manage the expenses efficiently and vice versa. This ratio can be calculated by using following equation:

$$
\text { Interest expenses to total expenses }=\frac{\text { Interest expenses }}{\text { Total expenses }}
$$

## iv. Growth Ratios

Growth ratio represents the how well the commercial banks are maintaining their economics and financial position. Higher the growth rate better performance of the banks and vice versa. Under this topic various types of ratio are studied, that are directly related to the deposit mobilization of commercial banks.

## Growth of return

Deposit is the main source of the fund for the commercial bank. Commercial banks should have adequate deposit for running their operations smoothly. So, it has to be
increased with passes of time. If the growth of the deposit is positive and higher, better will be the financial position and the efficiency of the bank.

## Growth of loan and advances

Loan and advances are the main transaction of the commercial bank. The major element where the banks mobilize their funds is loan and advance. Commercial banks mobilize their deposit in productive sector for earning profit and making the financial position of the bank better. So, increasing growth rate is necessary for increasing the return of the bank.

## Growth of investment

Banks collect deposits from people and invest it to the various productive sectors. Banks have to collect adequate deposit; and invest it to the productive sector for regular return. The investment of the bank increases only when the bank is able to increase the collection of the deposit and mobilize the collected deposit well. If the investment of the bank is increasing, the return will be high.

## Growth ratio of deposit

One of the most important objectives of the bank is to maximize the return. It is possible through the proper mobilization of deposit. If the bank is able to mobilize the deposit well, higher will be the return and the performance of the bank.

## v. Standard Deviation

The measurement of the scatter of the mass of figure in a series about an average is known as dispersion. The standard deviation measures the absolute dispersion. The greater the amount of dispersion, larger will be the standard deviation. A small standard deviation means a high degree of uniformity of the observation as well as home gently of a series; a large standard deviation means just the opposites. In this study, standard deviation of different ratio is calculated.

$$
\text { S.D. }=\sqrt{\sum \underline{x}^{2}-\left(\frac{\left.\sum x\right)^{2}}{N}\right.}
$$

## vi. Co-efficient of variance (C.V)

The co-efficient of variance is the relative measurement of dispersion, comparable across distribution, which is defined as the ratio of the standard deviation to the mean expressed in percentage. It is calculated as.

$$
\text { C.V }=\frac{\text { S.D }}{\text { Mean }} \times 100 \%
$$

Where,

$$
\text { Standard deviation (S.D.) }=\sqrt{\sum_{\mathbf{N}} \underline{x}^{2}-\left(\sum x\right)^{2}}
$$

### 3.6.2 Statistical tools

### 3.6.2.I Coefficient of Correlation Analysis (r)

Correlation is the statistical tools which may be defines as the degree of linear relationship existing between two or more variables. Two variables are side to be correlated when the change in the value of one variable is accompanied by the change of another variable. The coefficient of correlation measures the degree of relationship between two sets of sigma. Among the various methods of finding out coefficient of correlation, Karl Pearson's method is applied in the study. The result of coefficient of correlation is always between $+1 \&-1$. When $\mathrm{r}=+1$, it means there is perfect relationship between two variables \& vice versa. When $\mathrm{r}=0$, it means there is no relationship between two variables. The Pearson's formula is:
$\mathbf{r}=\frac{\sum(\mathbf{x}-\bar{x})(\mathbf{y}-\bar{y})}{\sqrt{\sum(\mathbf{x}-\bar{x})^{2} \sum(\mathbf{y}-y)^{2}}}$

The Probable error is used to measure the reliability and test of significance correlation coefficient. It is calculated by the following formula.

$$
\text { P.E.r }=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}
$$

### 3.6.2. II Least Square Linear Trend

Among the various methods of determining trend of a time series, the most popular \& mathematical method is the least square method. Using the method of least square it has been tried to estimate the figure trend of loan \& advances \& deposit investment. For estimation, straight- line method is.

$$
\mathbf{Y}=\mathbf{a}+\mathbf{b x}
$$

Where,

$$
\begin{array}{ll}
Y=\text { Dependent variable. } & X=\text { independent variable } \\
a=Y \text { intercept } & b=\text { slope of the trend line }
\end{array}
$$

### 3.6.2.3 Test of hypothesis (t- test)

In Statistic, hypothesis means a statistical statement about the value of one or more parameters population. To test the validity of our assumption, if sample size is less than $30, \mathrm{t}$ - test is used 30 '. Applying t - test in the context of small sample, the ' t ' value is calculated first \& compared with the table value of ' $t$ ' at a certain level of significance. If value of ' $t$ ' exceeds the table value, We conclude that the difference is significant. But if it is less than the concerning table value it is not treated as significant.

## CHAPTER- FOUR PRESENTATION AND ANALYSIS OF DATA

This chapter is the major body of the research work. This chapter presents and analyses the collected data for the achievement of the objective of this study and helps the researcher to reach to the conclusion. This chapter is divided into major two parts the first is financial analysis and the second is statistical analysis.

### 4.1 Financial analysis

Financial analysis is the profound study of the financial position of an institution .financial analysis in this study is the calculation an evaluation of various financial ratios, specially the ratios related to the deposit mobilization of selected banks. This section deals with the financial ratios which would be helpful for the researcher to reach to the conclusion and make the conclusion more believable and more presentable too. Following four categories of ratios are presented in this section:
-Liquidity ratio.
-Asset management ratio.
-Profitability ratio.
-Growth ratio.

### 4.1.1. Liquidity Ratio:

Liquidity ratio shows the short term solvency position of an institution. Commercial bank must maintain the satisfactory level of the liquidity to meet the credit need of the customer. Similarly demand for the deposit withdrawal and pay maturity in time are the other points which clarify the need of balanced liquidity position. The satisfactory level of liquidity helps the bank to run smoothly without any loss on short-term and even in long-term. Following liquidity ratios are calculated and evaluated in this unit:

### 4.1.1.1 Analysis of Liquid Assets to Total Assets ratio

Liquid assets consist of liquid funds, government securities and NRB bonds it is the obligation of the banks. The liquid assets is the part of total assets that can be invested on the productive sector .If the ratio of liquid assets to total assets is higher the bank has the higher opportunity of investing and vice versa. The ratio can be calculated by using following formula:
Liquid assets to total assets ratio $=\quad$ liquid assets
Total assets

Table no. 4.1
Liquid assets to total assets ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 |  |  |  |
| Total | 13.61 | 9.38 | 9.06 | 8.99 | 11.8 | 10.57 | 1.75 | 16.56 |
| NBL | 14.59 | 12.51 | 15.36 | 17.84 | 12.02 | 14.46 | 1.79 | 12.38 |
| NIBL | 9.17 | 8.24 | 11.04 | 10.12 | 9.66 | 9.65 | 0.93 | 9.64 |

(Source: banking and financial statistics, NRB). (Annex 1.1.i)

Liquid assets to total assets ratio


Table no. 4.1 and chart no. 1 are the presentations of liquid assets to total assets ratios of sampled banks and total commercial banking system for the study period of mid-July 2003to mid -July 2008. The ratio of the both sample banks are fluctuating but the ratio of total banking system are decreasing during the study period. NBL has the highest liquid assets to total assets ratio ( $14.46 \%$ ) in comparison to the ratio of total commercial banking system (10.57\%) and NIBL (9.65\%)

SD of the ratio is highest for NBL (ie.1.79\%) in comparison to total commercial banking system ( $1.75 \%$ ) and NIBL ( $0.93 \%$ ).

Coefficient of variation of the ratio of total commercial banking system is highest ( $16.56 \%$ ) in comparison to NBL ( $12.38 \%$ ) and NIBL ( $9.64 \%$ ).

Analyzing these facts and figures it is found that NBL has maintained the highest liquid assets to total assets ratio in comparison to total banking system and NIBL for the study period of five years. It means NBL have the better investing capacity in total commercial banking system. It is also found by the analysis that, NBL has the highest ratio in the final year of the study.

### 4.1.1.2 Analysis of Return on liquid assets ratio

Return on liquid assets measures the profit earning capacity by utilizing its liquid assets. Return will be higher if the banks liquid assets is well managed and efficiently utilized. Higher will be the return better will be the financial position of the bank. The higher ratio shows the better earning capacity of the bank. We can find the return on liquid assets ratio by using the formula:

$$
\text { Return on liquid assets }=\frac{\text { Net profit }}{\text { Liquid assets }}
$$

Table no. 4.2
Return on liquid assets ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 2003/04 | $\mathbf{2 0 0 4} / \mathbf{0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |  |  |  |
|  | 8.02 | 11.65 | 8.32 | 12.88 | 17.83 | 11.74 | 3.58 | 30.46 |
| NBL | 11.02 | 29.39 | 21.88 | 3.24 | 4.73 | 14.05 | 10.09 | 71.84 |
| NIBL | 12.56 | 17.32 | 14.89 | 17.96 | 18.55 | 16.26 | 2.23 | 13.71 |

(Source: banking and financial statistics, NRB) (Annex 1.1.ii)

## Return on liquid assets ratio



Table no. 4.2 and Chart no. 2 present the ratio of return on liquid assets of the total commercial banking system and sampled banks. The ratios of all the banks are fluctuating in the study period.

Mean return of NIBL is highest ( $18.26 \%$ ) in comparison to NBL (14.05\%) and total commercial banking system (11.74\%).

SD of return of the NBL ( $10.09 \%$ ) is highest in comparison to NIBL ( $2.23 \%$ ) and total commercial banking system (3.58\%).

Coefficient of variation of the return of NBL is highest (71.84\%) in comparison to NIBL ( $13.71 \%$ ) and total commercial banking system (30.46\%).

After analyzing above facts and figures it is found that the NIBL has managed its liquid assets strongly in comparison to NBL and total commercial banking system.

### 4.1.1.3 Analysis of Liquid fund to total deposit ratio

Liquid fund is said to be the first line defense of every bank. The ratio between the liquid fund and total deposit measures the ability of a bank to meet the unanticipated call on all types of deposit. Higher the ratio grater will be the ability to meet the sudden demand of deposit. But very high ratio is not desirable since bank has to pay interest on deposit. The high ratio of liquid fund also maximizes the cost of fund to the bank.

This ratio is calculated by;

Liquid fund to total deposit ratio $=\underline{\text { liquid fund }}$ Total deposit

Table no.4.3
Liquid fund to total deposit ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 2003/04 | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6} / \mathbf{0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |  |  |  |
|  | 19.78 | 15.2 | 13.34 | 13.06 | 15.7 | 15.42 | 1.41 | 9.17 |
| NBL | 17.76 | 16.94 | 15.57 | 18.09 | 12.2 | 16.11 | 2.14 | 13.29 |
| NIBL | 10.38 | 9.4 | 12.44 | 11.4 | 10.90 | 10.90 | 1.01 | 9.30 |

(Source: banking and financial statistics, NRB) (Annex 1.1.iii)


Above table and the chart are the presentation of the ratio of liquid fund to total deposit of the total commercial banking system and two sampled banks. The ratios of both the sampled banks and the total commercial banks are fluctuating during the study period.

In average NBL has maintained the highest liquid fund to total deposit ratio of (16.11\%) in comparison to NIBL ( $10.90 \%$ ) and total commercial banking system ( $15.42 \%$ ).

SD of the ratio of NBL is highest ( $2.14 \%$ ) in comparison to NIBL (1.04\%) and total commercial banking system (1.41\%).

Coefficient of variation of the NBL is highest (13.29\%) in comparison to NIBL (9.30\%) and total commercial banking system ( $9.17 \%$ ).

After analyzing the facts and figures, it is found that both the sampled banks and total commercial banking system have little bit similar liquid fund to total deposit ratio, but while making comparison NBL has the highest liquid fund to total deposit ratio with high coefficient of variation .

### 4.1.2 Assets Management Ratio

Assets management ratio is the measure that shows the efficiency of the bank to manage its assets. A commercial bank must manage its assets properly to earn high profit and popularity as well. The assets management ratios of total commercial banking system and two sampled banks are evaluated in thin unit. Following ratios are calculated and evaluated here:

### 4.1.2.1 Analysis of Total Deposit to Total Liabilities ratio

Total deposit is the most essential liabilities of the commercial banks. The high level of deposit shows the better financial position of the bank .If the bank has adequate level of deposit on total liabilities then the bank will be able to mobilize its fund to the productive sector that assist the bank to earn more for the betterment of the financial position. The Higher total deposit to total liabilities ratio shows the better financial position of the bank. The ratio can be calculated by using following equation:

Total deposit to total liabilities ratio $=$ Total deposit Total liabilities

Table no. 4.4

Total deposit to total liabilities ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 3 / 0 4}$ | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |  |  |  |
|  | 68.81 | 61.72 | 67.94 | 68.79 | 75.18 | 68.49 | 4.26 | 6.22 |
| NBL | 82.17 | 73.85 | 98.68 | 98.62 | 98.57 | 90.38 | 10.44 | 11.55 |
| NIBL | 88.31 | 87.59 | 88.74 | 88.76 | 88.63 | 88.41 | 0.44 | 0.50 |

(Source: banking and financial statistics, NRB) (Annex 1.2.i)

## Total deposit to total liabilities ratio



Table no. 4.4 and chart no. 4 show the ratio of total deposit to total liabilities ratio of total commercial banking system and two sampled banks. The ratios are in fluctuating trend for both sampled banks and total commercial banking system during the study period.

Mean ratio of NBL (90.38\%) is highest in comparison to NIBL (\%) and total commercial banking system (68.49\%).

SD of the ratio of NBL (10.44\%) is highest in comparison to NIBL ( $0.44 \%$ ) and total commercial banking system (4.26\%).

Coefficient of variation of the ratio of NBL (11.55\%) is highest in comparison to $\operatorname{NIBL}(0.50 \%)$ and total commercial banking system (6.22\%).

After analyzing these facts and figures it is found that NBL has highest portion of deposit on total liabilities with high degree of variability in comparison to NIBL and total commercial banking system as well.

### 4.1.2.2 Analysis of Loan and advance to total deposit ratio

The ratio measures the extent to which the banks are able to mobilize their deposit on loan and advances. A high ratio of loan and advances to total deposit indicates better mobilization of collected deposits and vice versa. But, it should be noted that too high ratio might not be better from its liquidity point of view. This ratio is calculated by using following equation:

$$
\text { Loan and advances to total deposit ratio }=\frac{\text { loan and advances }}{\text { Total deposit }}
$$

Table no.4.5
Loan and advance to total deposit ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 3 / 0 4}$ | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |  |  |  |
|  | 3.07 | 4.08 | 4.47 | 5.18 | 6.37 | 4.63 | 2.47 | 53.26 |
| NBL | 52.66 | 50.24 | 34.36 | 34.55 | 37.35 | 41.83 | 7.96 | 19.03 |
| NIBL | 61.29 | 72.23 | 68.72 | 71.39 | 78.79 | 70.48 | 5.67 | 8.04 |

(Source: banking and financial statistics, NRB) (Annex 1.2.ii)

Loan and advance to total deposit ratio


Table no. 4.5 and chart no. 5 are presentations of ratios of loan and advance to total deposit ratio of the sampled banks and total commercial banking system. The ratios of the sample banks are fluctuating and the ratio of total commercial banking system are increasing during the study period.

Mean ratio of NIBL (78.79\%) is highest in comparison to NBL (41.83\%) and total commercial banking system (4.63\%).

SD of the ratio of NBL (7.96\%) is highest in comparison to NIBL (5.67\%) and total commercial banking system ( $2.47 \%$ ).

The coefficient of variation of total commercial banking system (53.26\%) is highest in comparison to NBL (19.03\%) and NIBL (8.04\%).

In the study it is found that the sampled bank NBL and total commercial banking system have the lowest loan and advance to total deposit ratio in comparison to NBL. NIBL is seemed to be strong on the mobilizing total deposit to the loan and advance in comparison to NBL.

### 4.1.2.3 Analysis of Total investment to total deposit ratio

Commercial bank mobilizes its deposits by investing in different sectors such as securities issued by government and other financial or non financial companies, land and buildings for business purpose, and on other productive sectors. This ratio measures the extent to which the banks are able to mobilize their deposit on investment in various sectors. A high ratio indicates the better mobilization of deposit in investment and vice versa. We can calculate this ratio by using following formula:

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

## Table no.4.6

Total investment to total deposit ratio

| Banks | Year |  |  |  |  | Mean | SD |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | C.V | C. |  |  |  |  |  |  |
|  | 21.24 |  | 28.21 | 27.71 | 25.57 | 25.31 | 2.57 | 10.14 |
| NBL | 29.19 | 39.83 | 33.23 | 34.16 | 31.16 | 33.51 | 3.60 | 10.73 |
| NIBL | 17.09 | 13.67 | 13.33 | 13.3 | 9.16 | 13.31 | 2.52 | 18.90 |

(Source: banking and financial statistics, NRB) (Annex 1.2.iii)

Total investment to total deposit ratio


Table no.4.6 and chart no. 6 show the ratio of total investment to total deposit. The ratio of total commercial banking system and both the NBL are fluctuating and the ratio of NIBL are decreasing during the study period.

NBL has the highest ( $33.51 \%$ ) mean ratio in comparison to NIBL ( $33.51 \%$ ) and total commercial banking system (25.31\%).

SD of the ratio of NBL ( $3.60 \%$ ) is highest in comparison to NIBL ( $2.52 \%$ ) and total commercial banking system (2.57\%).

Coefficient of variation of the ratio of NIBL (18.90\%) is highest in comparison to NBL (10.73\%) and total commercial banking system (10.14\%).

In average the NBL is seemed to be more efficient in investing the collected deposit in comparison to NIBL and the total commercial banking system. The mean ratio of this bank is highest and the variability of the ratio is least.

### 4.1.2 . 4 Analysis of Loan and Advances to Total Assets Ratio

Loan and advances is an important part of total assets. Commercial banks must be very careful in mobilizing its total assets as loan and advances in appropriate level to generate profit. The loan and advance which is granted after profound analysis of chance of repayment can generate profit and can make the financial position of the bank strong. This ratio reflects the extent to which the commercial banks are success in mobilizing their assets on loan and advances for the purpose of income generation. A high ratio indicates better mobilization of assets on loan and advances and vice versa. We can calculate this ratio by using following equation:

$$
\text { Loan and advances to total assets ratio }=\frac{\text { loan and advances }}{\text { Total assets }}
$$

## Table no.4.7

Loan and advance to total assets ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 2003/04 | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |  |  |  |
|  | 2.11 | 2.52 | 3.03 | 3.56 | 4.79 | 3.20 | 0.93 | 29.09 |
| NBL | 43.27 | 37.1 | 33.91 | 34.08 | 36.81 | 37.03 | 3.39 | 9.15 |
| NIBL | 54.12 | 63.26 | 60.98 | 63.36 | 69.83 | 62.31 | 5.05 | 8.10 |

(Source: banking and financial statistics, NRB) (Annex 1.2.iv)

## Loan and advance to total assets ratio



Table no. 4.7 and chart no. 7 are the presentations of the ratio of loan and advance to total assets ratio of the sampled banks and total commercial banking system for the period of four years from 2003/04 t0 2007/08. The ratio of both sample banks are fluctuating and the ratio of total commercial banking system are increasing.

NIBL has the highest mean ratio (ie.37.03\%) whereas the ratios for NBL and total commercial banking system are ( $37.03 \%$ ) and ( $3.20 \%$ ) respectively.

SD of the ratio of NIBL (5.05\%) is highest in comparison to NBL (3.39\%) and total commercial banking system (0.93\%).

In average it is found that NIBL is strong in mobilizing total assets to loan and advance in comparison to NBL and total commercial banking system.

### 4.1.2.5 Analysis of Investment on government bond to total deposit ratio

Commercial banks are investing into various sectors. Government bond is the one of the most secure sector for the investment. There is no doubt of repayment of the government
bond. So, the investment in government securities is relatively better than investment in debenture and shares of other company. The ratio of investment on government bond to total deposit shows the portion of the deposit that is invested in government bond. Higher the ratio higher will be the chance of repayment of investment and that prevents the bank from the defaulters. The ratio can be calculated by using following equation:

Investment on government bond to total deposit ratio $=\underline{\text { Invt. On gov. bond }}$
Total deposit

Table no.4.8
Investment on Gov. bond to total deposit ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 3 / 0 4}$ | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |  |  |  |
|  | 3.12 | 3.71 | 8.46 | 8.62 | 8.79 | 6.54 | 2.56 | 39.15 |
| NBL | 1.18 | 0.15 | 7.46 | 7.9 | 9.01 | 5.14 | 3.70 | 72.04 |
| NIBL | 18.55 | 14.91 | 16.65 | 13.32 | 10.81 | 14.85 | 2.67 | 17.97 |

(Source: banking and financial statistics, NRB) (Annex 1.2.v)

Investment on gov. bond to total deposit ratio


Table no.4.8 and chart no. 8 show the portion of total deposit that is invested on the government bond and bonds of NRB. The ratios of total commercial banking system are increasing, the ratio of NBL is increasing from the fiscal year 2005/06 and the ratios of NIBL are fluctuating during the study period.

The mean ratio of NIBL (14.85) is highest in comparison to NBL (5.14\%) and total commercial banking system (6.54\%).

SD of the ratio for NBL ( $3.70 \%$ ) is highest in comparison to NIBL (3.70\%) and total commercial banking system (2.56\%).

Coefficient of variation of ratio of NBL (72.04\%) is highest in comparison to NIBL(17.97\%) and total commercial banking system (39.15\%).

In average study it is found that NIBL has made the highest percentage of investment on government bond with lowest variability. It means the investment of NIBL is more secured than the investment of NBL.

### 4.1.2.6 Analysis of formation of deposit

Deposit is the major resource of commercial banks. Major three types of deposits, current deposit, saving deposit, and fixed deposit are commonly provided to the bank customers by the related commercial banks in Nepal. The portions of various deposits also effect the deposit mobilization position of commercial banks. If the deposits are of long-term or mid-term nature then the bank can mobilize these deposits into long-term profitable sector without any problem but if the deposits are of short-term nature then the bank has to manage high degree of liquidity and the mobilization becomes tuff. In this unit formation of deposit of Nepalese commercial banks are analyzed.

### 4.1.2.6.I Analysis of current deposit to total deposit ratio

Current deposit is the most liquid type of deposit that can not be mobilized in investment the high portion of such deposit should be held in liquid form. The higher ratio shows the less chance of investment and vice versa.

Table no.4.9
Current deposit to total deposit ratio

| B anks | Year |  |  |  | Mean | SD | C.V |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 3 / 0 4}$ | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ |  |  |  |  |
| Total | 14.43 | 13.73 | 12.84 | 13.34 | 13.16 | 13.50 | 0.55 | 4.05 |
| NBL | 17.36 | 16.45 | 17.01 | 17.46 | 18.81 | 17.42 | 0.78 | 4.48 |
| NIBL | 13.88 | 11.11 | 9.01 | 8.88 | 9.11 | 10.40 | 1.92 | 18.51 |

(Source: banking and financial statistics, NRB) (Annex 3.1.1)

Table no. 4.9 shows the ratios of current deposit to total deposit ratios of total commercial banking system and two sampled banks. Observing the ratios it is found that the ratios of all the banks are fluctuating during the study period. NBL has the highest mean ratio ( $17.42 \%$ ) than the ratios of total commercial banking system and NIBL (i.e. $13.50 \%$ ) and ( $10.40 \%$ ). Observing the standard deviation (SD) NIBL has the highest (1.92) in comparison to total commercial banking system and NBL ( 0.55 and 0.78 ). The coefficients of variations of total commercial banking system, NBL, NIBL are $4.05 \%$, $4.48 \%, 18.51 \%$ respectively.

In average it is seemed that NBL and total commercial banking system have the higher degree of current deposit than that NIBL. NIBL has higher portion of current deposit with low degree of standard deviation than NIBL.

### 4.1.2.6. II Analysis of saving deposit to total deposit ratio

Saving deposit provide the mid-term investment facilities to the commercial banks. There is some rules on the withdrawal of money from saving deposit so the bank get the time to manage the liquidity for the payment6 of deposit in this type of deposit. Higher the portion of saving deposit higher will be the chance of mobilization of deposit in shortterm and mid-term investment and vice versa.

Table no.4.10
Saving deposit to total deposit ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 3 / 0 4}$ | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |  |  |  |
| Total | 48.82 | 51.5 | 52.07 | 51.77 | 49.63 | 50.76 | 1.29 | 2.54 |
| NBL | 60.8 | 65.25 | 66.44 | 68.26 | 68.86 | 65.92 | 2.87 | 4.35 |
| NIBL | 42.05 | 47.03 | 42.7 | 43.87 | 39.73 | 43.08 | 2.39 | 5.56 |

(Source: banking and financial statistics, NRB) (Annex 3.1.2)

Table no. 4.10 is the presentation of saving deposit to total deposit ratios of total commercial banking system, NBL and NIBL for the time of five years study period. The ratios of NBL are increasing during the study period and the ratios of total commercial banking system and NIBL are fluctuating during the study period. NBL has the highest mean ratio ( $65.92 \%$ ) in comparison to total commercial banking system (50.76\%) and NIBL (43.08\%). The SD of the ratios of NBL is highest (2.87) in comparison to (1.29and2.39) of total commercial banking system and NIBL. The coefficient of variation of the ratios of NIBL (5.56) is highest in comparison to total commercial banking system (2.54) and NBL (4.35). In average it is observed that NBL has the chance of making high degree of midterm and short-term investment than the total commercial banking system and NIBL.

### 4.1.2.6.III Analysis of fixed deposit to total deposit ratio

Fixed deposit is the most important type of deposit for the commercial banks because this bank provides the fixed term deposit for the commercial banks for making the profitable investment. Higher the portion of fixed deposit higher will be the chance of making the fixed-term or long-term investment and vice versa.

Table no.4.11
Fixed deposit to total deposit ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 |  |  |  |
| Total | 27.86 | 26.67 | 26.29 | 25.84 | 24.59 | 26.25 | 1.07 | 4.07 |
| NBL | 20.62 | 18.04 | 16.34 | 13.93 | 11.48 | 16.08 | 3.17 | 19.72 |
| NIBL | 19.6 | 22.54 | 28.6 | 30.69 | 23.06 | 24.90 | 4.11 | 16.49 |

(Source: banking and financial statistics, NRB) (Annex 3.1.3)

Table no. 4.11 shows the ratios of fixed deposit to total deposit ratios of total commercial banking system, NBL and NIBL for the time of five years of study period. The ratios of the total commercial banking system and NIBL are fluctuating and the ratio of NBL is decreasing during the study period. Total commercial banking system has the highest mean ratio ( $26.25 \%$ ) in comparison to NBL ( $16.08 \%$ ) and NIBL (24.90). SD of NIBL (4.11) is highest in comparison to (1.07) of total commercial banking system and (3.17) of NBL. The coefficient of variation of NBL (19.72) is highest in comparison to (4.07) of total commercial banking system and (16.49) of NIBL. In average it is observed that NIBL has the higher fund for making mid-term and long-term investment than NBL.

### 4.1.2.6.IV Analysis of call deposit to total deposit ratio

Call deposit is one of the deposits offering by the commercial banks in Nepal. The facility of this deposit is not provided to the general people. This deposit provides only short term fund to the bank and provides some earning for the service. The portion of this deposit reflects the position of the bank in high ranking customers.

Table no.4.12
Call deposit to total deposit ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 |  |  |  |
| Total | 7.72 | 7 | 7.8 | 7.99 | 11.6 | 8.42 | 1.62 | 19.28 |
| NBL | 0.74 | 0.01 | 0 | 0 | 0.6 | 0.27 | 0.33 | 122.08 |
| NIBL | 22.01 | 17.33 | 18.22 | 17.33 | 26.34 | 20.25 | 3.50 | 17.30 |

(Source: banking and financial statistics, NRB) (Annex 3.1.4)

Table no. 4.12 is the presentation of the ratios of call deposit to total deposit ratios of total commercial banking system and two sampled banks. The ratios of both sample banks are fluctuating during the study period. NIBL has the highest mean ratio (20.25\%) in comparison to total commercial banking system ( $8.42 \%$ ) of NBL ( $0.27 \%$ ). SD of the ratios of NIBL is also highest (3.50) in comparison to (1.62) of total commercial banking system and (.33) of NBL. The coefficient of variation of the ratios of NBL (122.08) is highest in comparison to (19.28) of total commercial banking system and (17.30) of NIBL. In average it is found that NIBL has higher mean ratio than the NBL and this figure certainly shows that the NIBL is working with high-ranking customers rather than with the marginalized customers.

### 4.1.2.6.V Analysis of other deposits to total deposit ratio

Other deposit refers the other types of deposit excepting above mentioned four types of deposit. There is no certainty whether the long-term funds or short-term funds are provided by this deposit. The higher ratio shows the popularity of the bank and availability of fund to the bank.

Table no.4.13
Other deposits to total deposit ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 3 / 0 4}$ | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |  |  |  |
| Total | 7.72 | 7 | 7.8 | 7.99 | 11.6 | 8.42 | 1.62 | 19.28 |
| NBL | 0.74 | 0.01 | 0 | 0 | 0.6 | 0.27 | 0.33 | 122.08 |
| NIBL | 22.01 | 17.33 | 18.22 | 17.33 | 26.34 | 20.25 | 3.50 | 17.30 |

(Source: banking and financial statistics, NRB) (Annex 3.1.5)

Table 4.13 shows the ratio of other deposits to total deposit ratios of total commercial banking system and two sampled banks. The ratios of all banks are fluctuating during the period. Mean ratio of NIBL ( $20.25 \%$ ) highest in comparison to ( $8.42 \%$ ) of total commercial banking system and ( $0.27 \%$ ) of NBL. SD of the return of NIBL (3.50) is highest in comparison to (1.62) of total commercial banking system and (0.33) of NBL. The coefficient of variation of the ratios of NBL (122.08) is highest in comparison to (19.28) of total commercial banking system and (17.30) of NIBL. In average it is found that the NIBL has the highest mean ratio so the bank is more popular than NBL in the areas where the bank is serving.

### 4.1.2.6.VI Analysis of mean ratios of various types of deposits with total deposit

This analysis is done for clarifying the formation of deposit with the view point of deposit mobilization. The analysis is made with the assumption that saving deposit and fixed deposit provides the fund for mid-term and long-term investment and the other deposits provide only short-term funds for the commercial banks. The deposits are categorized into two sections for observing which bank has the higher portion of longterm and mid-term deposit and which has higher portion of short-term deposits. It may be more clear by the analysis of following table:

Table no. 4.14
Mean ratios of various types of deposits with total deposit

| Banks | Type of deposits |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Short-term deposits |  |  |  | Mid/Long-term deposits |  |  |
|  | Curr.dep. | $\begin{aligned} & \text { Call } \\ & \text { dep. } \end{aligned}$ | Othe.dep. | Total | Sav.dep. | Fix. <br> dep. | Total |
| Total | 13.16 | 8.42 | 1.07 | 22.65 | 50.76 | 26.25 | 77.01 |
| NBL | 17.42 | 0.27 | 0.31 | 18 | 65.92 | 16.08 | 82 |
| NIBL | 10.4 | 20.25 | 1.41 | 32.06 | 43.08 | 24.9 | 67.98 |

(Source: banking and financial statistics, NRB)

Table no. 4.14 is the presentation of mean ratios of various types of deposits to total deposit of total commercial banking system and sampled banks for the study period of five years. Analyzing the table it is observed that NBL has the highest portion (i.e. 83\%) of long-term deposits in comparison to $(77.01 \%)$ of total commercial banking system and (67.98\%) of NIBL. And the portion of short-term deposit of NIBL (32.06\%) is highest in comparison to ( $22.65 \%$ ) of total commercial banking system and (18\%) of NBL. It means the NBL has the adequate long-term fund than NIBL and NIBL has the adequate shortterm fund than NBL.

### 4.1.3 Profitability Ratio

The ultimate objective of all the commercial banks is to earn profit. It is true that, no bank can survive without profit. Profit is the indicator of efficient operation of bank. The bank acquires profit by providing different services to its customer or by making investment on different sectors. Sufficient profit is required for liquidity management, grab investment opportunities, expand banking transaction, provide development fund to the government, overcome the future financial problems and for meeting the internal obligation of the bank. It measures the efficiency of bank. The ratios, which are related to the deposit mobilization, are studied in this unit.

### 4.1.3.1 Analysis of Interest Income to Total Income ratio

Total income is aggregate income of the bank that is earned by utilizing the available resources and management technique of the bank. Interest income is the part of total
income that is earned by mobilizing the deposit and other funds to the loan and advances. Interest income is the major income of the bank. The interest income to total income ratio shows the portion of interest income in total income. This ratio shows the efficiency of bank to mobilize the deposits or other funds to loan and advance. Higher the ratio higher will be the earning power and vice versa. This ratio can be calculated by using following equation:

$$
\text { Interest income to total income ratio }=\frac{\text { Interest income }}{\text { Total income }}
$$

Table no.4.15

Interest income to total income ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 2003/04 | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |  |  |  |
| Total | 18.94 | 56.32 | 61.19 | 60.17 | 68.27 | 52.98 | 17.45 | 32.94 |
| NBL | 43.91 | 33.73 | 42.77 | 62.94 | 77.65 | 52.20 | 15.89 | 30.43 |
| NIBL | 98.33 | 98.13 | 97.47 | 96.17 | 81.86 | 94.39 | 6.31 | 6.69 |

(Source: banking and financial statistics, NRB) (Annex 1.3.i)

Interest income to total income ratio


Table no. 4.15 and chart no. 9 are the presentations of the ratio of interest income to total income of the sampled banks and the total commercial banking system. The ratios are fluctuating during the study period.

NIBL has the highest mean ratio (ie.94.39\%) in comparison to NBL (52.20\%) and total commercial banking system (52.98\%).

SD of total commercial banking system ( $17.45 \%$ ) is highest in comparison to NBL ( $15.89 \%$ ) and NIBL ( $6.31 \%$ ).

Coefficient of variation of the ratio of total commercial banking system (32.94\%) is highest in comparison to NBL (30.43\%) and NIBL(6.69\%).

In average it is found that NIBL is strong in earning interest income as the portion of total income.

### 4.1.3.2 Analysis of Return on loan and advance ratio

Return on loan and advances ratio measures the earning capacity of the commercial banks. Deposit mobilized on loan and advances is well recognized. But the Nepalese banks are facing the problems of default of payment of loan and advance. So the ratio of return on loan and advance is calculated and analyzed here. This ratio shows the earning and recovering efficiency of the bank. To measure the efficiency; higher the ratio higher will be the efficiency and vice versa. The ratio can be calculated by using following equation:

$$
\text { Return on loan and advances ratio }=\frac{\text { Net profit }}{\text { Loan \& adv. }}
$$

Table no.4.16
Return on loan and advance ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 3 / 0 4}$ | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |  |  |  |
|  | 2.67 | 2.8 | 1.86 | 2.48 | 3.94 | 2.75 | 0.68 | 24.61 |
| NBL | 3.72 | 9.91 | 9.91 | 1.7 | 1.55 | 5.36 | 3.79 | 70.83 |
| NIBL | 2.13 | 2.25 | 2.69 | 2.87 | 2.57 | 2.50 | 0.19 | 7.74 |

(Source: banking and financial statistics, NRB) (Annex 1.3.ii)

## Return on loan and advance ratio



Table no. 4.16 and chart no. 10 show the percentage of return on loan and advance of the sampled banks and total commercial banking system for the time period of 2003/042007/08. The ratio of NBL is seemed highly fluctuating during the period and the ratio of NIBL and total commercial banking system also are seemed little bit fluctuating during this period.

NBL has highest return on loan and advance ratio (ie.5.36\%) in comparison to mean return of $\operatorname{NIBL}(2.50 \%)$ and the return of total commercial banking system (2.75\%).

SD of the ratio of NBL (3.79\%) is highest in comparison to NIBL ( $0.19 \%$ ) and total commercial banking system (0.68\%)

Coefficient of variation of the return of NBL is highest (i.e.70.83\%) where NIBL is ( $7.74 \%$ ) and that of total commercial banking system is ( $24.61 \%$ ).

In average it is found that the mean return of NBL is highest with high degree of variability. It is also found on the study that the return percentage of NBL is highly decreasing during the last two years of the study period.

### 4.1.3.3 Analysis of Return on Total Assets ratio

Return on total assets ratio measures the profit earning capacity by utilizing available resources. This ratio measures the financial position of the banks and shows the assets management capacity of the bank. If the bank's total assets are well managed the ratio will be higher. This ratio is calculated by using following equation:

$$
\text { Return on total assets }=\frac{\text { Net profit }}{\text { Total assets }}
$$

Table no.4.17

## Return on Total Assets ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 2003/04 | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6} / 07$ | $\mathbf{2 0 0 7 / 0 8}$ |  |  |  |
|  | 1.09 | 1.09 | 0.75 | 1.16 | 2.1 | 1.24 | 0.45 | 36.68 |
| NBL | 1.61 | 3.68 | 3.36 | 0.58 | 0.57 | 1.96 | 1.33 | 67.98 |
| NIBL | 1.15 | 1.43 | 1.64 | 1.82 | 1.79 | 1.57 | 0.25 | 15.94 |

(Source: banking and financial statistics, NRB) (Annex 1.3.iii)

## Return on total assets ratio



Table no.4.17 and chart no. 11 describe the return on assets of total commercial banking system and the sampled banks (i.e. NBL \& NIBL) for the study period of five years from 2003/04 to 2007/08.The ratios of total commercial banking system , NBL and NIBL are fluctuating during the period.

NBL has highest mean return (1.57\%) in comparison to the mean ratio of NIBL (1.57\%) and the same ratio of total commercial banking system (1.24\%).

SD of NBL (1.96\%) is highest in comparison to NIBL ( $0.25 \%$ ) and total commercial banking system (0.45\%).

Coefficient of variation of the return of NBL (67.98\%) is highest during the period in comparison to NIBL (15.94\%) and total commercial banking system (36.68\%).

After analyzing the facts and figures, it is found that NBL has highest return on total assets with high variability in comparison to NIBL and total commercial banking system. It is also observe that the mean ratio of NIBL is not so small then NBL with low variability.

### 4.1.3.4 Analysis of Interest Expenses to Total Expenses ratio

Total expenses measures the efficiency of the bank if expenses are higher return will be lower and vice versa. Interest expenses are the unavoidable part of total expenses of the commercial bank. The portion of interest expenses among the total expenses shows the depository position of the bank. If the ratio of interest expenses to total expenses is high the bank has enough deposit and if the ratio is low the bank is unable to have enough deposit. On the other hand this ratio shows the efficiency of the bank to manage the expenses. If the ratio is small the bank is able to manage the expenses efficiently and vice versa. This ratio can be calculated by using following equation:

Interest expenses to total expenses $=\frac{\text { Interest expenses }}{\text { Total expenses }}$

Table no.4.18
Interest expenses to total expenses ratio

| Banks | Year |  |  |  |  | Mean | SD | C.V |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 3 / 0 4}$ | $\mathbf{2 0 0 4} / 05$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |  |  |  |
|  | 36.91 | 28.13 | 27.9 | 29.7 | 41.11 | 32.75 | 5.32 | 16.23 |
| NBL | 29.76 | 18 | 21.6 | 28.51 | 32.96 | 26.17 | 5.52 | 21.08 |
| NIBL | 55.18 | 52.8 | 57.58 | 59.78 | 50.88 | 55.24 | 3.20 | 5.78 |

(Source: banking and financial statistics NRB) (Annex 1.3.iv)
Interest expenses to total expenses ratio


Table no. 4.18 and chart no. 12 are the presentations of interest expenses to total expenses ratio of NBL, NIBL and total commercial banking system. The ratios of total commercial banking system and both sampled banks are seemed fluctuating during the study period.

Mean ratio of NIBL (55.24\%) is highest in comparison to NBL (26.17\%) and total commercial banking system (32.75\%).

SD of the ratio of NBL (5.52\%) is highest in comparison to NIBL (3.20\%) and total commercial banking system (5.32\%).

The coefficient of variation of the ratio of NBL ( $21.08 \%$ ) is highest in comparison to total commercial banking system (16.23\%) and NIBL (5.78\%).

In average the study found that NBL is efficient in managing expenses. So the portion of interest expenses to total expenses for the bank is seemed smaller than total commercial banking system and NIBL. This shows that the NBL representing government sector bank is able to manage the expenses efficiently in comparison to NIBL representing the private sector bank and the total commercial banking system.

### 4.1.4 Growth Ratio

Growth ratio reflects how well the commercial banks are maintaining their economic and financial position. Higher growth rate shows better performance of the banks and vice versa. Under this topic growth of some factors are studied, which are directly related to the deposit mobilization of commercial banks. In this unit the first year of the study (2003/04) is considered as the base year for calculating the growth rate at first, than after the preceding year is considered as the base year for this purpose.

### 4.1.4.1 Analysis of Growth of Deposit Liabilities

Deposit is the main source of the fund for the commercial bank. Commercial banks should have adequate deposit for running their operations smoothly. So, it has to be
increased with passes of time. If the growth of the deposit is positive and higher, better will be the financial position and the efficiency of the bank. This ratio is calculated on the basis of preceding year.

Table no.4. 19

Growth of deposit liabilities

| Banks | Year |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
|  | 2003/04 | $\mathbf{2 0 0 4} / \mathbf{0 5}$ | $\mathbf{2 0 0 5} / \mathbf{0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |  |
| Total |  | 7.95 | 15.39 | 15.88 | 26.25 |  |
| NBL |  | -4.46 | 2.02 | 9.23 | 7.07 |  |
| NIBL |  | 21.77 | 32.78 | 29.38 | 40.68 |  |

(Source: banking and financial statistics, NRB) (Annex 1.4.i)

## Graph chart no. 1

Growth of deposit liabilities


Table no. 4.18 and graph chart no. 1 are the presentation of the growth ratio of total deposit of total commercial banking system and two sampled banks NBL and NIBL.

Total commercial banking system has the growth rate of $7.95 \%, 15.39 \%, 15.88 \%$ and 26.25 on year 2004/05, 2005/06, 2006/07 and 2007/08 respectively, the ratios of NBL for same years are $-4.46 \%, 2.02 \%, 9.23 \%, 7.07$ respectively and the ratio of NIBL for these years are $21.77 \%, 32.78 \%, 29.38 \%$ and 40.68 respectively for that period.

After observing these table and figure the slope of the growth lines are seemed similar and the growth rate of NIB; is seemed well than NBL and total commercial banking system. NBL and NIBL has fluctuating trend on growth of total deposit during this period But total commercial banking system has increasing trend on growth of deposit.

### 4.1.4.2 Analysis of Growth of Loan and Advances

Loan and advances are the main transaction of the commercial bank. The major element where the banks mobilize their funds is loan and advance. Commercial banks mobilize their deposit in productive sector for earning profit and making the financial position of the bank better. So, increasing growth rate is necessary for increasing the return of the bank.

Table no.4.20

| Growth of loan and advance |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Banks | year |  |  |  |  |
|  | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 |
| Total |  | 14.91 | 8.61 | 32.05 | 32.3 |
| NBL |  | -8.65 | -30.22 | 9.83 | 15.72 |
| NIBL |  | 43.5 | 26.34 | 34.4 | 55.28 |

## Graph chart no. 2

## Growth of loan and advance



Table no. 4.20 and graph chart no. 2 are the presentations of the growth of loan and advance of total commercial banking system and the sampled banks. The growth ratios of all banks are fluctuating during the study period.

Growth rate of total commercial banking system are $14.91 \%, 8.61 \%, 32.05 \%$ and 32.03 on year 2004/05, 2005/06, 2006/07 and 2007/08 respectively, NBL for year 2004/05, $2005 / 06,2006 / 07$ and $2007 / 08$ are $-8.65 \%,-30.22 \%, 9.83 \%$ and $15.72 \%$ respectively, the ratios of NIBL for same years are $43.5 \%, 26.34 \%, 34.4 \%$, and $55.28 \%$ respectively.

After observing these factors it is found that NIBL is in better position in comparison to NBL and total commercial banking system in the study period. And it is seemed that NBL improve from year 2006/07 to make the growth of loan and advance positive.

### 4.1.4.3 Analysis of Growth of Investment

Banks collect deposits from people and invest it to the various productive sectors. Banks have to collect adequate deposit; and invest it to the productive sector for regular return. The investment of the bank increases only when the bank is able to increase the collection of the deposit and mobilize the collected deposit well. If the investment of the bank is increasing, the return will be high.

Table no.4.21

| Growth of investment |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Banks | Year |  |  |  |  |
|  | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 |
| Total |  | 21.17 | 36.54 | 13.82 | 16.49 |
| NBL |  | 30.63 | -14.09 | 12.31 | -2.33 |
| NIBL |  | -2.63 | 29.45 | 29.01 | -3.11 |

## Graph chart no. 3

Growth of investment


Table no. 4.21 and the graph chart no. 3 are the presentations of the growth of total investment of total commercial banking system and sampled banks for the study period of four years from 2003/04 to 2007/08.

The growth rate of total commercial banking system and both sampled banks NBL and NIBL are fluctuating during the study period. Growth rate of total commercial banking system for the years 2004/05, 2005/06, 2006/07 and 2007/08 are $21.17 \%, 36.54 \%$, $13.82 \%$ and $16.49 \%$ respectively, growth rate of NBL for same years are $30.63 \%$, $-14.09 \%, 12.31 \%$ and $-2.33 \%$ respectively and the growth rates of NIBL for same years are $-2.63,29.45 \%, 29.01 \%$ and $-3.11 \%$ respectively.

After analyzing the facts and figures it is found that the growth rate of NIBL is best for 2005/06 and 2006/07 and the ratio of NBL is best for 2004/05 and 2006/07. But the ratio of NIBL has fallen by the large percentage on 2007/08.

### 4.1.4.4 Analysis of Growth of Return

One of the most important objectives of the bank is to maximize the return. It is possible through the proper mobilization of deposit. If the bank is able to mobilize the deposit well, higher will be the return and the performance of the bank. The net income is considered as the return in this unit.

Table no.4.22

| Growth of return |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Banks | Year |  |  |  |  |
|  | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 |
| Total |  | 20.49 | -27.74 | 75.85 | 109.95 |
| NBL |  | 143.55 | -30.22 | -81.2 | 5.4 |
| NIBL |  | 52.06 | 51 | 43.04 | 38.96 |

(Source: banking and financial statistics, NRB) (Annex 1.4.iv)

## Growth of return

## Graph chart no. 4



Table no. 4.22 and graph chart no. 4 show the growth ratio of the return of total commercial banking system and sampled banks. The ratios are fluctuating during the study period.

The growth rate of return of total commercial banking system for the years years 2004/05, 2005/06, 2006/07 and 2007/08 are $20.49 \%,-27.74 \%, 75.85 \%$ and $109.95 \%$ respectively, the growth rate of NBL for the same years are $143.55 \%,-30.22 \%,-81.2$ and $5.4 \%$ respectively and the same rates of NIBL for same years are $52.06 \%, 51 \%, 43.04 \%$ and $38.96 \%$ respectively.

After analyzing these figures it is found that the growth rate of total commercial banking system is significantly higher on the year 2006/07 and 2007/08. The growth of NBL is seemed highly fluctuating and that is higher than the ratio of NIBL on 2004/05.

### 4.2 Statistical Analysis

This unit aims to analyze the factors related to the topic of the study by using statistical tools such as co-efficient of correlation, trend analysis and test of hypothesis between different variables. Such types of statistical analysis assist the researcher to get to the decision.

### 4.2.1 Analysis of Coefficient of Correlation

The coefficient of correlation defines the degree of relationship between or among two or more variables. Here we study the degree of relationship between two variables one of them is independent variable and another is dependent variable. The Karl Pearson's method popularly known as Pearson's co-efficient of co-relation is mostly used for calculating the coefficient of correlation in practice. The Pearson's co-efficient of corelation is denoted by " r " which shows the relationship between two variables. It helps to determine whether

- A positive or negative relationship exits.
- The relationship is significant or insignificant.
- Establish cause and effect relation if any.

Correlation analysis among various statistical tools is preferred in this study to identify the relationship between variables, and measure the significance of the relationship.

For the purpose of decision making interpretations are based on the following terms:

- When, $\mathrm{r}=1$, there is perfect positive correlation.
- When, $r=-1$, there is perfect negative correlation
- When, $r=0$, there is no correlation
- When, r lies between 0.7 and 0.99 ( -0.7 and 0.-.099) , there is a high degree of positive or (negative) correlation.
- When " r " lies between 0.5 and $0.69(-0.5$ and -0.69$)$ there is moderate degree of correlation.
- When " r " is less than $0.5(-0.5)$ there is low degree of correlation.


## Probable error (P.E.) of correlation

The probable error of the correlation of coefficient is applicable for the measurement of reliability of the computed value of the correlation coefficient 'r'. The probable error is calculated by:

$$
\text { P.E. }=0.6745 \times \frac{1-\mathrm{r} 2}{\sqrt{n}}
$$

For decision making purpose following points will be considered:
i. If $r$ < P.E. the value of ' $r$ ' is not significant no matter how high $r$ value is. It means there is no evidence of correlation between the variables.
ii. If $r>6$ P.E. the value of ' $r$ ' is significant i.e. correlation is significant.

### 4.2.1.1 Analysis of Correlation Coefficient between Deposit and Total Investment

The coefficient of correlation between deposit and investment is the degree of relationship between two variables. In this analysis, deposit is independent variable(x) and total investment is dependent variable(y). The purpose of this analysis is to justify
whether the deposits are significantly used in proper way or not and whether there is any relationship between these variables.

Table no.4.23
Correlation Coefficient between Deposit and Total Investment

|  | Base of evaluation |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Banks | r | $\mathbf{r}^{2}$ | PEr | 6PEr |
| Total | 0.96 | 0.92 | 0.02 | 0.14 |
| NBL | 0.18 | 0.03 | 0.29 | 1.75 |
| NIBL | 0.89 | 0.79 | 0.06 | 0.38 |

(Source: banking and financial statistics, NRB) (Annex 2.1.i)

Table no. 4.23 shows the correlation coefficient between deposit (independent variable) and total investment (dependent variable) of total commercial banking system, NBL, and NIBL are $0.96,0.18$ and 0.89 respectively. This figure shows the positive relationship between the variables of total commercial banking system, NBL and NIBL.

The coefficient of determination of the variables of total commercial banking system NBL and NIBL are $0.92,0.03$ and 0.79 respectively. It means $92 \%$ of the variation in investment of total commercial banking system is explained by the deposit, $3 \%$ of the variation in total investment of NBL is explained by the deposit and $79 \%$ of the variation in total investment of NIBL is explained by deposit.

Considering the probable error, the value of PEr of total commercial banking system and NIBL are smaller than the value of correlation coefficient (i.e.r) and the value of PEr of NBL is greater than the value of correlation coefficient. Comparing the value of 6 PEr with the value of coefficient of correlation ( $r$ ) the value of ' $r$ ' of NBL is smaller than the value of 6 PEr (i.e. $0.18<1.75$ ). It means the value of $r$ is not significant it means the relationship between the variables is insignificant. Whereas about total commercial banking system and NIBL the relationship between the variables are significant.

### 4.2.1.2. Analysis of Correlation Coefficient between Deposit and Loan and Advances:

Correlation coefficient between deposit and loan and advance measures the degree of relationship between total deposit and loan and advances. Generally this relation should be positive and high. If the value of (r) i.e. Correlation coefficient is high, it can be generalized that the bank is mobilizing its fund well and vice versa. Deposit is independent variable( x ) and loan and advance is dependent variable ( y ). The main objective of this analysis is to compare the value of (r) of the sampled banks with total commercial banking system and between themselves too. This analysis further aims to observe whether the sampled banks are mobilizing their deposit and loan \& advances in proper way or not.

Table no.4.24
Correlation Coefficient between Deposit and Loan and Advances

|  | Base of evaluation |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Banks | $\mathbf{r}$ | $\mathbf{r}^{2}$ | PEr | 6PEr |
| Total | 0.99 | 0.98 | 0.01 | 0.04 |
| NBL | -0.178 | 0.03 | 0.29 | 1.75 |
| NIBL | 1 | 1.00 | 0.00 | 0.00 |

Table no. 4.24 shows the degree of correlation between deposit and loan and advance of total commercial banking system, NBL and NIBL for the study period of five years from 2003/04. The degree of correlation as the value of (r) of total commercial banking system, NBL and NIBL are $0.99,-0.178$ and 1 respectively. It means the degree of correlation between the variables of total commercial banking system is highly positive, the degree of correlation between the variables of NIBL is perfect positive relation ship, and the degree of correlation between these variables of NBL is negative relationship.

The value of $\left(\mathrm{r}^{2}\right)$ the coefficient of determination of total commercial banking system, NBL and NIBL are $0.98,0.03$ and 1 respectively. It means $98 \%$ of the variation in loan and advance of total commercial banking system is explained by the deposit, $3 \%$ of the variation in loan and advance of NBL is explained by the deposit and $100 \%$ of the variation in loan and advance of NIBL is explained by the deposit.

Considering the probable error, the value of PEr of total commercial banking system and NIBL are smaller than the value of correlation coefficient (i.e. r ), but the value of PEr of NBL is greater than the value of r . Comparing the value of 6 PEr with the value of correlation coefficient the value of $r$ of total commercial banking system and NIBL is greater than the value of 6 PEr so the relationship between the loan and advance and total deposit of these banks are significant, on the other hand the value of (r) of NBL is smaller than the value of 6 PEr so the relationship between the variables are insignificant.

### 4.2.1.3 Analysis of Correlation Coefficient between Total Assets and Profit

Correlation coefficient between total assets and profit measures the degree of relationship between total assets and profit. Here, total assets are independent variable(x) and net profit is dependent variable(y). Generally it is assumed that total assets and the profit are positively correlated, if total assets increases the profit will increase and vice versa. The main purpose of analyzing this is to justify whether the profit is significantly correlated with total assets or not.

Table no.4.25
Correlation Coefficient between Total Assets and Profit

| Banks | Base of evaluation |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{r}$ | $\mathbf{r}^{2}$ | PEr | 6PEr |
| Total | 0.86 | 0.74 | 0.08 | 0.47 |
| NBL | 0.32 | 0.10 | 0.27 | 1.62 |
| NIBL | 1 | 1.00 | 0.00 | 0.00 |

(Source: banking and financial statistics, NRB) (Annex 2.1.iii)

Table 4.25 presents the degree of correlation between total assets and profit of total commercial banking system, NBL and NIBL. Correlation coefficient (r) for above mentioned banks is $0.86,0.32$ and 1 respectively. It means the total assets and profit of total commercial banking system highly correlated, there is perfect correlation between the total assets and profit in NIBL but NBL are lowly correlated.

Coefficient of determination of these variables for total commercial banking system, NBL and NIBL are $0.74,0.10$ and 1.0 respectively. It means $74 \%$ of variation in profit of total commercial banking system is explained by total assets, $10 \%$ of the variation in profit of NBL is explained by total assets and $100 \%$ of the variation in profit is explained by total assets.

Analyzing the value of probable error of the correlation coefficient the value of (r) of total commercial banking system, NBL and NIBL is greater than the value of PEr so the relationship between the variables are significant. Comparing the value of 6 PEr with the value of (r), the value of 6PEr of total commercial banking system and NIBL are smaller than the value of (r) this figure further specifies the relationship between the variables. The figure relating to the NBL shows that the relationship between the variables is insignificant.

### 4.2.2 Trend Analysis

The statistical test used in this study which describes the trend of any variables whether it increase or decrease is known as trend analysis. This heading finds out the trend of deposit utilization of total commercial banking system, NBL and NIBL under five years study period. Commercial banks mobilize deposits in various sectors like loan and advances, government securities, share and debentures and some other productive and development sectors.

### 4.2.2.1 Trend Analysis of Total Investment to Total Deposit Ratio

This analysis aims to analyze the trend of total investment to total deposit ratio total commercial banking system, NBL and NIBL under five years of study period. If the trend line show the increasing trend the bank is improving its deposit mobilization capacity and vice versa. The following table and the graph line describe the trend values of total investment to total deposit of above mentioned banks:

Table no.4.26
Trend values of Total Investment to Total Deposit Ratio

| Banks | Years |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 2003/04 | $\mathbf{2 0 0 4 / 0 5}$ | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ |
| Total | 22.81 | 24.06 | 25.31 | 26.57 | 27.82 |  |  |  |  |  |  |
| NBL | 33.66 | 33.49 | 33.31 | 33.14 | 32.97 |  |  |  |  |  |  |
| NIBL | 16.56 | 14.93 | 13.31 | 11.69 | 10.06 |  |  |  |  |  |  |

(Source: banking and financial statistics, NRB) (Annex 2.2..i)

Graph chart no. 5
Trend line of total investment to total deposit ratio


Table no. 4.26 and graph chart no. 5 are the presentations of the trend values of total investment to total deposit ratio during the study period. The trend lines show that total commercial banking system has increasing trend in the ratio and NBL and NIBL have decreasing trend in the ratio. Trend value of total commercial banking system (22.81) is lowest in 2003/04 and NBL has highest trend value in 2003/04 to 2007/08 then NIBL and total commercial banking system. , Finally total investment to total deposit ratio of NBL is better than the total commercial banking system and NIBL, and the trend line of total commercial banking system is better between the sampled banks with increasing trend.

### 4.2.2.2 Trend Analysis of Loan and Advances to Total Deposit Ratio

This study aims to analyze the trend of loan and advances to total deposit ratio of total commercial banking system, NBL and NIBL for the study period of five years from 2003 to 2008. In this analysis the increasing trend and the high trend value is considered as the best. Following table and graph line describe the trend values of loan and advances to total deposit ratio of above mentioned banks.

Table no.4.27
Trend values of Loan and Advances to Total Deposit Ratio

| Banks | Years |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003/04 | 2004/05 | 2005/06 | 2006/07 | 2007/08 |
| Total | 3.09 | 3.86 | 4.63 | 5.04 | 6.17 |
| NBL | 48.51 | 45.18 | 41.86 | 38.54 | 35.21 |
| NIBL | 68.05 | 69.27 | 70.48 | 71.4 | 72.92 |

## Graph chart no. 6

## Trend line of loan and advance to total deposit ratio



Table no. 4.27 and graph chart no. 6 are the presentations of the trend values of loan and advance to total deposit ratio of total commercial banking system, NBL and NIBL. The trend values of total commercial banking system and NIBL are in increasing trend and the trend values of NBL during the study period are in falling trend. The trend value of NIBL in 2007/08 is 72.92 which is highest in comparison to the trend values of NBL and total commercial banking system, and the trend value of total commercial banking system in 2003/04 is 3.09 that is lowest among the values, Finally loan and advance of NIBL is better than both the total commercial banking system and NBL, and NIBL is also better in the study period.

### 4.2.3 Test of Hypothesis

Test of hypothesis is the process of testing of significance regarding the parameter of the population on the basis of sample drawn from the population. In testing hypothesis, we examine on the basis of statistics computed from the sample drawn, whether the sample drawn belongs to the, parent population with certain specific characteristics or not.

In 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. Generally following steps are followed for the test of hypothesis.

- Formulation of hypothesis
- Null hypothesis.
- Alternative hypothesis
- Computing the test statistics.
- Fixing the level of significance.
- Finding critical region. Deciding two- tailed or one-tailed test.
- Making decision.

Since, we have population less than 30 we apply (t-test) for testing the hypothesis. Some of the main hypothesis tests which are helpful for making reliable decision regarding the deposit mobilization of sampled banks are done as follows:

### 4.2.3.1 Test of hypothesis on investment to total deposit ratio

### 4.2.3.1.a Test of hypothesis on investment to total deposit ratio of total commercial banking system and NBL

Table no.4.28
Test of hypothesis on investment to total deposit ratio of total and NBL

| Year | Total |  |  | NB L |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{x}$ | $\mathbf{d 1 = ( \mathbf { x } - \mathbf { x } )}$ | $(\mathbf{d 1 ) 2}$ | $\mathbf{y}$ | $\mathbf{d 2}=(\mathbf{y}-\mathbf{y})$ | $(\mathbf{d 2}) \mathbf{2}$ |
| $2003-04$ | 21.24 | -4.07 | 16.60 | 29.19 | -4.12 | 17.01 |
| $2004-05$ | 23.84 | -1.47 | 2.17 | 39.83 | 6.52 | 42.46 |
| $2005-06$ | 28.21 | 2.90 | 8.39 | 32.23 | -1.08 | 1.18 |
| $2006-07$ | 27.71 | 2.40 | 5.74 | 34.16 | 0.85 | 0.72 |
| $2007-08$ | 25.57 | 0.26 | 0.07 | 31.16 | -2.15 | 4.64 |
| Total | 126.57 | 0.00 | 32.96 | 166.57 | 0.00 | 66.00 |

(Source: banking and financial statistics, NRB)

$$
\bar{x}=\frac{\sum \mathrm{x}}{\mathrm{~N}}=\frac{126.57}{5}=25.314
$$

$$
\bar{y}=\frac{\sum \mathrm{y}}{\mathrm{~N}}=\frac{166.57}{5}=33.314
$$

$$
\begin{aligned}
\mathrm{S}^{2} & =\frac{1}{\mathrm{n} 1+\mathrm{n} 2-2}\left[\left\{\sum \mathrm{~d} 1^{2} \frac{\left.-\left(\sum \mathrm{d} 1\right)^{2}\right\}}{\mathrm{n} 1}\right\}+\left\{\sum \mathrm{d} 2^{2}-\frac{\left.\left(\sum \mathrm{d} 2\right)^{2}\right\}}{\mathrm{n} 2}\right\}\right] \\
& =\frac{1}{5+5-2}\left[\left\{32.96-\frac{0}{5}\right\}+\left\{66.0-\frac{(0}{5}\right\}\right] \\
& =12.37
\end{aligned}
$$

Hence,

Null Hypothesis (H0): $\quad \mu_{x}=\mu y$, i.e. there is no significant difference between mean ratio of total investment to total deposit of total commercial banking system and NBL.

Alternative Hypothesis (H1): $\quad \mu \mathrm{x} \neq \mu \mathrm{y}$ (two tailed), i.e. there is significant difference between mean ratio of total investment to total deposit ratio of total commercial banking system and NBL.

Now,
Calculating the value to ' t ':

$$
\begin{aligned}
\mathrm{t} & =\frac{\mathrm{X}^{-}-\mathrm{Y}^{-}}{\left.\sqrt{\mathrm{S}^{2}\left(\frac{1}{\mathrm{n} 1}\right.}+\frac{1}{\mathrm{n} 2}\right)} \\
& =\frac{25.314-33.314}{\sqrt{ } 12.37\left(\underline{1}+\frac{1}{5}\right)} \\
& =3.60
\end{aligned}
$$

Therefore; $\mathrm{t}=3.60$,

Tabulated value of 't' ( two- tailed test) for (n1+n2-2) (i.e. 8) degree of freedom, At 5\% level of significance is 2.306 .

## Decision:

Since calculated value of ' t ' is greater than its tabulated value, we accept alternative hypothesis( H1). In other words, there is significant difference between mean ratio of investment to total deposit of total commercial banking system and NBL.

### 4.2.3.1.b Test of hypothesis on investment to total deposit ratio of total commercial banking system and NIBL

Table no.4.29

## Test of hypothesis on investment to total deposit ratios of total and NIBL

| Year | Total |  |  | NIB L |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | X | d1=(x-x) | (d1)2 | y | d2=(y-y) | (d2)2 |
| 2003-04 | 21.24 | -4.07 | 16.60 | 17.09 | 3.78 | 14.29 |
| 2004-05 | 23.84 | -1.47 | 2.17 | 13.67 | 0.36 | 0.13 |
| 2005-06 | 28.21 | 2.90 | 8.39 | 13.33 | 0.02 | 0.00 |
| 2006-07 | 27.71 | 2.40 | 5.74 | 13.30 | -0.01 | 0.00 |
| 2007-08 | 25.57 | 0.26 | 0.07 | 9.16 | -4.15 | 17.22 |
| Total | 126.57 | 0.00 | 32.96 | 66.55 | 0 | 31.64 |

$$
\begin{aligned}
& X^{-}=\frac{\sum \mathrm{x}}{\mathrm{~N}}=\frac{126.57}{5}=25.314 \\
& \begin{aligned}
\mathrm{S}^{2} & =\frac{1}{\mathrm{n} 1+\mathrm{n} 2-2} \\
& =\frac{1}{5+5-2} \\
& {\left[\left\{\sum \mathrm{~d} 1^{2}-\frac{\sum \mathrm{y}}{\mathrm{n} 1}\right)^{-}=\frac{66.55}{5}=13.31\right.} \\
& =8.075
\end{aligned}
\end{aligned}
$$

Hence,

Null Hypothesis (H0): $\quad \mu x=\mu y$, i.e.. there is no significant difference between mean ratio of total investment to total deposit of total commercial banking system and NIBL.

Alternative Hypothesis (H1): $\quad \mu \mathrm{x} \neq \mu \mathrm{y}$ (two tailed), i.e. there is significant difference between mean ratio of total investment to total deposit ratio of total commercial banking system and NIBL.

Now,
Calculating the value to ' t ' :

$$
\begin{aligned}
\mathrm{t} & =\frac{\mathrm{X}^{-}-\mathrm{Y}^{-}}{\sqrt{\mathrm{S}^{2}\left(\frac{1}{\mathrm{n} 1}+\frac{1}{\mathrm{n} 2}\right)}} \\
& =\frac{25.314-13.31}{\sqrt{8.075\left(\frac{1}{5}+\frac{1}{5}\right)}} \\
& =6.68
\end{aligned}
$$

Therefore; $t=6.68$

Tabulated value of 't' (two- tailed test) for (n1+n2-2) (i.e. 8) degree of freedom, At 5\% level of significance is 2.306 .

## Decision:

Since calculated value of ' t ' is greater than its tabulated value, we accept alternative hypothesis( H1). In other words, there is significant difference between mean ratio of investment to total deposit of total commercial banking system and NIBL.
4.2.3.1.c Test of hypothesis on investment and total deposit ratio of NBL and NIBL

Table no.4.30
Test of hypothesis on investment to total deposit ratio of NBL and NIBL

| Year | NBL |  |  | NIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | x | d1=(x-x) | (d1)2 | y | d2=(y-y) | (d2)2 |
| 2003-04 | 29.19 | -4.12 | 17.01 | 17.09 | 3.78 | 14.29 |
| 2004-05 | 39.83 | 6.52 | 42.46 | 13.67 | 0.36 | 0.13 |
| 2005-06 | 32.23 | -1.08 | 1.18 | 13.33 | 0.02 | 0.00 |
| 2006-07 | 34.16 | 0.85 | 0.72 | 13.30 | -0.01 | 0.00 |
| 2007-08 | 31.16 | -2.15 | 4.64 | 9.16 | -4.15 | 17.22 |
| Total | 166.57 | 0.00 | 66.00 | 66.55 | 0.00 | 31.64 |

$$
\begin{aligned}
\bar{X}=\frac{\sum \mathrm{x}}{\mathrm{~N}}= & \frac{166.57}{5}=33.314 \\
& \left.\mathrm{~S}^{2}=\frac{1}{\mathrm{n} 1+\mathrm{n} 2-2} \quad\left[\left\{\sum \mathrm{~d} 1^{2} \frac{-\left(\sum \mathrm{d} 1\right)^{2}}{\mathrm{n} 1}\right\}+\left\{\sum \mathrm{d} 2^{2}-\frac{\left(\sum \mathrm{y} 2\right.}{\mathrm{N}}\right)^{2}\right\}\right] \\
& =\frac{1}{5}=\frac{66.55}{5+5-2} \\
& =12.21
\end{aligned}
$$

Hence,
Null Hypothesis (H0): $\quad \mu \mathrm{x}=\mu \mathrm{y}$, i.e. there is no significant difference between mean ratio of total investment to total deposit of NBL and NIBL.

Alternative Hypothesis (H1): $\quad \mu \mathrm{x} \neq \mu \mathrm{y}$ (two tailed), i.e. there is significant difference between mean ratio of total investment to total deposit ratio of NBL and NIBL.

Now,
Calculating the value to 't' :

$$
\mathrm{t}=\frac{\mathrm{X}^{-}-\mathrm{Y}^{-}}{\sqrt{ } \mathrm{S}^{2}\left(\frac{1}{\mathrm{n} 1}+\frac{1}{\mathrm{n} 2}\right)}
$$

$$
=\frac{33.314-13.31}{\sqrt{12.21\left(\frac{1}{5}+\frac{1}{5}\right)}}
$$

$$
=9.05
$$

Therefore; $\mathrm{t}=9.05$

Tabulated value of 't' ( two- tailed test) for (n1+n2-2) (i.e. 8) degree of freedom, At 5\% level of significance is 2.306 .

## Decision:

Since calculated value of ' t ' is greater than its tabulated value, we accept alternative hypothesis( H1). In other words, there is significant difference between mean ratio of investment to total deposit of NBL and NIBL.

### 4.2.3.2 Test of hypothesis on loan and advance to total deposit ratio

### 4.2.3.2.a Test of hypothesis on loan and advance to total deposit ratio of total commercial banking system and NBL

## Table no. 4.31

Test of hypothesis on L\&A to total deposit ratio of total and NBL

| Year | Total |  |  | NBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | x | d1=(x-x) | (d1)2 | y | d2 $=(\mathrm{y}-\mathrm{y}$ ) | (d2)2 |
| 2003-04 | 3.07 | -1.56 | 2.45 | 52.66 | 10.80 | 116.64 |
| 2004-05 | 4.08 | -0.55 | 0.31 | 50.24 | 8.38 | 70.22 |
| 2005-06 | 4.47 | -0.16 | 0.03 | 34.40 | -7.46 | 55.65 |
| 2006-07 | 5.18 | 0.55 | 0.30 | 34.60 | -7.26 | 52.71 |
| 2007-08 | 6.37 | 1.74 | 3.01 | 37.40 | -4.46 | 19.89 |
| Total | 23.17 | 0.00 | 6.09 | 209.30 | 0.00 | 315.12 |

$$
\begin{array}{rlrl}
\mathrm{X}=\frac{\sum \mathrm{x}}{\mathrm{~N}} & =\frac{23.17}{5}=4.634 & \mathrm{Y}^{-}=\frac{\sum \mathrm{y}}{\mathrm{~N}}=\frac{209.30}{5}=41.86 \\
\mathrm{~S}^{2} & =\frac{1}{\mathrm{n} 1+\mathrm{n} 2-2} & {\left[\left\{\sum \mathrm{~d} 1^{2}-\frac{\left.\left(\sum \mathrm{d} 1\right)^{2}\right\}}{\mathrm{n} 1}+\left\{\sum \mathrm{d} 2^{2}-\frac{\left.\left(\sum \mathrm{d} 2\right)^{2}\right\}}{\mathrm{n} 2}\right\}\right.\right.} \\
& =\frac{1}{5+5-2}\left[\{6.09-\underline{0}\}+\left\{315.12-\frac{(0}{5}\right\}\right] \\
& =40.15
\end{array}
$$

Hence,

Null Hypothesis (H0): $\quad \mu x=\mu y$, i.e.. there is no significant difference between mean ratio of loan and advance to total deposit of total commercial banking system and NBL.

Alternative Hypothesis (H1): $\quad \mu x \neq \mu y$ (two tailed), i.e. there is significant difference between mean ratio of loan and advance to total deposit ratio of total commercial banking system and NBL.

Now,
Calculating the value to 't' :

$$
\begin{aligned}
\mathrm{t} & =\frac{\mathrm{X}^{-}-\mathrm{Y}^{-}}{\sqrt{\mathrm{S}^{2}\left(\frac{1}{\mathrm{n} 1}+\frac{1}{\mathrm{n} 2}\right)}} \\
& =\frac{4.634-41.86}{\sqrt{40.15\left(\frac{1}{5}+\frac{1}{5}\right)}} \\
& =-9.29
\end{aligned}
$$

Therefore; $|\mathrm{t}|=9.29$

Tabulated value of ' t ' ( two- tailed test) for ( $\mathrm{n} 1+\mathrm{n} 2-2$ ) (i.e. 8) degree of freedom, At $5 \%$ level of significance is 2.306

## Decision:

Since calculated value of ' t ' is greater than its tabulated value, we accept alternative hypothesis( H1). In other words, there is significant difference between mean ratio of loan and advance to total deposit of total commercial banking system and NBL.

### 4.2.3.2.b Test of hypothesis on loan and advance to total deposit ratio of total commercial banking system and NIBL

Table no.4.32
Test of hypothesis on L\&A to total deposit ratio of total and NIBL

| Year | Total |  |  | NIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | x | d1 $=(x-x)$ | (d1)2 | y | $\mathrm{d} 2=(\mathrm{y}-\mathrm{y})$ | (d2)2 |
| 2003-04 | 3.07 | -1.56 | 2.45 | 61.29 | -9.19 | 84.53 |
| 2004-05 | 4.08 | -0.55 | 0.31 | 72.23 | 1.75 | 3.05 |
| 2005-06 | 4.47 | -0.16 | 0.03 | 68.70 | -1.78 | 3.18 |
| 2006-07 | 5.18 | 0.55 | 0.30 | 71.40 | 0.92 | 0.84 |
| 2007-08 | 6.37 | 1.74 | 3.01 | 78.80 | 8.32 | 69.16 |
| Total | 23.17 | 0.00 | 6.09 | 352.42 | 0.00 | 160.76 |

$$
\begin{array}{rlrl}
\bar{x}=\frac{\sum \mathrm{x}}{\mathrm{~N}}= & \bar{y}=\frac{\sum \mathrm{y}}{5}=\frac{352.42}{5}=4.634 & \\
\mathrm{~S}^{2}=\frac{1}{\mathrm{n} 1+\mathrm{n} 2-2} & {\left[\left\{\sum \mathrm{~d} 1^{2}-\frac{\left(\sum \mathrm{d} 1\right.}{\mathrm{n} 1}\right)^{2}\right\}+\left\{\sum \mathrm{d} 2^{2}-\frac{\left(\sum \mathrm{d} 2\right)^{2}}{\mathrm{n} 2}\right.} \\
& =\frac{1}{5+5-2} & {\left[\left\{6.09-\frac{(0)}{5}\right\}+\left\{160.76-\frac{(0}{5}\right\}\right]}
\end{array}
$$

Hence,

Null Hypothesis (H0): $\quad \mu x=\mu y$, i.e. there is no significant difference between mean ratio of loan and advance to total deposit of total commercial banking system and NIBL.

Alternative Hypothesis (H1): $\quad \mu x \neq \mu y$ (two tailed), i.e. there is significant difference between mean ratio of loan and advance to total deposit ratio of total commercial banking system and NIBL.

Now,
Calculating the value to ' t ':

$$
\begin{aligned}
\mathrm{t} & =\frac{\mathrm{X}^{-}-\mathrm{Y}^{-}}{\sqrt{\mathrm{S}^{2}\left(\frac{1}{\mathrm{n} 1}+\frac{1}{\mathrm{n} 2}\right)}} \\
& =\frac{4.634-70.484}{\sqrt{2} 2.86\left(\frac{1}{5}+\frac{1}{5}\right)} \\
& =-22.79
\end{aligned}
$$

Therefore; $|\mathrm{t}|=22.79$

Tabulated value of 't' ( two- tailed test) for (n1+n2-2) (i.e. 8) degree of freedom, At 5\% level of significance is 2.306

## Decision:

Since calculated value of ' t ' is greater than its tabulated value, we accept alternative hypothesis( H1). In other words, there is significant difference between mean ratio of loan and advance to total deposit of total commercial banking system and NIBL.
4.2.3.2.c Test of hypothesis on loan and advance to total deposit ratio of NBL and NIBL

Table no.4.33

## Test of hypothesis on L\&A to total deposit ratios of NBL and NIBL

| Year | NBL |  |  | NIBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | x | d1 $=(x-x)$ | (d1)2 | y | d2 $2=(y-y$ ) | (d2)2 |
| 2003-04 | 52.66 | 10.80 | 116.64 | 61.29 | -9.19 | 84.53 |
| 2004-05 | 50.24 | 8.38 | 70.22 | 72.23 | 1.75 | 3.05 |
| 2005-06 | 34.40 | -7.46 | 55.65 | 68.70 | -1.78 | 3.18 |
| 2006-07 | 34.60 | -7.26 | 52.71 | 71.40 | 0.92 | 0.84 |
| 2007-08 | 37.40 | -4.46 | 19.89 | 78.80 | 8.32 | 69.16 |
| Total | 209.30 | 0.00 | 315.12 | 352.42 | 0.00 | 160.76 |

$$
\begin{aligned}
\mathrm{X}=\frac{\sum \mathrm{x}}{\mathrm{~N}}= & \frac{209.30}{5}=41.86 \\
& \mathrm{Y}^{-}=\underset{\mathrm{N}}{\sum \mathrm{y}}=\underline{5} \underline{352.42}= \\
& =\frac{1}{5+5-2}\left[\left\{\sum^{2} \mathrm{~d} 1^{2} \frac{\left.-\left(\sum \mathrm{d} 1\right)^{2}\right\}}{\mathrm{n} 1}\right\}+\left\{\sum \mathrm{d} 2^{2}-\frac{\left.\left(\sum \mathrm{d} 2\right)^{2}\right\}}{\mathrm{n} 2}\right]\right. \\
& =59.49
\end{aligned}
$$

Hence,

Null Hypothesis (H0): $\quad \mu x=\mu y$, i.e. there is no significant difference between mean ratio of loan and advance to total deposit of NBL and NIBL.

Alternative Hypothesis (H1): $\quad \mu x \neq \mu y$ (two tailed), i.e. there is significant difference between mean ratio of loan and advance to total deposit ratio of NBL and NIBL.

Now, Calculating the value to 't' :

$$
\begin{aligned}
\mathrm{t} & =\frac{\mathrm{X}^{-}-\mathrm{Y}^{-}}{\sqrt{\mathrm{S}^{2}\left(\frac{1}{\mathrm{n} 1}+\frac{1}{\mathrm{n} 2}\right)}} \\
& =\frac{41.86-70.484}{\sqrt{59.49\left(\frac{1}{5}+\frac{1}{5}\right)}} \\
& =-5.87
\end{aligned}
$$

Therefore; $|\mathrm{t}|=5.87$

Tabulated value of 't' ( two- tailed test) for (n1+n2-2) (i.e. 8) degree of freedom, At 5\% level of significance is 2.306

## Decision:

Since calculated value of ' t ' is greater than its tabulated value, we accept alternative hypothesis( H1). In other words, there is significant difference between mean ratio of loan and advance NBL and NIBL.

### 4.3 Major findings of the study

In this research, data have been basically obtained, by the secondary sources. The analysis is made with the help of Financial and statistical tools. In the financial tools,
ratio analysis has been used for the analysis of the financial activities of commercial banks, especially total commercial banking system, NBL and NIBL.

Considering the statistical analysis as the easy path for meeting the objective some statistical tools have been used for the analysis. In statistical tools, correlation coefficient, trend analysis and t-statistic have been used. This unit focuses on the major findings, which are derived from the analysis of the data related to the total commercial banking system, NBL and NIBL. This study has been made on the basis of the related data for five years from 2003/04 to 2007/08. The major finding of the financial analysis and statistical analyses are presented below.

## I. Liquidity ratio

The liquidity ratio measures the capacity of the firms to meet their cash obligations. Commercial banks being a financial institution should maintain the satisfactory level of liquidity position to meet the credit need of their customers and sometimes for meeting the sudden need of cash.

Analyzing the liquid assets to total assets ratio, total commercial banking system and NBL have maintained the liquidity position well then NIBL. NBL has highest mean ratio of liquid assets to total assets then the total commercial banking system and NIBL. It means though the government sector bank is strong in maintaining the liquidity private owned bank.

Observing the return on liquid assets ratio the mean return of NIBL is highest and this ratio of NBL is smaller than that of NIBL and higher then total commercial banking system. It means private sector bank is earning more in comparison to government owned banks, in this analysis it is also found that the government owned bank is improving their condition thoroughly.

Analyzing the liquid fund to total deposit ratio NBL has maintained the highest mean ratio in comparison to total commercial banking system and NIBL. It means NIBL
representing government sector bank is strong in managing the liquid fund. But the position of NIBL also is not bad. Though this ratio of NIBL the private owned bank is more fluctuating the position is seemed to be good in near future.

## II. Assets management ratio

Assets management ratios evaluate the assets management efficiency of banks. Commercial banks must be able to manage their assets properly for making the required profit and increasing the efficiency of the bank. Following are the findings of this study relating to the assets management:

Analyzing the total deposit to total liabilities ratio, NIBL has highest mean ratio in comparison to total commercial banking system and NBL. It means NIBL representing the private sector bank is strong in collecting the deposit in comparison to NBL the government owned bank. But the condition of NBL also is not bad because total deposit to total liabilities ratio of this bank has taken an increase.

Loan and advance to total deposit ratio show the portion of the loan and advance on total deposit. Analyzing this ratio NIBL has highest mean ratio in comparison to total commercial banking system and NBL. NIBL the private sector bank has the higher mean ratio than NBL the government owned commercial bank. It means NIBL is efficient in mobilizing its deposit to loan and advance.

Total investment to total deposit ratio show the portion of total deposit invested in various sectors excepting in loan and advance. Analyzing this ratio NBL is seemed more efficient in investing the deposit to various sectors. The condition of NIBL is bad because there is more difference between the mean ratio of NBL and NIBL. In this analysis it is found the government sector bank is strong in maintaining the total investment to total deposit then private sector bank.

Analyzing the loan and advance to total assets ratio NIBL, NIBL has highest mean ratio in comparison to total commercial banking system and NBL. It means NIBL representing
the private sector bank is strong in collecting the loan and advance to total assets in comparison to NBL the government owned bank. But the condition of NBL also is not bad because loan and advance to total assets ratio of this bank has taken an increase.

The ratio of investment on government bond to total deposit shows the portion of total deposit that is invested on government bonds and NRB bonds. In other words this ratio shows the portion of secured investment of the commercial bank. Analyzing this ratio NIBL has highest mean ratio in comparison to total commercial banking system and NBL. It means this bank representing the private sector bank is able to make more secured investment than NBL representing the government owned banks.

Observing the formation of deposit of total commercial banking system and sampled banks it is found that NBL has the higher portion of saving and fixed deposit that is the mid-term or long-term deposit than that of NIBL and total commercial banking system as well. It means NBL has the probability of earning more by making the mid-term or longterm investments on various profitable as well as productive sectors.

## III. Profitability ratio

Profitability ratio measures the earning capacity of the bank that reflects the efficiency of the bank. In this analysis the profit related ratios of total commercial banking system, NBL and NIBL are analyzed and compared with each other. The specified profit related ratios analyzed in this study are as follows.

Interest income to total income ratio shows the portion of interest income in total income. In the long term this ratio shows the loan recovery possibility too. Analyzing this ratio NIBL has the highest mean ratio than NBL and total commercial banking system. It means the private sector bank is efficient in collecting interest on loan in comparison to government owned banks.

Return on loan and advance ratio shows the earning capacity of loan and advance that is granted by the bank. Analyzing this ratio NBL has the highest mean ratio in comparison to total commercial banking system and NIBL. On the basis of this figure this can be generalized that the government owned commercial banks are efficient than the private sector commercial banks.

Return on total assets ratio is the indicator that indicates the efficiency of the bank in managing assets for increasing the earning. Analyzing this ratio, it is found that NBL has highest mean ratio. It means NBL is efficient in managing the total assets in profitable manner. The condition of NIBL is not bad.

Expenses also measure the earning efficiency of commercial banks. Interest expenses are considered as the unproductive expenses. If interest expenses are higher the financial position of the bank can not be considered as good because this condition shows the condition of high deposit low degree of mobilization of deposit. Analyzing this ratio it is found that NBL is efficient in managing the expenses because this bank has lowest interest expenses to total expenses ratio. NIBL representing the private sector commercial bank bad position it has higher mean ratio than total commercial banking industry and NBL.

## IV. Growth ratio

Growth ratios show the performance level of the commercial banks. The smooth growth of the performance show the perfect efficiency but this can not be found in real practice in general life. In this study the growth of both sampled banks and total commercial banking system are analyzed and compared with each other.

Growth of deposit is one of the indicators showing the performance efficiency of commercial banks. Analyzing the growth of both sample banks NBL and NIBL has fluctuating ratios during the study period. In case of total commercial banking system the ratios are increasing during the study period. NIBL has highest average growth of deposit
during the study period in comparison to total commercial banking system and NBL. It means NIBL representing the private sector bank is more successful than government owned commercial banks in winning the belief of the customers.

Loan and advance is the most important element for investing the funds of commercial banks. Analyzing the growth ratios of loan and advance, the ratios of all banks are fluctuating. The statistics of NBL is showing the ratio is improving from the year 2006/07, growth in loan and advance. The reason for increasing in growth in NBL may be of the application of the policy of financial restructuring. NBL facing the great problem in year 2004/05 and 2005/06 of default of recovery of loan has been concentrating its effort for recovery of loan than making further loan so this bank may have the negative growth in loan and advance. Another reason for falling growth may be the political instability and unfavorable environment for the trade and industry. NIBL has the positive growth rate so this bank can be considered as the efficient bank in this analysis. It means private sector commercial banks are more efficient than the government owned commercial banks.

Investment is another sector where the banks mobilize their funds. Increasing investment is the signal of economic recovery of the nation and financial efficiency of the commercial banks. Analyzing the growth of investment, the ratios of both sampled banks and total commercial banking system are fluctuating during the study period. The ratios of NIBL are more negative than that of NBL and total commercial banking system has the highest average growth of investment in the study period. So it can be generalized that the government sector commercial banks are more successful in making investment in comparison to the private sector commercial banks.

Profit making is one of the most important objectives of commercial banks. If the bank is successful in making smooth growth in profit by passes of time the bank can be considered as managerially successful bank and that can easily sustain in long term. Analyzing the growth of return, both sampled banks and total commercial banking system have the fluctuating growth during the study period. Total commercial banking
system has highest mean growth of return during the period. NIBL the private sector commercial banks have the good ratio then the government owned commercial banks, NBL.

## V. coefficient of correlation

Analyzing the correlation coefficient between deposit and total investment all banks has positive relationship between these variables. Considering the probable error, the value of PEr of total commercial banking system and NIBL are smaller than the value of correlation coefficient (i.e.r) and the value of PEr of NBL is greater than the value of correlation coefficient. Comparing the value of 6 PEr with the value of coefficient of correlation (r) the value of 'r' of NBL is smaller than the value of 6 PEr (i.e. $0.18<1.75$ ). It means the value of $r$ is not significant it means the relationship between the variables is insignificant. Whereas about total commercial banking system and NIBL the relationship between the variables are significant.

In the analysis of correlation coefficient between deposit and loan and advance, It means the degree of correlation between the variables of total commercial banking system is highly positive, the degree of correlation between the variables of NIBL is perfect positive relation ship, and the degree of correlation between these variables of NBL is negative relationship. Considering the probable error, the value of PEr of total commercial banking system and NIBL are smaller than the value of correlation coefficient (i.e.r) and the value of PEr of NBL is greater than the value of correlation coefficient. Comparing the value of 6PEr with the value of coefficient of correlation (r) the value of 'r' of NBL is smaller than the value of $6 \operatorname{PEr}$ (i.e. $0.18<1.75$ ). It means the value of $r$ is not significant it means the relationship between the variables is insignificant. Whereas about total commercial banking system and NIBL the relationship between the variables are significant.

Analyzing the correlation coefficient between total assets and profit, total commercial banking system highly correlated, there is perfect Analyzing the value of probable error of the correlation coefficient the value of (r) of total commercial banking system, NBL and NIBL is greater than the value of PEr so the relationship between the variables are significant. Comparing the value of 6 PEr with the value of (r), the value of 6 PEr of total
commercial banking system and NIBL are smaller than the value of (r) this figure further specifies the relationship between the variables. The figure relating to the NBL shows that the relationship between the variables is insignificant.

## VI. Trend analysis

Trend analysis show the moving direction of some factors by the time passes on. In this study the trend of total investment to total deposit ratio and loan \&advance to total deposit ratio is analyzed for meeting the objective of the study.

Analyzing the trend values of total investment to total deposit ratio for the five years of study period, the trend line of NBL and total commercial banking system have presented the increasing trend. But the trend of NIBL has falling on the study period. It means NBL doing well in comparison to NIBL.

Observing the trend of loan and advance to total deposit ratio total commercial banking system and NIBL have increasing trend and NBL has decreasing trend. This ratio of NBL may have fallen due to its efforts on recovery of default of loan.

## VII. Test of hypothesis

For the test of hypothesis t -test is selected because the total number of population (i.e. total number of commercial banks operating within Nepalese economy) is smaller than thirty (i.e. 17 < 30 ).

Analyzing the hypothesis test result of investment to total deposit ratio of total commercial banking system with NBL and NIBL both test have yield the result of acceptance of alternative hypothesis. It means the ratios of both sampled banks are significantly different from the ratio of total commercial banking system. On another hypothesis test of the ratios of NBL and NIBL, it has yield the result of acceptance of
alternative hypothesis. It means there is significant difference between the mean ratios of two banks.

In the analysis of test result of loan and advance to total deposit ratio of total commercial banking system with NBL and NIBL, both test have yield the result of acceptance of alternative hypothesis (H1) It means there is significant difference between the mean ratio of total commercial banking system and the mean ratio of NBL and NIBL. The test of hypothesis of loan and advance to total deposit ratio of NBL with the ratio of NIBL has yield the result of acceptance of alternative hypothesis (H1). It means there is significant difference between the mean ratios of NBL and NIBL.

Finally with the analysis of these six hypothesis tests it is found that both banks are significantly different from other banks of total commercial banking system in the view point of deposit mobilization.

## CHAPTER- FIVE

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1 SUMMARY

Mobilization as well as canalization of saving in the productive sector is important for the economic development of the country without inflationary pressure in the economy. No doubt commercial banks play a crucial role for the economic development by formulation of capital, which is key variable in the economic development of the country. Scattered recourses hold no meaning unless and until they mobilized and utilized efficiently in some productive sectors. Commercial banks contribute to the process of capital formation by converting dispersed saving into meaningful capital investment in order to aid industry, trade, commerce and agriculture for the economic development of a nation. It should not be forgotten that a country could hardly achieve its growth of economic development without a strong capital base. Commercial banks play a vital role in performing such base for financial and economic development by way of deposit mobilization. It is quite true that a strong financial institution is of great need in the developing country like Nepal. Because all the economic conditions are based on the financial institution and the development of a country depend upon the active participation of the banks in the different activities in the economy.

Deposits are the obligation of the commercial banks. So, commercial banks must allocate the funds in different loans and advances and investments. In this study two banks NBL representing the government bank and NIBL representing the private sector bank are compared with total commercial banking system and with each another. In this study data of five years from 2003/04 to 2007/08 have been considered for the targeted analysis.

Analyzing the liquidity position of the banks, both banks have satisfactory level of liquidity but NBL has the larger portion of liquid assets in total assets. Return on liquid fund of NIBL is more satisfactory then NBL and total commercial banking system and the portions of liquid fund to total deposit of NIBL is not satisfy then NBL and total commercial banking system. Generalizing the findings of the study it can be observed that government owned commercial banks are strong in liquidity management but private sector banks also are not in dissatisfactory condition.

In assets management ratios both sampled banks seemed stronger than total commercial banking system in total deposit liabilities ratio, loan and advance to total deposit ratio, loan and advance to total assets ratio. In total investment to total deposit ratio and investment on gov. bond to total deposit ratio total commercial banking system seems stonger then NIBL and NBL respectively. Comparing these all ratios of two sampled banks it is found that NIBL is stronger than NBL in the ratios of loan and advance to total deposit ratio, loan and advance to total assets ratio and investment on government bond to total deposit ratio but NBL is also higher in total deposit to total liabilities ratio and total investment to total deposit ratio.

In the analysis of profitability ratios both sampled banks are seemed stronger than total commercial banking system in return on return on total assets ratio. Comparing the ratios of two sampled commercial banks it is found that NIBL is stronger than the NBL in interest income to total income ratio and interest expenses to total expenses. It is also seemed that NBL is stronger then NIBL on the ratios of return on loan and advance return on total assets.

In the analysis of growth ratios of total commercial banking system, NBL and NIBL, these all have the positive growth in deposit, loan and advance and return. But NBL and NIBL has the negative growth in investment. In the growth point of view NIBL is stronger than NBL and NBL is seemed weaker than NIBL and even than total commercial banking system in these ratios.

In the analysis of correlation coefficient between the selected variables, NBL has the negative results in correlation coefficient between deposit and loan and advance. It means the selected variables of NBL are not significantly correlated with each other during this period. Such results may have appeared because of the restructuring programs lunched for the betterment of the bank.

In trend analysis both sampled banks are seemed stronger than the total commercial banking system in the trend analysis of loan and advance to total deposit ratio and NIBL seemed to be weaker than total commercial banking system in the trend analysis of total investment to total deposit ratios.

In the hypothesis test it is found that the sampled banks are significantly different from other banks of total commercial banking system in the view point of deposit mobilization.

Finally, in conclusion, it can be concluded that the deposit mobilization position of both (government owned commercial banks and private sector commercial banks) are better than the total commercial banking system but the position of private sector commercial banks is better than the position of government owned commercial banks. It is also found that the government owned banks are operating well to make to improve their financial status.

### 5.2 Conclusion

Banks are the very necessary elements of the economy of a country. The word banks generally denote the commercial banks. The commercial bank helps in the formation of capital that is the most important for the economic growth of the country. The commercial banks, in Nepal are doing well but they are not giving satisfactory result due to some, internal and external factors. The deposits and its investment in productive sector by commercial banks are not stable and these are going thoroughly by the time passes on. A deposit is indeed the major organ of commercial banks. Higher the deposit
higher will be the capacity of investment and higher will be the chance of mobilization of fund and make the satisfactory profit for the long term sustainability of an organization.

Banks should be careful while granting loan because loan is the blood of commercial banks for survival. If commercial bank does not adopt the sound investment policy, it will be in greater trouble in future in the collection of loan amount. Banks should invest its funds in various portfolios after the profound study of the project. It keeps the bank far from the problem of default of payment that certainly keeps the bank safe from the bankruptcy. Diversification of investment is very much important for banks because a bank uses the money of people for the benefit of the depositors and the benefit of its own.

From the analysis made in last chapter it is found that total commercial banking system, NBL and NIBL are able to mobilize average $29.94 \%, 75.34 \%$ and $83.79 \%$ of their deposits to the loan and advance and in investment. This figure show the stronger position of NIBL than NBL in deposit mobilization and also in comparing the return ratios, i.e. interest income to total income ratio NBL has smaller return than NIBL (i.e. $52.20<94.39$ ). It means NIBL is efficient in deposit mobilization but NBL is weak in collecting interest and even the principal amount of the loan. The analysis of growth of deposit, loan and advance and investment also reflects the weak position of NBL in deposit mobilization in comparison to NIBL.

In trend analysis both sampled banks are seemed stronger than the total commercial banking system in the trend analysis of loan and advance to total deposit ratio and NIBL seemed to be weaker than total commercial banking system in the trend analysis of total investment to total deposit ratios.

Various analysis yield different results but summarizing the results it can be generalized that there is no more difference between the deposit mobilizations of government owned commercial banks and private sector commercial banks. But the private sector commercial banks are seemed more efficient than the government owned commercial banks in deposit mobilization.

Every sector is facing the problem in Nepal due to the violence and political instability. The commercial banking system also could not escape out from this situation. All the banks within this system have been facing the problem but this problem of NBL became great, because this is the government owned commercial bank which is serving even in remote areas by largest number of branches. Most of the loans became the bad debt due to the unfavorable economic environment. But the positions of this bank had been failed due to the managerial inefficiency and political interference in the management before some years ago. Now this bank is operating well to make to improve their financial status.

### 5.3 Recommendations

The problems related to deposit mobilization of NBL and NIBL representing the government owned commercial banks and private sector commercial banks respectively have been discussed. In accordance with facts found in previous sections, the following recommendations are made for the further improvement of the deposit mobilization of the government owned commercial banks and private sector commercial banks especially NBL and NIBL.
$>$ NBL has high degree of liquidity than NIBL but comparing the return on liquid assets NIBL has higher return it means though NBL has mobilized the liquid funds the liquidity management is not strong and there is some lapses on the deposit mobilization policy. So NBL is better to revise the liquidity management policy and implement the revised policy strongly.
$>$ All commercial banks should make an attractive publicity of the bank and than people will have knowledge about the bank and it encourages them to save the money. When there is more publicity, people may have great desire to save money in order to earn interest and use the bank to lend money instead of money lenders the banks should also pay attention to publish bulletin, brochures and others so as to make people familiarizes with its performance and activities.
$>$ In order to develop the banking and saving habit of the people of remote areas in the nation, commercial banks are suggested not to be surrounded and limited within the urban areas and not tot be gathered around the big clients ( e.g. multinational companies. Large industries, manufacturer and exporters, NGO's and INGO's, etc.). Reduction in the minimum required threshold balance and extension of its services towards rural area and priority sector indicated by the government is must for boosting up the living standard of lower level people.
$>$ The ever mounting amount of deposits is now got to be properly mobilized in the different sectors of the economy. For the proper mobilization of deposit, banks must be prepared to take more risk on their lending and investments to encourage the borrowing by the units of the economy. In other words, it's time for them to divert their traditional collateral taking process into more realistic and potential aspects. They must provide loan for a project on the basis of its potentiality instead of sound and safe collateral. In addition, it's also suggested that they should lower their lending rate too. Private sector commercial banks are adopting this policy in some extent.
$>$ Since, commercial banks used to provide less loan and advances in comparison to its total deposits, commercial banks are strongly recommended to follow the liberal lending policy more percentage of deposits can be invested to different profitable sector as well as towards loan and advances. Because, analysis showed investment and loan and advances as a significant factor this affects the net profit of the banks. Subsequently, a skillful administration is the must for these assets because negligence may become a reason liquidity crisis and more liberal lending may lead to the default of repayment of loan.
$>$ Considering the current economic scenario, banks are suggested to further advance their retail banking through newer and innovative products. They should expand their transaction in new services such as tax revenue collection, business enterprise's bill
amount collection etc. Both banks are doing these works in some extent but that is not satisfactory to the customers of all regions.
$>$ It may be the worth being suggestion that banks are better to seek investment opportunities in foreign countries in order to overcome the mounting deposits and limited investment opportunities. They should invest in foreign currencies, precious metals, and highly liquid safe securities.
> Commercial banks themselves should seek for new investment opportunities rather than investing in identified areas. Commercial banks should establish the efficient R\&D department for this purpose.
$>$ Training and observation tours should be organized on regular basis to increases the efficiency of the employees. Proper evaluation of the performance of the staff should be done in time. Continuous and timely evaluation of performance is must for improving the managerial efficiency of the bank. Job analysis should be done to find out the skill, knowledge, abilities etc. of the staffs that is needed for the better performance.

Finally, for the speedy development of the nation, the government owned banks as well as the private sector banks are suggested to follow decentralization policy in order to extend the modern and computerized banking facilities towards the marginal areas and for assuring the reach of remote area

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## ANNEX

## 1. Financial Analysis:

1.1. Liquidity ratios:
1.1.i. Analysis of liquid assets to total assets ratio:

| Total |  |  | (Rs.in million) |  |
| :---: | ---: | ---: | :---: | :---: |
| Year | Liquid Assets | Total Assets | Ratio |  |
| $2003-04$ | 46252.80 | 339816.70 | 0.1361 |  |
| $2004-05$ | 38369.40 | 408928.80 | 0.0938 |  |
| $2005-06$ | 38842.10 | 428706.20 | 0.0906 |  |
| $2006-07$ | 44089.70 | 490638.10 | 0.0899 |  |
| $2007-08$ | 66875.40 | 566736.00 | 0.1180 |  |


| NBL |  | (Rs in million) |  |
| :---: | ---: | ---: | ---: |
| Year | Liquid Assets | Total Assets | Ratio |
| $2003-04$ | 6444.00 | 44161.88 | 0.1459 |
| $2004-05$ | 5886.20 | 47045.15 | 0.1251 |
| $2005-06$ | 5517.40 | 35918.91 | 0.1536 |
| $2006-07$ | 7003.60 | 39258.79 | 0.1784 |
| $2007-08$ | 5055.20 | 42053.44 | 0.1202 |


| NIBL |  |  | (Rs in million) |
| :---: | ---: | ---: | :---: |
| Year | Liquid Assets | Total Assets | Ratio |
| $2003-04$ | 1215.20 | 13255.49 | 0.0917 |
| $2004-05$ | 1340.40 | 16274.06 | 0.0824 |
| $2005-06$ | 2354.90 | 21330.14 | 0.1104 |
| $2006-07$ | 2791.50 | 27590.84 | 0.1012 |
| $2007-08$ | 3755.00 | 38873.31 | 0.0966 |

1.1.ii. Return on liquid assets ratio:

Total

| Year | Net Profit | Liquid Assets | Ratio |
| :---: | ---: | ---: | :---: |
| $2003-04$ | $3,710.00$ | 46252.80 | 0.0802 |
| $2004-05$ | $4,470.00$ | 38369.40 | 0.1165 |
| $2005-06$ | $3,230.00$ | 38842.10 | 0.0832 |
| $2006-07$ | $5,680.00$ | 44089.70 | 0.1288 |
| $2007-08$ | $11,924.90$ | 66875.40 | 0.1783 |


| NBL | (Rs in million) |  |  |
| :---: | ---: | ---: | ---: |
| Year | Net Profit | Liquid Assets | Ratio |
| $2003-04$ | 710.39 | 6444.00 | 0.1102 |
| $2004-05$ | 1730.13 | 5886.20 | 0.2939 |
| $2005-06$ | 1207.26 | 5517.40 | 0.2188 |
| $2006-07$ | 226.95 | 7003.60 | 0.0324 |
| $2007-08$ | 239.21 | 5055.20 | 0.0473 |

NIB L

| Year | Net Profit | Liquid Assets | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 152.67 | 1215.20 | 0.1256 |
| $2004-05$ | 232.15 | 1340.40 | 0.1732 |
| $2005-06$ | 350.54 | 2354.90 | 0.1489 |
| $2006-07$ | 501.40 | 2791.50 | 0.1796 |
| $2007-08$ | 696.73 | 3755.00 | 0.1855 |

1.1.iii. Liquid fund to total deposit ratio:

| Total |  |  |  |
| :---: | ---: | ---: | ---: |
| Year Liquid Fund Total Deposit | Ratio |  |  |
| $2003-04$ | 46252.80 | 233811.20 | 0.1978 |
| $2004-05$ | 38369.40 | 252409.80 | 0.1520 |
| $2005-06$ | 38842.10 | 291245.60 | 0.1334 |
| $2006-07$ | 44089.70 | 337497.20 | 0.1306 |
| $2007-08$ | 66875.40 | 426080.30 | 0.1570 |


| NBL | (Rs in million) |  |  |
| :---: | ---: | ---: | :---: |
| Year | Liquid Fund | Total Deposit | Ratio |
| $2003-04$ | 6444.00 | 36288.50 | 0.1776 |
| $2004-05$ | 5886.20 | 34744.20 | 0.1694 |
| $2005-06$ | 5517.40 | 35444.90 | 0.1557 |
| $2006-07$ | 7003.60 | 38715.20 | 0.1809 |
| $2007-08$ | 5055.20 | 41451.70 | 0.1220 |


| NIBL |  | (Rs. in million) |  |
| :---: | ---: | ---: | :---: |
| Year | Liquid Fund | Total Deposit | Ratio |
| $2003-04$ | 1215.20 | 11706.30 | 0.1038 |
| $2004-05$ | 1340.40 | 14254.57 | 0.0940 |
| $2005-06$ | 2354.90 | 18927.31 | 0.1244 |
| $2006-07$ | 2791.50 | 24488.85 | 0.1140 |
| $2007-08$ | 3755.00 | 34451.80 | 0.1090 |

### 1.2. Assets management ratios:

## 1.2.i. Total deposit to total liabilities ratio:

| Total |  | (Rs. in million) |  |
| :---: | ---: | ---: | :---: |
| Year | Total Deposit | Total Liabilities | Ratio |
| $2003-04$ | 233811.20 | 339816.70 | 0.6881 |
| $2004-05$ | 252409.80 | 408928.80 | 0.6172 |
| $2005-06$ | 291245.60 | 428706.20 | 0.6794 |
| $2006-07$ | 337497.20 | 490638.10 | 0.6879 |
| $2007-08$ | 426080.30 | 566736.00 | 0.7518 |

NBL
(Rs in million)

| Year | Total Deposit | Total Liabilities | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 36288.50 | 44161.88 | 0.8217 |
| $2004-05$ | 34744.20 | 47045.15 | 0.7385 |
| $2005-06$ | 35444.90 | 35918.91 | 0.9868 |
| $2006-07$ | 38715.20 | 39258.79 | 0.9862 |
| $2007-08$ | 41451.70 | 42053.44 | 0.9857 |


| NIBL | (Rs. in million) |  |  |
| :---: | ---: | ---: | :---: |
| Year | Total Deposit | Total Liabilities | Ratio |
| $2003-04$ | 11706.30 | 13255.49 | 0.8831 |
| $2004-05$ | 14254.57 | 16274.06 | 0.8759 |
| $2005-06$ | 18927.31 | 21330.14 | 0.8874 |
| $2006-07$ | 24488.85 | 27590.84 | 0.8876 |
| $2007-08$ | 34451.80 | 38873.31 | 0.8863 |

1.2.ii. Loan and advance to total deposit ratio:
Total

| Year | Loan \& Adv | Total Deposit | Rs. in million) |  |
| :---: | ---: | ---: | :---: | :---: |
| $2003-04$ | 7174.40 | 233811.20 | 0.0307 |  |
| $2004-05$ | 10295.40 | 252409.80 | 0.0408 |  |
| $2005-06$ | 13007.20 | 291245.60 | 0.0447 |  |
| $2006-07$ | 17482.00 | 337497.20 | 0.0518 |  |
| $2007-08$ | 27145.50 | 426080.30 | 0.0637 |  |
| NBL |  |  |  | (Rs in million) |
| Year | Loan \& Adv | Total Deposit | Ratio |  |
| $2003-04$ | 19108.00 | 36288.50 | 0.5266 |  |
| $2004-05$ | 17456.00 | 34744.20 | 0.5024 |  |
| $2005-06$ | 12180.40 | 35444.90 | 0.3436 |  |
| $2006-07$ | 13377.50 | 38715.20 | 0.3455 |  |
| $2007-08$ | 15480.60 | 41451.70 | 0.3735 |  |

NIBL

| Year | Loan \& Adv | Total Deposit | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 7174.40 | 11706.30 | 0.6129 |
| $2004-05$ | 10295.40 | 14254.57 | 0.7223 |
| $2005-06$ | 13007.20 | 18927.31 | 0.6872 |
| $2006-07$ | 17482.00 | 24488.85 | 0.7139 |
| $2007-08$ | 27145.50 | 34451.80 | 0.7879 |

1.2.iii. Total investment to total deposit ratio: Total
(Rs. in million)

| Year | Total Investment | Total Deposit | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 49668.60 | 233811.20 | 0.2124 |
| $2004-05$ | 60181.10 | 252409.80 | 0.2384 |
| $2005-06$ | 82173.70 | 291245.60 | 0.2821 |
| $2006-07$ | 93530.80 | 337497.20 | 0.2771 |
| $2007-08$ | 108954.80 | 426080.30 | 0.2557 |

NBL
(Rs in million)

| Year | Total Investment | Total Deposit | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 10593.80 | 36288.50 | 0.2919 |
| $2004-05$ | 13838.60 | 34744.20 | 0.3983 |
| $2005-06$ | 11776.90 | 35444.90 | 0.3323 |
| $2006-07$ | 13226.30 | 38715.20 | 0.3416 |
| $2007-08$ | 12918.40 | 41451.70 | 0.3116 |

NIBL
(Rs. in million)

| Year | Total Investment | Total Deposit | Ratio |
| :---: | ---: | ---: | :---: |
| $2003-04$ | 2001.10 | 11706.30 | 0.1709 |
| $2004-05$ | 1948.50 | 14254.57 | 0.1367 |
| $2005-06$ | 2522.30 | 18927.31 | 0.1333 |
| $2006-07$ | 3256.40 | 24488.85 | 0.1330 |
| $2007-08$ | 3155.00 | 34451.80 | 0.0916 |

1.2.iv. Loan and advance to total assets ratio:

| Total |  |  | (Rs in million) |  |  |
| :---: | ---: | ---: | :---: | :---: | :---: |
| Year | Loan \& Adv | Total Assets | Ratio |  |  |
| $2003-04$ | 7174.40 | 339816.70 | 0.0211 |  |  |
| $2004-05$ | 10295.40 | 408928.80 | 0.0252 |  |  |
| $2005-06$ | 13007.20 | 428706.20 | 0.0303 |  |  |
| $2006-07$ | 17482.00 | 490638.10 | 0.0356 |  |  |
| $2007-08$ | 27145.50 | 566736.00 | 0.0479 |  |  |

NBL
(Rs in million)

| Year | Loan \& Adv | Total Assets | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 19108.00 | 44161.88 | 0.4327 |
| $2004-05$ | 17456.00 | 47045.15 | 0.3710 |
| $2005-06$ | 12180.40 | 35918.91 | 0.3391 |
| $2006-07$ | 13377.50 | 39258.79 | 0.3408 |
| $2007-08$ | 15480.60 | 42053.44 | 0.3681 |

NIBL

| Year | Loan \& Adv | Total Assets | Ratio |
| :---: | ---: | ---: | :---: |
| $2003-04$ | 7174.40 | 13255.49 | 0.5412 |
| $2004-05$ | 10295.40 | 16274.06 | 0.6326 |
| $2005-06$ | 13007.20 | 21330.14 | 0.6098 |
| $2006-07$ | 17482.00 | 27590.84 | 0.6336 |
| $2007-08$ | 27145.50 | 38873.31 | 0.6983 |

## 1.2.v. Investment on government bond to total deposit ratio:

| Total |  |  |  |
| :---: | ---: | ---: | :---: |
| Year | Inv on Share \& D | Total Deposit | (Rs in million) |
| $2003-04$ | 7284.30 | 233811.20 | Ratio |
| $2004-05$ | 9359.10 | 252409.80 | 0.0312 |
| $2005-06$ | 24634.70 | 291245.60 | 0.0846 |
| $2006-07$ | 29087.80 | 337497.20 | 0.0862 |
| $2007-08$ | 37459.30 | 426080.30 | 0.0879 |


| NBL |  |  |  |
| :---: | ---: | ---: | ---: |
| Year | Inv on Share \& D | Total Deposit million) | Ratio |
| $2003-04$ | 429.90 | 36288.50 | 0.0118 |
| $2004-05$ | 51.20 | 34744.20 | 0.0015 |
| $2005-06$ | 2644.50 | 35444.90 | 0.0746 |
| $2006-07$ | 3057.00 | 38715.20 | 0.0790 |
| $2007-08$ | 3733.50 | 41451.70 | 0.0901 |


| NIBL |  |  |  |
| :---: | ---: | ---: | :---: |
| Year | Inv on Share \& D | Total Deposit | Ratio |
| $2003-04$ | 2171.40 | 11706.30 | 0.1855 |
| $2004-05$ | 2125.70 | 14254.57 | 0.1491 |
| $2005-06$ | 3150.60 | 18927.31 | 0.1665 |
| $2006-07$ | 3262.20 | 24488.85 | 0.1332 |
| $2007-08$ | 3724.40 | 34451.80 | 0.1081 |

### 1.3. Deposit formation ratios:

### 1.3.1. Current deposit to total deposit ratios:

| Total |  |  | (Rs. in million) |
| :---: | ---: | ---: | ---: |
| Year | Current Deposit | Total Deposit | Ratio |
| $2003-04$ | 33729.90 | 233811.20 | 0.1443 |
| $2004-05$ | 34646.40 | 252409.80 | 0.1373 |
| $2005-06$ | 37386.60 | 291245.60 | 0.1284 |
| $2006-07$ | 45031.20 | 337497.20 | 0.1334 |
| $2007-08$ | 56089.30 | 426080.30 | 0.1316 |


| NBL |  |  |  |
| :---: | ---: | ---: | ---: |
| Year | Current Deposit | Total Deposit | Ratio |
| $2003-04$ | 6300.00 | 36288.50 | 0.1736 |
| $2004-05$ | 5714.43 | 34744.20 | 0.1645 |
| $2005-06$ | 6030.50 | 35444.90 | 0.1701 |
| $2006-07$ | 6761.50 | 38715.20 | 0.1746 |
| $2007-08$ | 7799.10 | 41451.70 | 0.1881 |


| NIBL |  |  |  |
| :---: | ---: | ---: | ---: |
| Year | Current Deposit | Total Deposit | (Rs. in million) |
| $2003-04$ | 1625.10 | 11706.30 | 0.1388 |
| $2004-05$ | 1583.20 | 14254.57 | 0.1111 |
| $2005-06$ | 1705.60 | 18927.31 | 0.0901 |
| $2006-07$ | 2175.10 | 24488.85 | 0.0888 |
| $2007-08$ | 3138.70 | 34451.80 | 0.0911 |

### 3.1.2 Saving deposit to total deposit ratios:

| Total |  |  | (Rs. in million) |
| :---: | ---: | ---: | ---: |
| Year | Saving Deposit | Total Deposit | Ratio |
| $2003-04$ | 114137.20 | 233811.20 | 0.4882 |
| $2004-05$ | 129995.00 | 252409.80 | 0.5150 |
| $2005-06$ | 151639.40 | 291245.60 | 0.5207 |
| $2006-07$ | 174732.50 | 337497.20 | 0.5177 |
| $2007-08$ | 211452.00 | 426080.30 | 0.4963 |


| NBL |  |  |  |
| :---: | ---: | ---: | ---: |
| Year | Saving Deposit | Total Deposit | (Rs. in million) |
| $2003-04$ | 22063.00 | Ratio |  |
| $2004-05$ | 22671.80 | 36288.50 | 0.6080 |
| $2005-06$ | 23547.90 | 34744.20 | 0.6525 |
| $2006-07$ | 26425.40 | 38744.90 | 0.6644 |
| $2007-08$ | 28545.10 | 41451.70 | 0.6826 |


| NIBL |  |  |  |
| :---: | ---: | ---: | ---: |
| Year | Saving Deposit | Total Deposit | (Rs. in million) |
| $2003-04$ | 4922.00 | Ratio |  |
| $2004-05$ | 6703.50 | 11706.30 | 0.4205 |
| $2005-06$ | 8082.00 | 14254.57 | 0.4703 |
| $2006-07$ | 10742.20 | 18927.31 | 0.4270 |
| $2007-08$ | 13688.80 | 24488.85 | 0.4387 |
| 3.3 .34451 .80 | 0.3973 |  |  |

3.1.3. Fixed deposit to total deposit ratios:

| Total |  |  |  |
| :---: | ---: | ---: | ---: |
| Year | Fixed deposit | Total Deposit | (Rs. in million) |
| $2003-04$ | 65130.90 | 233811.20 | 0.2786 |
| $2004-05$ | 67318.20 | 252409.80 | 0.2667 |
| $2005-06$ | 76572.80 | 291245.60 | 0.2629 |
| $2006-07$ | 87212.60 | 337497.20 | 0.2584 |
| $2007-08$ | 104772.50 | 426080.30 | 0.2459 |


| NBL |  |  |  |
| :---: | ---: | ---: | ---: |
| Year | Fixed deposit | Total Deposit | (Rs. in million) |
| $2003-04$ | 7481.00 | Ratio |  |
| $2004-05$ | 6269.26 | 36288.50 | 0.2062 |
| $2005-06$ | 5790.90 | 34744.20 | 0.1804 |
| $2006-07$ | 5393.20 | 35444.90 | 0.1634 |
| $2007-08$ | 4757.90 | 38715.20 | 0.1393 |


| NIBL |  |  | (Rs. in million) |
| :---: | ---: | ---: | ---: |
| Year | Fixed deposit | Total Deposit | Ratio |
| $2003-04$ | 2294.70 | 11706.30 | 0.1960 |
| $2004-05$ | 3212.40 | 14254.57 | 0.2254 |
| $2005-06$ | 5413.00 | 18927.31 | 0.2860 |
| $2006-07$ | 7516.80 | 24488.85 | 0.3069 |
| $2007-08$ | 7944.20 | 34451.80 | 0.2306 |

### 3.1.4. Call deposit to total deposit ratios:

| Total |  |  | (Rs. in million) |
| :---: | ---: | ---: | ---: |
| Year | Call deposit | Total Deposit | Ratio |
| $2003-04$ | 18061.10 | 233811.20 | 0.0772 |
| $2004-05$ | 17681.20 | 252409.80 | 0.0700 |
| $2005-06$ | 22722.10 | 291245.60 | 0.0780 |
| $2006-07$ | 26953.30 | 337497.20 | 0.0799 |
| $2007-08$ | 49417.40 | 426080.30 | 0.1160 |


| NBL |  |  | (Rs. in million) |
| :---: | ---: | ---: | ---: |
| Year | Call deposit | Total Deposit | Ratio |
| $2003-04$ | 270.00 | 36288.50 | 0.0074 |
| $2004-05$ | 2.75 | 34744.20 | 0.0001 |
| $2005-06$ | 0.00 | 35444.90 | 0.0000 |
| $2006-07$ | 0.00 | 38715.20 | 0.0000 |
| $2007-08$ | 250.00 | 41451.70 | 0.0060 |


| NIB L |  |  |  |
| :---: | ---: | ---: | ---: |
| Year | Call deposit | Total Deposit |  |
| (Rs. in million) |  |  |  |
| $2003-04$ | 2576.60 | 11706.30 | Ratio |
| $2004-05$ | 2469.70 | 14254.57 | 0.2201 |
| $2005-06$ | 3448.20 | 18927.31 | 0.1733 |
| $2006-07$ | 3683.10 | 24488.85 | 0.1822 |
| $2007-08$ | 9073.00 | 34451.80 | 0.1504 |

### 3.1.5. Other deposit to total deposit ratios:

| Total |  |  | (Rs. in million) |
| :---: | ---: | ---: | ---: |
| Year | Other |  | Total Deposit |
| Ratio |  |  |  |
| $2003-04$ | 2752.10 | 233811.20 | 0.0118 |
| $2004-05$ | 2768.50 | 252409.80 | 0.0110 |
| $2005-06$ | 2924.70 | 291245.60 | 0.0100 |
| $2006-07$ | 3567.60 | 337497.20 | 0.0106 |
| $2007-08$ | 4349.20 | 426080.30 | 0.0102 |


| NBL |  |  | (Rs. in million) |
| :---: | ---: | ---: | ---: |
| Year | Other |  | Total Deposit |
| $2003-04$ | 174.50 | 36288.50 | Ratio |
| $2004-05$ | 86.00 | 34744.20 | 0.0048 |
| $2005-06$ | 75.60 | 35444.90 | 0.0025 |
| $2006-07$ | 135.10 | 38715.20 | 0.0021 |
| $2007-08$ | 99.60 | 41451.70 | 0.0035 |


| NIB L |  |  | (Rs. in million) |
| :---: | :---: | :---: | :---: |
| Year | Other | Total Deposit | Ratio |
| 2003-04 | 287.90 | 11706.30 | 0.0246 |
| 2004-05 | 286.00 | 14254.57 | 0.0201 |
| 2005-06 | 278.50 | 18927.31 | 0.0147 |
| 2006-07 | 371.70 | 24488.85 | 0.0152 |
| 2007-08 | 607.10 | 34451.80 | 0.0176 |

### 1.3. Profitability ratios:

## 1.3.i. Interest income to total income ratio:

Total
(Rs. in million)

| Year | Interest Income | Total Income | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 3483.9 | 18398.5 | 0.1894 |
| $2004-05$ | 14152.3 | 25127.1 | 0.5632 |
| $2005-06$ | 16357.5 | 26731.1 | 0.6119 |
| $2006-07$ | 23508.6 | 39071.6 | 0.6017 |
| $2007-08$ | 28951.7 | 42407.6 | 0.6827 |

NBL

| Year | Interest Income | Total Income | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 1825.04 | 4156.19 | 0.4391 |
| $2004-05$ | 1987.12 | 5890.73 | 0.3373 |
| $2005-06$ | 2049.03 | 4791.36 | 0.4277 |
| $2006-07$ | 1848.61 | 2936.95 | 0.6294 |
| $2007-08$ | 1958.1 | 2521.71 | 0.7765 |

NIBL

| Year | Interest Income | Total Income | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 731.4 | 743.82 | 0.9833 |
| $2004-05$ | 886.8 | 903.69 | 0.9813 |
| $2005-06$ | 1172.74 | 1203.24 | 0.9747 |
| $2006-07$ | 1584.99 | 1648.07 | 0.9617 |
| $2007-08$ | 2166.1 | 2646.13 | 0.8186 |

1.3.ii. Return on loan and advance ratio:

Total
(Rs. in million)

| Year | Net Profit | Loan \& Adv | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | $3,710.00$ | 138922.9 | 0.0267 |
| $2004-05$ | $4,470.00$ | 159641.4 | 0.028 |
| $2005-06$ | $3,230.00$ | 173383.4 | 0.0186 |
| $2006-07$ | $5,680.00$ | 228951.9 | 0.0248 |
| $2007-08$ | $11,924.90$ | 302913.4 | 0.0394 |

NBL

| Year | Net Profit | Loan \& Adv | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 710.39 | 19108 | 0.0372 |
| $2004-05$ | 1730.13 | 17456 | 0.0991 |
| $2005-06$ | 1207.26 | 12180.4 | 0.0991 |
| $2006-07$ | 226.95 | 13377.5 | 0.017 |
| $2007-08$ | 239.21 | 15480.6 | 0.0155 |

NIBL
(Rs. in million)

| Year | Net Profit | Loan \& Adv | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 152.67 | 7174.4 | 0.0213 |
| $2004-05$ | 232.15 | 10295.4 | 0.0225 |
| $2005-06$ | 350.54 | 13007.2 | 0.0269 |
| $2006-07$ | 501.4 | 17482 | 0.0287 |
| $2007-08$ | 696.73 | 27145.5 | 0.0257 |

## 1.3.iii. Return on total assets:

Total
(Rs. in million)

| Year | Net Profit | Total Assets | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | $3,710.00$ | 339816.7 | 0.0109 |
| $2004-05$ | $4,470.00$ | 408928.8 | 0.0109 |
| $2005-06$ | $3,230.00$ | 428706.2 | 0.0075 |
| $2006-07$ | $5,680.00$ | 490638.1 | 0.0116 |
| $2007-08$ | $11,924.90$ | 566736 | 0.021 |

NBL
(Rs. in million)

| Year | Net Profit | Total Assets | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 710.39 | 44161.88 | 0.0161 |
| $2004-05$ | 1730.13 | 47045.15 | 0.0368 |
| $2005-06$ | 1207.26 | 35918.91 | 0.0336 |
| $2006-07$ | 226.95 | 39258.79 | 0.0058 |
| $2007-08$ | 239.21 | 42053.44 | 0.0057 |

NIBL
(Rs. in million)

| Year | Net Profit | Total Assets | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 152.67 | 13255.49 | 0.0115 |
| $2004-05$ | 232.15 | 16274.06 | 0.0143 |
| $2005-06$ | 350.54 | 21330.14 | 0.0164 |
| $2006-07$ | 501.4 | 27590.84 | 0.0182 |
| $2007-08$ | 696.73 | 38873.31 | 0.0179 |

1.3.iv. Interest expenses to total expenses ratio:

Total
(Rs. in million)

| Year | Interest Expenses | Total Expenses | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 5421.6 | 14688.5 | 0.3691 |
| $2004-05$ | 5810.3 | 20657.1 | 0.2813 |
| $2005-06$ | 6557.7 | 23501.1 | 0.279 |
| $2006-07$ | 9917.5 | 33391.6 | 0.297 |
| $2007-08$ | 12532.8 | 30482.7 | 0.4111 |

NBL
(Rs. in million)

| Year | Interest Expenses | Total Expenses | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 1025.53 | 3445.8 | 0.2976 |
| $2004-05$ | 748.95 | 4160.6 | 0.18 |
| $2005-06$ | 774.33 | 3584.1 | 0.216 |
| $2006-07$ | 772.64 | 2710 | 0.2851 |
| $2007-08$ | 752.4 | 2282.5 | 0.3296 |

NIBL

| Year | Interest Expenses | Total Expenses | Ratio |
| :---: | ---: | ---: | ---: |
| $2003-04$ | 326.2 | 591.15 | 0.5518 |
| $2004-05$ | 354.55 | 671.54 | 0.528 |
| $2005-06$ | 490.95 | 852.71 | 0.5758 |
| $2006-07$ | 685.53 | 1146.67 | 0.5978 |
| $2007-08$ | 991.8 | 1949.4 | 0.5088 |

### 1.4. Growth ratios:

## 1.4.i. Growth of total deposit:

Total

| (Rs in million) |  |  |
| :---: | ---: | ---: |
| Year | Deposit | growth\% |
| $2003-04$ | 233811.2 |  |
| $2004-05$ | 252409.8 | 7.95 |
| $2005-06$ | 291245.6 | 15.39 |
| $2006-07$ | 337497.2 | 15.88 |
| $2007-08$ | 426080.3 | 26.25 |

NBL
(Rs in million)

| Year | Deposit | growth\% |
| :---: | ---: | ---: |
| $2003-04$ | 36288.5 |  |
| $2004-05$ | 34744.2 | -4.26 |
| $2005-06$ | 35444.9 | 2.02 |
| $2006-07$ | 38715.2 | 9.23 |
| $2007-08$ | 41451.7 | 7.07 |

NIBL
(Rs in million)

| Year | Deposit | growth\% |
| :---: | ---: | ---: |
| $2003-04$ | 11706.3 |  |
| $2004-05$ | 14254.57 | 21.77 |
| $2005-06$ | 18927.31 | 32.78 |
| $2006-07$ | 24488.85 | 29.38 |
| $2007-08$ | 34451.8 | 40.68 |

1.4.ii. Growth of loan and advance:

Total (Rs in million)

| Year | Loan \& Advance | growth\% |
| :---: | ---: | ---: |
| $2003-04$ | 138922.9 |  |
| $2004-05$ | 159641.4 | 14.91 |
| $2005-06$ | 173383.4 | 8.61 |
| $2006-07$ | 228951.9 | 32.05 |
| $2007-08$ | 302913.4 | 32.3 |

NBL

| Year | Loan \& Advance | growth\% |
| :---: | ---: | ---: |
| $2003-04$ | 19108 |  |
| $2004-05$ | 17456 | -8.65 |
| $2005-06$ | 12180.4 | -30.22 |
| $2006-07$ | 13377.5 | 9.83 |
| $2007-08$ | 15480.6 | 15.72 |

NIBL

| Year | Loan \& Advance | growth\% |
| :---: | ---: | ---: |
| $2003-04$ | 7174.4 |  |
| $2004-05$ | 10295.4 | 43.5 |
| $2005-06$ | 13007.2 | 26.34 |
| $2006-07$ | 17482 | 34.4 |
| $2007-08$ | 27145.5 | 55.28 |

## 1.4.iii. Growth of investment:

Total

| Year | Inves in million) |  |
| :---: | ---: | ---: |
| $2003-04$ | 49668.6 | growth $\%$ |
| $2004-05$ | 60181.1 | 21.17 |
| $2005-06$ | 82173.7 | 36.54 |
| $2006-07$ | 93530.8 | 13.82 |
| $2007-08$ | 108954.8 | 16.49 |


| (Rs in million) |  |  |
| :---: | ---: | ---: |
| Year | Investment | growth\% |
| $2003-04$ | 10593.8 |  |
| $2004-05$ | 13838.6 | 30.63 |
| $2005-06$ | 11776.9 | -14.9 |
| $2006-07$ | 13226.3 | 12.31 |
| $2007-08$ | 12918.4 | -2.33 |

NIBL (Rs in million)

| Year | Investment | growth\% |
| :---: | ---: | ---: |
| $2003-04$ | 2001.1 |  |
| $2004-05$ | 1948.5 | -2.63 |
| $2005-06$ | 2522.3 | 29.45 |
| $2006-07$ | 3256.4 | 29.1 |
| $2007-08$ | 3155 | -3.11 |

## 1.4.iv. Growth of return:

Total (Rs in million)

| Year | Return | growth\% |
| :---: | ---: | ---: |
| $2003-04$ | $3,710.00$ |  |
| $2004-05$ | $4,470.00$ | 20.49 |
| $2005-06$ | $3,230.00$ | -27.74 |
| $2006-07$ | $5,680.00$ | 75.85 |
| $2007-08$ | $11,924.90$ | 109.95 |

NBL

| (Rs in million) |  |  |
| :---: | ---: | ---: |
| Year | Return | growth\% |
| $2003-04$ | 710.39 |  |
| $2004-05$ | 1730.13 | 143.55 |
| $2005-06$ | 1207.26 | -30.22 |
| $2006-07$ | 226.95 | -81.2 |
| $2007-08$ | 239.21 | 5.4 |

NIBL
(Rs in million)

| Year | Return | growth\% |
| :---: | ---: | ---: |
| $2003-04$ | 152.67 |  |
| $2004-05$ | 232.15 | 52.06 |
| $2005-06$ | 350.54 | 51 |
| $2006-07$ | 501.4 | 43.04 |
| $2007-08$ | 696.73 | 38.96 |

## 2. Statistical analysis:

### 2.1. Analysis of correlation coefficients:

2.1.i. Analysis of correlation coefficient between deposit and total investment:

$$
\text { Karl Pearson's co-relation coefficient }(\mathbf{r})=\sum_{\sqrt{ } \sum X^{2} \sum Y^{2}} \mathbf{X} \cdot \Sigma \mathbf{Y}
$$

Total

| Year | $\begin{gathered} \text { total } \\ \text { deposit( } \mathrm{x}) \end{gathered}$ | total investment(y) | $\mathrm{X}=\left(\mathrm{x}-\mathrm{x}^{-}\right)$ | $\mathrm{X}^{2}$ | $Y=\left(y-y^{\prime}\right)$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2003- \\ & 04 \end{aligned}$ | 233811.20 | 49668.60 | (74,397.62) | 5,535,005,861.66 | $(29,233.20)$ | 854,579,982.24 | 2,174,880,504.98 |
| $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | 252409.80 | 60181.10 | $(55,799.02)$ | 3,113,530,632.96 | $(18,720.70)$ | 350,464,608.49 | 1,044,596,713.71 |
| $\begin{aligned} & 2005- \\ & 06 \end{aligned}$ | 291245.60 | 82173.70 | $(16,963.22)$ | 287,750,832.77 | 3,271.90 | 10,705,329.61 | (55,501,959.52) |
| $\begin{aligned} & 2006- \\ & 07 \end{aligned}$ | 337497.20 | 93530.80 | 29,288.38 | 857,809,203.02 | 14,629.00 | 214,007,641.00 | 428,459,711.02 |
| $\begin{aligned} & 2007- \\ & 08 \\ & \hline \end{aligned}$ | 426080.30 | 108954.80 | 117,871.48 | 13,893,685,797.39 | 30,053.00 | 903,182,809.00 | 3,542,391,588.44 |
|  | 308,208.82 | 78,901.80 | (0.00) | 23,687,782,327.81 | - | 2,332,940,370.34 | 7,134,826,558.64 |

Correlation coefficient $=\mathbf{0 . 9 6}$
NBL

| Year | total <br> deposit( $\mathbf{x}$ ) | total <br> investment( $\mathbf{y}$ ) | $\mathbf{X}=(\mathbf{x}-\mathbf{x})$ | $\mathbf{X}^{\mathbf{2}}$ | $\mathbf{Y}=(\mathbf{y}-\mathrm{y}-)$ | $\mathbf{Y}^{\mathbf{2}}$ | $\mathbf{X Y}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2003- <br> 04 | 36288.50 | 10593.80 | $(1,040.40)$ | $1,082,432.16$ | $(1,877.00)$ | $3,523,129.00$ | $1,952,830.80$ |
| $2004-$ | 34744.20 | 13838.60 | $(2,584.70)$ | $6,680,674.09$ | $1,367.80$ | $1,870,876.84$ | $(3,535,352.66)$ |
| 05 | 35444.90 | 11776.90 | $(1,884.00)$ | $3,549,456.00$ | $(693.90)$ | $481,497.21$ | $1,307,307.60$ |
| $2005-$ | 13226.30 | $1,386.30$ | $1,921,827.69$ | 755.50 | $570,780.25$ | $1,047,349.65$ |  |
| 06 | $3006-$ | 38715.20 | 12918.40 | $4,122.80$ | $16,997,479.84$ | 447.60 | $200,345.76$ |

Correlation coefficient $=\mathbf{0 . 1 8}$

NIBL

| year | $\begin{gathered} \text { total } \\ \text { deposit }(x) \end{gathered}$ | $\begin{gathered} \text { total } \\ \text { investment(y) } \end{gathered}$ | $\mathrm{X}=(\mathrm{x}-\mathrm{x}$ ) | $\mathrm{X}^{2}$ | $Y=(y-y-)$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2003- \\ & 04 \end{aligned}$ | 11706.30 | 2001.10 | -9059.4652 | 82073909.71 | -575.56 | 331269.3136 | 5214265.791 |
| $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | 14254.57 | 1948.50 | -6511.1952 | 42395662.93 | -628.16 | 394584.9856 | 4090072.377 |
| $\begin{aligned} & 2005- \\ & 06 \end{aligned}$ | 18927.31 | 2522.30 | -1838.4592 | 3379932.23 | -54.36 | 2955.0096 | 99938.64211 |
| $\begin{aligned} & 2006- \\ & 07 \end{aligned}$ | 24488.85 | 3256.40 | 3723.0848 | 13861360.43 | 679.74 | 462046.4676 | 2530729.662 |
| $\begin{aligned} & 2007- \\ & 08 \end{aligned}$ | 34451.80 | 3155.00 | 13686.0348 | 187307548.5 | 578.34 | 334477.1556 | 7915181.366 |
|  | 20765.77 | 2576.66 |  | 329018413.8 |  | 1525332.932 | 19850187.84 |

## Correlation coefficient $=\mathbf{0 . 8 9}$

## 2.1.ii. Correlation coefficient between deposit and loan and advance:

| Total |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{gathered} \text { total } \\ \text { deposit }(x) \end{gathered}$ | loan \&advance | X $=(\mathrm{x}-\mathrm{x}$ ) | $\mathrm{X}^{2}$ | $Y=(y-y-)$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| $\begin{aligned} & 2003- \\ & 04 \end{aligned}$ | 233811.20 | 138922.90 | -74397.62 | 5535005862 | -61839.7 | 3824148496 | 4600726502 |
| $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | 252409.80 | 159641.40 | -55799.02 | 3113530633 | -41121.2 | 1690953089 | 2294522661 |
| $\begin{aligned} & 2005- \\ & 06 \end{aligned}$ | 291245.60 | 173383.40 | -16963.22 | 287750832.8 | -27379.2 | 749620592.6 | 464439393 |
| $\begin{aligned} & 2006- \\ & 07 \end{aligned}$ | 337497.20 | 228951.90 | 29288.38 | 857809203 | 28189.3 | 794636634.5 | 825618930.3 |
| $\begin{aligned} & 2007- \\ & 08 \end{aligned}$ | 426080.30 | 302913.40 | 117871.48 | 13893685797 | 102150.8 | 10434785941 | 12040665979 |
|  | 308208.82 | 200762.60 |  | 23687782328 |  | 17494144753 | 20225973465 |

## Correlation coefficient $=\mathbf{0 . 9 9}$

NBL

| Year | total deposit(x) | loan \&advance | $X=(x-x)$ | $\mathrm{X}^{2}$ | $Y=(y-y-)$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2003- \\ & 04 \end{aligned}$ | 36288.50 | 19108.00 | -1040.4 | 1082432.16 | 3587.5 | 12870156.25 | -3732435 |
| $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | 34744.20 | 17456.00 | -2584.7 | 6680674.09 | 1935.5 | 3746160.25 | -5002686.85 |
| $\begin{aligned} & 2005- \\ & 06 \end{aligned}$ | 35444.90 | 12180.40 | -1884 | 3549456 | -3340.1 | 11156268.01 | 6292748.4 |
| $\begin{aligned} & 2006- \\ & 07 \end{aligned}$ | 38715.20 | 13377.50 | 1386.3 | 1921827.69 | -2143 | 4592449 | -2970840.9 |
| $\begin{aligned} & 2007- \\ & 08 \\ & \hline \end{aligned}$ | 41451.70 | 15480.60 | 4122.8 | 16997479.84 | -39.9 | 1592.01 | -164499.72 |
|  | 37328.90 | 15520.50 |  | 30231869.78 |  | 32366625.52 | -5577714.07 |

Correlation coefficient $=\mathbf{- 0 . 1 7 8}$

NIBL

| Year | $\begin{gathered} \text { total } \\ \text { deposit }(x) \end{gathered}$ | loan \&advance | $\mathrm{X}=\left(\mathrm{x}-\mathrm{x}^{\text {- }}\right.$ ) | $\mathrm{X}^{2}$ | $Y=(y-y-)$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2003- \\ & 04 \end{aligned}$ | 11706.30 | 7174.40 | -9059.4652 | 82073909.71 | -7846.5 | 61567562.25 | 71085093.69 |
| $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | 14254.57 | 10295.40 | -6511.1952 | 42395662.93 | -4725.5 | 22330350.25 | 30768652.92 |
| $\begin{aligned} & 2005- \\ & 06 \end{aligned}$ | 18927.31 | 13007.20 | -1838.4592 | 3379932.23 | -2013.7 | 4054987.69 | 3702105.291 |
| $\begin{aligned} & 2006- \\ & 07 \end{aligned}$ | 24488.85 | 17482.00 | 3723.0848 | 13861360.43 | 2461.1 | 6057013.21 | 9162884.001 |
| $\begin{aligned} & 2007- \\ & 08 \end{aligned}$ | 34451.80 | 27145.50 | 13686.0348 | 187307548.5 | 12124.6 | 147005925.2 | 165937697.5 |
|  | 20765.77 | 15020.90 |  | 329018413.8 |  | 241015838.6 | 280656433.4 |

## Correlation coefficient $=\mathbf{1 . 0 0}$

## 2.1.iii. Correlation coefficient between total assets and profit:

Total

| Year | $\begin{gathered} \text { total } \\ \operatorname{assets}(x) \end{gathered}$ | profit(y) | $\mathrm{X}=\left(\mathrm{x}-\mathrm{x}^{\text {² }}\right.$ ) | $\mathrm{X}^{2}$ | $Y=(y-y-)$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2003- \\ & 04 \end{aligned}$ | 339816.70 | 3,710.00 | $(107,148.46)$ | 11480792480 | $(2,092.98)$ | 4380565.28 | 224259583.8 |
| $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | 408928.80 | 4,470.00 | $(38,036.36)$ | 1446764682 | $(1,332.98)$ | 1776835.68 | 50701707.15 |
| $\begin{aligned} & 2005- \\ & 06 \end{aligned}$ | 428706.20 | 3,230.00 | $(18,258.96)$ | 333389620.3 | (2,572.98) | 6620226.08 | 46979938.9 |
| $\begin{aligned} & 2006- \\ & 07 \end{aligned}$ | 490638.10 | 5,680.00 | 43,672.94 | 1907325688 | (122.98) | 15124.0804 | -5370898.161 |
| $\begin{aligned} & 2007- \\ & 08 \end{aligned}$ | 566736.00 | 11,924.90 | 119,770.84 | 14345054114 | 6,121.92 | 37477904.49 | 733227500.8 |
|  | 446,965.16 | 5,802.98 |  | 29513326585 |  | 50270655.61 | 1049797833 |

Correlation coefficient $=\mathbf{0 . 8 6}$

| NBL |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{gathered} \text { total } \\ \text { assets }(\mathrm{x}) \end{gathered}$ | profit(y) | $\mathrm{X}=\left(\mathrm{x}-\mathrm{x}^{-}\right)$ | $\mathrm{X}^{2}$ | $Y=(y-y-)$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| $\begin{aligned} & 2003- \\ & 04 \\ & \hline \end{aligned}$ | 44161.88 | 710.39 | 2,474.25 | 6121890.982 | (112.40) | 12633.49069 | -278102.2343 |
| $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | 47045.15 | 1730.13 | 5,357.52 | 28703004.89 | 907.34 | 823268.0496 | 4861097.289 |
| $\begin{aligned} & 2005- \\ & 06 \end{aligned}$ | 35918.91 | 1207.26 | (5,768.73) | 33278251.14 | 384.47 | 147818.1021 | -2217910.712 |
| $\begin{aligned} & 2006- \\ & 07 \end{aligned}$ | 39258.79 | 226.95 | $(2,428.84)$ | 5899275.705 | (595.84) | 355023.878 | 1447198.583 |
| $\begin{aligned} & 2007- \\ & 08 \end{aligned}$ | 42053.44 | 239.21 | 365.81 | 133816.1133 | (583.57) | 340559.5379 | -213476.8224 |
|  | 41,687.64 | 822.79 |  | 74136238.83 |  | 1679303.058 | 3598806.103 |

Correlation coefficient $=\mathbf{0 . 3 2}$

NIBL

| Year | $\begin{gathered} \text { total } \\ \operatorname{assets}(x) \end{gathered}$ | profit(y) | $\mathrm{X}=\left(\mathrm{x}-\mathrm{x}^{\text {- }}\right.$ ) | $\mathrm{X}^{2}$ | $Y=(y-y-)$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline 2003- \\ & 04 \end{aligned}$ | 13255.49 | 152.67 | (10,209.28) | 104229357.6 | (234.03) | 54768.48396 | 2389243.374 |
| $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | 16274.06 | 232.15 | (7,190.70) | 51706224.26 | (154.55) | 23885.60161 | 1111320.959 |
| $\begin{aligned} & 2005- \\ & 06 \\ & \hline \end{aligned}$ | 21330.14 | 350.54 | (2,134.63) | 4556636.77 | (36.16) | 1307.594315 | 77189.58697 |
| $\begin{aligned} & 2006- \\ & 07 \end{aligned}$ | 27590.84 | 501.40 | 4,126.07 | 17024470.01 | 114.70 | 13156.58973 | 473269.4447 |
| $\begin{aligned} & 2007- \\ & 08 \end{aligned}$ | 38873.31 | 696.73 | 15,408.54 | 237423045.4 | 310.03 | 96121.6035 | 4777183.671 |
|  | 23,464.77 | 386.70 |  | 414939734 |  | 189239.8731 | 8828207.036 |

Correlation coefficient $=1.00$

### 1.2. Trend analysis:

For calculating the trend value we have; $\quad Y c=a+b X$
Where,

$$
a=\sum_{\mathbf{N}} \mathbf{Y}
$$

And, $\quad b=\frac{\sum X Y}{\sum X^{2}}$

## 2.2.i. Trend analysis of total investment to total deposit ratio:

Total

| Year(x) | ratio(y) | $X=(x-2005)$ | X2 | XY | Yc=a+bX |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2003- \\ & 04 \end{aligned}$ | 21.24 | -2.02 | 4.08 | -42.90 | 22.81 |
| $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | 23.84 | -1.01 | 1.02 | -24.08 | 24.06 |
| $\begin{aligned} & 2005- \\ & 06 \\ & \hline \end{aligned}$ | 28.21 | 0 | 0.00 | 0.00 | 25.31 |
| $\begin{aligned} & 2006- \\ & 07 \end{aligned}$ | 27.71 | 1.01 | 1.02 | 27.99 | 26.57 |
| $\begin{aligned} & 2007- \\ & 08 \end{aligned}$ | 25.57 | 2.02 | 4.08 | 51.65 | 27.82 |
| Total | 126.57 | 0 | 10.20 | 12.66 |  |

NBL

| Year(x) | ratio(y) | $X=(x-2004.5)$ | X2 | XY | Yc $=a+\mathrm{bX}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2003- \\ & 04 \end{aligned}$ | 29.19 | -2.02 | 4.08 | -58.96 | 33.66 |
| $\begin{aligned} & \text { 2004- } \\ & 05 \end{aligned}$ | 39.83 | -1.01 | 1.02 | -40.23 | 33.49 |
| $\begin{aligned} & 2005- \\ & 06 \end{aligned}$ | 32.23 | 0 | 0.00 | 0.00 | 33.31 |
| $\begin{aligned} & 2006- \\ & 07 \end{aligned}$ | 34.16 | 1.01 | 1.02 | 34.50 | 33.14 |
| $\begin{aligned} & 2007-1 \\ & 08 \end{aligned}$ | 31.16 | 2.02 | 4.08 | 62.94 | 32.97 |
| Total | 166.57 | 0 | 10.20 | -1.75 |  |

NIBL

| Year(x) | ratio(y) | $X=(x-2004.5)$ | X2 | XY | Yc=a+bX |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2003- \\ & 04 \end{aligned}$ | 17.09 | -2.02 | 4.08 | -34.52 | 16.56 |
| $\begin{aligned} & \text { 2004- } \\ & 05 \end{aligned}$ | 13.67 | -1.01 | 1.02 | -13.81 | 14.93 |
| $\begin{aligned} & 2005- \\ & 06 \end{aligned}$ | 13.33 | 0 | 0.00 | 0.00 | 13.31 |
| $\begin{aligned} & 2006- \\ & 07 \\ & \hline \end{aligned}$ | 13.30 | 1.01 | 1.02 | 13.43 | 11.69 |
| $\begin{aligned} & 2007- \\ & 08 \end{aligned}$ | 9.16 | 2.02 | 4.08 | 18.50 | 10.06 |
| Total | 66.55 | 0 | 10.20 | -16.39 |  |

2.2.ii. Trend analysis of loan and advance to total deposit ratio:

Total

| Year(x) | ratio(y) | $X=(x-2004.5)$ | X2 | XY | $Y c=a+b X$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|l\|} \hline 2003- \\ 04 \\ \hline \end{array}$ | 3.07 | -2.02 | 4.08 | -6.20 | 3.09 |
| $\begin{array}{\|l\|} \hline 2004- \\ 05 \end{array}$ | 4.08 | -1.01 | 1.02 | -4.12 | 3.86 |
| $\begin{array}{\|l\|} \hline 2005- \\ 06 \\ \hline \end{array}$ | 4.47 | 0 | 0.00 | 0.00 | 4.63 |
| $\begin{array}{\|l\|} \hline 2006- \\ 07 \\ \hline \end{array}$ | 5.18 | 1.01 | 1.02 | 5.23 | 5.40 |
| $\begin{array}{\|l\|} \hline 2007- \\ 08 \end{array}$ | 6.37 | 2.02 | 4.08 | 12.87 | 6.17 |
| Total | 23.17 | 0 | 10.20 | 7.78 |  |

NBL

| Year(x) | ratio(y) | $X=(x-2004.5)$ | X2 | XY | Yc $=\mathrm{a}+\mathrm{bX}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|l\|} \hline 2003- \\ 04 \\ \hline \end{array}$ | 52.66 | -2.02 | 2.25 | -83.19 | 48.51 |
| $\begin{array}{\|l\|} \hline 2004- \\ 05 \end{array}$ | 50.24 | -1.01 | 0.25 | -26.38 | 45.18 |
| $\begin{array}{\|l\|} \hline 2005- \\ 06 \\ \hline \end{array}$ | 34.4 | 0 | 0.25 | 25.12 | 41.86 |
| $\begin{array}{\|l\|} \hline 2006- \\ 07 \end{array}$ | 34.6 | 1.01 | 2.25 | 51.54 | 38.54 |
| $\begin{aligned} & 2007-1 \\ & 08 \end{aligned}$ | 37.4 | 2.02 | 5 | -32.91 | 35.21 |
| Total | 209.3 | 0 | 10 | -32.91 |  |

NIBL

| Year(x) | ratio(y) | $X=(x-2004.5)$ | X2 | XY | Yc=a+bX |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|l\|} \hline 2003- \\ 04 \end{array}$ | 61.29 | -2.02 | 2.25 | -48.63 | 68.05 |
| $\begin{array}{\|l\|} \hline 2004- \\ 05 \end{array}$ | 72.23 | -1.01 | 0.25 | -15.9 | 69.27 |
| $\begin{array}{\|l\|} \hline 2005- \\ 06 \end{array}$ | 68.7 | 0 | 0.25 | 21.23 | 70.48 |
| $\begin{array}{\|l\|} \hline 2006- \\ 07 \\ \hline \end{array}$ | 71.4 | 1.01 | 2.25 | 55.35 | 71.70 |
| $\begin{array}{\|l} \hline 2007- \\ 08 \\ \hline \end{array}$ | 78.8 | 2.02 | 5 | 12.05 | 72.92 |
| Total | 352.42 | 0 | 10 | 12.05 |  |


[^0]:    i.Demand Deposits
    ii.Saving Deposits
    iii.Fixed deposits

