## CHAPTER- I <br> INTRODUCTION

### 1.1 General Background of the Study

Financial institutions, especially the banks are the lifeblood of economy. Without these the operation of an economy can not be succeeded. Generally banks play vital role in capital formation and proper utilization of collected fund, providing service in domestic and internal trade. The commercial banks consequently have a specific role to play in the long process of economic growth. A well functioning banking system is an essential element in economic growth. A good banking system is supposed to utilize saving from households and business in low east of financing activities and channel funds to the most productive investment opportunities.

In the economic development of the country the banks are playing vital role, so if there is insufficiencies of banking and financial facilities, the growth of the economic development become slow. The main objectives of the commercial are to earn profit by proper utilization of resources. It is fairly safe to say that banks are not the outcome of the economic development but are the courses for it. Specially, commercial banks provide different facilities to the people engaged in trade, commerce and industry. That is why; they are being the means to uplift the society. Commercial banks functions are different way such as accepting deposit, providing interest. In the formulation of capital performing agency functions which make business easier and they also play an important role in credit creation when economy is in boom commercial banks increase interest rate which reduce the profitability of inflation and incase of depression they reduce interest rate. So that, people interested in financial sector.

Banking industry has acquired a key position in utilizing resources for finance and social economic development of a country. No function is important to the economy and its constituent part than financing. "Bank assists both the flow of goods and services from the products to the consumers and financial activities of the government. Banking provides the country with the monetary system of making payment and is in important part of the financial system, which makes loans to maintain and increase the level of consumption and production in the economy

Bank is an organization that transacts money. It collects funds as a saving from public and invests them full into most desirable and highly yielding sector as full to a process of economic development. It develops saving habit of people so bank and banking has always played a significant role for the financial activities in the business.

The main objectives of the bank are collection of amount from public in a form of saving and providing short-term loan (for the development of industry, trade, and business) to the ones in need. The development of country's economy is possible when banking operation exist in both rural and urban area of the country. Development of banking facilities leads to the development of trade and industry. So it is said that he bank is backbone of economic development in modern competitive business world. At present financial institutions are viewed as catalyst in the process of the economic growth. The economic activities of a country can hardly be carried forward without the assistance of financial institutions. They are the indispensable part of the development process. Banking institutions are inevitable for utilizing resources for finance and social economic development of a country and which is important to all parties i.e. generally public, business, organization, government and other small financial institutions. The development of any country is always measured by its economic development though economic indices. That's why every country has given emphasis on boost up its economic. The utilization of domestic resources is one of the key factors in the economic development of a country.
"The importance of the banking as the nerve center of economic development can't be over emphasized and it is said that bank which are the need of and great wealth of country water irrigation good banks are for the country's industry and trade" (Desai:1967). The bank draws surplus money from the public, who can't use the money at the time and lend to those who give attention to use for productive purpose. Bank lends loan to the customers, gain interest amount, the bank draw the money from institution or in divided or people pay the interest amount by interest rate. Banking institutions collects scattered financial resources from the mass and invest them among those who are associated with the economic, commercial and social activities of the country.

The economic activities of a country can hardly be carried forward without the assistance of financial institutions. They are the indispensable part of the development process. It is the fact that the unorganized financial system leads the country nowhere. Therefore, central bank plays a major role on keeping the financial system of a
country organized by providing those guidelines and directives.

Overall national development of any country depends upon the economic development of that country and economic development largely depends upon the financial infrastructure of that country. Therefore, the primary goal of any nation including Nepal is rapid economic development to promote the welfare of the people and the nation as well. Nepal being one of the least developed countries has been trying to embark upon the path of economic development by economic growth rate and developing all sectors of economy.

The proper utilization and utilization of domestic resources is one of the key factors in the economic development of a country. Similarly, integrated and speedy development of the country is only possible when competitive and reliable banking services are reached and operated to every corner of the country. It has been well established that the economic activities of any country can hardly be carried without the assistance and support of financial institutions. Financial institutions have catalytic role in the process of economic development. The investment policy of financial institutions, especially banks has long term impact not only on their growth and sustainability but also on the economic development of the country. Successful formulation and effective implementation of investment policy is the prime requisite for the successful performance of banks and other financial institutions. Good investment policy has a positive impact on economic development of the country and vice- versa.

The initial step an investing policy involves is determining the investment objectives and the amount of one's investable fund. Investment is always related with risks and returns. Making money alone cannot be an appropriate objective. It is appropriate to state that the objective is to make a lot of money by recognizing the possible losses. Therefore, investment objective should be stated in terms of both risks and returns. Setting a clear investment policy also involves the identification of the potential categories of financial assets for consideration in the ultimate portfolio. The identification of assets depends upon many things, such as investment objectives, investable fund, tax consideration etc. (Bhattarai Rabindra, 2004: 3)

Investment is a very risky job for a purposeful, safe and profitable investment. Bank must follow sound investment policy. The fundamental principle of investment must be followed thoroughly for profitable investment. Investment policy should ensure
maximum amount of investment to all sectors with proper utilization. There is high liquidity in the market and it seems no profitable place to invest these days. Investment policy provides the bank several inputs through which they can handle their investment operation efficiently ensuring the maximum return with minimum risk, which ultimately leads the bank to the path of success to achieve its organizational objectives of shareholders' wealth maximization.

### 1.2 Statement of the Problem

Within the sphere of the 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.

- Have banks been able to utilize their deposits efficiently?
- Does the deposit collection and utilization decision affect the total earning of bank?
- Is there any stability in deposit collection and utilization activities of NABIL and EBL?
- Is default loan is should scheduled?
- Which percentage should give loan to total business requirement?
- Which is the key risk of the bank?
- Which factor play important role at utilization loan?
- What is the relationship between deposit and total capital raised, deposit with total investment and loan \& advances with total deposits?
- Does the NABIL and EBL successful to utilize their available fund?


### 1.3 Objectives of the Study

Banks provide both the deposit and credit services to the public. They accept the funds from the savers as deposits and lend the funds to the fund seekers in the economy. Therefore, banks can run effectively and efficiently only if they can utilize their deposits fund at their prescribed area and realize those disbursed amounts timely. In totality, the study aims to analyze how far the banks have been able to achieve these objectives.

The main objective of this study are:

1. To analyze the financial factors like liquidity management, efficiency and profitability position in comparison to deposit utilization of NABIL and EBL.
2. To compare the deposit utilization position of NABIL and EBL.
3. To analyze the trend of deposit collection and their utilization.

### 1.4 Significance of the Study

The quality and coverage of a bank's fund utilizing 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 utilizing policy and effectively implement it as well. So, the role of commercial banks in supplying the credit in the economy is vital.
The 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 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.Policy Makers

This study is aimed to find out the deposit utilization 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 utilization position of commercial banks. As the study is more objective and is made for the fulfillment of academic requirement it possesses 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 2006/07 to 2010/11.
ii. Time is a limit for the study.
iii. Simple statistical and financial tools are used for the analysis.
iv. Study is made on the basis of secondary data only.
v. The usage of transaction period of the selected banks has been determined by the specific nature and availability of data.

### 1.7 Organization of the Study

This study has been organized into five chapters as prescribed by the University.
Chapter One: Introduction
Chapter Two: Review of Literature
Chapter Three: Research Methodology
Chapter Four: Presentation and Analysis of Data
Chapter Five: Summary, Conclusion and Recommendations

Chapter One contains general background of the study, statement of the research problem, objectives and significance of the study and limitation of the study. This chapter signifies the rational of this study.

Chapter Two deals with the review of literature. It includes a discussion on the conceptual framework i.e. fund collection and utilization concept and its theories and review of major empirical work relating to the deposit utilization.

Third chapter contains research methodology, which includes general introduction, research design, method of analysis, population \& sample, sources of data, data processing procedures and analysis of tools \& techniques.

Chapter Four consists of presentation and analysis of data with different financial tools. An analysis of survey of the respondents' opinion on various aspects of fund collection and utilization has been also presented.

Chapter Five consists of the summary, conclusion and recommendation of this study and recommendation for further research.

## CHAPTER - II

## REVIEW OF LITERATURE

This chapter consists of two parts-Conceptual Framework and Review of Related Studies. In conceptual framework, review of what has been written in academic books is carried out while review of related studies is further divided into review of journals and review of master degree thesis.

This chapter is concerned with the review of relevant literatures available in the books, journals, articles, research reports, newspapers, magazines, policy documents which are published or unpublished. Every study is very much based on past knowledge, study and experiences. The past knowledge or the previous studies should not be ignored as it provides foundation to the present study. Various thesis works done in different aspects of working capital of different organization are also reviewed for the purpose of justifying the study.

### 2.1Conceptual 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 utilization 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.

### 2.1.1Concept of Deposits

Deposit is one of the most important sources of the commercial bank." Deposit "an account with a bank or other financial institution such as a building society in the UK. Deposit may be on current account UK or checking account or sight deposit US, which bear no interest and can be withdrawn on demand, or deposit accounts UK or saving account or time deposits US which bear interest but require notice of withdrawal. In recent years new types of account have blurred (Oxford Dictionary of Economics, 2004: 116).

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 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 thought to be determined by the depositors and not by bank management. There are regular changes in this view in the modern banking industry (Weston and Bringham 1982: 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.
"Bank deposits arise in two ways the first when the banker receives cash \& credits a customer's account, it is known as a primary or a simple deposit. Such primary deposit: are made from the initiative of depositors. The second, when banks advance loans discount bills, provide overdraft facilities; make investments through bonds \&securities. This is called derived deposits of derivative deposits. They add to the supply off money. Banks actively create such deposits "( Pandey, 1995: 700).

### 2.1.1.1 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 account of a bank and financial institution. People in general, the businessmen; the industrialist \& other individuals deposit money in a bank. Bank, flows such amount as loan \& invest indifferent 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 account under various terms \& conditions. This classification is made on different theoretical \& financial basis. Therefore, deposits of bank are classified on the following basis:
i. Demand Deposits
ii. Saving Deposits
iii. Fixed Deposits

## i. Demand Deposits

The deposit in which an amount is immediately paid at the time of any account
holder's demand is called demand deposits. In another words, we can say this type of demand deposit as current account. current account means an account 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 account. 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 account 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 account 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 account 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 account 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

### 2.1.1.2 Deposit Utilization

"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 utilization. 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: 10-12).

When we discuss about Deposit Utilization, "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 Utilization is to convert idle saving into active saving "(NBL, 2037: 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 (Gitman, 1988: 11). But how capital can be accumulation 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 utilization 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 utilization helps to invest the collected deposit in desired sector"(NRB, 1984: 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. Utilization of saving implies transfer of resources from surplus
spending unit to deficit units. In this connection, financial intermediaries play an important role in utilizing 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 help of banks will prove effective in utilizing the available floating resources in the country (Hampton, 1994: 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 utilization is the most dependable and important sources of capital formation (RBB, 2055: 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 utilization is the starting point of banking transactions. Banking activities can be increase as much as we can utilize 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 utilization 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: 15). Commercial banks are set up with a view to utilize 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 utilization.

### 2.1.1.2.1 Need for Deposits Utilization

The following are some reasons for why Deposit Utilization is needed in a developing country like Nepal. Workshop report "Deposit Utilization why \& how" Group "A" states the following points as the need for deposit utilization (NRB, 1984: 10-12).

Capital is needed for the development of any sector of the country. The objective of Deposit Utilization 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 utilization 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 utilization 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 utilize bank deposit.

To increase saving is to utilize 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 utilization. Deposit utilization plays a vital role for the economic development of an under developed \& developing country, rather than developed one. It is because; a developed country does not feel the need of deposit utilization for Under Developed Country (UDC) \& developing country.

Deposit utilization 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 our country's present context.

### 2.1.1.2.2 Advantages of Deposit Utilization

Following points as the advantages of deposit utilization:

## i) Circulation of Idle Money

Deposit utilization helps to circulate idle money. The meaning of deposit utilization 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) 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 utilization. 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.

## iii) 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.

## iv) 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 utilization.

## v) Development of Banking Habit

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

## 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 utilization proves a tool to check up miss utilization of money.

## vii) 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.

## viii) 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 co-ordination between different sectors.

## ix) Others

Deposit utilization 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.

### 2.1.2Concept of Commercial Bank

"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" (Khan and Jain, 1990: 302).
"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" (Desai, 1967: 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: 65).

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. 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 of 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" (Solomon, 1989: 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 cannot 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 Mishkins "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" (Mishkins, 2003: 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" (Pandey, 1995: 38).

### 2.1.2.1Role 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 utilize 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 county's financial business in the directions citrated by economic policy.

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 HMG 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.

Nepal being an underdeveloped country, its industries, agriculture, sectors has been expanding. It provides the credit facilities for the development of agriculture in cases where Agricultural Development Banks \& Cooperative Societies do not enter into the field. The agriculture sector needs more \& more capital for the improved methods of farming viz. the fertilizers, equipment, irrigation facilities etc. require obliviously more investment. Thus role commercial bank in promoting agriculture sector is increasing in many of other countries, especially in developing countries like Nepal.

The economy of our country is dominated by agricultural sector. This could be exemplified about $76 \%$ of the total population is engaged in agriculture \& about 40 \% of the national income comes from the agriculture. Similarly, about $51 \%$ of the export trade is in agricultural product. Also if we take into account of the major industries of Nepal, they are mainly based on agriculture. This is very clear that in such a country the financial help to the agriculture sector is most urgent \& indispensable for strengthening the base of national economic structure.
Nepal being an under developed country, majority of the farmers in the villages are very poor. They do not have the sufficient capital to invest in this sector. The commercial bank has an important role to play here by helping the agriculture sector through two channels:

1. By providing fixed capital to Agricultural Development Bank by purchasing its Shares of debentures
2. By giving direct credit facility to the farmers on the mortgage of their land, house, food grains \& other cash crops like jute, tobacco etc.

As the agricultural development needs capital, the commercial banks are helping by providing financial help to the farmers \& they are able to invest or utilize the fund in different ways that make them increase agricultural product. Thus in order to accelerate the tempo of economic development of Nepal, the government \& the commercial banks should play crucial role in the agriculture sector of the economy. Thus the sound development and wide geographical average of commercial banks particularly in agriculture is a prerequisite in accelerated \& sustained economic growth. In recent years even through the commercial banks have made rapid progress in utilizing financial resources they are still insufficient in their lending policies.

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 see 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 $\mathrm{ABD} / \mathrm{N}$, 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 very remote \& sometimes it requires many 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.

### 2.1.2.2 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 to agriculture, 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. Liquidity Function
ii. Savings Function
iii. Wealth Function
iv. Payment Function
v. Credit Function
vi. Policy Function

### 2.1.2.2.1 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 and the process is explained how the credit is created by the help of deposits.

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" (Pandey, 1995: 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.

### 2.1.2.3 Resources of Nepalese Commercial Banks

Commercial banks may have various resources but the most important three sources for their daily operation and further advancing are as follows:

## i. Capital

So for as the capital funds are concerned, it is only a nominal source. Therefore it cannot be used for investment purpose. This capital fund consists of two elements; paid of capital and general reserve.

## ii. Deposits

Deposits are the main resources of commercial banks for issuing loans. Deposits are received from various forms and on the name of different accounts. There are mainly
three types of deposits: current, saving and fixed. In a developing country like Nepal, where the majority of the people are still poor, saving deposits have played a significant role for the development of the country. Therefore the main source of raising capital is that of deposits. "The deposit function of the banker is important because it has to aggregate small sum of money lying scattered here and there twenties, fifties and hundred. Singly these sums have no economic efficiency what so ever but they can accomplish Herculean tasks when they are aggregate and employed by the banker

## iii. Internal and External Borrowing

Internal and external borrowings are very important for a developing country like Nepal being and underdeveloped country; commercial bank cannot fulfill the necessities of the society. Therefore commercial banks are allowed to borrow from both two sources external and internal. Generally external borrowing means the borrowing from foreign banks, foreign government, international banks for reconstruction and development (IBRD).Internal monetary fund (IMF)etc. internally commercial banks can borrow from only one source that is from NRB.

### 2.2 Review of Previous Studies

### 2.2.1 Review of Articles

Pradhan, (1994) as done a research for which he carried out a Survey of 78 enterprises. Through his research entitled "Financial management practice in Nepal" he found some of the measures features of the Nepalese financial management. According to him "the most important one appeared to be maintaining good relation which stockholder. The finding revel that banks and retained earning are most widely used financing sources. Most enterprises do not borrow from one bank only and they do switch between bank to banks whichever offers best invest rate. Most enterprises find that banks are faxable in interest rate. Among the banks loan, bank loan of less then one year are more popular in public sector where as banks loan of 1-5 year are more popular in private sector. In period of light money, the majority of private sector enterprises fell that bank will treat all firms equally while public sector does not fell so similarly, he conclude that the majority of enterprises in traded sector find that bank's interest rate is just right while the majority of non traded sector find that the some is one higher side"

Pradhan, (2053) in his articles, "Deposit utilization, its problem and prospects" has presented that following problems in the context of Nepal:-
$\Rightarrow$ People do not have knowledge and proper education for institutional manner. They so now know financial organizational process, withdraw system, depositing system etc.
$\Rightarrow$ Financial institutions do not want to operate and provide their service their service in rural areas.
$\Rightarrow \quad$ He has also recommended about how to utilized the deposit collection by the financial institutions by rendering their services in rural areas, by adding various services.
$\Rightarrow$ By operating rural banking programs and unit.
$\Rightarrow \quad$ He has also recommended about how to utilize the deposit collection by the financial institutions by rendering their service in rural areas, by adding various services.
$\Rightarrow$ By operating rural banking programmes and unit.
$\Rightarrow$ Nepal Rastra Bank must organize training programmes to develop the skill human resources.
$\Rightarrow$ By spreading a numbers of co-operative societies to develop mini banking services and improves the habits of public in deposit collection to the rural areas.

Shrestha, (1997) in her article, "Financial performance of commercial Banks using both descriptive and diagnostic approach" has analyzed the following points:
$\Rightarrow$ The structural ratio of commercial banks show that banks invest on the average $75 \%$ of their total deposit on the government securities and the shares.
$\Rightarrow$ The analysis of resources position of commercial banks should quit high percentage of deposit as cash reserve.
$\Rightarrow$ Return Ratio of all the banks show that must of the time foreign banks have higher return as well as higher risk then Nepalese banks.
$\Rightarrow$ The debt equity ratios of commercial banks are more than $100 \%$ in most of the time period under study period. It leads to conclude that the commercial banks are highly leveraged and highly risky. Joint venture banks had higher capital adequacy ratio but has been dealing every day.

In case of the analysis of the management achievement foreign banks have comparatively higher total management achievement index.

Shrestha, (1998) in his article, "A study on deposit and credit of commercial banks in Nepal" concluded that the credit deposit ratio would be $51.30 \%$, other things remaining same in Nepal, which was the lowest under the period of review. Therefore he had strongly recommended that the joint venture banks should try to give more credit entering new field as far as possible, otherwise, they might not be able absorb even the total expenses.

Sharma, (2002) in his article "Banking the future competition" has said "Due to the lack of investment avenues, banks are tempted to invest without proper credit appraisal and one personal guarantee, whose negative side effect would show colors only after 4 or 5 years; again he said that private CBS have been mushroomed only in urban areas where banking transaction in large volume is possible. The rural and suburban areas mostly remain unattended too. This is likely to prevail till competition tasks its full rein in the urban areas."

### 2.3 Review of Thesis

Thapa, (2004) has conducted a thesis research on "A Comparative Study on Investment Policy of Nepal Bangladesh Bank and other JVB's (NABIL Bank Limited and Nepal Grindlays Bank Limited)"

The research study were based on the following specific objectives:
a) To evaluate the liquidity, assets management efficiency, profitability and risk position of NBBL in comparison to NABIL and NGBL.
b) To analyze the relationship between loan and advances and total investment with other financial variables of NBBL and compare them with NABIL \& NGBL.
c) To examine the fund utilization and investment policy of NBBL through offbalance sheet and on balance sheet activities in comparison to the other two banks.
d) To study the various risks in investment of NBBL in comparison to NABIL \& NGBL
e) To analyze the deposit utilization trend and its projection for next five years of NB Bank and compare it with that of NABIL \& NGBL.

The major findings of the study were as follows:
a) NBBL has good deposit collection, enough liquidity, it has sanctioned enough loan and advances, but it has made negligible amount of investment in government securities.
b) NBBL is in a weak position regarding its on balance as well as off balance sheet activities.
c) Profitability position of NBBL is comparatively worse than that the NABIL \& NGBL.
d) The credit risk ratio, interest risk ratio, capital risk ratio of NBBL is higher than NGBL \& NABIL. It is exposed to more risk.
e) NBBL has been successful in increasing its sources of funds and its utilization. The growth ratio of total investment of NBBL is comparatively worse than the other two JVB's.
f) There is significant relationship between deposit and loan and advance, outside assets and net profit of NBBL but there is no significant relationship between deposit and investment of NBBL.
g) The position of NBBL in regard to utilization of fund to earn profit is not better in comparison to NABIL \& NGBL.
h) The cost of fund of NBBL is competitively higher than NABIL \& NGBL.

Shrestha (2005) has conducted a research entitled "A comparative study on Investment policy of Joint Venture Banks and Finance Companies of Nepal".

The objectives of the study were as follows:
a) To find out the liquidity position and profitability position of above mentioned JVB's in comparison with finance companies.
b) To find out the relationship between profitability and asset structure.
c) To analyze the deposit utilization trend and its future projections for next five years for JVB's and finance companies.
d) To study the various risks in investment of JVB'S in comparison with finance companies.
e) To analyze the relationship between deposits and investment, deposits and loan \& advances, net profit and total assets of JVB'S in comparison with finance companies.
f) To provide suggestion and recommendation on the basis of findings.

The major findings of the study were as follows:

1) Liquidity position of JVB's is comparatively better than that of finance companies. Finance companies have made nominal amount of investment in government securities.
2) Finance companies have utilized their deposits smoothly in comparison with JVB's. The average loan and advance to total deposit ratios of finance companies is higher than JVB's.
3) Profitability position of JVB's except for BOKL is better than that of finance companies, but profitability position of finance companies in terms of return on total assets is better. Interest income in relation to proportion of total assets and operating income is higher in finance companies in comparison to JVB's.
4) The growth ratios of deposits, net profit, loan and advances are higher than that of JVB's and are increasing every year, which indicates good performance of the finance companies.
5) The risk ratios of finance companies are less variable than the JVB's. The interest risk ratios of finance companies is higher where as the capital risk ratios of JVB'S are comparatively higher than that of finance companies.
6) JVB'S are in a better position in utilizing deposits as loan and advances, but so far finance companies have been successful in utilizing their sources of funds and in their utilization.

Dhakal (2006) has conducted a research entitled "Investment Policy of Commercial banks in Nepal.

The objectives of the study were:
a) To discuss fund utilization and investment policy of EBL in respect to its fee based off-balance sheet transaction and fund based on balance sheet transaction of NABIL and BOKL.
b) To evaluate the liquidity, efficiency, profitability and risk position.
c) To evaluate the growth ratios of loans and advances and total investment with other financial variables.
d) To analyze the trends of deposits utilization towards total investment and loan and advances and its projection for next five years.
e) To conduct hypothetical test to find out whether there is significant difference between the important ratios of EBL, NABIL \& BOKL.
f) To provide packages of workable suggestions and possible guidelines to improve investment policy of EBL and other banks.

The or findings are enumerated below:
a) EBL is comparatively better than NABIL and BOK in terms of liquidity.
b) EBL has been less successful than NABIL and BOK in its on balance sheet operation as well as off balance sheet activities.
c) The profitability position of EBL is worse than NABIL and BOK.
d) EBL is exposed to more credit risk and capital risk, but lower interest rate risk than NABIL and BOK.
e) EBL has maintained high growth rates in total deposit, loan and advances but it has moderate position in investment.
g) There is significant relationship between deposit and loan and advances and outside assets and net profit of EBL.

Acharya (2007) has conducted a research entitled "Investment Analysis of Commercial Banks" (A Comparative Study of Nepal Bank Limited and Nepal State Bank of India Limited).

The objectives of the study were:
a) To analyze percentage of investment made by HBL and NSBIL in total investment made by commercial banks.
b) To analyze investment trend, deposits trend and total income and their projection for next five years of HBL and compare then with that of NSBIL.
c) To identify investment sector of HBL and NSBIL.
d) To evaluate the liquidity, assets management efficiency, profitability and risk position of HBL in comparison to that of NSBIL.
e) To study the relationship between investment and deposits of bank.

The major findings of the study were as follows:
a) Percentage of HBL's investment to total commercial banks inv estment in extremely higher than NSBIL.
b) Both HBL and NSBIL have invested mostly on government securities but HBL has invested in NRB bonds also as well as in other productive sectors.
c) NSBIL is better than HBL from liquidity point of view.
d) HBL has higher profitability position than NSBIL.
e) HBL is exposed to more risk than NSBIL.
f) HBL has maintained higher growth rate in net profit in comparison to NSBIL.

Karki, (2008) has conducted a research entitled "An Investment Analysis of RBB in comparison with NBL".

The specific objectives of the study were.
a) To evaluate liquidity, activity and profitability ratios of RBB in comparison with NBL and industry average.
b) To analyze relationship of loan and advance and total investments with total deposit and net profit of RBB and to compare it with that of NBL and industry average.
c) To use trend analysis to compare loan and advance, total investment, total deposit and net profit of RBB and compare the same with other two.
d) To examine the loan loss provision of RBB and NBL.
e) To provide suggestion and recommendation on the basis of findings.

The major findings of the study were:
a) RBB has good deposit collection, enough loan and advance and investment in government securities. It has comparatively better liquidity position than NBL.
b) RBB is in comparatively better position regarding issue of loan and advance but it does not have good position regarding investment in shares and debentures of other companies, off balance sheet operation. Loan Loss ratio shows low quality of loan and advance.
c) The profitability position of RBB is worse. RBB needs to take immediate steps to increase its profitability.
d) RBB's fund collection and fund utilization is satisfactory in comparison to NBL.
e) There is significant relationship between deposit and loan and advance. There is insignificant relationship between deposit and investment, and outside assets and net profit.

Thapa, (2009) has conducted a thesis research entitled "Investment portfolio Analysis of JVB's".

The specific objectives of the study were:
a) To analyze the risk and return ratios of commercial banks.
b) To evaluate the financial performance of JVB's.
c) To provide suggestion package based on the analysis of data.
d) To study existing investment policies taken by NABIL in various sectors.
e) To study portfolio structure of NABIL in investment as compared to other JVB's.
f) Preference given by NABIL for investment between,

- Loan Investment.
- Investment in real fixed assets.
- Investment in financial assets.

The main findings of the study were:
a) SCBNL has the highest return on shareholders fund and total assets. It has also been successful in utilizing its deposits as investments. NABIL and EBL have invested high amounts of deposits as loan and advances in comparison to SCBNL, NABIL and HBL.
b) Among the JVB's, looking at the investment portfolio, EBL has investment highest amount of funds in government securities, NBB has invested highest amount of funds on shares and debentures and NABIL has invested highest amount of funds in NRB bonds in comparison to other JVB's.
c) SCBNL has the highest EPS and EBL the lowest EPS among the JVB's.

Khadka (2010) has conducted a thesis research entitled "Investment Policy and Analysis of commercial Banks in Nepal (A comparative study of SCBNL with NIBL \& NBBL)

The following objectives were considered in the study:
a) To discuss fund utilization and investment policy of SCBNL in respect to its fee based off balance sheet transaction with NIBL \& NBBL.
b) To evaluate the liquidity, efficiency, profitability and risk position of the sample banks.
c) To evaluate the growth ratios of loan and advances, total investment with other financial variables.
d) To analyze the trends of deposit utilization towards total investment and loan and advances and its projection for next five years.
e) To find out whether there is significant difference between the various important ratios of SCBNL with the ratios of NIBL and NBBL.
f) To provide package of workable suggestions \& possible guidelines to improve investment policy of the sample banks.

The findings of the study were:
a) SCBNL has good deposit collection, has made enough investment in government securities, but has provided less advances and loans to total deposits ratio.
b) SCBNL has been successful in its on balance sheet operations but NIBL and NBBL have been more successful in off balance sheet operations.
c) The profitability position of SCBNL is higher than the other JVB's in the sample.
d) The credit risk ratio, capital risk ratio of SCBNL is lower than NIBL \& NBBL.
e) SCBNL has maintained higher growth in investment and net profit and moderate growth in loans and advances, and deposits.
f) There is significant relationship between deposits and loans and advances and between outside asset and net profit of SCBNL.

Giri, (2010) in his thesis entitled "A comparative study of Investment policy of SCBNL \& EBL" has made an endeavor to examine and interpret the Investment policy adopted by SCBNL in comparison to EBL.

The objectives of the research were:

1) To compare the investment policy of concerned banks and discuss the fund utilization of the sample banks.
2) To find out empirical relationship between total investment, deposit \& loan \& advance and net profit and outside assets and compare them.
3) To analyze the deposit utilization \& projection for next five years of SCBNL and EBL.
4) To evaluate comparatively the profitability \& risk position liquidity asset management efficiency of SCBNL \& EBL.
5) To provide a package of possible guidelines to improve investment policy, its problems and way to solve some problems and provide suggestions and recommendation on the basis of the study.

The main findings of the study were as follows:

1) Both the banks have good deposit collection. EBL has higher but fluctuating liquidity position. It is in a good position to meet daily cash requirement and current obligation.
2) SCBNL has successfully maintained and managed its assets towards different income generating activities. SCBNL has invested high portion of total working fund in government securities and share and debentures of other companies.
3) The profitability position of SCBNL is comparatively better than EBL.
4) The liquidity risk ratio, credit risk ratio of SCBNL is lower than that of EBL.
5) SCBNL has not been successful to increase its sources of funds and its utilization i.e., loans and advances and total investment.

### 2.4 Research Gap

Even though numerous studies have been carried out in different part covering various aspects of financial sector of commercial banks of Nepal, but there is still lack of research in the field of fund utilization of commercial banks comparing to private bank and public bank. Few studies have analyzed existing state of fund utilization of the financial institutions. However, none of the studies has been able to portray the complete picture of fund utilization and its best effectiveness in Nepal. This study tries to understand the pace of effective fund utilization of commercial banks.

This study will be helpful to new financial institutions (new and existing), bank manager, investor, government organizations, general public, researcher and other parties related to financial sector.

## CHAPTER - III RESEARCH METHODOLOGY

### 3.1 Introduction

Researcher needs sequential steps to adopt realistic study or studying a problem with certain object/objects in view. So that, Through Research methodology researcher can get appropriate guidelines and knowledge about the various sequential steps to adopt a systematic analysis. Research Methodology is the investigation tools of any certain area and it means clearly observation of certain objective. Research is the process of systematic and in-depth study or search for any particular topic, subject or area of investigation backed by collection presentation and interpretation of relevant details or data.

Research is a systematic \& organized effort to investigate a specific problem that needs a solution. This process of investigation involves a series of well through out activities of gathering, recording analysis \& interpreting the data with the purpose of finding answers to the problem. Research methodology suggests the systematic way to solve the research problem. Basically it consists of the research design, the nature and sources of data, data collection tools, population and sample, data analysis tools, research variables and research questions.

### 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 that stipulates what information is to be collected, from which sources and by what procedures (kothari, 1997:34). Thus a research design is a plan for the collection an analysis of data. For research there exits different types of research design like; Historical research, Descriptive research, Case study research, Field study research, Analytical research, True experimental research and so on. Research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to control variance.

The study is evaluative and analytical type of study regarding the fund utilization. The research design used in the study is descriptive and evaluative. The data relative to topics are collected through financial statement of the finance and other available
sources. The data for five years had been collected and various financial and statistical tools had been used to resolve the objectives.

### 3.3 Sources of Data

The main sources of information are the concerned banks and their published documents, NRB and its published documents, experts' views, newspaper, and many others if possible. The major sources of data may be the secondary sources of data are the information received from the books, journals, newspapers, published reports and dissertation etc. The major sources of secondary data are:

- Economic survey, Ministry of Finance
- Nepal Rastra Bank Directives
- Nepal Rastra Bank Samachar
- Annual General Reports of the concerned commercial banks.
- National and international newspaper, journals, magazines etc.
- And many other books as far as possible.
- Different websites


### 3.4 Population \& Sampling of the Study

A small portion chosen from the population for studying its properties is called a sample and the number of units in the sample is known as the sample size. The method of selecting for study a small portion of the population to draw conclusion about characteristics of the population is known as sampling. Sampling may be defined as the selection of part of the population on the basis of which a judgment or inference about the universe is made.

Here only 2 sample commercial banks are taken out of 32 commercial banks. For selecting the samples, non-random sampling method is used here among different methods. The samples are taken only from commercial banks. Organization under study is as follows, whose general introduction and major objectives are presented in chapter one. The sample organizations are as follows:

1. Nabil Bank Ltd.
2. Everest Bank Ltd.

### 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

Liquid Assets to Total Assets Katio $=\frac{\text { Liquid Assets }}{\text { Iotal Assets }}$

Liquid Fund to Total Deposit Katio $=\frac{\text { Liquid Fund }}{\text { Total Deposit }}$

Cash \& Bank Balance to Current Assets Katho $=\frac{\text { Cash } \& \text { Bank Balanct }}{\text { Current Ratio }}$

## II. Assets Management Ratios

Total Deposit to Total Liabilities katio $=\frac{\text { Total Deposit }}{\text { Total Liabilities }}$

Loan and Advances to Total Deposit Katio $=\frac{\text { Loan \&Advances }}{\text { Total Deposit }}$

Total Investment to 'Total Deposit Katio $=\frac{\text { Total Investment }}{\text { Total Deposit }}$

Loan and Advances to Total Assets Ratio $=\frac{\text { Loan \& Advances }}{\text { Tntal Assets }}$

Investment un Government Bond to Total Deposit Katio $=$
Investment on Government Bond
Total Deposit

## III. Profitability Ratios

Interest Income to Total Income katio $=\frac{\text { Interest Income }}{\text { Total Income }}$
Keturn un Loan and Advances Katio $=\frac{\text { Net Protit }}{\text { LOan \& Advances }}$
Keturn un Total Assets Katio $=\frac{\text { Net Protit }}{\text { Total Assets }}$
Interest Expenses to Total Expenses Katio $=\frac{\text { Interest Expenses }}{\text { Total Expenses }}$

## IV. Growth Ratios

Growth ratio of deposit
Growth of loan and advances

Growth of investment
Growth of return

## Standard Deviation

The measurement of the scatterness 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.
$S . D=\sqrt{\frac{\sum x^{2}}{N}-\frac{\left(\sum x\right)^{2}}{N}}$

## 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.
C. $V=\frac{0}{\bar{x}} \times 100 \%$

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

### 3.6.2 Statistical Tools

### 3.6.2.1 Coefficient of Correlation Analysis (r)

"Correlation is the statistical tools that we can use to describe the degree to which one variable in linearly related to another. 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 $r=+1$, it means there is perfect relationship between two variables \& vice versa. When $r=0$, it means there is no relationship between two variables. The Pearson's formula is:
$r=\frac{\sum(x-\bar{x})(y-\bar{y})}{\sqrt{\sum(x-\bar{x})^{2} \sum(y-\bar{y})^{2}}}$
Probable error of correlation is calculated by following formula.

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

### 3.6.2.2 Least Square Linear Trend

Among the various methods of determining trend of a time series the most popular and mathematical method is the least5 square method. Using the method of least square it has been tried to estimate the figure trend of loan and advances and deposit investment.

For estimation, Straight line method is
$Y=a+b x$
Where,
$\mathrm{Y}=$ Dependent variable
$\mathrm{x}=$ independent variable
$\mathrm{a}=\mathrm{Y}$ intercept
$b=$ slope of the trend line

## CHAPTER-IV

## PRESENTATION AND ANALYSIS OF DATA

This chapter is the backbone of the research. In this chapter, both the primary and secondary data are presented in systematic manner. The sources of data were company brochure, annual report, website and library, and banks and stock brokers. Those collected data are presented in systematic formats and analyzed using different appropriate tools and techniques. In this chapter, in addition to that the relationship of the variables is presented in graphs and figures. The analysis of data consists of organizing, tabulating and performing statistical analysis. In this chapter, the secondary data, collected from different sources are presented in understandable from and analyzed separately using both qualitative and quantitative measures whichever is appropriate.

### 4.1 Financial Analysis

Financial analysis is the profound study of the financial position of an institution. Financial analysis is the study and the calculation and evaluation of various financial ratios, especially the ratios related to the deposit utilization of selected banks. This section deals with 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
- Risk Ratio
- Growth ratio


### 4.1.1. Liquidity Ratio

Commercial Banks must maintain its satisfactory liquidity position to satisfy the credit needs of the commercial to meet demands for deposits, withdrawals, pay nation by obligation in time and convert non-cash assets into cash to fulfill immediate needs without loss of bank and consequent impact on long run profit.

### 4.1.1.1 Current Ratio

It is the relationship of current assets and current liabilities. Current assets can be converted in to cash with in short period of time normally not exceeding one year. Current liabilities are those obligation which are payable within short period. Current assets consist of cash and bank balance, money at call or short terms notice, loan \& advances, investment in government securities and other interest receivable and other miscellaneous current assets. Current liabilities consist of deposits, loan and advances, bills payable. Tax provision, staff bonus, dividend payable and miscellaneous current liabilities.

Table 4.1
Current Ratio (Times)

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | C.V <br> \% |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
|  | $\mathbf{2 0 0 5 / 0 6}$ | $\mathbf{2 0 0 6 / 0 7}$ | $\mathbf{2 0 0 7 / 0 8}$ | $\mathbf{2 0 0 8 / 0 9}$ | $\mathbf{2 0 0 9 / 1 0}$ | $\mathbf{2 0 1 0 / 1 1}$ |  |  | 1.25 |
| NABIL | 1.04 | 1.05 | 1.06 | 1.05 | 0.94 | 2.38 | 40.33 |  |  |
| EBL | 0.76 | 1.27 | 0.92 | 0.94 | 0.97 | 2.08 | 1.4398 | 38.02 |  |

(Source: Appendix No. 1)

In the table 4.1 current ratio of commercial banks are analyzed. The table reflects that the current assets of all commercial banks have exceeded the current liabilities during the five years period. In general it can be said that all the banks have sound ability to meet their short term obligations in other words bank is capable of discharging the current obligations.

In case of NABIL, the current ratios are in increasing trend from fiscal year 2006/07 to 2007/08 but it has slightly decreased in the year 2008/09 by 0.01 . EBL has also increasing trend from fiscal year 2006/07 to 2010/11. In an average, EBL has maintained lower current ratio, which states that liquidity position of EBL is fair. The value of coefficient of variation of NABIL is $40.33 \%$ which is comparatively lower than EBL i.e. $40.33 \%$ < $38.02 \%$. Thus it can be said that current ratio of NABIL is slightly consistent than EBL.

### 4.1.1.2 Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance are assets that constitute the banks first live of defense and consist of cash and hand foreign cash on hand cheques and other cash items balance with demotic banks and balance help aboard. This ratio measures the promotion of most liquid assets i.e. cash and balance among the total current asset of bank. Higher ratio shows the bank ability to meet demand for cash.

The table below shows cash and bank balance to total deposit ratio of NABIL and EBL from the FY 2005/06 to 2010/11.

Table 4.2
Cash and Bank Balance to Total Deposit Ratio

|  | Fiscal Year |  |  |  |  |  |  |  | C.V |
| :---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Bank | $\mathbf{2 0 0 5 / 0 6}$ <br> $(\%)$ | $\mathbf{2 0 0 6 / 0 7}$ <br> $(\%)$ | $\mathbf{2 0 0 7 / 0 8}$ <br> $(\boldsymbol{\%})$ | $\mathbf{2 0 0 8 / 0 9}$ <br> $(\%)$ | $\mathbf{2 0 0 9 / 1 0}$ <br> $(\%)$ | $\mathbf{2 0 1 0 / 1 1}$ <br> $(\%)$ | Mean | S.D | (\% <br> $\boldsymbol{\%}$ |
| NABIL | 18.25 | 11.03 | 17.02 | 7.84 | 10.39 | 11.25 | 12.63 | 3.7256 | 29.50 |
| EBL | 5.13 | 6.78 | 8.51 | 6.87 | 3.83 | 3.26 | 5.73 | 1.8349 | 32.02 |

(Source: Appendix No. 2)

The table 4.2 shows the percentage of cash and bank balance to total deposit ratio position of NABIL and EBL. The mean standard deviation and coefficient of variation of cash and bank balance to total deposit ratios of all banks are better. The above table reflects NABIL has fluctuating trend like wise $18.25 \%, 11.03 \%, 17.02 \%, 7.84 \%$, $10.39 \%$ and $11.25 \%$ from the FY 2005/06 to 2010/11 respectively. It has maintained highest ratio in the FY 2005/06 i.e. 18.25\% and lowest ratio in the FY 2009/10 i.e. 7.84\%. Similarly EBL has maintained fluctuating trend from the FY 2005/06 to 2010/11. In average NABIL has higher cash and bank balance to total deposits ratio than EBL. It states that the liquidity position of NABIL is better in this regard.

### 4.1.1.3 Cash and Bank Balance to Current Assets Ratio

This ratio measures the proportion of most liquid assets i.e. cash and bank balance among the total current assets of bank. Higher ratio indicated the banks ability to meet the daily cash requirement of their customers' deposit. Bank has to balance the cash and bank balance to adequate cash for the customers demand against deposit when required and less interest is required to be paid against the cash deposit.

The table below shows the Cash and bank balance to current asset ratio of NABIL and EBL from the FY 2005/06 to 2010/11.

Table 4.3
Cash and Bank Balance to Current Assets Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{gathered} \text { C.V } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2005 / 06$ <br> (\%) | 2006/07 (\%) | 2007/08 (\%) | 2008/09 <br> (\%) | $2009 / 10$ <br> (\%) | $2010 / 11$ <br> (\%) |  |  |  |
| NABIL | 16.53 | 9.48 | 14.54 | 6.72 | 10.13 | 13.62 | 11.84 | 3.3457 | 28.27 |
| EBL | 6.18 | 7.90 | 8.25 | 6.81 | 3.74 | 4.55 | 6.24 | 1.6447 | 26.36 |

(Source: Appendix No. 3)

This table 4.3 shows the mean standard deviation and coefficient of variance of cash and bank balance to current asset ratio of all three banks are in fluctuating trend during the study period. They show the ability to manage the deposit with drawls from the customers. NABIL has maintained a highest ratio of $16.53 \%$ in the year 2005/06. Similarly EBL has a highest ratio of $8.25 \% \%$ in the year 2007/08 and 2005/06 respectively. The mean value of NABIL is highest in comparisons to other banks. Similarly the coefficient of variation of NABIL is $28.27 \%$, which is higher than EBL, it reflects that the current ratio is less heterogeneous than EBL bank.

Lastly, the analysis reveals that NABIL is better position during the study period as the bank shows the ability to manage the deposit with drawl from the customers although it has the fluctuating trend.

### 4.1.1.4 Investment on Government Securities to Current Assets Ratio

The ratio examines portion of a commercial banks current assets which invested in different government securities i.e. treasury bills and government bonds. Commercial banks are interested to invest their collected fund on different securities issued by government to utilize their excess funds. Even governments securities are not so liquid as cash and bank balance of commercial bank, they can easily be sold in the market or it can also be converted into cash in other ways. The ratio is computed as:-

Table 4.4
Investment on Government Securities to Current Assets Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{gathered} \text { C.V } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{c\|} \hline 2005 / 06 \\ (\%) \end{array}$ | $\begin{gathered} 2006 / 07 \\ (\%) \end{gathered}$ | $\begin{gathered} 2007 / 08 \\ (\%) \end{gathered}$ | $\begin{gathered} \hline 2008 / 09 \\ (\%) \end{gathered}$ | $\begin{gathered} 2009 / 10 \\ (\%) \end{gathered}$ | $\begin{gathered} 2010 / 11 \\ (\%) \end{gathered}$ |  |  |  |
| NABIL | 16.30 | 24.20 | 20.41 | 26.24 | 20.29 | 29.15 | 22.77 | 4.2499 | 18.67 |
| EBL | 20.76 | 30.95 | 25.88 | 25.78 | 16.12 | 16.61 | 22.68 | 5.3511 | 23.59 |

(Source: Appendix No. 4)
The above table 4.4 reflects that investment in government securities to current asset ratio of NABIL is fluctuating trend, and EBL is in decreasing trend.

The mean ratio of NABIL is lesser than. It means that NABIL has invest it's less than of EBL. The coefficient of variation of NABIL is lower in comparison to the other banks.
Lastly it can be conclude that it has invested its more of portion assets as government securities than other banks and investment made is consistence of coefficient of variation reveals. But its liquidity portion is slightly poor than other banks ion view point of investment on government securities.

### 4.1.1.5 Loans and Advances to Current Assets Ratio

Loan and advances include short and long term loan overdrafts and cash credit. Commercial banks should not keep its all collected funds as cash and banks balance in order to invest as loan and advances to the customers. If sufficient loan and advances cannot be granted, it should pay interest on those un-utilized deposits funds. Even high loan and advances may also effects to keep the bank in most liquid position because they can only be collected at the time of maturity. This, a bank must maintain its loan and advances on proper way.

## Table 4.5

Loan and Advances to Current Assets Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{gathered} \text { C.V } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline 2005 / 06 \\ (\%) \end{gathered}$ | $\begin{gathered} 2006 / 07 \\ (\%) \end{gathered}$ | $\begin{gathered} 2007 / 08 \\ (\%) \end{gathered}$ | $\begin{gathered} 2008 / 09 \\ (\%) \end{gathered}$ | $\begin{gathered} 2009 / 10 \\ (\%) \end{gathered}$ | $\begin{gathered} 2010 / 11 \\ (\%) \end{gathered}$ |  |  |  |
| NABIL | 59.52 | 62.09 | 62.63 | 62.60 | 73.60 | 85.99 | 67.74 | 9.3043 | 13.74 |
| EBL | 58.75 | 55.87 | 55.93 | 57.50 | 70.71 | 93.25 | 65.34 | 13.4841 | 20.64 |

(Source: Appendix No. 5)
The table shows the percentage of loan and advances ratio to current assets ratio
position of NABIL and EBL. The loan and advances to current assets ratio of all banks are in increasing trend. The mean ratio of NABIL is higher than EBL. It reflects that loan and advances to current asset ratios of the NABIL has maintained a highest ratio of $85.99 \%$ in the FY 2010/11. Similarly EBL has in $93.25 \%$ in the FY 2010/11.

The coefficient of variation among ratio is lower in case of NABIL, which indicates uniformity of NABIL in comparison to other banks. So it can conclude that it is better to utilize its funds as loan and advances. On the other hand satisfactory than that of other banks from the view point of mean ratios.

### 4.1.2 Asset Management Ratio

Commercial bank must be managed its assets very well to satisfy its customers to earn high profit and for its own existence. It measures the efficiency of the bank.

### 4.1.2.1 Loans and Advances to Total Deposits Ratio

This ratio measures how successfully the banks are able to utilize the total deposit on loan and advances for profit generating purpose. Higher the ratio indicates the better utilization of total deposits, but too high is not be better from its liquidity point of view. This table 4.1 effects the percentage of loan and advances to total deposit ratios position of NABIL and EBL

## Table 4.6

## Loan and Advances to Total Deposit Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{gathered} \text { C.V } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 2005 / 06 \\ (\%) \end{gathered}$ | 2006/07 <br> (\%) | $\begin{gathered} 2007 / 08 \\ (\%) \end{gathered}$ | $\begin{gathered} 2008 / 09 \\ (\%) \end{gathered}$ | $\begin{gathered} 2009 / 10 \\ (\%) \end{gathered}$ | $\begin{gathered} \text { 2010/11 } \\ (\%) \end{gathered}$ |  |  |  |
| NABIL | 65.71 | 72.23 | 73.32 | 72.97 | 75.45 | 71.01 | 71.78 | 3.0248 | 4.21 |
| EBL | 48.82 | 47.97 | 57.68 | 58.01 | 72.57 | 66.79 | 58.64 | 8.8701 | 15.13 |

(Source: Appendix No. 6)
The ratio of NABIL and EBL have in increasing trend where. In the case of NABIL has maintained higher loan and advances to total deposit i.e. $75.45 \%$ in a year 2010/11, likewise EBL has maintained higher ratio in a year 2009/10. The mean value of NABIL i.e. 71.78 is less than EBL. The CV of NABIL is lower than that of the other banks which indicate that loan and advances of it is stable and consistent.

Lastly it can be concluded that NABIL is in strong position or in better position regarding the utilization of total deposits on loan and advances and acquiring higher
profit in comparison with lower than EBL. Higher ratio is not good from the view point of liquidity as the loan and advances are not a liquid as cash and bank balance.

## ii Total Investment to Total Deposit Ratio

The commercial banks must utilize its deposit fund by investing in different securities issued by government \& other financial, non financial sectors. This ratio measures the extent to which the banks are capable to utilize their deposits on investment in various securities. This ratio is computed by dividing total investment by total deposit ratio. Table 4.8 shows the total investment to total deposit ratio of the banks NABIL \& EBL.

Table 4.7
Total Investment and Total Deposit Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{gathered} \text { C.V } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005/06 <br> (\%) | 2006/07 <br> (\%) | 2007/08 <br> (\%) | 2008/09 <br> (\%) | 2009/10 <br> (\%) | 2010/11 <br> (\%) |  |  |  |
| NABIL | 19.71 | 30.97 | 24.70 | 31.45 | 21.08 | 30.43 | 26.39 | 4.8058 | 18.21 |
| EBL | 48.64 | 52.88 | 44.85 | 41.33 | 29.25 | 31.93 | 41.48 | 8.4988 | 20.49 |

(Source: Appendix No. 7)
From the table 4.7, it is found that, total investment to total deposit ratio all three banks are in increasing and decreasing trend or in fluctuating trend during study period 2005/06 to 2010/11. The total investment to total deposit ratio of NABIL has highest ratio of $30.97 \%$ in FY 2006/07 and lowest ratio $19.71 \%$ in FY 2005/06. Similarly EBL has highest and lowest ratio of 52.88\% and 29.25\% in FY 2006/07 and 2009/10.

In comparison with mean value, NABIL has lesser than EBL mean value. Likewise the value of coefficient of variation on NABIL is lower than that of EBL. After analysis it is clear that the investment policy of NABIL is in better position in comparisons to both banks. The total investment to total deposits ratio of NABIL is more homogeneous because it has low coefficient of variation.

### 4.1.2.2 Loan and Advances to Total Working Fund Ratio

Loan and advances is the major components of the total working fund, which indicate the ability of banks to utilize its deposits in the form of loan and advances to earn high return. It is an appropriate level to generate profit. The ratio reflects the extend to which the commercial banks are able to utilizing their assets loan and advances for the
purpose of profit generation.

Total working fund is the total assets. It is composed up of current assets, fixed assets, miscellaneous assets and investment, loan and advance and interest receivable.

The table 4.8 shows the loan and advance to total working fund ratio of NABIL and EBL.

Table 4.8
Loan and Advances to Working Fund Ratio

| Bank | Fiscal Year |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 5 / 0 6}$ <br> $(\%)$ | $\mathbf{2 0 0 6 / 0 7}$ <br> $(\%)$ | $\mathbf{2 0 0 7 / 0 8}$ <br> $(\%)$ | $\mathbf{2 0 0 8 / 0 9}$ <br> $(\%)$ | $\mathbf{2 0 0 9 / 1 0}$ <br> $(\%)$ | $\mathbf{2 0 1 0 / 1 1}$ <br> $(\%)$ | Mean | S.D | C.V <br> \% |
|  | 57.77 | 59.67 | 60.96 | 61.24 | 64.61 | 61.41 | 60.94 | 2.0592 | 3.38 |
| EBL | 43.51 | 42.43 | 46.83 | 48.91 | 61.60 | 57.87 | 50.19 | 7.1524 | 14.25 |

(Source: Appendix No. 8)

This reflects that loan and advances to working fund ratio of NABIL and EBL is an increasing trend.. NABIL has the highest ratio $61.41 \%$ in the FY 2010/11, EBL has the highest ratio i.e. $61.60 \%$ in the FY 2009/10.

The mean value of NABIL has maintained average loan and advances to total working fund ratio than that of EBL. This regard, NABIL is in better position among other banks. The coefficient of variation of NABIL is lower than that of both banks i.e. $3.38 \%$ < $14.25 \%>7.78 \%$ respectively, which clear that loan and advances to total working fund ratio is less variable than other banks.

### 4.1.2.3 Investment on Government Securities to Total Working Funds Ratio.

The commercial banks should never use all the total deposits resources as loan and advances and other credit from security and liquidity point of view. So to some extent commercial bank seem to be interested to utilize their resources by purchasing government securities. This ratio reflects the relationship between the banks investment securities in comparison to the total working funds.

The table 4.9 shows the investment on government securities to total working fund ratio of NABIL and EBL.

Table 4.9
Investment on Government Securities to Total Working Fund Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{gathered} \text { C.V } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005/06 <br> (\%) | 2006/07 <br> (\%) | 2007/08 (\%) | $\begin{gathered} 2008 / 09 \\ (\%) \end{gathered}$ | $\begin{gathered} 2009 / 10 \\ (\%) \end{gathered}$ | $\begin{gathered} 2010 / 11 \\ (\%) \end{gathered}$ |  |  |  |
| NABIL | 158.19 | 23.26 | 19.86 | 25.67 | 17.81 | 20.82 | 20.54 | 3.2657 | 15.90 |
| EBL | 15.38 | 23.51 | 21.67 | 21.93 | 14.05 | 10.31 | 17.81 | 4.8418 | 27.19 |

(Source: Appendix No. 9)

The comparison of mean ratio of NABIL with other two banks reveal that NABIL is successful; to utilize their working fund as investment in government securities. Similarly NABIL is also variability between ratios during the study period is greater mean value than that of EBL.

The table 4.4 reflects that investment on government securities to total working fund ratio of all three banks are in fluctuating trend. Likewise the coefficient of variation is higher than that of other two banks i.e. $15.90 \%<27.19 \%<44.12 \%$. This means NABIL has invest its more portion of working funds on government securities as than other banks.

### 4.1.2.4 Investment on Shares and Debentures to Total Working Fund Ratio

This ratio shows the banks investment in share and debentures of subsidiary and other companies. Now a day, commercial banks are interested to invest its fund not on government securities. They are interested to invest in shares and debenture of different types of companies and also in most of commercial banks in Nepal have purchased shares of regional development banks and some of them have purchased the share of other companies too.

This ratio reflects the extent on which the banks are able to utilize their total assets on purchase of share and debenture of other companies to generate income and utilize their excess fund. A higher ratio indicated more portion of investment on shares and debenture out of total working fund. The table 4.12 shows the investment ob shares and debenture to total working fund ratio of NABIL and EBL from the FY 2005/06 to 2010/11.

Table 4.10
Investment on Shares and Debentures to Total Working Fund Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{gathered} \text { C.V } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005/06 <br> (\%) | $\begin{gathered} \text { 2006/07 } \\ (\%) \end{gathered}$ | $\begin{gathered} \text { 2007/08 } \\ (\%) \end{gathered}$ | $\begin{gathered} \text { 2008/09 } \\ (\%) \end{gathered}$ | $\begin{gathered} \text { 2009/10 } \\ (\%) \end{gathered}$ | $\begin{gathered} 2010 / 11 \\ (\%) \end{gathered}$ |  |  |  |
| NABIL | 0.07 | 0.26 | 0.21 | 0.18 | 0.16 | 0.12 | 0.17 | 0.0610 | 36.61 |
| EBL | 0.11 | 0.13 | 0.13 | 0.13 | 0.16 | 0.12 | 0.13 | 0.0153 | 11.75 |

(Source: Appendix No. 10)

The table depicts that NABIL has decreasing trend in the FY 2007/08 to 2010/11. EBL has maintain same position up to 2008/09 then it has increasing trend in 2009/10 i.e. $0.13 \%, 0.13 \%, 0.13 \%, 0.16 \%$.

In an average, NABIL has maintained medium investment on shares and debentures to total working fund ratio than other. The coefficient of variation of NABIL is higher than that of other two banks which indicate that NABIL is more variable and less consistent.

### 4.1.2.5 Total Off Balance Sheet Operation to Loan and Advances Ratio

This ratio shows the proportion of free based off balance sheet activities are very much dependent on made operation management strategy banking net work with foreign banks etc. Commercial banks should not concentrate only on fund based activities such as loan and advances, investment on different sectors and so on. It should pay its attention to increase free based off balance activities. Income generated through the fee based off balance sheet activities constitutes a significant proportion in the total income of most of the commercial banks statement. A high ratio indicates the highest OBS transaction or vice versa.

Table 4.11
Total OBS Operation to Loan and Advances Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{gathered} \text { C.V } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005/06 <br> (\%) | 2006/07 <br> (\%) | 2007/08 <br> (\%) | 2008/09 <br> (\%) | 2009/10 <br> (\%) | 2010/11 <br> (\%) |  |  |  |
| NABIL | 856.64 | 3005.76 | 28.50 | 0.00 | 7732.64 | 0.00 | 2093.85 | 4127.05 | 50.73 |
| EBL | 940.05 | 3948.48 | 23.81 | 4992.55 | 7437.89 | 67.12 | 1336.51 | 4613.61 | 28.97 |

(Source: Appendix No. 11)

The total OBS operation to loan and advances ratio of NABIL is in decreasing trend in FY 2006/07 and stepped up again in FY 2007/08 from $23.80 \%$, to $47.21 \%$, then again decrease. Similarly EBL of $70.81 \%$ in the FY 2007/08.

The mean if NABIL is lower than that of other banks i.e. 33.022 < 61.73 > 38.26, which indicates that, NABIL has lowest OBS transaction or vice versa. Has highest mean ratio than NABIL. The coefficient of variance of NABIL is lower than that of other banks, which indicated that it is giving attention to increase free based off balance activities.

### 4.1.2.6 Loan Loss Relation

It is occurred when the debtors fail to pay their loan. Loss of the loan is not only the default of debtors but it is because of the failure of recovery of loan by the bank. Negligence in its part makes a negative impact on the earning and capital of a bank very badly. Greater loan loss provision is made in income statement if high loss is expected. But this will lead to low profit and possible losses and produces low increase or decrease in capital. The loan loss ratio shows how efficiently the bank manages its loan and advances and makes effort for timely recovery of loan.

Table 4.12
Loan Loss Ratio

|  | Fiscal Year |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bank | 2005/06 <br> $(\boldsymbol{\%})$ | $\mathbf{2 0 0 6 / 0 7}$ <br> $(\boldsymbol{\%})$ | $\mathbf{2 0 0 7 / 0 8}$ <br> $(\%)$ | $\mathbf{2 0 0 8 / 0 9}$ <br> $(\%)$ | $\mathbf{2 0 0 9 / 1 0}$ <br> $(\%)$ | $\mathbf{2 0 1 0 / 1 1}$ <br> $(\%)$ | Mean | S.D | C.V <br> $\mathbf{( \%}$ |
| NABIL | 1.11 | 0.88 | 0.93 | 1.39 | 1.17 | 0.72 | 1.03 | 0.2176 | 21.06 |
| EBL | 2.14 | 0.00 | 0.00 | 0.01 | 0.04 | 0.03 | 0.37 | 0.7917 | 213.97 |

(Source: Appendix No. 12)

The table 4.12 reflects that NABIL has fluctuating trend, it has the maximum ratio of $1.39 \%$ in the FY 2008/09 and minimum ratio of $0.72 \%$ in the FY 2010/11. Similarly, in case of EBL it has made any provision in the FY 2006/07 and 2007/08. It has also followed the fluctuating trend
The mean value of NABIL is average, which indicated that its position is better in this regard. It has managed its loan and advances and makes effort for timely recovery of loan. Similarly, the coefficient of variance of NABIL is highest than EBL. In average, NABIL has no highest loan loss ratio in comparing with two other banks. So it shows
that its performance in terms of recovery of loan is satisfactory in comparison to EBL.

### 4.1.3 Profitability Ratio

Profitability ratios are useful to measure the efficiency of operation of a firm in term of profit. Profit is the indicator of the financial performance of any firm. Commercial banks acquire profit by providing different kinds. Higher the profitability ratio shows the efficiency of the management. The following profitability ratios are related to study under this heading.

### 4.1.3.1 Return on Loan and Advances Ratio

Return on loan and advances ratio measures the earning capacity of banks on its total deposits utilized on loan and advances. Mostly loan and advances included loan, cash credit, overdraft, bills purchased and discounted. In other words return on loan and advances ratio indicates how efficiently the banks have employed its resources in the firm of loan and advances.

Table 4.13

## Return on Loan and Advances Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{gathered} \text { C.V } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005/06 <br> (\%) | 2006/07 <br> (\%) | 2007/08 <br> (\%) | 2008/09 <br> (\%) | 2009/10 <br> (\%) | 2010/11 <br> (\%) |  |  |  |
| NABIL | 2.32 | 2.16 | 1.92 | 2.44 | 2.24 | 2.42 | 2.25 | 0.1765 | 7.85 |
| EBL | 3.77 | 3.65 | 5.37 | 5.56 | 4.90 | 4.92 | 4.70 | 0.7353 | 15.66 |

(Source: Appendix No. 13)

The table 4.13 reveals that NABIL return on loan and advances ratio has decreasing trend in the beginning years and after 2008/09 it is increase from $1.92 \%$ to $2.44 \%$ to $2.24 \%$ and $2.42 \%$ in 2010/11. EBL has maintained fluctuating.

The mean of NABIL is lesser than EBL i.e. $2.25<4.70$ respectively. The standard deviation of NABIL is lesser than both banks. Similarly the coefficient of variation of NABIL is less than other two banks i.e. $7.85 \%<15.66 \%<45.13 \%$. EBL has maintained average C.V.

### 4.1.3.2 Return on Total Working Fund Ratio

It also known as return on asset. This ratio measures the profit earning capacity by utilizing available resources (total assets). The bank has to earn satisfactory return on
assets or working funds are well manage and are efficiently utilized, maximizing taxes with in the legal options available will also improve the available will also improve the return or return will be higher. Net profit includes the profit that is left to the internal equities after all charge and expenses cost. The table below shows the return on assets of NABIL and EBL

Table 4.14
Return on Total Working Fund Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{gathered} \text { C.V } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005/06 <br> (\%) | $\begin{gathered} \text { 2006/07 } \\ (\%) \end{gathered}$ | 2007/08 <br> (\%) | $\begin{gathered} \hline \text { 2008/09 } \\ (\%) \end{gathered}$ | $\begin{gathered} \text { 2009/10 } \\ (\%) \end{gathered}$ | $\begin{gathered} 2010 / 11 \\ (\%) \end{gathered}$ |  |  |  |
| NABIL | 1.34 | 1.29 | 1.17 | 1.49 | 1.45 | 1.49 | 1.37 | 0.1172 | 8.55 |
| EBL | 1.64 | 1.55 | 2.51 | 2.72 | 3.02 | 2.85 | 2.38 | 0.5773 | 24.24 |

(Source: Appendix No. 14)

The table 4.14 reflects the mean, S.D and C.V of NABIL and EBL banks from FY 2005/06 to 2010/11. NABIL has the fluctuating trend which indicates that its profitability ratio is not consistent. It has highest profit ratio is $1.49 \%$ in the FY 2008/09 and 2010/11 and minimum profit ratio is $1.17 \%$ in the FY 2007/08. Similarly EBL has maintained increasing trend of profit ratio. In average, NABIL and EBL banks have able to maintain a net profit during the stuffy period.

If the mean values are observed NABIL is lower than EBL i.e. $1.37<2.38>1.12$ respectively. The coefficient of variation of NABIL is lesser than that of EBL and EBL i.e. $8.56 \%<42.66 \%$ it indicate, the return on total working fund ratio of NABIL is stable and consistent in comparison to EBL. The analysis clear the profitability ratio with respect to financial resources investment of NABIL is better as well as stable.

### 4.2.3.3 Total Interest Earned to Total outside Assets Ratio

It measures the interest earning capacity of the banks through efficient utilization of all the out side assets. Higher the ratio indicates better us of outside assets of a commercial bank. Total outside assets includes loan and advances, investment on government securities, share and debentures and other all types of investment.
The table below exhibits total interest earned to total outside assets ratio of NABIL and EBL.

Table 4.15
Total Interest Earned to Total outside Assets Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{array}{r} \text { C.V } \\ \% \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005/06 <br> (\%) | 2006/07 <br> (\%) | 2007/08 <br> (\%) | 2008/09 <br> (\%) | 2009/10 <br> (\%) | 2010/11 (\%) |  |  |  |
| NABIL | 9.85 | 7.87 | 7.93 | 7.81 | 7.38 | 6.45 | 7.88 | 1.0152 | 12.88 |
| EBL | 8.21 | 7.17 | 7.38 | 7.14 | 7.20 | 6.86 | 7.33 | 0.4235 | 5.78 |

(Source: Appendix No. 15)

The comparison of mean ratios of NABIL with EBL banks reveal that total interest earned to total outside assets ratio of NABIL is lowest, which indicate that it has not able to use its fund (outside assets) to earn high interest income in comparison to other banks.

The total interest earned to total outside assets ratio of EBL has fluctuating trend. In case of EBL it increase at FY 2005/06 i.e. $8.21 \%$ and decrease in the year 2007/08 i.e. $7.14 \%$.. If the coefficient of variation is observed EBL has the lowest of all banks i.e. $5.78 \%<12.88 \%<15.60 \%$ respectively. This reflects that earned to total outside assets of NABIL is consistent. In other words it is satisfactory in compared to other banks. Therefore, it can conclude that NABIL has better position with respect to the income earned from the total outside assets.

### 4.1.3.4 Total Interest Earned to Total Working Fund Ratio

This ratio is calculated to find out the percentages of interest earned to total assets. It reflects the extent to which the banks are success in utilizing their to total assets to gain higher income as interest. Higher ratio indicated higher earning power of the banks of its total working fund.

The table below shows the interest earned to total working fund ratio of NABIL and EBL

Table 4.16
Total Interest Earned to Total Working Fund Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{array}{r} \text { C.V } \\ \% \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005/06 <br> (\%) | 2006/07 <br> (\%) | $\begin{gathered} \text { 2007/08 } \\ (\%) \end{gathered}$ | $\begin{gathered} \text { 2008/09 } \\ (\%) \end{gathered}$ | $\begin{gathered} 2009 / 10 \\ (\%) \end{gathered}$ | $\begin{gathered} 2010 / 11 \\ (\%) \end{gathered}$ |  |  |  |
| NABIL | 7.40 | 6.71 | 6.46 | 6.84 | 6.10 | 5.66 | 6.53 | 0.5526 | 8.46 |
| EBL | 7.13 | 6.39 | 6.15 | 5.98 | 6.22 | 5.87 | 6.29 | 0.4108 | 6.53 |
| EBL | 7.50 | 7.45 | 6.67 | 5.97 | 6.16 | 5.85 | 6.60 | 0.6696 | 10.15 |

(Source: Appendix No. 16)

The table 4.16 reveals that the ratio of NABIL is in decreasing trend, where the ratio of EBL is decreasing at the first three years and increases in the fifth year i.e. $7.13 \%>$ $6.39 \%>6.15 \%>5.98 \%<6.22 \%>5.87 \%$ respectively. On the other hand the mean value of NABIL has average of other two banks. It has the mean of 6.53 which is higher than EBL i.e. 6.29. Similarly the coefficient of variation of NABIL is $8.46 \%$ which is also more than EBL.

After analysis it can be concluded that total interest earned to total working fund of NABIL is satisfactory in compared to other banks. It indicates the total interest earned to total working fund ratio is stable. EBL has higher coefficient of variation among NABIL. That means it is not successful in earning interest income because high ratio is an indicator of higher earning power of the bank on its total working fund and vice versa.

### 4.1.3.5 Total Interest Paid to Total Working Ratio

This ratio is calculated to find out the proportion of interest paid against the total working fund. Higher ratio indicated the higher interest expenses on total working fund and vice-versa.

The table below reflects the mean, S.D and C.V of total interest paid to total working fund ratio.

Table 4.17
Total Interest Paid to Total Working Fund Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{gathered} \text { C.V } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline 2005 / 06 \\ (\%) \end{gathered}$ | $\begin{gathered} \text { 2006/07 } \\ (\%) \end{gathered}$ | $\begin{gathered} \text { 2007/08 } \\ (\%) \end{gathered}$ | $\begin{gathered} \text { 2008/09 } \\ (\%) \end{gathered}$ | $\begin{gathered} 2009 / 10 \\ (\%) \end{gathered}$ | $\begin{gathered} \text { 2010/11 } \\ (\%) \end{gathered}$ |  |  |  |
| NABIL | 4.54 | 3.88 | 3.82 | 3.29 | 2.54 | 2.52 | 3.43 | 0.7333 | 21.37 |
| EBL | 3.25 | 2.64 | 1.92 | 1.69 | 1.42 | 1.60 | 2.09 | 0.6488 | 31.09 |

(Source: Appendix No. 17)

In the listed table 4.17, total interests paid to working fund ratio of the all banks are in decreasing trends during the study period. NABIL has variable trend from $4.54 \%$ to $2.52 \%$ in the FY 2005/06 to 2010/11. EBL has also variable trend from $3.25 \%$ to $1.60 \%$.

In comparison of mean value of NABIL with other reveal that NABIL is in average between EBL i.e. $3.43>2.09$. It means NABIL has paid average interest. Similarly the coefficient of variance of it has lower among both banks which indicates that total interest and to total working fund ratio is inconsistent than that of EBL.

After analysis it can be concluded that NABIL is in better position from payment of interest point of view. It seems to be successful to collect its working fund from less expensive sources in comparison to others.

### 4.1.4 Risk Ratio

Risk taking is the prime business of banks investment management which increases effectiveness and profitability of the bank. Bank has to take risk to get return on investment. Risk taken is compensated by the increase in profit. So a bank has to take higher risk if it expects higher return on its investment.

Through these ratios, focus has been made to measure the level of risk inherent in the NABIL in comparison to the EBL.

### 4.1.4.1 Credit Risk Ratio

Bank utilized its collected funds in providing credit to different sectors while making investment. It is essential for a bank to examine the credit risk involved in the project. This ratio shows the proportion of non performing assets in total loan and advances of the bank. Due to the unavailability of the relevant data the ratio is measure with the help of loan and advances to total assets.

Table 4.18

## Credit Risk Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{gathered} \text { C.V } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005/06 <br> (\%) | 2006/07 <br> (\%) | $\begin{gathered} \text { 2007/08 } \\ (\%) \end{gathered}$ | 2008/09 <br> (\%) | 2009/10 <br> (\%) | $\begin{gathered} \text { 2010/11 } \\ (\%) \end{gathered}$ |  |  |  |
| NABIL | 59.52 | 62.09 | 62.63 | 62.60 | 73.60 | 61.50 | 63.66 | 4.5691 | 7.18 |
| EBL | 58.75 | 55.87 | 55.93 | 57.50 | 70.71 | 56.96 | 59.29 | 5.2014 | 8.77 |

(Source: Appendix No. 18)

The table 4.18 shows the percentage of credit risk ratio of NABIL and EBL The credit risk ratio of NABIL is in fluctuating trend during the study period i.e. it has maintained maximum ratio of $73.60 \%$ in the FY 2009/10 and it has minimum ratio of $59.52 \%$ in the year 2005/06. Similarly EBL credit risk ratio is increasing trend it has maintained maximum ratio of $70.71 \%$.

The mean of NABIL is between EBL which mean NABIL has average credit in comparison to both banks. The coefficient of variance of NABIL is $7.18 \%$ EBL has 8.77\%

### 4.1.4.2 Liquidity Risk Ratio

The liquidity risk of the bank defines it liquidity need for deposit. A higher liquidity indicates less risk and less profitable bank and vice-versa. The ratio of cash and bank balance to total deposits is the indicator of the bank liquidity needed. The cash and bank balance are the most liquid assets and they are considered as bank liquidity sources and deposits as the liquidity needs.

Table 4.19

## Liquidity Risk Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{array}{r} \text { C.V } \\ \% \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline 2005 / 06 \\ (\%) \end{gathered}$ | 2006/07 <br> (\%) | $\begin{gathered} 2007 / 08 \\ (\%) \end{gathered}$ | $\begin{gathered} 2008 / 09 \\ (\%) \end{gathered}$ | $\begin{gathered} 2009 / 10 \\ (\%) \end{gathered}$ | $\begin{gathered} \text { 2010/11 } \\ (\%) \end{gathered}$ |  |  |  |
| NABIL | 18.25 | 11.03 | 17.02 | 7.84 | 10.39 | 11.25 | 12.63 | 3.7256 | 29.50 |
| EBL | 5.13 | 6.78 | 8.51 | 6.87 | 3.83 | 3.26 | 5.73 | 1.8349 | 32.02 |

(Source: Appendix No. 19)

In the table shows the percentage of liquidity risk ratio of NABIL and EBL This table reflects the liquidity risk ratio of NABIL is fluctuating trend i.e. it has maintained a maximum ratio of $18.25 \%$ in the FY 2005/06 and the minimum ratio of $7.84 \%$ in the FY 2008/09. Similarly EBL liquidity risk ratio is in decreasing trend. The minimum ratios of both banks are 3.26\% in the FY 2010/11.

While comparing the mean of three banks, EBL is between NABIL i.e. $12.63>5.73$ 37 which indicates that NABIL liquidity risk is average in compare to other banks. The coefficients of variance of three banks are $29.50 \%, 32.02 \%, 35.93 \%$ respectively. In comparison them, NABIL has less C.V which indicates that liquidity risk ratio of it's in consistent.

### 4.1.4.3 Capital Risk Ratio

The capital risk ratio indicates how much assets value may decline by bank before the position deposition and other creditors is jeopardized. So a bank needs to maintain adequate capital in relation to the nature and condition of its assets, its deposits liabilities and other corporate responsibilities. This ratio measures ability of bank ti attract deposits and inter-bank funds. It also determines the level of profit. A bank can earn if a bank choose to take high capital risk.

Table 4.20
Capital Risk Ratio

| Bank | Fiscal Year |  |  |  |  |  | Mean | S.D | $\begin{gathered} \text { C.V } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline 2005 / 06 \\ (\%) \end{gathered}$ | 2006/07 <br> (\%) | $\begin{gathered} 2007 / 08 \\ (\%) \end{gathered}$ | $\begin{gathered} 2008 / 09 \\ (\%) \end{gathered}$ | $2009 / 10$ <br> (\%) | $\begin{gathered} 2010 / 11 \\ (\%) \end{gathered}$ |  |  |  |
| NABIL | 10.63 | 13.73 | 10.74 | 9.82 | 8.37 | 6.82 | 10.02 | 2.1470 | 21.43 |
| EBL | 15.74 | 4.99 | 11.78 | 12.48 | 11.68 | 9.76 | 11.07 | 3.2495 | 29.35 |

(Source: Appendix No. 20)

From the table 4.20 , it is clearly seen that the percentage of capital risk ratio of NABIL is decreasing from $13.73 \%$ to $6.82 \%$ in the FY 2006/07 to 2010/11 during the study period. NABIL has maximum ratio of $13.73 \%$ and minimum ratio of $6.82 \%$. Similarly EBL has followed the fluctuating trend. They have maximum ratio of 15.74 and $10.60 \%$ in the FY 2005/06 and 2007/08 respectively. The mean value of NABIL has average capital risk ratio in comparison with other two banks. The coefficient of variance of a NABIL is $21.43 \%$ that is lesser than EBL i.e. $21.43 \%>10.23 \%$.

### 4.1.5 Growth Ratio

It represents how well the commercial banks those growth ratios are maintaining their economic and financial position. Here those growth ratios are analyzed and interpret ate, which are related to the fund utilization and investment management of a bank. In this topic, there are four types of growth ratio and under this section growth ratio of total deposit, total investment, loan and advances and net profit are calculated.

### 4.1.5.1 Growth ratio of total deposit

The comparative table 4.21 shows that the growth ratio of NABIL deposit is higher than that of EBL. NABIL has maintained ratio of $24.72 \%$ where as EBL $4.08 \%$. This means the performance of Everest Bank Limited to collect greater deposit compared to other banks. EBL is improving year by year. Among three banks EBL has lowest growth ratio i.e. $4.08 \%$.

Table 4.21

## Growth Ratio of Total Deposit

| Bank | Fiscal Year |  |  |  |  |  | Growth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 5 / 0 6}$ <br> $(\%)$ | $\mathbf{2 0 0 6 / 0 7}$ <br> $(\%)$ | $\mathbf{2 0 0 7 / 0 8}$ <br> $(\%)$ | $\mathbf{2 0 0 8} / \mathbf{0 9}$ <br> $(\%)$ | $\mathbf{2 0 0 9 / 1 0}$ <br> $(\%)$ | $\mathbf{2 0 1 0 / 1 1}$ <br> $(\%)$ | rate <br> $(\%)$ |
|  | 4574.51 | 5466.60 | 6694.96 | 8063.90 | 10097.69 | 13802.44 | 24.72 |
| EBL | 15839.00 | 15506.40 | 13447.70 | 14119.03 | 14586.60 | 19347.40 | 4.08 |

(Source: Appendix No. 21)

### 4.1.5.2 Growth ratio of loan and advances

The comparative table 4.22 shows that the growth ratio of NABIL loan and advances is higher than that of other banks. NABIL has able to maintain of $26.67 \%$, where as EBL able to have maintained $10.82 \%$. The performance of NABIL to grant loan and advances is better in comparison to other banks i.e. EBL. The highest growth ratio is $26.67 \%$ and lowest growth ratio is $10.82 \%$. The above table clearly has shown that. NABIL in comparison to other banks is better year by year.

Table 4.22

## Growth Ratio of Loan and Advances

| Bank | Fiscal Year |  |  |  |  |  | Growth Ratio (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { 2005/06 } \\ (\%) \end{gathered}$ | $\begin{gathered} 2006 / 07 \\ (\%) \end{gathered}$ | $\begin{gathered} \text { 2007/08 } \\ (\%) \end{gathered}$ | $\begin{gathered} 2008 / 09 \\ (\%) \end{gathered}$ | 2009/10 <br> (\%) | $\begin{gathered} \text { 2010/11 } \\ (\%) \end{gathered}$ |  |
| NABIL | 3005.76 | 4044.23 | 5049.58 | 6095.84 | 7900.00 | 9801.31 | 26.67 |
| EBL | 7732.64 | 7437.89 | 7755.95 | 8189.99 | 10586.17 | 12922.50 | 10.82 |

(Source: Appendix No. 21)

### 4.1.5.3 Growth Ratio of Total Investment

The comparative table 4.25 show that the growth ratio of NABIL total investment is higher than EBL i.e. $36.03<51.74 \%$. The total investment of NABIL has average position in comparison to the EBL.

Table 4.23
Growth Ratio of Total Investment

| Bank | Fiscal Year |  |  |  |  |  | Growth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 5 / 0 6}$ <br> $(\%)$ | $\mathbf{2 0 0 6 / 0 7}$ <br> $(\%)$ | $\mathbf{2 0 0 7 / 0 8}$ <br> $(\boldsymbol{\%})$ | $\mathbf{2 0 0 8 / 0 9}$ <br> $(\%)$ | $\mathbf{2 0 0 9 / 1 0}$ <br> $(\%)$ | $\mathbf{2 0 1 0 / 1 1}$ <br> $(\%)$ | Ratio <br> $(\%)$ |
|  | 901.72 | 1779.17 | 1654.00 | 2535.70 | 2128.90 | 4200.52 | 36.03 |
| EBL | 7704.31 | 8199.51 | 6031.17 | 5835.95 | 4267.23 | 6178.53 | 4.31 |

(Source: Appendix No. 21)

### 4.1.5.4 Growth ratio of total net profi.

Table 4.24
Growth Ratio of Total Net Profit

| Bank | Fiscal Year |  |  |  |  |  | Growth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 5 / 0 6}$ <br> $\mathbf{( \% )}$ | $\mathbf{2 0 0 6} / \mathbf{0 7}$ <br> $(\%)$ | $\mathbf{2 0 0 7 / 0 8}$ <br> $(\%)$ | $\mathbf{2 0 0 8} / \mathbf{0 9}$ <br> $(\%)$ | $\mathbf{2 0 0 9 / 1 0}$ <br> $(\%)$ | $\mathbf{2 0 1 0 / 1 1}$ <br> $(\%)$ | Ratio <br> $(\%)$ |
|  | 69.70 | 85.33 | 94.17 | 143.57 | 170.80 | 237.38 | 22.77 |
| EBL | 291.38 | 271.64 | 416.24 | 455.31 | 518.64 | 635.30 | 16.87 |

(Source: Appendix No. 21)

From the above analysis of all tables, it can be concluded that NABIL performance regarding the collection of deposit, granting loan and advances on total investment and net profit is comparatively better.

### 4.2 Statistical Tools

### 4.2.2 Coefficient of Correlation Analysis

In this heading Karl Pearson coefficient of correlation (Direct Method) is used to find out the relationship between deposit and loan and advances. Deposit and total investment and outside assets and net profit and so on.

### 4.2.2.1 Coefficient of Correlation between outside Asset and Net Profit

It measures the degree of relationship between two variables. Here outside assets (x) are independent variables and net profit is dependent variable (y). The objective of computing coefficient of correlation between outside asset and net profit is to find out whether net profit is significantly correlated with respect to total assets or not. The table 4.25 shows the value of ' $r$ ', $r^{2}$, P.Er, 6P.Er between outside asset and net profit of NABIL and EBL

Table 4.25
Coefficient of Correlation between outside Asset and Net Profit

| Banks | Evaluation criterions |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{R}$ | $\mathbf{R 2}$ | $\mathbf{P . E r}$ | $\mathbf{6 P . E r}$ |
| NABIL | 0.991132 | 0.98234334 | 0.004862 | 0.029172 |
| EBL | 0.703899 | 0.4954735 | 0.138928 | 0.833569 |

(Source: Appendix No. 28)

The table 4.25 shows the value of $r, r^{2}$, P.Er, 6P.Er between deposit and loan and advances of NABIL with comparison to EBL for the study period 2005/06 to 2010/11. From this table, it has been found that the coefficient of correlation between total outside i.e. independent variable and net profit dependent variable is 0.991132 in case of NABIL. It shows positive relationship between these variables. By considering the value of coefficient of determination ( $r^{2}$ ), is 0.98234334 indicated that $98.23 \%$ of the variation in the dependent variable has been explained by the independent variable. Similarly considering the value of $r$ is greater than the value of 6 P .Er, which reveals NABIL is capable to earn net profit by utilizing in total outside assets.

The coefficient of correlation between total outside assets \& net profit in the case of NABIL and EBL are 0.703899 and 0.931841 . Again when we consider the value of coefficient determination ( $\mathrm{r}^{2}$ ) i.e. $0.4954735 \& 0.868326862$, it means $49.54 \%$ \& $86.83 \%$ respectively in the dependent variable has been explained by the independent variable.

On the basis of comparison between the value of ' $r$ ' and 6P.Er there is no significant correlation between two variables because the value of ' $r$ ' i.e. 0.703899 and 0.931841 is lesser than that of the value 6P.Er i.e. 0.833569 and 0.217548 . The above analysis clears that; the value of ' $r$ ' in case of NABIL is significant correlation between utilizations of funds return. But in the case of EBL the value of ' $r$ ' is far less than $6 \mathrm{P} . \mathrm{Er}$, so both banks have no significant correlation between utilization of funds and returns.

### 4.2.2.2 Coefficient of Correlation between Deposit and Net Profit

The coefficient of correlation between deposit and net profit measures the degree of relationship between these two variables. Here deposit ( X ) is independent variable and net profit $(\mathrm{Y})$ is dependent variable. The objectives of computing between these two
variables are to justify whether net profit is significantly correlated with deposits or not. The following table 4.26 shows the value of ' $r$ ', $r^{2}$, P.Er, 6P.Er between deposit and net profit of NABIL and EBL during the stuffy period.

Table 4.26

## Coefficient of Correlation between Deposit and Net Profit

| Banks | Evaluation criterions |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{R}$ | $\mathbf{r 2}$ | $\mathbf{P} . E r$ | $\mathbf{6 P . E r}$ |
| NABIL | 0.992623 | 0.985300 | 0.004048 | 0.024286 |
| EBL | 0.453762 | 0.2058996 | 0.218666 | 1.311997 |

(Source: Appendix No. 29)

From this table 4.26, it has been found that the coefficient of correlation between total deposits and net profit in the case of NABIL is 0.992623 , which indicated the position relationship between these variables. The coefficient of determination ( $\mathrm{r}^{2}$ ) is 0.985300 , which indicates $98.53 \%$ of the variation of the dependent variable has been explained by the independent variable. Similarly, the value of 6 P .Er is lesser than the value of r i.e. $0.024286<0.992623$, which states that there exists a significant relationship between deposits and net profit.

The coefficient of correlation between deposits and net profit in case of EBL 0.453762 which indicated a positive relationship between deposit and net profit. The value of $\left(\mathrm{r}^{2}\right)$ is 0.2058996 indicates that $20.58 \%$ of the variation of the dependent variable has been explained by the independent variable. The value of ' $r$ ' is greater than that of the value of 6P.Er. This states that there is significant relationship between these variables.

The above analysis clear that, the value of $r$ in case of NABIL is significant relationship between deposit and net profit. EBL also shows the positive relationship. The increase in net profit in case of EBL is due to effective utilization of deposits and other factor have a less or role to play in increase in net profit. EBL has not been more successful as NABIL in utilization of its deposits.

### 4.2.2.3 Coefficient of Correlation between Deposit and Interest Earned

The coefficient of correlation between deposits and interest earned measure the relationship between these two variables. Deposits are independent variable (X) and
an interest earned is dependent variable $(\mathrm{Y})$. The objectives of calculating r between two variables are to justify whether deposit is significantly used to earn interest or not. The table 4.27 shows the value of ' r ', $\mathrm{r}^{2}$, P.Er and 6P.Er of NABIL and EBL during the study period.

Table 4.27
Coefficient of Correlation between Deposit and Interest Earned

| Banks | Evaluation criterions |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{R}$ | $\mathbf{r 2}$ | $\mathbf{P} . E r$ | $\mathbf{6 P . E r}$ |
| NABIL | 0.988856 | 0.977836244 | 0.006103 | 0.036619 |
| EBL | 0.887261 | 0.78723161 | 0.058589 | 0.351532 |

(Source: Appendix No. 30)

The coefficient of correlation ' $r$ ' between deposit and interest earned in case of NABIL is 0.988856 , which indicates a positive relationship between these variables. When deposits increase the interest earned subsequently increased but when it fall the interest earned also fell. The coefficient of determination $\left(\mathrm{r}^{2}\right)$ is 0.977836244 which indicate that $97.78 \%$ of the variation of dependent variable has been explained by independent variable. Similarly considering the value of ' $r$ ' and comparing with $6 \mathrm{P} . \mathrm{Er}$ it has been found that the value of $r$ is greater than the value of 6 P.Er. This shows that it has significant relationship between deposit and interest earned.

The coefficient of correlation ' $r$ ' between two variables in case of EBL is 0.887261 which indicates that $88.72 \%$ of the variation of dependent variable has been explained by independent variables. The value of ' $r$ ' in case of EBL has higher than that of 6P.Er. This states that there is a significant relationship between deposit and interest earned. Where as the value of $r$ in case of EBL has lesser value of 6P.Er i.e. 0.887261 > 0351532 which states that there is no significant relation between deposit and interest earned.

After above analysis it can be concluded that the relationship between deposit and interest earned incase of NABIL is highly significant with showing higher dependency. It has effectively utilization of deposits which has had a major role to play in its earning; where as other factors are responsible in the earnings of EBL.

### 4.2.2.4 Coefficient of Correlation between Loan and Advances and Interest Paid

 It measures the relationships between these variables. Here, loan and advances isindependent variables $(\mathrm{X})$ and interest paid in dependent variable $(\mathrm{Y})$. The purpose of calculating ' $r$ ' between these variables is to established whether increase in loan and advances has play any role in decreasing in interest expenses.

The table 4.28 shows the values of ' $r$ ', $r^{2}$, P.Er and 6P.Er of NABIL and EBL during the study period.

Table 4.28
Coefficient of Correlation between Loan and Advances and Interest Paid

| Banks | Evaluation criterions |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | R | r2 | P.Er | $\mathbf{6 P . E r}$ |
| NABIL | 0.913502 | 0.83448 | 0.045577 | 0.273461 |
| EBL | -0.38218 | 0.146060 | 0.235144 | 1.410862 |

(Source: Appendix No. 31)

The coefficient of correlation between loan and advances and interest paid in the case of NABIL is 0913502 . It shows the positive relationship between two variables. The coefficient of determination ( $\mathrm{r}^{2}$ ) in case of NABIL shows a higher degree dependency than EBL. The value of $r$ is greater than value of 6P.Er in case of NABIL which states that there is significant relationship between loan and advances and interest paid. Similarly the coefficient of correlation between loan and advances and interest paid in the case of EBL is -0.38218 . They show the negative relationship between these variables.

The values of coefficient of determination ( $r^{2}$ ) are 0.146060 it means $14.60 \% \%$ of the variation in the dependent variable is explained by the independent variable. Again considering, the value of r and comparing with 6P.Er in both cases it is lesser than $6 \mathrm{P} . E r$ which reveals that the value is not significant relationship between two variables.

In conclusion, it can be clear that the relationship between loan and advances and interest in case of NABIL is highly significant than both other banks. It is successful to utilize the loan and advances. In case of EBL has no relationship could be established between the loan and advances and interest paid.

### 4.2.2.5 Coefficient of Correlation between Total Working Fund and Net Profit

The coefficient of correlation between the total working fund and net profit measures the degree of relationship between them. Here, total working fund is taken as independent variable $(\mathrm{X})$ and net profit is taken as dependent variable $(\mathrm{Y})$. The main purpose of calculating ' $r$ ' is to justify where total working fund is significantly used to generate earnings or in other words whether these variables are significantly correlated or not.

The table 4.29 shows the value of ' $r$ ', $r^{2}$, P.Er, 6P.Er between these two variables of NABIL and EBL

Table 4.29
Coefficient of Correlation between Total Working Fund and Net Profit

| Banks | Evaluation criterions |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{R}$ | $\mathbf{r 2}$ | $\mathbf{P . E r}$ | $\mathbf{6 P . E r}$ |
| NABIL | 0.991184 | 0.982448 | 0.004834 | 0.029004 |
| EBL | 0.611661 | 0.374128 | 0.172342 | 1.034053 |

(Source: Appendix No. 32)

The coefficient of correlation ' $r$ ' between total working fund and net profit in case of NABIL is 0.991184 which indicates positive relationship between these variables. The coefficient of determination $\left(\mathrm{r}^{2}\right)$ is 0.982448 , which states that $98.24 \%$ of the variation of the dependent variable has been explained by independent variable. Similarly considering the value of ' $r$ ' 0.991184 and comparing it with $6 \mathrm{P} . \operatorname{Er} 0.029004$, the value of ' $r$ ' is greater than the value of $6 \mathrm{P} . \mathrm{Er}$, so it is significant relation between these variables.

In case of EBL its value is 0.611661 that means it has significant relation between these variable. The coefficient of determination $\mathrm{r}^{2}$ in case of EBL is 0.374128 , which shows that only $37.41 \%$ of the variation of the dependent variables have been explained by independent variables.

After analysis the conclusion can be drawn that NABIL is significant relationship between these variable, which indicated that total working fund is significantly used to generate earnings. In case of EBL there is significant relation so fell to generate earnings or in other words these variables are significant correlated.

### 4.3 Major Findings of the Study:

$>\quad$ The cash and bank balances to total deposit ratio of NABIL has fluctuating trend. The main ratio of this bank is higher than EBL which indicates that its liquidity position is better to serve its customers deposits withdrawal demands. The C.V. between the ratios is found to be $29.50 \%$, which shows that the ratios of NABIL aren't consistent and more variable.
$>\quad$ The mean ratio of cash and bank balance to current assets of NABIL is higher than EBL. It states that liquidity position of NABIL is better in this regard. The C.V between them is $31.02 \%$. On the basis of C.V the ratios are seemed to be variable. NABIL is better position in maintaining its cash and bank balance to meet its daily requirement to make the payments on customers deposit withdrawal in comparison with EBL.
$>\quad$ The current ratio of NABIL shows the fluctuating trend during the study period. The ratio ranges from lowest 1.04 in 2005/06 to highest 2.38 in $2010 / 11$ an average ratio of 1.25 . The mean ratio of NABIL is higher than EBL. In general, the current ratio analysis of banks over the six years period indicates that it has been able to meet its short-term obligations and has satisfactory liquidity position.
$>\quad$ The loans and advances to total working fund of ratio NABIL is higher than EBL. Its C.V is $3.68 \%$ which is lowest than that of other two banks shows the ratios is consistent over the study period. Loan and advances is the most risk and most productive asset of the bank. From the study shows two third of the asset taken optimum risk towards the utilization of its fund to risky assets.
$>$ The mean ratio of investment on government securities to current asset of NABIL is average in compared to EBL, which states that its investment on government securities is slightly poor than that of EBL. In the year 2008/09 the bank has invested $26.24 \%$ of its fund in the government securities which maximum percentages during the study period. On the basis of C.V the ratio of NABIL are more volatile and in consistent.
$>$ The investment on government securities to current assets ratio NABIL has increasing trend. The mean ratio of NABIL is higher than EBL. The ratio of NABIL is variable in comparison to other banks, which indicates that its liquidity positions fewer consistencies.
$>\quad$ The loans and advances to total deposit ratio of NABIL has in increasing trend. The mean ratio of NABIL is higher than EBL. The mean ratio is $71.78 \%$ with
$4.21 \%$ C.V which shows that the ratios are satisfactory consistent over the study period.
$>$ Investment to total deposit of all three banks has in fluctuating trend during the study period. The mean ratio of total investment to total deposit of NABIL is in between the EBL. The highest ratio is $31.45 \%$ and lowest is $19.71 \%$ with mean ratio $26.39 \%$ and C.V of $18.21 \%$. It is in between EBL so the ratio is less consistent and more variable. Its overall figure suggests that the banks have not utilized significant amount of fund on the government securities and shares and debentures of other companies.
$>$ Total off balance sheet operation to loan and advances ratios of all three banks have decreasing trend. The mean of the ratio of NABIL is found to be 2093.85 with C.V $50.73 \%$. It has highest C.V. than that of others compared a bank which indicates that the ratio is not consistent during the study period. The analysis of the ratios shows that OBS operation of the bank is in decreasing trend. It may be due to competition in the banking sector or bank is not getting enough attention towards non-funded business.
$>\quad$ The loan loss ratio of NABIL has increasing trend. The mean of the ratio of it is found to be $1.03 \%$ with C.V of $21.06 \%$, which is lowest than that of the other compared banks, It shows that the bank manages its loan and advances and makes effort for timely recovered of loan. The variability of the ratio of NABIL is lower than that of other compared banks. The increasing trend of loan loss provision indicates that the quality of loans becoming degrading year by year.
$>\quad$ In case of investment on government securities to total working fund mean ratio, NABIL is higher than that of other compared banks. The mean of the ratio is $20.54 \%$ with lowest C.V of $3.26 \%$ between them indicates that its ratio is variable and consistent over the study period.
$>\quad$ The investment on shares and debenture to total working fund ratios of NABIL has fluctuating trend but EBL has increasing trend. The mean ratio of NABIL is found to be 17.0 with $36.61 \%$ C.V between the other compared banks. It shows the ratio of NABIL is very stable over the study period.
$>\quad$ The mean ratio of return on loans and advances ratio of NABIL is lower than EBL. The mean of the ratio is found to be $2.25 \%$ with C.V of $7.85 \%$, which indicates that the ratios are less variable. The average ratio of $2.25 \%$ suggests that the earning capacity of the banks loan and advances is satisfactory.
$>\quad$ Return on total working fund ratios are in fluctuating trend during the study period. Its ratio ranges from $1.17 \%$ to $1.49 \%$. The mean ratio of NABIL is in between EBL i.e. NABIL ratio is $1.37 \%$ with C.V of $8.55 \%$. This indicates that the ratios are less variable and consistent than that of other compared banks.
$>$ The mean ratio of total interest earned to total outside assets of EBL is lowest of all. The total interest earned to total outside assets ratio of the EBL is less variable in comparison to NABIL. Its lowest C.V indicates that the ratios are satisfactory consistent during the study period.
$>$ Total interest earned to total working fund ratios of NABIL have ranging from $7.40 \%$ in 2005/06 to $5.66 \%$ in 2010/11. The mean ratio of total interest earned to total working fund of NABIL is $6.53 \%$ with $8.55 \%$ C.V. The ratio indicates that NABIL has average earning power of the total assets. The variability of the ratio of NABIL in between EBL.
$>$ The total interest paid to working fund ratios has decreasing trend during the study period. The mean ratio of total interest paid to total working fund of NABIL is average than EBL which means it has paid average interest than EBL. The total interests paid to working fund ratios are lesser than to total interest earned to total fund ratio. This indicates that the bank is in profitability position as it is earning higher return than it interest cost.
$>\quad$ Credit risk ratios of the banks are fluctuating trend. The mean of the ratios of NABIL is found to be $63.66 \%$ which are higher than EBL. Similarly its C.V is $7.18 \%$ which is less in compared with other banks. It indicates that its credit policy is consistent than other banks.
$>$ Liquidity risk ratio of the banks are decreasing trend. The mean liquidity risk ratio of NABIL is highest of all and C.V of its also lowest in comparison with other banks. So the ratio of NABIL is less variable than EBL.
$>\quad$ The mean capital risk ratio of NABIL is in between the compared banks. The ratio of NABIL is less variable, which indicates that the capital risk ratio is consistent.
$>$ The analysis of the growth ratio of total deposits total loan and advances, total investments, and net profit of NABIL in comparison with EBL during the study period shows that the total deposits of the bank is in increasing trend with the net growth rate of $24.72 \%$. It has maintained growth rate highest that other compared banks. This means the performance of NABIL to collect deposit in comparison to other banks is better year by year.
> Similarly loan and advances of the banks are also increasing trend. The growth rate of NABIL is higher than that of EBL. It has maintained growth rate of $26.67 \%$, where as EBL has $10.82 \%$ and $11.96 \%$ respectively. So the performance of NABIL to grant loan and advances in comparison to other bank is year by year.
$>\quad$ The total investment of studies banks are fluctuating trend during the study period. The growth ratio of NABIL total investment is in between the EBL. NABIL has maintained growth ratio of $36.03 \%$, which is 1 higher than EBL ( $4.31 \%$ ). It shows that NABIL has moderate successful in investing.
$>\quad$ The total net profit of studies banks are also in increasing trends during the study periods. EBL and NABIL have $16.87 \%$ and $22.17 \%$ respectively.
$>\quad$ The correlation coefficient ' $r$ ' between total outside assets and net profit of the NABIL is 0.991132 and probable error multiplied by six is found to be 0.029172 , Since $r>6$ P.Er the relation is significant. This indicates that NABIL is capable to earn net profit by utilizing it's total outside assets in comparison to EBL. Loan and advances is the main earning assets of the bank, but here the increase or decreases of loan and advances is significant to the net profit of EBL.
$>\quad$ The coefficient of correlation ' $r$ ' between total working fund and net profit of the NABIL is 0.991184 which is highest among other banks. Its probable error multiplied by six is found to be 0.029004 . Since ' $r$ ' $>6$ P.Er and ' $r$ ' is positive. There is positive correlation between total working fund and net profit during the study period.
$>\quad$ The coefficient of correlation (r) between deposits and loan and advances of the NABIL is 0.996406 which is highest among other banks. Its probable error multiplied by six is found to be 0.1929 since ' $r$ ' > $6 \mathrm{P} . \mathrm{Er}$ and ' $r$ ' is positive which is near by 1 , there is very strong positive correlation between deposits and loans and advances during study period.
$>$ The correlation coefficient (r) between total deposit and total investment of NABIL is 0.935074 and probable error multiplied by six is found to be 0.207573 since ' $r$ ' > 6P.Er it is significant relationship between these variables. It indicates that NABIL is successful in maximizing the investment of their deposit. But EBL has insignificant relationship
$>$ The coefficient of correlation between total investment and total net profit of the NABIL is 0.992623 which is the higher than that net profit of $6 \mathrm{P} . E r$, so it is significant. .
> The coefficient of correlation between deposits and interest earned of the NABIL is 0.988856 and probable error multiplied by six is found to be 0.036619. Since ' $r$ ' > $6 \mathrm{P} . E r$ it is positively and significantly relationship between these variables. The value of ' $r$ ' in case of EBL and EBL also higher than the value 6P.Er so the relation is significant. So NABIL has effectively utilization of deposits which has had major role to play in its earnings in compared with EBL.
$>\quad$ The coefficient of correlation between loan and advances and interest paid of the NABIL is 0.913502 . It shows the positive relationship between two variables. Its probable error multiplied by six is found to be lesser than value of ' $r$ ' so it indicates that it is successful to utilize the loan and advances. In case of EBL has no relationship could be established between the loan and advances and interest paid.

## CHAPTER-V

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1 Summary

Banks are the backbone of the country's economic development. They are providing a foundation to develop country through economic ways. Now days there are thirty two commercial banks are operation in all over the country. The data, which were used in this dissertation, are secondary nature. They were obtained from concerned banks annual report, literature, publication, balance sheet, profit and loss account, previous thesis report, different web site, related books and booklets, journal and articles and NEPSE. For the analysis and interpretation of data, various related financial and statistical tools, which are used in this study are liquidity ratio, assets management ratio, profitability ratio, growth ratio, risk ratio, sources and uses of funds and cash flow analysis. Similarly, statistical tools, which are used in this study are, mean, standard deviation, coefficient of variation, coefficient of correlation.

To fulfill the objective of the study all secondary data are compiled, processed and tabulated in the second last chapter. To make the analysis easier and understandable line chart are also used. This study also bounded by many limitations, such as secondary data, unreliability of time and resources are the constraints of the study. In this study the focus is given to the quantities. Qualitative factors are not studies. Therefore the study may not be generalized in all cases and accuracy depends upon the data collected and provided by the concerned organization.

This study "A Study on Deposit Collection and Utilization of Commercial Banks" is primarily prepared for the partial fulfillment of the requirement of the master of business studies (MBS). This study is mainly based on secondary and primary data provided by concern companies and security board of Nepal (SEBON). Among the listed companies Nabil Bank and Everest Bank have selected as a sample of study. The main objective of the study is to assets the deposit Collection and Utilization. However due to the time and resource constraints all types of analysis are not conducted and information are gathered from the period of 2006/07 to 2010/11.

The collected information is presented analyzed and conclusion is drawn from the study.
Chapter One is concerned with the introduction of the whole study. It explained about
the concentration of the study objectives and organization of the study which provides guideline for entire study.

Chapter Two is for the review as well as the review of related previous studies is conducted.

Chapter Three specifies the guidelines, tools and research design to achieve the objectives of the study.
In Chapter Four, the analysis of data, some statistical and financial tools are used. This chapter contains analysis and evaluation of data. The relevant finding drawn on the basis of analysis and interpretation of provided data.
In chapter Five, main findings are concluded as the conclusion of the study. Based on the analysis and conclusion of the study some recommendations are made in this chapter.

### 5.2 Conclusion

> The return on loan and advances ratio and return on assets of NABIL is lowest of all. The ratio suggests that the earning capacity of the banks loan and advances is satisfactory. The return on assets of the bank is good in average; it indicates the good earning capacity of the bank assets and good utilization of its assets.
$>\quad$ The total interest paid to working fund ratio is less than the interest earned to total working fund ratio. So it is profitable position as it is getting higher return that is interest cost.
$>\quad$ The degree of risk is average on NABIL. The credit risk ratio is higher than the compared banks. However the lowest C.V. of credit ratio and average C. V . of liquidity risk ratio and capital ratio over the study period provides for the assurance of consistency of the degree of risk. NABIL has showing its good performance by increasing the total deposit, loan and advances and investment in profitable sectors interested earnings by providing loan to clients. The trend of the total investment, total deposit, loan and advances and net profit of NABIL shows better position than that of EBL and EBL.
$>\quad$ The liquidity position of NABIL is comparatively better than that of EBL and EBL. In spite of the current ratio is average among the other two banks NABIL has maintained the cash and bank balance to meet the customers
demand. All the three banks have met the normal standard current assets ratio to meet the short term obligation of its customers. NABIL has invested highest sectors like government securities than EBL and lesser portion than that of EBL. EBL had utilized lots of its funds in order to gain the high profit.
$>$ From the analysis of assets management ratio it can be found that NABIL is in better position as compared to that of EBL and EBL. The loans and advances to total deposit ratio, loan and advances to total working fund ratio of NABIL lies In between those of EBL and EBL. NABIL has invested the highest portion of total working fund on government securities as compared to EBL and EBL. Due to more efficient loan policy, EBL suffers less from loan loss provision. It takes low credit risk and has sufficient deposits of none bearing interest which can be used in a creation period. Any how NABIL has also trying to best in loan loss provision. Investment on shares and debentures to total working fund ratio is higher in EBL.
> The interest earned to total outside assets and return on total working fund ratio of NABIL is lowest of all. But overall analysis of profitability ratios, NABIL is average profitable in comparison to other compared bank i.e. EBL and EBL. To make the profit EBL is taking highest risk by providing the higher portion of its deposit as a loan.

### 5.3 Recommendations

> In practice joint ventured banks are urban based; service quite a few elite, a fluent big customer are heavily dependent on free based activities. To overcome its situation they should be accessible to rural areas and possible loan and advances to its deposit. So the customers is enjoying by getting deposit borrowing and other services.
> NABIL has invested its more of the funds that is total investment on total deposit ratio but the percentages of investment on share and debenture is nominal. So it is suggested to invest more of its fund in share and debenture of different companies.
$>\quad$ EBL loan and advances to total deposit ratio is lowest in compared to other banks. To overcome from the situation it is recommended to follow liberal lending policy and invest more and more of total deposit in loan and advances and maintain stability on the investment policy.
> NABIL and EBL's loan loss ratio is increased year by year. So these banks are recommended that before providing the loan make sure that your clients is in good character and able to pay its loan or may take the collateral which is nearly two times more than that of your guaranteed.
$>\quad$ In commercial banks the liquidity position affects external and internal factors such as saving for investment situations, central banks requirements, the leading policies management capacity etc. In this study it should try to lower the current liabilities to improve its liquidity position. Current ratio of all three banks is not satisfactory. It is below its standard rate $2: 1$. So the banks are suggested to improve current assets. The ratio of cash and bank balance to total deposit and current assets of NABIL is higher than that of EBL and EBL. It means NABIL has higher cash and bank balance which decrease profit of bank, so it is recommended to utilize cash and bank balance in profitable as loan and advances.
$>$ From the study it is found that EBL has not invested funds in government securities than that of other banks. EBL liquidity position shows that it has kept relatively funds as cash and bank balance which doesn't earn any return. This ultimately affects profitability of bank. Investment in government securities i.e. TBs development bonds. Saving certificate are free of risk and highly in nature. So EBL is recommended to invest its fund in government securities instead of keeping them idle. "Something is better than nothing".
$>\quad$ Profitability ratios of banks are not satisfactory, if resources held idle bank have to bearded more cost and result would be lower profit margin. So portfolio condition of a bank should be regularly revised from time to time. It should always try to maintain the equilibrium in the portfolio condition of the bank. The bank should use its funds in more portfolio sectors. It should utilize its risky assets and shareholders' funds and it should reduce its express and should try to collect cheaper fund being more profitable.
$>\quad$ It is seen that NABIL has invested much of its fund in total outside assets but it has not achieved the desired result. So NABIL should play tactfully while investing its fund keeping in mind the interest rate.
$>\quad$ To get success itself and to encourage financial and economic development of the country through industrialization and commercialization a commercial bank must utilize its fund and debentures of other financial and non financial companies. And if other sectors go up positively then bank can utilize its fund more and more by providing them loan or getting sufficient dividend on their
share or interest on their debentures. Commercial banks needed to strengthen its economic structure to achieve piped overall development. They have to resort to innovative approach of banking there by bringing professionalism in their business. If they follow those suggestions they can have better reach to the modern innovative and competitive banking markets.
$>\quad$ EBL has taken the low credit risk as EBL is one of the largest commercial bank in Nepal. It must also interest as NABIL and EBL do. The risk taken by NABIL from the angle of credit risk and capital risk are in an average but the consistencies of the same are highly volatile which may result higher loss. So it should not test such risk on an experiment basis it should carefully study it so as to achieve higher return from the above risk.
$>\quad$ In the light of growing competition in the banking sector the business of the bank is customer oriented. It should strengthen and active its marketing function, as it is an effective tool of attracting and retaining customers. The bank should develop on "Innovative approach to bank marketing and formulate new strategies of serving customers in a more convenient way.
$>\quad$ The investment policy of NABIL is good in every aspect as studied above but the consistency in the above investment sectors is in equilibrium states. It is found that at time bank focuses much of its attention to one sector leaving other sector untouched, so it is recommended to touch all the sectors and balance it effectively as to have the optimal performance of the bank.

## BIBLIOGRAPHY

## Books, Journals and Articles

Bajracharya, B.C. (2057) "Business Statistics and Mathematics", Kathmandu: M.K. Publishers and Distributers.

Chandra, Prasanna (1986). "Fundamentals of Financial Management", $2^{\text {nd }}$ edition, Bangalore: Indian Institute of Management.

Desai, V.R. (1967).Banking Development in India. Bombay: PC Private Ltd.
Dongol, R.M. and Prajuli K.P. (1997). "Financial Analysis and Planning", ${ }^{\text {st }}$ edition, Kathmandu: Taleju Prakashan.

Franke, Julial R. and Scholefield, Harsy H. (1974). "Corporate Financial $M$ anagement ", $1^{\text {st }}$ edition, Great Britain: Grower Press LTD.

Gitman, L. J. (1988). "Principles of Managerial Finance", $5^{\text {th }}$ edition, New York: Harper Collins Publishers.

Graenwald, W. (1982). Douglas. Encyclopedia of Economics. New York: McGrawHill Co.

Hampton, John J. (1994). "F inancial Decision M aking Concept, Problems and Cases", $3{ }^{\text {rd }}$ edition, New Delhi: Prentice Hall of India.
J. Fred Weston and Bringham F. Eugene. (1982). "M anagerial Finance", $7^{\text {th }}$ edition, Tokyo: Holf saundass.

Joshi, P. R. (2001). "Research M ethodology", $1^{\text {st }}$ edition, Kathmandu: Buddha Academic Enterprises.

Joshi, Shyam. (2001). "Economic Policy Analysis", $1^{\text {st }}$ edition, Kathmandu: Taleju Prakashan.

Khan, M.Y. \& Jain, P.K. (1990) "Financial M anagement, Text and Problem", $9^{\text {nd }}$ edition, New Delhi: Tata Mc Grow-Hill.

Khothari, C.R.. (1994).Research Methodology: Method \& Techniques. II Edition. New Delhi: Wishwa Prakashan.

Knootz, H. \& Hienz, W. (1989).Essentials of Management. (5 $5^{\text {th }}$ ed).. New Delhi: TaTa McGraw-Hill.. India.

Kothari, C.R. (1989).Research Methodology. Methods and Techniques 6th ed.. Willey Easterly Ltd.. New Delhi.
Mishkins, F.S. (2003). The Economics of Money; Banking and Financial Markets. Addison Wesley: Columbia University.

Pandey, I. M. (1995). "Financial Management" , $7^{\text {th }}$ edition, New Delhi: Vikas Publishing House Pvt.Ltd.

Pradhan, R.S. (1994).Financial Management. Kathmandu: Buddha Academic Publishers and Distributors.

Rose, P.S. (2001). Money and Capital Markets. New York: McGraw-Hill International Editions.

Sharma, P.K. (2002). Statistical Methods. Kathmandu: Khanal Books and Stationery.
Solomon, F. (1989). "Theory of Financial Decision-Making Concept", Colombo: Colombia University Press.

The American Bankers Association (1972). Principle of Banking Operation. New York: American Institute of Banking.
The World Book Encyclopedia (1966)
Van Horne, James C. (1995). "Financial M anagement and Policy", $10^{\text {th }}$ edition, New Delhi: Prentice Hall of India Pvt.Ltd.

William, F.S. \& Alexander, J.G. (1987). Investment Policy. Bombay: Himalaya Publishing House.

Wolff, Howard K. and Pant Prem R. (1999) "Social Science Research and Thesis Writing", $2^{\text {nd }}$ edition, Kathmandu: Sewa Printing Press.

## Others:

American Institute of Banking (1972) 'J ournal of Banking'
Central Bureau of Statistics (1997) 'Economic Survey'
Everest Bank Ltd. 'Annual Reports'

Nabil Bank Ltd. 'Annual Reports'
Oxford Dictionary of Economics (2004) 'Economic Survey'
Security Board of Nepal 'Annual Report'

## Unpublished Master Degree Thesis

Acharya, Nirmal (2007), "Investment Analysis of Commercial Banks" (A Comparative Study of Nepal Bank Limited and Nepal State Bank of India Limited" ). an unpublished Master Degree Thesis, Shanker Dev Campus, Kathmandu.

Dhakal, Ramila (2006), "Investment Policy of Commercial banks in Nepal". an unpublished Master Degree Thesis, Shanker Dev Campus, Kathmandu.

Giri, Saroj (2009), "A comparative study of Investment policy of SCBNL \& EBL" an unpublished Master Degree Thesis, Shanker Dev Campus, Kathmandu.

Karki, Bijay (2008), "An Investment Analysis of RBB in Comparison with NBL", an unpublished Master Degree Thesis, Shanker Dev Campus, Kathmandu.

Khadka, Manoj (2010), "Investment Policy and Analysis of commercial Banks in Nepal (A comparative study of SCBNL with NIBL \& NBBL)". an unpublished Master Degree Thesis, Shanker Dev Campus, Kathmandu.
Shrestha, Binod (2005), "A comparative study on Investment policy of Joint Venture Banks and Finance Companies of Nepal". an unpublished Master Degree Thesis, Shanker Dev Campus, Kathmandu.

Thapa, Bishal (2004), "A Comparative Study on Investment Policy of Nepal Bangladesh Bank and other JVB's (NABIL Bank Limited and Nepal Grindlays Bank Limited)" an unpublished Master Degree Thesis, Shanker Dev Campus, Kathmandu. Thapa, Uday (2009), "Investment portfolio Analysis of JVB's". an unpublished Master Degree Thesis, Shanker Dev Campus, Kathmandu.

## Appendix:-1

## Current Ratio

(Rs. in million)

| Banks |  |  | NABIL |  |  | EBL |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: |
| Fiscal Year | Current <br> Assets | Current <br> Liabilities | Ratio <br> (times) | Current <br> Assets | Current <br> Liabilities | Ratio <br> (times) |  |  |
| $2005 / 06$ | 5049.85 | 4874.79 | 1.04 | 13161.68 | 17226.21 | 0.76 |  |  |
| $2006 / 07$ | 6359.66 | 6063.87 | 1.05 | 13313.4 | 1051.82 | 1.27 |  |  |
| $2007 / 08$ | 7836.89 | 7420.73 | 1.06 | 13868.3 | 15135.42 | 0.92 |  |  |
| $2008 / 09$ | 9399.95 | 8928.24 | 1.05 | 14244.04 | 15135.13 | 0.94 |  |  |
| $2009 / 10$ | 10352.13 | 11022.51 | 0.94 | 14971.8 | 15511.63 | 0.97 |  |  |
| $2010 / 11$ | 11398.80 | 4783.90 | 2.38 | 13857.50 | 6661.00 | 2.08 |  |  |

## Appendix:-2

Cash and bank balance to total deposit ratio
(Rs. in million)

| Banks | NABIL |  |  | EBL |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal <br> Year |  <br> Bank <br> balance | Total deposit | Ratio <br> $(\%)$ |  <br> Bank <br> balance | Total deposit | Ratio <br> $(\%)$ |
| $2005 / 06$ | 834.9 | 4574.51 | 18.25 | 812.9 | 15839 | 5.13 |
| $2006 / 07$ | 602.87 | 5466.6 | 11.03 | 1051.82 | 15506.43 | 6.78 |
| $2007 / 08$ | 1139.57 | 6694.96 | 17.02 | 1144.76 | 13447.66 | 8.51 |
| $2008 / 09$ | 631.81 | 8063.9 | 7.84 | 970.49 | 14119.03 | 6.87 |
| $2009 / 10$ | 1049.1 | 10097.69 | 10.39 | 559.38 | 14586.66 | 3.83 |
| $2010 / 11$ | 1552.97 | 13802.44 | 11.25 | 630.29 | 19347.4 | 3.26 |

## Appendix:-3

Cash and bank balance to current assets ratio

| Banks | NABIL |  |  | EBL |  |  |  |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | :---: |
| Fiscal <br> Year | Cash \& bank <br> balance | Current <br> Assets | Ratio | Cash \& bank <br> balance | Current <br> Assets |  |  |
| $2005 / 06$ | 834.9 | 5049.85 | 16.53 | Ratio |  |  |  |
| $2006 / 07$ | 602.87 | 6359.66 | 9.48 | 1051.82 | 13313.4 | 7.90 |  |
| $2007 / 08$ | 1139.57 | 7836.89 | 14.54 | 1144.76 | 13868.3 | 8.25 |  |
| $2008 / 09$ | 631.81 | 9399.95 | 6.72 | 970.49 | 14244.04 | 6.81 |  |
| $2009 / 10$ | 1049.1 | 10352.13 | 10.13 | 559.38 | 14971.8 | 3.74 |  |
| $2010 / 11$ | 1552.97 | 11398.8 | 13.62 | 630.29 | 13857.5 | 4.55 |  |

Appendix:-4
Investment on government securities to current assets ratio

| Banks | NABIL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | Investment on Gvt. <br> Securities | Current <br> Assets | Ratio <br> (\%) | Investment on GvtSecurities | Current <br> Assets | Ratio <br> (\%) |
| 2005/06 | 823 | 5049.85 | 16.30 | 2732.96 | 13161.68 | 20.76 |
| 2006/07 | 1538.9 | 6359.66 | 24.20 | 4120.29 | 13313.4 | 30.95 |
| 2007/08 | 1599.35 | 7836.89 | 20.41 | 3588.77 | 13868.3 | 25.88 |
| 2008/09 | 2466.43 | 9399.95 | 26.24 | 3672.63 | 14244.04 | 25.78 |
| 2009/10 | 2100.29 | 10352.13 | 20.29 | 2413.94 | 14971.8 | 16.12 |
| 2010/11 | 3322.44 | 11398.8 | 29.15 | 2301.46 | 13857.5 | 16.61 |

## Appendix:-5 <br> Loan and advances to current assets ratio

| Banks | NABIL |  |  |  | EBL |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Fiscal <br> Year |  <br> advance |  | Current <br> Assets | Ratio <br> $(\%)$ |  <br> advance | Current <br> Assets |  |
| $2005 / 06$ | 3005.76 | 5049.85 | 59.52 | 7732.64 | 13161.68 | Ratio <br> $(\%)$ |  |
| $2006 / 07$ | 3948.48 | 6359.66 | 62.09 | 7437.89 | 13313.4 | 55.87 |  |
| $2007 / 08$ | 4908.46 | 7836.89 | 62.63 | 7755.95 | 13868.3 | 55.93 |  |
| $2008 / 09$ | 5884.12 | 9399.95 | 62.60 | 8189.99 | 14244.04 | 57.50 |  |
| $2009 / 10$ | 7618.67 | 10352.13 | 73.60 | 10586.17 | 14971.8 | 70.71 |  |
| $2010 / 11$ | 9801.31 | 11398.8 | 85.99 | 12922.5 | 13857.5 | 93.25 |  |

Appendix:-6
Loan and advances to total deposit ratio

| Banks | NABIL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | Loan \& advances | Total deposit | Ratio | Loan \& advances | Total deposit | Ratio |
| 2005/06 | 3005.76 | 4574.51 | 65.71 | 7732.64 | 15839 | 48.82 |
| 2006/07 | 3948.48 | 5466.6 | 72.23 | 7437.89 | 15506.43 | 47.97 |
| 2007/08 | 4908.46 | 6694.96 | 73.32 | 7755.95 | 13447.66 | 57.68 |
| 2008/09 | 5884.12 | 8063.9 | 72.97 | 8189.99 | 14119.03 | 58.01 |
| 2009/10 | 7618.67 | 10097.69 | 75.45 | 10586.17 | 14586.66 | 72.57 |


| $2010 / 11$ | 9801.31 | 13802.44 | 71.01 | 12922.5 | 19347.4 | 66.79 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Appendix:-7
Total investment to total deposit ratio

| Banks | NABIL |  |  |  | EBL |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Fiscal <br> Year | Total <br> investment | Total deposit |  | Ratio | Total <br> investment |  |  |
| $2005 / 06$ | 901.72 | 4574.51 | 19.71 | 7704.31 | 15839 | 48.64 |  |
| $2006 / 07$ | 1693.03 | 5466.6 | 30.97 | 8199.51 | 15506.43 | 52.88 |  |
| $2007 / 08$ | 1653.98 | 6694.96 | 24.70 | 6031.18 | 13447.66 | 44.85 |  |
| $2008 / 09$ | 2535.7 | 8063.9 | 31.45 | 5835.95 | 14119.03 | 41.33 |  |
| $2009 / 10$ | 2128.9 | 10097.69 | 21.08 | 4267.23 | 14586.66 | 29.25 |  |
| $2010 / 11$ | 4200.52 | 13802.44 | 30.43 | 6178.53 | 19347.4 | 31.93 |  |

## Appendix:-8

Loan and advances to total working ratio

| Banks | NABIL |  |  | EBL |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal Year | Loan \& advance | Working fund | Ratio | Loan \& advances | Working fund | Ratio |
| $2005 / 06$ | 3005.76 | 5202.58 | 57.77 | 7732.64 | 17770.65 | 43.51 |
| $2006 / 07$ | 3948.48 | 6616.89 | 59.67 | 7437.89 | 17529.25 | 42.43 |
| $2007 / 08$ | 4908.46 | 8052.20 | 60.96 | 7755.95 | 16562.62 | 46.83 |
| $2008 / 09$ | 5884.12 | 9608.56 | 61.24 | 8189.99 | 16745.48 | 48.91 |
| $2009 / 10$ | 7618.67 | 11792.12 | 64.61 | 10586.17 | 17186.33 | 61.60 |
| $2010 / 11$ | 9801.31 | 15959.30 | 61.41 | 12922.50 | 22330 | 57.87 |

## Appendix:-9

Investment on government securities to total working funds ratio

| NABIL |  |  |  |  | EBL |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: |
| Banks | Ns. in million) |  |  |  |  |  |  |  |
| Fiscal <br> Year | Investment on gov. <br> securities | Working <br> fund | Ratio | Investment on <br> Gvt.Securities | Working <br> fund | Ratio |  |  |
| $2005 / 06$ | 8230 | 5202.58 | 15.82 | 2732.96 | 17770.65 | 15.38 |  |  |
| $2006 / 07$ | 1538.90 | 6616.89 | 23.26 | 4120.29 | 17529.25 | 23.51 |  |  |
| $2007 / 08$ | 1599.35 | 8052.20 | 19.86 | 3588.77 | 16562.62 | 21.67 |  |  |
| $2008 / 09$ | 2466.43 | 9608.56 | 25.67 | 3672.63 | 16745.48 | 21.93 |  |  |
| $2009 / 10$ | 2100.29 | 11792.12 | 17.81 | 2413.94 | 17186.33 | 14.05 |  |  |
| $2010 / 11$ | 3322.44 | 15959.30 | 20.82 | 2301.46 | 22330 | 10.31 |  |  |

## Appendix:-10

Investment on share and debentures to total working fund ratio

| Banks | NABIL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Investment on <br>  <br> debenture | Working <br> fund | Ratio | Investment on share \& debenture | Working <br> fund | Ratio |
| 2005/06 | 3.7 | 5202.58 | 0.07 | 18.82 | 17770.65 | 0.11 |
| 2006/07 | 17.11 | 6616.89 | 0.26 | 22.22 | 17529.25 | 0.13 |
| 2007/08 | 17.11 | 8052.2 | 0.21 | 22.22 | 16562.62 | 0.13 |
| 2008/09 | 17.11 | 9608.56 | 0.18 | 22.22 | 16745.48 | 0.13 |
| 2009/10 | 19.4 | 11792.12 | 0.16 | 27.36 | 17186.33 | 0.16 |
| 2010/11 | 19.88 | 15959.3 | 0.12 | 27.56 | 22330 | 0.12 |

## Appendix:-11

Total off balance sheet operation to loan and advances ratio
(Rs. in million)

| Banks | NABIL |  |  | EBL |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal <br> Year | OBS |  | Loan and <br> advances | Ratio | OBS |  <br> advances |
| $2005 / 06$ | 856.64 | 3005.76 | 28.50 | 0.00 | 7732.64 | 0.00 |
| $2006 / 07$ | 940.05 | 3948.48 | 23.81 | 4992.55 | 7437.89 | 67.12 |
| $2007 / 08$ | 2317.3 | 4908.46 | 47.21 | 5492.35 | 7755.95 | 70.81 |
| $2008 / 09$ | 2233.89 | 5884.12 | 37.96 | 5297.94 | 8189.99 | 64.69 |
| $2009 / 10$ | 2106.64 | 7618.67 | 27.65 | 4691.54 | 10586.17 | 44.32 |
| $2010 / 11$ | 2250.42 | 9801.31 | 22.96 | 1425.47 | 12922.5 | 11.03 |

Appendix:-12
Loan loss ratio
(Rs. in million)

| Banks | NABIL |  |  | EBL |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal <br> Year | Loan Loss <br> Provision | Loan and <br> advances | Ratio | Loan Loss <br> Provision |  <br> advances | Ratio |
| $2005 / 06$ | 33.5 | 3005.76 | 1.11 | 165.76 | 7732.64 | 2.14 |
| $2006 / 07$ | 34.73 | 3948.48 | 0.88 | 0 | 7437.89 | 0.00 |
| $2007 / 08$ | 45.75 | 4908.46 | 0.93 | 0 | 7755.95 | 0.00 |
| $2008 / 09$ | 81.78 | 5884.12 | 1.39 | 1.051 | 8189.99 | 0.01 |
| $2009 / 10$ | 88.92 | 7618.67 | 1.17 | 4.207 | 10586.17 | 0.04 |
| $2010 / 11$ | 70.47 | 9801.31 | 0.72 | 3.38 | 12922.5 | 0.03 |

Return on loan and advances ratio
(Rs. in million)

| Banks | NABIL |  |  | EBL |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal <br> Year | Net profit | Loan and <br> advances | Ratio | Net profit |  <br> advances | Ratio |
| $2005 / 06$ | 69.70 | 3005.76 | 2.32 | 291.38 | 7732.64 | 3.77 |
| $2006 / 07$ | 85.35 | 3948.48 | 2.16 | 271.64 | 7437.89 | 3.65 |
| $2007 / 08$ | 94.18 | 4908.46 | 1.92 | 416.24 | 7755.95 | 5.37 |
| $2008 / 09$ | 143.57 | 5884.12 | 2.44 | 455.31 | 8189.99 | 5.56 |
| $2009 / 10$ | 170.80 | 7618.67 | 2.24 | 518.64 | 10586.17 | 4.90 |
| $2010 / 11$ | 237.38 | 9801.31 | 2.42 | 635.30 | 12922.50 | 4.92 |

## Appendix:-14

## Return on total working fund ratio

(Rs. in million)

| Banks | NABIL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal <br> Year | Net profit | Working fund | Ratio | Net profit | Working fund | Ratio |
| 2005/06 | 69.7 | 5202.58 | 1.34 | 291.38 | 17770.65 | 1.64 |
| 2006/07 | 85.35 | 6616.89 | 1.29 | 271.64 | 17529.25 | 1.55 |
| 2007/08 | 94.18 | 8052.20 | 1.17 | 416.24 | 16562.62 | 2.51 |
| 2008/09 | 143.57 | 9608.56 | 1.49 | 455.31 | 16745.48 | 2.72 |
| 2009/10 | 170.80 | 11792.12 | 1.45 | 518.64 | 17186.33 | 3.02 |
| 2010/11 | 237.38 | 15959.30 | 1.49 | 635.30 | 22330 | 2.85 |

## Appendix:-15

Total interest earned to total outside assets ratio
(Rs. in million)

| Banks | NABIL |  |  | EBL |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal <br> Year | Interest <br> earned |  | Outside assets |  | Ratio | Interest <br> earned |
| $2005 / 06$ | 385.02 | 3907.48 | 9.85 | 1266.7 | 15436.95 | 8.21 |
| $2006 / 07$ | 443.82 | 5641.51 | 7.87 | 1120.7 | 15630.74 | 7.17 |
| $2007 / 08$ | 520.17 | 6562.44 | 7.93 | 1017.87 | 13787.13 | 7.38 |
| $2008 / 09$ | 657.25 | 8419.82 | 7.81 | 1001.61 | 14025.94 | 7.14 |
| $2009 / 10$ | 719.30 | 9747.57 | 7.38 | 1068.75 | 14853.40 | 7.20 |
| $2010 / 11$ | 903.11 | 14001.82 | 6.45 | 1310 | 19101.08 | 6.86 |

Appendix:-16
Total interest earned to total working fund ratio

| Banks | NABIL |  |  | EBL |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | Interest earned | Working fund | Ratio | Interest earned | Working fund | Ratio |
| 2005/06 | 385.02 | 5202.58 | 7.40 | 1266.70 | 17770.65 | 7.13 |
| 2006/07 | 443.82 | 6616.89 | 6.71 | 1120.70 | 17529.25 | 6.39 |
| 2007/08 | 520.17 | 8052.20 | 6.46 | 1017.87 | 16562.62 | 6.15 |
| 2008/09 | 657.25 | 9608.56 | 6.84 | 1001.61 | 16745.48 | 5.98 |
| 2009/10 | 719.30 | 11792.12 | 6.10 | 1068.75 | 17186.33 | 6.22 |
| 2010/11 | 903.11 | 15959.30 | 5.66 | 1310 | 22330 | 5.87 |

Appendix:-17
Total interest paid to total working fund ratio

| Banks | NABIL |  |  | EBL |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal <br> Year | Interest <br> paid | Working fund |  | Ratio | Interest <br> paid |  |
| $2005 / 06$ | 236.14 | 5202.58 | 4.54 | 578.36 | 17770.65 | 3.25 |
| $2006 / 07$ | 257.05 | 6616.89 | 3.88 | 462.08 | 17529.25 | 2.64 |
| $2007 / 08$ | 307.63 | 8052.20 | 3.82 | 317.35 | 16562.62 | 1.92 |
| $2008 / 09$ | 316.37 | 9608.56 | 3.29 | 282.95 | 16745.48 | 1.69 |
| $2009 / 10$ | 299.56 | 11792.12 | 2.54 | 243.54 | 17186.33 | 1.42 |
| $2010 / 11$ | 401.40 | 15959.30 | 2.52 | 357.20 | 22330 | 1.60 |

## Appendix:-18

Credit risk ratio
(Rs. in million)

| Banks | NABIL |  |  | EBL |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal <br> Year |  <br> advances | Total <br> Assets | Ratio |  <br> advances | Total <br> assets | Ratio |
| $2005 / 06$ | 3005.76 | 5049.85 | 59.52 | 7732.64 | 13161.68 | 58.75 |
| $2006 / 07$ | 3948.48 | 6359.66 | 62.09 | 7437.89 | 13313.40 | 55.87 |
| $2007 / 08$ | 4908.46 | 7836.89 | 62.63 | 7755.95 | 13868.30 | 55.93 |
| $2008 / 09$ | 5884.12 | 9399.95 | 62.60 | 8189.99 | 14244.04 | 57.50 |
| $2009 / 10$ | 7618.67 | 10352.13 | 73.60 | 10586.17 | 14971.80 | 70.71 |
| $2010 / 11$ | 9801.31 | 15937.60 | 61.50 | 12922.50 | 22688.40 | 56.96 |

Appendix:-19
Liquidity risk ratio
(Rs. in million)

| Banks | NABIL |  |  | EBL |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal <br> Year | Cash and <br> bank.balance | Total <br> deposit | Ratio | Cash and <br> bank.balance | Total <br> deposit | Ratio |
| $2005 / 06$ | 834.90 | 4574.51 | 18.25 | 812.90 | 15839.00 | 5.13 |
| $2006 / 07$ | 602.87 | 5466.60 | 11.03 | 1051.82 | 15506.43 | 6.78 |
| $2007 / 08$ | 1139.57 | 6694.96 | 17.02 | 1144.76 | 13447.66 | 8.51 |
| $2008 / 09$ | 631.81 | 8063.90 | 7.84 | 970.49 | 14119.03 | 6.87 |
| $2009 / 10$ | 1049.10 | 10097.69 | 10.39 | 559.38 | 14586.66 | 3.83 |
| $2010 / 11$ | 1552.97 | 13802.44 | 11.25 | 630.29 | 19347.40 | 3.26 |

## Appendix:-20

Capital risk ratio
(Rs. in million)

| Banks | NABIL |  |  | EBL |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal Year | Capital | Risk.weight <br> assets |  | Ratio | Capital | Risk weight <br> assets |
|  |  |  | Ratio |  |  |  |
| $2005 / 06$ | 319.40 | 3005.76 | 10.63 | 1662.84 | 10563.62 | 15.74 |
| $2006 / 07$ | 586.59 | 4272.93 | 13.73 | 1146.42 | 22985.76 | 4.99 |
| $2007 / 08$ | 612.82 | 5707.03 | 10.74 | 1314.18 | 11153.13 | 11.78 |
| $2008 / 09$ | 680.32 | 6924.80 | 9.82 | 1481.68 | 11872 | 12.48 |
| $2009 / 10$ | 769.62 | 9195.60 | 8.37 | 1657.64 | 14193.07 | 11.68 |
| $2010 / 11$ | 769.62 | 11291.10 | 6.82 | 1657.64 | 16976.40 | 9.76 |

## Calculation of Growth Ratio

Let,
$\mathrm{D}_{\mathrm{n}}=$ Variable in the $\mathrm{n}^{\text {th }}$ year
$\mathrm{D}_{0}=$ Variable in the initial year
$\mathrm{n}=$ no of period study
$\mathrm{g}=$ Growth rate

Total deposit growth ratio of NABIL
$D_{n}=D_{0}(1+g)^{n-1}$
$13802.44=4574.51(1+g)^{6-1}$
$1+\mathrm{g}=(13802.44 / 4574.51)^{1 / 5}$
$\mathrm{g}=24.72 \%$
Total deposit growth ratio of EBL
$D_{n}=D_{0}(1+g)^{n-1}$
$19347.4=15839(1+g)^{6-1}$
$1+\mathrm{g}=(19347.4 / 15839)^{1 / 5}$
$\mathrm{g}=4.08 \%$
Total Loans and advances growth rate of NABIL
$D_{n}=D_{0}(1+g)^{n-1}$
$9801.31=3005.76(1+g)^{6-1}$
$1+\mathrm{g}=(9801.31 / 3005.76)^{1 / 5}$
$\mathrm{g}=26.67 \%$
Total Loans and advances growth rate of EBL
$D_{n}=D_{0}(1+g)^{n-1}$
$12922.5=7732.64(1+g)^{6-1}$
$1+\mathrm{g}=(12922.5 / 7732.64)^{1 / 5}$
$\mathrm{g}=10.82 \%$
Total investment growth ratio of NABIL
$D_{n}=D_{0}(1+g)^{n-1}$
$4200.52=901.72(1+g)^{6-1}$
$1+\mathrm{g}=(4200.52 / 901.72)^{1 / 5}$
$\mathrm{g}=36.03 \%$
Total investment growth ratio of EBL
$D_{n}=D_{0}(1+g)^{n-1}$
$6178.53=7704(1+g)^{6-1}$
$1+\mathrm{g}=(6178.53 / 7704)^{1 / 5}$
$\mathrm{g}=-4.31 \%$

Total net profit growth ratio of NABIL
$D_{n}=D_{0}(1+g)^{n-1}$
$237.38=69.70(1+g)^{6-1}$
$1+\mathrm{g}=(237.38 / 69.70)^{1 / 5}$
$\mathrm{g}=27.77 \%$

Total net profit growth ratio of EBL
$D_{n}=D_{0}(1+g)^{n-1}$
$635.3=291.38(1+g)^{6-1}$
$1+\mathrm{g}=(635.3 / 291.38)^{1 / 5}$
$\mathrm{g}=16.87 \%$

Appendix:-22
Coefficient of correlation between deposit between and loan and advances of NABIL

| Year s | Deposit (x) | Loan \& Advance s (y) | $X=x-\bar{x}$ | $\mathrm{X}^{2}$ | $Y=y-\bar{y}$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001 | 4574.51 | 3005.76 | -3542.17 | 12546991.9 | -2855.37 | 8153154.97 | $\begin{array}{r} 10114226.1 \\ 0 \\ \hline \end{array}$ |
| 2002 | 5466.60 | 3948.48 | -2650.08 | 7022941.66 | -1912.65 | 3658241.50 | 5068689.83 |
| 2003 | 6694.96 | 4908.46 | -1421.72 | 2021297.23 | -952.67 | 907585.84 | 1354437.43 |
| 2004 | 8063.90 | 5884.12 | -52.78 | 2786.07993 | 22.99 | 528.40 | -1213.33 |
| 2005 | $10097.6$ | 7618.67 | 1981.00 | 3924387.43 | 1757.54 | 3088936.31 | 3481692.52 |
| 2006 | $\begin{array}{r} 13802.4 \\ 4 \\ \hline \end{array}$ | 9801.31 | 5685.76 | $\begin{array}{r} 32327828.9 \\ 0 \\ \hline \end{array}$ | 3940.18 | $\begin{array}{r} 15524971.2 \\ 0 \\ \hline \end{array}$ | $\begin{array}{r} 22402870.6 \\ 0 \\ \hline \end{array}$ |
| Total | $\begin{array}{r} 48700.1 \\ 0 \end{array}$ | 35166.80 | 0.00 | $\begin{array}{r} 57846233.2 \\ 0 \\ \hline \end{array}$ | 0.00 | $\begin{array}{r} 31333418.1 \\ 7 \\ \hline \end{array}$ | $\begin{array}{r} 42420703.1 \\ \hline \end{array}$ |
| Mean | 8116.68 | 5861.13 |  |  |  |  |  |

Coefficient of Correlation (r):
$r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times 42420703.4)-(8116.68 \times 5861.13)}{\sqrt{(6 \times 57846233.14)-(8116.68)^{2}} \sqrt{(6 \times) 3133341817-(5861.13)^{2}}}=0.996406$

Coefficient of Determination $\left(\mathrm{r}^{2}\right)=0.996406 \times 0.996406=0.99282537$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.99282537}{\sqrt{6}}=0.001976$

```
6(P.Er)=0.011854
```


## Appendix:-22

Coefficient of correlation between deposit between and loan and advances of EBL
(Rs. In

| Year <br> S | Deposit $(\mathbf{x})$ | Loan \& Advance s (y) | $X=x-\bar{x}$ | $\mathrm{X}^{2}$ | $Y=y-\bar{y}$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001 | $\begin{array}{r} 15839.0 \\ 0 \\ \hline \end{array}$ | 7732.64 | 364.64 | 132959.92 | -1371.56 | 1881168.60 | -500120.02 |
| 2002 | $\begin{array}{r} 15506.4 \\ 3 \\ \hline \end{array}$ | 7437.89 | 32.07 | 1028.27 | -1666.31 | 2776579.02 | -53432.97 |
| 2003 | $\begin{array}{r} 13447.6 \\ 6 \\ \hline \end{array}$ | 7755.95 | -2026.70 | 4107526.27 | -1348.25 | 1817769.97 | 2732496.64 |
| 2004 | $\begin{array}{r} 14119.0 \\ 3 \\ \hline \end{array}$ | 8189.99 | -1355.33 | 1836928.35 | -914.21 | 835774.44 | 1239055.19 |
| 2005 | $\begin{array}{r} 14586.6 \\ 6 \end{array}$ | 10586.17 | -887.70 | 788017.15 | 1481.97 | 2196243.97 | 1315552.32 |
| 2006 | $\begin{array}{r} 19347.4 \\ 0 \\ \hline \end{array}$ | 12922.50 | 3873.04 | $\begin{array}{r} 15000413.3 \\ 0 \\ \hline \end{array}$ | 3818.34 | $\begin{array}{r} 14579743.3 \\ 0 \\ \hline \end{array}$ | $\begin{array}{r} 14788582.6 \\ 0 \\ \hline \end{array}$ |
| Total | $\begin{array}{r} 92846.1 \\ 8 \end{array}$ | 54625.18 | 0.00 | $\begin{array}{r} 21866873.2 \\ 4 \\ \hline \end{array}$ | 0.00 | $\begin{array}{r} 24087279.2 \\ 7 \\ \hline \end{array}$ | $\begin{array}{r} 16891029.1 \\ 0 \end{array}$ |
| Mean | $\begin{array}{r} 15474.3 \\ 6 \\ \hline \end{array}$ | 9104.20 |  |  |  |  |  |

Coefficient of Correlation (r):

$$
r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times 16891029.1)-(92846.18 \times 54625.18)}{\sqrt{(6 \times 2186687324)-(92846.18)^{2}} \sqrt{(6 \times 24087279.27)-(54625.18)^{2}}}=0.735985
$$

Coefficient of Determination $\left(r^{2}\right)=0.735985 \times 0.735985=0.54167374$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.54167374}{\sqrt{6}}=0.126206$
$6(\mathrm{P} . \mathrm{Er})=0.757238$

## Appendix:-23

Coefficient of correlation between total deposit between and total investment of NABIL

| Year |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\mathbf{s}$ | | Deposit( |
| :---: |
| $\mathbf{x})$ |

Coefficient of Correlation (r):

$$
r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times 17934435.9)-(48700.10 \times 13113.85)}{\sqrt{(6 \times 5784623320)-(48700.10)^{2}} \sqrt{(6 \times 635928038)-(13113.85)^{2}}}=0.935074
$$

Coefficient of Determination $\left(\mathrm{r}^{2}\right)=0.935074 \times 0.935074=0.87436424$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.87436424}{\sqrt{6}}=0.03459$
$6(\mathrm{P} . \mathrm{Er})=0.207573$
Appendix:-23
Coefficient of correlation between deposit between and total investment of EBL
(Rs. In
million)

| Years | Deposit(x) | Total <br> investment (y) | $X=x-\bar{x}$ | $\mathbf{X}^{\mathbf{2}}$ | $Y=y-\bar{y}$ | $\mathbf{Y}^{\mathbf{2}}$ | $\mathbf{X Y}$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 2001 | 15839 | 7704.31 | 364.64 | 132959.92 | 1334.85 | 1781845.88 | 486738.22 |
| 2002 | 15506.43 | 8199.51 | 32.06 | 1028.27 | 1830.05 | 3349112.28 | 58683.92 |
| 2003 | 13447.66 | 6031.18 | -2026.70 | 4107526.27 | -338.27 | 114427.95 | 685576.98 |
| 2004 | 14119.03 | 5835.95 | -1355.33 | 1836928.35 | -533.50 | 284624.38 | 723073.02 |
| 2005 | 14586.66 | 4267.23 | -887.70 | 788017.15 | -2102.22 | 4419337.34 | 1866149.41 |
| 2006 | 19347.4 | 6178.53 | 3873.04 | 15000413.30 | -190.92 | 36451.21 | -739447.91 |
| Total | 92846.18 | 38216.71 | 0.00 | 21866873.24 | 0.00 | 9985799.04 | 3080773.64 |
| Mean | 15474.36 | 6369.45 |  |  |  |  |  |

Coefficient of Correlation (r):

$$
r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times 3080773.64)-(92846.18 \times 38216.71)}{\sqrt{(6 \times 2186687324)-(92846.18)^{2}} \sqrt{(6 \times 9985799.04)-(38216.71)^{2}}}=0.208485
$$

Coefficient of Determination $\left(\mathrm{r}^{2}\right)=0.208485 \times 0.208485=0.04346604$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.04346604}{\sqrt{6}}=0.263395$
$6(\mathrm{P} . \mathrm{Er})=1.580367$
Appendix:-24
Coefficient of correlation between outside assets and net profit of NABIL

| Years | Outside <br> assets (x) | Net <br> profit <br> $(\mathbf{y})$ | $X=x-\bar{x}$ | $\mathbf{X}^{\mathbf{2}}$ | $Y=y-\bar{y}$ | $\mathbf{Y}^{\mathbf{2}}$ | $\mathbf{X Y Y}$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 2001 | 3907.48 | 69.70 | -4139.29 | 17133749.00 | -63.80 | 4070.01 | 264073.25 |
| 2002 | 5641.51 | 85.35 | -2405.26 | 5785291.54 | -48.15 | 2318.10 | 115805.49 |
| 2003 | 6562.44 | 94.18 | -1484.33 | 2203245.35 | -39.37 | 1545.80 | 58359.08 |
| 2004 | 8419.82 | 143.57 | 373.05 | 139163.84 | 10.07 | 101.47 | 3757.81 |
| 2005 | 9747.57 | 170.80 | 1700.79 | 2892709.41 | 37.30 | 1391.54 | 63445.32 |
| 2006 | 14001.82 | 237.38 | 5955.05 | 35462581.20 | 103.88 | 10791.74 | 618629.90 |
| Total | 48280.64 | 800.98 | 0.00 | 63616740.37 | 0.00 | 20218.67 | 1124070.87 |
| Mean | 8046.77 | 133.50 |  |  |  |  |  |

Coefficient of Correlation (r):
$r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times 1124070.87)-(48280.64 \times 800.98)}{\sqrt{(6 \times 6361674037)-(48280.64)^{2}} \sqrt{(6 \times 20218.67)-(800.98)^{2}}}=0.991132$
Coefficient of Determination $\left(\mathrm{r}^{2}\right)=0.991132 \times 0.991132=0.98234334$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.98234334}{\sqrt{6}}=0.004862$
$6(\mathrm{P} . \mathrm{Er})=0.029172$
Appendix:-24
Coefficient of correlation between outside assets and net profit of EBL

| Years | Outside <br> assets <br> $(\mathbf{x})$ |  |  |  |  |  |  |  | Net <br> profit <br> $(\mathbf{y})$ | $X=x-\bar{x}$ | $\mathbf{X}^{\mathbf{2}}$ | $Y=y-\bar{y}$ | $\mathbf{Y}^{\mathbf{2}}$ | $\mathbf{X}$ | $\mathbf{X Y}$ |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001 | 15436.95 | 291.38 | 2308.91 | 5331065.388 | -140.038 | 19610.7255 | -323335.83 |  |  |  |  |  |  |  |  |
| 2002 | 1563.74 | 271.64 | -11564.3 | 133733034.5 | -159.778 | 25529.1052 | 1847724.19 |  |  |  |  |  |  |  |  |
| 2003 | 13787.13 | 416.24 | 659.09 | 434399.6281 | -15.178 | 230.380791 | -10003.86 |  |  |  |  |  |  |  |  |
| 2004 | 14025.94 | 455.31 | 897.9 | 806224.41 | 23.8917 | 570.813329 | 21452.3574 |  |  |  |  |  |  |  |  |
| 2005 | 14853.4 | 518.64 | 1725.36 | 2976867.13 | 87.2217 | 7607.62495 | 150488.832 |  |  |  |  |  |  |  |  |
| 2006 | 19101.08 | 635.3 | 5973.04 | 35677206.84 | 203.8817 | 41567.7476 | 1217793.55 |  |  |  |  |  |  |  |  |
| Total | 78768.24 | 2588.51 | 0.00 | 178958797.89 | 0.00 | 95116.40 | 2904119.24 |  |  |  |  |  |  |  |  |
| Mean | 13128.04 | 431.4183 |  |  |  |  |  |  |  |  |  |  |  |  |  |

Coefficient of Correlation (r):

$$
r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times 2904119.24)-(78768.24 \times 2588.51)}{\sqrt{(6 \times 178958797.89)-(78768.24)^{2}} \sqrt{(6 \times 95116.40)-(2588.51)^{2}}}=0.703899
$$

Coefficient of Determination $\left(r^{2}\right)=0.703899 \times 0.703899=0.495473511$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.495473511}{\sqrt{6}}=0.138928$
$6(\mathrm{P} . \mathrm{Er})=0.833569$

## Appendix:-25

Coefficient of correlation between total deposit and Net profit of NABIL

| Years | Deposit(x) | Net <br> profit <br> $(\mathbf{y})$ | $X=x-\bar{x}$ | $\mathbf{X}^{\mathbf{2}}$ | $Y=y-\bar{y}$ | $\mathbf{Y}^{\mathbf{2}}$ | $\mathbf{X Y Y}$ |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 2001 | 4574.51 | 69.70 | -3542.17 | 12546991.69 | -63.78 | 4070.02 | 225978.97 |
| 2002 | 5466.60 | 85.35 | -2650.08 | 7022941.50 | -48.15 | 2318.10 | 127592.77 |
| 2003 | 6694.96 | 94.18 | -1421.72 | 2021297.14 | -39.32 | 1545.80 | 55897.47 |
| 2004 | 8063.90 | 143.57 | -52.78 | 2786.077 | 10.07 | 101.47 | -531.70 |
| 2005 | 10097.69 | 170.80 | 1981.01 | 3924387.54 | 37.30 | 1391.54 | 73898.09 |
| 2006 | 13802.44 | 237.38 | 5685.76 | 32327829.25 | 103.88 | 10791.74 | 590655.17 |
| Total | 48700.10 | 800.98 | 0.00 | 57846233.20 | 0.00 | 20218.67 | 1073490.76 |
| Mean | 8116.68 | 133.49 |  |  |  |  |  |

Coefficient of Correlation (r):

$$
r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times 107349076)-(48700.10 \times 800.98)}{\sqrt{(6 \times 57846233.1)-(48700.10)^{2}} \sqrt{(6 \times 20218.67)-(800.98)^{2}}}=0.992623
$$

Coefficient of Determination $\left(\mathrm{r}^{2}\right)=0.992623 \times 0.992623=0.985300858$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.985300858}{\sqrt{6}}=0.004048$
$6(\mathrm{P} . \mathrm{Er})=0.024286$

Appendix:-25
Coefficient of correlation between deposit and net profit of EBL

| Years | Deposit(x) | Net <br> profit <br> $(\mathbf{y})$ | $X=x-\bar{x}$ | $\mathbf{X}^{\mathbf{2}}$ | $Y=y-\bar{y}$ | $\mathbf{Y}^{\mathbf{2}}$ | $\mathbf{X Y}$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 2001 | 15839.00 | 291.38 | 364.64 | 132959.92 | -140.04 | 19610.72 | -51063.10 |
| 2002 | 15506.43 | 271.64 | 32.07 | 1028.27 | -159.78 | 25529.10 | -5123.56 |
| 2003 | 13447.66 | 416.24 | -2026.70 | 4107526.27 | -15.18 | 230.38 | 30761.91 |
| 2004 | 14119.03 | 455.31 | -1355.33 | 1836928.35 | 23.89 | 570.81 | -32381.22 |
| 2005 | 14586.66 | 518.64 | -887.70 | 788017.15 | 87.22 | 7607.62 | -77426.99 |


| 2006 | 19347.40 | 635.30 | 3873.04 | 15000413.28 | 203.88 | 41567.75 | 789641.30 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Total | 92846.18 | 2588.51 | 0.00 | 21866873.24 | 0.00 | 95116.40 | 654408.34 |
| Mean | 15474.36 | 431.42 |  |  |  |  |  |

Coefficient of Correlation (r):
$r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times 654408.34)-(92846.18 \times 2588.51)}{\sqrt{(6 \times 21866873.2)-(92846.18)^{2}} \sqrt{(6 \times 95116.40)-(2588.51)^{2}}}=0.453762$
Coefficient of Determination $\left(\mathrm{r}^{2}\right)=0.453762 \times 0.453762=0.205899635$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.205899635}{\sqrt{6}}=0.218666$
$6(\mathrm{P} . \mathrm{Er})=1.311997$

## Appendix:-26

## Coefficient of correlation between total deposit and interest earned of NABIL

| Years | Total <br> deposit <br> $(\mathbf{x})$ | Interest <br> earned <br> $(\mathbf{y})$ | $X=x-\bar{x}$ | $\mathbf{X}^{\mathbf{2}}$ | $Y=y-\bar{y}$ | $\mathbf{Y}^{\mathbf{2}}$ | $\mathbf{X Y}$ |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 2001 | 4574.51 | 385.02 | -3542.17 | 12546991.90 | -219.76 | 48293.71 | 778421.99 |
| 2002 | 5466.60 | 443.82 | -2650.08 | 7022941.66 | -160.96 | 25907.57 | 426552.91 |
| 2003 | 6694.96 | 520.17 | -1421.72 | 2021297.23 | -84.61 | 7158.56 | 120289.59 |
| 2004 | 8063.90 | 657.25 | -52.78 | 2786.08 | 52.47 | 2753.28 | -2769.63 |
| 2005 | 10097.69 | 719.3 | 1981.01 | 3924387.43 | 114.52 | 13115.22 | 226868.25 |
| 2006 | 13802.44 | 903.11 | 5685.76 | 32327828.91 | 298.33 | 89001.80 | 1696241.45 |
| Total | 48700.10 | 3628.67 | 0.00 | 57846233.20 | 0.00 | 186230.15 | 3245604.56 |
| Mean | 8116.68 | 604.78 |  |  |  |  |  |

Coefficient of Correlation (r):

$$
r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times 3245604.56)-(48700.10 \times 3628.67)}{\sqrt{(6 \times 57846233.20)-(48700.10)^{2}} \sqrt{(6 \times 186230.15)-(3628.67)^{2}}}=0.988856
$$

Coefficient of Determination $\left(\mathrm{r}^{2}\right)=0.988856 \times 0.988856=0.977836244$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.977836244}{\sqrt{6}}=0.006103$
$6(\mathrm{P} . \mathrm{Er})=0.036619$

## Appendix:-26

Coefficient of correlation between total deposit and interest earned of EBL
(Rs. In million)

| Years | Total <br> deposit <br> $(\mathbf{x})$ | Interest <br> earned <br> $(\mathbf{y})$ | $X=x-\bar{x}$ | $\mathbf{X}^{\mathbf{2}}$ | $Y=y-\bar{y}$ | $\mathbf{Y}^{\mathbf{2}}$ | $\mathbf{X Y}$ |
| :---: | :--- | :---: | ---: | ---: | ---: | ---: | ---: |
| 2001 | 15839.00 | 1266.70 | 364.64 | 132960.14 | 135.76 | 18431.32 | 49503.85 |
| 2002 | 15506.43 | 1120.70 | 32.07 | 1028.29 | -10.24 | 104.82 | -328.30 |
| 2003 | 13447.66 | 1017.87 | -2026.70 | 4107525.05 | -113.07 | 12784.37 | 229155.25 |
| 2004 | 14119.03 | 1001.61 | -1355.33 | 1836927.54 | -129.33 | 16725.73 | 175282.50 |
| 2005 | 14586.66 | 1068.75 | -887.70 | 788016.62 | -62.19 | 3867.35 | 55204.47 |
| 2006 | 19347.40 | 1310.00 | 3873.04 | 15000415.60 | 179.06 | 32063.19 | 693513.75 |
| Total | 92846.18 | 6785.63 | 0.00 | 21866873.24 | 0.00 | 83976.79 | 1202331.53 |
| Mean | 15474.36 | 1130.94 |  |  |  |  |  |

Coefficient of Correlation (r):
$r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times 1202331.53)-(92846.18 \times 6785.63)}{\sqrt{(6 \times 21866873.24)-(92846.18)^{2}} \sqrt{(6 \times 2186687324)-(6785.63)^{2}}}=0.887261$

Coefficient of Determination $\left(\mathrm{r}^{2}\right)=0.887261 \times 0.887261=0.78723161$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.78723161}{\sqrt{6}}=0.058589$
$6(\mathrm{P} . \mathrm{Er})=0.351532$

Appendix:-27
Coefficient of correlation between loan and advances to interest paid of NABIL

| Year S | Loan and advances(x ) | Interes <br> t paid <br> (y) | $X=x-\bar{x}$ | $\mathrm{X}^{2}$ | $Y=y-\bar{y}$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001 | 3005.76 | 236.14 | -2855.37 | 8153154.00 |  |  | 190981.6 |
|  |  |  |  |  | -66.885 | 4473.60 | 1 |
| 2002 | 3948.48 | 257.05 | -1912.65 | 3658240.85 | -45.975 | 2113.70 | 87934.22 |
| 2003 | 4908.46 | 307.63 | -952.67 | 907585.52 | 4.605 | 21.20 | -4387.05 |
| 2004 | 5884.12 | 316.37 | 22.99 | 528.40 | 13.345 | 178.08 | 306.76 |
| 2005 | 7618.67 | 299.56 | 1757.54 | 3088936.90 | -3.465 | 12.00 | -6089.87 |
| 2006 | 9801.30 | 401.4 | 3940.17 | 15524972.4 |  |  | 387614.6 |
|  |  |  |  | 9 | 98.375 | 9677.64 | 3 |
| Total | 35166.80 | 1818.15 | 0.00 | 31333418.1 | 0.00 | 16476.2 | 656360.3 |
|  |  |  |  | 7 |  | 5 | 0 |
| Mean | 5861.13 | 303.02 |  |  |  |  |  |

Coefficient of Correlation (r):

$$
r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times 656360.30)-(35166.80 \times 1818.15)}{\sqrt{(6 \times 31333418.17)-(35166.80)^{2}} \sqrt{(6 \times 16476.25)-(1818.15)^{2}}}=0.913502
$$

Coefficient of Determination $\left(r^{2}\right)=0.913502 \times 0.913502=0.834485072$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.834485072}{\sqrt{6}}=0.045577$ $6(\mathrm{P} . \mathrm{Er})=0.273461$

## Appendix:-27

Coefficient of correlation between loan and advances to interest paid of EBL

|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Years | Loan and advances <br> (x) | Interest <br> paid (y) | $X=x-\bar{x}$ | $\mathrm{X}^{2}$ | $Y=y-\bar{y}$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| 2001 | 7732.64 | 578.36 | -1371.56 | 1881167.70 | 204.78 | 41934.85 | $280867.3$ |
| 2002 | 7437.89 | 462.08 | -1666.31 | 2776577.92 | 88.50 | 7832.25 | $147468.1$ |
| 2003 | 7755.95 | 317.35 | -1348.25 | 1817769.08 | -56.23 | 3161.81 | 75811.91 |
| 2004 | 8189.99 | 282.95 | -914.21 | 835773.84 | -90.63 | 8213.80 | 82854.55 |
| 2005 | 10586.17 | 243.54 | 1481.97 | 2196244.95 | -130.04 | 16910.40 | 192715.8 |
| 2006 | 12922.54 | 357.20 | 3818.34 | 14579745.79 | -16.38 | 268.30 | 62544.46 |
| Total | 54625.18 | 2241.48 | 0.00 | 24087279.2 | 0.00 | 78321.41 | $524929.3$ |

```
Mean 9104.19667 373.58
```

Coefficient of Correlation (r):
$r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times(-524929.30))-(54625.18 \times 2241.48)}{\sqrt{(6 \times 24087279.2)-(54625.18)^{2}} \sqrt{(6 \times 78321.41)-(2241.48)^{2}}}=-0.38218$

Coefficient of Determination $\left(\mathrm{r}^{2}\right)=-0.38218 \times-0.38218=0.146060711$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.146060711}{\sqrt{6}}=0.235144$
$6(\mathrm{P} . \mathrm{Er})=1.410862$

Appendix:-28

## Coefficient of correlation between total working fund and net profit of NABIL

(Rs. In million)

| Years | Working <br> fund (x) | Net <br> profit <br> $(\mathbf{y})$ | $X=x-\bar{x}$ | $\mathbf{X}^{\mathbf{2}}$ | $Y=y-\bar{y}$ | $\mathbf{Y}^{\mathbf{2}}$ | $\mathbf{X Y}$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 2001 | 5202.58 | 69.7 | -4336.03 | 18801112.80 | -63.80 | 4070.02 | 276624.09 |
| 2002 | 6616.89 | 85.35 | -2921.72 | 8536418.54 | -48.15 | 2318.10 | 140670.94 |
| 2003 | 8052.2 | 94.18 | -1486.41 | 2209399.82 | -39.32 | 1545.80 | 58440.54 |
| 2004 | 9608.56 | 143.57 | 69.95 | 4893.70 | 10.07 | 101.47 | 704.68 |
| 2005 | 11792.12 | 170.8 | 2253.52 | 5078329.86 | 37.30 | 1391.54 | 84063.55 |
| 2006 | 15959.28 | 237.38 | 6420.68 | 41225067.46 | 103.88 | 10791.74 | 667000.91 |
| Total | 57231.63 | 800.98 | 0.00 | 75855222.18 | 0.00 | 20218.67 | 1227504.69 |
| Mean | 9538.605 | 133.4967 |  |  |  |  |  |

Coefficient of Correlation (r):

$$
r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times 1227504.69)-(57231.63 \times 800.98)}{\sqrt{(6 \times 75855222.18)-(57231.63)^{2}} \sqrt{(6 \times 20218.67)-(800.98)^{2}}}=0.991184
$$

Coefficient of Determination $\left(\mathrm{r}^{2}\right)=991184 \times 991184=0.982444814$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.982444814}{\sqrt{6}}=0.004834$
$6(\mathrm{P} . \mathrm{Er})=0.029004$

## Appendix:-28

Coefficient of correlation between total working fund and net profit of EBL


| 2001 | 17770.65 | 291.38 | -250.07 | 62533.35 |  | 19610.7 |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 2002 | 17529.25 | 271.64 | -491.47 | 241539.52 |  | 25529.1 |  |
|  |  |  |  | -159.78 | 1 | 78525.71 |  |
| 2003 | 16562.62 | 416.24 | -1458.10 | 2126045.99 | -15.18 | 230.38 | 22131.43 |
| 2004 | 16745.48 | 455.31 | -1275.24 | 1626228.64 | 23.89 | 570.81 | -30467.57 |
| 2005 | 17186.33 | 518.64 | -834.39 | 696201.17 | 87.22 | 7607.62 | -72776.63 |
| 2006 | 22329.97 | 635.3 | 4309.25 | 18569664.0 |  | 41567.7 | 878577.8 |
|  |  |  | 0 | 203.88 | 5 | 9 |  |
| Total | 108124.30 | 2588.51 | 0.00 | 23322212.6 | 0.00 | 95116.4 | 911009.7 |
|  |  |  |  | 7 |  | 0 | 5 |
| Mean | 18020.716 | 431.418 |  |  |  |  |  |

Coefficient of Correlation (r):
$r=\frac{n \sum x y-\sum x \sum y}{\sqrt{n \sum x^{2}-\left(\sum x\right)^{2}} \sqrt{n \sum y^{2}-\left(\sum y\right)^{2}}}=\frac{(6 \times 911009.75)-(108124.30 \times 2588.51)}{\sqrt{(6 \times 23322212.6)-(108124.30)^{2}} \sqrt{(6 \times 95116.40)-(2588.51)^{2}}}=0.611661$

Coefficient of Determination $\left(r^{2}\right)=0.611661 \times 0.611661=0.374128596$
$\operatorname{Pr} \operatorname{obable}(P . E r)=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}=0.6745 \times \frac{1-0.374128596}{\sqrt{6}}=0.172342$
$6(\mathrm{P} . \mathrm{Er})=1.034053$

