INVESTMENT PRACTICES OF COMMERCIAL BANKS

(WITH REFERENCE TO BANK OF KATHMANDU LTD. AND NABIL BANK LTD.)

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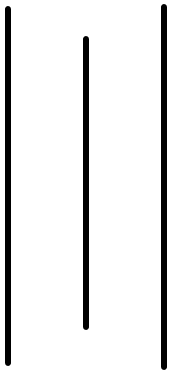

In partial fulfillment of the requirement for the degree of

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RECOMMENDATION

This is to certify that the thesis

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DECLARATION

I hereby declare that the work reported in this thesis entitled "**INVESTMENT PRACTICES OF COMMERCIAL BANKS (WITH REFERENCE TO BANK OF KATHMANDU LTD. AND NABIL BANK LTD.)**" submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the degree of Master of Business Studies (MBS) under the supervision of **Shilu M. Bajracharya** of Shanker Dev Campus, T.U.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

NRB = Nepal Rastra Bank

BOK = Bank of Kathmandu Ltd.

NABIL = Nabil Bank Ltd.

S. D. = Standard Deviation

C. V. = Coefficient of Variation

P. Er = Profitable Error

T.U = Tribhuvan University

CHAPTER – I

1. INTRODUCTION

1.1 Background of the Study

A country is known as a developed country when different all round development takes place. Banks and other financial institutions are playing vital role in the economic development of the country. So, if there is sufficient banking and financial facilities, the growth of the economic development becomes fast. Economic sectors like agriculture, industry, trade, tourism must be in the sound form.

Banking sector is vital for economic development. A bank is an organization, the major function of which is to deal in money and credit. In these modern days the banking sectors are highly activated and operated which is very essential for the economic development. The main business of a bank is to pool the scattered idle deposits in the public and channel it for productive use.

According to the nature and functions banks are categories into different types. There are different types of bank. They are Central Bank, Commercial Bank, Development Bank, Joint Venture Banks, Agriculture Development Bank and Cooperative Banks. Different types of banks are established for different functions to be done. According to the function perform by them it is categories into different types. Central Bank is the bank of all banks. It is the supreme body, which controls and stabilizes the economy of the country through various direct and indirect means of monetary policy. In direct means, it uses the selective credit control (margin requirements) while extending loans against government securities as a tool to expand and contract the economic activities of the country and in indirect means it uses tools like issuance of Treasury Bills, National Savings Bonds, Bank Rates, CRR etc.

Commercial Bank Act 1974 defines "A Commercial Bank means which deals in exchanging currency, accepting deposit, giving loans and doing commercial transactions."

Normally commercial banks are those financial institutions which promote the monetary transaction. Commercial banks are major financial institution which occupy quite important place in the development of every economy because they provide capital for the development of industry, trade and business and other resources deflect sectors by investing the saving collected as deposit. Commercial banks came into existence mainly with the objective to collect idle funds and mobilized them into productive sector, causing the overall economic development. Commercial banks have its own role and contribution in the economic development. All economic activities are done through banks these days.

1.2 Development of Banking System

During the ancient time there was reference to the activities of the money changers in the temples of Jerusalem in the New Testament. In the ancient Greece the famous temple of Delphi and Olympia served as the great depositories for the peoples' surplus funds and these were the centers of money lending transaction. Indeed the traces of "Rudimentary banking was found in the Chaldean, Egyptian and Phoenician history. The development of banking in ancient Rome roughly followed the Greek pattern. Banking suffered oblivion after the fall of the Roman Empire after the death of Emperor Justinian in 565 A.D, and it was not until the revival of the trade and commerce in the Middle Ages that the lessons of the finance were learnt a new from the beginning. Money lending in the middle ages was, however, largely confined to the Jews since the Christians were forbidden by the Canon law to indulge in the sinful act of lending money to others on interest. However, as the hold of the church loosened with the development of the trade and commerce about the thirteenth century Christians also took to the lucrative business of money lending, thereby entering into keen competition with Jews who had hitherto monopolized the business.

The history of banking developed from established of Casa de San Giorgio in Genoa in 1148. After that Bank of Venice in 1157, Bank of Barcelona in 1401. The modern banking started and takes rapid speed of forming and functioning from 17^{th} century. Bank of Milan, Bank of Florence and Bank of St. Gorge were established in Genoa in this period. In 1609, the Bank of Amsterdam was established in Holland. Bank of Hamburg was established in Germany in 1610 and Bank of England was established in England.

1.3 Development of Banking System in Nepal

It is assumed that the regular history of coinage in Nepal began from the 5th century A.D. The advent of 12th century marked a new period in economic history of Nepal. Silver coinage was introduced in this period, which widened the scope for trade. The second major logical order of development was found in the innovation of interest bearing private debt such as bonds, mortgages and loans.

In Nepalese chronicle it was recorded that the Shankhadar Sakhwa a sudra merchant of Kantipur in 879 or 880 A.D introduce the new era known as Nepal Sambat after having paid of all the debts in the country. Toward the end of 8th century, Gunkam Dev had borrowed money to rebuild the Kathmandu valley. In the 11th century, during the Malla regime there was an evidence of professional money lenders and bankers. It further believed that money lending business, particularly for the financing the foreign trade with Tibet, became quite popular during the Mallas reign. However, in the absence of the regulatory measure the unscrupulous moneylenders were known to have charged exorbitant rates of interest and other extra dues on the loans and advances.

In the era of Pritivi Narayan Shaha the great king, the coin called Mohar was used in his name. In 1989 the "Taksar" the institution, which used to issue coin was established. In ancient time there was practice of taking and giving of loan for the purpose of trade and other various purposes. In the reign of Ranodip Singh an office named "Tejarat" was established in Kathmandu in 1933 B.S. The main purpose of the office was to provide loans to the government officials and the peoples against deposit of gold and silver. It has also established its branches outsides the Kathmandu.

The first bank established in Nepal is Nepal Bank Limited in 1938 (1994 B.S). It was established under the Nepal Bank Act 1994. Its initial authorized capital was 10 million rupees and issued capital was 25 lakhs, paid up capital was 8 lakh 42 thousand rupees. Nepal Rastra Bank is 2nd bank established under the Nepal Rastra Bank Act 2012, which was established in 1956 (2012 B.S). The Nepal Rastra Bank Act 2012 has repealed and Nepal Rastra Bank Act 2058 has been enacted by parliament. It is also the central bank of Nepal. After that, the government established the Rastya

Banijya Bank and Agricultural Development Bank. These two banks were established in 1966 (2022 B.S) and 1968 (2024 B.S) respectively.

Up to 1983, the development of banking sector in Nepal is not satisfactory. Government brought different rules and regulation for new technology and capital transfer from the foreign country. Thus, some joint venture banks were established. The first joint venture bank established in Nepal is NABIL Bank limited (Nepal Arab Bank Limited) which was established in 1985 (2041 B.S). After establishment of first bank the development of banking sector grow rapidly. After NABIL Bank there came many banks into existence. They are Nepal investment bank in 1985 (2042 B.S); Standard Chartered Bank Limited in 1986 (2043 B.S); Himalayan Bank Limited in 1992 (2049 B.S); Nepal SBI Bank limited in 1993 (2050 B.S); Nepal Bangladesh Bank limited in 1994 (2051 B.S); Everest Bank limited in 1994 (2051 B.S); Bank of Kathmandu Limited in 1994 (2051 B.S); Nepal Credit and Commerce bank were established as joint investment of different banks of different part of the world.

Nepal's Financial Systems

Table 1

1. Central Bank	1
2. Commercial banks	26
3. Development Banks	63
4. Financial companies	77
5. Micro- Finance Institutions	15
6. NGOs with Financial Services	45
7. Cooperatives	16

Source: The Rising Nepal (April 2, 2010)

1.4 Definition of the commercial Bank

According to commercial bank act 1974 A.D. "A commercial bank means bank which deals in exchanging currency, accepting deposits, giving loans and doing commercial transactions." Commercial banks formulate sound investment policies, which eventually contribute to the

economic growth of the country. It also purchases government securities as well as of other institution to get surplus amount of investment.

"Commercial bank means a bank authorized to receive both demand and time deposits, to engage in trust services, to issue letter of credit, to rent time deposit boxes, and to provide similar services." Black's Law Dictionary.

1.5 Functions Performed by Commercial Banks

Commercial banks are directly related with the people and institution. The commercial banks are operating to gain profit although it helps to accelerate peoples and economic welfare and facility, to provide loan to industry &commerce and to provide banking services to the public and the state. There are different functions perform by the commercial bank some of the functions are given below:

1) **To accept Deposit**

The bank performs many functions. One of the main functions is to accept deposit. Mainly three kind of account are allowed by the bank for accepting deposit. They are current, saving and fixed account. People and institution can deposit their money in any account as required. In current account interest is not given for the deposit.

2) **To provide loan.**

Another function of the commercial bank is to provide loan. Nowadays there are different kind of loan provided by the commercial bank like business loan, home loan, education loan, vehicle ban and other different types of loan. Bank charges different interest rate for different types of loan.

3) **To perform Agency function**

Another function of the commercial bank is to become agent in different types of task. It carries the works for its customer in the following ways:

- Transfer the money from one place to another
- Payment rent of the house premium of the insurance income tax etc on the behalf of the customer.

4) Provide Security

To provide security for the valuable goods and documents by providing locker system and providing economic and Professional advices.

5) General utility function

Commercial banks discharge the functions of general utility which are as follows:

- Exchange of foreign currencies.
- Issue of traveler's cheque
- Providing information and other services.

6) To provide overseas trading services

Another function of the commercial bank is overseas trading. The banks provide recognition on the behalf of the customer. They provide the comprehensive network of service for foreign banking business and many transactions can be carried out from start by a help of bank or its subsidiary.

Some Obligatory Provisions Made For Commercial Banks

1) 20% of every year's net profit must be transferred to general reserve fund until it reaches double of the paid up capital.
2) 25% of FCY exchange income (other than Indian rupee) must be transferred to exchange equalization fund. This fund can be adjusted only when losses result from devaluation of foreign currency.
3) When non- banking (e.g. if collaterals is transferred in bank's own name) assets procured in the course of business, it must be sold within seven years of procurement date. Till the sales take place, provisioning must be made as follows: 1st Year 50%, 2nd Year 75% and 3rd Year 100%.
4) Customers availing credit facility of more than Rs. 25 lacs and have defaulted either the principal or its interest or both by 9 months, such units and its proprietor/ directors must be blacklisted.

5) Only shareholders having 15% or more share of a private limited company can be blacklisted in the above condition.
6) Before offering credit facility of more than Rs. 10 lacs, every bank must obtain credit information report from the CIB.

1.6 Investment

Individual over the course of a lifetime will rarely have exactly the same amount of income as desired consumption. In some period, they will have more income than desired consumption. At other times, the opposite will occur. The excess of income over consumption is saved. How these funds are employed is investment. An individual gives up current consumption in order to enjoy a greater amount of consumption in the future. An investment is the current commitment of dollars for a period of time in order to derive future payments that will compensate the investors for (1) the time the funds are committed, (2) the expected rate of inflation, and (3) the uncertainty of the future benefits (Reilly, F.K., 1994:1).

Investment, in its broadest sense means, the sacrifice of current Rupees (dollars) and Resources for the sake of future Rupees (dollars) and Resources. In other words, it is a commitment of money and other resources that are expected to generate additional money and resources in the future. Such a commitment takes places in the present and is certain to occur but the reward comes in the future and always remains uncertain. Therefore, every investment entails some degree of risk. Investment is always related with risks and returns.

The term investment covers the wide range of activities. It is a commonly known fact that an investment is possible only when there are adequate savings. Therefore, both saving and investment are interrelated. It may be said as investment is the proper management of wealth to maximize the wealth or to get positive returns. Investment promotes the economic growth and this helps to build a prosperous nation with strong fundamentals of strong economy.

Investments are made in assets. Assets generally are of two types: real assets (land, building, factories etc.) and financial assets (Stocks, Bonds, and T- Bills etc). These two types of investments

are not competitive but complementary. Highly- developed institutions of financial investment greatly facilitating real investment.

1.7 Investment Policy

Investment policy should ensure minimum risk and maximum profit. Good investment policy ensures maximum amount of investment to all sectors with proper utilization. Everyone seeks profit but the real fact of investment is that there is always a factor called risk which is undeniable and unavoidable. Wherever there is profit there is risk involved in it. The rationale way or the correct objective is to make a lot of money by recognizing the possible losses. So investment should be done on many assets or the portfolio construction should be there to minimize the risk. The correct investment policies are very useful to minimize the volume of investment, maximize the social benefit and last but not the least maximize the profit which is the very core objective of any commercial institutions. Economic growth can be achieved because sound investment policy makes work those economic forces to its maximum.

Banks are disbursing their money as investment in trade business and industry. Due to the growth on banking sector in Nepal and huge competition, investments are comparatively losses. So banks should follow the principle of investment for profit. An investment policy should ensure maximum profit and minimum risks. Banking sector specially commercial bank play a vital role in the process of channelizing the available resources in the needed sectors. Financial system contacts two components i. e depository financial institution and non – depository financial institution. Commercial banks are depository financial institution whereas employed provident fund, development bank, insurance companies etc. are non- depository financial institutions. All the economic activities are directly or indirectly channeled through banks. Banks accept money as a deposit from public and invest it in form of loan and advances. Financial institutions act as an intermediary role between the persons who lend and borrow. The bankers have the responsibility of safeguarding the interest and deposited amount of depositor. The word CAMELS can be used to judge the soundness of bank. It stands for:

1.7.1 C: Capital Adequacy

Capital is termed different to different person and professional. Economist speak of it as wealth, business-person speak of it as total assets. Whatever may be the term used, capital is the fund raised to finance different assets, short-term or long-term. Therefore, the capital is the mix of long term as well as short-term funds.

The capital fund is shareholder funds, which can be categories into two parts:
i) Core Capital ii) Supplementary Capital

i) Core capital: Core capital is that capital which is kept in reserve not for any specific purpose. It contains following items:

- Paid up capital
- Share premium
- Non-Redeemable preference share.
- General reserve fund
- Cumulative profit/loss (up to previous fiscal year)
- Current Year profit/loss (as per balance sheet)

ii) Supplementary capital: Supplementary capitals are those capitals which are kept on reserve for specific purpose or to cover loss. It contains following items:

- General loan loss provision
- Exchange equalization reserve
- Hybrid capital Instruments
- Unsecured subordinate term debt
- Interest rate fluctuation fund
- Other fee reserve.

Risk weighted assets

Nepal Rastra bank has assigned all the on-balance sheet items and off-balance sheet items with specific risk weight. In following table the risk assigned to the on balance sheet and off balance sheet items are shown.

On Balance Sheet Items	**Risk weighted**
Cash Balance	0%
Gold (Tradable)	
Balance in Nepal Rastra bank	
Investment in Government Securities	
Investment in NRB bonds	
Fully secured loan against own fixed deposit receipt	
Fully secured loan against Government securities	
Balance with domestic banks and financial institution	20%
Fully secured FDR loan against FDR of other banks	
Balance with foreign banks	
Money at call	
Other investment with internationally rated bank	
Investment in share, debenture and bonds	100%
Other investment	
Loan & advances and bills purchase / discount	
Fixed assets	
Other assets	
Off Balance Sheet Items	
Bills collections	0%
Forward foreign exchange contract	10%
Letter of credit with maturity less than 6 month	20%
Internationally rated banks counter guarantee against guarantee	
Letter of credit with maturity more than 6 month	50%
Bid bond	
Performance bond	

Advance payment guarantee	100%
Financial guarantee	
Irrevocable loan commitment	
Contingent liability on income tax	
Other contingent liability	

Source: KFA

In the Capital we use formula of Capital adequacy ratio and Core capital ratio which is given below:

Capital Adequacy Ratio: The capital adequacy ratio is calculated through dividing Total capital fund by Risk weighted assets.

$$CAR = \frac{\text{Total Capital Fund}}{\text{Risk Weighted Assets}}$$

Where,

CAR = Capital Adequacy Ratio

Total Capital Fund = Core Capital + Supplementary Capital

Core Capital Ratio: Total core capital divided by risk weighted assets is the formula to calculated core capital ratio.

$$CCR = \frac{\text{Total Core Capital}}{\text{Risk Weighted Assets}}$$

Where,

CAR = Capital Adequacy Ratio

CCR = Core capital Ratio

1.7.2 A: Asset Quality

Assets quality refers to the degree of financial strength and risks in a bank's assets, loan & advances, investment, cash etc. which are the focus of assets kept by the banks. Asset is the most critical factor in determining the strength of any bank. Asset quality ratio is also known as activity ratio and also called as turnover ratio because it indicates the speed with which assets are being converted or turnover. Primary factors that can be considered are the quality of loan risk associated with assets and credit administration system.

For any commercial banks, the asset is the loan & advances. The deposits they have in their different types of account are the liabilities for any banks. Through the deposit in different types of account the banks provides loan & advances. In the assets, we calculate the Non-performing loan, Loan loss provision coverage ratio, Loan loss provision ratio, Credit to deposit ratio and Net interest income.

NRB rate for Loan Loss Provision

Classification of Loan	Provision Required
Performing (Good) Loans	1%
Substandard Loans	25%
Doubtful Loans	50%
Bad Loans	100%

Non-performing loan: The Non performing loan is the percentage of the loan which chance of default is higher.

$$NPL = \frac{TNPL}{TL}$$

Where,

NPL= Non - performing loan

TNPL= Total non - performing loan

TL= Total loan

Loan loss provision coverage ratio: For every loan the bank has to keep some provision. Higher the loan loss provision is better. It is the percentage provision kept for the non-performing loan. The formula of Loan loss provision coverage ratio is as:

$$LLPCR = \frac{LLP}{NPL}$$

Where,

LLPCR= Loan loss provision coverage ratio

LLP = Loan loss provision

NPL = Non- performing loan

Loan loss provision ratio: The percentage of the Loan loss provision kept for the total loan calculates the loan loss provision ratio.

$$\text{LLPR} = \frac{\text{LLP}}{\text{TL}}$$

Where,

LLPR= Loan loss Provision Ratio

LLP = Loan loss provision

TL= Total loan

Credit to deposit Ratio: The percentage of the loan given for the total deposit is calculated by the credit to deposit ratio.

$$\text{C/D Ratio} = \frac{\text{Total Loan \& Advances}}{\text{Total Deposit}}$$

Where,

C/D Ratio= Credit to Deposit Ratio

Net interest income: After deducting total interest paid in deposit from the interest received is known as Net interest income.

Net Interest Income = Interest Income on Loan – Interest on Deposit

1.7.3 M: Management Quality

Management coordinates resources to get the jobs done to achieve goals. Management works through and with the people. If any banks' performance is good then the management of that bank is good. For good management the employee and staff member of the banks must be good and efficient. To achieve the objective of the organization the employee must be fit accordance to job. By the profit and the number of staff, we can know the efficiency of any organization. Through questionnaire with customer and brand positioning, we can know the efficiency of the organization

Management Efficiency Ratio: The staff or the employees are the assets of the any organization. The effective management refers to effective utilization of the man power and resource of the

organization. The management efficiency ratio is calculated by Net profit after tax divided by number of staff of the organization.

$$MER = \frac{NPAT}{No.\ of\ Staff}$$

Where,

MER= Management efficiency Ratio

NPAT= Net Profit after tax

1.7.4 E: Earning

Earning is the ultimate result of any business. Through the earning we can judge the banks' performance. In the annual reports of bank we see first the earning of the banks. So the earning is most important for any banks for its goodwill.

Earnings per share: The profit earned per share is calculated in earning per share. The earnings per share are Net profit after tax divided by Number of share outstanding.

$$EPS = \frac{NPAT}{No.\ of\ Share}$$

Where,

EPS = Earnings per share

NPAT = Net Profit after tax

No of share = Number of Share outstanding

Return on Equity: The return on equity measures the book return to the owner of the firm. Net profit after tax is divided by total equity or Net worth to calculate the return on equity.

$$ROE = \frac{NPAT}{Total\ equity/Net\ Worth}$$

Where,

ROE = Return on Equity

NPAT= Net Profit after tax

Return on Assets: It measures the effectiveness with which the firm has employed its total resources. It is calculated by dividing Net profit after tax to total assets.

$$\text{ROA} = \frac{\text{NPAT}}{\text{Total Assets}}$$

Where,

ROA= Return on Assets

NPAT= Net Profit after tax

Return on Loan: It measures the effectiveness with which firm has provide the loan & advances. It is calculated through dividing Net profit after tax divided by Total loan & advances.

$$\text{Return on Loan} = \frac{\text{Net Profit after Tax}}{\text{Total Loan}}$$

1.7.5 Liquidity

Liquidity refers to the ability to meet immediate maturing liabilities. It is the status and part of the assets which can be used to meet the obligation. The degree of the liquidity depends upon the relationship between cash plus those assets which can be quickly turned into cash, and the liability awaiting payment. The liquidity required for the bank depends upon the current deposit. If banks has greater customer with current account it required to maintain greater liquidity. Liquidity of any banks helps show the banks' performance to transfer to cash as soon as cheque arrived. If cheque arrived to bank and bank cannot provide cash as soon as cheque received the customer the bank will lose the customers and the customer can sue the bank also.

Cash Reserve Ratio: Any banks have to deposit certain percent of deposit in Nepal Rastra Bank as reserve. It can be calculated by total deposit in Nepal Rastra bank divided by total deposit.

$$\text{Cash Reserve Ratio} = \frac{\text{Total Deposit in NRB}}{\text{Total Deposit}}$$

Where,

NRB - Nepal Rastra Bank

Cash and Bank balance ratio: It is calculated by total cash and bank balance with other bank by total deposit.

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

Investment in Government security ratio: Banks invests certain percent in government securities as risk free investment. The investment can be of two types short term period of less than 1 year and long term period of more than 1 year. It can be calculated by Investment on government securities divided by Total deposit.

$$\text{Investment on Government Securities} = \frac{\text{Investmnet on Government Securities}}{\text{Total Deposit}}$$

Seven Principles of Good Investing

1. **Safety**

When investment is made, a banker must ensure that the advance made is safe. This means the money will definitely come back. It demands that loan should be granted only to reliable borrowers. If the borrower is a dishonest person, he might divert borrowed fund to some other purpose other than initially projected to the bank. He might invest in unproductive purpose (such as daughter's marriage) or on speculative purpose (like hoarding goods), which can put the advance in jeopardy. In the same way, due to incompetence of the borrower, if loss is suffered, the advance may never be recovered. A good banker should know his customers and be able to judge not only his integrity but also his ability to use the bank's money to his advantage and repay it within the stipulated period. By all the means, the loan extended by the bank, must be safe and secured.

2. **Liquidity**

When a banker demands his money back, the borrower must be in a position to repay within a reasonable time period. This is possible if the borrower has invested in short term requirements and not on the purchase of fixed assets. Banks often make a tuning of their deposit with their lending such as long term deposit with long term lending and short term deposit with short term lending. The major portion of bank's deposits are payable on demand or at short notice. If the bankers lend only to borrowers who would make the payment slowly, banks may not retain the ability to meet the daily demands of the depositors. Hence, this will blemish the bank's image which can even lead to failure. Therefore bankers attach great importance to liquidity.

3. Purpose

Bankers allow loans and advances only for productive purposes not for hoarding or for speculative activities. Directives of the government with regard to any restriction, quantity, quality, quota or value wise imposition, should be kept in view. If any permit or license is required, the party should be in possession of that. Purpose of the advance must not only be productive and safe; it must have a definite source of repayment. Bankers must never forget their liability and responsibility towards the society.

4. Profitability

Profitability is a very important element, which influences the banking activities. Commercial banks are established like any other commercial institutions for the sake of making profit. Without profit, no one can expect banks to make payment of interest on deposits maintained by them. Banks incur large administrative expenses in the course of maintaining service efficiency and attractive premises. Default risk is always high in the banking business as banks deal in loans and advances. Loan loss provisioning is maintained according to the classification of loans. Banks have to make provision for depreciation of fixed assets. Profit alone ensures all such expenses. Hence, profitability is one of the most important factors to be considered, before extending any credit facility. However, bankers must not look only from one angle of profitability while appraising a credit proposal; other ancillary business may be lying ahead, which can prove lucrative.

5. Spread

Another equally important principle of good investing is to spread the advances in various sectors, many firms and industries, and against different securities. It would be appropriate to quote the saying, “Do not put all your eggs in one basket.” A successful banker is the person who can assess such risks and spreads the lending over a large number of borrowers, different industries and areas and against different types of securities.

6. Security

A prudent banker will always endeavor to obtain maximum security available from the borrower. There should usually be sufficient margin to provide against fluctuations in value. The customers should be asked to provide everything available and acceptable to the bank so that he may not

borrow against those securities from other sources. No compromise should be made in obtaining maximum securities from the client. At all times, bank must be in a safe position to realize its lending. It should however be noted that a loan proposal should not be judged merely on the basis of realizable value of the assets owned by the unit but it should primarily be considered in terms of its earning capacity. This is so because much depends on the earning capacity of the borrower for timely repayment of loan and not on mere assets holding of the borrower.

7. National Interest, Suitability

Bankers must ascertain on what type of business the customer is involved, whether it serves the National interest or not, whether the firm is acting responsibly towards the society that it is operating in. central bank issues directives, prohibiting banks to invest in various sectors such as the import of arms and ammunitions etc. Also bankers must remain vigilant of the law and order situation where the borrower caries its business.

1.8 NRB Directives for Investment Policy

1. Investment on priority sector

NRB has pointed priority sector as agriculture sector, cottage and small industry sector, service oriented sector, corporative sector etc. In which the commercial bank must invest 10% of their total deposits. The provision totally based on the objectives for uplifting life style of people in remote and vague area.

2. Investment on Co- operative sector (Deprived sector)

Co- operative institutions, rural development banks etc which are licensed by NRB are also to be compulsory invest by commercial bank. In certain ratio determined to joint- venture bank as per such regulation. JVB's has invested 3% of total outstanding credit for co- operative sector.

1.9 General Introduction about studied Banks

1.9.1 Bank of Kathmandu

Bank of Kathmandu started its operation in March 1995. Till the date of 2008/09 it has 32 branches. The Nepalese professionals have well managed this commercial bank and it has largest public shareholders. The establishment objectives of this bank are:

1. To contribute the development of nation by mobilizing domestic saving and channeling them into productive areas.
2. To use the updated banking technology this reduces cost and provides better and reliable services.
3. To cooperate with foreign banks and money transfer agencies this makes the financial transaction easier, faster and reliable.
4. To contribute to the overall socio-economic development of Nepal.

This bank has provided variety of services which focuses and attracts many customers. BOK's depositors range from general public to business houses, NGO's, INGO's and institutional depositors. This bank has been providing various services targeted various people. Sajilo Bachat Khata, Griha Laxmi Bachat Khata, Kopila Bachat Khata, Mero Bachat Yojana are some few examples of the various services provided by the bank to its customer. The lending facility of BOK comprises many facilities like consumer loans, vehicle finance, educational loan, housing loan, festivity and personal loan. BOK has also targeted marginalized groups and the poorer people of the Nepalese society. It has established its development credit unit which has already facilitated mid eastern western Nepal, Eastern Nepal.

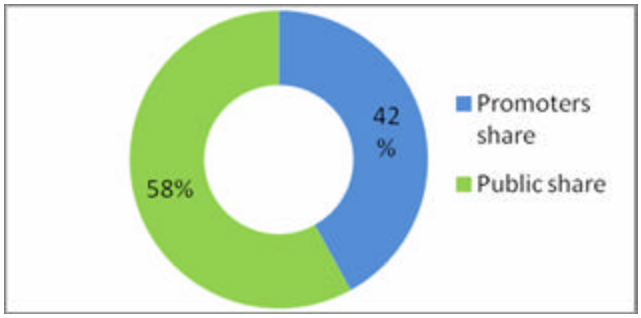
BOK has a well developed correspondent relationship with over 190 banks globally to carry its transactions worldwide conveniently. BOK also offers variety of remittance service like swift

transfer, demand draft, travelers' cheque, cash management, money transfer via remitting agencies etc. The other services are safe deposit lockers, ATM/Debit card, gift cheque, utility bills payment, silver sale, Thai visa fee payment facility.

The current structure of equity is divided into two parts. Promoters have owned 41.81 % of shares, and remaining 58.19 % shares are owned by general public. Authorized capital in 2009 is Rs. 1,000,000,000, issued capital is 844,397,900 and paid up capital is Rs. 844,397,900 respectively. Total accumulated deposit has reached Rs. 18,083,980,266 in the year 2008.

Figure 1.1

Equity Structure of BOK



Source: Annual Reports of BOK

1.9.2 NABIL Bank

NABIL bank is the first foreign joint venture bank established on 12th July 1984. At the initial stage it had a technical service agreement with Dubai bank limited which was later merged with Emirates Bank limited. NABIL is the first and major joint venture bank in the country and it is managed by a team of qualified and highly experienced professionals. Their core objective was to support the nation with introduction of modern banking services.

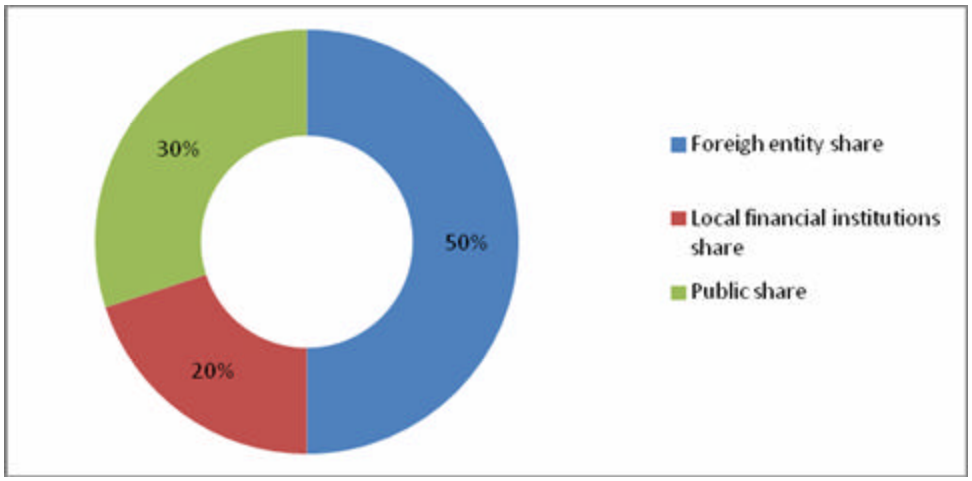
The bank provides a complete range of consumer, retail, SME and corporate banking services through its offices spread across the country. It is the largest private bank in the country in terms of

branch and ATM network. The bank has also adopted modern technologies and has provided an array of card products and Internet/Tele banking facilities besides ATM's and Any Branch Banking Service.

The current structure of equity is shared by four parties. 50% of the shares are owned by foreign entity, 10% of the shares are owned by other licensed institutions, 10% of the shares are owned by other entity and 30% of the shares are owned by general public.

Figure 1.2

Equity Structure of NABIL



Source: Annual Reports of NABIL

NABIL's authorized capital in 2009 is Rs. 1,600,000,000, issued capital is Rs. 965,747,000 and paid up capital is Rs. 965,747,000 respectively. The accumulated deposits in the year 2009 have reached Rs. 37,348,255,840. The performance of the bank has increased and it has growth in many sectors.

1.10 Statement of the Problem

In many underdeveloped countries like Nepal the major problem is to collect or formulate capital. The banking concepts are not very known to many people of Nepal who are scattered all over the country. The main problem is all banks are centrally in Kathmandu valley not in urban area, poverty and lower middle class people too. The levels of income are very low and they really can't fulfill their necessities. The saving which is left after consumption is a far thing for them. Now- a- days

many people are aware of using their money and not keeping the funds in a passive mode. People are more conscious than before.

Financial institutions major decisions are related to investment because from the collected fund from different people the bank earns profit from them. The profit is beneficial to the shareholders as well as for the bank itself to sustain in this competitive world. Credit provided by the commercial bank directly affects the national interest of the country. Many people have a belief that commercial banks are the backbone and heart of the economy and financial system respectively. The failure of commercial banks is the failure of the economy too.

Every financial institution needs a sound and proper investment policy to reach the predetermined objective. The increment of financial institution has lots of opportunities to invest money for a high rate of return. After the restoration of democracy in 1991 A.D. the market has been liberalized and it has gained a pace too. In capital and money market many steps were taken. The entry of finance companies, the entry of co-operatives for collection of deposits and lending within members the non-government organizations (NGO) were allowed which helped the economy and which also created opportunities. The trend has shown that depositors withdraw their deposits when they find various investment opportunities and the schemes beneficial than the previous one. There are many financial institutions like commercial banks, finance companies, insurance, Gramin Bikash Bank, Non-Governmental Organizations working in Nepal. The growth of such organizations has also increased the deposits. They collect funds from different areas and then they search for the sectors for investment from where they can gain a lot.

In conclusion, this study aims to analyze the investment policy of the concerned banks. This study will give high emphasis on the specific problems with special reference to BOK Ltd. and NABIL Bank Ltd. This study basically deals with these issues of the concerned banks.

i. Are the banks utilizing their available funds properly?
ii. Are the policies related to fund mobilization and investments are effective?
iii. What is the relationship of investment, loan and advances with total deposits and total net profit of the banks?
iv. What is the profitability position of the banks?

1.11 Objectives of the Study

The investment decision is major component existing in any organization and the proper decision must be made and financial management helps us to analyze the situation. The basic objectives of this study are an attempt to make overall review regarding investment policy of BOK and NABIL Bank Ltd. To be more precise the specific objective of the study are:

1. To study and evaluate the investment policies of concerned banks.
2. To identify the investment priority sectors of commercial banks.
3. To study the growth ratio of total deposit, loan and advances, total investment and net profit of BOK and NABIL Bank.
4. To analyze and forecast the trend and structure of deposit utilization and its projection for five years of commercial banks.
5. To provide suggestions and possible guidelines to improve investment policy and its problems.

1.12 Significance of the Study

As we know that the commercial banks are the tools of knowing the country's financial position and situations, the study of these banks BOK Ltd. and NABIL will be useful which provides information for the investors, employers, employees of financial institutions, trainees of banks, academic institutions, policy makers etc. It also searches new investment opportunities satisfying the objectives like liquidity and profitability of commercial banks.

This study provides valuable information for the persons involved in financial institution and to the policy maker still there are few limitations of the study. This study also helps regulatory authority to find out liquidity management and investment portfolio system of commercial banks.

1.13 Limitation of the Study

Commercial banking sectors are the indicators of a whole economy. It is very useful to the investors who can get various services too. This study examines policies and practices adopted by these two banks in order to achieve the optimum combination between profitability and liquidity. Though there are still few problems like shortage of time, reliability of statistical tools used and lack of research experience etc. Some other limitations are:

1. Only two commercial banks are the concern of the study due to the inadequate time period, shortage of time and resources.
2. This study is based on the data of five years only.
3. The whole study is based on secondary data, websites on net, articles and newspapers.
4. The study is focused on those factors which are related with investment policy.
5. This study is conducted only for suggestion not for directing.

1.14 Organization of the Study

The study contains following five chapters:

Chapter 1: Introduction
Chapter 2: Review of Literature
Chapter 3: Research Methodology
Chapter 4: Presentation and Analysis of Data
Chapter 5: Summary, Conclusion and Recommendations

Chapter one deals with general background of study, introduction to the bank, objective of the study and limitation of the study.

Chapter two deals with review of literature which includes review of books, review of journals and annual reports published by the banks and other authorities review or related articles and previous thesis as well.

Chapter three deals with research methodology of sequential steps that have been followed in conducting this study and material used as each steps which includes collection of data, sources of data, population and sampling, methods of analysis and statistical measures etc.

Chapter four deals with analysis of data through a define course of research methodology. This chapter is to analysis different statistical tools and financial tools.

The fifth chapter is related to summary, conclusion and recommendation of the study.

Finally, bibliography and appendices have been included at the end.

CHAPTER – II

2. REVIEW OF LITERATURE

For the purpose of the getting the knowledge about the topics i.e. understanding the meanings, knowing the views of different authors and scholars and exploring the findings of various researchers; the literature review is done. In the process of review, various books explaining the concepts and various models relating to the portfolio performance evaluation are studied. Similarly, the researches, articles, journals and the past unpublished thesis which are supportive and related with the topics are also reviewed. This chapter helps to take adequate feed back to broaden the information based on study. Therefore this chapter has its own importance in this study. However,

the purpose of knowing the past works on the field of the topics is fulfilled by this review of literature.

2.1 Conceptual Framework

Banks play an important role in the economic growth of a country. Banking, when properly organized, aids and facilitates the growth of the trade and industry and hence of national income. In the modern economy, banks are considered not as a dealer in money but as the leaders of development.

According to **Commercial Bank Act 1974 A.D**. "A commercial bank means bank which deals in exchanging currency, accepting deposits, giving loans and doing commercial transactions." Commercial banks formulate sound investment policies, which eventually contribute to the economic growth of the country. It also purchases government securities as well as of other institution to get surplus amount of investment.

“Commercial bank means a bank authorized to receive both demand and time deposits, to engage in trust services, to issue letter of credit, to rent time deposit boxes, and to provide similar services.” **Black’s Law Dictionary**.

The main function of commercial bank is the accumulation of the temporarily idle money of general public for trade and commerce. Its main functions are accepts deposits and grants loan, exchange and purchase and discount bill for promissory notes, exchange foreign currency to provide loan, agency function, Overseas trading services information and other services. Commercial banks earn profit by proper mobilization of their resources. Many commercial banks have been established to provide a suitable service, according to their customers.

John M. Cheney and Edward A. Moses defined the word investment, “The word Investment brings forth vision of profits, risk speculation and wealth.”

According to **William F. Sharpe, Gordon J. Alexander and Jeffery V. Bailey**, “Investment in its broadest sense means the sacrifice of current dollar 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 is generally uncertain" (Sharpe, Alexander and Bailey; 2003: 1).

Jack Clark Francis says, "An investment is a commitment of money that is expected to generate additional money. Every investment entails some degree of risk which requires a present certain sacrifice for a future uncertain benefit" (Francis; 1991: 1).

Charles P. Jones defines," An investment is the commitment of funds to one or more assets that will be held over some future time period" (Jones; 1988:5).

Shakespeare Baidhya in his book 'Banking and insurance management' has described the sound investment policy. He writes, "A sound investment policy of a bank is such that its funds are distributed on different types of assets with good profitability on the one hand and provides maximum safety and security to the depositors and banks on the other hand. Moreover risk on banking tends to be concentrated in the loan portfolio. When a bank gets into serious financial trouble, its problems usually spring from significant amounts of loans that have become uncollectable due to mismanagement, illegal manipulation of loans, misguided lending policies or unexpected economic downturn .Therefore the bank's investment policy must be such that it ensures that it is sound and prudent in order to protect public's fund.

He also adds that, what types of loans do bank make? How much of loans in each loan be invested? The banks make a variety of loans to a wide variety of customers from many different purposes form purchasing automobiles to construction of homes and making trade with foreign countries. Therefore, no uniform rules can be laid down to determine the portfolio of a bank. The environment in which the bank operates is influenced by its investment policy. The nature and availability of funds and also assets differ widely from country to country and also from region within a country. For example, scope of a banks operating in Jumla will be different from the scope of bank operating in Kathmandu city may not be applicable to the customers of Jumla because the demand for loans are less in rural areas whereas it is higher in city or in urban areas" (Baidhya;1997:62-63)

Financial investment includes an exchange of financial claims-stocks and bonds real estate mortgages etc (Bhalla and Tutteja; 1983: 2).

According to **V. K. Bhalla and S. K. Tutteja,** "There are basically three concepts of investment:

i. Economist's definition of investment;
ii. Investment in a more general or extended sense, which is used by "the man on the street"; and
iii. The sense in which we are going to be very much interested namely, financial investment.

According to them, "The term economic investment has a rather precise meaning in the literature of economic theory. Typically it includes net additions to the capital stock of society. Capital stocks of society are those goods which are used in the production of other goods.

They further say this is gross, societal or aggregate point of view. The definition implies that in society there are number of goods (such as building and equipment) which are used in the production of other goods and these means of production are considered part of capital stock of society. For a number of reasons, economists also include inventories as part of that capital stock. Thus, a net addition to the capital stock an investment means an increase in buildings, equipments or inventories over the amount of equivalent goods that existed, say, one year ago at the same time.

They further add the more general and extended sense of is used by the "man on the street". A commitment of money to buy a new apartment is of course an investment from an individual point of view but these are in very general and extended sense since no rate of return is involved nor is a financial returned or capital growth expected.

2.2 Review of Related Studies

Chandler, L.V. (1973), says, "A banker seeks optimum combination of earning liquidity and safety, while formulating investment policy."

Emphasizing the importance of investment policy, **H.D Crosse** puts the importance of investment policy in this way, "Lending is essence of commercial banking, and consequently the formulation and the implementation of sound policies are among the most important responsibilities of bank

directors and management. Well conceives lending function effectively and minimize the risk inherent in any extension of credit. He further adds, the formulation of sound lending policies for all bank should have adequate the careful consideration over community needs, size of loan portfolio, character of loan, credit worthiness of borrower and assets pledged to security borrowing interest rate.

Bexley, James B. (1987), express his views as, "Investment policy fixes responsibilities for the investment deposition of the bank assets in terms allocating funds for investment and loan and establishing responsibility for day to day management of those assets."

Frank K. Reilly (1999), defines, "An investment may be defined as the current commitment of funds for a period of time to derive future flows that will compensate the investing unit for time of funds and committed, for the expected rate of inflection and also for the uncertainty involved in the future flow of the funds."

According to **I.M. Pandey (1999),** "In investment decision expenditure and benefits should be measured in cash. In investment analysis, cash flow is more important than accounting profit. It may also be pointed out that investment decision affects the firms' value. The firms' value will increase if investments are profitable and add to the shareholders wealth. Thus, investment should be evaluated on the basis of criterion, which is compatible with the objective of the shareholders'' fund maximization. An investment will all to the shareholder's wealth, if it yields benefit in excess of the minimum benefits as per the opportunity cost of capital.

Dr. Sunity Shrestha (1995), in her book "Portfolio behavior of commercial bank in Nepal" said, "The commercial banks fulfill the credit needs of various sector of the economy including agriculture, industry, commercial and social service sectors. The lending policy of commercial banks is based on the profit maximizing of the institution as well as the economic enhancement of the country.

From the above definition, it is clear that an investment means to trade a known rupee amount today for some expected future steam of payment or benefits that will exceed current outlay by an amount that will compensate the investor for the time of uncertainty involved in expected future cash flows. Thus investment is the most important function of commercial banks. It is very challenging task for

commercial banks because it influences the firms' growth in the long run effects. A commercial bank must invest its deposits and other funds to secured, profitable, reliable and marketable sector so that it can earn a reasonable profit as well as it should be secured and can be converted into cash whenever needed.

Rama Bashyal (2008 January), in her research work, "Micro Finance: Access to finance for Nepal's Rural Poor," has studied the detail existing environment of people the financial institution and its contribution to the society. She has found that financial markets often serve poor people badly. She found that commercial banks number has been increased. There are three hundred and ninety branches of commercial banks in the year 2006 (Mid-July). Majority of rural branches of the Rastriya Banijya Bank, Nepal Bank and Nepal Arab Bank has been involved in extending priority sector loan. All commercial banks including government, private, domestic and joint venture banks have invested Rs. 22604.86 million in priority sector by July 2003. She says the commercial banks are meeting the deprived sector credit target mainly through three options: firstly, providing direct loan to people below the poverty line, secondly, providing wholesale loans to partner organizations, and thirdly, making share participation in the RMDC/GBBS. The banks have to bear higher operational cost than they have to incur in their regular banking activities. She found that RBB and NBL have deal with more than 80 percentage loan directly with individual clients. She further says international experiences also have proved that the commercial bank's lending to non-banking institutions rather than groups and individuals have gained success. Low transaction costs, high repayment rate and easy legal action in case of repayment failures are some advantages of indirect lending to non-bank institution.

She has found the following challenges for rural financing:

- There are not adequate legal and regulatory policies and also the inadequate information about financial intermediaries and borrowers and depositors have hindered the Nepalese rural financial markets.
- The banking sector in particular had been heavily affected by the conflict situation. Between 25 and 30 percent of the branch network of the three largest banks i.e., the RBB, NBL and the ADB have been vandalized by the insurgents.

- The Nepalese rural financial market is characterized by poverty, seasonal incomes, limited opportunities for risk diversification and lack of traditional collateral. So this lack of collateral is the main reason for the profit oriented financial institution to be more discouraged.

She concludes that the key lesson should be learnt from other successful commercial banks throughout the world that large number of commercial banks is moving into microfinance (Bashyal; 2008: 1-7 & 68-69).

Resta Jha in his article Nepali financial sector reform shows the following results;

- There is high demand for competent, quality human resources.
- Overall the state of banking leaves something to be designed. There is very low return in assets.
- Poor quality of loans is given without applying the credit principles, credit- skills assessment are forgone too.
- There is lack knowledge about sophisticated global products among the banking community of Nepal which is not surprising. The expenditure on staff training at all of Nepal's financial institutions combined is just Rs. 0.05 billion.
- There is lack of proper training centers which provides structural banking related course.
- Nepal needs to up the ante on human resource management, technology use and corporate governance.
- Platform must be given to institution and employees to acquire specialized and focused knowledge of global banking product (Jha; 2006: 98-99).

Institute for integrated development studies is an organization in their research work, “Do We Need Economic Reform Phase II has highlighted many facts and figures about the commercial banks and their contribution. The achievement of this research is discoursed below.

The growth of deposit not only mobilizes domestic saving but also ensures more of such saving in the financial form. It has mentioned that during last decade, there has been a rapid growth in deposit collection of the banks. From Rs.7 billion in July 1984 total deposits with the banking system went up to Rs. 22 billion in 1990 and further to Rs. 102 billion in July1998. Growth of credit to private

sector has also increased. Commercial banks outstanding credit has risen from 8.7 percent of GDP in 1985 to 27.5 percent in 1998. However there has not been increase of credit in agricultural sector. There is a shift of banking sector credit to industrial sector.

The interest rate spread between deposits and lending rates of the banks has added more costs to the borrowers. The interest rate spread is 5.5 percent in the year 1998 but it is considered high from the international rate of 2 to 3 percent.

There has been improvement in the real interest rate. There is also rise in nominal interest rate due to huge demand of credit. Real interest rate is the difference between nominal interest rate and inflation rate.

They have found the following points.

- The services of financial institution have increased but expected impact of financial reforms on the economy has not been achieved.
- In rural areas 80 percent of the household's borrowings are informal financing.
- Poorer people don't have access to formal institution.
- More than 80 percent of the formal sector financing is collateral based. Those people who do not possess land and other bankable property have no access to such credit in areas where targeted and micro-credit programmers do not exist.
- In urban areas almost all financial institutions have a very high spread between deposit and lending rates, ranging from 6 to 10 percentages.

They also gave the following suggestions:

- Enhancement of supervisory capability of Nepal Rastra Bank.
- Autonomy to central bank.
- Restructuring of financial institution.
- Repayment of government guaranteed loan.
- Reorienting financial institution for rural financing.

(Institute for Integrated Development Studies; 1999: 23-33).

Bhaskar Sharma (2000) has researched about the future banking and has achieved these facts:

- Only urban areas are the target of bank to establish. The rural are areas are not included and the system of bank lack over there
- The interest rate is high changed on lending by commercial banks.

He says the investment is done without proper credit an appraisal and on personal guarantee which results in bad debt (Sharma; 2002: 13).

Nepal Rastra Bank in their research work, "A Glimpse of Nepal's Macroeconomic situation," (Nepal Rastra Bank, "Glimpse of Nepal's Macro economic situation, 2006) has figured out different facts about Nepalese economic situation. They have briefly explained the past and the present of Nepalese financial picture. They say that the Nepalese financial system has grown in terms of business volume and the size of assets and market. Commercial bank has leading shares in total assets liabilities and branch network in the financial sector. The figure of mid-July 2005 showed that the commercial banks have largest share of 86.7 percent. In case of total deposits commercial banks shares 88.8 percent share, 78.3 percent in case of total outstanding credit, 90.5 percent in case of total investment of the overall financial sector. They are still serious issues and challenges in the Nepalese financial system. The government involvement, weak corporate governance and organizational culture, poor lending practices fragmented legal framework, weak central bank, inadequate disclosure, accounting and auditing standards, high level of non-performing loans and political intervention were some issue and challenges found by the study conducted by the World Bank. The financial sector Technical Assistance program has incorporated the following aspects:

- Promoting financial institutions with the equity participation of the government or government owned institution.
- Improve the existing legal and judicial processes for enforcing financial contracts.
- Improving auditing and accountancy standards within the banking sector.
- Promote financial discipline through adequate disclosure and competition (Nepal Rastra Bank; 2006: 1-15).

2.3 Review of Thesis

Several thesis works has been done under the topic “Investment Policy”. The relevant works for this study are presented below:

Raughu Bir Kapadi (2002) in his thesis paper, “A Comparative Study on Financial Performance of NABIL Bank Ltd and Standard Chartered Bank Ltd,” Master’s Degree Thesis, T.U, has studied the financial performance of two banks. His main objective was to examine the trend of deposits and loan & advances, to examine liquidity, profitability, capital activity and capital adequacy position. His findings were as follows:

- NABIL has better liquidity position than SCBL.
- Performing assets to total assets ratio of SCBL was higher than that of NABIL.
- The profitability of SCBL was higher than that of NABIL.
- NABIL has better performance for growth in earning than that of SCBL.
- Earnings per share, dividend per share of SCBL was better than NABIL.

He has suggested that both banks have unsatisfactory liquidity position and so they have to improve it. The outsiders fund must be utilized efficiently by SCBL. The profit was not at satisfactory level of both banks so they need to increase it.

Raghu Bir has tried to show the comparative performing appraisal of two banks but he has not explained the investment policy and different form of risks. He has tried to analyze and explain liquidity, Profitability and activity of the sample bank but the time limit made it narrower to measure the performance appraisal of the sample banks.

Purushottam Poudel (2004) in his thesis paper, “A study on Lending Practices of Joint Venture Commercial Banks,” Master Degree Thesis T.U has studied two joint venture banks. His main objective was to know the volume of contribution made by both sample banks in lending, to determine the impact of deposit in liquidity and its effect on lending practices. He found that:

- NBBL has more consistency than HBL.
- Current ratio NBBL was higher than that of HBL.

- Liquidity position of NBBL was better.
- Profitability ratios like return on equity, earning per share of HBL was higher than that of NBBL.
- There was positive correlation between total deposits and loan and advances of both banks.
- The growth ratio of NBBL was higher than HBL but there was in consistency among ratios of NBBL.

He has suggested that HBL should increase its current ratio. NBBL has to increase its profitability. He has made an attempt to show the lending practices of two joint venture banks but the time limit has made the research to be compressed and only to tell the situation of 5 year period only.

Sijan Lal Shrestha (2006) in his thesis paper entitled, "A study on lending performance with reference to NABIL Bank Ltd, Standard Chartered Bank and Nepal Investment Bank Ltd, Master Degree Thesis, T.U has analyzed the lending performance of three banks. His main objective was to measure the banks' lending strength and lending efficiency. He found that:

- NABIL has succeeded to advance high volume of credit as much as the capital fund allows it than SCBL and NIBL.
- Nonperforming loans out of total loan and advances were highest of NABIL than SCBL.
- NIBL has higher percentage of performing loan than NABIL and SCBL.
- The performance of NIBL was good with respect to increase in profit than other two banks.
- In case of shareholders equity and loan and advances, there was high degree of correlation in NIBL and SCBL than that of NABIL.

He has concluded that NABIL has strength of good management team, financial soundness, latest technologies, good customer service as this has good performance. NIBL has a very good Nepali management team, it provides timely and quality service to its customers and has Any Bank Banking Service (ABBS), it has good portfolio of loans, and it has good policies and systems for lending and control mechanism. SCBL has good management, credit analysis, continuous monitoring of the loans customer follow up and good customer service and technologies.

He has analyzed the lending policies but the core conclusions are missing. He only focused on specific things and did not analyze the whole objectives of the study.

Rajya Laxmi Khadgi (2006) in her thesis paper, "A study of investment policy Analysis of NABIL Bank Ltd," Master Degree Thesis, T.U. has studied only the bank NABIL. Her objective was to study the resource mobilization and investment policy of NABIL Bank, to find out the current and future investing strategy of NABIL Bank. She found that:

- The sample bank has been able to meet its short-term obligation and satisfactory liquidity position.
- The bank has taken moderate risk towards the mobilization of its risky assets.
- NABIL has invested very nominal percentage of total working fund into shares and debentures.
- There is satisfaction in the level of profitability which indicates the good earning capacity.
- She found that the growth rate of deposits is in increasing trend.
- The net profit of the bank has increased too.
- There was positive correlation between total deposits and loan and advances during the study period.

She has suggested NABIL to increase investment in government securities. To increase the risk free investment is also suggested. The more funds have to be mobilized into shares and debentures of other companies.

Bhanu Kandel (2006) in his thesis work entitled, "A study of investment policies of commercial banks (with special reference to NABIL Bank Ltd, Nepal Investment Policies ltd and Nepal SBI banking Ltd.) Master's Degree thesis, T.U) has made an attempt to analyze the investment policy of sample banks. The objective inside investment policy was to analyze the utilization of available fund of sample banks, to evaluate the liquidity, profitability and risk position of sample banks.

He found that:

- Nepal SBI Bank has gradually decreased its investment in industrial sector and diversified its portfolio in other areas.

- NIB has also been penalized for not investing in priority sector according to NRB's directive.
- The liquidity position of NABIL is lower than NIB and SBI. NABIL is said the stable and consistent than other two banks.
- NABIL has invested more on government securities but lower in shares and debentures.
- The profitability ratio shows that NABIL is average in profit compared to other sample banks.
- The risk of NABIL is also average compared to other sample banks.
- The growth ratio concludes that NABIL was unable to maintain high growth ratios in total deposits loan and advances and investment compared with sample banks.
- The trend analysis shows that NABIL has invested large portion of their deposit into providing loan to potential sector.

He said that the NABIL's position will be better in near future. From the correlation he found that there is significant relationship between total deposit and total investment, deposit and loan advances. He suggests that NIB has to mobilize the fund in priority sector. NIB and SBL needs to improve their liquidity position. NABIL has to invest more on share and debentures. There needs to be effective collection of deposits and the growth has to be acquired. Finally he says that NABIL is in satisfactory position.

Rajesh Dhital (2002), in his Thesis work entities," A comparative study on Investment Policy of standard Chartered Bank Nepal Ltd and Bank of Kathmandu Ltd," Master Degree thesis, T.U. has made an attempt to analysis the policy of sample banks. His main objective was to analyze the financial ratios with the help of financial tools and from the statistical tools too different conclusions were found. His objective was to find the profitability position, liquidity position, assets management efficiency, mobilization of funds, trend analysis, growth ratios, to find out the relationship between deposits and total investment, deposit and loan and advances etc.

His major findings were:

- The mean ratio of SCBNL had higher mean current ratio than of BOK Ltd but the mean ratio of cash and bank balance of total deposit ratio of SCBNL was lower in comparison of BOKL.
- The investment on government securities to current assets of SCBNL was higher than BOK Ltd.

- The mean ratio of loan and advances to total deposits of SCBNL was lower than that of BOK Ltd.
- The mean ratio of total investment to total deposit of SCBNL was higher in comparison to BOK Ltd.
- The profitability position of SCBNL was average compared to BOK Ltd. The mean ratio of return on total working fund of SCBNL was higher than that of BOK Ltd.
- The growth rate of total deposit of SCBNL was less than BOK Ltd; the growth rate of net profit of SCBNL was higher than that of BOK Ltd.
- There was significant relationship between deposit and loan and advances of both sample banks.
- Trend value analysis showed that the total deposits of both banks were found in increasing trend. The trend value of loan and advances, total investment, net profit was in increasing too.

He has recommended that BOK Ltd should focus on more deposit collection through large variety of deposit scheme and facilities. SCBNL should follow liberal policy and invest more percentage of deposit in loan and advances. BOK Ltd should invest more on government securities. SCBNL and BOK Ltd both have to invest more on share and debenture of different other companies. Both banks SCBNL and BOK Ltd should follow project oriented approach to perform efficiently. New approach should be taken to attract customers like E-banking, wide international banking etc. The both banks are also suggested to operate in rural areas too without making unfavorable impact in their profits.

Upendra Tuladhar (2000) in his thesis work, entitled, "A study on the investment policy of Nepal Grindlays Bank Ltd in comparison to other Joint venture Banks of Nepal, Master's Degree Thesis, T.U. has made an attempt and he found that:

- The mean current ratio of NGBL was slightly higher than NABIL and HBL.
- NGBL has invested more portion on government securities than other sample banks NABIL and HBL.
- It is said that NGBL has maintained successful liquidity than NABIL and HBL
- The mean ratio of loan and advances to total deposit of NGBL was less than NABIL and HBL.

- NGBL had highest mean ratio of investment on government securities to total working fund ratio.
- It is also said that NGBL has maintained comparatively average successful in its on-balance sheet operation.
- In case of off-balance sheet operation NGBL has advanced than NABIL and HBL.
- The profitability position of NGBL is higher than NABIL and HBL.
- Growth ratio of NGBL was lower than HBL and slightly lower than NABIL. The growth ratio of loan and advance of NGBL was found higher than NABIL but lower than HBL.
- The growth ratio of net profit of NGBL seemed to be more satisfactory than NBIL but in case of HBL, it seemed to be very high.
- He also found that all three joint venture banks had positive correlation between outside assets and net profit.
- There was positive correlation of HBL but negative incase of NGBL and NABIL between deposits and total investments.
- In trend analysis it was found that the loan and advances to total deposit ratios, increasing trends were found for NGBL and NABIL but it was decreasing trend in case of HBL.

He also recommended that NGBL to provide information about its services, facilities. He further said NGBL could select education as its potential investment sector. NGBL should not be surrounded and limited with the interest and status of big clients. There should be reduction in the minimum threshold balance and extension of its services towards rural areas. NGBL should increase cash and bank balance to meet the need of investment and demand of loan and advances. NGBL should invest its fund in the purchase of shares and debentures of other financial, non-financial companies. NGBL should establish the participation to boost up foreign investment into the country. Modern technology should be introduced to the country for the better execution of its operation.

Deependra Shrestha (2002) in his thesis paper, "A comparative study on Investment Practices of Joint Venture Commercial Banks" Master Degree Thesis, T.U. has studied the liquidity management, assets management, profitability, risk position of Nepal SBI Bank, NABIL Bank, and Standard Chartered Bank Nepal ltd. He has also projected the deposit and investment trends of the sample banks. He found that:

- The liquidity position of NABIL was not so good in compare to other banks.
- NSBI has higher cash and bank balance to total deposit ratio than NABIL and SCBNL.
- NSBI's cash and bank balance to total deposit ratios are more variable than other banks so the liquidity position of NSBI was not better.
- It is also said that NABIL and SCBNL do not have sufficient fund to invest in profitability sectors.
- From the analysis of assets management ratio it was said that NABIL was not in a better position regarding it's on balance activities as well as off balance activities.
- The mean ratio of loan and advance to total deposit of NABIL was greater than SCBNL and lower than NSBI.
- However NABIL's investment on government securities to total working fund ratios is found more consistent than that of other banks.
- The profitability ratio showed that NABIL's profitability was not satisfactory but in some ratios like return on loan and advances, Total working fund, equity and total interest earned to total outside assets, NABIL has maintained higher ratio than NSBI and lower mean ratios than SCBNL.
- In other ratios from the analysis of risk ratio it was found that the credit risk ratio of NSBI was highest at all and the capital risk ratio of NABIL was highest.
- Growth ratios found that NABIL and SCBNL had not been successful to increase their sources of funds.
- NABIL had success to maintain higher growth rate of total investment.
- SCBNL was able to maintain higher growth ratios of loans and advances. It was said that NSBI had reduced its total investment and its effects directly appears in net profit.
- From the coefficient of correlation analysis it showed there was significant relationship between deposit and loan and advances and outside assets and net profit of NABIL, SCBNL, and NSBI bank.
- Trend analysis showed that SCBNL has increasing trend values in both loan and advances to total deposit and total investment to total deposit. NSBI has opposite trend value than NABIL.

He recommended that both banks NABIL and SCBNL should increase cash and bank balance to meet current obligations and loan demand. NABIL and SCBNL should use their exiting fund as loan and advances. So they should follow liberal lending policy. NSBI should utilize risky assets and

shareholder's fund to gain highest profit margin. NSBI should invest its idle fund in government securities. All three banks should invest their funds in different types of companies in different areas. The banks should make continuous efforts to explore new, competitive and high yielding investment opportunities to optimize their investment portfolio. NABIL should apply loan recovery act that would help to realize overdue loan in time. All three banks should open its doors to the small depositors and entrepreneurs for promoting and mobilizing small investor's funds. All three banks should activate its increasing foreign investment in Nepal by means of their wide international banking networks. These three banks should play the role of financial intermediary and merchant banking like underwriting of securities brokers, development of capital markets. And supportive role to the security exchange center.

2.4 Research Gap

All the above review of thesis has been based on the research done by the previous students. Today the world has become modernized and the information technology has also been advanced drastically so there is a lot of difference in the modern banking system which results in the better outcome in the management and improvement in the data. The information of this very research is also based on secondary data but many effective tools and technique are used to get the desired result as per the objective of this study. To analyze the facts financial tools as well as statistical tools were used to get the desired objective of the study. Financial tools include ratio analysis and the statistical tool includes mean, standard deviation, coefficient of variation, correlation of coefficient analysis. Besides that the research also includes trend analysis. There has been the gap of time which differentiates the research before and after. Likewise many changes have been done in this thesis to get the exact outcomes of the today's scenario of the bank and its various aspects.

CHAPTER – III

3. RESEARCH METHODOLOGY

3.1 Introduction

Research methodology describes the methods and process applied in the entire aspect of the study. It is a method of defining and refining problems, formulating hypothesis or suggested solution, collecting, organizing and evaluating data, making decisions and making conclusions.

Research methodology depends on the various aspects of the research project. The size of the project, the objective of the project, importance of the project, time frame of the project, impact of the project in the various aspects of the human life etc. are the variables that determine the research methodology of that particulars project.

3.2 Research Design

Research design is drawing an outline of planning or arranging details in an economic, efficient and relevant manner before the data collection and data analysis. Research design is also the strategy for conducting research work which describes the general framework for collection, analysis and evaluation of identified data. Research design is the specification procedures for collecting and analyzing the necessary steps to help and identify an opportunity such that different between cost of obtaining various levels of accuracy and the expected values of the information, associated with each level of accuracy is maximized.

Research design is purely a plan for a study that guides the collection and analysis of data. It is an investigation and it answers the research question. Research design consist the scheme in which there is an outline of what the researcher will do from writing the hypothesis and their implication to the final analysis of data.

Research design is a process of making decisions before the situation arises in which the decision has to be carried out. It guides the researcher to progress in the right direction in order to achieve the goal. The design of research is concerned with making controlled scientific inquiry. Research design must include all the aspects for testing of hypothesis and drawing logical conclusion there from.

3.3 Sources of Data

This research study is mainly based on secondary data. Secondary data are those data that are collected by someone else or used already and made available to other in the form of published statics such as annual reports, periodicals, newspapers, magazines etc. Once a primary data is used, it loses its originality and becomes secondary data. This study is mainly depends on the use of secondary data that consists of annual reports of the concerned banks. However, besides the annual reports various other sources of data have also been used for the purpose of the study plan.

3.4 Population and Sample

Population or universe refers to the industries of the same nature of its service and product. It is the collection or the aggregate of objects or the set of results of an operation. On the other hand sample means the representative parts of population selected from it with the objectives of investigating its properties. Thus, a sample is just a portion of the population selected with a view to draw conclusion about the population under study.

In context of Nepal, 26 commercial banks are in operation in this date. These 26 banks are regarded as population. Due to the time limit and unavailability of the relevant data, it is not possible to study all these 26 banks. So among all these banks two banks viz. BOK Ltd. and NABIL have been take into account for research purpose as the samples in this project study to compare their investment policy.

3.5 Data Analysis Tools

To achieve the objectives of the study, various financial, statistical and accounting tools are used according to the data available. The result obtained with the help of financial, statistical and accounting tools are tabulated under various headings. Then the results are interpreted and compared to the sample. The various tools applied in this study are presented as follows:

a. Financial Tools

Financial statement provides the vital information about the firm's position at a point in time and its operation over some past period. Financial tools availability has helped to analyze the strength and weakness of a firm. Ratio analysis is a technique from which different results are known. Simply ratios are designed to show relationships between financial statement accounts within firms. Translation of the accounting figures into relative value allows us to compare the financial position of one firm to another. Mathematical expressions are needed to show the relationship between the various accounting figures. The ratios are created from different figures and the evaluation of the performance is done. The ratios analyzed in this study are as follows:

1. Liquidity Ratios

The ability of a firm to meet its obligation in the short term is known as liquidity. Liquidity ratio measures the ability of the firm to meet its current obligation. The failure of a company to meet its obligation, due to lack of sufficient liquidity, will result bad credit image, loss of creditors' confidence or even in lawsuits resulting in the closure of the company. A very high degree of liquidity is also bad, as idle assets earn nothing. The firm's funds will unnecessarily tied up in current assets.

Short-term or current assets can be easily converted into cash so it is liquid asset. Liquidity ratio is the relationship of a firm's cash and other current assets to its current liabilities and it reflects the short-term financial strength of the business. Liquid asset in other words can be defined as an asset that can be easily converted to cash without significant loss of its original value. The conversion of current assets such as inventory and receivables are the easiest means by which a firm obtains the funds needed to pay its current bills. Thus, it is the measurement of speed with which bank's assets

can be converted into cash to meet deposit withdrawal and other current obligations. The following ratio is evaluated under liquidity ratio:

i) Current Ratio

This ratio shows the banks short term solvency. It shows the relationship between current assets and current liabilities. Current assets include cash and bank balance money at call and those assets which can be converted into cash within a year such as investment in government securities, receivables, overdrafts, loans, advances, purchased, discounted and miscellaneous current assets. Similarly, Current liabilities include deposits and other short- term loan, bills payable, staff bonus, dividend payables and miscellaneous current liabilities. The ratio is calculated by dividing current assets by current liabilities.

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

As a conventional rule, a current ratio of 2:1 or more is considered satisfactory. The higher the ratio, the greater will be the ability of the bank to pay its current obligations. However, an arbitrary standard of 2:1 should not be blindly allowed because current ratio is a test of quantity, not quality.

ii) Cash and Bank Balance to Total Deposit Ratio

These are the most liquid current assets of a firm. It measures the percentage of most liquid assets to pay the depositors quickly. It also shows the ability of bank's immediate funds to cover their total deposit. This ratio is expressed as:

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

Hence, cash and bank balance includes cash in hand, foreign cash on hand; cheques and other cash items, balance with domestic banks and balance help in foreign banks. The total deposit encompasses current deposits, saving deposits, fixed deposits, money at call or short notice and other deposits.

iii) Cash and Bank Balance to Current Assets Ratio

This ratio declares the percentage of the cash and bank balance among the current assets of a firm. Higher ratio is defined best in this case because higher ratio means the higher capacity of firms to meet the cash demand. This ratio is presented as:

$$\text{Cash and Bank Balance to Current Asset Ratio} = \frac{\text{Cash \& Bank Balance}}{\text{Cash Assets}}$$

Here, cash and bank balance involves cash in hand, freight, cash and foreign banks.

iv) Investment on Government Securities to Current Asset Ratio

This ratio finds out the percentage of current assets invested on government's different securities like treasury bills, development bonds etc. This ratio is calculated by dividing the amount of investment on government securities by the total amount of current assets. It is stated as:

$$\text{Investment on Government Securities to Current Asset Ratio} = \frac{\text{Investment on Government Securities}}{\text{Current Assets}}$$

v) Loan and Advances to Current Assets Ratio

Short term loan which matures with a period of one year are assumed or known as current assets. This loan is the major source of earning for a bank but the bank must be very careful about it. Bank must not allocate all funds in loan and advances. There must be a certain level of loans. This specific ratio is calculated by dividing loan and advances by current assets. It shows the percentage of loan and advances and the portion of loans too. It is expressed as:

$$\text{Loan and Advances to Current Assets Ratio} = \frac{\text{Loan and Advances}}{\text{Current Assets}}$$

2. Asset Management Ratios

Asset management ratio helps to understand how the banks are using their resources and how the sample banks have arranged and invested their limited resources. Simply asset management ratios are those set of ratios that measures how effectively a firm is managing its assets. The ratios are also called turnover ratios because they indicate the speed with which assets are being converted or turnover. Thus, ratios are used to measure the bank's ability to utilize. The financial tools and the related ratios to investment policy are calculated and they are as follows:

i) Loan and Advances to Total Deposit Ratio

This ratio shows how successfully the bank is utilizing its total deposits to loan and advances for generating profit and satisfies their customers. The ratio can be obtained by dividing loan and advances by total deposits. This ratio can be stated as:

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

Higher ratio implies the better utilization of total deposits.

ii) Total Investment to Total Deposit Ratio

This ratio is calculated by dividing total amount of investment by total amount of deposit collection. It shows how individual or sample firms are investing their deposit for e.g. Investment on debentures and share of other companies, investment on government securities etc. It is expressed as:

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

Investment must be done to earn higher return and it is very essential for the sustainability of any financial institution.

iii) Loan and Advances to Total Working Fund Ratio

Loan and advances is the major component in the total working fund (total assets). This indicates the ability of the bank to channelize its deposits in the form of loan and advances to earn high return. This ratio is compute by dividing loan and advances by total working fund. This is stated as:

$$\text{Loan and Advances to Total Working Fund Ratio} = \frac{\text{Loan \& Advances}}{\text{Total Working Fund}}$$

Working funds includes all assets of on- balance sheet items. In other words, this includes current assets, net fixed assets, loans for development banks and other miscellaneous assets but excludes off-balance sheet items like letter of credit, letter of guarantee and forward contracts.

iv) Investment on Government Securities to Total Working Fund Ratio

This ratio shows the banks investment on government securities in comparison to the working fund. This ratio is calculated by dividing investment on government securities by total working fund. This is presented as:

$$\text{Investment on Government Securities to Total Working Fund Ratio} = \frac{\text{Investment on Government Securities}}{\text{Total Working Fund}}$$

v) Investment on Shares and Debentures to Total Working Fund Ratio

This ratio shows the investment of financial intuition on the shares and debentures. It is obtained by dividing investment on share and debenture by total working fund. It can be expressed as:

$$\text{Investment on Shares and Debentures to Total Working Fund Ratio} = \frac{\text{Investment on Share and Debenture}}{\text{Total Working Fund}}$$

3. Profitability Ratios

Profitability ratio is related with the term profit which shows the efficiency of the business firm. It measures the capacity of earning of any financial institution. Since profit is essential to exist in competitive market it drives or attracts the investors in that specific financial institution.

Profitability is the next result of a number of policies and decisions. Profitability ratio shows the combined effect of liquidity, asset management and debt management on operating results. Profitability ratio shows the better or worse financial performance so higher profitability ratio is desired. Profit maximization is one of the main objectives of any institution and is very necessary to earn maximum returns for the success of any financial institution. The following financial ratios related to investment policy are calculated which are mentioned below:

i) Return on Loan and Advances Ratio

This ratio shows how efficiently the banks have mobilized and used their resources to earn higher return from loan and advances. This ratio is calculated by dividing net profit or loss by the amount of loan and advances and is formulized as:

$$\text{Return on Loan and Advances Ratio} = \frac{\text{Net Profit or Loss}}{\text{Total Loans \& Advances}}$$

A high ratio indicates a high success of mobilize fund as loan ad advances and vice versa.

ii) Return on Total Assets

The ratio of net income to total assets measures the return on total assets (ROA) after interest and taxes. This ratio shows the relationship between net profit and total assets. This ratio is calculated b dividing net income by total assets which is formulated as:

$$\text{Return on Total Assets} = \frac{\text{Net Profit after Tax}}{\text{Total Assets}}$$

iii) Total Interest Earned to Total Outside Assets

Total interest earned is the amount earned by a bank by spreading its investment in various forms and sectors. Total outside asset involves borrowing, short term and long term loan. This ratio is calculated by dividing total interest earned by total outside assets and is presented as:

$$\text{Total Interest Earned to Total outside Assets} = \frac{\text{Total Interest Earned}}{\text{Total Outside Assets}}$$

Higher ratio implies efficient use of outside assets to earn interest.

iv) Total Interest Earned to Total Working Fund Ratio

Earning interest is the indication of access return and it shows the better performance of the financial institutions. This ratio determines the percentage of interest earned to total assets. Higher ratio is desired in this scenario which is the better indication of the interest earned in a maximum way. This ratio is calculated by dividing total interest earned from investment by working fund and is formulized as:

$$\text{Total Interest Earned to Total Working Fund Ratio} = \frac{\text{Total Interest Fund}}{\text{Total Fund Working}}$$

v) Total Interest Paid to Total Working Fund Ratio

This ratio shows the percentage of total interest expenses against total working fund. This ratio is calculated by dividing total interest paid by total working fund and is formulized as:

$$\text{Total Interest Paid to Total Working Fund} = \frac{\text{Total Interest Paid}}{\text{Total Working Fund}}$$

A high ratio reflects high interest expenses on total working fund and vice versa. Total interest paid includes total expenses on deposit liabilities, loan and advances (borrowings) and other deposits.

4. Risk Ratios

In every investment people seek profit but the reality is there is not only the element called profit but risk lies there. Risk simply is uncertainty of returns. The bearing of risk can be useful to get high profitability but there is no guarantee of that. So the intention must be to minimize the risk. This ratio finds out the degree of risk involved in financial operations. The analysis or measurement of credit risk ratio and capital risk ratio shows the current picture of the risk involved. The following risk ratios are calculated in this study:

i) Credit Risk Ratio

Credit risk ratio tells us about the possibility of loan to go into default or the possibility of non-payment of the loan given. It is calculated by dividing loan and advances by total assets and is formulized as:

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

ii) Capital Risk Ratio

This ratio is calculated to find the level of profit. It also shows the bank's ability to attract deposits and inter-bank funds. The capital risk is directly related to the return on equity. Higher the ratio lower is the capital risk.

This risk automatically becomes low if the activities are limited. The act of silence or lack of performing any activity keeps the profitability compressed. This ratio is calculated by dividing share capital by risk weighted assets and is presented as:

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

5. Growth Ratios

These ratios are used to understand the fund mobilization and investment management of a commercial bank. It shows the activities related to the maintenance of economic and financial position of a financial organization. The higher growth ratio represents the high level of performance. Following growth ratios are calculated to find out the growth and expansion of the sample banks:

- Growth ratio of total deposits
- Growth ratio of loan and advances
- Growth ratio of total investment
- Growth ratio of net profit

These ratios can calculated by dividing the last year figure by the first year figure then referring to the compound interest table.

a. Statistical Tools

Statistics are numeric statement of facts. The various statistical tools help us to collect and present numerical data in the proper way and to analyze them. In this study mean, standard deviation, variance, co-efficient of variation, least square, correlation co-efficient analysis and trend analysis are used. This individual and collective analysis can be very useful for decision making. The basic analysis is written in point below:

i) Mean

This is also known as average and it is used to get one single value which describes or interprets the whole data. It is used for comparison too. The sum of all the observations divided by the number of observations is mean and it is formulized as:

$$\bar{X} = \frac{\Sigma X}{N}$$

Where,

$\bar{X}$ = Mean

N = Number of observations

$\sum X$ = the sum of observations

ii) Standard Deviation

Standard deviation determines the reliability of central tendency or mean. It measures the dispersion. Dispersion is variability of data and it finds out how individual values fall apart on an average. The higher standard deviation has higher variability. The standard deviation is defended as the positive square roof of the arithmetic mean of the squared deviation from their arithmetic mean of a set of values. It is usually denoted by the Greek letter (s). It is presented as:

$$\sigma = \sqrt{\frac{\sum(X - \bar{X})}{n}}$$

or

$$\sqrt{\frac{\sum x_1^2}{n} - \left(\frac{\sum x_1}{n}\right)^2}$$

Where,

N = Number of observations

iii) Variance

Variance is the square of standard deviation. This tool is also used to interpret data with the help of numeric facts. It is denoted by s^2. It can also be formulize as:

$$\sigma^2 = \frac{\sum(x-\bar{x})^2}{n}$$

iv) Coefficient of Variation (C.V)

The relative measure of dispersion based on standard deviation is called coefficient of standard deviation. 100 times coefficient of standard deviation is called coefficient of variation. It is used to compare the variability, homogeneity of two or more distributions. High C.V. is more variable or less consistent and vice versa. It is formulizes as:

$$\text{C.V} = \frac{\sigma}{\bar{x}} \times 100$$

v) Correlation Coefficient Analysis

This tool interprets the relationship between two or more variables. It shows whether two or more variables are co-related positively or negatively. The following coefficients of correlation are related to investment policies:

i. Co-efficient of correlation between deposit and total investment.
ii. Coefficient of correlation between deposit and loan and advances.
iii. Coefficient of correlation between outside assets and net profit.

It is formulized as:

$$r = \frac{N\sum dxdy - (\sum dx)(\sum dy)}{\sqrt{Ndx^2 - (\sum dx)}\sqrt{N\sum dy^2 - (\sum dy)^2}}$$

OR,

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \times \sqrt{\sum y^2}}$$

Where,

N = Number of Observation in series x and y.

?xy = Sum of the product of observation in series x & y

? x^2 = Sum of the squared observation in series x

? y^2 = Sum of the squared observation in series y

vi) Trend Analysis

The trend analysis is used to predict the future. It is a pattern according from the past and it is assumed that the same patterns will occur in future. The following trend analysis has been used in this study.

(i) Trend analysis of Total Deposits
(ii) Trend analysis of Loan and Advances
(iii) Trend analysis of Total Investment
(iv) Trend analysis of Net Profit.

Following equation is developed to calculate trend value. Any value of independent variable x, the estimated value of y, denoted by Y_c can be written as:

$Y = a + b x$

We shall get the normal equations for estimating ‘a’ and ‘b’ as:

$? Y = n a + b ? X$ ----------i)

$? X Y = a ? X + b ? X^2$ ----------ii)

Where,

Y = the value of dependent variable

a = Y- intercept

b = slope of the trend line/ coefficient of regression

X = value of independent variable

CHAPTER – III

RESEARCH METHODOLOGY

3.1 Introduction

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The ability of a firm to meet its obligation in the short term is known as liquidity. Liquidity ratio measures the ability of the firm to meet its current obligation. The failure of a company to meet its obligation, due to lack of sufficient liquidity, will result bad credit image, loss of creditors' confidence or even in lawsuits resulting in the closure of the company. A very high degree of liquidity is also bad, as idle assets earn nothing. The firm's funds will unnecessarily tied up in current assets.

Short-term or current assets can be easily converted into cash so it is liquid asset. Liquidity ratio is the relationship of a firm's cash and other current assets to its current liabilities and it reflects the short-term financial strength of the business. Liquid asset in other words can be defined as an asset that can be easily converted to cash without significant loss of its original value. The conversion of current assets such as inventory and receivables are the easiest means by which a firm obtains the funds needed to pay its current bills. Thus, it is the measurement of speed with which bank's assets can be converted into cash to meet deposit withdrawal and other current obligations. The following ratio is evaluated under liquidity ratio:

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This ratio shows the banks short term solvency. It shows the relationship between current assets and current liabilities. Current assets include cash and bank balance money at call and those assets which can be converted into cash within a year such as investment in government securities, receivables, overdrafts, loans, advances, purchased, discounted and miscellaneous current assets. Similarly, Current liabilities include deposits and other short- term loan, bills payable, staff bonus, dividend payables and miscellaneous current liabilities. The ratio is calculated by dividing current assets by current liabilities.

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

As a conventional rule, a current ratio of 2:1 or more is considered satisfactory. The higher the ratio, the greater will be the ability of the bank to pay its current obligations. However, an arbitrary standard of 2:1 should not be blindly allowed because current ratio is a test of quantity, not quality.

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These are the most liquid current assets of a firm. It measures the percentage of most liquid assets to pay the depositors quickly. It also shows the ability of bank's immediate funds to cover their total deposit. This ratio is expressed as:

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Hence, cash and bank balance includes cash in hand, foreign cash on hand; cheques and other cash items, balance with domestic banks and balance help in foreign banks. The total deposit encompasses current deposits, saving deposits, fixed deposits, money at call or short notice and other deposits.

iii) Cash and Bank Balance to Current Assets Ratio

This ratio declares the percentage of the cash and bank balance among the current assets of a firm. Higher ratio is defined best in this case because higher ratio means the higher capacity of firms to meet the cash demand. This ratio is presented as:

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Here, cash and bank balance involves cash in hand, freight, cash and foreign banks.

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This ratio finds out the percentage of current assets invested on government's different securities like treasury bills, development bonds etc. This ratio is calculated by dividing the amount of investment on government securities by the total amount of current assets. It is stated as:

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Asset management ratio helps to understand how the banks are using their resources and how the sample banks have arranged and invested their limited resources. Simply asset management ratios are those set of ratios that measures how effectively a firm is managing its assets. The ratios are also called turnover ratios because they indicate the speed with which assets are being converted or turnover. Thus, ratios are used to measure the bank's ability to utilize. The financial tools and the related ratios to investment policy are calculated and they are as follows:

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Higher ratio implies the better utilization of total deposits.

ii) Total Investment to Total Deposit Ratio

This ratio is calculated by dividing total amount of investment by total amount of deposit collection. It shows how individual or sample firms are investing their deposit for e.g. Investment on debentures and share of other companies, investment on government securities etc. It is expressed as:

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

Investment must be done to earn higher return and it is very essential for the sustainability of any financial institution.

iii) Loan and Advances to Total Working Fund Ratio

Loan and advances is the major component in the total working fund (total assets). This indicates the ability of the bank to channelize its deposits in the form of loan and advances to earn high return. This ratio is compute by dividing loan and advances by total working fund. This is stated as:

$$\text{Loan and Advances to Total Working Fund Ratio} = \frac{\text{Loan \& Advances}}{\text{Total Working Fund}}$$

Working funds includes all assets of on- balance sheet items. In other words, this includes current assets, net fixed assets, loans for development banks and other miscellaneous assets but excludes off-balance sheet items like letter of credit, letter of guarantee and forward contracts.

iv) Investment on Government Securities to Total Working Fund Ratio

This ratio shows the banks investment on government securities in comparison to the working fund. This ratio is calculated by dividing investment on government securities by total working fund. This is presented as:

$$\text{Investment on Government Securities to Total Working Fund Ratio} = \frac{\text{Investment on Government Securities}}{\text{Total Working Fund}}$$

v) Investment on Shares and Debentures to Total Working Fund Ratio

This ratio shows the investment of financial intuition on the shares and debentures. It is obtained by dividing investment on share and debenture by total working fund. It can be expressed as:

$$\text{Investment on Shares and Debentures to Total Working Fund Ratio} = \frac{\text{Investment on Share and Debenture}}{\text{Total Working Fund}}$$

3. Profitability Ratios

Profitability ratio is related with the term profit which shows the efficiency of the business firm. It measures the capacity of earning of any financial institution. Since profit is essential to exist in competitive market it drives or attracts the investors in that specific financial institution.

Profitability is the next result of a number of policies and decisions. Profitability ratio shows the combined effect of liquidity, asset management and debt management on operating results. Profitability ratio shows the better or worse financial performance so higher profitability ratio is desired. Profit maximization is one of the main objectives of any institution and is very necessary to earn maximum returns for the success of any financial institution. The following financial ratios related to investment policy are calculated which are mentioned below:

i) Return on Loan and Advances Ratio

This ratio shows how efficiently the banks have mobilized and used their resources to earn higher return from loan and advances. This ratio is calculated by dividing net profit or loss by the amount of loan and advances and is formulized as:

$$\text{Return on Loan and Advances Ratio} = \frac{\text{Net Profit or Loss}}{\text{Total Loans \& Advances}}$$

A high ratio indicates a high success of mobilize fund as loan ad advances and vice versa.

ii) Return on Total Assets

The ratio of net income to total assets measures the return on total assets (ROA) after interest and taxes. This ratio shows the relationship between net profit and total assets. This ratio is calculated b dividing net income by total assets which is formulated as:

$$\text{Return on Total Assets} = \frac{\text{Net Profit after Tax}}{\text{Total Assets}}$$

iii) Total Interest Earned to Total Outside Assets

Total interest earned is the amount earned by a bank by spreading its investment in various forms and sectors. Total outside asset involves borrowing, short term and long term loan. This ratio is calculated by dividing total interest earned by total outside assets and is presented as:

$$\text{Total Interest Earned to Total outside Assets} = \frac{\text{Total Interest Earned}}{\text{Total Outside Assets}}$$

Higher ratio implies efficient use of outside assets to earn interest.

iv) Total Interest Earned to Total Working Fund Ratio

Earning interest is the indication of access return and it shows the better performance of the financial institutions. This ratio determines the percentage of interest earned to total assets. Higher ratio is desired in this scenario which is the better indication of the interest earned in a maximum way. This ratio is calculated by dividing total interest earned from investment by working fund and is formulized as:

$$\text{Total Interest Earned to Total Working Fund Ratio} = \frac{\text{Total Interest Fund}}{\text{Total Fund Working}}$$

v) Total Interest Paid to Total Working Fund Ratio

This ratio shows the percentage of total interest expenses against total working fund. This ratio is calculated by dividing total interest paid by total working fund and is formulized as:

$$\text{Total Interest Paid to Total Working Fund} = \frac{\text{Total Interest Paid}}{\text{Total Working Fund}}$$

A high ratio reflects high interest expenses on total working fund and vice versa. Total interest paid includes total expenses on deposit liabilities, loan and advances (borrowings) and other deposits.

4. Risk Ratios

In every investment people seek profit but the reality is there is not only the element called profit but risk lies there. Risk simply is uncertainty of returns. The bearing of risk can be useful to get high profitability but there is no guarantee of that. So the intention must be to minimize the risk. This

ratio finds out the degree of risk involved in financial operations. The analysis or measurement of credit risk ratio and capital risk ratio shows the current picture of the risk involved. The following risk ratios are calculated in this study:

i) Credit Risk Ratio

Credit risk ratio tells us about the possibility of loan to go into default or the possibility of non-payment of the loan given. It is calculated by dividing loan and advances by total assets and is formulized as:

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

ii) Capital Risk Ratio

This ratio is calculated to find the level of profit. It also shows the bank's ability to attract deposits and inter-bank funds. The capital risk is directly related to the return on equity. Higher the ratio lower is the capital risk.

This risk automatically becomes low if the activities are limited. The act of silence or lack of performing any activity keeps the profitability compressed. This ratio is calculated by dividing share capital by risk weighted assets and is presented as:

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

5. Growth Ratios

These ratios are used to understand the fund mobilization and investment management of a commercial bank. It shows the activities related to the maintenance of economic and financial position of a financial organization. The higher growth ratio represents the high level of performance. Following growth ratios are calculated to find out the growth and expansion of the sample banks:

- Growth ratio of total deposits
- Growth ratio of loan and advances

- Growth ratio of total investment
- Growth ratio of net profit

These ratios can calculated by dividing the last year figure by the first year figure then referring to the compound interest table.

a. Statistical Tools

Statistics are numeric statement of facts. The various statistical tools help us to collect and present numerical data in the proper way and to analyze them. In this study mean, standard deviation, variance, co-efficient of variation, least square, correlation co-efficient analysis and trend analysis are used. This individual and collective analysis can be very useful for decision making. The basic analysis is written in point below:

i) Mean

This is also known as average and it is used to get one single value which describes or interprets the whole data. It is used for comparison too. The sum of all the observations divided by the number of observations is mean and it is formulized as:

$$\bar{X} = \frac{\Sigma X}{N}$$

Where,

$\bar{X}$ = Mean

N = Number of observations

$\sum X$ = the sum of observations

ii) Standard Deviation

Standard deviation determines the reliability of central tendency or mean. It measures the dispersion. Dispersion is variability of data and it finds out how individual values fall apart on an average. The higher standard deviation has higher variability. The standard deviation is defended as the positive

square roof of the arithmetic mean of the squared deviation from their arithmetic mean of a set of values. It is usually denoted by the Greek letter (s). It is presented as:

$$\sigma = \sqrt{\frac{\Sigma(X - \bar{X})}{n}}$$

Where,

N = Number of observations

Or,

$$\sqrt{\frac{\Sigma x_1^2}{n} - \left(\frac{\Sigma x_1}{n}\right)^2}$$

iii) Variance

Variance is the square of standard deviation. This tool is also used to interpret data with the help of numeric facts. It is denoted by s^2. It can also be formulize as:

$$\sigma^2 = \frac{\Sigma(x - \bar{x})^2}{n}$$

iv) Coefficient of Variation (C.V)

The relative measure of dispersion based on standard deviation is called coefficient of standard deviation. 100 times coefficient of standard deviation is called coefficient of variation. It is used to compare the variability, homogeneity of two or more distributions. High C.V. is more variable or less consistent and vice versa. It is formulizes as:

$$C.V = \frac{\sigma}{X} \times 100$$

v) Correlation Coefficient Analysis

This tool interprets the relationship between two or more variables. It shows whether two or more variables are co-related positively or negatively. The following coefficients of correlation are related to investment policies:

i) Co-efficient of correlation between deposit and total investment.

ii) Coefficient of correlation between deposit and loan and advances.

iii) Coefficient of correlation between outside assets and net profit.

It is formulized as:

$$r = \frac{N\sum dxdy - (\sum dx)(\sum dy)}{\sqrt{Ndx^2 - (\sum dx)}\sqrt{N\sum dy^2 - (\sum dy)^2}}$$

OR,

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \times \sqrt{\sum y^2}}$$

Where,

N = Number of Observation in series x and y.

?xy = Sum of the product of observation in series x & y

? x^2 = Sum of the squared observation in series x

? y^2 = Sum of the squared observation in series y

iv) Trend Analysis

The trend analysis is used to predict the future. It is a pattern according from the past and it is assumed that the same patterns will occur in future. The following trend analysis has been used in this study.

i) Trend analysis of Total Deposits

ii) Trend analysis of Loan and Advances

iii) Trend analysis of Total Investment

iv) Trend analysis of Net Profit.

Following equation is developed to calculate trend value. Any value of independent variable x, the estimated value of y, denoted by Y_c can be written as:

$$Y = a + b\,x$$

We shall get the normal equations for estimating ‘a’ and ‘b’ as:

? Y = n a + b ? X ----------i)

? X Y = a ? X + b ? X^2 ----------ii)

Where,

Y = the value of dependent variable

a = Y- intercept

b = slope of the trend line/ coefficient of regression

X = value of independent variable

CHAPTER – IV

4. DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation and Analysis

Data presentation and analysis is an important part of the study. This chapter includes an analytical part of the study. The major financial performances which are the core to the investment management and fund mobilization are evaluated and analyzed. This chapter provides the major and necessary findings which are very helpful for the subject matter of this study.

4.1.1 Financial Tools

The weaknesses and the strengths of any organization can be identified by financial analysis. It is recognized by establishing relationship between the items of the balance sheet. Ratio analysis is done here to analyze the data. Different financial ratios related to the investment management and fund mobilization are discussed and presented to evaluate the performance of two commercial banks i.e. BOK Ltd. and NABIL Bank Ltd. The ratios help to evaluate the situation according to the results achieved from those ratios. It is notable that all financial ratios are not studies here in this chapter. The financial ratios which are important fom the view point of the investment policy and fund mobilization are calculated and analyzed. The mathematical relationship developed between the financial figures is simply ratio development. These ratios are calculated to focus the relationship between each item. The important ratios from the view of investment policy are given below.

a. Liquidity ratio
b. Asset management ratio
c. Profitability ratio
d. Risk ratio
e. Growth ratio

a. Liquidity Ratio

Liquidity ratio measures the capacity of the firm to meet its cash urgency and obligation. It is very certain that community may demand for withdraws for deposited, pay their obligation at the maturity time, conversion of non-cash assets into cash by not losing anything in the real value. So the commercial banks must maintain satisfactory liquidity position. Liquidity position is highlighted and observed by establishing relationship between cash and current assets to current obligation. Liquidity position of BOK Ltd and NABIL are studied comparatively through following ratios:

- **Current Ratio**

Current ratio measures the ability of the bank to meet its current obligation. Generally it measures short term liabilities which mature within a year. Current ratio is calculated by dividing current assets by current liabilities. The very standard current ratio is 2:1 but 1:1 is also said to be ok. Current assets include cash and bank balance, money at call or short term notice, loan and advances, investment in government securities, interest receivable and other miscellaneous assets. Current liabilities consists of deposits, loan and advances, bills payable, tax provision, staff bonus, dividend payable and miscellaneous current obligation. Current ratio is calculated by dividing current assets by current liabilities.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Here,

Current Assets = Cash and Bank Balance + Money at Call and Short Notice + Loan and Advances + Investment + Interest Receivable + Miscellaneous Current Assets

Current Liabilities = Deposits and Other Accounts + Short Term Loan + Bills Payable + Tax Provision + Staff Bonus + Dividend Payable + Miscellaneous Current Liabilities

The current ratios of BOK Ltd. and NABIL from the year 2003/04 are calculated in the table number 4.1.

Table 4.1

Current Ratio

(In Times)

Fiscal Year	**BOK Ltd.**	**NABIL Ltd.**
2004/05	1.02	0.97

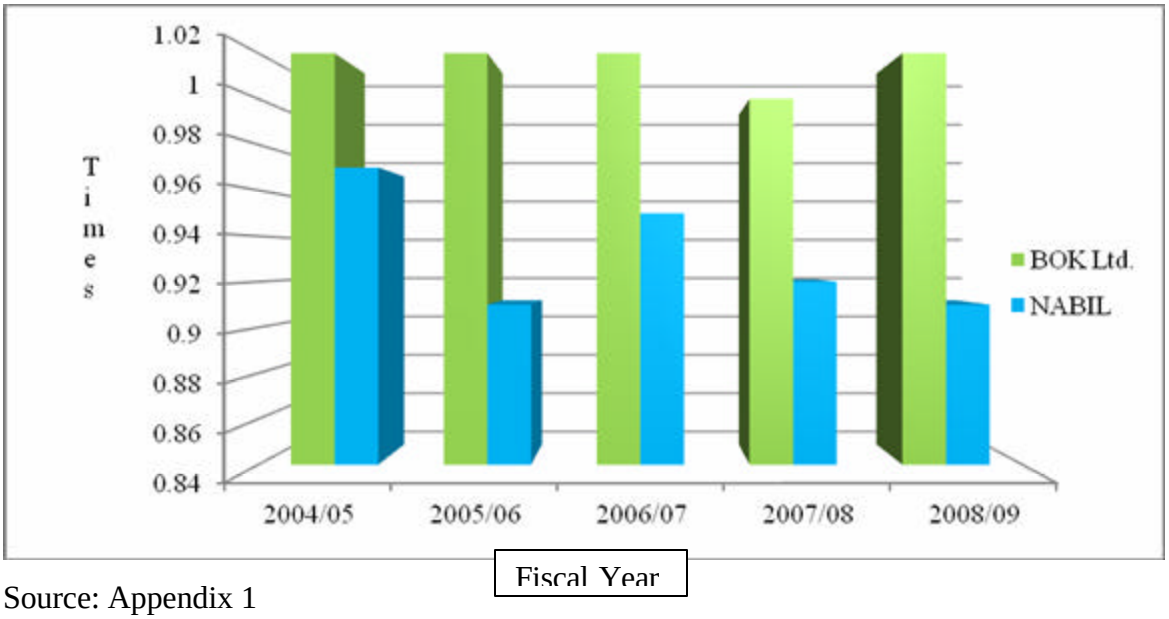
2005/06	1.02	0.91
2006/07	1.02	0.95
2007/08	1.00	0.92
2008/09	1.02	0.91
Mean ($\bar{X}$)	1.016	0.932
Standard Deviation (S.D)	0.016	0.024
Coefficient of Variation (C.V)	1.57	2.62

Source: Appendix 1

In the table 4.1 current ratio of sample banks are analyzed. The current ratios of these banks are in fluctuating trend throughout the period of study. Although in specific the ability to discharge the current liabilities are not very convincing because NABIL has its current ratio less than one but BOK Ltd. has it ratio more than one in study periods. The current ratio of BOK Ltd. is in increasing trend from fiscal year 2004/05 to 2006/07 but later it has decreased in the year 2007/08 by 0.02 compared with the first year. Similarly NABIL has also fluctuating trend from the fiscal year 2004/05 to 2007/08. On the basis of mean ratio, NABIL has lower ratio of 0.932 compared to 1.016 of BOK Ltd. It shows that the liquidity of BOK Ltd. is better than that of NABIL. The coefficient of variation of BOK Ltd. is 1.57 % and NABIL is 2.62 %. Thus it can be said that the current ratio of NABIL is less consistent than BOK Ltd.

Figure 4.1

Current Ratio of Banks



Source: Appendix 1

In the figure 4.1 current ratio of sample banks are analyzed. The current ratios of these banks are in fluctuating trend throughout the period of study.

The current ratio of BOK Ltd. is in increasing trend from fiscal year 2004/05 to 2006/07 but later it has decreased in the year 2007/078 by 0.02 compared with the first year. Similarly NABIL has also decreasing trend from the fiscal year 2004/05 to 2005/06 and increased in the year 2006/07 but it has decreased in the consecutive years.

- **Cash and Bank Balance to Total Deposit Ratio**

Cash and Bank balance are those assets which include cash in hand, foreign cash, cheques and other cash items and also bank balance with domestic financial institutions. This ratio assures that the specific institution can meet its unanticipated call on every type of deposits. The highly liquid assets are measured in this ratio which is essential to meet the demand for cash. Higher ratios are desired. This ratio is expressed as:

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

Here,

Cash & Bank Balance = Local Currency + Foreign Currency + Current Account + Other Account

Total Deposits = Saving Deposit + Fixed Deposit + Call Deposit + Certificate of Deposit

The table 4.2 shows cash and bank balance to total deposit ratio of BOK Ltd. and NABIL from the Fiscal Year 2004/05 to 2008/09.

Table 4.2

Cash and Bank Balance to Total Deposit Ratio

(In Percentage)

Fiscal Year	**BOK Ltd.**	**NABIL Ltd.**
2004/05	8.28	3.83
2005/06	6.95	3.26
2006/07	10.62	6.00
2007/08	9.09	8.37
2008/09	12.07	9.03
Mean ($\bar{X}$)	9.402	6.098
Standard Deviation (S. D)	1.7872	2.3223
Coefficient of Variation (C.V)	1.9	3.8

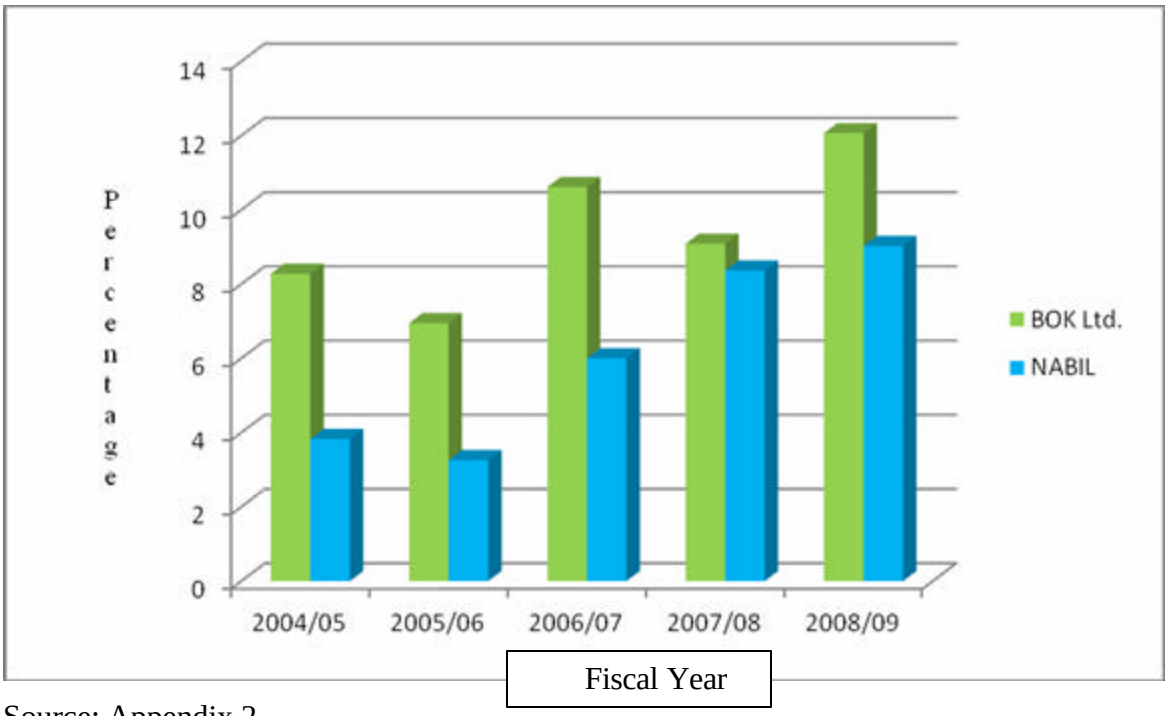
Source: Appendix 2

The table 4.2 shows that the cash and bank balance to total deposit ratio of BOK Ltd. has fluctuating trend. Its highest ratio is 12.07 % in the fiscal year 2008/09 and lowest in the year 2005/06 which is 6.95%. Similarly in the case of NABIL the ratios are decreasing from the fiscal year 2004/05 to 2005/06. The highest ratio of NABIL is 9.03 % in the fiscal year 2008/09 and lowest in the year 2005/06 which is 3.26%.In case of average, it is found that the mean ratio of BOK Ltd. is 9.402 % and 6.098 % of NABIL. The standard deviation of NABIL is higher than that of BOK. The coefficient of variation of NABIL is 3.8 % and BOK has 1.9 %.

The above analysis helps to conclude that BOK has better position of cash and bank balance because it has maintain higher mean ratio. The coefficient of variation of NABIL is higher than BOK which shows that BOK position is more stable than NABIL.

Figure 4.2

Cash and Bank Balance to Total Deposit Ratio



Source: Appendix 2

The figure 4.2 shows that the cash and bank balance to total deposit ratio of BOK Ltd. has fluctuating trend. Its highest ratio is 12.07 % in the Fiscal year 2008/09 and lowest in the year 2005/06 which is 6.95%. Similarly in the case of NABIL the ratios are fluctuating from the fiscal year 2004/05 to 2008/09. The highest ratio of NABIL is 9.03% in the fiscal year 2008/09 and lowest in the year 2005/06 which is 3.26%.

- **Cash and Bank Balance to Current Asset Ratio**

This ratio measure the part of most liquid form current asset. Higher ratios are desired and the higher ratio indicates the higher ability of the banks to meet its daily cash requirement against their customer deposit. Quick payment to the customer's deposit in only possible when the bank has got more liquid assets. Here bank has to be very careful to maintain an average position because if a bank maintains higher ratio of cash surely it has to pay much more interest on deposit which will increase the cost of a fund. Lower ratios are also dangerous because banks fail to make the urgent

cash requirement to its customers presented by cheques. So appropriate funds are needed in the form of reserve. This ratio is presented as:

$$\text{Cash and Bank Balance to Current Asset Ratio} = \frac{\text{Cash \& Bank Balance}}{\text{Current Assets}}$$

Here,

Cash and Bank Balance = Local Currency + Foreign Currency + Current Account + Other Account

Current Assets = Cash and Bank Balance + Money at Call and Short Notice + Loan and Advances + Investment +Interest Receivable + Miscellaneous Current assets

The table 4.3 shows the cash and bank balance to current asset ratio of BOK and NABIL form the fiscal year 2002/03 to 2006/07.

Table 4.3

Cash and Bank Balance to Current Asset Ratio

(In Percentage)

Fiscal Year	**BOK Ltd.**	**NABIL**
2004/05	0.08	0.04
2005/06	0.06	0.03
2006/07	0.09	0.06
2007/08	0.09	0.09
2008/09	0.11	0.09
Mean	0.086	0.062
Standard Deviation (S.D.)	0.016	0.024
Coefficient of Variation (C.V.)	0.19	0.40

Source: Appendix 3

The table 4.3 shows that the cash and bank balance to current assets ratios of both banks BOK Ltd. and NABIL. BOK has maintained a highest ratio of 0.11% in the fiscal year 2008/09. The lower ratio of 0.06% is achieved in the fiscal year 2005/06. Similarly in case of NABIL the ratios are in decreasing trend 0.04% to 0.03% from the fiscal year 2004/05 to 2005/06. However the ratio has

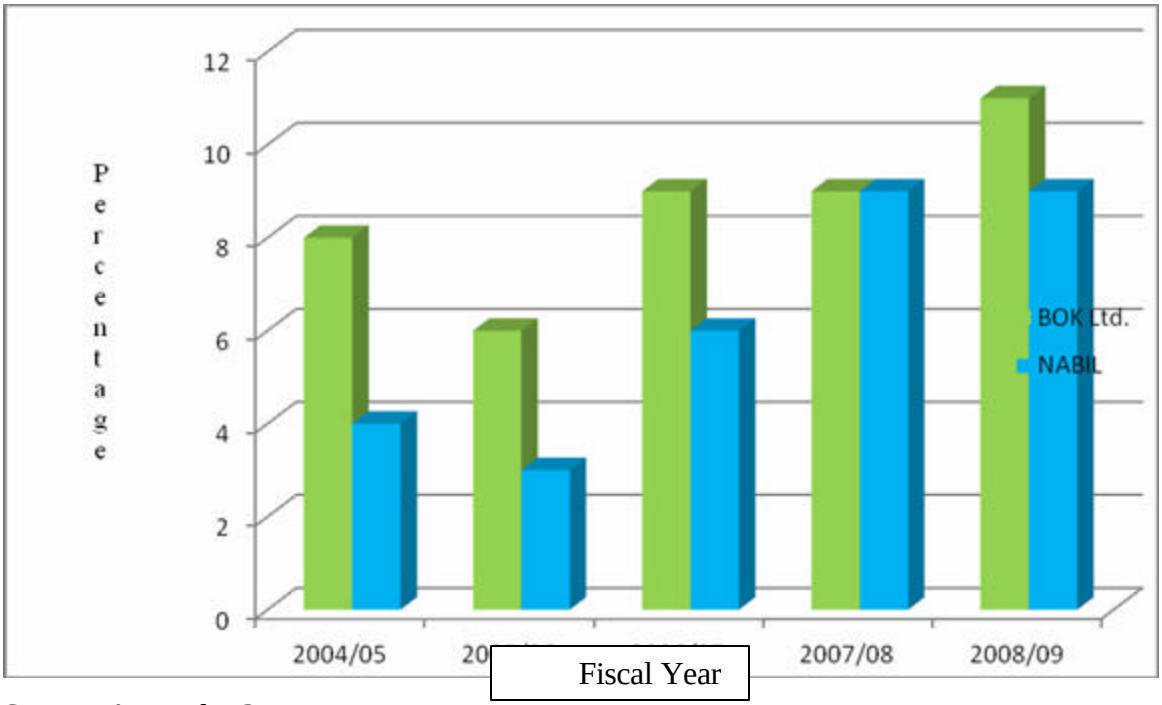
increase to 0.06% in the fiscal year 2006/07. The highest ratio of NABIL is 0.09 % and lowest of 0.03% in the year 2005/06.

In case of mean ratio BOK has highest ratio of 8.6% than that of NABIL's 6.2%. It shows that the liquidity position of BOK is better than NABIL's position. The coefficient of variance between the ratios of BOK is 0.19% which is lower than 0.40% of NABIL bank. It shows that the ratios of BOK are more consistent and stable than NABIL bank.

Comparatively BOK has better position regarding the cash and bank balance to current Assets ratio. It can be said that the ability to manage the reserve fund for the customers withdraws of deposit is very sound of BOK.

Figure 4.3

Cash and Bank Balance to Current Assets Ratio



Source: Appendix 3

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increase to 0.06% in the fiscal year 2006/07. The highest ratio of NABIL is 0.09 % and lowest of 0.03% in the year 2005/06.

- **Investment on Government Securities to Current Assets Ratio**

The major execution of this ratio is to inform the portion of current assets invested on government securities i.e. treasury bills, government bonds etc. Commercial bank are always committed to incest their collected funds on different types of government securities. Government securities are also known as risk free assets which mature in a specific period of time. However government securities are not considered as much liquid asset than cash and bank balance but they too can be easily converted into cash. The simple fact about investment is that commercial banks are more profit seekers. So most of the commercial banks invest their excess fund on government securities for the diversification of investment. It is stated as:

$$\text{Investment on government securities to Current Asset Ratio} = \frac{\text{Investment on Government Securities}}{\text{Current Assets}}$$

Here,

Investment on Government Securities = Nepal Government Treasury Bills + Nepal Government Saving Bonds + Nepal Government Other Securities + Nepal Bank Bonds

Current Assets = Cash and Bank Balance + Money at Call and Short Notice + Loan and Advances + Investment +Interest Receivable +Miscellaneous Current Assets

The table 4.4 shows the investment on government securities to current asset ratio of BOK and NABIL form the fiscal year 2002/03 to 2006/07.

Table 4.4

Investment on Government Securities to Current Assets Ratio

(In Percentage)

Fiscal Year	BOK Ltd.	NABIL

2004/05	0.23	0.16
2005/06	0.23	0.13
2006/07	0.17	0.21
2007/08	0.13	0.15
2008/09	0.09	0.10
Mean	0.17	0.15
Standard Deviation (S.D.)	0.06	0.04
Coefficient of Variation (C.V.)	0.35	0.27

Source: Appendix 4

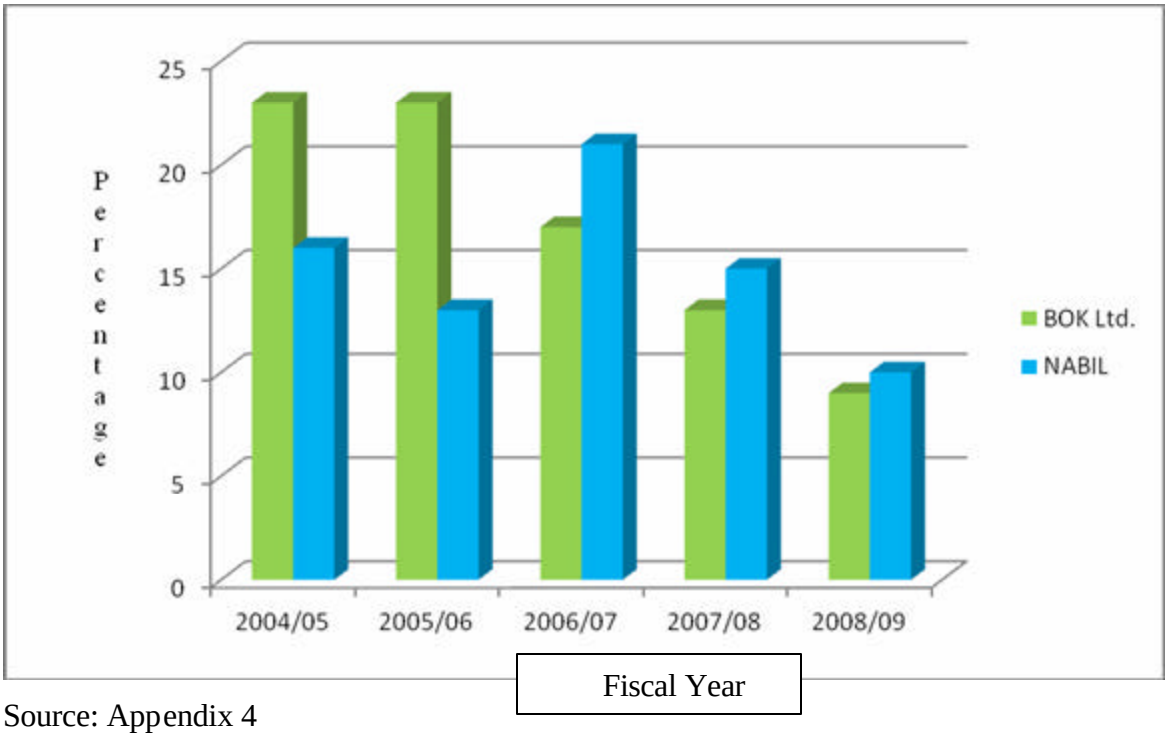
The table 4.4 shows that the investment on government securities to current ratio of BOK has followed a decreasing trend from the fiscal year 2004/05 to 2008/09 and NABIL has followed a fluctuating trend. BOK has maintained the highest ratio of 0.23 % and lowest of 0.09% in the fiscal year 2008/09. In case of NABIL bank it has maintained highest ratio of 0.21% in the fiscal year 2006/07 and lowest of 0.10 % in the fiscal year 2008/09.

The mean ratio of BOK is 17% which is higher that 15% of NABIL bank. It means that BOK has invested more portions of its current assets to government securities and NABIL has invested lower amount of its current assets in government securities. From the result achieved from co-efficient of variation of ratios it is concluded that NABIL has got lower variation because BOK has got 0.35% which is greater than NABIL's 0.27%. The ratios of NABIL are more consistent than BOK.

Comparatively it can be said that BOK has invested more portion of its current assets in government securities which is a good symptom. The liquidity position from investment on government securities of BOK is much better than NABIL bank.

Figure 4.4

Investment on Government Securities to Current Assets



Source: Appendix 4

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- **Loan and Advances to Current Assets Ratio**

Loan and advances includes short and long term loans, overdrafts and cash credit. Commercial banks must not put all their collected funds into reserve or cash and bank balance. In order to generate income bank must invest its fund in form of loan and advances to its customers. If reasonable part of loan and advances cannot be granted the banks are obliged to pay interest on unutilized deposits. If high volume of loan and advances are granted then too it is a threat to the bank because every loan matures in a specific period of time. From that reason banks may not have enough cash or it could not be in most liquid position. It is expressed as:

$$\text{Loan and Advances to Current Asset Ratio} = \frac{\text{Loan \& Advances}}{\text{Current Assets}}$$

Here,

Loan and Advances = Total Loan - Total Provisioning

Total Loan = Performing Loan + Non Performing Loan

Total Provisioning = Provisioning up to Previous Year

Current Assets = Cash and Bank Balance + Money at Call and Short Notice + Loan and Advances + Investment + Interest Receivable + Miscellaneous Current Assets

The table 4.5 shows the loan and advances to current assets ratio of BOK and NABIL from the fiscal year 2002/04 to 2006/07.

Table 4.5

Loan and Advances to Current Assets Ratio

(In Percentage)

Fiscal Year	**BOK Ltd.**	**NABIL**
2004/05	0.64	0.71
2005/06	0.63	0.71
2006/07	0.69	0.68
2007/08	0.77	0.68
2008/09	0.77	0.76
Mean	0.70	0.71
Standard Deviation (S.D.)	0.06	0.03
Coefficient of Variation (C.V.)	0.08	0.04

Source: Appendix 5

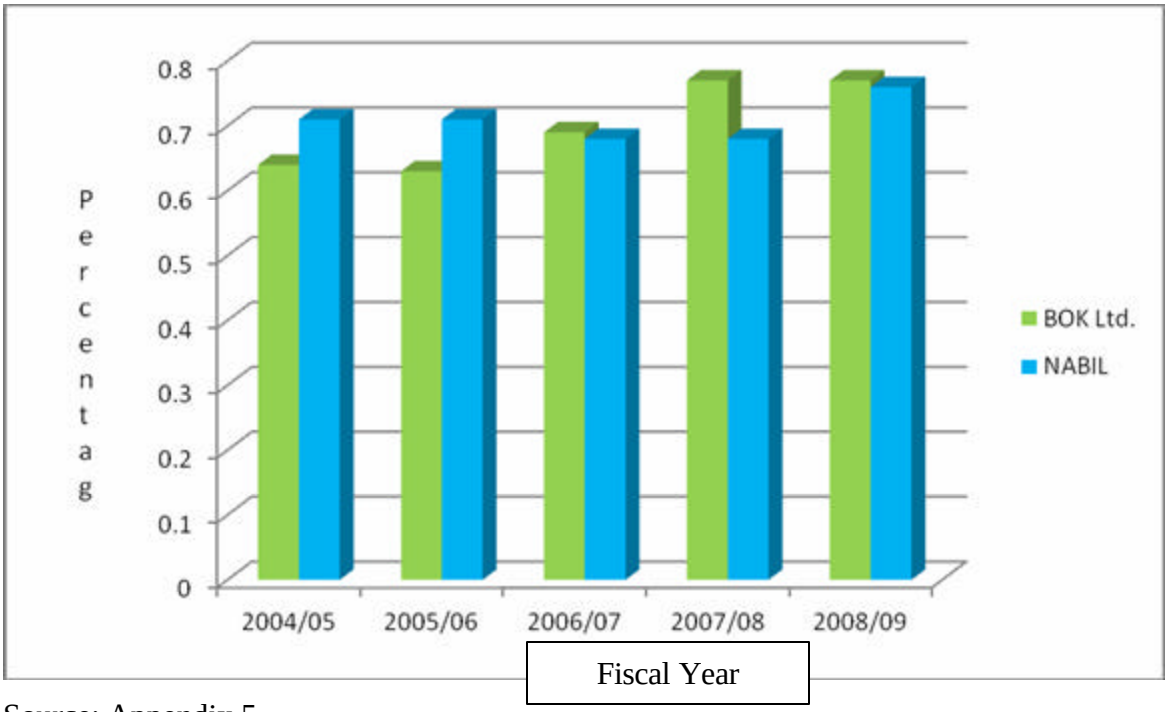
The table 4.5 shows that the loan and advances to current assets ratio of BOK Ltd. has followed an increasing trend from 0.77 in the fiscal year 2007/08. However in the fiscal year 2005/06 it has decreased to 0.63. Whereas NABIL bank has a fluctuating trend from 0.71 in the fiscal year 2004/05 to 0.76 in the fiscal year 2008/069. BOK has maintained the highest ratio of 0.77 in the fiscal year 2007/08 and 2008/09 lowest of 0.63 in the fiscal year 2005/06. Similarly NABIL has maintained its

highest ratio of 0.76 in the fiscal year 2008/09 and lowest of 0.68 in the fiscal year 2006/07 and 2007/08.

While analyzing the mean ratio NABIL has maintain a higher ratio of 0.71 than BOK Ltd's 0.70. There is only slightly difference in the ratio and it can be said that both banks have used their funds appropriately. The coefficient of variation of BOK Ltd. is 0.08 which is higher than NABIL's 0.04. It shows that BOK's ratios are more inconsistent than NABIL's ratios.

Comparatively the sample bank BOK Ltd. and NABIL has effectively utilized their funds on loan and advances. However the higher mean ratio of NABIL tells that it has used fewer funds than BOK in loan and advances. More loan and advances to create problem at the time to meet its current obligation, so one has to be very careful about that.

Figure 4.5
Loan and Advances to Current Asset Ratio



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b. Asset Management Ratios

Assets management ratio delivers the various answers about whether the amount of assets seen in the balance sheet is too high, reasonable or too low. Too much assets increases interest expenses. Profit is always reduced by too much assets and too low assets cannot assure profit too and it may be lost. So the main objective of asset management is to manage its assets in profitable and satisfactory way.

- **Loan and Advance to Total Deposit Ratio**

The ratio specifically analyzes whether the banks are successful to mobilize their total deposits on loan and advances. The higher ratio is considered best because the mobilization of deposit for loan and advances generates profit but too high ratio can always create a problem to its liquidity position. It is expressed as:

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

Here,

Loan and Advances = Total Loan - Total Provisioning

Total Loan = Performing Loan + Non Performing Loan

Total Provisioning = Provisioning up to Previous Year

Total Deposits = Saving Deposit + Fixed Deposit + Call Deposit + Certificate of Deposit

The table 4.6 shows the percentages of loan and advances to total deposit ratio of BOK Ltd and NABIL from fiscal year 2002/03 to 2006/07.

Table 4.6

Loan and Advance to Total Deposit Ratio

(In Percentage)

Fiscal Year	BOK Ltd.	NABIL
2004/05	66.11	72.57
2005/06	69.23	66.79
2006/07	75.87	66.60
2007/08	78.71	66.94
2008/09	80.99	73.87
Mean	74.182	69.354
Standard Deviation (S.D.)	5.6459	3.1851
Coefficient of Variation (C.V.)	7.6108	4.5925

Source: Appendix 6

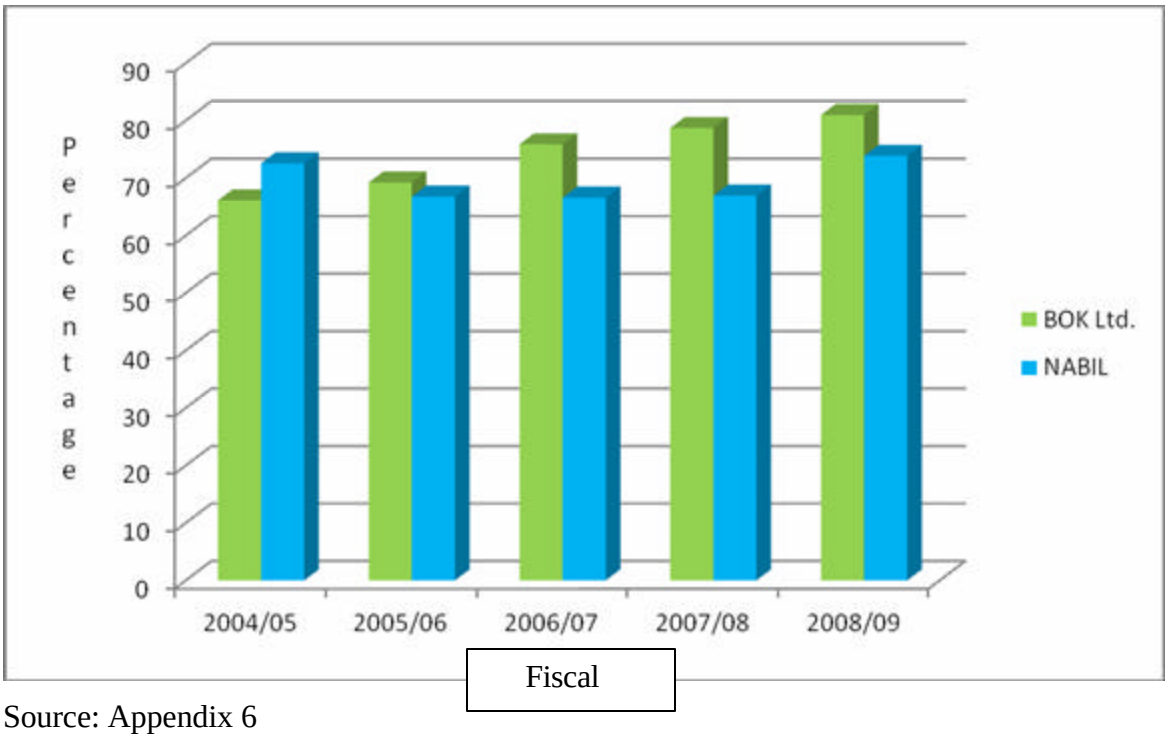
The table 4.6 shows that BOK Ltd. has followed increasing trend from 66.11 % in the fiscal year 2004/05 to the fiscal year 2008/09. In case of NABIL bank the ratio is in fluctuating trend from 72.57% in the fiscal year 2004/05 to 66.94% in the fiscal year 2007/08. Then it has increased in the fiscal year 2008/09 to 73.87%. BOK Ltd. has maintained highest ratio of loan and advances to total deposit ratio of 80.99 % in the fiscal year 2008/09 and lowest of 66.11% in the fiscal year 2004/05. Similarly NABIL has highest ratios of 73.87 % in the fiscal year 2008/09 and lowest of 66.60 % in the fiscal year 2006/07.

The mean ratio of BOK Ltd is 74.182 % which is greater than NABIL Ltd's 69.35%. It indicates that NABIL has mobilized its lowest portion of deposits in loan and advances. The coefficient of variation of NABIL is 4.59 % which is lower than 7.61 % of BOK Ltd. It shows that NABIL's ratios are more stable than BOK Ltd.

It can be said that comparatively BOK Ltd has mobilized more of its total deposit on loan and advances for the sake of getting high profit. It should be noted that too high ratio is not better from the view of liquidity because loan and advances takes time to mature in cash. It is not very liquid as cash and bank balance.

Figure 4.6

Loan and Advances to Total Deposit Ratio



Source: Appendix 6

The figure 4.6 shows that BOK Ltd. has followed increasing trend from 66.11 % in the fiscal year 2004/05 to the fiscal year 2008/09. In case of NABIL bank the ratio is in fluctuating trend from 72.57% in the fiscal year 2004/05 to 66.94% in the fiscal year 2007/08. Then it has increased in the fiscal year 2008/09 to 73.87%. BOK Ltd. has maintained highest ratio of loan and advances to total deposit ratio of 80.99 % in the fiscal year 2008/09 and lowest of 66.11% in the fiscal year 2004/05. Similarly NABIL has highest ratios of 73.87 % in the fiscal year 2008/09 and lowest of 66.60 % in the fiscal year 2006/07.

- **Total Investment to Total Deposit Ratio**

Investing in government securities, other financial institutions, non-financial sectors are also a very promising way to achieve the profit seeking objective. These investments are done by utilizing the part of the total deposit. This ratio examines whether the banks are investing its deposit portion to a different securities. Investment is always welcomed and encouraged by these commercial banks. It is expressed as:

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

Here,

Total Investment = Investment in Government Securities + Others + Investment in Shares + Debentures + Others

Total Deposits = Saving Deposit + Fixed Deposit + Call Deposit + Certificate of Deposit

The table 4.7 shows the percentage of total investment to total deposit ratio of BOK Ltd and NABIL from fiscal year 2002/03 to 2006/07.

Table 4.7

Total Investment to Total Deposit Ratio

(In Percentage)

Fiscal Year	**BOK Ltd.**	**NABIL**
2004/05	29.05	29.25
2005/06	32.27	31.93
2006/07	24.15	38.32
2007/08	20.25	31.23
2008/09	15.41	29.12
Mean	24.23	31.97
Standard Deviation (S.D.)	6.0251	3.3582
Coefficient of Variation (C.V.)	2.4866	1.0505

Source: Appendix 7

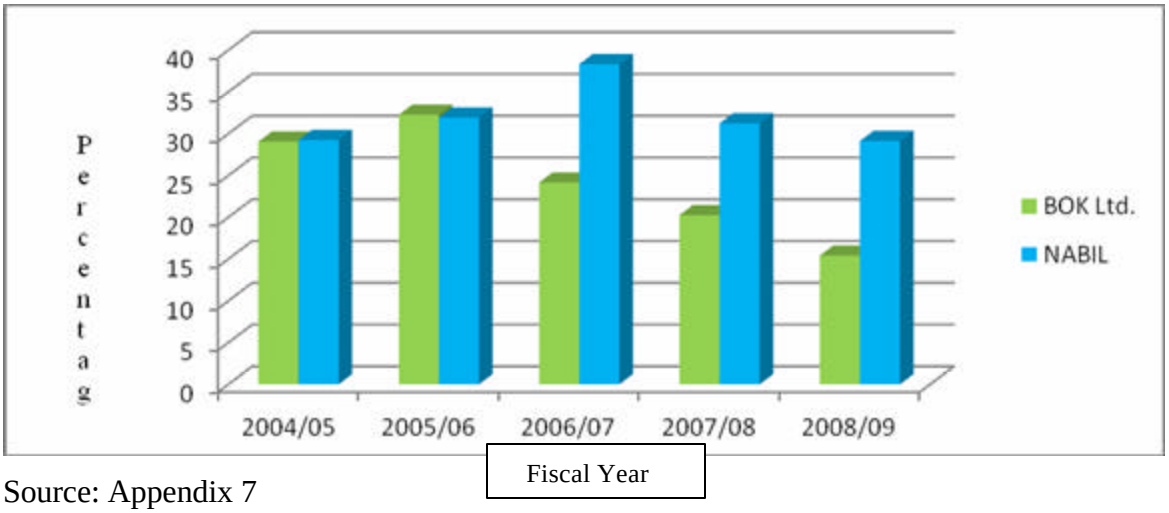
The comparative table shows that the ratio of total investment to total deposit ratio of both banks are in fluctuating trend. BOK Ltd. has highest ratio 32.27% in the fiscal year 2005/06 and lowest of 15.41% in the fiscal year 2008/09. Similarly NABIL has highest ratio of 38.32% in the fiscal year 2006/07 and lowest of 29.12% in the fiscal year 2008/09.

The mean ratio of BOK Ltd is 24.23% which is lower than NABIL's 31.97%. It can be said that both banks have not been very keen to invest from their available funds. However NABIL has investment more portion of its total deposit. The coefficient of variation of BOK Ltd. is 2.48% and NABIL 1.05% which shows more consistent of NABIL.

Comparatively both banks are not utilizing their enough funds for the investments as mean ratios of both banks are lower i.e. 24.23% of BOK Ltd and 31.97% of NABIL. Both banks must invest more portion of its deposit to diversify the reserves.

Figure 4.7

Total Investment to Total Deposit Ratio



Source: Appendix 7

The figure 4.7 shows that the ratio of total investment to total deposit ratio of both banks are in fluctuating trend. BOK Ltd has highest ratio 32.27% in the fiscal year 2005/06 and lowest of 15.41% in the fiscal year 2008/09. Similarly NABIL has highest ratio of 38.32% in the fiscal year 2006/07 and lowest of 29.12% in the fiscal year 2008/09.

- **Loan and Advances to Total Working Fund Ratio**

Total asset is total working fund and loan and advances are very integral part of it. This ratio shows to what extent commercial banks are utilizing their total assets in loan and advances in appropriate level to generate profit. Total working fund includes current assets, fixed assets, miscellaneous assets and investment etc. It is expressed as:

$$\text{Loan and Advances to Total Working Fund Ratio} = \frac{\text{Total Loan and Advances}}{\text{Total Working Fund}}$$

Here,

Loan and Advances = Total Loan - Total Provisioning

Total Loan = Performing Loan + Non Performing Loan

Total Provisioning = Provisioning up to Previous Year

Total Working Fund = Current Assets + Fixed Assets + Loans for Development Bank + Investment + Miscellaneous Assets

The table 4.8 shows the percentage of loan and advances to total working fund ratio of BOK Ltd and NABIL from fiscal year 2002/03 to 2006/07.

Table 4.8

Loan Advances to Total Working Fund Ratio

(In Percentage)

Fiscal Year	**BOK Ltd.**	**NABIL**
2004/05	0.59	0.62
2005/06	0.59	0.58
2006/07	0.64	0.57
2007/08	0.70	0.57
2008/09	0.72	0.63
Mean	0.648	0.594
Standard Deviation (S.D.)	0.05	0.03
Coefficient of Variation (C.V.)	0.07	0.05

Source: Appendix 8

This comparative table shows that the ratios of loan and advances to total working fund ratio of BOK Ltd. has followed an increasing trend. Similarly NABIL's ratios are in fluctuating trend. BOK

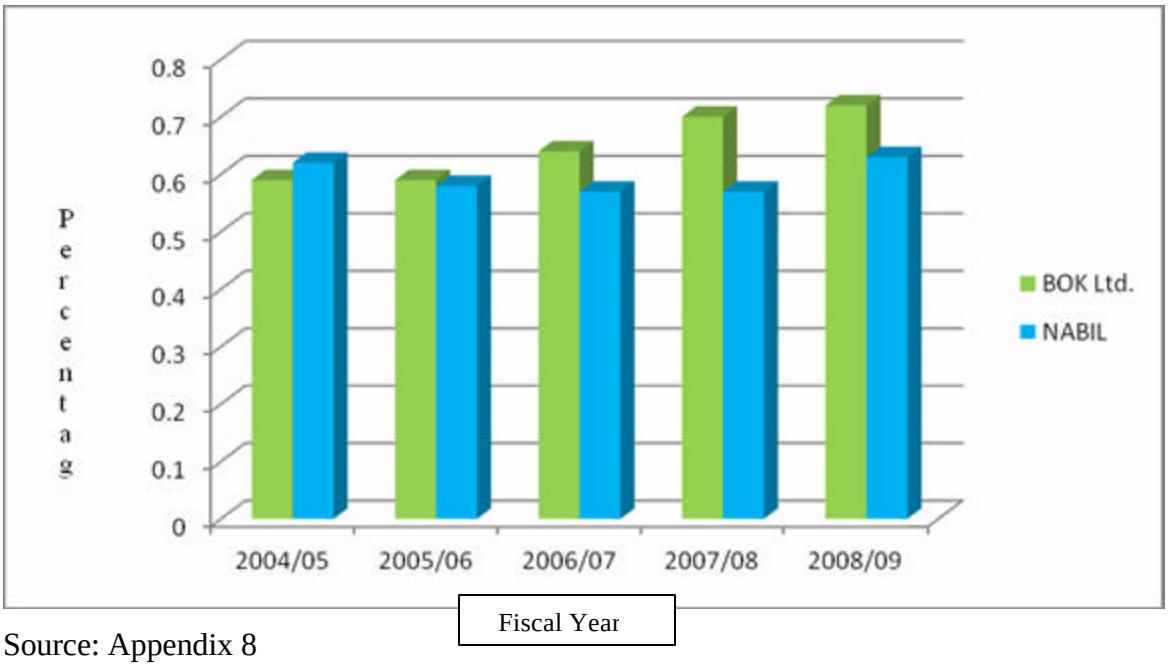
Ltd. has maintained highest ratio of 0.72% in the fiscal year 2008/09 and lowest of 0.59% in the fiscal year 2004/05 and 2005/06. In case of NABIL bank the highest ratio of 0.63% is achieved in the year 2008/09 and lowest of 0.57% in the fiscal year 2006/07 and 2007/08.

In average BOK Ltd. has maintained higher ratio of 0.648 % than NABIL's 0.594 %. It shows BOK Ltd. has managed to disperse its more working fund on loan and advance. The coefficient of variation of BOK Ltd. is 0.07% which is higher than 0.05% and it states that NABIL has more consistency in its ratios.

Comparatively the position of BOK Ltd is better due to its high mean ratio. However it can be said that the mobilization of working fund on loan & advances of both banks BOK Ltd. and NABIL are in satisfactory position. Here one should have the good concept of appropriate amount of loan and advances because too much loan can create a bad debt problem too. It is harmful the view point of liquidity.

Figure 4.8

Loan & Advances to Total Working Fund Ratio



Source: Appendix 8

The figure 4.8 shows that the ratios of loan and advances to total working fund ratio of BOK Ltd. has followed an increasing trend. Similarly NABIL's ratios are in fluctuating trend. BOK Ltd. has maintained highest ratio of 0.72% in the fiscal year 2008/09 and lowest of 0.59% in the fiscal year

2004/05 and 2005/06. In case of NABIL bank the highest ratio of 0.63% is achieved in the year 2008/09 and lowest of 0.57% in the fiscal year 2006/07 and 2007/08.

- **Investment on Government Securities to Total Working Fund Ratio**

The best idea of utilizing the total working fund is not only providing loan and advances but also investing in government securities. This ratio examines the part of investment on government securities from available total working fund. These investments are done to achieve returns without any risk and to diversify the fund is also an objective of any investment. It is calculated as follows:

$$\text{Investment on Government Securities to Total Working Fund Ratio} = \frac{\text{Investment on Government Securities}}{\text{Total Working Fund}}$$

Here,

Investment on Government Securities = Nepal Government Treasury Bills + Nepal Government Saving Bonds Nepal + Government Other Securities + Nepal Bank Bonds

Total Working Fund = Current Assets + Fixed Assets + Loans for Development Bank + Investment + Miscellaneous Assets

Table 4.9 shows the investment on government securities to total working fund ratio of BOK Ltd and NABIL form fiscal year 2002/03 to 2006/07.

Table 4.9

Investment on Government Securities to Total Working Fund Ratio

(In Percentage)

Fiscal Year	BOK Ltd.	NABIL
2004/05	0.22	0.14
2005/06	0.22	0.10
2006/07	0.16	0.18
2007/08	0.12	0.13
2008/09	0.09	0.08
Mean	0.162	0.126
Standard Deviation (S.D.)	0.05	0.04
Coefficient of Variation (C.V.)	0.31	0.32

Source: Appendix 9

The comparative table shows that the ratios increased in the initial fiscal year 0.22% in the 2004/05 and 2005/06. Then the ratio has been decreased from 0.16% in the fiscal year 2006/07 to 0.09% in the fiscal year 2008/09. In case of NABIL the ratios has been following fluctuating trend.

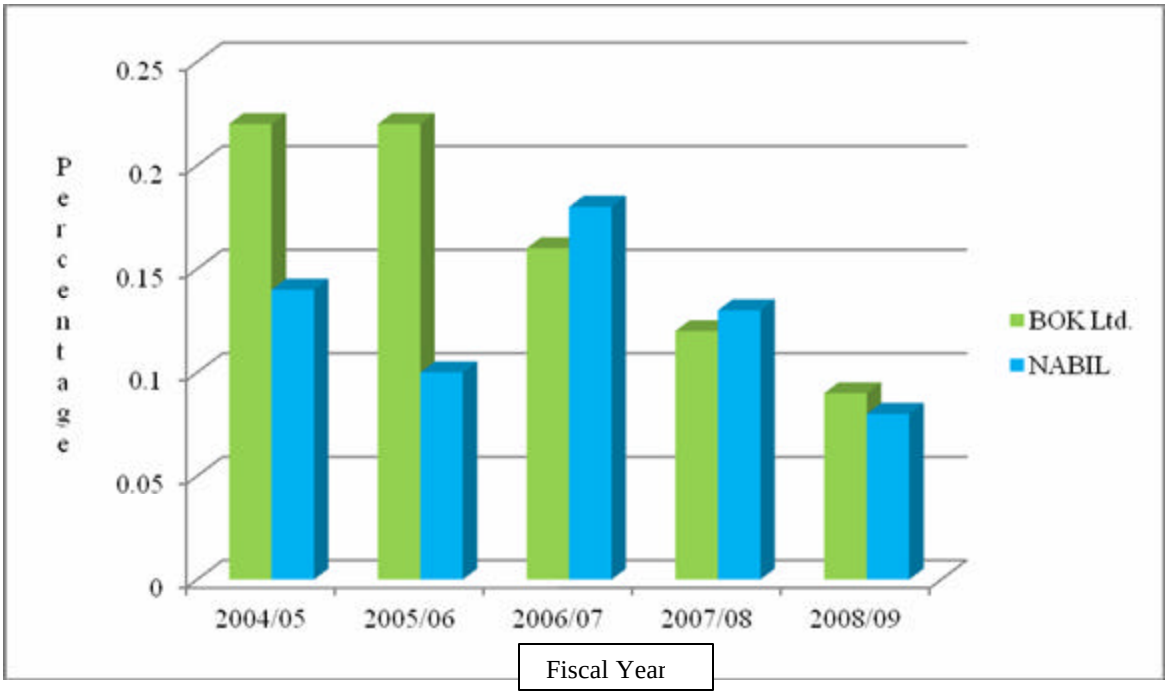
BOK Ltd. has maintained its highest ratio of 0.22% in the fiscal year 2004/05 and 2005/06 and lowest of 0.09 in the fiscal year 2008/09. NABIL has maintained its' highest ratio of 0.18% in the fiscal year 2006/07 and lowest of 0.08% in the fiscal year 2008/09.

On the basis of mean ratios BOK Ltd. has maintained higher ratio of 0.162% than 0.126% of NABIL which shows that NABIL's position is weak in investment to government securities from available total assets. The coefficient of variation of BOK Ltd. is 0.31% which is lower than NABIL's 0.32%. It shows the ratios are not consistent but it has more variability than BOK Ltd.

In conclusion BOK Ltd. seems to have invested its more funds than NABIL. It can also be said that the portion of investment to government securities by both banks are not very convincing because low portion of available total working funds has been invested.

Figure 4.9

Investment on Government Securities to Total Working Fund Ratio



Source: Appendix 9

The figure 4.9 shows that the ratios increased in the initial fiscal year 0.22% in the 2004/05 and 2005/06. Then the ratio has been decreased from 0.16% in the fiscal year 2006/07 to 0.09% in the fiscal year 2008/09. In case of NABIL the ratios has been following fluctuating trend.

BOK Ltd. has maintained its highest ratio of 0.22% in the fiscal year 2004/05 and 2005/06 and lowest of 0.09 in the fiscal year 2008/09. NABIL has maintained highest of 0.18% in the fiscal year 2006/07 and lowest of 0.08% in the fiscal year 2008/09.

- **Investment on Share and Debentures to Total Working Fund Ratio**

This ratio examines the part of investment on shares and debentures of other company. Commercial banks not only invest in government securities but they also invest the shares of development banks and other companies too. It is generally said that the risk factor is more on these securities than government securities. Normally excess funds are utilized for an investment. It is expressed in formulae as:

$$\text{Total Working Fund Ratio} = \frac{\text{Investment on Share and Debenture}}{\text{Total Working Fund}}$$

Here,

Investment on Share and Debenture = Organized Institutions Share + Organized Institutions Bonds and Debenture

Total Working Fund = Current Assets + Fixed Assets + Loans for Development Bank + Investment + Miscellaneous Assets

The table 4.10 shows the ratio of investment on share and debentures to total working fund ratios form fiscal year 2002/03 to 2006/07.

Table 4.10

Investment on Share and Debentures to Total Working Fund Ratio

(In Percentage)

Fiscal Year	**BOK Ltd.**	**NABIL**
2004/05	0.23	0.15
2005/06	0.19	0.12
2006/07	0.17	0.21
2007/08	0.15	0.22
2008/09	0.14	0.19
Mean	0.176	0.178
Standard Deviation (S.D.)	0.03	0.04
Coefficient of Variation (C.V.)	0.17	0.22

Source: Appendix 10

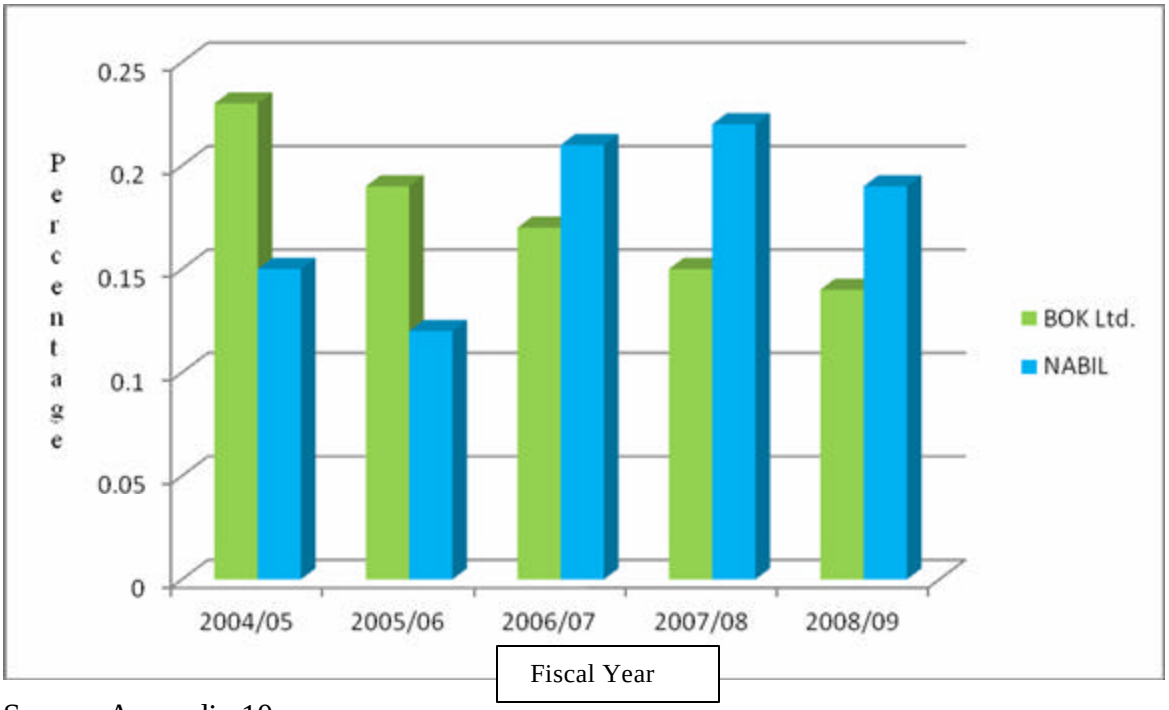
The comparative table shows that the ratios of investment on share and debenture to total working fund ratio of BOK Ltd. has followed a decreasing trend. NABIL has followed a fluctuating trend. BOK Ltd. has maintained its highest ratio of 0.23% in the fiscal year 2004/05 and lowest of 0.14% in the fiscal year 2008/09. Similarly NABIL has got its highest ratio 0.22% in the fiscal year 2007/08 and lowest of 0.12% in the fiscal year 2005/06.

In case of mean ratio BOK Ltd. has 0.176% which is slightly lower than the NABIL's 0.178%. It shows that BOK Ltd. has invested its more portion of working fund than NABIL bank. Coefficient of variance of BOK Ltd is 0.17% and 0.22% of NABIL bank. It shows that NABIL's ratios are inconsistent and variable than BOK Ltd's ratio.

It can be said that investment on share and debentures to total working fund ratio of BOK Ltd. is slightly better from the average analysis. The fluctuation of ratios has been found slightly of NABIL which is not convincing.

Figure 4.10

Investment on Share and Debentures to Total Working Fund Ratio



Source: Appendix 10

The figure 4.10 shows that the ratios of investment on share and debenture to total working fund ratio of BOK Ltd. has followed a decreasing trend. NABIL has followed a fluctuating trend. BOK Ltd. has maintained its highest ratio of 0.23% in the fiscal year 2004/05 and lowest of 0.14% in the

fiscal year 2008/09. Similarly NABIL has got its highest ratio 0.22% in the fiscal year 2007/08 and lowest of 0.12% in the fiscal year 2005/06.

c. Profitability Ratio

Profitability ratio analyzes the efficiency of firms or industries based upon profit. Profit is one of the most common indicators of a firm. It easily measures the financial performance. Profits are generated by providing different facilities to its customer. Profit can give prosperity to facilities to its customer. Profit can give prosperity to any organization by expanding its branches financing different investment opportunities; grabbing new investment opportunities etc. higher profitability ratio shows the efficiency of the management as well as of entire organization.

- **Return on Loan and Advance Ratio**

This ratio measures the earning capacity of bank on its mobilization of deposit on loan and advances head. The effect of deposit on loan and advances must always create return. Loan and advances include loan, cash credit, overdrafts, bills purchased and discounted. This ratio is calculated b dividing net income by total assets which is formulated as:

$$\text{Return on Total Assets} = \frac{\text{Net Profit after Tax}}{\text{Total Assets}}$$

Here,

Net Profit after Tax = Expenses-Income

Expenses = Interest Expenses + Personal Expenses + Provision for Possible Losses + Provision for Staff Bonus + Book Write Off

Income = Interest Income + Non Performing Income + Commission and Discount + Other Operating Income + Exchange Income

Total Loan and Advances = Loans and Advances and Overdraft + Bills Purchased and Discounted

The table 4.11 shows the ratio of return on loan and advances ratio from fiscal year 2002/03 to 2006/07.

Table 4.11

Return on Loan and Advances Ratio

(In Percentage)

Fiscal Year	BOK Ltd.	NABIL
2004/05	2.36	4.90
2005/06	2.79	4.91
2006/07	2.79	4.33
2007/08	2.9	3.49
2008/09	3.15	3.73
Mean	2.798	4.272
Standard Deviation (S.D.)	2.5545	5.8482
Coefficient of Variation (C.V.)	9.1298	1.3689

Source: Appendix 11

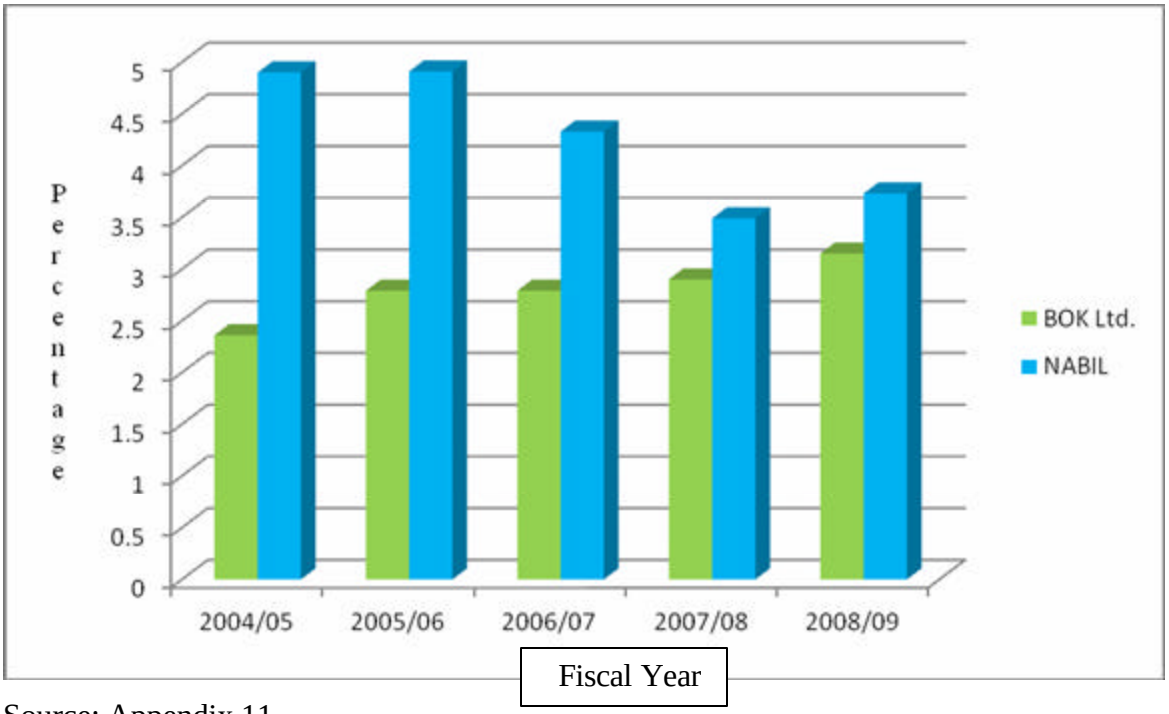
The table shows that the return on loan and advances ratio of BOK Ltd. has an increasing trend. The NABIL bank has fluctuating trend on return on loan and advances ratio. BOK Ltd. has maintained its highest ratio of 2.79% in the fiscal year 2005/06 and 2006/07 respectively. The lowest ratio is 2.36% in the fiscal year 2004/05. NABIL has maintained its highest ratio of 4.91% in the fiscal year 2005/06 and lowest of 3.49% in the fiscal year 2007/08.

The mean ratio of BOK Ltd is 2.798% which is lower than NABIL's 54.272%. NABIL bank has maintained its profit level to its highest against BOK Ltd. The coefficient of variation of BOK Ltd. is 9.1298% and NABIL has 1.3689%. So the ratios of BOK Ltd. are more variable and less consistent than NABIL.

It can be said that the profit of return generating capacity of BOK Ltd. is not at satisfactory level as compared to NABIL bank. Mean ratios an coefficient of variation are in favor of NABIL bank.

Figure 4.11

Return on Loan and Advances Ratio



Source: Appendix 11

The figure 4.11 shows that the return on loan and advances ratio of BOK Ltd. has an increasing trend. The NABIL bank has fluctuating trend on return on loan and advances ratio. BOK Ltd. has maintained its highest ratio of 2.79% in the fiscal year 2005/06 and 2006/07 respectively. The lowest ratio is 2.36% in the fiscal year 2004/05. NABIL has maintained its highest ratio of 4.91% in the fiscal year 2005/06 and lowest of 3.49% in the fiscal year 2007/08.

- **Return on Total Working Fund Ratio (ROA)**

It is also known as return on asset. This ratio measures the profit earning capability of any organization. When the total assets are mobilized in different forms for investment there is always a necessity of earning profit. Net profit is that part of profit which is left after all the charge and expenses cast. Every bank is therefore encouraged to manage its working fund which generates higher return. To increase the profit legal minimizing system are very useful. This ratio is calculated b dividing net income by total assets which is formulated as:

$$\text{Return on Total Assets} = \frac{\text{Net Profit After Tax}}{\text{Total Assets}}$$

Here,

Net Profit after Tax = Expenses-Income

Expenses = Interest Expenses + Personnel Expenses + Provision for Possible Losses + Provision for Staff Bonus + Book Write Off

Income = Interest Income + Non Performing Income + Commission and Discount + Other Operating Income + Exchange Income

Total Working Fund = Current Assets + Fixed Assets + Loans for Development Bank + Investment + Miscellaneous Assets

The table 4.12 shows the ratios of return on total working fund ratio from the fiscal year 2002/03 to 2006/07.

Table 4.12

Return on Total Working Fund Ratio

(In Percentage)

Fiscal Year	**BOK Ltd.**	**NABIL**
2004/05	1.41	3.02
2005/06	1.65	2.84
2006/07	1.80	2.47
2007/08	2.03	2.01
2008/09	2.25	2.35
Mean	1.83	2.536
Standard Deviation (S.D.)	0.29	0.36
Coefficient of Variation (C.V.)	0.16	0.14

Source: Appendix 12

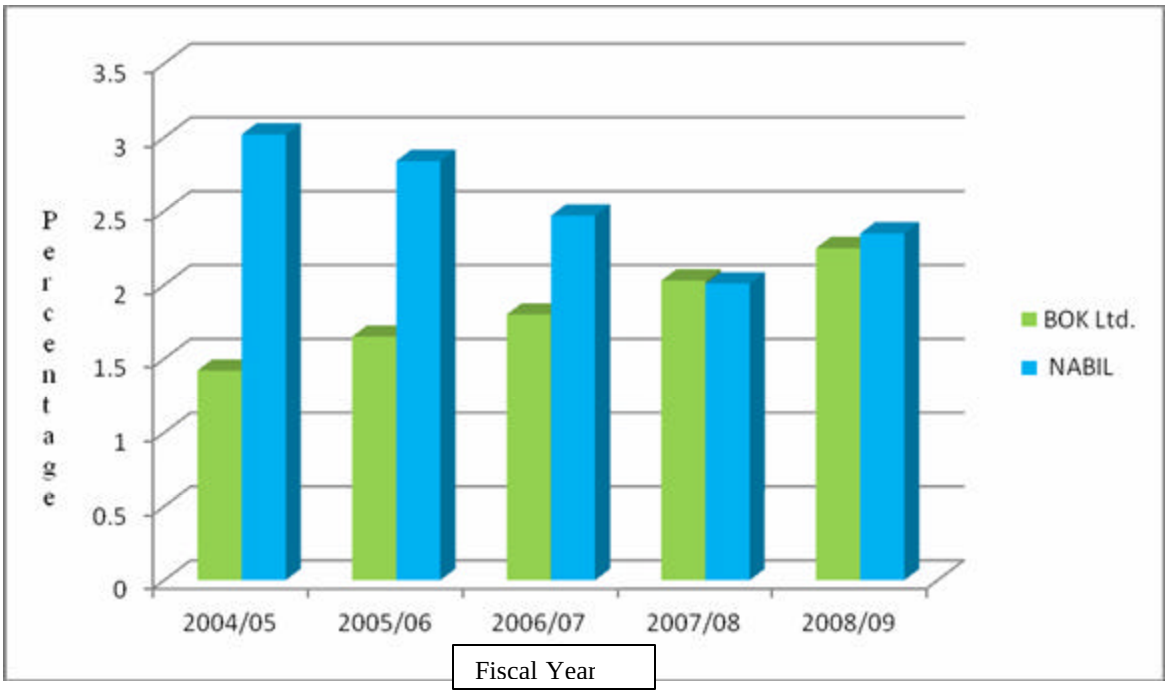
The comparative table indicates that BOK Ltd's ratio of return on total working fund has followed an increasing trend. However NABIL's ratios are fluctuated. Even though there is fluctuation the ratios are very impressive and higher profit than BOK Ltd. BOK Ltd. has its highest ratio of 2.25% in the fiscal year 2008/09 and lowest of 1.41% in the fiscal year 2004/05. Similarly NABIL has its highest ratio of 3.02% in the fiscal year 2004/05 and lowest of 2.01% in the fiscal year 2007/08.

In case of mean ratio BOK Ltd. has recorded 1.83% which is lower than 2.53% of NABIL bank. The coefficient of variation of BOK Ltd is 0.16% which is higher than NABIL's 0.14%. It indicates that the ratios of return on total working fund of BOK Ltd. are less consistent than NABIL.

From this analysis it can be said that BOK Ltd. has weaker position than NABIL in terms of profit. The mean ratio and coefficient of variation are in favour of NABIL bank, which shows NABIL is best in terms of profitability.

Figure 4.12

Return on Total Working Fund Ratio



Source: Appendix 12

The figure 4.12 indicates that BOK Ltd's ratio of return on total working fund has followed an increasing trend. However NABIL's ratios are fluctuated. Even though there is fluctuation the ratios are very impressive and higher profit than BOK Ltd. BOK Ltd. has its highest ratio of 2.25% in the fiscal year 2008/09 and lowest of 1.41% in the fiscal year 2004/05. Similarly NABIL has its highest ratio of 3.02% in the fiscal year 2004/05 and lowest of 2.01% in the fiscal year 2007/08.

- **Total Interest Earned to Total Working Fund Ratio**

Interest earning is only possible if sufficient assets are mobilized to acquire it. It examines the earning capacity of a bank by mobilizing its total assets. Higher ratio derives higher income in the form of interest.

This ratio is calculated by dividing total interest earned from investment by working fund and is formulized as:

$$\text{Total Interest Paid to Total Working Fund} = \frac{\text{Total Interest Earned}}{\text{Total Fund Working}}$$

Here,

Total Interest Earned=Interest from Loans, Advances and Overdraft + Interest from Investment + Interest from Agency Balances + Interest from Money at Call and Short Notice

Total Working Fund = Current Assets + Fixed Assets + Loans for Development Bank + Investment + Miscellaneous Assets

Table 4.13 shows the total interest earned to total working fund of BOK Ltd and NABIL form the fiscal year 2002/03 to 2006/07.

Table 4.13

Total Interest Earned to Total Working Fund Ratio

(In Percentage)

Fiscal Year	BOK Ltd.	NABIL
2004/05	0.062	0.06

2005/06	0.058	0.06
2006/07	0.056	0.06
2007/08	0.058	0.05
2008/09	0.066	0.06
Mean	0.06	0.058
Standard Deviation (S.D.)	0.0036	0.004
Coefficient of Variation (C.V.)	0.06	0.07

Source: Appendix 13

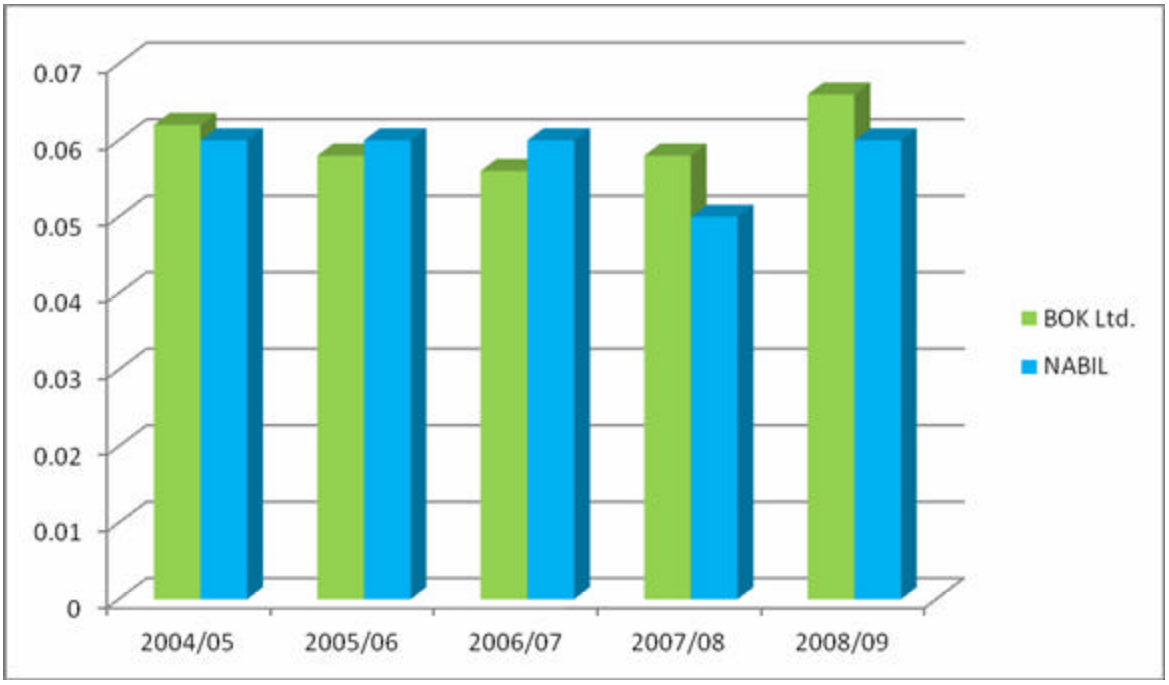
The comparative table shows that the ratios of BOK Ltd. are in fluctuating trend whereas NABIL has same amount of trend. It has a decreasing trend only in the year 2007/08. BOK Ltd. has highest ratio of 0.06% and lowest of 0.056% in the fiscal year 2006/07. Similarly NABIL has its highest ratio 0.06% and lowest of 0.05%.

In case of mean ratio BOK Ltd. has 0.06% which is slightly higher than 0.058% of NABIL. Coefficient of variation of BOK Ltd. is 0.06% which is lower than 0.07% of NABIL which means the consistency of ratios of BOK Ltd. is better.

It can be said that the BOK Ltd. has earned more and stable interest than NABIL. NABIL too has earned the interest but it is slightly lower in terms of mean.

Figure 4.13

Total Interest Earned to Total Working Fund Ratio



Source: Appendix 13

The figure 4.13 shows that the ratios of BOK Ltd. are in fluctuating trend whereas NABIL has same amount of trend. It has a decreasing trend only in the year 2007/08. BOK Ltd. has highest ratio of 0.06% and lowest of 0.056% in the fiscal year 2006/07. Similarly NABIL has its highest ratio 0.06% and lowest of 0.05%.

- **Total Interest Paid to Total Working Fund Ratio**

Interest payment is an expenses made by the bank. Generally this ratio examines the percentage of total interest paid against total working fund. Higher ratios indicate higher expenses of interest.

This ratio is calculated by dividing total interest paid by total working fund and is formulized as:

$$\text{Total Interest Paid to Total Working Fund} = \frac{\text{Total Interest Paid}}{\text{Total Working Fund}}$$

Here,

Total Interest Paid = Interest Paid on Deposits + Borrowing + Others

Total Working Fund = Current Assets + Fixed Assets + Loans for Development Bank + Investment + Miscellaneous Assets

The table 4.14 shows the table interest paid to total working fund ratio of BOK Ltd and NABIL from the fiscal year 2002/03 to 2006/07.

Table 4.14

Total Interest Paid to Total Working Fund Ratio

(In Percentage)

Fiscal Year	**BOK Ltd.**	**NABIL**
2004/05	0.025	0.014
2005/06	0.025	0.016
2006/07	0.023	0.02
2007/08	0.024	0.021
2008/09	0.027	0.026
Mean	0.0248	0.0194
Standard Deviation (S.D.)	0.0013	0.0042
Coefficient of Variation (C.V.)	0.05	0.21

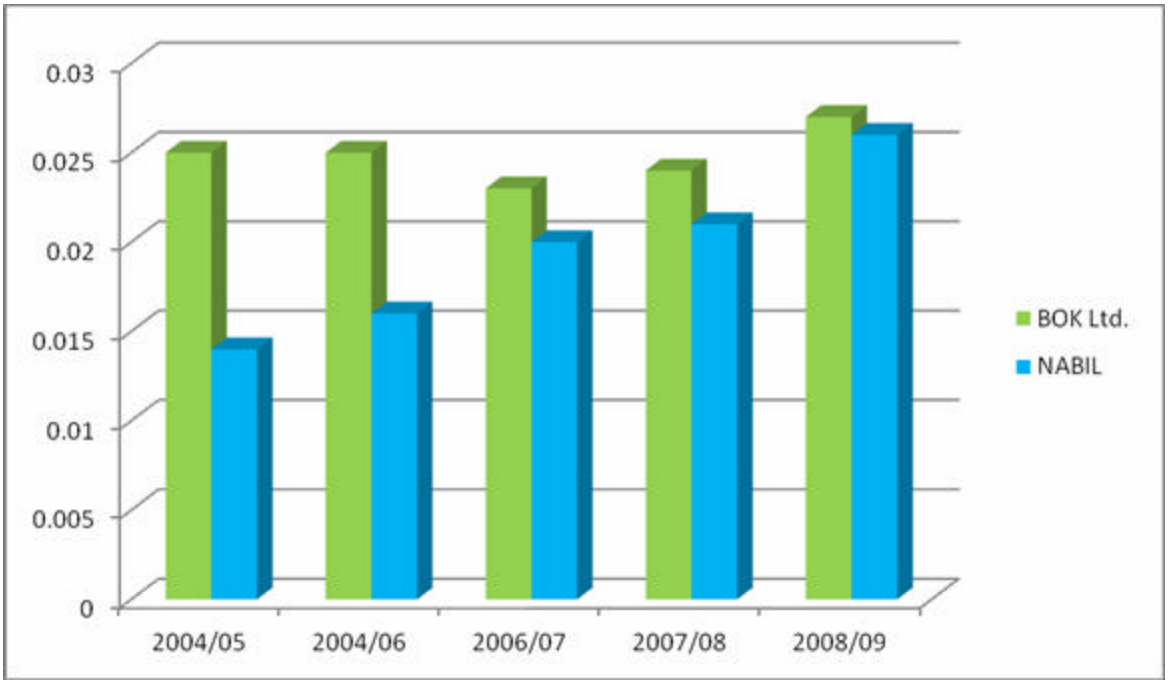
Source: Appendix 14

The comparative table shows that the interest paid by BOK Ltd. and NABIL are in fluctuating trend. BOK Ltd. has highest ratio of 0.027% in the fiscal year 2008/09 and lowest of 2.33% in fiscal year 2006/07. Similarly NABIL has its highest ratio of 0.026% in the fiscal year 2008/09 and lowest of 0.02% in the fiscal year 2006/07.

In case of mean ratios BOK Ltd. has highest ratios of 0.0248% against NABIL's 0.0194%. Coefficient of variation of BOK Ltd. is 0.05% which is lower than NABIL's 0.21%. It shows the consistency of the ratios of BOK Ltd in context of NABIL. It can be said that BOK Ltd. is in better position from the payment of interest.

Figure 4.14

Total Interest Paid to Total Working Fund Ratio



Source: Appendix 15

The figure 4.14 shows that the interest paid by BOK Ltd. and NABIL are in fluctuating trend. BOK Ltd. has highest ratio of 0.027% in the fiscal year 2008/09 and lowest of 2.33% in fiscal year 2006/07. Similarly NABIL has its highest ratio of 0.026% in the fiscal year 2008/09 and lowest of 0.02% in the fiscal year 2006/07.

d. Risk Ratio

Risk is inevitable in any kind of investment. The risk is taken to get maximum return on its investment. Higher risk's assures higher profit but the level of risk has to be clearly understood. Without any prospect of return if higher risk is taken then the organization surely fails to recover its investment and can occur huge losses. Thus investment has been very challenging these days.

- **Credit Risk Ratio**

The primary and general concept of bank is that it utilizes its collected funds in various prospective sectors which may generate higher return. Credit risk ratio measures the risk involved while making investment or granting loans. The bad debt creates choose and it badly hurts the heart of financial systems. It is calculated by dividing loan and advances by total assets and is formulized as:

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

Here,

Total Loan and Advances = Loans and Advances and Overdraft + Bills Purchased and Discounted

Total Assets = Current Assets + Fixed Assets + Loans for Development Bank + Investment + Miscellaneous Assets

The table 4.15 shows credit risk ratio of BOK and NABIL from the Fiscal year 2002/03 to 2006/07.

Table 4.15

Credit Risk Ratio

(In Percentage)

Fiscal Year	**BOK Ltd.**	**NABIL**
2004/05	0.59	0.62
2005/06	0.59	0.58
2006/07	0.65	0.57
2007/08	0.70	0.58
2008/09	0.72	0.63
Mean	0.65	0.59
Standard Deviation (S.D.)	0.054	0.024
Coefficient of Variation (C.V.)	0.083	0.04

Source: Appendix 15

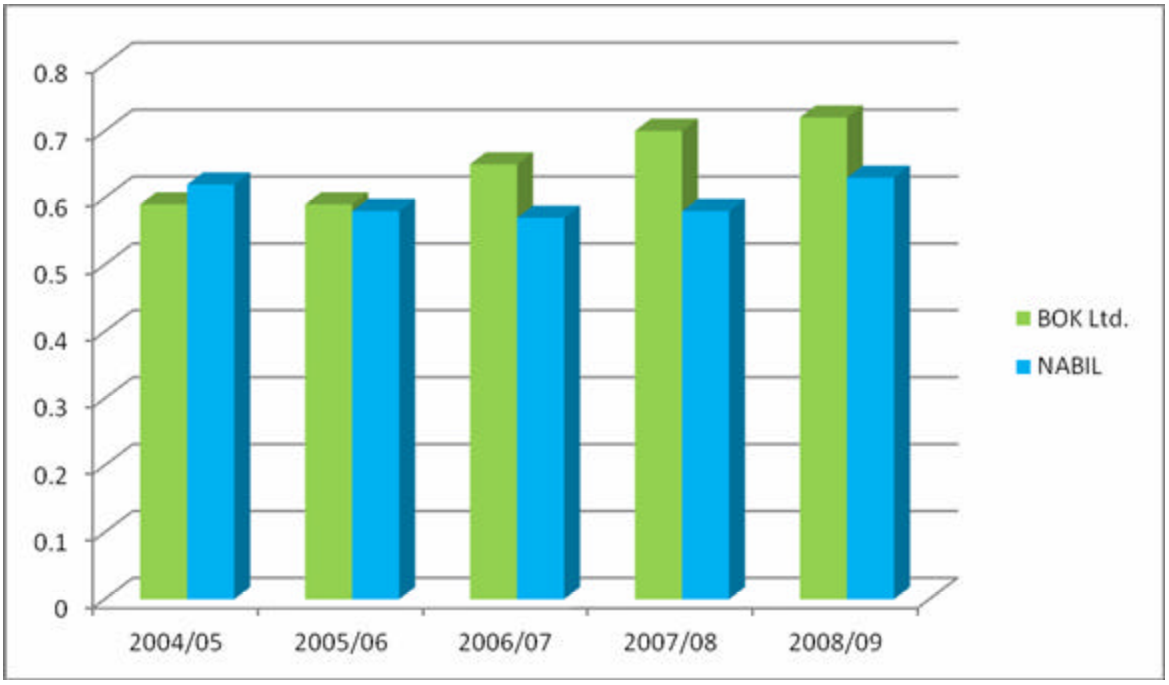
The comparative table shows the credit risk ratio of BOK Ltd. has followed a fluctuating trend. Similarly NABIL's ratio is also in fluctuation trend. BOK Ltd. has highest ratio of 0.72% in the fiscal year 2008/09 and lowest of 0.59% in the fiscal year 2004/05 and 2005/06. In case of NABIL it has highest ratio of 0.63% in the fiscal year 2008/09 and lowest of 0.57% in the fiscal year 2006/07.

The mean ratio of BOK Ltd. is 0.65% which is higher than NABIL's 0.59%. It can be said that the credit risk of NABIL is lower than BOK Ltd. The coefficient of variation shows that NABIL has 0.04% which is lower than 0.083% of BOK Ltd. BOK's ratios are more variable then NABIL's ratio.

So it can be said that the more risk factor is attached with the bank BOK Ltd. in comparison to NABIL.

Figure 4.15

Credit Risk Ratio



Source: Appendix 15

The figure 4.15 shows the credit risk ratio of BOK Ltd. has followed a fluctuating trend. Similarly NABIL's ratio is also in fluctuation trend. BOK Ltd. has highest ratio of 0.72% in the fiscal year 2008/09 and lowest of 0.59% in the fiscal year 2004/05 and 2005/06. In case of NABIL it has highest ratio of 0.63% in the fiscal year 2008/09 and lowest of 0.57% in the fiscal year 2006/07.

- **Capital Risk Ratio**

Capital risk ratio measure the ability of banks to attract deposits and inter-bank funds. It too determines the level of profit. High ratio indicates higher risk as well as higher risk and vice-versa. Bank can earn more if banks choose to take high capital risk.

This ratio is calculated by dividing share capital by risk weighted assets and is presented as:

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

Here,

Share Capital = Ordinary Share + Bonus Share + Preference Share

Risk Weighted Assets = On Balance Sheet Assets + Off Balance Sheet Assets

On Balance Sheet Items = Cash Balance + Deposit Receipt + Money at Call + Fixed Assets + Balance at Foreign Banks etc.

Off Balance Sheet Items = Bills Collection + Bid Bond + Financial Guarantee + Performance Bond + Contingent Tax Liability

The table 4.16 shows the capital risk ratio of BOK Ltd and NABIL from the fiscal year 2002/03 to 2006/07.

Table 4.16

Capital Risk Ratio

(In Percentage)

Fiscal Year	**BOK Ltd.**	**NABIL**
2004/05	0.104	0.117
2005/06	0.111	0.111
2006/07	0.097	0.107
2007/08	0.098	0.09
2008/09	0.067	0.09
Mean	0.0954	0.103
Standard Deviation (S.D.)	0.015	0.011
Coefficient of Variation (C.V.)	0.16	0.11

Source: Appendix 16

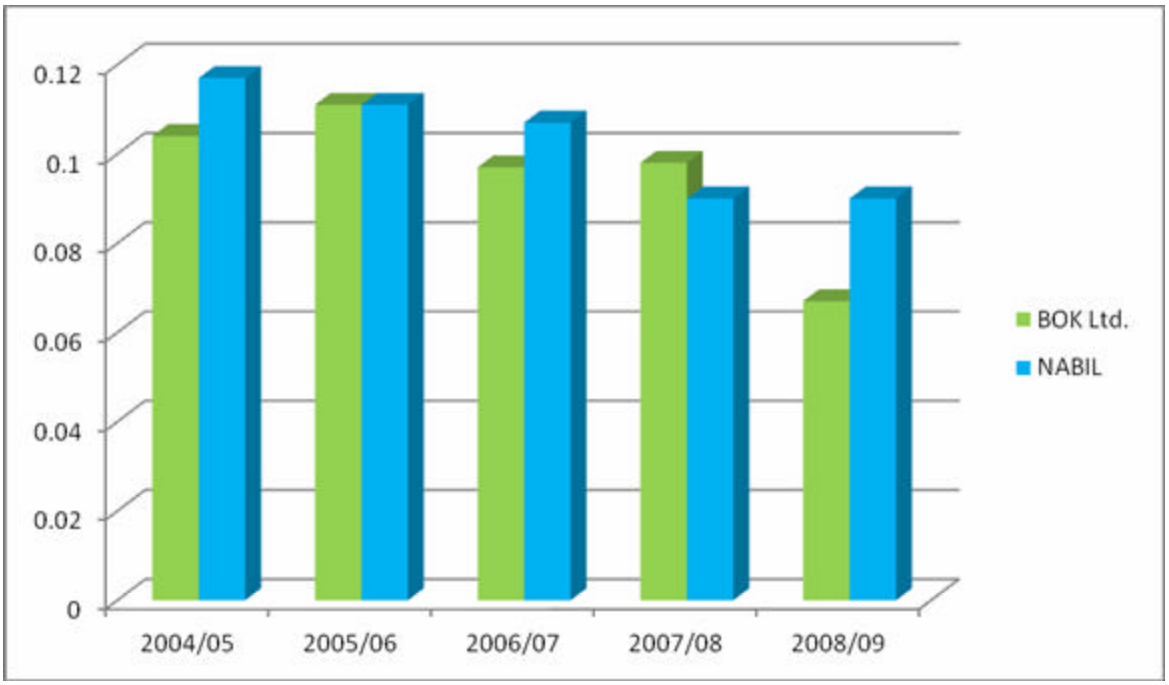
From the comparative table the capital risk ratio of BOK Ltd. has followed a decreasing trend except in the fiscal year 2005/06 and NABIL has also followed decreasing trend. The highest ratio of BOK Ltd. is 0.111% in fiscal year 2005/06 and lowest ratio is 0.067% in the fiscal year 2008/09. NABIL has highest ratio of 0.117% in the fiscal year 2004/05 and lowest of 0.09% in the fiscal year 2007/08 and 2008/09.

Mean ratio of BOK Ltd. is 0.095% which is lower than NABIL's 0.103. Coefficient of variance of BOK Ltd. is 0.16% and NABIL has 0.11%.

So it can be said that the risk of BOK Ltd. is high and inconsistent. To gain high return the risk level should also be high. From the above table we can say that NABIL is in better position than BOK Ltd.

Figure 4.16

Capital Risk Ratio



Source: Appendix 16

From the figure 4.16 the capital risk ratio of BOK Ltd. has followed a decreasing trend except in the fiscal year 2005/06 and NABIL has also followed decreasing trend. The highest ratio of BOK Ltd. is 0.111% in fiscal year 2005/06 and lowest ratio is 0.067% in the fiscal year 2008/09. NABIL has highest ratio of 0.117% in the fiscal year 2004/05 and lowest of 0.09% in the fiscal year 2007/08 and 2008/09.

e. Growth Ratios

Growth ratio simply indicates the fluctuation of figure on the basis of past data. Growth ratios are analyzed to know the situation of fund mobilization and investment management of bank. Higher ratios are the indicators of excellent performance. It also shows that now much growth has been in deposit supported by growth in investment, loan and advances etc. This clearly shows the balance between assets and liabilities.

Table 4.17

Growth Ratio of Total Deposits

(Rs. in Millions)

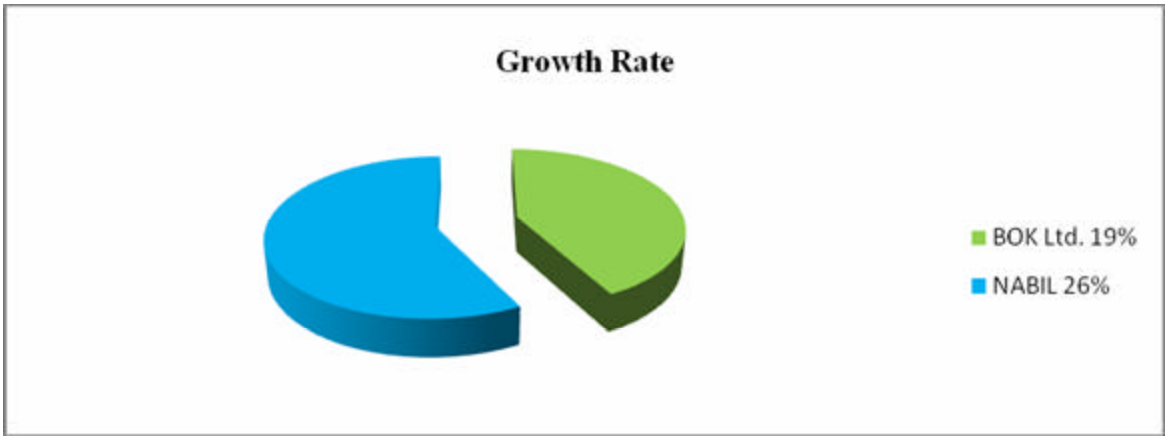
Fiscal Year	BOK Ltd.	NABIL
2004/05	8942.75	14586.61
2005/06	10485.34	19347.40
2006/07	12388.92	23342.28
2007/08	15833.73	31915.05
2008/09	18033.98	37348.25
Growth Rate	19	26

Source: Appendix 18

The comparative table 4.17 shows that the growth ratios of deposits of BOK Ltd. are 19% and 26% of NABIL. So from this increment in percentage it indicates that NABIL has high collection of deposits than BOK Ltd. The growth pattern of NABIL is very impressive than BOK Ltd. though both of them should try to increase their deposit level.

Figure 4.17

Growth Ratio of Total Deposits



Source: Appendix 18

The figure 4.17 shows that the growth ratios of deposits of BOK Ltd. are 19% and 26% of NABIL. So from this increment in percentage it indicates that NABIL has high collection of deposits than BOK Ltd. The growth pattern of NABIL is very impressive than BOK Ltd. though both of them should try to increase their deposit level.

Table 4.18

Growth Ratio of Loan and Advances

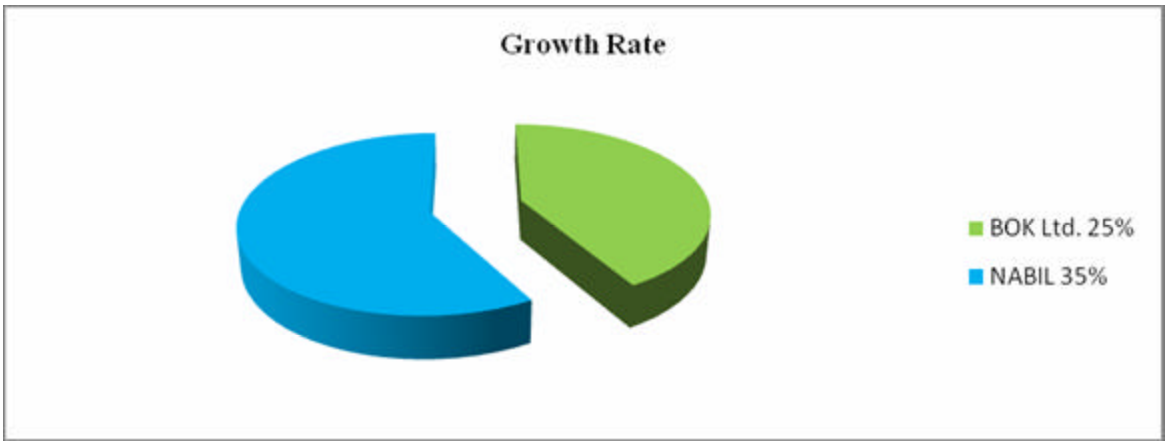
Fiscal Year	**BOK Ltd.**	**NABIL**
2004/05	5912.58	8189.99
2005/06	7259.08	10586.17
2006/07	9399.33	12922.55
2007/08	12462.64	21365.05
2008/09	14647.31	27589.93
Growth Rate (%)	25	35

Source: Appendix 18

The comparative table 4.18 shows the growth ratio of loan and advances of BOK Ltd. and NABIL bank. BOK Ltd. has 25% growth rate which is lower than NABIL's 35%. Though both of them have tried to mobilize their loan and advances BOK Ltd. seem little unsuccessful in comparison to NABIL.

Figure 4.18

Growth Ratio of Loan and Advances



Source: Appendix 18

The figure 4.18 shows the growth ratio of loan and advances of BOK Ltd. and NABIL bank. BOK Ltd. has 25% growth rate which is lower than NABIL's 35%. Though both of them have tried to mobilize their loan and advances BOK Ltd. seem little unsuccessful in comparison to NABIL.

Table 4.19

Growth Ratio of Total Investment

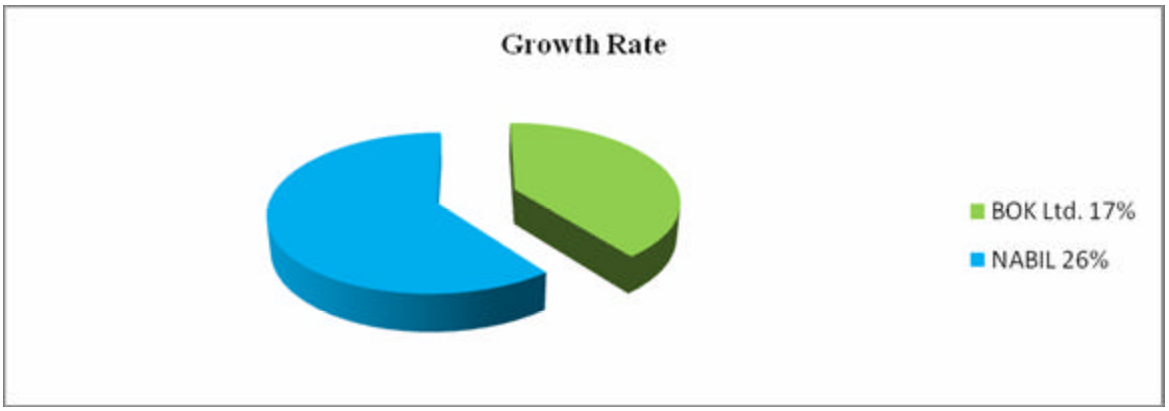
Fiscal Year	BOK Ltd.	NABIL
2004/05	2598.24	4267.23
2005/06	3374.66	6178.52
2006/07	2995.19	8946.31
2007/08	3206.83	9966.56
2008/09	27863.6	10874.81
Growth Rate (%)	17	26

Source: Appendix 18

The comparative table 4.19 shows the growth ratio of total investment which has been compared. The growth rate of NABIL is higher than BOK Ltd. BOK Ltd. has maintained 17% and NABIL has 26%. So from the growth in total investment view NABIL has better utilization of its fund in total investment compared with BOK Ltd.

Figure 4.19

Growth Ratio of Total Investment



Source: Appendix 18

The figure 4.19 shows the growth ratio of total investment which has been compared. The growth rate of NABIL is higher than BOK Ltd. BOK Ltd. has maintained 17% and NABIL has 26%. So from the growth in total investment view NABIL has better utilization of its fund in total investment compared with BOK Ltd.

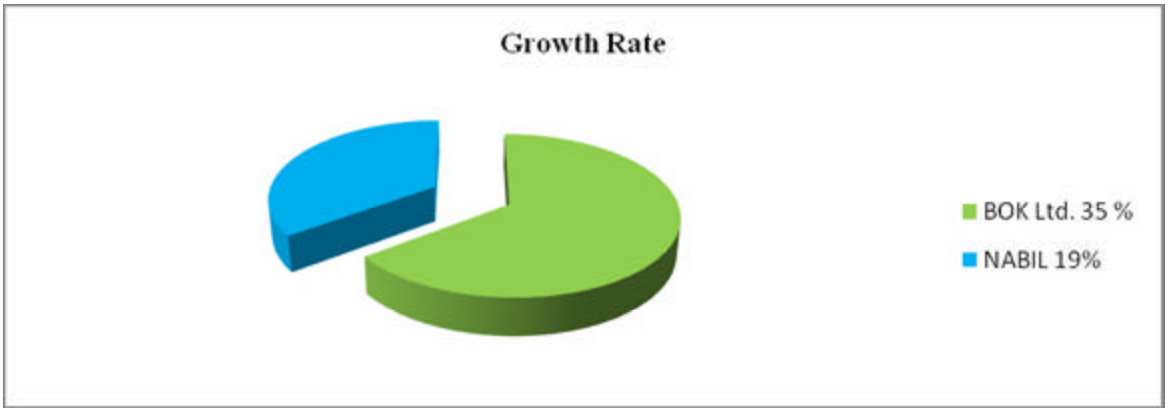
Table 4.20
Growth Ratio of Net Profit

Fiscal Year	BOK Ltd.	NABIL
2004/05	139.53	518.63
2005/06	202.44	635.26
2006/07	262.37	673.96
2007/08	361.49	746.47
2008/09	461.73	1031.05
Growth Rate (%)	35	19

Source: Appendix 18

The comparative table 4.20 shows the growth ratio of Net Profit. BOK Ltd has been successful to increase its net profit. The growth ratio of BOK Ltd is 33.69% which is very promising compared to 12.80% of NABIL. NABIL has not been able to increase its net profit compared to BOK Ltd.

Figure 4.20
Growth Ratio of Net Profit



Source: Appendix 18

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4.1.2 Statistical Tools

(a) Coefficient Correlation Analysis

Correlation analysis shows the relationship between the variables. Its range is +1 to -1. Positive figure shows perfect positive correlation and negative figure shows perfect negative correlation. The zero result is interpreted as independent variables. It is denote by r.

Interpretation of Correlation Co-efficient

- It lies between +1.0 +0 -1.0
- When r = +1, it is perfect positive correlation
- When r = -1, it is perfect negative correlation
- When r = 0, there is no correlation
- When r lies between 0.7 to 0.999 or -0.7 to -0.999, there is high degree of positive or negative correlation.
- When r lies between 0.5 to 0.69 or -0.5 to -0.69 there is moderate degree of positive or negative correlation.
- When r is less than 0.5, there is low degree of correlation

- Probable Error
- If r < 6* P.Er, then the value of 'r' is insignificant
- If r > 6* P.Er , then the value of 'r' is significant

i) Correlation between Total Deposit and Total Investment

It measures the relationship between total deposit and total investment. Total deposit (X) is independent variables and total investment (Y) is dependent variable. The calculation is done to find out whether there is significant relationship or not.

The table 4.22 shows the value of 'r', 'r^2', P.Er, 6 P.Er between total deposit and total investment of BOK Ltd and NABIL form the fiscal year 2002/03 to 2006/07.

Table 4.21

Coefficient of Correlation between Total Deposit and Total Investment

Banks	Evaluation Criterion			
	r	r^2	P. Er	6 *P.Er
BOK Ltd.	0.9977	0.9954	0.0013	0.0083
NABIL	0.9996	0.9992	0.0002	0.0012

Source: Appendix 20

From the comparative table it has been found that the value of 'r' in case of BOK Ltd. is 0.9977 which means it has high degree of positive correlation between deposit and total investment. The coefficient of determination 'r^2' is 0.9954 which means 99.54% that is the variation of dependent variable. The P.Er and 6*P.Er are 0.0013 and 0.0083 respectively. The coefficient of correlation is higher than 6 times probable error. This shows that the value of r is significant.

The coefficient of correlation between total deposit and total investment of NABIL is 0.9966 which means there is high degree of positive correlation between total deposit and total investment. The coefficient of determination 'r^2' is 0.9992 which means 99.92% that is the variation of dependent variable. Further, P.Er and 6*P.Er are 0.0002 and 0.0012 respectively. The coefficient of correlation is higher than 6 times probable error. This shows that the value of r is significant.

So it can be said that BOK Ltd. and NABIL have significant relationship and the increase in investment is due to increase in investment and other factors have lets role to play in increase in investment. But NABIL has highly significant with higher dependency. So NABIL is successful to utilize its deposit in total investment. NABIL also has high degree of positive correlation.

ii) Coefficient of Correlation between Deposit and Loan and Advances

Deposits are independent variable (X) and loan and advances are dependent variable (Y). Calculating r shows the significance or insignificance between the deposit and loan and advances.

The table 4.23 shows the value of 'r', 'r^2', P.Er and 6*P.Er of BOK Ltd and NABIL form the fiscal year 2002/03 to 2006/07.

Table 4.22

Coefficient of Correlation between Deposit and Loan and Advances

Banks	Evaluation Criterion			
	r	r^2	P. Er	6 *P.Er
BOK Ltd.	0.9998	0.9996	0.0001	0.0006
NABIL	0.9999	0.9998	0.0003	0.0018

Source: Appendix 20

The correlation 'r' between deposit and loan and advances of BOK Ltd. is 0.9998 which is highly positive correlated. The coefficient of determination r^2 is 0.9996 and it means 99.96% of variation in the dependent variable. The value of P.Er is 0.0001 and 6*P.Er is 0.0006. The value of r is greater than 6*P.Er. It means that there is significant relationship between deposit and loan and advances.

In case of NABIL, the coefficient 'r' between deposit and loan and advances is 0.9999 which indicates high degree of positive correlation between the two variables. The coefficient of determination 'r^2' is 0.9998, which shows 99.98% variation in dependent variable. The value of P.Er is 0.0003 and 6*P.Er is 0.0018. The value of r is greater than the value of P.Er. So there is significant relationship between total deposit and loan and advances of NABIL.

So it is clear that BOK Ltd. and NABIL is successful to mobilize its deposit on loan and advances. But the r is slightly higher than that of BOK Ltd.

iii) Coefficient of correlation between Outside Assets and Net Profit

Outside assets are independent variable (X) and net profits are independent variable (Y). It shows whether the net profit is significantly correlated with outside assets or not.

The table 4.24 shows the value of r, r^2 P.Er, 6*P.Er between outside assets and net profit from the fiscal year 2002/03 to 2006/07.

Table 4.23

Coefficient of Correlation between Outside Assets and Net Profit

Banks	**Evaluation Criterion**			
	r	r^2	P.Er	6*P.Er
BOK Ltd.	0.9993	0.9986	0.0004	0.0024
NABIL	0.9995	0.9990	0.0003	0.018

Source: Appendix 20

The coefficient of correlation between total outside asset and net profit of BOK Ltd. is 0.9993 which is highly positively correlated. The coefficient of determination is 0.9986 or 99.86% of variation in the dependent variable. P.Er and 6*P.Er of BOK Ltd. is 0.0004 and 0.0024 respectively. The value of r is greater than 6*P.Er. So it can be said that there is significant relationship between the two variables.

The coefficient of correlation between total outside asset and net profit of NABIL bank is 0.9995 which has high degree of positive correlation. The coefficient of determination is 0.9990 or 99.90% which shows the variability of dependent variable. P.Er and 6*P.Er of NABIL banks are 0.0003 and 0.018. The value of r is greater than 6*P.Er. . So it can be said that there is significant relationship between the two variables.

It can be said that both banks have high correlation but NABIL has slightly highest correlation than BOK Ltd. There is high significance in case of BOK Ltd. and NABIL. Both banks net profit has had

an increment but NABIL only has the main reason of increment involved in it. NABIL has better performance in this regard.

(b) Trend Analysis

Trend analysis helps to know the trend which is simply a pattern of behaviour. By the analysis of which fiscal year's trend future is predicted. The time period here is five years and the next five year's projections are done. The future forecast is based on these assumptions:

- Other this remains the same except the analyzed trend.
- The validity is only possible when least square approach is carried out.
- The bank runs in present position.
- The central bank's guideline to commercial banks remains constant.

(i) Analysis of Trend Value of Total Deposit

This calculation tries to extract the trend values of total deposit of BOK and NABIL for five years from F/Y 2013/014.

The table 4.24 shows the trend values of 10 years from 2004/05 to 2013/014.

Table 4.24

Trend Values of Total Deposit of BOK and NABIL

(Rs. In Millions)

Fiscal Year	Trend Values of BOK Ltd.	Trend Values of NABIL
2004/05	8430.76	13689.44
2005/06	16783.85	19498.63
2006/07	13136.94	25307.82
2007/08	15490.03	31117.01

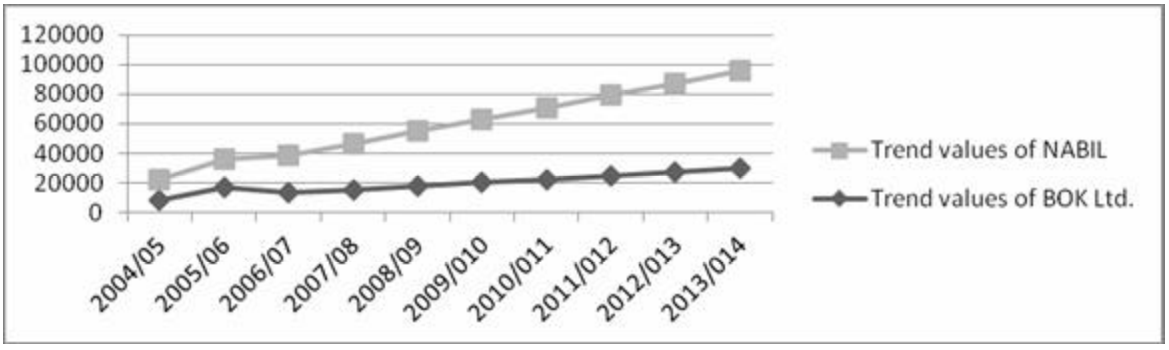
2008/09	17843.12	36926.20
2009/10	20196.21	42735.39
2010/11	22549.30	48544.58
2011/12	24902.39	54353.77
2012/13	27255.48	60162.96
2013/14	29608.57	65972.15

Sources: Appendix 19

The total deposit of BOK Ltd. and NABIL has increasing trend. If all things remain the same the total deposit of NABIL will be highest deposit among the two banks. BOK's total deposit in the fiscal year 2013/2014 will be 29608.57 million and NABIL's 65972.15 million. Among these calculations the deposit collection of NABIL will be better than that of BOK by 2013/2014.

Figure 4.21

Trend Values of Total Deposit of BOK and NABIL



Source: Appendix 19

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ii) Analysis of Trend Value of Loan and Advances

Here, the trend value of loans and advances of BOK and NABIL calculated for five years from 2004/2005 to 2008/2009. The forecast for next five from 2009/2010 to 2013/2014.

The table 4.25 shows the trend values of loan and advances for from F\Y 2004/2005 to 2013/2014.

Table 4.25

Trend Values of Loan and Advances of BOK and NABIL

(Rs. in Millions)

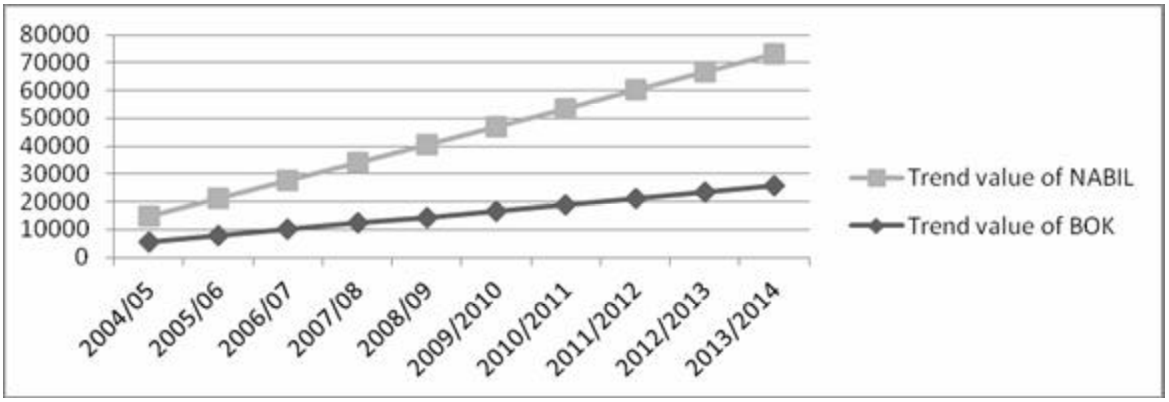
Fiscal Year	Trend Value of BOK Ltd.	Trend Values of NABIL
2004/05	5399.59	9111.89
2005/06	7666.89	13356.89
2006/07	9934.19	17601.89
2007/08	12201.49	21846.89
2008/09	14468.79	26091.89
2009/10	16736.09	30336.89
2010/11	19003.39	34581.89
2011/12	21270.70	38826.90
2012/13	23538.03	43071.90
2013/14	25805.29	47316.91

Source: Appendix 19

The comparative table shows that both banks BOK and NABIL have increasing trend of loan and advances. Other things remaining the same total loan and advances of BOK will be 25805.29 million by 2013/0124. Similarly total loan and advances of NABIL will be 47316.91 which are higher than BOK's loan and advances. NABIL'S position regarding loan and advances will be better than BOK by 2013/014.

Figure 4.22

Trend Value of Loan and Advances of BOK and NABIL



Source: Appendix 19

The figure 4.25 shows that both banks BOK and NABIL have increasing trend of loan and advances. Other things remaining the same total loan and advances of BOK will be 25805.29 million by 2013/0124. Similarly total loan and advances of NABIL will be 47316.91 which are higher than BOK's loan and advances. NABIL'S position regarding loan and advances will be better than BOK by 2013/014.

iii) Analysis of Trend Value of Total Investment

The effort here is to calculate trend values of total investment from the year 2002/03 to 2006/07 and forecasted trend values from 2007/08 to 2011/12.

The table 4.26 shows the trend values of total investment from 2003/03 to 2011/012 of the BOK and NABIL.

Table 4.26

Trend Value of Total Investment of BOK and NABIL

(Rs. in Millions)

Fiscal Year	Trend Value of BOK Ltd.	Trend Value of NABIL
2004/05	2950.58	4648.05

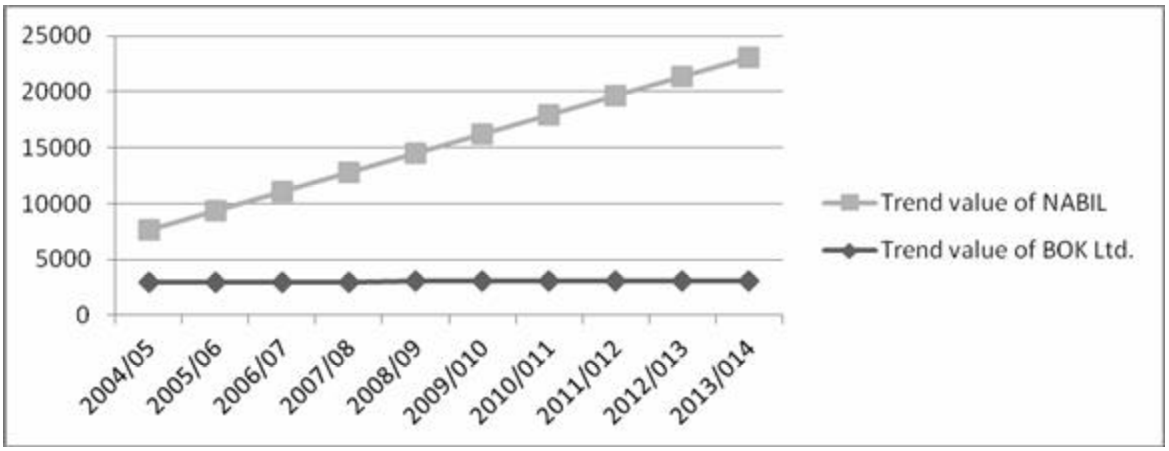
2005/06	2971.42	6348.37
2006/07	2992.26	8048.69
2007/08	3013.10	9749.01
2008/09	3033.94	11449.33
2009/10	3054.78	13149.65
2010/11	3075.62	14849.97
2011/12	3096.46	16550.29
2012/13	3117.30	18250.61
2013/14	3138.14	19950.93

Source: Appendix 19

Total investment of BOK and NABIL Bank has increasing trend value. The total investment of BOK will be 3138.14 million by 2013/014 which is lower than NABIL's 19950.93 million. The investment trend of NABIL is better than that of BOK.

Figure 4.23

Trend Value of Total Investment of BOK & NABIL



Source: Appendix 19

Total investment of BOK and NABIL Bank has increasing trend value. The total investment of BOK will be 3138.14 million by 2013/014 which is lower than NABIL's 19950.93 million. The investment trend of NABIL is better than that of BOK.

iv) Trend Analysis of Net Profit

The trend values of net profit of BOK and NABIL from 2002/03 to 2006/07 and forecast from 2007/08 to 2011/012 is done here.

The table 4.27 shows the trend values of net profit for ten years form 2002/03 to 2011/012 of BOK and NABIL.

Table 4.27

Trend Value of Net Profit of BOK and NABIL

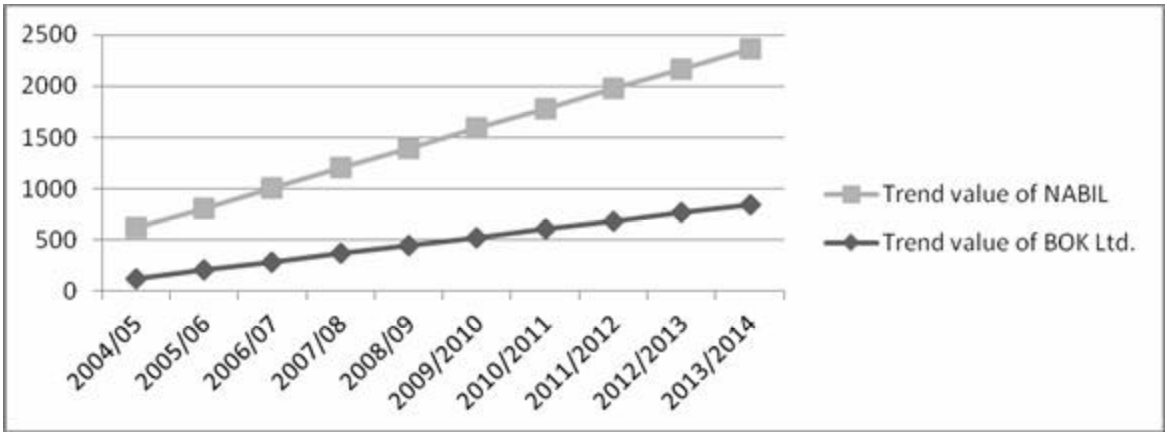
Fiscal Year	Trend Value of BOK Ltd.	Trend Value of NABIL
2004/05	124.82	493.86
2005/06	205.17	607.47
2006/07	285.51	721.08
2007/08	365.86	834.69
2008/09	446.20	948.30
2009/10	526.55	1061.91
2010/11	606.89	1175.52
2011/12	687.24	1289.13
2012/13	767.58	1402.74
2013/14	847.93	1516.35

Source: Appendix 19

The table shows that the net profit of BOK Ltd. and NABIL has increasing trend. The net profit of BOK Ltd. will be 847.93 million by the year 2013/014. Similarly the net profit of NABIL will be 1516.35 million by the year 2013/014. This shows that the net profit of NABIL will be highest among the sample banks. Simply NABIL is considered best in terms of net profit.

Figure 4.24

Trend Value of Net Profit of BOK and NABIL



Source: Appendix 19

The figure 4.27 shows that the net profit of BOK Ltd. and NABIL has increasing trend. The net profit of BOK Ltd. will be 847.93 million by the year 2013/014. Similarly the net profit of NABIL will be 1516.35 million by the year 2013/014. This shows that the net profit of NABIL will be highest among the sample banks. Simply NABIL is considered best in terms of net profit.

4.2 Major Findings

The completion of basic analysis leads forward to the important task for the researcher which is to enlist the findings issues and gaps of the study. The findings of the study are derived of the basis of analyzing financial data of the sample bank BOK and NABIL and are presented as follows:

Liquidity Ratio

- The mean current ratio of BOK is higher and it is better than NABIL bank during the study period. BOK has been efficient to meet its short term obligation but NABIL has failed to do so in all the study period. It means BOK has better liquidity positions and it has enough current assets to meet its immediate cash obligation.
- The current ration of NABIL is more variable than BOK Ltd.
- The mean ratio of Cash and Bank balance to Total deposit ratio of BOK Ltd. is higher than NABIL. BOK Ltd. has better liquidity position to serve its customers deposit withdrawal demand. There is also high consistency in the ratio of BOK Ltd. in compare to NABIL.
- The mean ratio of Cash and Bank balance to Current asset ratio of BOK Ltd. is higher than NABIL bank. It states that the liquidity of BOK Ltd. is better in this regard. The ratios of

NABIL are very inconsistent. BOK Ltd. is capable in maintaining its cash and bank balance to meet its daily requirement to make the payment on customers deposit withdrawal in comparison with NABIL.

- The mean ratio of Investment on government securities to Current assets ratio of BOK Ltd. is higher than NABIL. It shows that BOK Ltd. has invested more of its fund in government securities. But the ratios of BOK Ltd. are inconsistent and variable. The current asset of BOK Ltd. has been used in a high proportion than NABIL.
- The mean ratio of Loan and advances to Current assets ratio of BOK Ltd. is less than NABIL bank. It can be said that both banks have utilized its fund in recoverable loan and advances because there is not very difference in the mean ratios of sample banks in the period of study. The ratios of BOK Ltd. are more inconsistent than NABIL.

Asset Management Ratio

- The mean ratio of Loan and advances to Total deposit ratio of BOK Ltd. is higher than the ration of NABIL. The ratios of BOK Ltd. are very inconsistent and unstable than compare to NABIL.
- The mean ratio of Total investment to Total deposit ratio of BOK Ltd. is lower than NABIL. NABIL and BOK Ltd. both have fluctuating trend. NABIL has mobilized significant amount of fund of in its investment. The ratios of BOK Ltd. are inconsistent.
- The mean ratios of Loan and advances to Total working fund ratio of a BOK Ltd. is higher than NABIL. The ratios of BOK Ltd. is found inconsistent than NABIL.
- The mean ratios of Investment on government securities to Total working fund of BOK Ltd. are higher. The ratios of NABIL are inconsistent than BOK Ltd.
- The mean ratio of Investment on share and debenture of Total working fund ratio of NABIL is slightly higher than BOK Ltd. There is not very deep difference between the mean ratios of two banks. The ratios of NABIL are y more inconsistent than BOK Ltd.

Profitability Ratio

- The mean ratio of Return of loan and advances of BOK Ltd. is lower than that of NABIL. The ratios of BOK Ltd. are inconsistent too.
- The mean ratio of Return on total working fund of BOK Ltd. is less than NABIL but the ratios of BOK Ltd. are too inconsistent compared to NABIL.

- The mean ratio to Total interest earned to total working fund ratio of BOK Ltd. is slightly higher than NABIL but the ratios of BOK are also slightly inconsistent than NABIL.
- The mean ratio of Total interest paid to total working fund ratios of BOK is higher than NABIL bank. The ratios of NABIL are inconsistent over the period of study.

Risk Ratio

- The mean credit risk ratio of BOK Ltd. is higher than NABIL. The fluctuation of ratios of BOK Ltd. are inconsistent than NABIL.
- NABIL has the higher mean ratio of capital risk. The ratios of NABIL are consistent too in comparable to BOK Ltd.

Growth Ratios

- NABIL has higher growth ratio in terms of total deposit. BOK's ratios are little weak because it has growth rate of 19% compared to NABIL's 26%.
- NABIL has higher ratios of loan and advances 35% than BOK's 25%. So the funds of NABIL are utilized in loan and advance more than BOK Ltd.
- The growth ratio of total investment of NABIL is 26% which is higher than BOK's 17%. So NABIL has invested more funds than BOK Ltd.
- The growth ratio of net profit of BOK is 35% which is higher than NABIL's 12.80%. The increment of net profit of BOK has hit a high record.

Co-efficient of Correlation Analysis

- The value of 'r' is higher than 6*P.Er. So there is significant relationship in case of BOK Ltd. Similarly the value of 'r' is higher than 6*P.Er of NABIL bank and there is also significant relationship between total deposit and total investment.
- In case of correlation coefficient between deposit and loan and advances of BOK Ltd. r is higher than 6*P.Er. So there is significant relationship between deposit and loan and advances. Similarly NABIL's r is also greater than its 6*P.Er and the total deposit of BOK Ltd. too had significant relationship with its loan and advances.
- The coefficient of correlation between outside assets and net profit of BOK Ltd. is higher than its 6*P.Er. So there is significant relationship between outside assets and net profit. Similarly

the coefficient of correlation of NABIL has also higher 'r' than its 6*P.Er and there is significant relationship between outside assets and net profit.

Trend Analysis and Projection for Next Five Years

- Trend value of total deposit of BOK Ltd. has followed an increasing trend. NABIL's trend value has also followed an increasing trend. The total deposit of BOK Ltd. and NABIL will be 29608.57 and 65972.15 million respectively by the year 2013/014. This forecasting is possible if other things remain the same.
- The trend value of loan and advances of BOK Ltd. and NABIL has followed an increasing trend. The highest trend of BOK Ltd. will be 25805.29 and 47316.91 million. By the year 2013/014 this shows the increase in loan and advances to support the investors.
- The total investment trend value shows that both banks BOK Ltd. and NABIL have increasing trend. The investment position of BOK Ltd. and NABIL will be 3138.14 and 19950.93 million respectively. For this the economic condition of the bank must not go downward.
- The trend value of net profit of BOK Ltd. and NABIL has followed an increasing trend. The trend value of BOK Ltd. and NABIL will reach 847.93 and 1516.35 million respectively. The increase in net profit can be very beneficial to the commercial banks.

CHAPTER V

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

The fifth chapter includes summary, conclusions and recommendation based on their findings. After the basic analysis the most important remaining part is to summarize and recommend. These findings and recommendations are very useful to top management to execute the decision.

5.1 Summary

The development of commercial and industrial sector opens the door of prosperity in the country. Bank promotes development by uplifting the activities related to the financial situations. The recent peace process and stability also assures the prosperity in the whole economic activity.

Bank always fits itself into economy with an important role of capital provider. The main function of bank is lending and borrowing. But the things have changed. The modern banking system provides many more advanced and new facilities, so the function of commercial bank must push the national economy, mobilize the collected fund, canalize into productive sectors. These can easily achieve investment objective of gaining maximum return.

The term investment covers a wide area of money transactions. Simply it has a concept of income, saving and other collected funds. These activities fall under the bank. The primary objective of any financial institution like commercial bank is profit maximization. The income and profit of the bank depends upon its lending procedure, lending policy and investment of its fund utilized in different securities.

The higher volume of credit created by bank results in higher profitability. In a developing country like Nepal they must play and disburse facilities to all parts of country.

The objective of this study is to evaluate the investment policies adopted by BOK and NABIL. This study depends on secondary data collected from different sources. Journals, articles, annual reports are the secondary data used in this study. Analysis is done categorically and in a simple way. Table, graphs are drawn to make the analysis easier to understand.
The financial tools such as profitability ratio, liquidity ratio asset management ratio, and risk ratios are calculated. Statistical tools like mean, standard deviation, correlation has also been used.

5.2 Conclusion

Two commercial banks are selected for this study. The review of available literatures helped to conduct a sound methodology which is used for the analysis and interpretation of data. The two sample banks are BOK and NABIL. Secondary data are used as the sources of data.

The financial ratio analysis includes liquidity ratio, asset management ratio, profitability ratio, risk ratio and growth ratio. The liquidity position of BOK is comparatively better than that of NABIL. So the liquidity position of BOK is better. Cash and bank balance to total deposit ratio of BOK is higher than NABIL. It shows the ability of BOK to meet the cash demand of their customers. Cash and bank balance to current asset ratio of BOK is higher than NABIL which shows that BOK possess high liquid asset among its current assets. Investment on government securities to current asset ratio of BOK is high and it tells us that BOK has invested its more portions of current assets in government securities which can be converted into cash quickly. Loan and advances to current assets ratio of BOK is slightly lower than NABIL. It shows that both banks have utilized their funds to gain maximum profit.

From the analysis of asset management ratio it is found that BOK has better managed its assets. The loan and advances to total deposit ratio of BOK is higher than NABIL. It shows BOK has mobilized its more deposit on loan and advances. The total investment to total deposit ratio of BOK is lower than NABIL. NABIL has invested its more deposit. Loan and advances to total working fund ratio of BOK is higher than NABIL. BOK has mobilized its total working fund as loan and advances. Investment on government securities to total working fund ratio of BOK is higher than NABIL. It shows BOK has utilized its more portion of total working fund on government securities. Investment on share and debentures to total working fund ratio of NABIL is slightly better than BOK.

The analysis of profitability ratio shows that NABIL is in better position than BOK. Return on total assets of NABIL is higher than BOK. It shows that BOK fails to earn higher profit on its working fund. Return on loan and advances of NABIL are higher than BOK. The loans of NABIL are therefore secured loans. Total interest earned to total working fund ratio of both banks have similar position. The figure however suggests that BOK has slightly high figure. Total interest paid to total working fund ratio of NABIL is lower and it shows NABIL has not paid high interests.

The analysis of risk ratio shows that the credit risk ratio of BOK is higher than NABIL. It shows BOK has provided higher portion on loan which involves high risk but it can also provide high return if it is secure loan.

The capital risk of NABIL is higher than BOK. This shows there is high risk for NABIL but there is chance of high profit too.

The analysis of growth ratio shows that NABIL has highest ratio of total deposit compared than BOK. The deposit mobilization of BOK is weaker than NABIL. Growth ratio of loan and advances of NABIL is higher than BOK. It reflects the mobilization of funds on loans and advances. Growth ratio of total investment of NABIL is better than BOK. Growth ratio of net profit of BOK is better than NABIL because it has higher growth ratios.

This analysis includes the statistical tools which are co-efficient of correlation and trend analysis. The coefficient of correlation between total deposit and total investment of BOK has very high degree of positive correlation. The value of 'r' is greater than 6*P. Er. So there is significant relationship between total deposit and total investment. NABIL too has high degree of positive correlation and there is significant relationship between total deposit and total investment.

The coefficient of correlation between deposit and loan and advances of BOK has high degree of positive correlation and there is significant relationship between deposit and loan and advances. NABIL also has high degree of positive correlation and there is significant relationship between deposit and loan and advances.

The coefficient of correlation between outside and net profit of BOK shows there is high degree of positive correlation and there is significant relationship between outside assets and net profit. NABIL also has high degree of positive correlation but there is insignificant relationship between outside asset and net profit.

The analysis of trend value of five years period and projected future trend values of sample banks of BOK and NABIL shows the projection for future if the things remain same. The trend of total deposit of BOK and NABIL are in increasing trend. NABIL's deposit collection position is better

than BOK. The trend value of loan and advances of BOK and NABIL has increasing trend. NABIL's position will be better in terms of granting loans. The trend values of investment of BOK and NABIL has followed increasing trend. NABIL's future trend is higher than BOK. Net profit of BOK and NABIL are in increasing trend but the future trend of NABIL is higher than BOK.

5.3 Recommendations

Recommendation refers to the suggestive measures derived from the findings of the study. On the basis of core analysis and findings the following recommendation can be useful to overcome the weaknesses and inefficiency of the sample banks BOK and NABIL. It also helps to improve the present fund mobilization and investment policy of BOK and NABIL.

- Commercial banks' liquidity position has not been recorded and satisfactory. BOK and NABIL should try to lower its current liabilities to improve its liquidity position. NABIL liquidity position is too poor because it has not been able to meet its current liabilities and the ratios are below in all study periods.
- The ratio of cash and bank balance to total deposit of BOK is higher than NABIL which can decrease the profit of bank. So it is suggested to mobilize cash and bank balance in profitable sectors.
- From this study it has been revealed that NABIL has invested small portion of its current assets as well as total working fund on government securities compared with BOK. There is huge amount of cash being kept on reserve. Cash and bank balance of BOK which is needed to invest on treasury bills, development bonds which are risk free securities. These securities are highly liquid in nature, yield low interest rate and mature in fixed time. So NABIL bank is suggested to invest more and more on government securities. However BOK has invest more and more on government securities then NABIL still it has to increase its investment on government securities.
- Out of total working fund both banks have failed to invest a satisfactory fund in share and debentures of other financial institution. The investment on shares and debentures of other institution makes competitive market and it also uplifts the financial and economic development of a country. The resources especially cash must be utilized in an efficient way to

prosper in this competitive world. As far as the study finds that banks only utilize their excess funds in the purchase of other institutions securities. So it is recommended to invest more funds in share and debenture of other financial institutions.

- NABIL's loan and advances to total deposit ratio is lowest in comparison to BOK. To overcome from the situation it is recommended to follow liberal lending policy and invest more and more in loan and advances of its deposits and maintain stability on the investment policy.
- Profitability ratio of BOK is weaker then NABIL but these are not satisfactory ratio. The resources must not be kept idle. If the resources are kept idle there is a need to bear the interest costs in its fund. So the portfolio of a bank especially BOK needs to revise it from time to time. It should utilize its risky assets and shareholders' funds. The cheaper should be collected to create more profit. It is recommended to BOK that it should improve its profitability condition.
- NABIL possess lower credit risk compared to BOK. The risk taken by BOK is average but there is insecurity of bad debts. The risk taken by BOK must utilize its funds in highly profitable as well as in secure areas.
- The history of bank shows many difficulties in recovering loan. As a result those loans become non- performing assets which can reduce the income. So the effective policy should be in place to recover it in a time. The popular term "loan recovery act" should be enacted in which there is control in its administrative expenses. Both banks should try to collect chapter funds for more profitability.
- This study shows the trend of investment in increasing range. Investment is the maximum use of resources to create income by investing in income generating sectors. So it is recommended to keep wide vision in different areas.
- The growth of commercial banks is very essential for the economic development. The main problem existing in Nepal is its traditional system of borrowing money with money lenders. The rural areas are not facilitated with the facilities of commercial banks. So the people are forced to borrow money in higher costs. So it is recommended to expand the branches in rural areas also which help the rural economic development.
- The change in technology has given us advantage to use many tools and techniques which has made our life easier and better. Internet banking, credit card facilities, should be expanded

which creates new prospective customers. Banks must pay attention to extend its ATM facilities to all over the country.

- The most neglected part in developing countries is the investment in research and development. Until and unless enough money is not spent the new innovative ideas to reach near the customer and to adjust in any environment is not possible. So it is strongly recommended to increase investment in research and development.

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Appendix 1

Current Ratio

(Rs. in Millions)

Banks	BOK Ltd.			NABIL		
Fiscal Year	Current Assets	Current Liabilities	Ratio (Times)	Current Assets	Current Liabilities	Ratio (Times)
2004/05	9310.25	9136.39	1.02	14971.80	15420.81	0.97
2005/06	11443.84	11238.57	1.02	18133.82	19882.86	0.91
2006/07	13596.53	13252.54	1.02	22829.53	24076.45	0.95
2007/08	16243.35	16147.04	1.00	31241.83	33884.47	0.92
2008/09	19010.34	18477.08	1.02	36114.49	39902.60	0.91

Calculation of Mean, Standard Deviation and Coefficient of Variation of Current Ratio:

Banks	BOK Ltd.		NABIL	
Fiscal Year	Current Ratio (X_1)	$(X_1)^2$	Current Ratio (X_1)	$(X_1)^2$
2004/05	1.02	1.04	0.97	0.9409
2005/06	1.02	1.04	0.91	0.8281
2006/07	1.02	1.04	0.95	0.9025
2007/08	1.00	1.00	0.92	0.8464
2008/09	1.02	1.04	0.91	0.8281
N = 5	? X_1 = 5.08	? $(X_1)^2$ = 5.16	? X_1 = 4.66	? $(X_1)^2$ = 4.346

(1) Calculation of Mean, S.D and C.V of BOK Ltd.

$$\text{Mean Ratio} = \frac{\Sigma X_1}{N} = \frac{5.08}{5} = 1.016$$

Standard deviation = $\sqrt{\frac{\sum [(X]_1)^2}{N} - \left(\frac{\Sigma X_1}{N}\right)^2}$

$= \sqrt{\frac{5.16}{5} - \frac{(5.08)^2}{5}} = 0.016$

Coefficient of variation (C.V) = $\frac{S.D}{X_1} \times 100\%$

$= \frac{0.016}{1.016} \times 100 = 1.57\%$

Thus,

Mean = 1.016; S.D = 0.016; C.V = 1.57 %

(2) Calculation of Mean, S.D and C.V of NABIL Ltd.

Mean Ratio $= \frac{\Sigma X_1}{N} = \frac{4.66}{5}$ = 0.932

Standard deviation = $\sqrt{\frac{\sum [(X]_1)^2}{N} - \left(\frac{\Sigma X_1}{N}\right)^2}$

$= \sqrt{\frac{4.346}{5} - \frac{(4.66)^2}{5}}$ = 0.024

Coefficient of variation (C.V) = $\frac{S.D}{X_1} \times 100\%$

$$= \frac{0.024}{0.932} \times 100 = 2.62\%$$

Calculation of Mean, Standard Deviation, Co-efficient of Variation of other banks are done similarly.

Appendix 2

Cash and Bank Balance to Total Deposit Ratio

(Rs. in Millions)

Banks	**BOK Ltd.**			**NABIL**		
Fiscal Year	Cash and Bank Balance	Total Deposit	Ratio (%)	Cash and Bank Balance	Total Deposit	Ratio (%)
2004/05	740.52	8942.75	8.28	559.38	14586.61	3.83
2005/06	728.70	10485.34	6.95	630.24	19347.40	3.26
2006/07	1315.90	12388.92	10.62	1399.82	23342.28	6.00
2007/08	1440.47	15833.74	9.09	2671.14	31915.05	8.37
2008/09	2182.11	18083.98	12.07	3372.51	37348.25	9.03

Appendix 3

Cash and Bank Balance to Current Asset Ratio

(Rs. in Millions)

Banks	**BOK Ltd.**			**NABIL**		
Fiscal Year	Cash and Bank Balance	Current Assets	Ratio (%)	Cash and Bank Balance	Current Assets	Ratio (%)
2004/05	740.52	9310.25	0.08	559.38	14971.80	0.04
2005/06	728.70	11443.84	0.06	630.24	18133.82	0.03
2006/07	1315.90	13596.53	0.09	1399.82	22829.53	0.06
2007/08	1440.47	16243.35	0.09	2671.14	31241.83	0.09
2008/09	2182.11	19010.34	0.11	3372.51	36114.49	0.09

Appendix 4

Investment on Government Securities to Current Asset Ratio

(Rs. in Millions)

Banks	**BOK Ltd.**			**NABIL**		
Fiscal Year	Investment on Government Securities	Current Asset	Ratio (%)	Investment on Government Securities	Current Assets	Ratio (%)
2004/05	2146.61	9310.25	0.23	2413.94	14971.80	0.16
2005/06	2658.33	11443.84	0.23	2301.46	18133.82	0.13
2006/07	2332.04	13596.53	0.17	4808.35	22829.53	0.21
2007/08	2113.22	16243.35	0.13	4646.88	31241.83	0.15
2008/09	1744.38	19010.34	0.09	3706.10	36114.49	0.10

Appendix 5

Loan and Advances to Current Assets Ratio

(Rs. in Millions)

Banks	**BOK Ltd.**			**NABIL**		
Fiscal Year	Loan and Advances	Current Asset	Ratio (%)	Loan and Advances	Current Assets	Ratio (%)
2004/05	5912.58	9310.25	0.64	10586.17	14971.80	0.71
2005/06	7259.08	11443.84	0.63	12922.55	18133.82	0.71
2006/07	9389.33	13596.53	0.69	15545.78	22829.53	0.68
2007/08	12462.64	16243.35	0.77	21365.05	31241.83	0.68
2008/09	14647.31	19010.34	0.77	27589.93	36114.49	0.76

Appendix 6

Loan and Advances to Total Deposit Ratio

(Rs. in Millions)

Banks	**BOK Ltd.**			**NABIL**		
Fiscal Year	Loan and Advances	Total Deposit	Ratio (%)	Loan and Advances	Total Deposit	Ratio (%)
2004/05	5912.58	8942.75	66.11	10586.17	14586.61	72.57
2005/06	7259.08	10485.84	69.23	12922.55	19347.40	66.79
2006/07	9399.33	12388.92	75.87	15545.78	23342.28	66.60
2007/08	12462.64	15833.74	78.71	21365.05	31915.05	66.94
2008/09	14647.31	18083.98	80.99	27589.93	37348.25	73.87

Appendix 7

Total Investment to Total Deposit Ratio

(Rs. in Millions)

Banks	**BOK Ltd.**			**NABIL**		
Fiscal Year	Total Investment	Total Deposit	Ratio (%)	Total Investment	Total Deposit	Ratio (%)
2004/05	2598.24	8942.75	29.05	4267.23	14586.61	29.25
2005/06	3374.66	10485.34	32.27	6178.52	19347.40	31.93
2006/07	2995.19	12388.92	24.15	8945.3	23342.28	38.32
2007/08	3206.83	15833.74	20.25	9966.56	31915.05	31.23
2008/09	2786.36	18083.98	15.41	10874.81	37348.25	29.12

Appendix 8

Loan and Advances to Total Working Fund Ratio

(Rs. in Millions)

Banks	**BOK Ltd.**			**NABIL**		
Fiscal Year	Loan and Advances	Working Fund	Ratio (%)	Loan and Advances	Working Fund	Ratio (%)
2004/05	5912.58	9857.11	0.59	10586.17	17186.32	0.62
2005/06	7259.08	12278.27	0.59	12922.55	22329.97	0.58
2006/07	9389.33	14569.55	0.64	15545.78	27253.37	0.57
2007/08	12462.64	17721.93	0.70	21365.05	37132.76	0.57
2008/09	14647.31	20496.01	0.72	27589.93	43867.39	0.63

Appendix 9

Investment on Government Securities to Total Working Fund Ratio

(Rs. in Millions)

Banks	**BOK Ltd.**			**NABIL**		
Fiscal Year	Investment in Government Securities	Working Fund	Ratio (%)	Investment in Government Securities	Working Fund	Ratio (%)
2004/05	2146.61	9857.11	0.22	2413.94	17186.32	0.14
2005/06	2658.30	12278.27	0.22	2301.46	22329.97	0.10
2006/07	2332.04	14569.55	0.16	4808.35	27253.32	0.18
2007/08	2113.22	17721.93	0.12	4646.88	37132.76	0.13
2008/09	1744.98	20496.01	0.09	3706.10	43867.39	0.08

Appendix 10

Investment on Share and Debentures to Total Working Fund Ratio

(Rs. in Millions)

Banks	BOK Ltd.			NABIL		
Fiscal Year	Investment on Share and Debenture	Working Fund	Ratio (%)	Investment on Share and Debenture	Working Fund	Ratio (%)
2004/05	23.16	9857.11	0.23	27.36	17816.32	0.15
2005/06	23.16	12278.27	0.19	27.56	22329.97	0.12
2006/07	25.56	14569.55	0.17	57.85	27253.22	0.21
2007/08	28.32	17721.93	0.15	80.55	37132.76	0.22
2008/09	29.21	20496.01	0.14	82.50	43867.39	0.19

Appendix 11

Return on Loan & Advances Ratio

(Rs. in Millions)

Banks	BOK Ltd.			NABIL		
Fiscal Year	Net Profit After Tax	Loan and Advance	Ratio (%)	Net Profit After Tax	Loan and Advance	Ratio (%)
2004/05	139.53	5912.58	2.36	518.63	10586.17	4.90
2005/06	202.44	7259.08	2.79	635.26	12922.55	4.91
2006/07	262.37	9399.33	2.79	673.96	15545.78	4.33
2007/08	361.49	12462.64	2.9	746.47	21365.05	3.49
2008/09	461.73	14647.31	3.15	1031.05	27589.93	3.73

Appendix 12

Return on Total Working Fund Ratio

(Rs. in Millions)

Banks	BOK Ltd.			NABIL		
Fiscal Year	Net Profit After Tax	Working Fund	Ratio (%)	Net Profit After Tax	Working Fund	Ratio (%)
2004/05	139.53	9857.11	1.42	518.63	17186.32	3.02
2005/06	202.44	12278.27	1.65	635.26	22329.97	2.84
2006/07	262.37	14569.55	1.80	673.96	27253.32	2.47
2007/08	361.49	17721.93	2.03	746.47	37132.76	2.01
2008/09	461.73	20496.01	2.25	1031.05	43867.39	2.35

Appendix 13

Total Interest Earned to Total outside Asset Ratio

(Rs. in Millions)

Banks	BOK Ltd.			NABIL		
Fiscal Year	Total Interest Earned	Total Outside Asset	Ratio (%)	Total Interest Earned	Total Outside Asset	Ratio (%)
2004/05	607.09	8510.83	0.07	1068.75	14853.41	0.07
2005/06	718.12	10633.8	0.07	1310	19101.08	0.07
2006/07	819.00	12673.13	0.06	1587.76	24491.03	0.06
2007/08	1034.16	15667.16	0.07	1978.69	31304.82	0.06
2008/09	1347.76	17430.89	0.08	2798.49	38416.31	0.07

Appendix 14

Total Interest Earned to Total Working Fund Ratio

(Rs. in Millions)

Banks	**BOK Ltd.**			**NABIL**		
Fiscal Year	Total Interest Earned	Working Fund	Ratio	Total Interest Earned	Working Fund	Ratio
2004/05	607.09	9857.11	0.062	1068.75	17186.32	0.06
2005/06	718.12	12278.27	0.058	1310	22329.97	0.06
2006/07	819.00	14569.55	0.056	1587.76	27253.32	0.06
2007/08	1034.16	17721.93	0.058	1978.69	37132.76	0.05
2008/09	1347.76	20496.01	0.066	2798.49	43867.39	0.06

Appendix 15

Total Interest Paid to Total Working Fund Ratio

(Rs. in Millions)

Banks	**BOK Ltd.**			**NABIL**		
Fiscal Year	Total Interest Paid	Working Fund	Ratio	Total Interest Paid	Working Fund	Ratio
2004/05	241.64	9857.11	0.025	243.54	17186.32	0.014
2005/06	308.15	12278.27	0.025	357.16	22329.97	0.016
2006/07	339.18	14569.55	0.023	555.71	27253.32	0.02
2007/08	417.54	17721.93	0.024	758.44	37132.76	0.021
2008/09	563.11	20496.01	0.027	1153.28	43867.39	0.026

Appendix 16

Credit Risk Ratio

(Rs. in Millions)

Banks	**BOK Ltd.**			**NABIL**		
Fiscal Year	Loan and Advances	Total Assets	Ratio	Loan and Advances	Total Assets	Ratio
2004/05	5912.58	9857.11	0.59	10586.17	17186.32	0.62
2005/06	7259.08	12278.27	0.59	12922.55	22329.97	0.58
2006/07	9399.33	14569.55	0.65	15545.78	27253.32	0.57
2007/08	12462.64	17721.93	0.70	21365.05	37132.76	0.58
2008/09	14647.31	20496.01	0.72	27589.93	43867.39	0.63

Appendix 17

Capital Risk Ratio

(Rs. in Millions)

Banks	**BOK Ltd.**			**NABIL**		
Fiscal Year	Capital	Risk Weight Assets	Ratio	Capital	Risk Weight Assets	Ratio
2004/05	720.72	6926.85	0.104	1658.00	14193.07	0.117
2005/06	839.71	7583.65	0.111	1875.00	16976.37	0.111
2006/07	993.27	10226.19	0.097	2057.04	19166.77	0.107
2007/08	1342.07	13702.36	0.098	2437.19	27010.56	0.09
2008/09	1741.59	26101.47	0.067	3130.24	34816.5	0.09

Appendix 18

Calculation of Growth Ratio

Let,

Dn = Variable in the Nth Year

Po= Variable in the initial Year

n = No of period study

g = Growth Rate

Total Deposit growth ratio of BOK

$D_n = Do\ (1+g)^{n-1}$

$18033.98 = 8942.75\ (1+g)^{5-1}$

$1+g = \left(\frac{18033.98}{8942.75}\right)^{\frac{1}{4}}$

g = 19 %

Total Deposit growth ratio of NABIL

$D_n = Do\ (1+g)^{n-1}$

$37348.25 = 14586.61\ (1+g)^{5-1}$

$1+g = \left(\frac{37348.25}{14586.61}\right)^{\frac{1}{4}}$

g = 26 %

Total Loan and advances growth ratio of BOK

$D_n = Do\ (1+g)^{n-1}$

$14647.31 = 5912.58(1+g)^{5-1}$

$1+g = \left(\frac{14647.31}{5912.58}\right)^{\frac{1}{4}}$

g = 25 %

Total Loan and advances growth ratio of NABIL

Dn = Do $(1+g)^{n-1}$

27589.93 = 8189.99 $(1+g)^{5-1}$

1+g = $\left(\frac{27589.93}{8189.99}\right)^{\frac{1}{4}}$

g = 35 %

Total Investment growth ratio of BOK

D_n = Do $(1+g)^{n-1}$

2786.36 = 2598.24 $(1+g)^{5-1}$

1+g = $\left(\frac{27863.6}{2598.24}\right)^{\frac{1}{4}}$

g = 17%

Total Investment growth ratio of NABIL

D_n = Do $(1+g)^{n-1}$

10874.81 =4267.23 $(1+g)^{5-1}$

1+g = $\left(\frac{10874.81}{4267.23}\right)^{\frac{1}{4}}$

g = 26 %

Total Net Profit Growth Rate of BOK

D_n = Do $(1+g)^{n-1}$

262.37 = 82.13 $(1+g)^{5-1}$

1+g = $\left(\frac{461.73}{139.53}\right)^{\frac{1}{4}}$

g = 35%

Total Net profit Growth Rate of NABIL

D_n = Do $(1+g)^{n-1}$

1031.05 = 518.63 $(1+g)^{5-1}$

$1+g = \left(\frac{1031.05}{518.63}\right)^{\frac{1}{4}}$

g = 19%

Appendix 19

Trend Analysis of Total Deposit of BOK

(Rs. in Millions)

Fiscal Year (t)	Total Deposit (Y)	$X = t - 2007$	X^2	XY	$Y_c = a + bx$
2004/05	8942.27	-2	4	-17885.5	8430.76
2005/06	10485.34	-1	1	-10485.34	16783.85
2006/07	12388.92	0	0	0	13136.94
2007/08	15833.74	1	1	15833.73	15490.03
2008/09	18083.98	2	4	36067.96	17843.12
Total	$\sum X =$ 65734.25		$\sum X^2 = 10$	$\sum XY = 23530.8$	

$a = \frac{\Sigma Y}{n} = \frac{65684.72}{5} = 13136.94$

$b = \frac{\Sigma XY}{\Sigma X^2} = \frac{23530.85}{10} = 2353.09$

Projects trend values of total deposit for next five years

Fiscal Year	$X = t - 2007$	$Y_c = a + bx$
2009/10	3	20196.21
2010/11	4	22549.3
2011/12	5	24902.39
2012/13	6	27255.48
2013/14	7	29608.57

Appendix 20

Coefficient of correlation between Total Deposit and Total Investment of BOK

(Rs. in Millions)

Fiscal Year	Total Deposit (X)	X $X=X-\bar{X}$	X^2	Total Investment (Y)	Y $Y=Y-\bar{Y}$	Y^2	XY
2004/05	8942.75	-56741.97	3219651159.49	2598.24	-12363.04	152844758.04	701503244.79
2005/06	10485. 34	-55199.38	3046971552.38	3374.66	-11586.62	134249763.02	639574240.29
2006/07	12388. 92	-53295.8	2840442297.64	2995.19	-11966.09	143187309.89	637742339.42
2007/08	15833. 74	-49850.99	2485121203.98	3206.83	-11754.45	138167094.80	585970969.41
2008/09	18033. 98	-47650.74	2270593022.55	2786.36	-12174.92	148228677.00	580143947.44
	$\bar{X}$ = 65684.73		? X^2 = 13862779236.04	$\bar{Y}$ = 14961.28		? Y^2 = 716677602.75	? XY = 3144934741.35

Coefficient of correlation (r):

$$r = \frac{\Sigma XY}{\sqrt{\Sigma x^2} \sqrt{\Sigma y^2}}$$

$$= \frac{3144934741.35}{\sqrt{13862779236.04} \times \sqrt{716677602.75}}$$

= 0.9954

Coefficient of Determination $(r)^2$ = 0.9954

Calculation of Probable Error

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

$$= 0.6745 \times \frac{1 - 0.9954}{\sqrt{5}}$$

6 (p. E. r) = 6×0.0013 = 0.0083

All the Calculation of Trend Analysis of other banks is done similarly.