## CHAPTER-I

## INTRODUCTION

### 1.1 Background of the Study

Though several commercial banks have been established in short period, but sufficient return has not been earned. Strong, stable and appropriate investment policy has not been followed. A huge collection and investment policy plays vital role for the economic development of whole country.these days commercial bank, developments bank and financial company are operating with Highly competition. The fast growth of such organizations has made pro-rata increment in collecting deposit and their investment. They collected the huge amount from public but couldn't allocate in new investment sectors. The increasing rate of liquidity has pulled in a downward trend in investment. It has ensured bad impact on interest to the depositors, lower market value of shares.

A very unhealthy activity is happening in the banking business. After the loan is provided by the bank, regular inspection and monitoring are not made to know whether the debtor has used the loan in productive or not. Due to This reasons, there is great amount of unrecovered bank loan. Banks only depend upon the direction and guidelines of Nepal Rastra Bank but they don't have clear view and have not formulated their own organized investment policy

Investment means employing money to generate more money in future. It is the sacrifice of current consumption of savings for future income available for consumption. Return is the primary motive of investment, but it always entails some degree of risk. Buying common stocks, bonds of a company, depositing money into bank account, buying a piece of land, gold or silver are examples of investment as all them involve trade-off between risk and return. All these examples involve sacrifice of current consumptions in expectations of future return. Hence, they are investments. As such, the main objective of investment is to maximize the wealth or capital gain of an investors resulting from rise in market value of securities.

Investment is very broader in scope and coverage. Investment can be either a real investment or a financial investment. Investment in tangible assets like land and
machinery is a real investment. It has productive capacity. But, investment in financial assets like common stocks and bonds is a financial investment. It does not deal directly possess productive capacity. Financial assets are direct claims to the income generated by real assets. In this sense, the values of financial assets are by itself derived for the values of the underlying real assets of the firms. Although investment on real asset is also important, we focus on the investment on financial assets throughout this research.

Generally, investment is different from speculation based on time horizon and riskreturn characteristics of the investment. But, speculation has a very different kind of implication in investment. These can be no success of investment without speculation. As such, intelligent speculation is investment. But the true genuine investor is interacted usually in long-term investment with a good rate of return and earned on a consistent basis. He/se is normally not willing to take high risk and expects moderate rate of return. The speculator seeks opportunities promises very large return, earned rather quickly, so the investment period may be a few days to few months. He/she is more interact in the abnormal, extremely high rate or return than normal or moderate re or return. The growth of stock market in our country has provided investors with different alternative to investor in a portfolio of securities such as share of joint venture banks, fiancé companies, insurance companies and service and trading firms.

The investment environment refers to all internal and external factors affect affecting for investment decisions. It is financial structure in which investors operate, it consists various marketable securities available for purchase or sale and how and where these securities are traded. Investment environment mostly includes securities, security markets and financial intermediaries.

Securities are pieces of papers represent investors' claim to receives prospective future benefits under certain conditions. The securities are called financial assets which represents indirect claim to real assets held by someone else. Common stock, preferred stock, bonds, convertibles, options, rights, treasury bills, commercial papers, etc are the examples of security. The securities are the most important factors of the investment environment.

Financial markets link savers and borrowers. This link is accomplished through direct finance that occurs when savers lend funds directly to borrowers. In contrast, indirect
finance involves particular type of middlemen who stands between the borrower and the lender. This middleman who stands between the borrower and the lender is called financial intermediary. Intermediary works as an agent or catalyst to facilitate to join working of two parties to accomplish their individual objectives $s$ at a time. In these sense, the catalytic role play by the financial institutions can be defined as financial intermediaries.

The overall development of a country largely depends upon the economy development of the country. Development of capital market and money market is essential to develop the economy of a country. Bank, financial companies and other financial institution help to develop the money market as well as capital market by mobilizing the deposited amount which are collected from public and inviting the sum total of small investor. Commercial banks are those financial institutes, which are established to use the scattered financial resources to the productive commercial area for earning profit. Financing in the different economic field lime industry, trade, agriculture etc to generate profit is the main objectives of commercial bank. In addition to the primary function receiving deposit and lending to the others, it under takes a wide variety of function to assist the customer by performing the agency function like collection of cheques, bills, .dividends etc on behalf of the customer, transfer of funds, purchase and sells of share etc.

Companies that earn a profit can decide either of three ways i.e. pay profit out to shareholder reinvest it in the business through expansion, debt reduction or share repurchase or both. Shareholders make investment in equity capital with the expectation of market earning either directly in the form of dividend or indirectly in the form capital gains in future. Thus, shareholders wealth can be increased through either dividend or capital gain. In simple word, the division of profit of the firm, which are received by shareholder of the company are called dividend. Dividend helps to encourage the shareholder for investment. Dividend decision of the firm is one of the crucial areas of financial management as it affects shareholders wealth and value of the firm. Before making dividend decision a firm should forecast its future needs for the fund and then determine the amount to be retained.

### 1.2 Profiles of the Selected Banks

## 1 Nabil Bank ltd.

Nabil Bank Limited, the first foreign bank of Nepal, started operations in July 1984. Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, Nabil provides a full range of commercial banking services through its 51 points of representation across the nation and over 78 ATM. In terms of asset size, net worth, profitability, deposit and lending portfolios the bank is regarded as one of the leading institutions. For financial year ending July 2012 Nabil Bank is perhaps the highest profit making private sector bank in Nepal

## 2 Himalayan Bank Ltd.

Himalayan Bank Ltd. Is a JVB’s with Habib Bank Ltd. of Pakistan was established in 1993 under the Company Act 1964. This is the first JVB's with maximum share holding by the Nepalese private sector. The main objective of the bank is to provide modern banking facilities and loan to Agriculture, Commercial and Industrial Sectors. Himalayan Bank has the vision of becoming a leading bank of the country by gaining substantial business growth through premium products and services to customers, thus ensuring attractive and substantial returns to all our stakeholders. Despite the cutthroat competition in the Nepalese Banking sector, Himalayan Bank has been able to maintain a lead in the primary banking activities- Loans and Deposits.

## 3 Bank of Kathmandu.

Bank of Kathmandu Limited has become a prominent name in the Nepalese banking sector. It's corporate slogan is "We make your life easier". It is committed to delivering quality service to customers, generating good return to shareholders, providing attractive incentives to employees and serving the community through stronger corporate social responsibility. Bank of Kathmandu Limited (BOK) has today become a landmark in the Nepalese banking sector by being among the few commercial banks which is entirely managed by Nepalese professionals and owned by the general public. BOK started its operation in March 1995 with the objective to stimulate the Nepalese economy and take it to newer heights. BOK also aims to facilitate the nation's economy and to become more competitive globally. It's vision is
to become a significant contributor to the economic development of Nepal by distinguishing the Bank as an efficient, competitive, safe and top-quality financial institution.

## 4 Laxmi Bank Ltd

Laxmi Bank was incorporated in April 2002 as the 16th commercial bank in Nepal. In 2004 Laxmi Bank merged with HISEF Finance Limited, a first generation financial company which was the first and ever merger in the Nepali corporate history. Laxmi Bank is a Category ' A ' Financial Institution and re-registered in 2006 under the "Banks and Financial Institutions Act" of Nepal. The Bank's shares are listed and actively traded in the Nepal Stock Exchange (NEPSE). Laxmi Bank promotes a separate life insurance company - Prime Life Insurance Limited which came into operation in 2009. It is committed to excellence in delivery of entire range of financial services in order to achieve sound business growth and maximize stakeholder values by embracing team spirit, progressive technology and good corporate governance.

## 5 NMB Bank Ltd.

NMB Bank Limited licensed as "A" class financial institution by Nepal Rastra Bank in May 2008 has been operating in Nepalese Financial market for over fifteen years and is one of the leading commercial banks in the banking industry. Since its inception, the Bank has been continuously endeavoring to win the trust of its customer which has resulted to ever increasing customer base and more importantly attained customer's delight through its different products and services. It's vision is to establish ourselves as a leader in banking by providing a range of financial services suitable to the needs of the market with high priority on customer care while simultaneously embracing the interests of all stakeholders and value of a good corporate citizen.

### 1.3 Focus of the Study

Investment and Return is one of the major financial decisions that affect the value of the firm. In our society people are interest to invest on stock market but they don't realize that investment is always associated with risk also. Therefore an investor must consider risk too before making an investment decision. Hence, the study is mainly focused on the Investment and return of the bank consisting of the securities of
different listed commercial banks in NEPSE. It provides the consolidated basic data and information about the NEPSE and commercial banks under study. Similarly it makes on reflect the picture of NEPSE in terms of private banking sector. Lastly it would be great help to guide the investors.

The main focus of the study is to examine the investment, returnand market price of stock of selected commercial banks. This study will be focus to explore the prevailing practices and efforts made in investment, return among the selected commercial banks and to provide some fruitful suggestion and recommendation to the chosen bank regarding their investment and return, so that they can follow the better policy if the existing policy is not fruitful enough.

### 1.4 Statement of the Problem

These days' commercial bank, developments bank and financial company are operating with highly competition. The fast growth of such organizations has made pro-rata increment in collecting deposit and their investment. They collected the huge amount from public but couldn't allocate in new investment sectors. The increasing rate of liquidity has pulled in a downward trend in investment. It has ensured bad impact on interest to the depositors, lower market value of shares.

Main investing area of commercial bank is loan investment and return source is interest income. Other source of income and expenditure like commission, fee, service charge, guarantee charge etc. and expenditure are staff expenses, operating expenses, corporate social responsibilities, non-operating expenditure etc. Net income is used for reserve for bank and paying dividend for shareholder. Which play vital role in determine share price of stock.

Investment and return decision is a major important part of managerial finance.The banking sector is an important part of corporate development of a country. In any economy, the financial sector plays a major role in the mobilization and allocation of savings.Even capital market is in the early stage of development in Nepal. Nepalese investors have heavily made investment on newly established companies, especially in the financial sectors. Commercial bank and financial institutions group is leading group covering more than 50 percent in NEPSE Market.

In real practice there is relationship between investment and return. However, the relationship is not yet clear and controversial issue in financial literature. This study will try to sick the answer of the following research question because Nepalese commercial bank wants regular increase in return for thir investment to increase in market price per share. These are the basic issue whom bank focused by the commercial bank and this study's the main deals with the following issues:
> Whether the commercial banks of Nepal have been earning stable growth return?
> Earning Per Share (Rs.)
$>$ Dividend on Share Capital (Including Bonus) (unit in \%)
$>$ Total Loan to Deposits ratio (in percentage)
$>$ Interest Income to Loan and Advances ratio (in percentage)
> Net Profit to Loan and Advances ratio (in percentage)
$>$ Net Profit to Total Assets ratio (in percentage)
$>$ Non-performing Loan to Total Loan ratio (in percentage)
> Weighted Average Interest Rate Spread (in percentage)
$>$ find out correlation between net profit and total assets
$>$ find out correlation between net profit and loan and advances
> Correlation coefficient between Dividend on Share Capital (Including Bonus) and Per Share Income
$>$ find out correlation between net profit and Total Loan to Deposits ratio
$>$ find out correlation between net profit and Non-performing Loan to Total Loan ratio

### 1.5 Objective of the Study

The major objective of this study is to focus on the investment and it's return of the selected commercial banks that is NABIL, HBL, BOK, LBL and NMB. The other specific objectives are as follows:
i, To analyze the investment, return and their volatility of commercial bank.
ii, To analyze the financial ratios and their relation on investment and return.
iii, To provide suggestions to the selected commercial banks.

### 1.6 Significance of the Study

Suitable strategy plays vital role in a bank for their sustain existence. The study will be helpful to aware the shareholder regarding investment policies of their banks. The study suggests to the management how they can improve their managing power and recommends what is the clue to raise the profit. Though, this is only study but it gives feedback to policy makers, will useful them who formulate the policy for regulation. All stakeholders can identify which bank is the best and to whom have to invest.

It is thus necessary to establish clear concept about the return resulting from investing. Nepal's investors are attracted towards the investing in companies for the purpose of getting more earning. this study helpful to commercial bank and stake holder to take rational decision like where to invest, how to invest, what portfolio should be made to obtain maximum profit from their investment? This study will be helpful to the government for policy making, monitoring and supervising purpose.

### 1.7 Limitation of the Study

Every works had its own restriction \& limitations due to the lack of time, resources and knowledge, likewise other studies, this study is also not free from certain limitations since the study is the partial fulfillment of the requirement of master in business studies, it has some limitations of the study which are as follows:

A, The data is collected from listed commercial banks which have date available for at least five consecutive years during the sample period from 2005/6 to 2009/10

B, This study is mainly based on secondary data, so the validity and reliability of the data will depend upon their sources.

C, Only five commercial banks are taken for samples.
D, In This study only selected tools and technique are used in analyses.

### 1.8 Organization of the Study

This study has been organized in five chapters as follows:

## Chapter -I: Introduction

It include background of the study, statement of the problem, objectives of the study, signification of the study, limitation of the study, and organization of the study.

## Chapter -II: Review of Literature

This chapter is directed towards the review of literature of related studies. In this chapter both conceptual and theoretical review is done. It contains review of book, reports, journals, website etc.

## Chapter -III: Research Methodology

This chapter describes the research methodology employed in the study. It includes research design, population \& sample. This chapter also deals with the sources \& collection of data and data analysis techniques.

## Chapter -IV: Presentation and Analysis Data

This chapter aims to achieve the predetermined objectives mentioned in the first chapter. This chapter consists of presentation \& analyses of secondary data related with different variables using both financial \& statistical tools as explained in research methodology.

## Chapter -V: Summary, Conclusion \& Recommendations

It states summary, conclusion \& recommendation of the study. This chapter states main findings, issues \& gaps \& suggestive frame work of study.

## CHAPTER II

## REVIEW OF LITERATURE

### 2.1 Conceptual / Theoretical Review

### 2.1.1 Investment

An investment simply means commitment of savings into any alternative that expected to generate positive income. For example, if you advance money to other, you may consider it as an investment, because you expect to get back the money along with interest in some future date. Similarly, a person may have purchased one ounce gold for the purpose of price appreciation and it may considered as an investment. A person may purchase an insurance plan for the various benefits it promises in future. All these examples constitute investments and have one common element that they are made at present with the expectation of some rewards in future. The rewards, or returns, form investing are received in either of two forms: current income or increased value. So, in simply, an investment involves sacrifice of current rupees for future rupees. The sacrifice takes place in the present and is certain. The reward comes later and is uncertain. Investment generally involves real assets or financial assets. Real asset represents an actual tangible asset that may be seen, felt, held or collected e.g. real estate, gold etc. investment in such tangible asset is called real investment. Real assets have productive capacity. The capital formation is direct outcome of this productive investment. Financial assets are piece of paper representing an indirect claim to real assets held by someone else. So the financial assets are also called "paper assets". Investment in financial assets like common stocks, bond etc is called financial investments. Financial assets represent a financial claim. It is an asset that is usually documented by some forms of legal representation. Although financial assets are typically represented by tangible certificates of ownership, the financial asset itself is intangible. They are also called securities. Financial assets can be viewed as claims to the income generated by real assets.

According to F. Amling, "Investment may be defined as the purchase by an individual or institutional investor of a financial or real asset that produces a return proportional to the risk assumed over some future investment period".

Sharpe, Alexander and Bailey (2003) defined that investment, in its broadest sense means the sacrifice of current dollars for future dollars. Two different attributes are generally involved: time and risk. The sacrifice takes place in the present and is certain. The reward comes later, if at all, and the, magnitude.

### 2.1.1.1 Investment Process

The investment process describes how an investor go about making decisions with regard to what marketable securities to invest in, how extensive the investment should be, and when the investment should be made. A five steps procedure for making these decisions forms the basis of the investment process (Sharpe, Alexander and Bailey, 2003).

## i. Investment Policy

It is the first step of an investment process. It involves determining the investor's objectives and the amount of his or her invest able wealth. Investor's investment objectives should be stated in terms of both risk and return. This stage also involves the identification of potential categorizes of financial assets to be involved in the portfolio. The identification of asset will be based on many factors, such as investment objectives, amount of investment wealth, available securities, tax status etc.

However, this step is the corner stone of the investment process without this step; investors' have no appropriate contest in which to make investment decision.

## i.i Features of sound investment policy:

The commercial banks are inspired with the goal of earning profit. There are many reasons after the goals of gaining profit. In order to reach their desired goals, they profit must invest the resources. It is not better to keep the available resources idle. The bank should be able to clear the policy of its investment by making a deep study on the subjects that which sector would be the trust worthier \& dependable to invest the funds collected in the bank, they should have the ability to use the policy of banking investment in its goal. The income and profit of the bank depends upon its investment policy \& term Landry procedure of its funds in different securities. The greater the credit created by the bank the Higher will be the profitability. A sound
bending \& investment policy is not only prerequisite for the bank's profitability but also crucially significant for the promotion of commercial saving of a backward country like Nepal. There fore, the following principles or features of investment policy must be abided by the commercial banks in order to achieve the goals.

## A. Safety and Security

Commercial banks must pay a special attention to the principle safety and security. There will be a loss whether it is small or big, if the bank has not invested in secure and safe sectors, Investment in unsafe and insecure sectors with the hope of getting more return is to accept the security of law quality. The condition of unsafe arise when a bank invest in large loan against less securities by receiving commission, invests in new places without careful observation, landing to long-term borrowers etc. All these unsafe conditions should be avoided as much as possible. A bank should be very much conscious in investing procedures and profitable sectors. It should never invest its fund on those securities, which are subjected to too much for volatility (Depreciation are fluctuation) because a little alternation may cause a great loss. It must not invest its fund into speculative businessman, who may be bankrupt at once and who may earn millions in minute also. Only Commercial durable, marketable and high market valued securities should be accepted. For This purpose "MAST" should be followed, where MAST stands for:

| M | - | Marketable |
| :--- | :--- | :--- |
| A | - | Ascertainable |
| S | - | Stability |
| T | - | Transferability |

## B. Profitability

The profit of commercial bank mainly depends on the interest rate, volume of loan and its time period and nature of investment in different securities. It is a fact that a commercial bank can maximize its volume of wealth through maximization of return on their investment and lending so, they must invest their funds where they gain maximum profit. Ambition of profit to commercial bank seem reasonable as the bank has to corer all the expenses and make payment in the forms dividend to the
shareholder who contribute to build up to bank's capital and interest to the depositors. For This the bank calculates the cost of fund and likely return, if the spread is enough irrespective of risk involved and absorbs its liquidity. Obligation, it will go a head for investment good bank is one who invest more of its fund in different earning assets standing. Safety from the problem of liquidity, i.e. keeping cash resurvey to meet day to day requirements of the depositors.

## C. Liquidity

It is the position of the firm to meet current or short-term obligations. General public or customers deposit their saving at the banks in different accounts having full confidence of repayment by the banks whenever th3ey require. To show a good current position and maintain the confidence of the customers, every firm must keep proper cash balance with then while investing in difference securities and granting loan from excess fund.

## D. Purpose of Loan

This is very important question for any banker is that, why a customer is in need for loan. If borrower misused the loan granted by the bank, he can never repay. Therefore, in order to avoid This situation each and every bank should demand all the essential detailed information about the scheme of the project or activities would be examined before lending.

## E. Diversification

"A bank should not lay all its eggs on the same baskets." This saying is very important to the bank and it should be always careful not to grant loan in only one sector. To minimize risk, a bank must diversify its investment on different sectors. Diversification of loan helps to sustain loss according to the low of average, if a security of a company is divided of there may be an appreciation in the securities of other companies. In This way, the loss can be recovered.

## F. Tangibility

A commercial bank should proper tangible security to an intangible one. Thought it may be considered that tangible property does not yield an income apart from intangible securities, which have lost their value due to price level inflation.

## G. Legality

A commercial bank must follow the rules and regulation as well as different directions issued by Nepal Rastra Bank, Ministry of Finance, Ministry of law and other while mobilizing its funds. hiegal secretes will bring out any problems to investors

## ii. Security Analysis

It is the second step of investment process. It is concerned with examination (analysis) of several securities (a group of securities) within the broad categories of financial assets previously identified. One purpose for conducting such examinations is to identify those securities that currently appear to be mispriced. There are many approaches to security analysis. However, most of these approaches fall in to one two classification. The first classification is known as technical analysis; who utilize this approach to security analysis is known as technicians or technical analyst. The second classification is known as fundamental analysis; those who utilize it are known as fundamentalists or fundamental analyst.

## iii. Portfolio Construction

It is the third step of the investment process. It involves selecting specific securities in which to invest and how much to invest in each security. Some important factors like selectivity, timing and diversification need to be address by the investors at the time of portfolio construction. Diversification involves construction the investor's portfolio in such a manner that risk is minimized, subject to certain restrictions.

## iv. Portfolio Revision

The fourth step in the investment process is portfolio revision. Portfolio revision involves both realizing that the currently held portfolio is not optimal and specifying another portfolio to hold with superior risk-return characteristics. The investor must balance the costs of moving in to the new portfolio against the benefits of the revision.

## v. Portfolio Performance and Evaluation

The ultimate step in the investment process is portfolio performance evaluation. It involves determination of the actual performance of portfolio in terms of risk and return, and comparing the performance with that of an appropriate "benchmark" portfolio.

### 2.2 Review of Articles

Shrestha (1999), in Ins article, "A study on deposit \& credit of commercial bank in Nepal" concluded that the credit deposit ratio would be $51.30 \%$ other things remaining same in 2004 A.D. which was the lowest under the period of review. So, it is strongly recommended that the commercial banks should try to give more credit earning field as far as possible. Otherwise, they might not be able to absorb even its total expenses.

Sharma \& Bhatt (2002), in their article "Priority receiver sector" has present "The commercial banks should take care of board national interest \& they showed not confine their lending activities only to commercial area providing quick interest if some proportion could be directed to the area conclusive to build economic infrastructures of the country it would create atmosphere conductive to their investment in future. In our society where ignorance \& literacy is in wild scale, it is necessary that the banks search entrepreneurs instead of entrepreneurs searching book. So, they have opinioned that the priority sector program is a timely \& opportunities there by increasing production \& the general living standard or rural poor. But the success of the largely depends upon the interpreted operation with other program design for rural development. Further they agree that various programmers: Rural development land reform, back to the village national, champion audit literacy etc. couldn't materials their objectives despite their some theoretically philosophy \& food objectives."

Pradhan (2003), in his research paper "Role of saving, Investment \& capital formation in economic development a case of Nepal" has studied about the strong role \& impact of saving, investment \& capital formation on economic development of Nepal. This study is based on secondary data only. The necessary data on saving, investment,
capital formation and gross domestic product has been collected for the period of 1974/75 to 2000/01. The role \& impact of saving, investment and capital formation on economic development were analyzed by using various regression models. The regression equation used in This study have been estimated at current prices as well as in real term with the entire study period divided into different sub-period.

The results presented in This paper suggest that in all cases, GOP is significantly associated with saving. Investment and capital formation both at current prices and in real terms. The result of the empirical analysis led to three important conclusions: first, saving, investment \& capital formation have positive impact on economic development. Second, the current values \& past values of saving, investment \& capital formation have positive impact on economic development but the current values have the largest impact. Third, there is a strong role played by saving \& capital formation on economic development while weak role-played by investment.

### 2.3 Review of Previous Thesis

Jha \& Hui (2012), have conducted the study on "A comparison of financial performance of commercial banks", a case study of Nepal. The main founding are:

Though financial ratios analysis compares the financial performance among commercial banks, the same bank had different ranks under the different financial ratios. The ROAs of public sector banks were higher than those of joint venture and domestic public banks due to having utmost total assets but the overall performance of public sector banks was not observed sound because other financial ratios including ROE, CDR, and CAR of most of the joint venture and domestic public banks were found superior. High overhead costs, political interventions, poor management and low quality of collateral created continued deterioration in the financial health of the public sector banks. The values determined for the financial ratios reveal that joint venture and domestic public banks are also not so strong in Nepal to manage the possible large-scale shocks to their balance sheet.

Furthermore, it can be concluded from the multiple regression analysis that the capital adequacy ratio, interest expenses to total loan and net interest margin were significant but had a negative effect on ROA while non-performing loan and credit to deposit
ratio did not have any considerable effect on ROA. The capital adequacy ratio positively influenced the return on equity but the non-performing loan, credit to deposit ratio, interest expenses to total loan and net interest margin had no significant effect on ROE.

Paudyal, A (2010) conducted a study on "Guidelines of Nepal Rastra Bank on investment Policy of commercial Bank In Nepal". A Case Study of Nepal Investment Bank Limited with the objectives of:

The basic objectives of this study are as follows:
To analyze the NRB directives regarding investment policy of commercial banks. To analyze the liquidity practice of NIBL.

To determine the relationship between total deposit and loan and advance, total deposit and total investment.

To make the trend value analysis of Investment policy and its projection for next five year.

To find out whether NRB guideline is actually being implemented.
In this study, major findings are as follows:

The mean ratio of cash and bank balance to total deposit is $9.08 \%$. Analysis shows that the ratios are fluctuating trend. The bank should not hold excessive cash. Since it an idle assets and do not generate any income. An idle reserve ratio is $10 \%$ in any bank but vary according to the situation of the market. However, the liquidity position in the study is good.

Total investment of NIBL has maintained in an increasing trend in respect to total deposit. The mean ratio of its $39.18 \%$. NIBL has been able to utilize the total deposit as investment.

The mean value of sub-standard loan is 31955.4 (all fig. 000) Doubtful loan is fluctuating trend. Similarly, bad loan is decreasing which is good for NIBL.

The mean ratio net profit to loan and advances is $2.503 \%$. NIBL has recorded highest ratio is of $2082 \%$ in the FY 2063/64. The change in \% ratio or growth rate is in fluctuating trends. Net profit of NIBL is increasing trend. Analysis shows that the ratio of net profit to total equity capital has increasing trend. The mean ratio of net
profit to equity capital is $15.98 \%$. This shows that NIBL has efficiently utilized it equity capital to earn more profit.

Coefficient of correlation between total deposit and loan and advances is positive and significant.

Rana, Niru Maya (2009), has conducted the study on " Investment policy of commercial banks" With reference to NABIL Bank Ltd and Nepal Investment Bank Ltd. The main findings of the study was:

It is found from the study that the amount of total deposit collected by Nabil Bank in each year during 5 years of the study period is higher than that of NIBL. Similarly, investment to total deposit ratio and the amount of total Investment made by Nabil Bank for the same period is also higher. Beside total deposit collected and total investment made, total loan and advances of Nabil Bank is also Higher during first three years but afterward it is lower than that of NIBL. It is clear that Investment policy adopted by Nabil Bank is sound from profit point of view.

Nabil Bank has given more priority on investment and loan and advances. Hence it has maintained lower liquidity than NIBL. Nabil Bank has accepted higher level of interest rate risk rather than credit risk. Overall profitability ratio of Nabil Bank shows that it has earned Higher profit than NIBL. It is clear that Nabil Bank has given more emphasis on profit but NIBL has given priority both on liquidity and profit as well. The study has found that total deposit and loan and advances and investment of the selected bank will be in increasing trend if other things remain constant. But it is also found that Net profit of the Nabil Bank will be in decreasing trend from 2010 onward. There is positive relationship between deposit and loan \& advances and deposit and investment of the selected bank. The study also found that increase in net profit of Nabil Bank is not caused by the increase in outside assets as it has negative relationship between outside assets and net profit but in the case of NIBL increase in net profit depends upon increase in outside assets.

Gupta (2010) in her study "risk and return analysis of common stock investment of listed commercial bank" With reference to NIBL, HBL and EBL. The main findings of the study was:

The return is the income received on a stock investment, which is usually expressed in percentage. Expected return on common stock of EBL is maximum (41.96\%). Similarly expected return of C.S. of NIBL is (31.76\%) and HBL is (27.41\%) Risk is the variability of returns which is measured in terms of standard deviation. On the basis of S.D., common stock of NIBL is most risky since it has high S.D. i.e. 0.6111 C.S of HBL is least because of its lowest S.D. of 0.3876 , on the other hand we know that C.V. is more rational basis of investment decision, which measures the risk per unit of return. On the basis of C.V., C.S. of EBL is best among all other banks. EBL has 1.2629 unit of risk per 1 unit of return. But C.S. of NIBL has the highest risk per unit of return.

Joshi, (2007) conducted a study on "Investment Policy of Commercial Banks in Nepal, a comparative study of Everest Bank Ltd. With NABIL bank Ltd. and Bank of Katmandu" with the objectives of:
a. To discuss fund mobilization and investment policy of EBL, NABIL and BOK ltd.
b. To evaluate the liquidity, efficiency and profitability and risk position.
c. To evaluate the growth ratios of loan \& advance, total Investment with other financial variable.
d. To analyze the trend of deposit utilization towards total investment and loan \& advances.
e. To conduct hypothetical test to find whether is significant difference between the various important ratios of EBL, NABIL and BOK.

In this study, major findings are as follows:
a. The liquidity position of the EBL is comparatively better than NABIL and BOK. EBL has the highest cash and bank balance to total deposits, cash and bank balance to total current assets ratios. NABIL has the lowest liquidity position than out of other two banks. EBL has good deposit collection and has made enough investment on government securities but it has maintained moderate investment policy on loan and advances.
b. From the analysis of assets management ratio on activity ratio, it can be concluded that EBL has comparatively or in between successful in compared to NABIL and BOK. The total investment of EBL is in between in compared to other two banks.
c. In the study, loan \& advances to total deposit is higher in BOK. But the coefficient of Variation is higher in EBL.
d. In analysis of profitability, total investment earned to total outside assets of EBL is lowest at all. But overall analysis of profitability, EBL has average profitability ratio. EBL is average profitable in comparisons to other banks i.e. NABIL and BOK. From the view point of risk ratio. EBL has higher capital risk ratio but average of credit risk ratio in compared of NABIL and BOK.

Kafle, Suvaraj (2009) has conducted a research entitled "Impact \& Implementation of Nepal Rastra Bank Directives On Non-Performing Loan". A comparative study of the selected nepalese commercial banks NBL, SCBNL, NBL, LBL, NICB and NBB. Objectives of the Study are:

1. To find out the relationship between loan loss provision and total loan and advances.
2. To analyze the status of Non-Performing Loan of the sampled banks and to suggest necessary recommendations on the base of research findings.
3. To examine the impact of NRB guidelines (Non-Performing Loan) on financial performance of the sampled banks.
4. To examine whether NRB directives are being actually followed or not in respect to the Non-Performing Loan by the sampled banks.
5. To examine whether the implementation of NRB directives are being monitored or not.

Findings of the Study are:

Nepal Bank Limited, as a government wing bank, its operating result has been affected by the governmental dynamism which is not found satisfactory comparing to other banks in Nepal. Its operating efficiency has been paralyzed likely other enterprises equipped by government. Handover of NBL to foreign management has
proven some important improvement in respect to the operating culture of this bank. But even comparing to other private sector and joint venture banks present in Nepal, NBL is still showing some loop holes in its operation. Average NPL figure 29.29\% shows bank's incapability in recovery of its interest and principal amount which is absolutely very higher than the international and NRB standards. Similarly, average loan loss provision ratio $32.48 \%$ shows a huge profitable amount has been freeze for the creation provision against loan. As well being the largest deposit holder bank of the Nepal, NBL is employing only $42.39 \%$ average deposit to the interest earnable locations which shows the banks inefficiency in making loan and advances portfolio. However, handover of the management to the foreign management team has raked over banks overall financial discrepancies into the lane. Banks a huge sum of non performing loan has been recovered, managerial strategies have been formulated, deposit mobilization structure has been revised, all the functions have been systematized and NRB standards have been maintained as per the NRB policies and norms. As a reason, bank has been equipped towards profit in a short span of time.

Nabil Bank Limited as a joint venture bank, established as a first private sector bank has shown its smartest operating results from the inception. NABIL also aims to be the lowest NPL bank in Nepal whose current average NPL stood only at $1.67 \%$ which is less than the international as well NRB standard. Similarly, its average deposit mobilization rate $68.63 \%$ with the CV of 0.07 shows banks efficiency in mobilizing the deposit to interest earnings. Similarly average loan loss provision ratio $2.83 \%$ reflects presence of large pass loan in its loan portfolio. Looking into the overall financial indicators of the bank all indicate a smarter growth in every aspect of the financial parameters.

Standard Chartered Bank Nepal, as only bank in Nepal with the global representation, shows its try in rendering a best class banking service. SCBNL's total deposit figure in 2008 stands at Rs. 26,847.02 million where the deposit employed towards loans and advances is only $41.72 \%$. Average deposit mobilization into loans and advances is only $41.72 \%$ which figure represents a very smaller amount has been deployed under the loan portfolio. But on the other hand, average Non Performing Loan ratio 2.60\% shows the presence of good quality of loans in its loans portfolio which is much below than the international standards. Also its average Loan Loss Provision ratio $3.10 \%$ reflects the availability of the good quality of loans which in turn describes that
very smaller amount has been cushioned to meet the required standards and thus profitable earning has also increased.

NIC Bank Limited as a locally promoted bank shows its extra efficiency in employing its total deposit in loan and advances. Its average deposit mobilization rate is $81.54 \%$ that means Rs. 81.54 has been invested in loans and advances from Rs. 100 deposit. Also average Non Performing Loan ratio only at $2.52 \%$ describes availability of good quality of loans in the loan portfolio. Continuously, average Loan Loss Provision ratio $3.33 \%$ tells a very smaller amount has been deducted from the profit to cushion the possible loan losses. As well meeting the entire NRB standard, it reflects its seriousness towards the banking operation as per NRB rules.

Lumbini Bank Limited, from the locally promoted group shows very weaker position in different financial parameters. Whether a huge sum of money has been employed in loans and advances, presence of bigger level bad loan is resulted the failure of banks operation. Its average deposit mobilization rate is $85.05 \%$ where $19.15 \%$ of loan is not performing well. This reflects bank's inefficiency in recovering of invested amount. As well average Loan Loss Provision figure $20.51 \%$ shows a very big sum of money has been cushioned against the loan loss provision and thus deducted the profit of the bank in contrary. This means, LBL requires recovering its non performing loans to minimize the presence of NPL, minimize the LLP and thus maximize the profit of the bank.

Nepal Bangladesh Bank Limited, a joint venture with Bangladesh also shows its weaker position regarding the loans and advances management. Very bigger amount of loan and advances has been availed in loss loan category. And the reason caused failure of the bank hence NRB captured the banks management for the necessary recovery efforts. In its total loans figure, 35.13\% (in 2007) of the loan is not performing well amongst more than $70 \%$ is loss loan i.e. more than $70 \%$ of the loan and advances is overdue more than 1 year that shows the banks incapability in recovering its investment in loan and advances. However, handover of banks management to NRB, has cutlet loan all the bad parameters of the bank to normal standards and that bank is equaling towards profit. Also, recovery of the bad loans is resulting reducing the level of non-performing loan.

Barahi, Mila (2008), entitled "A Comparative Study on NRB Directives \& its implementation in Nepalese Commercial Bank "A Case study of Everest Bank Limited, Nepal Bangladesh Bank and Lumbini Bank Limited) revealed that Everest Bank had risk averse attitude of the management or they have policy of investing low in the risky assets i.e. loan and advances as compared to NBBL and LBL because the loan and advances to total asset ratio of LBL, NBBL and EBL during the study period was appeared to be $52.3 \%, 47 \%$, and $29.34 \%$ respectively. The EBL has higher proportion of the investment in risk free or nominally risky asset like treasury bills, National saving bonds. Similarly, the loans and advances to total deposit ratio of NBBL, LBL and EBL during the study period was found to be $57.63 \%$, $56.35 \%$, and $35.94 \%$ respectively. It indicates that EBL has the most consistent and variability during the study period where as the NBBL has the higher consistent and variability as comparison to other two banks. LBL has the moderate level of consistent and variability.

Total loan of NBBL, LBL and EBL was found to be performing loan. Not only the public sector bank, even private sector bank like NBBL has higher proportion of nonperforming loan. However, in recent years NBBL has shown significant decrement in non-performing asset, which are the result of effective bank credit management and its efforts of recovering bad debts through the recovery of establishment of recovery cell.

Pandit, (2006) has conducted a research entitled "Investment Policy Analysis of Joint Venture Bank" with special references to NSBIL, BOK and EBL. The objectives of the study are follows:
a. To evaluate the liquidity management, assets management, efficiency, profitability position, risk position and investment practices of NSBIL, BOK and EBL.
b. To find out the relationship between deposit and total investment deposit and loan and total investments deposit and loan advances and net profit and outside assets.

In this study, major findings have been follows:
a. NSBIL has better liquidity position. It is in a good position to meet its daily cash requirement and current obligation. Liquidity position of EBL and BOK has not been satisfactory
b. NSBL's loans and advance to total deposited ratio is lower than EBL and BOK. It doesn't seem to follow any definite policy regarding the management of its assets.
c. The profitability position of all the banks is not satisfactory the banks haven't adopted sound investment policy in utilizing their surplus funds.
d. BOK and EBL are exposed to high credit risk and capital risk.
e. NSBIL and BOK have not been successful to increase there sources of fund. EBL has been successful in maintaining its higher growth rate of total deposit. f. There is significant relationship between deposits and total investment of BOK and EBC but the same is not significant of NSBIL.

Shrestha (2004) in her study "A comparative study on investment policy of joint venture banks" has studied primarily of four commercial banks i.e. Himalayan Bank Ltd., Nepal SBI Bank Ltd., Everest Bank Ltd. \& Bank of Kathmandu Ltd. The main objectives of her studies are as follows:

To compare, analysis \& evaluate the investment policy of these four commercial banks.

To evaluate, liquidity, activity \& portfolio ratios of these banks.

To find out the deposit collection \& the effectiveness of fund mobilization.

The Conclusion of the research study is as follows:

HBL is more successful in mobilizing the fund in proper way in comparison to other three commercial banks.

All these banks should have to increase the deposit collection, investment in securities shares \& debentures.

All banks should be in rural areas \& have to take effectives marketing strategy for their promotion.

New technology have to be introduce so to develop new banking system.

Shrestha (2004) conducted a study on "Nepal Rastra Bank Guidelines on Investment policy of commercial banks in Nepal (A case study of Nepal Investment Bank)". The main findings of the study are:

Bank is in good position to meet the daily cash requirement as bank has maintained the average cash \& bank balance in respect to total deposit.

The performance of NIBL regarding deposit collection granting loan \& advance \& investment is quite satisfactory but doesn't seem to follow definite policy.

NIBL has not efficiently utilized its equity capital hence return on equity is not satisfactory because of lack of sound investment policy for mobilization of its equity capital.

Interest earned to total operating income of NIBL is High. However bank failed to maintain net profit on the study.

From the analysis of coefficient of correlation. There is positive \& significant relation between total deposit \& loan and advances and current assets and current liabilities and loan and advances but there is negative and no significant relationship between outside assets \& her profit.

Joshi (2005) conducted a study on "Investment policy of commercial banks in Nepal: A comparative study of Everest Bank Limited, Nabil Bank Limited \& Bank of Kathmandu" has presented research finding of the study are:

The liquidity position of the EBL is comparatively better than NABIL \& BOK. EBL has the Highest cash \& bank balance to total deposit, cash \& bank balance to current assets ratio. Nabil has lowest liquidity position than that of other two banks. EBL has good deposit collection \& has made enough investment on government securities but it is maintained moderate investment policy on loan \& advances.

From the analysis of assets management ratio or activity ratio, it can be concluded that EBL is comparatively average or in between successful in compared to Nabil \& BOK. The total investment of EBL is in between in compared to other two banks.

In analysis of profitability, total interest earned to total outside assets of EBL is lowest at all. But overall analysis of profitability ratios. EBL is average profitability ratios.

EBL is average profitable in comparison to other compared banks i.e. Nabil \& BOK. From the view point of risk ratio, EBL has Higher capital risk but average of credit risk ratio in compared to Nabil \& BOK.

Amatya (2005), in Its research study entitled, "A comparative study on investment policy of commercial bank \& finance companies of Nepal" has pointed out the following objectives:

To find out the relationship between profitability \& assets structure of the banks \& finance i.e., Standard Charted Bank Ltd. \& BOK Ltd. \& finance companies i.e. international leasing \& finance company, standard finance company \& universal finance company.

To project the deposit utilization \& investment of the banks in companion to finance companies.

To commend the polices to be adopted by sample banks \& finance based by sample banks \& finance based on financial analysis for its future development.

The study is based on secondary data \& time period is limited of 9 years from 1996/97 to 2004/05. this study has mentioned only three banks \& three finance companies. The conclusions of the study are as follows:

Finance company has successfully invested their deposit collection as loan \& advance in comparison to commercial bank as they hve higher loan \& advance to total deposit ratio.

Profitability position of the commercial banks except BOK Ltd. is better than that of fiancé companies.

Trend value of net profit is increasing trend \& commercial banks have comparatively higher value than finance companies.

He has made the following recommendation:
The sampled firms haven't properly analyzed the causes \& effects of the variables so they are recommended to prepare future investment policies \& plan after detail analysis of causes \& effect of the variables.

Evaluate the investment opportunities \& alternatives using statistical, capital budgeting \& other financial tools to avoid the large amount of doubtful \& risks as they have main trends a large amount of loan loss provision.

Commercial banks \& finance companies need to add extra amount or investment on government securities as they are less risk investment \& are considered as liquid assets.

### 2.4 Research Gap

In Nepal, there have been no up-to-date studies carrying out regarding investment analysis of commercial banks. It is found that some of point of this study has been match with previous master's degree student's thesis. The previous researcher focused only in some of data but tried it present in many ways. This thesis tried to analyze overall return in the form of net profit and financial ratios linked with net profit and investment specially linked with loan and advances. Nearly related with this thesis researcher focused only on the risk and return aspect of selected commercial banks from investors perspectives using data of market price of stock. But here from own bank management point of view this study is conducted and more and more data from annual report and other source are used.

For sampling technique most of researcher use judgment technique and two or three company are selected for research. This may not lead their findings in general. But in this thesis 5 sample bank are selected over systematic judgment technique are used. This sample bank represent establishment of different time period with having different balance sheet size and organizational size. This thesis's findings are very useful for other research, decision making, conclusion making etc.

## CHAPTER-III

## RESEARCH METHODOLOGY

### 3.1 Research Design

This study is more analytical and empirical and less descriptive. Financial analysis with various statistical and financial tools has been used for analysis aspect. The research is based on recent historical data that are collected from secondary sources. It covers five years period from FY 64/65 to FY 68/69. It deals with the study of investment and its return of the selected commercial banks that is NABIL, HBL, BOK, LBL and NMB.

### 3.2 Sources of Data

This study is mainly based on secondary data are collected from their respective annual reports especially from balance sheet, profit and loss A/c and NABIL, HBL, BOK, LBL, NMB, website.

### 3.3 Population and Sampling process

There are many commercial banks whose shares are treated actively in the stock market: it is not possible to study all of them regarding the study topic. Therefore sampling technique will be used for selecting sample from population. For sample purpose population are selected from A grade listed company for fiscal year 2065/66 selected. There are 14 A grade commercial bank and 5 samples are selected. First difference of sample selection found by following formula $=($ no. of population)/(no. of sample to be selected) i.e. $14 / 5=2.8$ higher hole no. $=3$. Then first selected by self judgment no 1 among first three number. Then after next sample is selected by adding 3 thereafter i.e. $1,4,7,10$, and 13 . Currently 31 commercial banks are actively working in the nation.

Table 3.1
Nepal Stock Exchange Ltd.
Classification of the Listed Companies under the Listing Bye-Law (2053)
List of "A" Group company for the F/Y 2065/66
Group Commercial bank

| S.N. | Name of Commercial Banks |
| :---: | :--- |
| 1 | Nabil Bank Ltd. |
| 2 | Nepal Investment Bank Ltd. |
| 3 | Standard Chartered Bank Ltd. |
| 4 | Himalayan Bank Ltd. |
| 5 | Nepal SBI Bank Limited |
| 6 | Everest Bank Ltd |
| 7 | Bank of Kathmandu |
| 8 | Nepal Industrial \&Co.Bank |
| 9 | Machhachapuchhre Bank Ltd |
| 10 | Laxmi Bank Limited |
| 11 | Kumari Bank Ltd |
| 12 | Siddhartha Bank Limited |
| 13 | NMB Bank Ltd. |
| 14 | Development Credit Bank Ltd. |

[^0]Out of above listed commercial banks that operating their activities in Nepal. The following five commercial banks have been selected for the study:

| SN | Name of Commercial Banks | sample |
| :---: | :--- | ---: |
| 1 | Nabil Bank Ltd. | sample |
| 4 | Himalayan Bank Ltd. | sample |
| 7 | Bank of Kathmandu | sample |
| 10 | Laxmi Bank Limited | sample |
| 13 | NMB Bank Ltd. | sample |

### 3.4 Tools and Techniques of Analysis

The analysis of the commercial banks data will be done according to pattern of data available. Various financial \& statistical tools have been applied to analyze the various regarding the study topics which are explain below:

### 3.4.1 Financial Indicator

Financial tools are those, which helps to study the financial position of the firms. The financial tools used in this study are as follows:

## A. Net Profit to Total Income ratio

This ratio explains how much portion is left to owner or shareholder fund out of total income of commercial bank. Higher the ratio shows efficiency in control of expenditure.

The ratio is calculated as

Net Profit to Total Income ratio $=\frac{\text { Net Profit }}{\text { Total Income }}$

## B. Earning per share (EPS)

Earning per share refers the rupee amount earned per share of common stock
outstanding. The earning per share shows the profitability of the banks on a per share basis. The higher earning indicates the better achievements in terms of profitability of the banks by mobilizing their funds and vice versa. In other words, the earning per share indicates the strength and weakness of the bank. EPS is computed to know the earning capacity and to make comparison between concern banks.

It means the profit able nets of the shareholders' investment. EPS is one of the factors that affect the dividend policy and stock price of the firm.

EPS is calculated by dividend the net profit after taxes by the total number of the common shares outstanding.
$E P S=\frac{\text { net profit after taxes }}{\text { no.of common shares outstanding }}$

## C. Dividend on Share Capital (Including Bonus) (DPS)

Dividend per share indicates the rupees earnings distributed to common stock holders per share held by them. It measures the dividend distribution to each equity share holders. Dividend per share shows the portion of earning distribution to the shareholders on per share basis. Generally, the portion of earning distribution to the shareholders is on per share basis. The higher DPS creates positive attitudes of the shareholders toward the bank, is common stock, which consequently helps to increase the market price of the share. And it also works as the indicator of better performance of the bank management.

It is calculated by dividing the total dividend distributed to equity shareholders by the total number of equity share outstanding, which is given below:

$$
\text { DPS }=\frac{\text { total dividend to ordianary shareholders }}{\text { no.of ordinary shares outstanding }}
$$

## D. Total Loan to Deposits ratio

In banking term total loan to deposits ratio is known as credit to deposit ratios (CD ratio). This ratio shows portions of the bank's deposit collections utilization for income generate. Major source of fund in bank is deposit from customer which is
investing in loan and advances and bill purchase for generate regular interest income. Deposits are used to grant loans and advances. Therefore, the bank should manage its deposits efficiently. This ratio is calculated to determine the utilization of deposits for profit generating purpose on the loans and advances Statutory provision for this ratio as per Nepal Rastra Bank is maximum $80 \%$. Near to $80 \%$ shows efficient uses of deposit collections and over the $80 \%$ lead to liquidity crunch and may lead to difficult to operation and failure to back customer deposit. Which create negative impact to customer.

It is calculated by dividing Total Loan and advances by the total deposit, which is given below:

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

## E. Interest Income to Loan and Advances ratio

Major and regular source of income for banks is interest income. Which is come from investment of loan and Advances. This ratio measures the capacity of the banks for earning interest through proper utilization of loan and advances. Higher ratio shows efficiency of using loan and advances to earn interest. This ratio can be calculated as:

$$
\text { Interest Income to Loan and Advances ratio }=\frac{\text { Total Interest Income }}{\text { Total Loan and Advances }}
$$

## F. Net Profit to Loan and Advances ratio

This ratio show return on loan and advances, indicates how efficiently the bank has utilized its resources in form of loan and advances. Higher ratio shows efficiency of using loan and advances to make higher net profit. This ratio can be calculated as:

$$
\text { Net Profit to Loan and Advances ratio }=\frac{\text { Net Profit }}{\text { Total Loan and Advances }}
$$

## G. Net Profit to Total Assets ratio

This ratio show return on total assets indicates how efficiently the bank has utilized its total resources i.e. total assets to generate profit. Higher ratio shows efficiency of using total assets and overall operation of bank. A bank have to earn satisfactory return on assets to shows efficiency of management and overall performance of bank. This ratios is major indicator for comparison bank in term of profit. This ratio can be calculated as:

$$
\text { Net Profit to Total Assets ratio }=\frac{\text { Net Profit }}{\text { Total Assets }}
$$

## H. Non-performing Loan to Total Loan ratio

This ratio show how much portion of total loan and advances are not performing well making regular earning and as per pre determined deed. Higher ratio shows inefficiency of using loan and advances. In banking term simply this ratio call NPL or NPA or Non-performing Loan. Higher ratio require high provision for loan loss from profit and loss a/c. More than $5 \%$ of this ratio is worst condition of bank position and leads to bank failure. It also shows management inefficient in investing its deposit in loan and advances. This ratio can be calculated as:

$$
\text { Non performing Loan to Total Loan ratio }=\frac{\text { Non performing Loan }}{\text { Total Loan and Advances }}
$$

## I. Weighted Average Interest Rate Spread

Difference between weighted interest given to deposit and weight interest taken from loan and advances is weighted Average Interest Rate Spread. Presently Nepal Rastra Bank has determined this ratio should not be maximum of 6 percentages which is changeable as per time. Higher the ratio shows better to bank and positive gap between income and expenditure of interest. This ratio show capacity or littlely quality of earning but not shows overall profit position.

This ratio can be calculated as:

Weighted Average Interest Rate Spread
$=$ Weighted Average Interest income from loan and advances - Weighted Average Interest expenditure for deposit

### 3.4.2 Statistical tools

Besides the financial tools, various statistical tools have been used to conduct this study. The result of analysis has been properly tabulated, compared, analyzed and interpreted. In this study the following statistical tools are used to analyze the relationship between dividend and other variables.

## a. Arithmetic Mean ( $\overline{\boldsymbol{X}}$ )

The arithmetic mean is also known as the average. Arithmetic mean of a given set of observation is their sum dividend by the number of observation. In general, x1, $\mathrm{x} 2, \ldots ., \mathrm{xn}$ are the given " n " observation then there arithmetic mean. Adding together the entire item and dividend this total by number of item obtained its value. Symbolically,

Arithematic mean $(\overline{\boldsymbol{x}})=\frac{\sum x}{N}$
Where, $\quad x=$ sum of the size of the items

$$
\mathrm{N}=\text { numbers of observation }
$$

## b. Standard deviation ( $\sigma$ )

Karl Person introduces the standard deviation concept in 1923. It is most important and widely used measures of studying dispersion. It is also a statistical measure of the variability of a set of observations. The standard deviation measures the absolute dispersion. Greater the amount of dispersion, greater will be the standard deviation. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series \& vice- versa.

Standard deviation is given by:
$\sigma=\sqrt{\frac{1}{N} \sum_{\mathrm{i}=1}^{\mathrm{n}}\left(\mathrm{x}_{\mathrm{i}}-\overline{\mathrm{X}}\right)}$, for historical data purpose $\sigma=\sqrt{\frac{1}{\mathrm{~N}-1} \sum_{\mathrm{i}=1}^{\mathrm{n}}\left(\mathrm{x}_{\mathrm{i}}-\overline{\mathrm{X}}\right)}$ which is used in study.

Where, $\quad n=$ Number of observation
$\bar{x}=$ Mean

## c. Co-efficient Variance (CV)

It reflects the relation between standard deviation and mean. The relative measure of dispersion based on the standard deviation is known as coefficient of standard deviation. The series for which the coefficient of variance is greater is said to be more variable or conversely less consistent less uniform, less stable of less homogeneous. In the same way the series for which the coefficient of variable is less is said to be less variable or more consistent, more uniform, more stable or more homogeneous. It shows the risk per unit of observation and provides a more meaningful basis for comparison when the observations means are not same.

Coefficient of Variation $(C V)=\frac{\text { Standard deviation }(\sigma)}{\operatorname{Mean}(\bar{x})}$
where S.D. stand for standa
To study here CV is calculated in percentage by multiplying 100 i.e. Coefficient of Variation $(C V)=\frac{\text { Standard deviation }(\sigma)}{\operatorname{Mean}(\bar{x})} * 100$

## d. Coefficient of Correlation (r)

The degree of relationship between the variables under consideration is measure through the correlation analysis. Correlation analysis only helps in determining the extent to which the two variables are correlated but it does not tell us about cause and effect relationship. The algebraic sign of the correlation coefficient indicates only the direction of the relationship between two variables, whether direct or inverse, while
the numerical value of the coefficient is concerned with the strength or closeness of the relationship between two variables. Two variables are correlated when they are related that the change in the value of one variable is accompanied by change in the value of other. Correlation may be positive or negative. If two observation is negatively correlated which combined in portfolio reduces the risk. If two observation are positively correlated risk cannot be reduced. Correlation coefficient measures the relationship between two variables in quantitative terms. Correlation coefficient always lies in the range of +1 to -1 . A positive correlation coefficient indicates observations move in the same direction and vice versa. Karl pearson's correlation coefficient is given by:
correlation coefficient between X and Y

$$
r_{x y}=\frac{n \sum X Y-\sum X \sum Y}{\sqrt{n \sum X^{2}-\left(\sum X\right)^{2}} \sqrt{n \sum Y^{2}-\left(\sum Y\right)^{2}}}
$$

Value of $\mathrm{r}_{\mathrm{xy}}=1$, there is perfect positive correlation and -1 is perfect negative correlation. $\mathrm{r}_{\mathrm{xy}}=0$ means there is no correlation. When $\mathrm{r}_{\mathrm{xy}}$ lies between 0.7 to 0.999 ( -0.7 to -0.999 ) there is high degree of positive (or negative) correlation. When $\mathrm{r}_{\mathrm{xy}}$ lies between 0.5 to $0.699(-0.5$ to -0.699$)$ there is moderate degree of positive (or negative) correlation. When $\mathrm{r}_{\mathrm{xy}}$ lies less than 0.5 to -0.5 except 0 there is low degree of positive (or negative) correlation.

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

The Probable error is used to test whether the calculated value of sample correlation coefficient is significant or not. Probable error of correlation coefficient can be calculated as:
P.E. $\left(\mathrm{r}_{\mathrm{xy}}\right)=0.6745 \times \frac{1-\mathrm{r}^{2}}{\sqrt{\mathrm{n}}}$

If $r_{x y}<$ P.E. $\left(r_{x y}\right)$, then the value of $r_{x y}$ is not significant

If $r_{x y}>6 \times$ P.E. $\left(r_{x y}\right)$, then the value of $r_{x y}$ is definitely significant in other condition cannot say anything certainly.

## CHAPTER-IV

## PRESENTATION AND ANALYSIS OF DATA

### 4.1 Net Profit to Total Income ratio

This ratio explains how much portion are left to owner or shareholder fund out of total income of commercial bank. Higher the ratio shows efficiency in control of expenditure.

Net Profit to Total Income ratio of the banks under the study is tabulated and figured as follows:

Table 4.1
Net Profit to Total Income ratio (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :--- | ---: | ---: | ---: | ---: | ---: |
| $2007 / 8$ | 29.68 | 41.58 | 41.89 | 31.41 | 21.24 |
| $2008 / 9$ | 30.56 | 39.96 | 41.42 | 35.12 | 12.31 |
| $2009 / 10$ | 24.11 | 22.13 | 37.93 | 40.55 | 15.80 |
| $2010 / 11$ | 22.29 | 25.46 | 39.34 | 40.34 | 13.37 |
| $2011 / 12$ | 23.74 | 24.65 | 39.58 | 37.21 | 2.79 |
| MEAN | 26.08 | 30.76 | 40.03 | 36.93 | 13.10 |
| SD | 3.77 | 9.24 | 1.62 | 3.83 | 6.72 |
| CV | 14.44 | 30.05 | 4.04 | 10.36 | 51.28 |

Source: Annual reports of NABIL, HBL, BOK, LBL and NMB

Net Profit to Total Income ratio (in percentage)


Figure 4.1: Trend line showing net profit to total income ratio (in percentage)

The average net profit to total income ratio of NABIL is $26.08 \%$ with the SD of $3.77 \%$. The highest and lowest ratios are $30.56 \%$ and $22.29 \%$ respectively. The CV is $14.44 \%$ which indicates the low fluctuating in net profit to total income ratio of NABIL. The average net profit to total income ratio of HBL is $30.76 \%$ with the SD of $9.24 \%$. The highest and lowest ratios are $41.58 \%$ and $22.13 \%$ respectively. The CV is $30.05 \%$ which indicates the moderate fluctuating in net profit to total income ratio of HBL. The average net profit to total income ratio of BOK is $40.03 \%$ with the SD of $1.62 \%$. The highest and lowest ratios are $41.89 \%$ and $37.93 \%$ respectively. The CV is $4.04 \%$ which indicates the low fluctuating in net profit to total income ratio of BOK. The average net profit to total income ratio of LBL is $36.93 \%$ with the SD of $3.83 \%$. The highest and lowest ratios are $40.55 \%$ and $31.41 \%$ respectively. The CV is $10.36 \%$ which indicates the low fluctuating in net profit to total income ratio of LBL. The average net profit to total income ratio of NMB is $13.10 \%$ with the SD of $6.72 \%$. The highest and lowest ratios are $21.24 \%$ and $22.29 \%$ respectively. The CV is $2.79 \%$ which indicates the low fluctuating in net profit to total income ratio of NMB.

From the data presented above, during the period, it shows that average net profit to total income ratio of BOK is the highest and that of NMB is lowest. Similarly, SD of

HBL is highest and BOK has lowest. The CV of BOK has highest consistency in net profit to total income ratio where as NMB has highly fluctuating.

### 4.2 Earning Per Share (EPS)

EPS is calculated by dividing the net profit after taxes by the total number of the common shares outstanding. The earning per share shows the profitability of the banks on a per share basis. The higher earning indicates the better achievements in terms of profitability of the banks by mobilizing their funds and vice versa. In other words, the earning per share indicates the strength and weakness of the bank. EPS is computed to know the earning capacity and to make comparison between concern banks. The earnings per share of the banks under the study is tabulated as follows:

Table 4.2

## Earning Per Share (EPS) (Rs.)

| year | NABIL | HBL | BOK | LBL | NMB |
| :--- | ---: | ---: | ---: | ---: | ---: |
| $2007 / 8$ | 115.86 | 62.74 | 59.94 | 16.45 | 4.28 |
| $2008 / 9$ | 113.44 | 61.90 | 54.68 | 20.70 | 4.42 |
| $2009 / 10$ | 83.81 | 31.80 | 43.08 | 24.12 | 10.65 |
| $2010 / 11$ | 70.67 | 44.66 | 44.51 | 23.25 | 11.08 |
| $2011 / 12$ | 83.57 | 39.94 | 37.88 | 21.55 | 2.61 |
| MEAN | 93.47 | 48.21 | 48.02 | 21.21 | 6.61 |
| SD | 20.07 | 13.68 | 9.03 | 2.99 | 3.95 |
| CV | 21.47 | 28.38 | 18.80 | 14.08 | 59.83 |

Source: Annual reports of NABIL, HBL, BOK, LBL and NMB

## Earning Per Share (EPS) (Rs.)



Figure 4.2: Trend line showing earning per share (Rs.)

The average EPS of NABIL is Rs 93.47 with the SD of Rs 20.07. The highest and lowest EPS are Rs 115.86 and 70.67 respectively. The CV is $21.47 \%$ which indicates the moderate fluctuating in EPS of NABIL. The average EPS of HBL is Rs 48.21 with The highest and lowest EPS are Rs 62.74 and 31.8. The SD of Rs 13.68 where as CV is $28.38 \%$ which indicates the moderate fluctuating in EPS of HBL. The average EPS of BOK is Rs 48.02. The highest and the lowest EPS are Rs 59.94 and 37.88 respectively. The SD is 9.03 and CV is $18.80 \%$ which indicates the low fluctuating in EPS of BOK. The average EPS of LBL is Rs 21.21 with the SD of Rs 2.99. The highest and lowest EPS are Rs 24.12 and 16.45 respectively. The CV is $14.08 \%$ which indicates the low fluctuating in EPS of LBL. The average EPS of NMB is Rs 6.61 with the SD of Rs 3.95. The highest and lowest EPS are Rs 11.08 and 2.61 respectively. The CV is $59.83 \%$ which indicates the high fluctuating in EPS of NMB.

From the data presented above, it shows that average EPS of NABIL is the highest and that of LBL is lowest. Similarly, SD of NABIL is highest and LBL has lowest standard deviation. The CV indicates that among the banks under study during the period, BOK has highest consistency in EPS where as the EPS of NMB has highly fluctuating.

### 4.3 Dividend on Share Capital (Including Bonus)

Generally well established and operated in profit gives dividend as form of cash and bonus shares. Dividend play vital role in wealth maximize of company. Higher the profit enables higher dividend and higher market value of share to shareholder and vice versa. Dividend on per share capital (including bonus) of the banks under the study is tabulated as follows:

Table 4.3

Dividend on Per Share Capital (Including Bonus) (DPS unit in \%)

| year | NABIL | HBL | BOK | LBL | NMB |
| :--- | ---: | :--- | :--- | ---: | :--- |
| $2007 / 8$ | 100 | 45 | 42.11 | 21.05 | 10.53 |
| $2008 / 9$ | 85 | 43.56 | 47.37 | 5.26 | 0 |
| $2009 / 10$ | 70 | 36.84 | 30 | 13 | 20.53 |
| $2010 / 11$ | 30 | 36.84 | 34.75 | 15.79 | 9 |
| $2011 / 12$ | 60 | 28.42 | 26.32 | 10 | 0 |
| MEAN | 69 | 38.13 | 36.11 | 13.02 | 8.01 |
| SD | 26.55 | 6.6 | 8.63 | 5.95 | 8.55 |
| CV | 38.48 | 17.31 | 23.9 | 45.68 | 106.71 |

Source: Annual reports of NABIL, HBL, BOK, LBL and NMB

Dividend on Share Capital (Including Bonus) (unit in \%)


Figure 4.3: Trend line showing dividend on Per share capital

The average DPS of NABIL is Rs 69.00 with the SD of Rs 26.55 . The highest and lowest DPS are Rs 100 and 30 respectively. The CV is 38.48 \% which indicates the moderate fluctuating in DPS of NABIL. The average DPS of HBL is Rs 38.13 with The highest and lowest DPS are Rs 45 and 28.42. The SD of Rs 6.60 where as CV is $17.31 \%$ which indicates the low fluctuating in DPS of HBL. The average DPS of BOK is Rs 36.11. The highest and the lowest DPS are Rs 47.37 and 26.32 respectively. The SD is 8.63 and CV is $23.90 \%$ which indicates the moderate fluctuating in DPS of BOK. The average DPS of LBL is Rs 13.02 with the SD of Rs 5.95 . The highest and lowest DPS are Rs 21.05 and 5.26 respectively. The CV is $45.68 \%$ which indicates the moderate fluctuating in DPS of LBL. The average DPS of NMB is Rs 8.01 with the SD of Rs 8.55 . The highest and lowest DPS are Rs 20.53 and 0 respectively. The CV is $59.83 \%$ which indicates the high fluctuating in DPS of NMB.

The mean value of DPS shows the amount of portion of earning distribution to the share holders. From the data presented, it shows that NABIL provides the higher earning distribution to its share holders and NMB provides lowest earning distribution to its shareholders. Similarly, SD of NABIL is highest and LBL has lowest standard deviation. The CV indicates that among the banks under study during the period, HBL has highest consistency in DPS where as the DPS of NMB has highly fluctuating.

### 4.4 Total Loan to Deposits ratio

This ratio shows portions of the bank's deposit collections utilization for income generate. Major source of fund in bank is deposit from customer which is investing in loan and advances and bill purchase for generate regular interest income. Deposits are used to grant loans and advances. Therefore, the bank should manage its deposits efficiently. Total Loan to Deposits ratio of sample bank is tabulated and figured below.

Table 4.4
Total Loan to Deposits ratio (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :--- | ---: | ---: | ---: | ---: | ---: |
| $2007 / 8$ | 68.18 | 63.37 | 80.51 | 89.72 | 120.96 |
| $2008 / 9$ | 73.87 | 73.58 | 82.65 | 83.88 | 76.78 |
| $2009 / 10$ | 71.17 | 77.43 | 83.9 | 81.49 | 78.44 |
| $2010 / 11$ | 78.29 | 80.57 | 85.43 | 84.1 | 88.16 |
| $2011 / 12$ | 77.91 | 75.36 | 77.3 | 73.13 | 78.01 |
| MEAN | 73.88 | 74.06 | 81.96 | 82.46 | 88.47 |
| SD | 4.35 | 6.52 | 3.17 | 6.03 | 18.72 |
| CV | 5.88 | 8.8 | 3.86 | 7.31 | 21.16 |

Source: Annual reports of NABIL, HBL, BOK, LBL and NMB

Figure 4.4
Total Loan to Deposits ratio (in percentage)


Figure 4.04: Trend line showing total loan to deposits ratio

The average Total Loan to Deposits ratio of NABIL is $73.88 \%$ with the SD of $4.35 \%$. The highest and lowest ratios are $78.29 \%$ and $68.18 \%$ respectively. The CV is $5.88 \%$ which indicates the low fluctuating in Total Loan to Deposits ratio of NABIL. .The average Total Loan to Deposits ratio of HBL is $74.06 \%$ with the SD of $6.52 \%$. The highest and lowest ratios are $80.57 \%$ and $63.37 \%$ respectively. The CV is $8.80 \%$ which indicates the low fluctuating in Total Loan to Deposits ratio of HBL. The average Total Loan to Deposits ratio of BOK is $81.96 \%$ with the SD of $3.17 \%$. The highest and lowest ratios are $85.43 \%$ and $77.30 \%$ respectively. The CV is $3.86 \%$ which indicates the low fluctuating in Total Loan to Deposits ratio of BOK. The average Total Loan to Deposits ratio of LBL is $82.46 \%$ with the SD of $6.03 \%$. The highest and lowest ratios are $89.72 \%$ and $73.13 \%$ respectively. The CV is $7.31 \%$ which indicates the low fluctuating in Total Loan to Deposits ratio of LBL. The average Total Loan to Deposits ratio of NMB is $88.47 \%$ with the SD of $18.72 \%$. The highest and lowest ratios are $120.96 \%$ and $76.78 \%$ respectively. The CV is $21.16 \%$ which indicates the high fluctuating in Total Loan to Deposits ratio of NMB.

From the data presented above, during the period, it shows that average Total Loan to Deposits ratio of NMB is the highest and that of NABIL is lowest. Similarly, SD of NMB is highest and BOK has lowest. The CV of BOK has highest consistency in Total Loan to Deposits ratio where as NMB has highly fluctuating.

### 4.5 Interest Income to Loan and Advances ratio

Major and regular source of income for banks is interest income. Which is come from investment of loan and Advances. This ratio measures the capacity of the banks for earning interest through proper utilization of loan and advances. Higher ratio shows efficiency of using loan and advances to earn interest. This ratio of sample banks are tabulated and figured below.

Table 4.5
Interest Income to Loan and Advances ratio (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :--- | ---: | ---: | ---: | ---: | ---: |
| $2007 / 8$ | 8.04 | 9.73 | 8.3 | 7.85 | 7.4 |
| $2008 / 9$ | 8.82 | 9.18 | 8.02 | 8.76 | 5.63 |
| $2009 / 10$ | 10.41 | 10.81 | 10.02 | 9.97 | 9.15 |
| $2010 / 11$ | 12.5 | 13.12 | 12.08 | 12.11 | 11.5 |
| $2011 / 12$ | 12.85 | 13.14 | 12.01 | 11.77 | 12.72 |
| MEAN | 10.52 | 11.2 | 10.09 | 10.09 | 9.28 |
| SD | 2.14 | 1.86 | 1.95 | 1.85 | 2.9 |
| CV | 20.38 | 16.62 | 19.29 | 18.34 | 31.25 |

Source: Annual reports of NABIL, HBL, BOK, LBL and NMB

Interest Income to Loan and Advances ratio (in percentage)


Figure 4.5: Trend line showing Interest Income to Loan and Advances ratio

The average interest income to loan and advances ratio of NABIL is $10.52 \%$ with the SD of $2.14 \%$. The highest and lowest ratios are $12.85 \%$ and $8.04 \%$ respectively. The is CV 20.38 \% which indicates the low fluctuating in Interest income to loan and advances ratio of NABIL..The average Interest income to loan and advances ratio of HBL is $11.20 \%$ with the SD of $1.86 \%$. The highest and lowest ratios are $13.14 \%$ and $9.18 \%$ respectively. The CV is $16.62 \%$ which indicates the low fluctuating in Interest income to loan and advances ratio of HBL. The average Interest income to loan and advances ratio of BOK is $10.09 \%$ with the SD of $1.95 \%$. The highest and lowest ratios are $12.08 \%$ and $8.02 \%$ respectively. The CV is $19.29 \%$ which indicates the low fluctuating in Interest income to loan and advances ratio of BOK. The average Interest income to loan and advances ratio of LBL is $10.09 \%$ with the SD of $1.85 \%$. The highest and lowest ratios are $12.11 \%$ and $7.85 \%$ respectively. The CV is $18.34 \%$ which indicates the low fluctuating in Interest income to loan and advances ratio of LBL. The average Interest income to loan and advances ratio of NMB is $9.28 \%$ with the SD of $2.90 \%$. The highest and lowest ratios are $12.72 \%$ and $5.63 \%$ respectively. The CV is $31.25 \%$ which indicates the moderate fluctuating in Interest income to loan and advances ratio of NMB.

From the data presented above, during the period, it shows that average Interest income to loan and advances ratio of BLL is the highest and that of NMB is lowest. Similarly, SD of NMB is highest and LBL has lowest. The CV of HBL has highest consistency in Interest income to loan and advances ratio where as NMB has highly fluctuating.

### 4.6 Net Profit to Loan and Advances ratio

This ratio show return on loan and advances, indicates how efficiently the bank has utilized its resources in form of loan and advances. Higher ratio shows efficiency of using loan and advances to make higher net profit. This ratio of sample banks are tabulated and figured below.

Table 4.6
Net Profit to Loan and Advances ratio (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :--- | ---: | ---: | ---: | ---: | ---: |
| $2007 / 8$ | 3.96 | 3.26 | 2.9 | 1.47 | 3.62 |
| $2008 / 9$ | 4.02 | 3.04 | 3.09 | 1.63 | 1.19 |
| $2009 / 10$ | 3.47 | 1.82 | 2.99 | 2.32 | 2.02 |
| $2010 / 11$ | 3.73 | 2.83 | 3.37 | 2.49 | 1.95 |
| $2011 / 12$ | 4.14 | 2.74 | 3.15 | 2.22 | 0.42 |
| MEAN | 3.86 | 2.74 | 3.1 | 2.03 | 1.84 |
| SD | 0.27 | 0.55 | 0.18 | 0.45 | 1.19 |
| CV | 6.88 | 20.13 | 5.76 | 22.15 | 64.6 |

Source: Annual reports of NABIL, HBL, BOK, LBL and NMB
Figure 4.06
Net Profit to Loan and Advances ratio (in percentage)


Figure 4.6: Trend line showing Net Profit to Loan and Advances ratio

The average Net profit to loan and advances ratio of NABIL is $3.86 \%$ with the SD of $0.27 \%$. The highest and lowest ratios are $4.14 \%$ and $3.47 \%$ respectively. The CV is 6.88\% which indicates the low fluctuating in Net profit to loan and advances ratio of NABIL..The average Net profit to loan and advances ratio of HBL is $2.74 \%$ with the SD of $0.55 \%$. The highest and lowest ratios are $3.26 \%$ and $1.82 \%$ respectively. The CV is $20.13 \%$ which indicates the moderate fluctuating in Net profit to loan and advances ratio of HBL. The average Net profit to loan and advances ratio of BOK is $3.10 \%$ with the SD of $0.18 \%$. The highest and lowest ratios are $3.37 \%$ and $2.90 \%$ respectively. The CV is $5.76 \%$ which indicates the low fluctuating in Net profit to loan and advances ratio of BOK. The average Net profit to loan and advances ratio of LBL is $2.03 \%$ with the SD of $0.45 \%$. The highest and lowest ratios are $2.49 \%$ and $1.47 \%$ respectively. The CV is $22.15 \%$ which indicates the moderate fluctuating in Net profit to loan and advances ratio of LBL. The average Net profit to loan and advances ratio of NMB is $1.84 \%$ with the SD of $1.19 \%$. The highest and lowest ratios are $3.62 \%$ and $0.42 \%$ respectively. The CV is $64.60 \%$ which indicates the high fluctuating in Net profit to loan and advances ratio of NMB.

From the data presented above, during the period, it shows that average Net profit to loan and advances ratio of NABIL is the highest and that of NMB is lowest. Similarly, SD of NMB is highest and BOK has lowest. The CV of BOK has highest consistency in Net profit to loan and advances ratio where as NMB has highly fluctuating.

### 4.7 Net Profit to Total Assets ratio

This ratio show return on total assets indicates how efficiently the bank has utilized its total resources i.e. total assets to generate profit. Higher ratio shows efficiency of using total assets and overall operation of bank. This ratio of sample banks are tabulated and figured below.

Table 4.7
Net Profit to Total Assets ratio (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :--- | ---: | :--- | :--- | ---: | ---: |
| $2007 / 8$ | 2.32 | 1.76 | 2.04 | 1.13 | 0.82 |
| $2008 / 9$ | 2.55 | 1.91 | 2.25 | 1.22 | 0.4 |
| $2009 / 10$ | 2.37 | 1.19 | 2.18 | 1.66 | 1.21 |
| $2010 / 11$ | 2.43 | 1.91 | 2.44 | 1.76 | 1.39 |
| $2011 / 12$ | 2.8 | 1.76 | 2.1 | 1.5 | 0.28 |
| MEAN | 2.49 | 1.71 | 2.2 | 1.45 | 0.82 |
| SD | 0.19 | 0.3 | 0.15 | 0.27 | 0.49 |
| CV | 7.67 | 17.47 | 7.04 | 18.77 | 59.28 |

Source: Annual reports of NABIL, HBL, BOK, LBL and NMB

Net Profit to Total Assets ratio (in percentage)


Figure 4.7: Trend line showing net profit to loan and advances ratio

The average Net profit to total assets ratio of NABIL is $2.49 \%$ with the SD of $0.19 \%$. The highest and lowest ratios are $2.80 \%$ and $2.32 \%$ respectively. The CV is $7.67 \%$ which indicates the low fluctuating in Net profit to total assets ratio of NABIL. The average Net profit to total assets ratio of HBL is $1.71 \%$ with the SD of $0.30 \%$. The highest and lowest ratios are $1.91 \%$ and $1.76 \%$ respectively. The CV is $17.47 \%$ which indicates the low fluctuating in Net profit to total assets ratio of HBL. The average Net profit to total assets ratio of BOK is $2.20 \%$ with the SD of $0.15 \%$. The highest and lowest ratios are $2.44 \%$ and $2.04 \%$ respectively. The CV is $7.04 \%$ which indicates the low fluctuating in Net profit to total assets ratio of BOK. The average Net profit to total assets ratio of LBL is $1.45 \%$ with the SD of $0.27 \%$. The highest and lowest ratios are $1.76 \%$ and $1.13 \%$ respectively. The CV is $18.77 \%$ which indicates the high fluctuating in Net profit to total assets ratio of LBL. The average Net profit to total assets ratio of NMB is $0.82 \%$ with the SD of $0.49 \%$. The highest and lowest ratios are $1.39 \%$ and $0.28 \%$ respectively. The CV is $59.28 \%$ which indicates the high fluctuating in Net profit to total assets ratio of NMB.

From the data presented above, during the period, it shows that average Net profit to total assets ratio of NABIL is the highest and that of NMB is lowest. Similarly, SD of NMB is highest and BOK has lowest. The CV of BOK has highest consistency in Net profit to total assets ratio where as NMB has highly fluctuating.

### 4.8 Non-performing Loan to Total Loan ratio

This ratio show how much portion of total loan and advances are not performing well making regular earning and as per pre determined deed. Higher ratio shows inefficiency of using loan and advances. This ratio of sample banks are tabulated and figured below.

## Table 4.8

Non-performing Loan to Total Loan ratio (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :--- | ---: | ---: | ---: | ---: | ---: |
| $2007 / 8$ | 0.74 | 2.36 | 1.86 | 0.13 | 1.52 |
| $2008 / 9$ | 0.8 | 2.16 | 1.27 | 0.08 | 0.51 |
| $2009 / 10$ | 1.48 | 3.52 | 1.52 | 0.12 | 0.7 |
| $2010 / 11$ | 1.77 | 4.22 | 1.82 | 0.9 | 0.27 |
| $2011 / 12$ | 2.33 | 2.09 | 2.3 | 0.62 | 2.45 |
| MEAN | 1.42 | 2.87 | 1.75 | 0.37 | 1.09 |
| SD | 0.67 | 0.95 | 0.39 | 0.37 | 0.89 |
| CV | 47.12 | 33.14 | 22.13 | 100 | 82 |

Source: Annual reports of NABIL, HBL, BOK, LBL and NMB

Non-performing Loan to Total Loan ratio (in percentage)


Figure 4.8: Trend line showing non-performing loan to total loan ratio

The average Non-performing loan to total loan ratio of NABIL is $1.42 \%$ with the SD of $0.67 \%$. The highest and lowest ratios are $2.33 \%$ and $0.74 \%$ respectively. The CV is $47.12 \%$ which indicates the moderate fluctuating in Non-performing loan to total loan ratio of NABIL. The average Non-performing loan to total loan ratio of HBL is 2.87\% with the SD of $0.95 \%$. The highest and lowest ratios are $4.22 \%$ and $2.09 \%$ respectively. The CV is $33.14 \%$ which indicates the moderate fluctuating in Nonperforming loan to total loan ratio of HBL. The average Non-performing loan to total loan ratio of BOK is $1.75 \%$ with the SD of $0.39 \%$. The highest and lowest ratios are $2.30 \%$ and $1.27 \%$ respectively. The CV is $22.13 \%$ which indicates the low fluctuating in Non-performing loan to total loan ratio of BOK. The average Non-performing loan to total loan ratio of LBL is $0.37 \%$ with the SD of $0.37 \%$. The highest and lowest ratios are $0.90 \%$ and $0.08 \%$ respectively. The CV is $100.00 \%$ which indicates the high fluctuating in Non-performing loan to total loan ratio of LBL. The average Nonperforming loan to total loan ratio of NMB is $1.09 \%$ with the SD of $0.89 \%$. The highest and lowest ratios are $2.45 \%$ and $0.27 \%$ respectively. The CV is $82.00 \%$ which indicates the high fluctuating in Non-performing loan to total loan ratio of NMB.

From the data presented above, during the period, it shows that average Nonperforming loan to total loan ratio of HBL is the highest and that of LBL is lowest. Similarly, SD of HBL is highest and LBL has lowest. The CV of BOK has highest consistency in Non-performing loan to total loan ratio where as LBL has highly fluctuating.

### 4.9 Weighted Average Interest Rate Spread

Difference between weighted interest given to deposit and weight interest taken from loan and advances is weighted Average Interest Rate Spread. Higher the ratio shows better to bank and positive gap between income and expenditure of interest. This ratio of sample banks are tabulated and figured below.

Table 4.9
Weighted Average Interest Rate Spread (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :--- | ---: | ---: | ---: | ---: | ---: |
| $2007 / 8$ | 3.94 | 3.66 | 4.35 | 3.4 | 2.41 |
| $2008 / 9$ | 4.16 | 3.66 | 4.72 | 3.71 | 3.58 |
| $2009 / 10$ | 4.4 | 4.21 | 5.07 | 3.55 | 3.19 |
| $2010 / 11$ | 4.37 | 3.96 | 5.45 | 4.02 | 3.18 |
| $2011 / 12$ | 4.95 | 4.25 | 4.67 | 3.91 | 3.56 |
| MEAN | 4.36 | 3.95 | 4.85 | 3.72 | 3.18 |
| SD | 0.38 | 0.29 | 0.42 | 0.25 | 0.47 |
| CV | 8.62 | 7.23 | 8.67 | 6.82 | 14.88 |

Source: Annual reports of NABIL, HBL, BOK, LBL and NMB
Figure 4.09
Weighted Average Interest Rate Spread (in percentage)


Figure 4.9: Trend line showing weighted average interest rate spread

The average weighted average interest rate spread of NABIL is $4.36 \%$ with the SD of $0.38 \%$. The highest and lowest ratios are $4.95 \%$ and $3.94 \%$ respectively. The CV is $8.62 \%$ which indicates the low fluctuating in weighted average interest rate spread of NABIL. The average weighted average interest rate spread of HBL is $3.95 \%$ with the SD of $0.29 \%$. The highest and lowest ratios are $4.25 \%$ and $3.66 \%$ respectively. The CV is $7.23 \%$ which indicates the low fluctuating in weighted average interest rate spread of HBL. The average weighted average interest rate spread of BOK is 4.85\% with the SD of $0.42 \%$. The highest and lowest ratios are $5.45 \%$ and $4.35 \%$ respectively. The CV is $8.67 \%$ which indicates the low fluctuating in weighted average interest rate spread of BOK. The average weighted average interest rate spread of LBL is $3.72 \%$ with the SD of $0.25 \%$. The highest and lowest ratios are $4.02 \%$ and $3.40 \%$ respectively. The CV is $6.82 \%$ which indicates the low fluctuating in weighted average interest rate spread of LBL. The average weighted average interest rate spread of NMB is $3.18 \%$ with the SD of $0.47 \%$. The highest and lowest ratios are $3.58 \%$ and $2.41 \%$ respectively. The CV is $14.88 \%$ which indicates the low fluctuating in weighted average interest rate spread of NMB.

From the data presented above, during the period, it shows that average weighted average interest rate spread of BOK is the highest and that of NMB is lowest. Similarly, SD of NMB is highest and LBL has lowest. The CV of LBL has highest consistency in weighted average interest rate spread where as NMB has highly fluctuating.

### 4.10 Statistical Analysis

Besides the financial tools, various statistical tools have been used to conduct this study. The result of analysis has been properly tabulated, compared, analyzed and interpreted. In this study the following statistical tools are used to analyze the relationship between dividend and other variables.

The degree of relationship between the variables under consideration is measure through the correlation analysis. Correlation analysis only helps in determining the extent to which the two variables are correlated but it does not tell us about cause and effect relationship. Two variables are correlated when they are related that the change in the value of one variable is accompanied by change in the value of other.

Correlation may be positive or negative. If two observation is negatively correlated which combined in portfolio reduces the risk. If two observation are positively correlated risk cannot be reduced. Correlation coefficient measures the relationship between two variables in quantitative terms. Correlation coefficient always lies in the range of +1 to -1 . A positive correlation coefficient indicates observations move in the same direction and vice versa. Karl pearson's correlation coefficient is used for presenting data below.

### 4.10.1 Correlation coefficient between Net Profit and Loan and Advances

Net profit come from after deducting all the expenditure from all the expenditure. For commercial bank interest income is major income which is come from loan and advances investment as return. So there are relations between these items. This relation of sample banks are tabulated below.

Table 4.10.1

| correlation between net profit and loan and advances |  |  |  |  |  |
| :--- | ---: | :--- | ---: | ---: | :--- |
| Banks | correlation coeff(r) | Relationship |  | PE | Significance |
| NABIL | 0.973878 | high degree positive | 0.9484 | 0.0156 | significant |
| HBL | 0.664969 | moderate positive | 0.4422 | 0.1683 | significant |
| BOK | 0.972092 | high degree positive | 0.9450 | 0.0166 | significant |
| LBL | 0.92323 | high degree positive | 0.8524 | 0.0445 | significant |
| NMB | 0.384114 | low degree positive | 0.1475 | 0.2571 | significant |

Source: Appendix I
In the above table, we can see the relationship between Net profit and loan and advances of concerned sample banks i.e. NABIL, HBL, BOK, LBL and NMB respectively. The correlation coefficient of NABIL, BOK and LBL are in high degree positive, of LBL is in moderate positive but the correlation coefficient of NMB is in low degree positive which indicates that, if the Loan and Advances increases net profit increases and vice versa.

The coefficient of determination (r2) for NABIL, HBL, BOK, LBL and NMB is $0.9484,0.4422,0.9450,0.8524$ and 0.1475 which means that, $94.84 \%, 44.22 \%$, $94.50 \%, 85.24 \%$ and $147.5 \%$ of variation determined by each other variable net profit and loan and advances of NABIL, HBL, BOK, LBL and NMB respectively, which is considerably High.

The significance of the relationship between Net profit and loan and advances is measured by calculating probable errors of coefficient. From the above table we can conclude that the relationship between Net profit and loan and advances of NABIL, HBL, BOK, LBL and NMB is significant, as the correlation (r) is greater than 6 times PE.

### 4.10.2 Correlation coefficient between Net Profit and Total Assets

Net profit come from after deducting all the expenditure from all the expenditure. To generate profit or income total assets of banks should utilize proper ways. Uses of assets or size of assets and Net Profit have relation. This relation of sample banks are tabulated below.

Table 4.10.2

| correlation between net profit and total assets |  |  |  |  |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- | :---: |
| Banks | correlation coeff(r) | Relationship | r2 | PE | Significance |  |
| NABIL | 0.968043 | high degree positive | 0.9371 | 0.0190 | significant |  |
| HBL | 0.720515 | high degree positive | 0.5191 | 0.1450 | significant |  |
| BOK | 0.936229 | high degree positive | 0.8765 | 0.0372 | significant |  |
| LBL | 0.893563 | high degree positive | 0.7985 | 0.0608 | significant |  |
| NMB | 0.009982 | low degree positive | 0.0001 | 0.3016 | not significant |  |

Source: Appendix II
In the above table, we can see the relationship between Net profit and total assets of concerned sample banks i.e. NABIL, HBL, BOK, LBL and NMB respectively. The correlation coefficient of NABIL, HBL, BOK and LBL are in high degree positive, but the correlation coefficient of NMB is in low degree positive which indicates that, if the total assets increases net profit increases and vice versa.

The coefficient of determination (r2) for NABIL, HBL BOK and LBL is 0.9371, $0.5191,0.8765$ and 0.7985 which means that, $93.71 \%, 51.91 \%, 87.65 \%$ and $79.85 \%$ of variation determined by each other variable net profit and total assets of NABIL, HBL BOK and LBL respectivel, which is considerably High. The coefficient of determination (r2) for NMB is 0.0001 which means that, $0.01 \%$ of variation determined by each other variable net profit and total assets , which is low considerably. The significance of the relationship between Net profit and total assets is measured by calculating probable errors of coefficient. From the above table we can conclude that
the relationship between Net profit and total assets of NABIL, HBL, BOK and LBL is significant, as the correlation (r) is greater than 6 times PE. Similarly, in case of PE of NMB shows that there is no relationship between Net profit and total assets because correlation coefficient is greater than PE and less than 6PE.

### 4.10.3 Correlation coefficient between Dividend on Per Share Capital

 (Including Bonus) and Per Share Incomegenerally after ensuring of positive earning per share (EPS) come dividend per share ( DPS). because dividend are distributed from earning available to share. There are relationship between EPS and DPS. These relations of sample banks are tabulated below.

Table 4.10.3

| Correlation coefficient between DPS and EPS of sample banks |  |  |  |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- |
| Banks | correlation coeff(r) | Relationship | r2 | PE | Significance |
| NABIL | 0.9299 | high degree positive | 0.8648 | 0.0408 | significant |
| HBL | 0.7756 | high degree positive | 0.6016 | 0.1202 | significant |
| BOK | 0.9010 | high degree positive | 0.8118 | 0.0568 | significant |
| LBL | -0.4181 | low degree negative | 0.1748 | 0.2489 | not significant |
| NMB | 0.7301 | high degree positive | 0.5330 | 0.1409 | significant |

Source: Appendix III

In the above table, we can see the relationship between DPS and EPS of concerned sample banks i.e. NABIL, HBL, BOK, LBL and NMB respectively. The correlation coefficient of NABIL, HBL, BOK, and NMB are in high degree positive, which indicates that, if the EPS increases DPS increases and vice versa, but the correlation coefficient of LBL is in low degree negative . it shows that, if EPS increases DPS decrease and vice versa but it is not significant relation.

The coefficient of determination (r2) for NABIL, HBL and BOK is $0.8648,0.6016$, 0.8118 which means that, $86.48 \%, 60.16 \%, 81.18 \%$ of variation determined by each other variable EPS and DPS of NABIL, HBL, BOK respectively, which is considerably High. The coefficient of determination (r2) for NMB is 0.1409 which means that, $14.09 \%$ of variation determined by each other variable EPS and DPS ,
which is low considerably. For LBL case due to not in significant relation cannot say anything.

The significance of the relationship between DPS and EPS is measured by calculating probable errors of coefficient. From the above table we can conclude that the relationship between DPS and EPS of NABIL,HBL,BOK, NMB is significant, as the correlation (r) is greater than 6PE. Similarly, In case of LBL shows that there is no relationship between DPS and EPS because correlation coefficient is greater than PE and less than 6PE.

### 4.10.4 Correlation coefficient between Net Profit and Total Loan to Deposits ratio

Major source of fund for bank is deposit from customer. These deposits are invested in loan and advances to meet interest obligations for deposit they collected and profit for taking such risk. All the deposit cannot invest due to various reasons. These effects to banks net profit. Total loan to deposit ratio and net profit have relation. These relations of sample banks are tabulated below.

Table 4.10.4

| correlation between net profit and Total Loan to Deposits ratio |  |  |  |  |  |
| :--- | :---: | :--- | :--- | :--- | :--- |
| Banks | correlation coeff(r) | Relationship | r2 | PE | Significance |
| NABIL | 0.869805 | high degree positive | 0.7566 | 0.0734 | significant |
| HBL | 0.335603 | low degree positive | 0.1126 | 0.2677 | significant |
| BOK | 0.042403 | low degree positive | 0.0018 | 0.3011 | not significant |
| LBL | -0.69921 | moderate negative | 0.4889 | 0.1542 | not significant |
| NMB | -0.10646 | low degree negative | 0.0113 | 0.2982 | not significant |

Source: Appendix IV

In the above table, we can see the relationship between net profit and total loan to deposits ratio of concerned sample banks i.e. NABIL, HBL, BOK, LBL and NMB respectively. The correlation coefficient of NABIL is in high degree positive but the correlation coefficient of HBL and BOK are in low degree positive which indicates that, if the total loan to deposits ratio increases net profit increases and vice versa. The correlation coefficient of LBL and NMB is in moderate negative and low degree
negative respectively which indicates that, if the total loan to deposits ratio increases net profit decreases and vice versa.

The coefficient of determination (r2) for NABIL is 0.7566 which means that $75.66 \%$ of variation determined by each other variable net profit and total loan to deposits ratio of NABIL which is considerably High. The coefficient of determination (r2) for HBL is 0.1126 which means that $11.26 \%$ of variation determined by each other variable net profit and total loan to deposits ratio of NABIL which is considerably low. In case of BOK, LBL and NMB due to not in significant relation can not say anything.

The significance of the relationship between Net profit and total loan to deposits ratio is measured by calculating probable errors of coefficient. From the above table we can conclude that the relationship between Net profit and total loan to deposits ratio of NABIL and HBL is significant as the correlation (r) is greater than 6 times PE. Similarly, relationship between Net profit and total loan to deposits ratio of BOK, LBL and NMB shows that there is no relationship because correlation coefficient is greater than PE and less than 6PE.

### 4.10.5 Correlation coefficient between Net Profit and Non-performing Loan to Total Loan ratio

Non performing loan means such loan and advances which are not generating regular interest and not performing predetermined deed. This is risk to bank which come from deposit investment. It affects profit and loss account of bank. There is a relation between net profit and non performing loan to total loan ratio. These relations of sample banks are tabulated below.

Table 4.10.5

| correlation between net profit and Non-performing Loan to Total Loan ratio |  |  |  |  |  |
| :--- | ---: | :--- | ---: | :--- | :--- |
| Banks | correlation coeff(r) | Relationship | r2 | PE | Significance |
| NABIL | 0.955871 | high degree positive | 0.9137 | 0.0260 | significant |
| HBL | -0.10025 | low degree negative | 0.0101 | 0.2986 | not significant |
| BOK | 0.418778 | low degree positive | 0.1754 | 0.2487 | significant |
| LBL | 0.738789 | high degree positive | 0.5458 | 0.1370 | significant |
| NMB | -0.67534 | moderate negative | 0.4561 | 0.1641 | not significant |

Source: Appendix V

In the above table, we can see the relationship between net profit and non-performing loan to total loan ratio of concerned sample banks i.e. NABIL, HBL, BOK, LBL and NMB respectively. The correlation coefficient of NABIL and LBL are in high degree positive but the correlation coefficient of HBL and BOK are in low degree positive which indicates that, if the non-performing loan to total loan ratio increases net profit increases and vice versa. The correlation coefficient of NMB is in moderate negative which indicates that, if the non-performing loan to total loan ratio increases net profit decreases and vice versa.

The coefficient of determination (r2) for NABIL and LBL are 0.9137 and 0.5458 respectively which means that, $91.37 \%$ and $54.58 \%$ of variation determined by each other variable net profit and non-performing loan to total loan ratio of NABIL and LBL which is considerably high. The coefficient of determination (r2) for BOK is 0.1754 which means that $17.54 \%$ of variation determined by each other variable net profit and non-performing loan to total loan ratio of 0.1754 which is considerably low. In case of HBL and NMB due to not in significant relation cannot say anything.

The significance of the relationship between Net profit and non-performing loan to total loan ratio is measured by calculating probable errors of coefficient. From the above table we can conclude that the relationship between Net profit and nonperforming loan to total loan ratio of NABIL, BOK and LBL is significant as the correlation (r) is greater than 6 times PE. Similarly, relationship between Net profit and non-performing loan to total loan ratio of HBL and NMB shows that there is no relationship because correlation coefficient is greater than PE and less than 6PE.

### 4.11 Major findings

From the analysis of financial and statistical variables especially mean, standard deviation, coefficient of variation, correlation and regression analysis following findings has been drawn:

1. The average net profit to total income ratio of the bank under study shows a positive result i.e. all banks runs in profit But the coefficient of variation indicates that net profit to total income ratio of the banks are not stable. The CV range between $4.04 \%$ to $51.28 \%$.
2. The average earning per share (EPS) of the bank under study shows a positive result. But the coefficient of variation indicates that EPS of the banks are not stable. The CV range between $14.08 \%$ and $59.83 \%$. Among the banks under the study, NABIL has the highest EPS. LBL has the lowest fluctuation.
3. The average dividend per share (DPS) of the bank under study shows a positive result range between $8.01 \%$ and $69.00 \%$. But the coefficient of variation indicates that DPS of the banks are highly fluctuating. The CV ranges between $17.31 \%$ and $106.71 \%$. Among the banks under the study, NABIL has the highest average DPS and HBL has the lowest fluctuation.
4. The average total loan to deposits ratio of the bank under study shows a good condition range between $73.88 \%$ and $88.47 \%$. But the coefficient of variation indicates that total loan to deposits ratio of the banks are low fluctuating. The CV ranges between $3.86 \%$ and $21.16 \%$. Among the banks under the study, NMB has the highest average total loan to deposits ratio and BOK has the lowest fluctuation.
5. The average interest income to loan and advances ratio of the bank under study shows a good condition range between $9.28 \%$ and $11.20 \%$. But the coefficient of variation indicates that interest income to loan and advances ratio of the banks are quite fluctuating. The CV ranges between $16.62 \%$ and $31.25 \%$. Among the banks under the study, HBL has the highest interest income to loan and advances ratio and HBL has the lowest fluctuation.
6. The average net profit to loan and advances ratio of the bank under study shows a good condition range between $1.84 \%$ and $3.86 \%$. But the coefficient of variation indicates that net profit to loan and advances ratio of the banks are fluctuating. The CV ranges between $5.76 \%$ and $64.60 \%$. Among the banks
under the study, NABIL has the highest net profit to loan and advances ratio and BOK has the lowest fluctuation
7. The average Net Profit to Total Assets ratio of the bank under study shows a good condition range between $0.82 \%$ and $2.49 \%$. But the coefficient of variation indicates that Net Profit to Total Assets ratio of the banks is fluctuating. The CV ranges between $7.04 \%$ and $59.28 \%$. Among the banks under the study, NABIL has the highest Net Profit to Total Assets ratio and BOK has the lowest fluctuation
8. The average non-performing loan to total loan ratio of the bank under study shows a very low i.e. in good condition range between $0.37 \%$ and $2.87 \%$. But the coefficient of variation indicates that non-performing loan to total loan ratio of the banks is highly fluctuating. The CV ranges between $22.13 \%$ and $100 \%$. Among the banks under the study, HBL has the highest non-performing loan to total loan ratio and BOK has the lowest fluctuation
9. The average weighted average interest rate spread of the bank under study shows a reasonable condition range between $3.18 \%$ and $4.85 \%$. But the coefficient of variation indicates that weighted average interest rate spread of the banks is low fluctuating. The CV ranges between $6.82 \%$ and $14.88 \%$. Among the banks under the study, BOK has the weighted average interest rate spread and LBL has the lowest fluctuation
10. The correlation between net profit and loan and advances of under study banks i.e. NABIL, HBL, BOK, LBL and NMB are positive. The correlation of NABIL, HBL, BOK, LBL and NMB have significant relationship between net profit and loan and advances. This indicates that, if loan and advances increases net profit increases and vice versa
11. The correlation between net profit and total assets of under study banks i.e. NABIL, HBL, BOK, LBL and NMB are positive. The correlations of NABIL NABIL, HBL, BOK and LBL NMB have significant relationship between net profit and total assets. but NMB has insignificant relationships between net profit and loan and advances. This indicates that, if the total assets increases net profit increases and vice versa in general but sometimes it may insignificant.
12. The correlation between DPS and EPS of under study banks i.e. NABIL, HBL, BOK and NMB are positive but in case of LBL is negative. The correlations of NABIL NABIL, HBL, BOK and NMB have significant relationship between DPS and EPS. but LBL has insignificant relationships between DPS and EPS
13. The correlation between net profit and total loan to deposits ratio of under study banks i.e. NABIL, HBL and BOK are positive but in case of LBL and NMB is negative. The correlation of NABIL and HBL have significant relationship between net profit and total loan to deposits ratio but BOK, LBL and NMB have insignificant relationships between net profit and total loan to deposits ratio
14. The correlation between net profit and non-performing loan to total loan ratio of under study banks i.e. NABIL, HBL, BOK and LBL are positive but in case of NMB is negative. The correlation of NABIL, BOK and LBL have significant relationship net profit and non-performing loan to total loan ratio but HBL and NMB have insignificant relationships between net profit and non-performing loan to total loan ratio

## CHAPTER- V

## SUMMERY, CONCLUSION \& RECOMMENDATIONS

### 5.1 Summary

The economic development demands the regular flow of funds i.e. investment and it is possible by only proper financial system. The financial market plays crucial role in accessibility and efficient uses of fund. Financial market and capital market are the backbone for the development of the nation's economy. It boosts up the economic activities by mobilizing especially domestic financial resources. It provides best opportunities by transferring the funds from surplus saving to need based sectors through the transaction of loan and advances and dividend. Simply bank collect funds as deposit from customer and invest mainly in loan and advances. Bank plays a vital role in economic development of the nation by mobilizing the disposed and passive capital in different from the society. So the bank's investment condition with return should be proper.

Banks' return and investment relations can be analyzed through various financial return ratios. Banks are opened not only for service motive but for profit and wealth motive. This research study has been conducted to find out the relation of investment position and their relation to return in the form of various ratios. This study is mainly based on secondary data. 5 private a graded by NEPSE banks are taken for the study by using systematic sampling. This study covers five commercial banks i.e. NABIL, HBL, BOK, LBL and NMB.. The study covers of five years period from FY 64/65 to FY 68/69. For the study, the data are mainly from annual report and website of respective banks. Both Financial tools as well as statistical tools are used. The data gathered for this purpose are presented in tables, graphs and figures and analysis is made by using appropriate financial and statistical tools.

### 5.2 Conclusion

The results of this analysis are strong enough to establish the relationship between return and investment performance of deposit and assets of Nepalese listed banks. After analyzing the financial and statistical indicators of all the sample banks, it is
found that selected banks have strong financial performance in net profit to total income ratio but comparatively BOK is in better position. Likewise in earning per share sample banks have performed strong but quite fluctuating. Dividend per share provided to shareholders is not uniformly but sample banks have in good dividend provided. Comparatively NABIL provide dividend is highest among selected bank. In banking sector under study has strong performance in total income, net profit, EPS and DPS. Average total deposit collections of bank invested in loan and advances in proper ratio between $73.88 \%$ to $88.72 \%$. and loan and advances of banks generate interest income is in very good condition between average of $9.23 \%$ to 11.20 . HBL has the highest interest income to loan and advances ratio.

The average net profit to loan and advances ratio of the bank under study shows a good condition range between $1.84 \%$ and $3.86 \%$. NABIL has the highest net profit to loan and advances ratio. Total assets employed make net profit between average $0.82 \%$ and $2.49 \%$ return on total assets. NABIL has the highest net profit to loan and advances ratio. The average non-performing loan to total loan ratio of the bank under study shows a very low i.e. in good condition range between $0.37 \%$ and $2.87 \%$.i.e. bad loan is strongly low and loan are well invested. Among the banks under the study, HBL has the highest non-performing loan to total loan ratio. The average weighted average interest rate spread of the bank under study shows a reasonable condition range between $3.18 \%$ and $4.85 \%$ which is low interest spread than NRB standers of $6 \%$. Which are enough to make net profit and good financial performance.

The correlation between net profit and loan and advances of under study are positive. This indicates that, if the loan and advances increases net profit increases and vice versa. The correlation between net profit and total assets of under study are positive which indicates that, if the total assets increases net profit increases and vice versa. The relationship between net profit and total loan to deposits ratio of concerned sample banks shows both positive and negative correlation. We can conclude that increase in loan and advances increase profit but not increase in loan to deposit ration increase net profit. The correlation between DPS and EPS of under study of concerned sample banks are positive which indicates that, if the EPS increases DPS increases and vice versa in general but the correlation coefficient of LBL is in low degree negative i.e. not only increase in EPS cannot certain increase in DPS. The correlation coefficient between net profit and non-performing loan to total loan ratio
under study of concerned sample banks are mixed relation positive and negative but negative relation is not significant under PE test. This indicates that, if the nonperforming loan to total loan ratio increases net profit increases and vice versa. But in general assumptions of increase in nonperforming loan decrease net profit. This is not valid or managed efficiently non performing loan to reduce negative impact to net profit by concerned selected bank.

### 5.3 Recommendation

Based on the major findings and conclusion of this study, some recommendations have been made regarding the financial and statistical indicators.

1. Net profit to total income ratio of the bank under study shows a positive result. So total income generations is important for net profit. Which can achieve increasing in loan and advances investment and increase in net profit to loan and advances ratio. The average weighted average interest rate spread of the bank under study shows a reasonable condition range between $3.18 \%$ and $4.85 \%$. This ratios can be increase up to $6 \%$ as per directive authority Nepal Rastra Bank for increase in interest income i.e. total income.
2. EPS is important for banks for return comparison so stable and higher like sample bank should keep up EPS continuing with stable. But in case of DPS to share is enough but not stable and prediction it is quite difficult. This create uncertainty to investor and keep distance with them. So DPS should increasing trend or stable trend. For it DPS should be low affected by EPS like sample banks performed.
3. The average total loan to deposits ratio of the bank under study shows a good condition range between $73.88 \%$ and $88.47 \%$. But it should be near to $80 \%$ to get high interest income but not exceeds $80 \%$ to be safe from liquidity problem or regular operation of bank. Bank should try to get maximum interest income to loan and advances ratio. But study shows not only increase in loan and advances increase net profit.
4. The average Net Profit to Total Assets ratio (return on total assets) of the bank under study shows a good condition range between $0.82 \%$ and $2.49 \%$ fluctuating. Return on total assets is not enough i.e. total assets employed for generating net profit should be increase with stable minimizing risk of nonperforming loan. Non-
performing loan to total loan ratio of the bank under study shows a very low i.e. in good condition is to be maintain in future.
5. The correlation between net profit and loan and advances of under study are positive. So total loan and advances should be increase to increase in net profit, by banks. Correlation between net profit and total assets also positive So total assets should be increase to increase in net profit, by banks.
6. Increasing of total loan to deposit ratios can not certain increase in net profit so various precautions should be followed while investing loan and advances. Nonperforming loan to loan ratio should be managed well to minimize negative effect to net profit like selected bank managed.

## BIBLIOGRAPHY

Alexander, G. J., Sharpe, W. F. \& Bailey, J. V. (2003). Fundamentals of Investment. 6th edition. New Delhi: Prentice Hall of India.

Annual Reports (2007/8-2011/12). Kathmandu: Bank of Kathmandu.

Annual Reports (2007/8-2011/12). Kathmandu: Himalayan Bank Limited.

Annual Reports (2007/8- 2011/12). Kathmandu: Laxmi Bank Limited.

Annual Reports (2007/8- 2011/12). Kathmandu: Nabil Bank Ltd.

Annual Reports (2007/8-2011/12). Kathmandu: NMB Bank Ltd

Bajracharya, B. C. (2006). Business Mathematics and Statistics. Kathmandu: M. K. Publishers and Distributors.

Bhalla, V. K. (2004). Investment Management Security Analysis and Management. $11^{\text {th }}$ edition. New Delhi: S.CHAND and Company Ltd.

Bhattarai, R. (2009). Capital Structure Management. Kathmandu: Dhaulagiri Books and Stationery.

Bodie, Z., Kane, A. \& Marcus, A. J. (2000). Investments. 5 ${ }^{\text {th }}$ edition. New Delhi: McGraw Hill Publishing Company Ltd.

Brockington, R. (1990). Financial Management. New Delhi: Arnold Publication.

Cheney, J. M. \& Mosses, E. A. (1995). Fundamentals of Investment. $10^{\text {th }}$ edition. New York: West Publishing Company

Feorge, B. C., Edward, D. Z, \& Arthur, Z. (1999). Investment Analysis and Portfolio Management. $3^{\text {rd }}$ edition. USA: Richard D. Irwin.

Fisher, D. F. \& Jordan, R. J. (2000). Security Analysis and Portfolio Management. 6 ${ }^{\text {th }}$ edition. New Delhi: Prentice Hall of India

Francis, J. C. (1986). Investment Analysis and Management. New York: McGraw Hill Publication.

Hearth, D. \& Zaima, J. K. (1998). Contemporary Investments. $2^{\text {nd }}$ edition. USA: The Dryden Press.

Kolb, R. W. (1996). Investments. $4^{\text {th }}$ edition. USA: Blackwell Publishers Inc.

Mananadhar, K. D., Gautam, R. R., Lamichhane, P., Pokharel, B., Adhikari, K. P. \& Bhandari, R. (2066). Fundamentals of Investment. Kathmandu: Ayam Publication.

Poudel, R. B., Baral, K. J., Gautam, R. R .\& Rana, S. B. (2011). Corporate Financial Management. Kathmandu: Asmita Books Publishers and Distributors.

Prasanna, C. (2002). Investment Analysis and Portfolio Management. New Delhi: Tata McGraw Hill Publishing Company Limited.

Reilly, F. K. \& Brown, K. C. (2008). Investment Analysis and Portfolio Management. Singapore: Thomson South-Western.

Shrestha, M. K., Poudel, R. B. \& Bhandari, D. B. (2005). Fundamentals of investment. $5^{\text {th }}$ edition. Kathmandu: Buddha Academic Publishers and Distributors.

Shrestha, S. \& Silwal, D. (2002). Statistical Methods in Management. Kathmandu: Taleju Prakasan.

Thapa, K. \& Rana, S. B. (2011). Investments. Kathmandu: Asmita Books Publishers and Distributors.

Thapa, K., Bhattarai, R. \& Basnet, D. (2009). Investments Theory and Solution. Kathmandu: Asmita Books Publishers and Distributors.

Van Horne, James C. (2000). Financial Management and Policy. $11^{\text {th }}$ edition. New Delhi: Prentice Hall of India.

Western, J. F. \& Copland, T. E. (1999). Managerial Finance. $9^{\text {th }}$ edition. A Harcourt Brace Jovanovich College Publisher: The Dryden Press.

Western, J. F. \&. Fama, E. F. (1999). Managerial Finance. Hold Saunders International Editions.

Weston, J. F., Basley, S. \& Bringham, E. F. (1996). Essentials of Managerial Finance. Fort Worth: The Dryden Press.

Wolff, H. K. \& Pant, P. R. (2005). Social Science Research and Thesis Writing. Kathmandu: Buddha Academic Enterprises Private Limited.

Annual Reports (2007/8-2011/12). Kathmandu: Bank of Kathmandu.

Annual Reports (2007/8-2011/12). Kathmandu: Himalayan Bank Limited

Annual Reports (2007/8-2011/12). Kathmandu: Laxmi Bank Limited.

Annual Reports (2007/8-2011/12). Kathmandu: Nabil Bank Ltd.

Annual Reports (2007/8-2011/12). Kathmandu: NMB Bank Ltd.

Bakhunchhe, R. (2012). Dividend Policy And Its Impact On Share Price. An Unpublished Master Degree Thesis, T.U.

Gupta, S.P. (2010). Risk and return analysis of common stock investment of listed commercial bank. An Unpublished Master Degree Thesis, T.U.

Pawn, S. (2012). Portfolio Analysis of Nepalese Companies. An Unpublished Master Degree Thesis, T.U.

Rana, N.M. (2009). Investment policy of commercial banks. An Unpublished Master Degree Thesis, T.U.
www.bok.com.np
www.hbl.com.np
www.laxmibank.com
www.nabilbank.com
www.nepalstock.com
www.nmb.com.np
www.nrb.org
www.sebon.gov.np

## APPENDICES

## Appendix I

Correlation coefficient between Net Profit and Loan and Advances of NABIL Bank.:

| year | Net Profit (X) | Loan and <br> Advances (Y) | $(\mathrm{X}-\overline{\mathrm{X})}$ | $(\mathrm{Y}-\overline{\mathrm{Y})}$ |
| ---: | ---: | :---: | :---: | :---: |
| $2007 / 8$ | 746468394 | 21365053318 | -443660103 | -10807674648 |
| $2008 / 9$ | 1031053098 | 27589933041 | -159075399 | -4582794925 |
| $2009 / 10$ | 1139099399 | 32268873283 | -51029098 | 96145317 |
| $2010 / 11$ | 1337745485 | 38034097554 | 147616988 | 5861369588 |
| $2011 / 12$ | 1696276110 | 41605682634 | 506147613 | 9432954668 |
| Total | 5950642486 | 160863639830 |  |  |
| Mean | 1190128497 | 32172727966 |  |  |


| year | $\left(\mathrm{X}_{-}^{-}{ }^{-}\right)(\mathrm{Y}-\bar{Y})$ | $(\mathrm{X}-\bar{X})^{2}$ | $\left(\mathrm{Y}-\bar{Y}_{Y}\right)^{2}$ |
| :---: | :---: | :---: | :---: |
| 2007/8 | 4794934049683700000 | 196834287171435000 | 116805831297022000000 |
| 2008/9 | 729009932146109000 | 25304982630639400 | 21002009324605800000 |
| 2009/10 | -4906208822663130 | 2603968863105250 | 9243921981030490 |
| 2010/11 | 865237722963087000 | 21790775087145300 | 34355653447131300000 |
| 2011/12 | 4774467486858820000 | 256185405943139000 | 88980633768543000000 |
| Total | 11158742982829100000 | 502719419695463000 | 261153371759283000000 |
| $\text { Correlation }(\mathrm{X}, \mathrm{Y}) \quad=\frac{\sum(X-\overline{\bar{X})}(Y-\overline{\bar{Y}})}{\sqrt{\sum(X-\bar{X})^{2} \sum(Y-\bar{Y})^{2}}}$ |  |  |  |
| $\frac{11158742982829100000}{\sqrt{50271941969567000 * 261153371759283000000 ~}}=0.973878$ |  |  |  |

Calculation of significant test is as in appendix III.

Likewise other data is calculated and tabulated below.

| correlation between net profit and loan and advances |  |  |  |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- |
| Banks | correlation coeff(r) | Relationship | r2 | PE | Significance |
| NABIL | 0.973878 | high degree positive | 0.9484 | 0.0156 | significant |
| HBL | 0.664969 | moderate positive | 0.4422 | 0.1683 | significant |
| BOK | 0.972092 | high degree positive | 0.9450 | 0.0166 | significant |
| LBL | 0.92323 | high degree positive | 0.8524 | 0.0445 | significant |
| NMB | 0.384114 | low degree positive | 0.1475 | 0.2571 | significant |

Appendix II
Correlation coefficient between Net Profit and Total Assets of NABIL Bank.:

| year | Net Profit (X) | Total Assets <br> $(\mathrm{Y})$ | $(\mathrm{X}-\overline{\mathrm{X})}$ | $(\mathrm{Y}-\overline{\mathrm{Y})}$ |
| :--- | :--- | :--- | :---: | :---: |
| $2007 / 8$ | 746468394 | 37132759149 | -443660103 | -13768233094 |
| $2008 / 9$ | 1031053098 | 43867397504 | -159075399 | -7033594739 |
| $2009 / 10$ | 1139099399 | 52150237343 | -51029098 | 1249245100 |
| $2010 / 11$ | 1337745485 | 58097194736 | 147616988 | 7196202493 |
| $2011 / 12$ | 1696276110 | 63257372483 | 506147613 | 12356380240 |
| Total | 5950642486 | 254504961215 |  |  |
| Mean | 1190128497 | 50900992243 |  |  |


| year | $(\mathrm{X}-\bar{X})(\mathrm{Y}-\bar{Y})$ | $(\mathrm{X}-\bar{X})^{2}$ | $(\mathrm{Y}-\bar{Y})^{2}$ |
| :--- | :--- | :---: | :---: |
| $2007 / 8$ | 6108415715365700000 | 196834287171435000 | 189564242530717000000 |
| $2008 / 9$ | 1118871890917450000 | 25304982630639400 | 49471454952488500000 |
| $2009 / 10$ | -63747850883768900 | 2603968863105250 | 1560613319874010000 |
| $2010 / 11$ | 1062281735615510000 | 21790775087145300 | 51785330320259400000 |
| $2011 / 12$ | 6254152361325090000 | 256185405943139000 | 152680132635462000000 |
| Total | 14479973852340000000 | 502719419695463000 | 445061773758801000000 |

Correlation $(\mathrm{X}, \mathrm{Y}) \quad=\frac{\sum(X-\bar{X})(Y-\bar{Y})}{\sqrt{\sum(X-\bar{X})^{2} \sum(Y-\bar{Y})^{2}}}$

$$
=\frac{14479973852340000000}{\sqrt{502719419695463000 * 445061773758801000000}}=0.968043
$$

Likewise other data is calculated and tabulated.

| correlation between net profit and total assets |  |  |  |  |  |  |
| :--- | :---: | :--- | :--- | :--- | :--- | :---: |
| Banks | correlation coeff(r) | Relationship | r2 | PE | Significance |  |
| NABIL | 0.968043 | high degree positive | 0.9371 | 0.0190 | significant |  |
| HBL | 0.720515 | high degree positive | 0.5191 | 0.1450 | significant |  |
| BOK | 0.936229 | high degree positive | 0.8765 | 0.0372 | significant |  |
| LBL | 0.893563 | high degree positive | 0.7985 | 0.0608 | significant |  |
| NMB | 0.009982 | low degree positive | 0.0001 | 0.3016 | not significant |  |

Calculation of significant test is as in appendix III.

## Appendix III

Correlation coefficient between Dividend on Share Capital (Including Bonus and Per Share Income of NABIL Bank.:

| year | $\begin{gathered} \hline \text { DPS } \\ (\mathrm{X}) \end{gathered}$ | EPS <br> (Y) | $(\mathrm{X}-\overline{\mathrm{X}}$ ) | $(\mathrm{Y}-\overline{\mathrm{Y}})$ | $\left(\mathrm{X}_{-}^{-}{ }_{X}\right)\left(\mathrm{Y}-{ }_{Y}^{-}\right)$ | $(\mathrm{X}-\overline{\bar{X}})^{2}$ | $\left(\mathrm{Y}-\bar{Y}^{-}\right)^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2007/8 | 100 | 115.86 | 31 | 22.39 | 694.0900 | 961 | 501.3121 |
| 2008/9 | 85 | 113.44 | 16 | 19.97 | 319.5200 | 256 | 398.8009 |
| 2009/10 | 70 | 83.81 | 1 | -9.66 | -9.6600 | 1 | 93.3156 |
| 2010/11 | 30 | 70.67 | -39 | -22.8 | 889.2000 | 1521 | 519.8400 |
| 2011/12 | 60 | 83.57 | -9 | -9.9 | 89.1000 | 81 | 98.0100 |
| Total | 345 | 467 |  |  | 1982.2500 | 2820 | 1611.2786 |
| Mean | 69 | 93.47 |  |  |  |  |  |

Correlation $(\mathrm{X}, \mathrm{Y}) \quad=\frac{\sum(X-\bar{X})(Y-\bar{Y})}{\sqrt{\sum(X-\bar{X})^{2}} \sum(Y-\bar{Y})^{2}}$

$$
\begin{aligned}
& =\frac{1982.2500}{\sqrt{2820 * 1611.2786}} \\
& =0.9299
\end{aligned}
$$

If $r_{x y}<$ P.E. $\left(r_{x y}\right)$, then the value of $r_{x y}$ is not significant. If $r_{x y}>6 \times$ P.E. $\left(r_{x y}\right)$, then the value of $\mathrm{r}_{\mathrm{xy}}$ is definitely significant. In other condition cannot say anything certainly.

Likewise other data is calculated and tabulated.

| Correlation coefficient between DPS and EPS of sample banks |  |  |  |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- |
| Banks | correlation coeff(r) | Relationship | r2 | PE | Significance |
| NABIL | 0.9299 | high degree positive | 0.8648 | 0.0408 | significant |
| HBL | 0.7756 | high degree positive | 0.6016 | 0.1202 | significant |
| BOK | 0.9010 | high degree positive | 0.8118 | 0.0568 | significant |
| LBL | -0.4181 | low degree negative | 0.1748 | 0.2489 | not significant |
| NMB | 0.7301 | high degree positive | 0.5330 | 0.1409 | significant |

## Appendix IV

Correlation coefficient between Net Profit and Total Loan to Deposits ratio of NABIL
Bank.:

| year | Net Profit (X) | Total Loan <br> to Deposits <br> ratio (Y) | $(\mathrm{X}-\overline{\mathrm{X})}$ | $(\mathrm{Y}-\overline{\mathrm{Y})}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 746468394 | 68.18 | -443660103 | -5.704 |
| $2008 / 9$ | 1031053098 | 73.87 | -159075399 | -0.014 |
| $2009 / 10$ | 1139099399 | 71.17 | -51029098 | -2.714 |
| $2010 / 11$ | 1337745485 | 78.29 | 147616988 | 4.406 |
| $2011 / 12$ | 1696276110 | 77.91 | 506147613 | 4.026 |
| Total | 5950642486 | 369 |  |  |
| Mean | 1190128497 | 73.884 |  |  |


| year | $\left(\mathrm{X}_{-}^{-}{ }_{X}\right)(\mathrm{Y}-\bar{Y})$ | $(\mathrm{X}-\bar{X})^{2}$ | $(\mathrm{Y}-\bar{Y})^{2}$ |
| :--- | ---: | :---: | ---: |
| $2007 / 8$ | 2530637228.6528 | 196834287171435000 | 32.5356 |
| $2008 / 9$ | 2227055.5888 | 25304982630639400 | 0.0002 |
| $2009 / 10$ | 138492972.5148 | 2603968863105250 | 7.3658 |
| $2010 / 11$ | 650400448.2468 | 21790775087145300 | 19.4128 |
| $2011 / 12$ | 2037750289.1328 | 256185405943139000 | 16.2087 |
| Total | 5359507994.1360 | 502719419695463000 | 75.5231 |

Correlation $(\mathrm{X}, \mathrm{Y}) \quad=\frac{\sum(X-\bar{X})(Y-\bar{Y})}{\sqrt{\sum(X-\bar{X})^{2} \sum(Y-\bar{Y})^{2}}}$

$$
=\frac{5359505359507994.13607994}{\sqrt{502719419695463000 * 75.5231}}=0.869805
$$

Calculation of significant test is as in appendix III.
Likewise other data is calculated and tabulated.

| correlation between net profit and Total Loan to Deposits ratio |  |  |  |  |  |
| :--- | :---: | :--- | :--- | :--- | :--- |
| Banks | correlation coeff(r) | Relationship | r2 | PE | Significance |
| NABIL | 0.869805 | high degree positive | 0.7566 | 0.0734 | significant |
| HBL | 0.335603 | low degree positive | 0.1126 | 0.2677 | significant |
| BOK | 0.042403 | low degree positive | 0.0018 | 0.3011 | not significant |
| LBL | -0.69921 | moderate negative | 0.4889 | 0.1542 | not significant |
| NMB | -0.10646 | low degree negative | 0.0113 | 0.2982 | not significant |

## Appendix V

Correlation coefficient between Net Profit and Non-performing Loan to Total Loan ratio of NABIL Bank.:

| year | Net Profit (X) | Non-performing Loan to <br> Total Loan ratio (Y) | $(\mathrm{X}-\overline{\mathrm{X})}$ | $(\mathrm{Y}-\overline{\mathrm{Y})}$ |
| :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 746468394 | 0.74 | -443660103 | -0.684 |
| $2008 / 9$ | 1031053098 | 0.8 | -159075399 | -0.624 |
| $2009 / 10$ | 1139099399 | 1.48 | -51029098 | 0.056 |
| $2010 / 11$ | 1337745485 | 1.77 | 147616988 | 0.346 |
| $2011 / 12$ | 1696276110 | 2.33 | 506147613 | 0.906 |
| Total | 5950642486 | 7 |  |  |
| Mean | 1190128497 | 1.424 |  |  |


| year | $(\mathrm{X}-\overline{-})\left(\mathrm{Y}_{\bar{Y}}\right)$ | $(\mathrm{X}-\bar{X})^{2}$ | $(\mathrm{Y}-\bar{Y})^{2}$ |
| :--- | :--- | :---: | :---: |
| $2007 / 8$ | 303463510.5888 | 196834287171435000 | 0.4679 |
| $2008 / 9$ | 99263049.1008 | 25304982630639400 | 0.3894 |
| $2009 / 10$ | -2857629.4992 | 2603968863105250 | 0.0031 |
| $2010 / 11$ | 51075477.7788 | 21790775087145300 | 0.1197 |
| $2011 / 12$ | 458569737.1968 | 256185405943139000 | 0.8208 |
| Total | 909514145.1660 | 502719419695463000 | 1.8009 |

Correlation $(\mathrm{X}, \mathrm{Y}) \quad=\frac{\sum(X-X)(Y-Y)}{\sqrt{\sum(X-\bar{X})^{2} \sum(Y-\bar{Y})^{2}}}$

$$
=\frac{909514145.1660}{\sqrt{502719419695463000 * 1.8009}}=0.955871
$$

Calculation of significant test is as in appendix III.

Likewise other data is calculated and tabulated.

| correlation between net profit and Non-performing Loan to Total Loan ratio |  |  |  |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- |
| Banks | correlation coeff(r) | Relationship | r2 | PE | Significance |
| NABIL | 0.955871 | high degree positive | 0.9137 | 0.0260 | significant |
| HBL | -0.10025 | low degree negative | 0.0101 | 0.2986 | not significant |
| BOK | 0.418778 | low degree positive | 0.1754 | 0.2487 | significant |
| LBL | 0.738789 | high degree positive | 0.5458 | 0.1370 | significant |
| NMB | -0.67534 | moderate negative | 0.4561 | 0.1641 | not significant |

## Data from Annual Reports from respective sample bank.

Net Profit to Total Income ratio (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 29.68 | 41.58 | 41.89 | 31.41 | 21.24 |
| $2008 / 9$ | 30.56 | 39.96 | 41.42 | 35.12 | 12.31 |
| $2009 / 10$ | 24.11 | 22.13 | 37.93 | 40.55 | 15.80 |
| $2010 / 11$ | 22.29 | 25.46 | 39.34 | 40.34 | 13.37 |
| $2011 / 12$ | 23.74 | 24.65 | 39.58 | 37.21 | 2.79 |

Earning Per Share of NABIL, HBL, BOK, LBL, NMB (In Rs.)

| year | NABIL | HBL | BOK | LBL | NMB |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 115.86 | 62.74 | 59.94 | 16.45 | 4.28 |
| $2008 / 9$ | 113.44 | 61.90 | 54.68 | 20.70 | 4.42 |
| $2009 / 10$ | 83.81 | 31.80 | 43.08 | 24.12 | 10.65 |
| $2010 / 11$ | 70.67 | 44.66 | 44.51 | 23.25 | 11.08 |
| $2011 / 12$ | 83.57 | 39.94 | 37.88 | 21.55 | 2.61 |

Dividend on Share Capital (Including Bonus) (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 100 | 45 | 42.11 | 21.05 | 10.53 |
| $2008 / 9$ | 85 | 43.56 | 47.37 | 5.26 | 0 |
| $2009 / 10$ | 70 | 36.84 | 30 | 13 | 20.53 |
| $2010 / 11$ | 30 | 36.84 | 34.75 | 15.79 | 9 |
| $2011 / 12$ | 60 | 28.42 | 26.32 | 10 | 0 |

Total Loan to Deposits ratio (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 68.18 | 63.37 | 80.51 | 89.72 | 120.96 |
| $2008 / 9$ | 73.87 | 73.58 | 82.65 | 83.88 | 76.78 |
| $2009 / 10$ | 71.17 | 77.43 | 83.9 | 81.49 | 78.44 |
| $2010 / 11$ | 78.29 | 80.57 | 85.43 | 84.1 | 88.16 |
| $2011 / 12$ | 77.91 | 75.36 | 77.3 | 73.13 | 78.01 |

Interest Income to Loan and Advances ratio (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 8.04 | 9.73 | 8.3 | 7.85 | 7.4 |
| $2008 / 9$ | 8.82 | 9.18 | 8.02 | 8.76 | 5.63 |
| $2009 / 10$ | 10.41 | 10.81 | 10.02 | 9.97 | 9.15 |
| $2010 / 11$ | 12.5 | 13.12 | 12.08 | 12.11 | 11.5 |
| $2011 / 12$ | 12.85 | 13.14 | 12.01 | 11.77 | 12.72 |

Net Profit to Loan and Advances ratio (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 3.96 | 3.26 | 2.9 | 1.47 | 3.62 |
| $2008 / 9$ | 4.02 | 3.04 | 3.09 | 1.63 | 1.19 |
| $2009 / 10$ | 3.47 | 1.82 | 2.99 | 2.32 | 2.02 |
| $2010 / 11$ | 3.73 | 2.83 | 3.37 | 2.49 | 1.95 |
| $2011 / 12$ | 4.14 | 2.74 | 3.15 | 2.22 | 0.42 |

Net Profit to Total Assets ratio (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 2.32 | 1.76 | 2.04 | 1.13 | 0.82 |
| $2008 / 9$ | 2.55 | 1.91 | 2.25 | 1.22 | 0.4 |
| $2009 / 10$ | 2.37 | 1.19 | 2.18 | 1.66 | 1.21 |
| $2010 / 11$ | 2.43 | 1.91 | 2.44 | 1.76 | 1.39 |
| $2011 / 12$ | 2.8 | 1.76 | 2.1 | 1.5 | 0.28 |

Non-performing Loan to Total Loan ratio (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 0.74 | 2.36 | 1.86 | 0.13 | 1.52 |
| $2008 / 9$ | 0.8 | 2.16 | 1.27 | 0.08 | 0.51 |
| $2009 / 10$ | 1.48 | 3.52 | 1.52 | 0.12 | 0.7 |
| $2010 / 11$ | 1.77 | 4.22 | 1.82 | 0.9 | 0.27 |
| $2011 / 12$ | 2.33 | 2.09 | 2.3 | 0.62 | 2.45 |

Weighted Average Interest Rate Spread (in percentage)

| year | NABIL | HBL | BOK | LBL | NMB |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 3.94 | 3.66 | 4.35 | 3.4 | 2.41 |
| $2008 / 9$ | 4.16 | 3.66 | 4.72 | 3.71 | 3.58 |
| $2009 / 10$ | 4.4 | 4.21 | 5.07 | 3.55 | 3.19 |
| $2010 / 11$ | 4.37 | 3.96 | 5.45 | 4.02 | 3.18 |
| $2011 / 12$ | 4.95 | 4.25 | 4.67 | 3.91 | 3.56 |

Net Profit (In Rs.)

| year | NABIL | HBL | BOK | LBL | NMB |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 746468394 | 635868519 | 361496879 | 120031347 | 72822042 |
| $2008 / 9$ | 1031053098 | 752834735 | 461734911 | 188998637 | 62952777 |
| $2009 / 10$ | 1139099399 | 508798193 | 509263141 | 327037041 | $159,870,490$ |
| $2010 / 11$ | 1337745485 | 893115143 | 605152423 | 376911609 | $221,504,774$ |
| $2011 / 12$ | 1696276110 | 958638260 | 607662263 | 359037649 | $52,224,442$ |

Loan and Advances (In Rs.)

| Year | NABIL | HBL | BOK | LBL | NMB |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 21365053318 | 19497520482 | 12462637541 | 9680948652 | 1939967542 |
| $2008 / 9$ | 27589933041 | 24793155269 | 14647296987 | 13315604304 | 5194210667 |
| $2009 / 10$ | 32268873283 | 27980628760 | 16664930855 | 14560109588 | $7,808,118,687$ |
| $2010 / 11$ | 38034097554 | 31566976755 | 17468193645 | 15199847905 | $11,208,573,935$ |
| $2011 / 12$ | 41605682634 | 34965433862 | 18813937339 | 16480781109 | $12,070,838,923$ |

Total Assets (In Rs.)

| Year | NABIL | HBL | BOK | LBL | NMB |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2007 / 8$ | 37132759149 | 36175531637 | 17721925187 | 12695021516 | 8927891620 |
| $2008 / 9$ | 43867397504 | 39320322069 | 20496005483 | 18386412982 | 15856664327 |
| $2009 / 10$ | 52150237343 | 42717124613 | 23396191791 | 20952249558 | $13,226,578,393$ |
| $2010 / 11$ | 58097194736 | 46736203884 | 24757750426 | 21469752556 | $15,948,192,045$ |
| $2011 / 12$ | 63257372483 | 54364427882 | 28881996852 | 25916913918 | $18,494,830,549$ |


[^0]:    source : www.nepalstock.com

