

# I

## INTRODUCTION

### 1.1 General Background

Financial analysis is the process of identifying the financial strength and weaknesses of the firms by properly establishing relationships between the items of the balance sheet and the profit and loss account. Balance sheet shows the financial position on a particular data in terms of structure of assets, liabilities and owner's equity, and profit and loss account shows the profit earned and loss sustained during a specified period. The focus of financial analysis is on key figures in the financial statements and the significant relationships that exist between them. It helps to obtain better understanding of firms' position and performance. The first step involves selecting the information, second step involves arranging the information in a way to highlight significant relationship, the final step is interpretation and drawing of conclusion. In brief, financial analysis is the process of selection, relation and evaluation.

profitability of a concern, the operational efficiency of a concern, the short and long term solvency of firms and a comparative study regarding one firm with another.

A study on financial performance analysis requires two firms or organizations. It compares the financial performance between the selected firms, so as to draw conclusions on the performance of the firms. These results help to determine the performance, achievement and weakness of the business in compare to the firm having similar capital structure, service, etc.

Financial analysis using business Main uses of financial analysis is to assess the present and future or financial ratios and norms provides a means of assessing a firm's strength and weakness. Using data

from the balance sheet and income statement, various ratios can be calculated, which can then be compared directly to those of competing firms of varying sizes. Comparing the firm's operating results with those of specific competitors or the industry as a whole, helps in identifying relative strengths and weaknesses. In addition, comparing changes in a firm's ratios over time can highlight improvements in performance or problem areas needing attention.

Ratio analysis has been accepted as the most dominant financial tool to analyze and interpret the financial statements. The relationship between two figures expressed mathematically is known as financial ratio. It is the systematic use of ratio to interpret the financial statement so that the strength and weakness of the firms as well as its historical performance and current financial condition can be determined. Thus, ratio is defined as "the indicated quotient of two mathematical expressions, and the relationship between two or more things".

"Financial ratio helps us to find the symptoms of problem. The cause of any problem may be determined only after locating the symptoms. Operational and financial problem of a corporation can be ascertained by examining the behavior of these ratios".

Ratio analysis is such a powerful tool of financial analysis that through it, economic and financial position of a business unit can be fully x-rayed. Just as blood pressure, pulse and temperature are the measures of the health of an individual, so does ratio analysis measure the economic and financial position of a firm. It can be fully x-rayed through ratio analysis. Ratio analysis can also help to check whether a business is doing better this year than last year and it can tell if the business is doing better or worse than other businesses doing and selling the same things.

## 1.2 Meaning of Bank

Bank is financial institution, which plays a significant role in the development of a country. The history of banking transaction is as old as our civilization. People used to save and keep their money with the persons having some credibility for security and for use in their old age. In ancient times, goldsmith used to keep people's valuable goods for nominal changes against the deposit. Then people deposited their gold and valuable goods for the sake of security rather than earning interest. Mostly at the time goldsmith performed this task, but now various types of banks have been acting in this field.

In England, Goldsmiths were the bankers in an ancient period. They used to lend money to the government and also at the time of emergency to keep deposits for safety purposes. People used to keep their ornaments with goldsmiths for safety. In ancient times, the function of foreign exchange also used to be done by Goldsmiths, Merchants and Money lenders.

The term 'bank' was originated from the Italian word 'Banco'. "A bank is a business organization that receives and holds deposits from others, lends loan or extends credit and transfers funds by written orders of depositors.

The business in banking is one of the collecting funds from the community and extending credit (Making Loans) to people for useful purpose. Banks have played a pivotal role in moving money from lenders to borrowers. Banking is a profit seeking business not a community charity. As a profit seeker it is expected to pay dividends and otherwise add to the wealth of its shareholders.

Bank can be defined as a financial intermediary between depositors and entrepreneurs. It is a financial institution that accepts deposits and channels the money into leading activities. In a general sense, bank acts as a

financial intermediary. Intermediation is between depositors and entrepreneurs. A bank is an institution that deals with money by accepting deposits from general public, corporate bodies and private organizations and deploys those deposits for profitable purposes in the form of loans and advances. Bank, by accepting deposits, takes up the role of custodian of public money. The transactions in the financial market heavily depend up on the banking system of the country. Without bank, it will be quite impossible for the industrialist and entrepreneurs to go directly to general public for getting their saving for investment. So, the simplest definitions that, bank takes the savings of the public by providing them with certain rate of interest and loans it to needy customers charging them higher rate of interest and thus earns some profit by doing these transactions. This is the broadest form of banking, but in this age and time, their functions have increased manifold Remitting of money, letter of credit, guarantee, issues of money. Controlling monetary activities of country etc. are also major functions of Bank. For better understanding, an in-depth study of bank has been conducted. The term bank is mainly related with financial transactions to operate, run and facilitate various monetary activities.

According to concise Oxford Dictionary, the term bank has been defined as, "A bank is an establishment of the custody of money which it pays out on customers order". In the world of kent, "A bank is an organization whose principal operations are concerned with the accumulations of the temporarily idle money of the general public for the purpose of advancing to other for expenditure."

A banker or bank is a person or company carrying on the business of receiving moneys, and collecting drafts, for customers subject to the

obligation of honouring cheques drawn upon them from time to time by the customers to the extent of the amounts available on their current accounts.

Indian company acts defines banking as "the accepting for the purpose of lending or investment of deposits of money from the public repayable on demand otherwise, and with draw able by cheques, draft or otherwise." Like wise united states law have defined it as, "any institution offering deposits subject to withdrawal on demand and making loan of commercial or business nature is a bank".

Therefore, bank can easily be defined as the custodians of deposits. Bank is an institution which deals with money by accepting various types of deposits, disbursing loans and rendering other financial services. "A bank is a business organization that receives and holds deposits of funds from others, makes loans or extends credits and transfer funds by written orders of depositors".

"The more developed financial system of the world characteristically falls into three parts: central bank, commercial banks, and other financial institutions". The two banks selected for the study are joint venture commercial banks.

In the present Nepalese context three types of Banks have been separately performing their activities in different sectors, such as central bank, commercial banks and development banks. Three types of commercial banks have been operating in Nepal, in the public sector like Nepal bank limited, the joint venture with foreign banks like Bank of Kathmandu, NABIL Bank Ltd; by private participations like Lumbini bank limited etc.

### **1.3 Joint Ventures Banks in Nepal**

Joint venture banks are sophisticated investors willing to take substantial risks in the hope of large gains if their portfolio firm. In 2039

B.S. government had forwarded the liberal policy and after that government's liberalization of economic policy has attracted the foreign investment. As a result a first joint venture banks in Nepal was Nepal Arab Bank Ltd., now its name has to be changed in NABIL Bank.

The joining forces between two or more enterprises for the same purpose of commercial investment production and trade.

"When two or more independent firms mutually decide to participate in a business venture, contribute to the total equity or more or less capital and establish a new organization, it is known as joint venture."

The Nepalese JVBS established under the rules, regulation under the guidance of Nepal Rastra Bank (NRB)

"MG's deliberate policy of allowing foreign JVBS to operate in Nepal is basically targeted to encourage local traditionally run commercial banks to enhance their balanceable capacity through competition efficiency modernization mechanization via computerization and prompt customer service."

The main objective of joint ventures is fulfilling the shortage of funds required rather to invest in development works and to conduct competitive environment with the domestic commercial banks. Such objectives highlighted how to boost up those banks actual conditions whatever they are operated. JVBS also introduce New Method and Technology in Banking, services, providing more resources for investment and offering better links with international market etc.

### **Bank of Kathmandu**

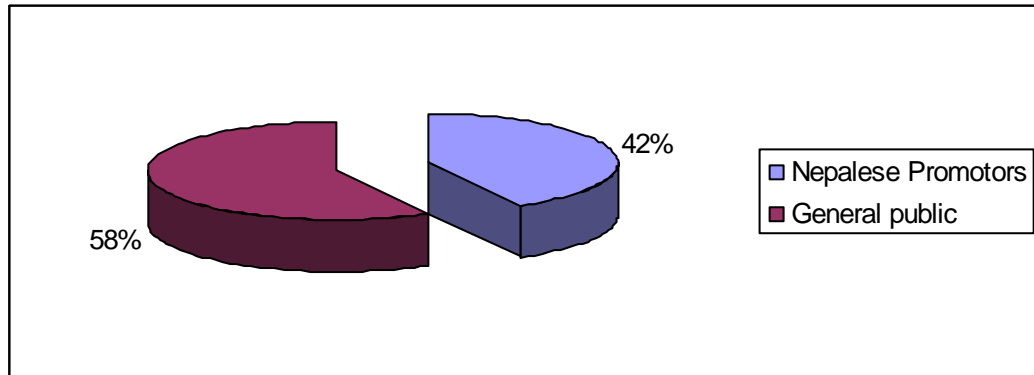
Bank of Kathmandu is one of the leading bank of Nepal. Bank of Kathmandu was established in 2051 B.S. (March 1995) under Joint investment of the siam commercial bank, Thailand. The share of the siam

commercial bank has old to general public of Nepal and Management is handed over the Nepalese. The share holding of Bank of Kathmandu.

Nepalese Promoter 42%

General Public 58%

The share holding of BOK



Currently authorized capital of this bank is 1000 million, issued capital 606.1733 million and paid up capital 603.1413 million.

### Share Ownership

Share ownership particular	Percent
1. Promoter	42%
1.1 Nepal Government	
1.2 Commercial Bank	
1.3 Financial institution	
1.4 Other institutions	2%
1.5 General public	40%
1.6 Foreign ownership	
2. General public	58%
Total	100%

### Branches of BOK

Branches in Kathmandu Valley

- Kamalpokhari Head Office
- Thamel Branch
- New Road Branch
- Jawalkhel Branch
- Gangebu Branch

### **Outside the Valley**

- Biratnagar Branch
- Hetauda Branch
- Pokhara Branch
- Butwal Branch
- Nepalgunj Branch
- Dhangadi Branch
- Birgunj Branch
- Amlekhgunj Branch
- Janakpur Branch
- Ithari Branch
- Kohalpur Branch
- Tatopani Branch

### **Board of Director**

Sanjaya Bahadur Shah	Chairman
Radesh Pant	CEO
Sitaram Thapalia	Director
Rita Mall	Director
Balarma Neupane	Director
Bishnu Prasad Banjade	Director
Sudharsan Raj Pandeyal	Director
Sant Bar Singh Thapa	Director

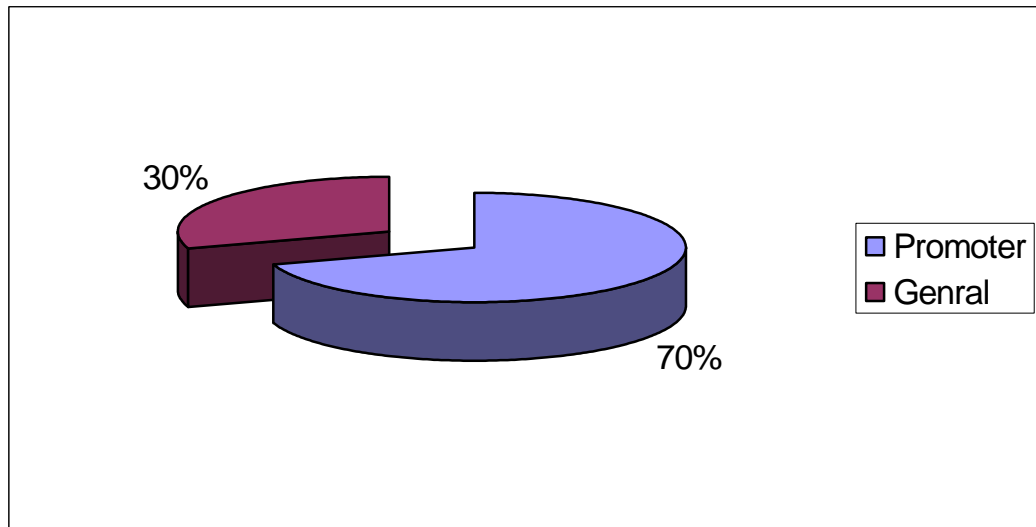


## Nabil Bank Limited

Nabil Bank Limited (erstwhile Nepal Arab Bank Limited) was established on July 12<sup>th</sup> 1984 under a technical service agreement with Dubai Bank Limited, Dubai, which was later Merged with Emirates Bank Ltd; Dubai. Nabil Bank is the first and Major joint venture bank in the country with key points of representation all over the kingdom of Nepal. The bank is managed by a team of qualified and highly experienced professionals.

The share holdings of NABIL Bank Limited

Promoter	70%
General	30%



Currently authorized capital of this bank is 500 million, issued capital 491.6544 million and paid up capital is 491.6544 million.

## Share Ownership

Share ownership particular	Percent
1. Promoter	70%
1.1 NBAL	
1.2 Commercial Bank	
1.3 Financial Institutions	10%
1.4 Other institutions	10%
1.5 Foreign Ownership	50%
2. General Public	30%
Total	100%

### Branches of Nabil Bank

#### Branches in Kathmandu Valley

- Kamalpokhari Head office
- Kantipath Branch
- Tripureshwar Branch
- New Road Branch
- Jorpati Branch
- Lalitpur Branch
- Maharajgunj Branch
- Satahi Counter Kathmandu.

#### Outside the valley

- Birgunj Branch
- Powerhouse chowk Branch
- Biratnagar Branch
- Ithari Branch
- Butwal Branch

- Valwadi Branch, Rupandehi
- Pokhara Branch
- Bhairahawa Branch
- Nepalgun Branch
- Lake side Branch, Pokhara
- Dharan Branch

### **Board of director**

Satendra Para Shrestha	Chairman
Anil Shah	CEO
Supriya Gupta	Director
Shambhu Poudyal	Director
Dayaram Gopal Agrawal	Director
Milan Bikram Shah	Director
Achute Buggyae	Director
Tabith Ayaal	Director
Mohiyudin Ahmad	Director

### **1.4 Focus of the Study**

In Nepal, commercial banks start with the establishment of "Nepal Bank Ltd (NBL), under the Nepal Bank Act 1993 B.S. the authorized capital was contributed by the government 51% and remaining by public (i.e. 49%). NBL was established in 1994 B.S. in 2022 B.S. the government solely established Rastriya Banijya Bank under its Banijya Bank act 2021 B.S. with the purpose of enhancing agricultural development. Like this, Many commercials and financial company have opened up within few year periods. Banks and other financial institutions are the major prerequisites for the overall economic development of a country. These institutions indulge in resource mobilization and capital formation process, which initiates are, supports the growth of

trade and industry within the country. Basically, joint venture banks have given a new horizon to the financial sectors of Nepal. Due to professionalism and services, they got the tremendous success in terms of market share and profitability. This study focuses on the financial performance of two joint venture banks. NABIL bank Ltd (Nabil) and Bank of Kathmandu (BOK)

NABIL bank was established in 1984 as the first joint venture bank of Nepal. The bank was started with the equity investment of Dubai Bank under the commercial bank act of Nepal. The bank has currently authorized capital Rs. 500 million of which Rs 491.65 million is issued capital and 491.65 is paid up capital.

Bank of Kathmandu (BOK) a culmination of the comprehensive vision of the promoters to take the Nepalese economy to a newer real in the Global Market was incorporated in 1993 and commenced operations in March 1995. The bank has currently authorized capital Rs 1000 million, issued capital is Rs. 606.17 million and paid up capital is 603.14 million.

### **1.5 Statement of the Problem**

Establishment of Private joint ventures banks have continued in response to the economic liberalization policies of the government. Because of the liberalization policies, establishment of the commercial banks grows rapidly and face a competition.

Therefore, the present study tries to address following research questions:

- a. How are the financial performance of the NABIL and BOK?
- b. What is the rate of return in investment of the both banks?
  
- c. What is the impact of EPS, DPS and Marketability of shares and common equity holders of both banks?

### **1.6 Objectives of the Study**

The principal objectives of this study are as follows:

- a. To measure the financial performance.
- b. To analyze the financial strength and weakness.
- c. To have comparative analysis of the liquidity position, profitability. status, activity ratio and growth ratio.

### **1.7 Importance of the Study**

Banking sector has been one of the major contributors to national economy providing variety of disbursement to different sectors, enabling to boost the GDP. Hence the performance of this sector needs to be above the par to any other field. The financial performance of commercial banking sector should be very much capable in enhancing the capital market as well. It is therefore, imperative that this study bears importance to the following:

Main significance of the study is:

- To the shareholders
- To the general public
- To the management of joint ventures banks.
- To other financial users

### **1.8 Limitation of the Study**

Following are the limitation and methods of the study.

1. The study mainly concentrates of the financial aspect of BOK and NABIL Bank Ltd.
2. The study covers only 5 years of study spanning from the fiscal year 2002/03 to 2006/07.
3. The study focuses only the financial performance of these two banks.
4. This study deals with certain statistical as well as financial tools such as ratio analysis.

5. The data used in the study shall be of secondary type the data published in the annual report of the banks in various journals and report by the central bank
6. All the analysis in this study has been conducted based on the data as of end of the fiscal years i.e. mid July of respective years any abnormality in this date May affect the conclusion of the study

### **1.9 Organization of the Study**

Chapter I: Introduction

Chapter II: Review of Literature

Chapter III: Research of Methodology

Chapter IV: Presentation, Data analysis and findings

Chapter V: Summary, conclusion and Recommendation.

## **CHAPTER - II**

### **REVIEW OF LITERATURE**

In this chapter, review of relevant dissertation to make the base of Knowledge for the study various thesis study have been conducted in different aspect of commercial bank on joint venture bank such as lending policy, liquidity position, interest rate structure, etc. Review of literature comprise with previous articles concerned with this study, i.e. financial performance regarding with financial corporation company etc. The studies of previous thesis are reviewed.

#### **In Subject to Financial Performance of Commercial Banks**

Manohar Krishna Shrestha concludes that JVBS are new, operationally more efficient, having superior performance comparison with local banks. Better performance of JVBS is due to their sophisticated technology, modern banking method, and skill. Their better performance is also due to the governments branching policy in rural areas and financing pees. Local banks are efficient in rural sector. Despite having a number of deficiency local banks have to face growing constraints of socio-economic political, system on one hand spectrum and that of issues and challenges of JVBS commanding. Significant banking business on other spectrum

B.R. Bohara's unpublished thesis concludes that the objectives of this study are policies and basic functions of JVB comparative liquidity, activity, profitability and interest coverage ratios. But his findings are as current ratio-loans and advance to current assets ratio and fixed deposit to total deposit ratio of NIBL higher than NABIL, Activity ratio of NIBL is also higher than NABIL. NABIL has higher coverage ratio that NIBL. In profitability ratio interest earn to total assets and return on net worth ratio of NIBL is better than that of NABIL, but net profit to total assets ratio and net

profit to total deposits ratio of NABIL is better than NIBL. Thus, NIBL has been adopting aggressive lending policy, investment and borrowing policy to earn more than NABIL. The study is concluded that "Bank performance can not be judged solely in terms of profit it has earned profit by maintaining adequate liquidity and safety position. But it should also evaluated on the ground of the contribution, it has made assist on community, government and national economy or to the social and national priority tasks, i.e. more deposit mobilization, resource mobilization. That tasks are possible when they expand branches, more employment eye, services to more customers, developing skills and expertise in local staffs, satisfaction on profit earning and exchange of autonomy provided by them. The accountability can be discharged by following their rules, regulations instruction, directions and priorities.

Dinesh Raj Shakya, also found that higher debt equity ratio, inadequate investment to priority sector, highly invested on government security and debenture, bond lower profit margin due to higher operating cost and higher interest expense in both banks (NABIL and NGBL). On the other EPS, DPS are increasing each year. Liquidity position of the bank (NABIL and NGBL) is satisfactory. Return ratio are in fluctuating trend where ROA, ROE of NGBL are greater then NABIL. But interest earned to total outside assets ratio of NABIL is higher that of NGBL. NGBL's profitability is more satisfactory that that of NABIL.

Shakya recommends utilizing its risky assets, SHS, funds and total assets are more efficiently for generating more profit margin. Both banks should reduce their expenses for being more profitable. They should be more active to earn operating income rather non-operating income i.e. foreign fluctuation again.



V.C. Gurung, in his thesis he has settled such objective analyze financial position of banks to measure their various ratios which has elaborate the financial performance. His major findings are NIBL and NGBL has unsatisfactory liquidity position. Activity ratio in both banks have efficient in utilizing their total assets, through NIBL has out performed in this regard. Profitability record of both banks reflect the high profitability of those leading to the ultimately threat to the solvency of banks. The liquidity, profitability and dividend payout ratio of two banks seem to be favorable. These represent the strengths and decreasing trend of profit on deposit, represents the weak aspect of banks. As compared with NGBL to NIBL seems to be slightly better in terms of liquidity, profitability and capital structure. It is thus evidence from the analysis that NIBL promises a better than NGBL.

Mahendra Mandal has analyzed in his thesis "A comparative financial analysis of NIBL and NGBL, he found that the situation of the banks is quite different than that of general business enterprises. Moreover, from the point of view of working capital policy NIBL and NGBL have followed aggressive working capital policy than NIBL, but from the point of view of liquidity position, NIBL is better than that of two banks. Further, net profit to total assets ratios in the case of NIBL has registered better performance by utilizing its over all resources for earning more profit than other two banks (NIBL and NGBL)

Gyanendra Acharya, in his thesis "A comparative study of financial performance of joint venture banks in Nepal especially on NABIL and NIBL ltd.". He said that the liquidity position of both the banks is below the normal standard of 2:1. Comparatively this ratio of NIBL is better on average. Both the banks are found to be efficient in utilizing most of their

total assets. Capital structure is highly leveraged, capital adequacy ratio of NIBL is better than of NABIL. The profitability position of both banks is not recorded as satisfactory. Based on the finding of analysis, the research suggests finding out the root cause of weak liquidity position to improve the liquidity of both banks. Both banks are suggested to maintain and improved capital structure by increasing equity base, to extend loan and advance to utilize more of the total deposits, to minimize operational expenses or to mobilize resources more efficiently and to extend their banking facilities even in the rural areas.

Prakash Chandra Parajuli has written in his thesis "A comparative study of the Financial performance of joint venture banks, comparative study Nepal Grindlays Bank Limited and Nepal Arab Bank Limited." The objective of this study is to examine relative financial performance of banks and to evaluate effectiveness of monitoring and collecting policies of banks. His major findings are the analysis of liquidity ratios. The liquidity positions are relatively higher in case of NABIL which reflects that NABIL is relatively more efficient in meeting its short term obligations. Total deposit ratio is more in NABIL throughout the study period than NGBL. In the study mobilize to deposits, loans and advances to fixed deposit more effectively. Loans and advances to fixed deposit ratio. DPS and DPR of NGBL is higher than of NABIL is an average.

Profitability ratios which measure the banks capacity to earn the means of substance are different in these two banks. Capacity to earn the means of substance is different in these two banks. During the study time, NGBL has better result in respect of net profit to total assets ratio, net profit to total deposit, return on net worth, return on assets and ROSE that NABIL. But NABIL has better performance in respect to ROI. Thus, it may be

concluded that NGBL may have bright future than that of NABIL because it is quite efficient in generating the means of subsistence.

Yam P. Luitel's, "A comparative study of Birgunj Sugar Factory Ltd and Lumbini Sugar Mills Ltd", he found that: the financial position is aggregate of the liquidity efficiency and profitability conditions since these are poor. It has been concluded that financial position of BSFL and LSML are not found during the study period.

- The liquidity position of the BSFL is better than that of LSML as revealed by the current ratio and quick ratio.
- BSFL had enough cash to meet current obligation in average during the study period which also ensured the higher liquidity of the BSFL.
- The inventory turnover of BSFL and LSML is satisfactory but in case of BSFL, fixed Asset's turnover, current assets turnover ratio and total assets turnover are satisfactory, which indicates that BSFL is unable to utilize its resources to generate sufficient sales and profit.
- In case of LSML the inventory turnover ratio is not good than BSFL. But in last two years inventory turnover ratio is good. It indicates that LSML is able to utilize its resources to generate sufficient sales and profit volume.

Radhe Shyam Pradhan's thesis "A study of Financial Ratios of Public Corporations of Nepal" had evaluated PEs through the financial ratios for this. His ratios found that:

- The overall performance of the manufacturing and non manufacturing groups of PEs as implied by the average ratios of return on total assets and profit margin on sales is not encouraging.

- The manufacturing corporations have higher ratios of return on total assets, profit margin on sales and return on net worth compared to the non manufacturing corporations.
- The current liquidity measures indicate that the liquidity position of most of the corps is poor because they have either negative cash flows or earnings or they have excessive net current debts which can not be paid with in a year
- Generally, the manufacturing corporations have a higher turnover of cash and receivable then the non-manufacturing corporations i.e. the turnover of currents assets, net working capital, inventories, fixed assets and total assets of the latter is higher than that of the former.,

### **In subject to Liquidity of Commercial Banks:**

Manohar K. Shrestha has published "Appraisal of Financial Position" in NBL Partrika that the maintenance of a satisfactory level of liquidity is significant enough to meet the deposit liabilities that are to be paid on demand not only that paying ability of the bank but at times unsure the smooth operations to a considerable extent.

I.M. Pandey also written in his book "Financial Management", a firm should ensure that it does not suffer from lack of liquidity and also that it is not too much highly liquid. The failure of a company to meet its obligation due to lack of sufficient liquidity, will result confidence, or even in law suit resulting in the closer of the company. A very high degree of liquidity is also bad; idle assets earn nothing. The firm's funds will be unnecessarily tied up in the current asets. Therefor, it is necessary to strike a proper balance between liquidity and lack of liquidity.

David Williams also said that cash is a sterile, non-earning asset which provides perfect liquidity and also can be converted into other assets without any delay or difficult or loss.

Regarding, the liquidity position of commercial banks, Keshav Raj Joshi's, "A study of financial performacne of commercial banks" concludes that liquidity position of commercial banks are sound. Their debt to equity ratio is high which doubt and solvency. Debt to equity ratio of lo<sub>cal</sub> commercial banks is higher than joint venture banks. Assets utilization for earning purpose is two third of total assets. The main source of income for these banks is interest income from loans and advances and overall profitability position of Nabil is better than others.

**In subject to commercial bank's profitability:**

Pramod Dhungana's "A study of JVBS profitability", his major findings are the profitability ratio of major JVBS viz. NBIL, NGBL and NABIL are satisfactory over the study peiord, exhibiting their better efficiency in utilizing their deposit. However, they are unable to mobilize saving from different parts of the country. The profit as indicator of their financial performance – that displayed on financial statements are inflated because of fluctuation in the foreign currency during the period.

**In the subject to Return on Debt:**

Kamal Pathak recommends that the banks are suggested to collect the funds through issuing share. Return on debt and return on assets ratio are not satisfactory in the both banks. Having geared up capital structure position and insufficient return represent the weak aspect of these two banks. Both the banks are suggested to use the resources in to the most profitable sector.

In the case of Evaluation of financial patterns of Nepalese commercial banks:

Mr. S.L. Bajracharya concludes that through the trend of deposit is increasing, the percentage change in each year is decreasing, commercial banks are contributing to enlarge the gap between collection and utilization of resources. Commercial banks are too liquid oriented to benefit the national development. In proper utilization of resources in creating sort false in economic up liftmen.

About various financial studies of commercial banks have been given more emphasis on liquidity position, profitability and capital structure of the banks.

### **Research Gaps:**

The researcher found that the mostly researcher had also done the financial performance of the banks. But this researcher tries to use new models to do the financial performance of banks like correlation matrix, Trend analysis, hypothesis test etc. And have tried to show its significance to the banks, shareholders, general public, joint ventures banks etc.

## **CHAPTER - III**

### **RESEARCH METHODOLOGY**

Research is a systematic method of finding out solution to a problem where as research methodology refers to the various sequential steps to adopt by a researcher in studying a problem with certain object in view. To find out such solutions of problems various statistical and financial tools and technique are applied according to the nature of phenomena.

#### **3.1 Research Design**

An analysis of financial performance of two JVBs. In this study analytical type of research design will be followed. This design will used for clearing the situation on the basis of presented data and facts.

##### **3.1.1. Sources of Data**

This study is based on secondary data. Secondary data is collected from their annual report especially from Balance sheet, profit and loss account, bulletins which is made by concerned bank and web sites.

##### **3.1.2 Population and Sample**

Out of total 27 commercial banks, using purposive sampling NABIL and BANK of Kathmandu have been selected as sample for the present study.

##### **3.1.3. Methods of Data Collection**

Secondary data are directly obtained from various sources mentioned above specially to obtain data from official records of the related banks. The researcher has to visit the firm frequently and get it from the record

##### **3.1.4 Methods of Data Analysis**

For the purpose of analysis, financial statement of concerned institutions the balance sheet and profit and loss account of the bank have

been analyzed and tabulated according to the subject using the financial and statistical tools.

### **3.2 Data analysis tools**

For the purpose of analysis, financial statements of concerned institutions the balance sheet and profit and loss account of the bank have been analyzed and tabulated according to the subject using the financial and statistical tools.

#### **3.2.1 Financial Tools:**

Among the different financial tools the researcher have an extensively used into analysis method. The following ratios have been used?

3.2.1.1 Liquidity Ratio

3.2.1.2 Activity Ratio

3.2.1.3 Profitability Ratio

3.2.1.4 Growth Ratio

#### **3.2.2. Statistical Tools**

- a. Correlation
- b. Trend Analysis
- c. Test of Hypothesis



## CHAPTER - IV

### DATA PRESENTATION, ANALYSIS AND FINDINGS

In this chapter , the researcher analysis and interprets the relevant and analyze data of Nabil and BOK to measure the various dimension of the problem of the study.

#### 4.1 Financial Tools

Among the different financial tools the researcher have an extensively used in to analysis method.

##### 4.1.1 Liquidity Ratio

The liquidity ratio measures the ability of firm to meet its short term obligations and reflect the short-term financial strength/solvency of the firm. The ratios which indicate the liquidity of a firm are net working capital, current ratios and acid test quick ratio, super quick ratio and turnover ratio.

Liquidity ratio is the relationship between current assets and current liabilities. These ratios are calculated to judge the financial position of the firm. From long-term as well as short term solvency point of view. It is also known as financial ratio.

The following ratios are computed to find out the short term solvency:

##### 4.1.1.1 Current Ratio

Current ratio is also known as working capital ratio. The current ratio is computed by dividing current assets by current liabilities. Current assets normally include cash, marketable securities, account receivables and inventories. Current liabilities consist of account payable, short term notes payable, current maturities long term debt, accrued income and other accrued expenses. The current assets should be twice of current liabilities (i.e. 2:1)

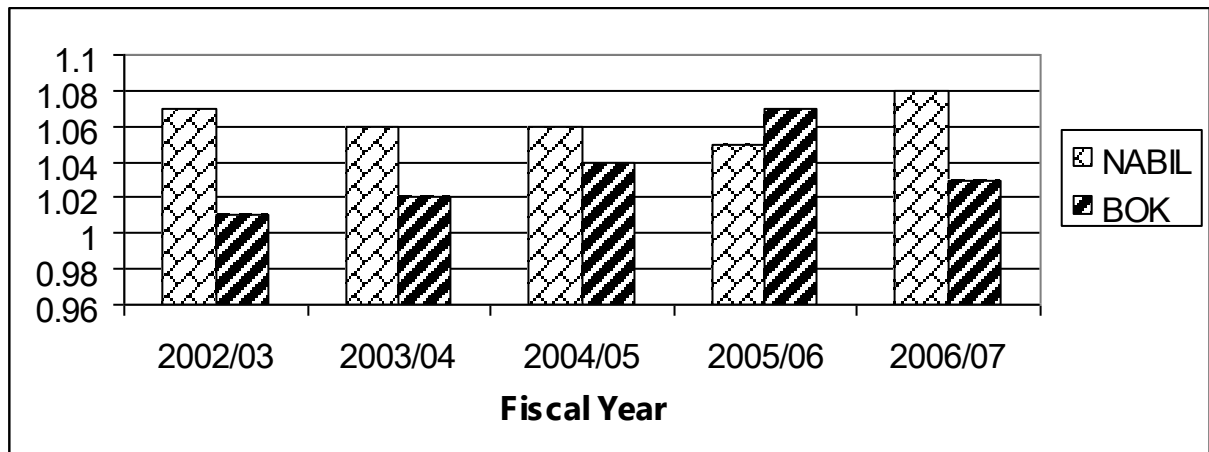
$$\text{Current Assets} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Calculation of  $\bar{X}$  and  $\sigma$  and co-efficient of variation of current ratios. Current ratio of NABIL and BOK from the fiscal year 2002/03 to 2006/07 are given below in table no. 1 standard deviation is calculated using the formulae STDEV (A<sub>1</sub>:A<sub>5</sub>) mean is calculated by Average (A<sub>1</sub>:A<sub>5</sub>) and C.V. by  $\frac{\sigma}{x} \times 100\%$

**Table No. 1: Current Ratio**

Banks	Current Ratio					Mean	S.D	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	1.07	1.06	1.06	1.05	1.08	1.064	0.0114	1.07
BOK	1.01	1.02	1.04	1.07	1.03	1.034	0.0230	2.22

**Figure No. 1: Current Ratio**



The above table indicates that the current ratio is both banks are more than 100% so it can be said that both commercial banks have sound ability to meet there short-term obligations.

In the case of NABIL current ratios if decreasing from FY 2002/03 to 2005/06 but has slightly increased in 2006/07. BOK has fluctuating trend all over the year

In average NABIL has maintained higher current ratio than BOK. It means NABIL deserves greater capacity to meet short term obligation. It has sufficient current assets to discharge current liabilities but the coefficient of variation between the current ratio of BOK is 2.22% where NABIL has 1.07% so, it also shows that current ratio of BOK is less homogeneous than NABIL

In practice, the normal standard point of current ratio 2:1. It seems that both banks have not poor liquidity position. However, current ratio is only a test of quantity not a test of quality of liquidity position.

#### **4.1.1.2 Cash and Bank Balance to Total Deposits Ratio**

This ratio is employed to measure whether bank and cash balance is sufficient to cover its current calls margin including deposits. A high ratio represents the greater ability to meet their all types of deposit. But too high ratio of cash and bank balance to total deposits may be unsuitable and harmful because it affects their profitability position and also to low ratio is unfavorable as capital will be tied up and opportunity cost will be higher, According to NRB direction, certain percentage of compulsory cash reserved to maintain by commercial banks which is 6% in domestic current and saving deposits and 5% in fixed deposits.

$$\text{Cash and Bank Balance to total deposit ratio} = \frac{\text{Total cash and Bank balance}}{\text{Total deposits}}$$

Where,

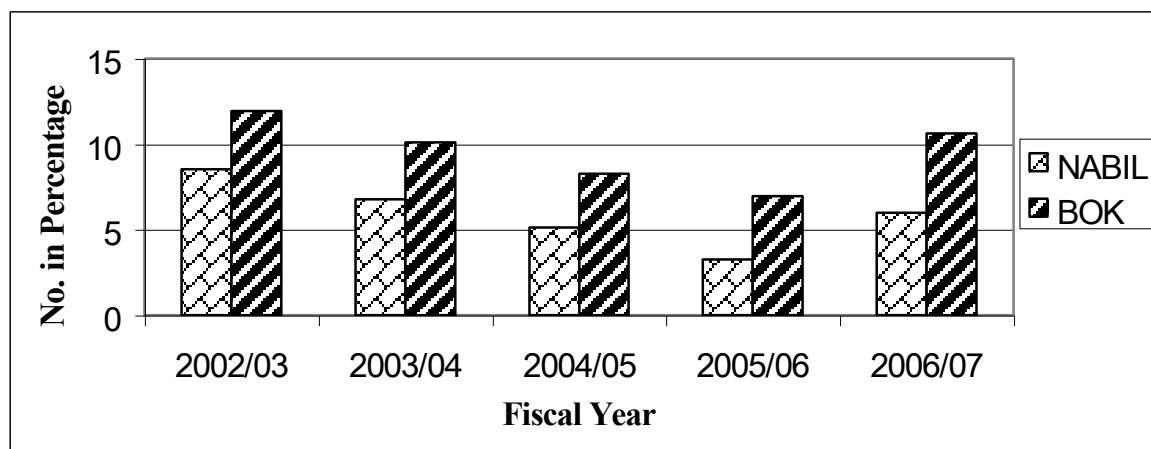
Cash and Bank balance is composed of cash on hand including foreign cheques, other cash items, balance with domestic banks and abroad.

Deposit includes current deposits, saving deposits, fixed deposit and other types of deposits

#### **Table No. 2: Cash and Bank Balance to Total Deposits Ratio**

Banks	Cash and Bank Balance to Total Deposits Ratio					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	8.51	6.78	5.13	3.26	6	5.94	1.96	32.76
BOK	11.93	10.11	8.25	6.95	10.62	9.57	1.98	20.62

**Figure No. 2: Cash and Bank Balance to Total Deposits Ratio**



The ratio quite is relevant to the banks in the sense that they are to maintain adequate balance with them in order to meet the customers demand. The above table shows that the mean, S.D. and C.V. of both banks are better. Both banks has fluctuating trend. NABIL's ratio is high in FY 2002/2003 and lower in 2005/06 and high in FY 2006/07 like that BOK has high in 2002/03 low in 2005/06.

In average, BOK has maintained higher cash and bank balance to total deposits ratio than NABIL and have fulfilled the NRB criteria while NABIL have not. The liquidity position of BOK is better in this regard. The CV of NABIL and BOK is 32.76% and 20.62% respectively. However, the C.V. of BOL is little bit lower than NABIL. It indicates that the variability of ratio of BOK is little bit uniform than that of NABIL.

BOK has maintained highest ratio. It shows that improve of execute modification on the better position regarding the meeting of the demand of its customers on their deposit at any time. It operates in higher risks, Through high ratio indicates its high ability but very high ratios show the inefficiency of utilization of cash and cash equipments.

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

This ratio is found out the ability of banks to pay total call made on current deposit. Cash and bank balance are highly, liquid assets that other in current assets proportions. So this ratio visualize higher liquidity position that current ratio. Higher ratio indicates the banks ability to meet the daily cash requirement of their customer deposit and vice-versa. But higher ratio is not preferred as the bank has to pay more interest on deposit and will increase the cost of fund. Lower ratio is also very risky as the bank may not be able to make the payment against the cheques presented by the clients. So, the bank has must be maintain such ratio in that way that it should have sufficient cash for the clients demand against deposit when required and less interest to pay against the cash deposit.

The depositors could not withdraw the total deposit, in case, at a time so a certain margin of cash is kept by the bank. This ratio indicates that, if the ratio is higher, there is a higher margin and if lower, the bank is less liquid. These ratios not only analyze the use of total resources of the firm but also the use of various components of total assets.

$$\text{Cash and Bank Balance to current assets Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Current Assets}}$$

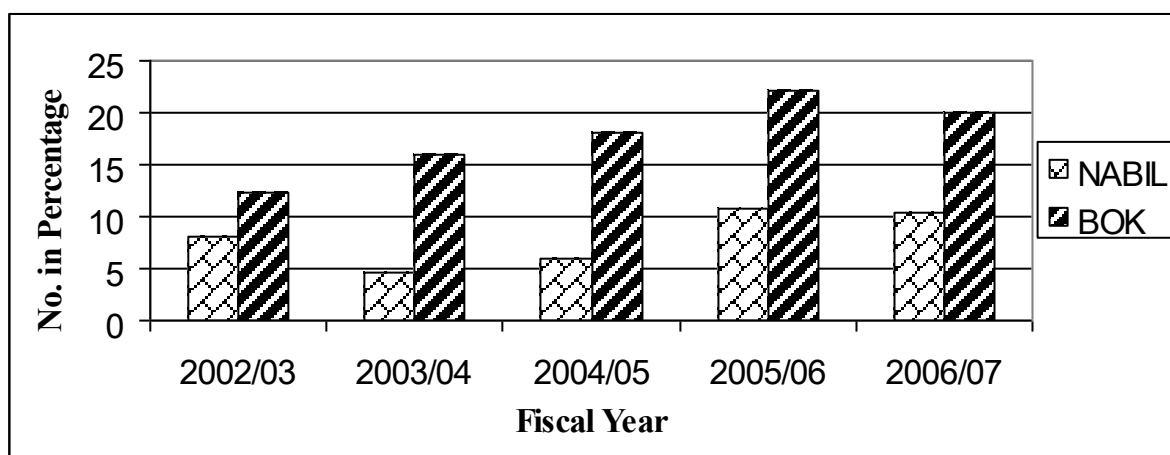
Where, cash and bank balance is composed of cash on hand including foreign cheques, other cash items, balance with domestic banks and abroad.

Current assets means of cash and bank balance money at call or short term notice, loan and advances, investment in government securities and other interest receivable and other miscellaneous current assets

**Table No. 3: Cash and Bank Balance to Current Assets Ratio**

Banks	Cash and Bank Balance to Current Assets Ratio					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	8.02	4.63	6.04	10.68	10.42	7.96	2.66	33.41
BOK	12.24	15.91	18.05	22.11	20.02	17.67	3.81	21.56

**Figure No. 3: Cash and Bank Balance to Current Assets Ratio**



The above table shows that the cash and Bank balance to current assets ratio of both banks are better as they shows the ability to manage the deposit with draws from the customers.

Both Banks have followed fluctuating trend. NABIL ratios are high in 2005/06, low in 2003/04 and BOK high ratio is 2005/06 and low in FY 2002/03

In average, BOK has maintained higher cash and bank balance to current assets ratio than NABIL. That means liquidity position of BOK is better and C.V. of BOK is lower than NABIL. It shows the current ratio are more heterogeneous than that of other

banks. It shows to mobilize maximum improving the quick payment of its deposits. In comparison with BOK, NABIL has utilized its fund more efficiently.

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

The government securities are the safest place to make investment. They can be easily sold in the market or they can be converted in to cash in other ways. But the government securities are not so much liquid as cash and bank balance. Instead of that commercial banks are interested to invest their funds collection in various government securities issued by government.

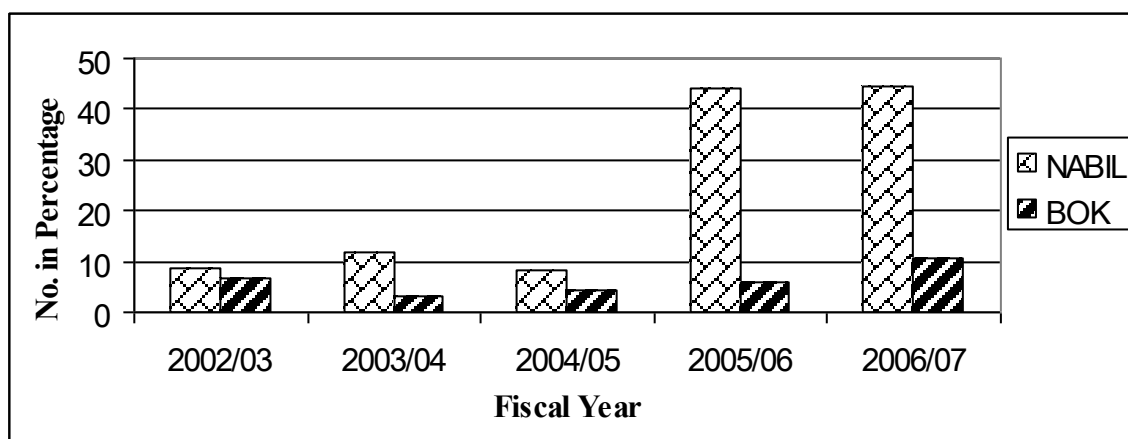
The main purpose of above ratio is to examine that portion of commercial banks current assets that is invested on different govt. securities.

$$\text{Investment of government securities to current Assets} = \frac{\text{Investment in G.S.}}{\text{Current Assets}}$$

**Table No. 4: Investment of Government Securities to Current Ratio**

Banks	Investment of Government Securities to Current Assets Ratio					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	8.83	11.83	8.45	43.98	44.46	23.52	18.94	80.53
BOK	6.67	3.29	4.21	5.79	10.65	6.12	2.85	46.64

**Figure No. 4: Investment of Government Securities to Current Ratio**



In above table shows NABIL maintained highest ratio in FY 2006/07 (44.46%) and lowest in FY 2004/05 (8.45%) which proves highest fluctuating nature while BOK had highest ratio in FY 2006/07 (10.65%) and lowest ratio in FY 2003/04 (3.29%). BOK was also fluctuating but less than NABIL.

The mean ratio of government securities to current assets of NABIL is also high than BOK. It means NABIL has invested its higher as much portion of its current assets to government securities than BOK. C.V. of NABIL is also high than BOK which means that the variability of above said ratio of NABIL is less homogenous

After all researcher must say that NABIL has invested its more portion of current assets to government securities than BOK.

#### 4.1.1.5 Loan and Advances to Current Assets Ratio

To make a high profit mobilizing its fund in the best way, commercial banks should not keep its all collected funds as cash and bank balance but they should be invested as loan and advances to the customers. If sufficient loan and advances can not be granted. It should bear cost of fund on those utilized deposits funds, but high loan and advances may also be harmful to

keep the bank is must liquid position because they can only be collected at the time of maturity only. Thus, a bank must maintain its loan and advances in



appropriate level to find out portion of current assets, which is granted as loan and advances.

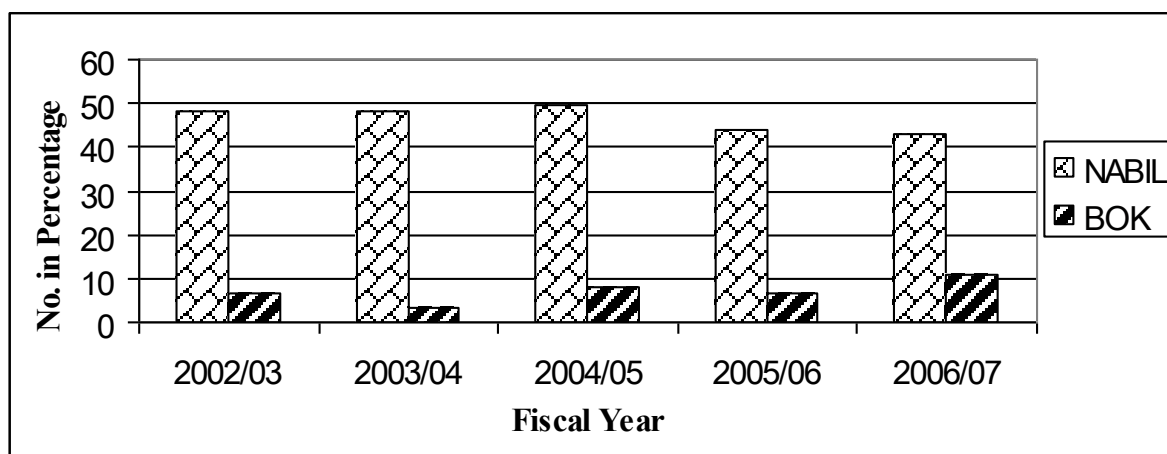
Loan and advances are also included in the current assets of commercial banks because generally it provides short term loan, advances, overdrafts, cash credit, local and foreign bill purchased and discounted.

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

**Table No. 5 : Loan and Advances to Current Assets Ratio**

Banks	Loan and Advances to Current Assets Ratio					Mean	S.D	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	48.36	48.37	49.59	44.13	42.77	46.64	3.0	6.43
BOK	6.67	3.29	8.21	6.79	10.65	7.12	2.67	37.57

**Figure No. 5 : Loan and Advances to Current Assets Ratio**



The above table shows that the NABIL had maintained highest ratio in FY 2004/05 (49.59%) and lowest in FY 2006/07 (42.77%) while BOK had in FY 2006/07 (10.65%) and lowest in FY 2003/04 (3.29%). That means both banks are fluctuating but in comparison with BOK, NABIL had little bit fluctuated.

While comparison the mean, NABIL has (46.64%) while BOK has 7.12% and C.V. 6.43% and 37.57% respectively. That means both banks is uniform.

Lastly, NABIL is better to mobilize its funds as loan and advances with respect to current assets in comparison to BOK. The mean also reveals that NABIL loan and advances to current assets is satisfactory.

#### 4.1.2 Activity /Turnover Ratio

Activity ratio are intended to measure the effectiveness to employment of the resources in a business concern or in other word, Activity ratios are employed to evaluate the efficiently with which the firm managers and utilizes its assets. The following ratios are employed to analyze the activities of the concerned JVBs

##### 4.1.2.1 Loans and Advances to Total Deposit Ratio

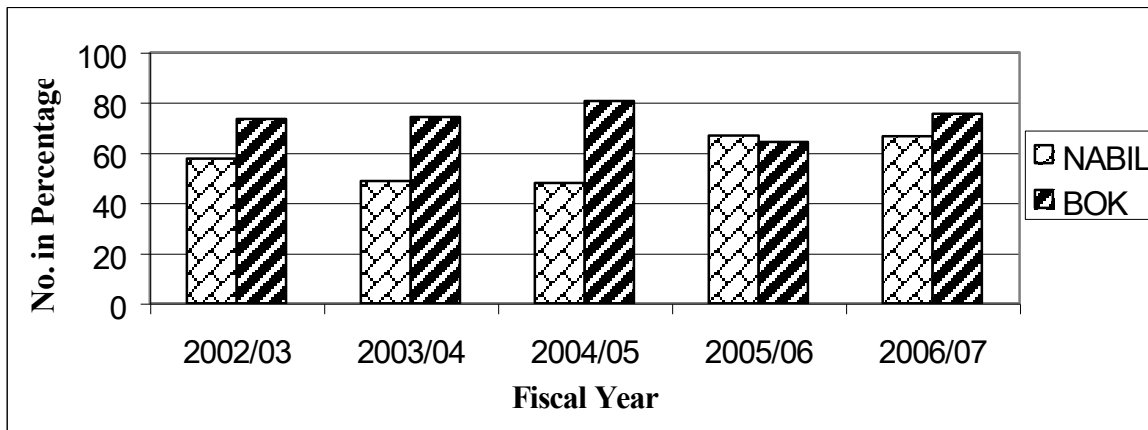
This ratio measures the extend to which the banks are successful in mobilizing outside funds (i.e. total deposit) in the firm of extending loans and advances.

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

**Table No. 6 : Loans and Advances to Total Deposit Ratio**

Banks	Loan and Advances to total deposit Ratio					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	57.68	48.82	47.96	66.79	66.59	57.57	9.15	15.89
BOK	73.57	74.34	80.6	64.23	75.62	74.67	4.1	5.48

**Figure No. 6 : Loans and Advances to Total Deposit Ratio**



The above table shows that the ratio of NABIL in FY 2002/03 (57.68) and FY 2005/06 (66.79) is high where in FY 2004/05 is low. It has fluctuation trend. Where BOK has better year by year. Its highest ratio in FY 2004/05 (80.6%) and lowest in FY 2005/06 (69.23%). BOK is more efficient to utilization of its deposit than NABIL

From the above analysis of BOK has maintained sufficient margin of cash to meet their deposit amount as compared with NABIL. BOK had mobilization of total deposits on loan and advances and acquiring higher profit than NABIL. In the case of mean also BOK has greater than NABIL. But in case of C.V. NABIL has greater than BOK. It means the ratio of BOK is more uniform than NABIL. But higher ratio is not better from the point of view of liquidity as the loan and advances is not as liquid as cash and bank balance.

#### 4.1.2.2 Total Investment to Total Deposit Ratio

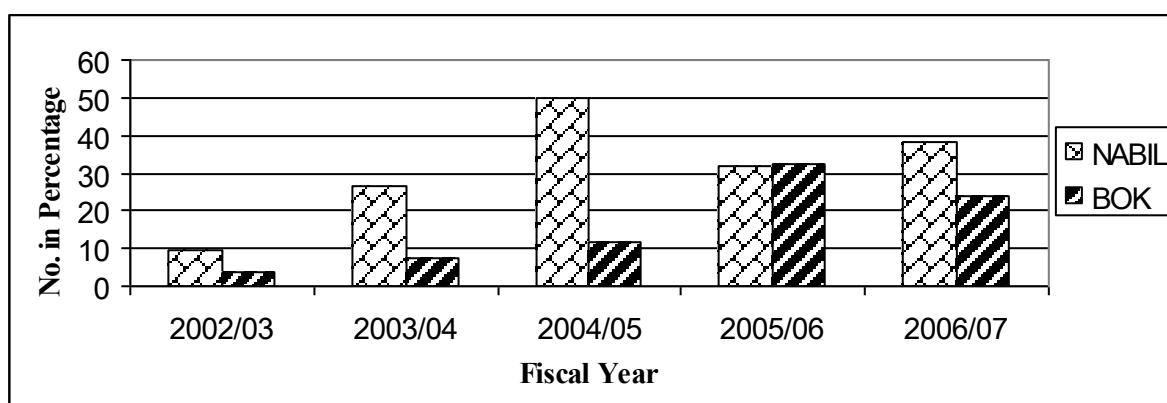
This ratio measures the extents which to the banks are successful in mobilizing total depositors on investment. This ratio is affected by the concerned financial policy which is based on implementation aspect of deposits.

$$\text{Total investment of total deposit} = \frac{\text{TotalInvestment}}{\text{Totaldeposit}}$$

**Table No. 7 Total Investment to Total Deposit Ratio**

Banks	Total Investment to Total Deposit Ratio					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	9.8	26.69	49.86	31.93	38.32	31.32	16.33	52.14
BOK	3.6	7.32	11.83	32.18	24.15	15.82	8.04	50.8

**Figure No. 7: Total Investment to Total Deposit Ratio**



The above table clearly shows that the ratio of both banks have been fluctuating all over the study period. The ratio of NABIL is always higher in every fiscal year than BOK. Well, NABIL has highest ratio in FY 2004/05 (49.86) and lowest in FY 2002/03 (9.8%) where BOK has highest ratio in FY 2005/06 (32.18) and lowest in FY 2002/03 (3.6%). Both banks have fluctuating trend.

Above analysis shows that the NABIL has higher portion of total deposit collection was utilized to investment in compared with BOK.

The mean and C.V. of NABIL is greater than BOK. The analysis shows that the average investment policy is better than BOK. But it is not more homogenous on investment in total deposit ratio.

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

Commercial banks must have to be very careful in mobilizing in total Assets. As loan and advances in appropriate level to generate profit. This ratio reflects the extent to which the commercial banks are success in mobilizing their working fund, loan and advances for the purpose of income generation. A high ratio indicates better in mobilization of funds as loan and advances and vice-versa.

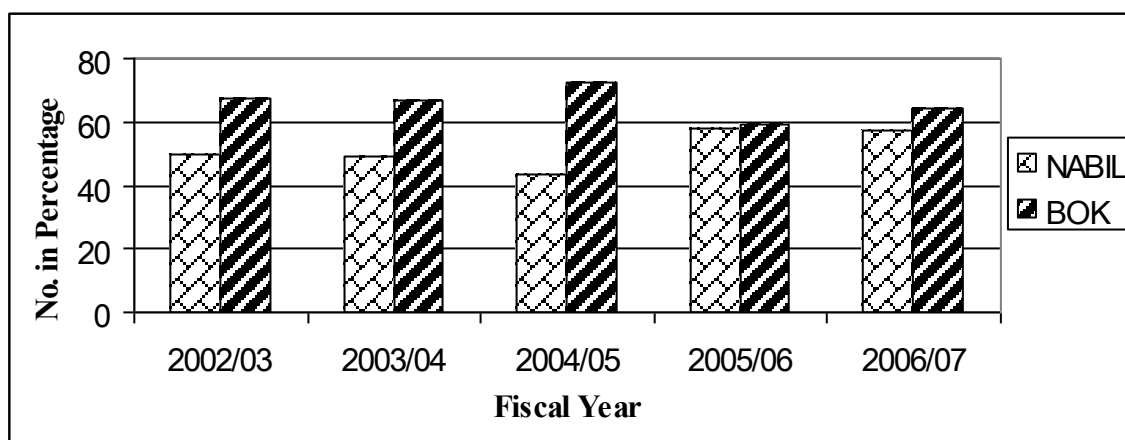
$$\text{Loan and Advances to Total Working Fund Ratio} = \frac{\text{Loan and Advances}}{\text{Total working fund}}$$

Where, total working fund is total assets. In composed up current asset, fixed asset, miscellaneous assets and investment: loan for development banks etc.

**Table No. 8 : Loan and Advances to Total Working Fund Ratio**

Banks	Loan and Advances to Total Working Fund Ratio					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	50.01	48.84	43.52	57.87	57.04	51.45	6.004	11.67
BOK	67.25	66.66	72.6	59.12	64.51	66.03	4.88	7.38

**Figure No. 8: Loan and Advances to Total Working Fund Ratio**



The above table clearly shows, both banks are less fluctuating. In comparison with NABIL, the ratio of BOK is always higher in every fiscal year. It is in increasing trend except 2005/06 and 2006/07. The highest ratio of BOK in FY 2004/05 (72.6%) and lowest in FY 2005/06 (59.12%). NABIL followed increasing trend. It has highest ratio in FY 2005/06 (57.87%) and lowest in FY 2004/05 (43.52%)

Lastly, BOK has maintained loan and advances to total working fund ratio than NABIL. The mean of BOK is also greater than NABIL. The C.V. of BOK is lower than NABIL

It seems that the variability of the ratios of BOK more consistent and got the more success to used its resources to generate the more profit.

#### **4.1.2.4 Investment on Government Securities to total Working fund ratio**

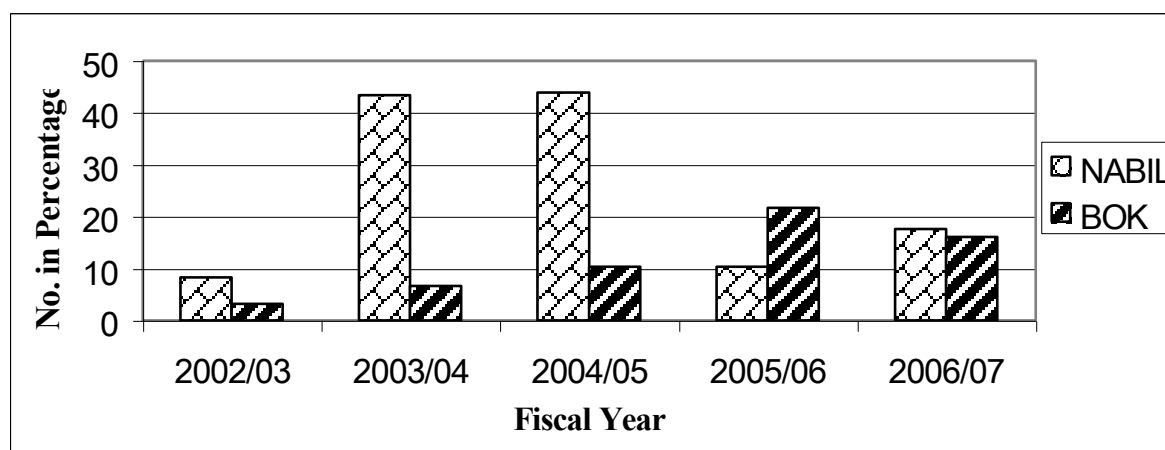
Commercial banks mobilize its funds in such way that they will get a benefit. So it never used all of its resources as loan and advances. It used its fund to purchase government securities too. Investing in government securities is safe and reliable but it is not a liquid as cash and bank balance. This ratio is very important to know the extent to which the banks are successful in mobilizing their total fund o different types of government securities to maximize its income.

$$\text{Investment of Government securities to total working fund} = \frac{\text{Investment of Government Securities}}{\text{Total working fund}}$$

**Table No. 9: Investment on Government Securities to total Working fund ratio**

Banks	Investment on Government Securities to total Working fund ratio					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	8.31	43.36	43.87	10.31	17.64	24.71	17.61	71.27
BOK	3.24	6.56	10.5	21.65	16.01	11.42	7.35	64.36

**Figure No. 9: Investment on Government Securities to total Working fund ratio**



The above table, it clearly shows that both banks have fluctuating trend. NABIL has maintained fluctuating trend in FY 2002/03. It had invested on government securities 8.31% while in FY 2004/05 it had invested 43.87% which was highest during our study period and lowest in FY 2002/03.

In compare with NABIL, BOK's investment is too low in government securities. It has also fluctuating trend but it highest investment is in FY 2005/06 and lowest in FY 2002/03 but in FY 2005/06 it has tried to higher investment securities.

In average, NABIL has maintained higher mean and C.V. value than BOK, which states the position of NABIL is better to invested in government securities.

#### **4.1.2.5 Loan Loss Provision Ratio**

Negligence in its part makes negative impact on the earnings and capital of a bank very badly. But this will lead to low profit and possible losses that produce low increase or decrease in capital. Loss of loan is not only the default of debtor's but it is because of the failure to recovery of loan by the bank. Loss of loan is occurred when the debtors fail to pay their loan. The loan loss ratio shows how efficiently the Bank manages it loan and advance and makes effort for timely recovery of loan. According to NRB the loans and advances and bills purchase of commercial banks were categorized into four classes; good, substandard, doubtful and bad. Commercial banks were required to maintain the loan loss provision 1 percent, 25 percent, 50 percent and 100 percent respectively for these types of loan and advances and bills purchase.

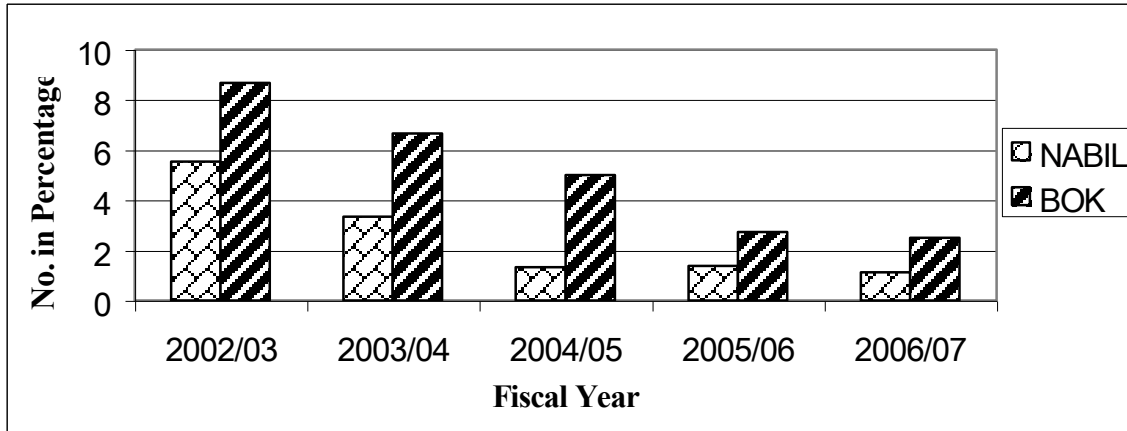
$$\text{Loan Loss provision Ratio} = \frac{\text{Loan Loss Provision}}{\text{Total loan}}$$

**Table No. 10 : Loan Loss Provision Ratio**

Banks	Loan Loss Provision Ratio					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	5.54	3.35	1.32	1.38	1.12	2.54	1.9	74.8
BOK	8.67	6.66	4.99	2.72	2.51	5.11	2.63	31.37



**Table No. 10 : Loan Loss Provision Ratio**



In above table shows that both bank have loan loss provision but trying to maintain loan loss provision 1% which means the both banks are trying to provide the loan to only good customers. NABIL has maximum ratio in FY 2002/03 (5.54%) and minimum in FY 2006/07 (1.12%). BOK has also maximum ratio in FY 2002/03 (8.67%) and minimum in FY 2006/07 (2.51)

Both banks have not increased its loan loss provision up to 8.67%). NABIL has lower loan ratio in this regard and mean is also low in comparison with BOK. It states that the position of NABIL is better. NABIL efficiently provides loan to the good customers, business houses. So, NABIL has more efficient loan management policy than that of BOK. In other approach, the researcher conclude that the recovery of loan by NABIL is satisfactory than BOK.

But the C.V. of NABIL is high than BOK. It means that loan loss ratio of BOK is more uniform and less variable then NABIL. NABIL is homogenous but not so.

### 4.1.3 Profitability Ratio

Profitability ratios essentially related to the profit earned by a firm during a particular period to various parameters like sales, shareholders equity, capital employed and total assets. Profit is essential survive in any business field for its successful operation and future expansion and growth. According to Weston and Brigham: "Profitability is net result of a large number of policies and decisions. The ratio examined thus for reveal some interesting things about the way the firm operates but the profitability ratio give final answered about how effectively the firm is being managed.

Here, profitability ratios can be determined on the basis of investment. Some of the important profitability ratios used is as follows:

#### 4.1.3.1 Return on Total Working Fund

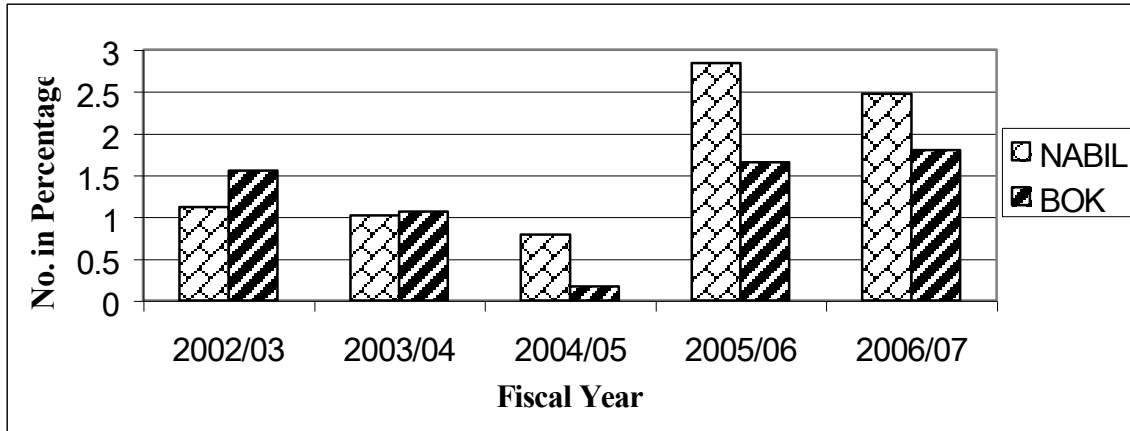
This ratio measuring the profitability of funds invested in the bank's assets. The ratio is examined to measure the profitability with respect to the total assets or it measures the return on assets. Higher ratio means better financing position as compared with other banks.

$$\text{Net profit to total working fund ratio} = \frac{\text{Net profit}}{\text{Total working fund}}$$

**Table No. 11: Return on Total Working Fund**

Banks	Return on Total Working Fund					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	1.12	1.02	0.79	2.84	2.47	1.65	0.94	56.97
BOK	1.55	1.06	0.17	1.65	1.8	1.25	0.66	52.8

**Figure No. 11: Return on Total Working Fund**



The above table shows that the profitability ratio of NABIL is in decreasing trend or fluctuating trend. It has maximum ratio in FY 2005/06 (2.84%) and minimum in FY 2004/05 (0.79%). The same decreasing and fluctuation trend of BOK. The maximum ratio in FY 2006/07 (1.8%) and minimum in FY 2004/05 (0.17%).

The mean ratio of NABIL is greater than BOK and C.V. is also higher. It shows the variability of the ratios of NABIL is uniform. In brief NABIL has appeared better profitability position than BOK. But BOK is also trying to achieve the profitability.

#### **4.1.3.2 Return on Loan and Advances Ratio**

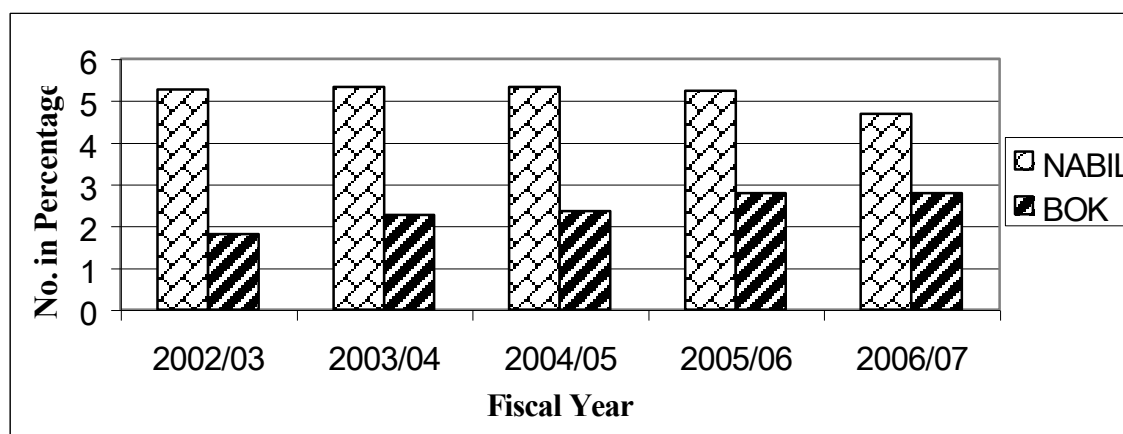
It measures the earning capacity of a commercial banks on its deposits mobilized on loan and advances. Mostly loan and advances includes loan cash, credit, overdraft bills purchased and discounted.

$$\text{Return on Loan and Advances Ratio} = \frac{\text{Net profit}}{\text{Loan and Advances}}$$

**Table No. 12 : Return on Loan and Advances Ratio**

Banks	Return on Loan and advances ratio					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	5.27	5.33	5.32	5.24	4.68	5.15	0.3	5.83
BOK	1.81	2.26	2.36	2.79	2.79	2.4	0.41	17

**Table No. 12 : Return on Loan and Advances Ratio**



The above listed table, the ratio on NABIL is decreasing and increasing all over the year i.e. FY 2003/04 is maximum ratio i.e. (5.33) and minimum in FY 2006/07 i.e. (4.62). The highest ratio of BOK is in FY 2005/06 and 2006/07 i.e. (2.79%). And BOK has increasing trend. In comparison with BOK. NABIL has a highest ratio

The average ratio of NABIL is greater than BOK. That means NABIL is more success to get the return from loan and advances. The CV of NABIL is lower than BOK (5.83% < 17%) This shows that the variability of the ratio of NABIL is more uniform than BOK.

#### **4.1.3.3 Earning Per Share**

Earning per share is one of the most widely quoted statistics when there is a discussion of a company's performance or share value, it is the

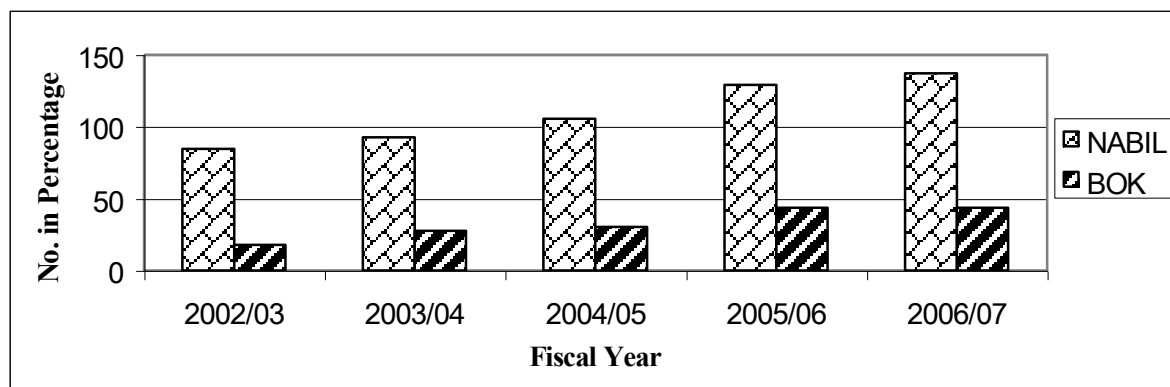
profit after tax (NPAT) figures that is divided by the number of common shares. Earning per share itself implies generated incomes which reduce even tax, must be allocated to its real owners

$$\text{Earning Per share} = \frac{\text{TotalNPAT}}{\text{No.of Commonshares}} \times 100$$

**Table No. 13: Earning Per Share**

Banks	Earning Per Share					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	84.66	92.61	105.49	129.21	137.08	109.81	22.73	20.7
BOK	17.72	27.5	30.1	43.67	43.5	32.5	11.12	34.22

**Table No. 13: Earning Per Share**



The above table shows that NABIL has fluctuating trend during our study period. The EPS was secured in the FY 2006/07 (137.98) and least was in FY 2002/03 (84.66%). While comparing the BOK, BOK has able to secure highest EPS in FY 2005/06 i.e. (43.67%) which is too lower than NABIL.

The comparative table listed above shows that the mean EPS of NABIL is significantly greater than that of BOK and C.V. between the ratio of NABIL is lower than BOK. It means the variability of NABIL is more significantly greater than BOK. It clearly indicates that EPS trend of NABIL is profitable than BOK.

#### 4.1.3.4 Dividend Payout Ratio

Dividend payout ratio is also said payment ratio. DPR indicates how much of amount to be paid to share holders out of EPS. In other words, DPR shows that what proportion of earning is paid out dividend and how much retained by the firm.

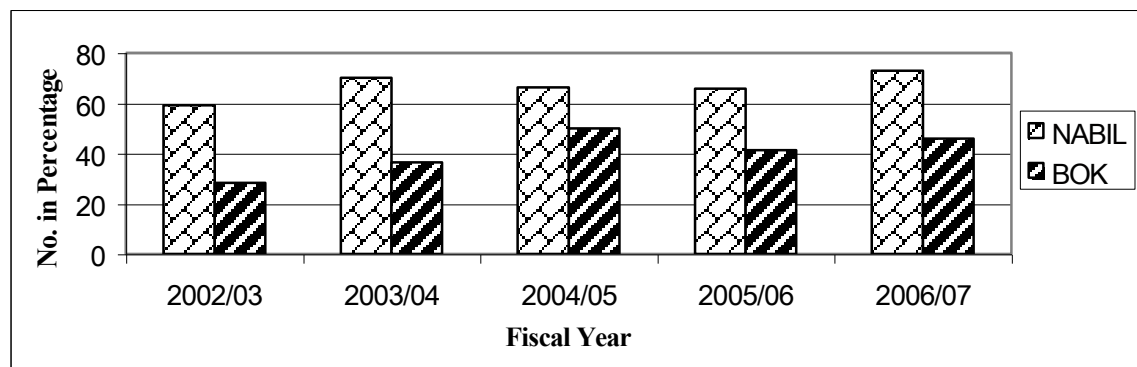
Higher DPR is preferred by the shareholders, where as a very high ratio may slow down the growth rate of the firm. So, the firm with high growth goals favours a low dividend payout ratio or retention of proportionately more earning. In order to utilize again in profit generating purpose.

$$\text{Dividend Payout Ratio} = \frac{\text{Dividendpershare}}{\text{Earningpershare}} \times 100$$

**Table No. 14: Dividend Payout Ratio**

Banks	Dividend Payout Ratio					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	59.06	70.18	66.36	65.78	72.95	66.87	5.25	7.86
BOK	28.22	36.36	49.83	41.22	45.97	40.32	8.44	20.94

**Figure No. 14: Dividend Payout Ratio**



The above table clearly shows that the NABIL has been paying relatively more dividends to its shareholders out of its earning. In FY 2006/07 NABIL has paid more

dividend which was 72.95 while BOK has maintain low dividend payout ratio. In FY 2004/05 is more dividend then other year which was 49.83.

It is concluded that NABIL is too much better than BOK in case of dividend payout ratio.

#### 4.1.3.5 Total Interest Earned to Total Outside Assets Ratio

Interest earned to total assets ratio measures the percentage of interest earned in relation to total assets of the banks. The ratio signifies the mobilization of its assets in interest generating purpose. Banks earn interest through the provision of loans, advances, overdraft and investments in various securities. Higher the ratio higher will be the earning power of total assets of commercial banks.

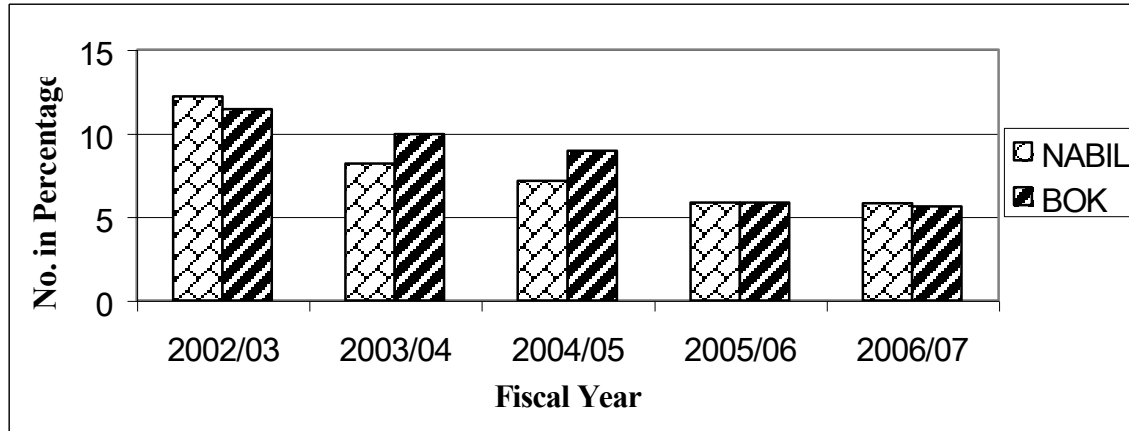
$$\text{Interest earned to total outside assets ratio} = \frac{\text{TotalInterestEarned}}{\text{OutsideTotalAssets}}$$

Where Total assets includes all types of investment (government securities, debenture etc.) loan and advances.

**Table No. 15: Total Interest Earned to Total Outside Assets Ratio**

Banks	Total Interest Earned to Total Outside Assets Ratio					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	12.2	8.2	7.16	5.87	5.83	7.85	2.62	33.76
BOK	11.45	9.95	8.96	5.85	5.62	8.37	2.56	30.58

**Table No. 15: Total Interest Earned to Total outside Assets Ratio**



The above table shows that NABIL has decreasing trend. It has ranged between 5% to 13%. Its highest ratio is in FY 2002/03 (12.2) and lowest in FY 2006/07 (5.83%). In case of BOK, it has also followed the NABIL. It has ranged between 5% to 16%. Highest ratio in FY 2002/03 15.89% and lowest in FY 2006/07 (5.62%)

As we know highest mean ratio and lowest CV is better. Using this, here the researcher found NABIL has lowest mean (7.85%) and highest C.V. (33.76%). In comparison with BOK. BOK has 8.37% and 30.58% respectively. So, we said that comparison with NABIL, BOK is more consistent and stable and able to earn more interest using total assets.

#### **4.1.3.6 Total Interest Earned to Total Operating Income Ratio**

This ratio measures the extent to which the bank has successfully mobilized its fund in interest bearing assets. Interest earned to total operating income ratio measures the magnitude of interest income in total income.

$$\text{Total interest earned to total operating income Ratio} = \frac{\text{Total interest earned}}{\text{Total operating income}}$$

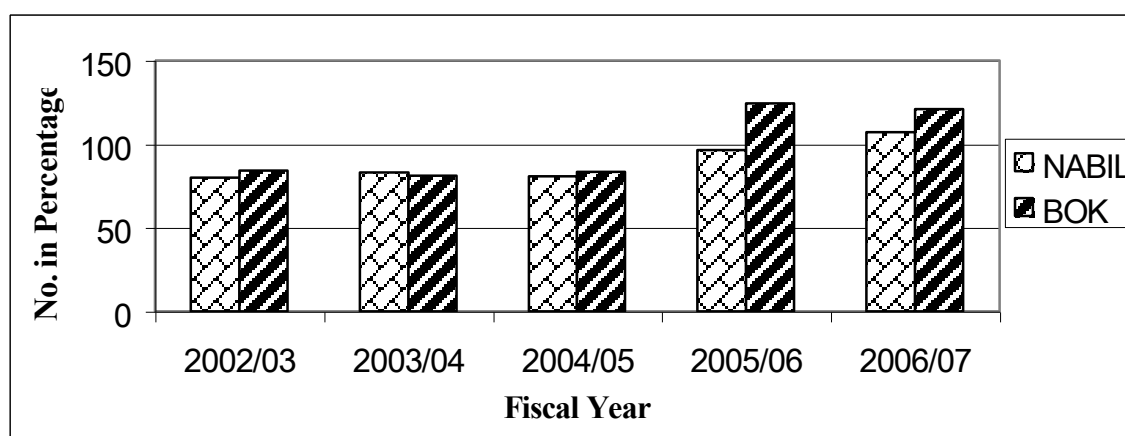


Where, total operating income includes the interest income, commission and discount foreign exchange income, discount and others.

**Table No. 16 : Total Interest Earned to Total Operating Income Ratio**

Banks	Total Interest Earned to Total Operating Income Ratio					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	79.89	83.18	80.89	96.36	107.27	89.5	11.94	13.34
BOK	84.13	81.01	83.27	124.53	120.96	98.78	21.94	22.21

**Figure No. 16 : Total Interest Earned to Total Operating Income Ratio**



The above table exhibits that both banks have increasing trend. In case of NABIL, its maximum ratio in FY 2006/07 (107.27%) and minimum ratio is in FY 2002/03 (79.98%) while BOK has 124.53% and 81.01 in FY 2005/06 and 2003/04 respectively.

After observing the mean ratio we found NABIL has lower than BOK (89.5 < 98.78%). It shows that above ratio of BOK is satisfactory. The magnitude of interest income in total operating income is high. But in compare with both bank's C.V. we found NABIL has little bit lower C.V. than BOK (13.34 < 22.21). It indicates the position of NABIL is little bit

homogeneous than BOK. If BOK is doing the work little bit better in the above, we'll say that BOK is more homogeneous.

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

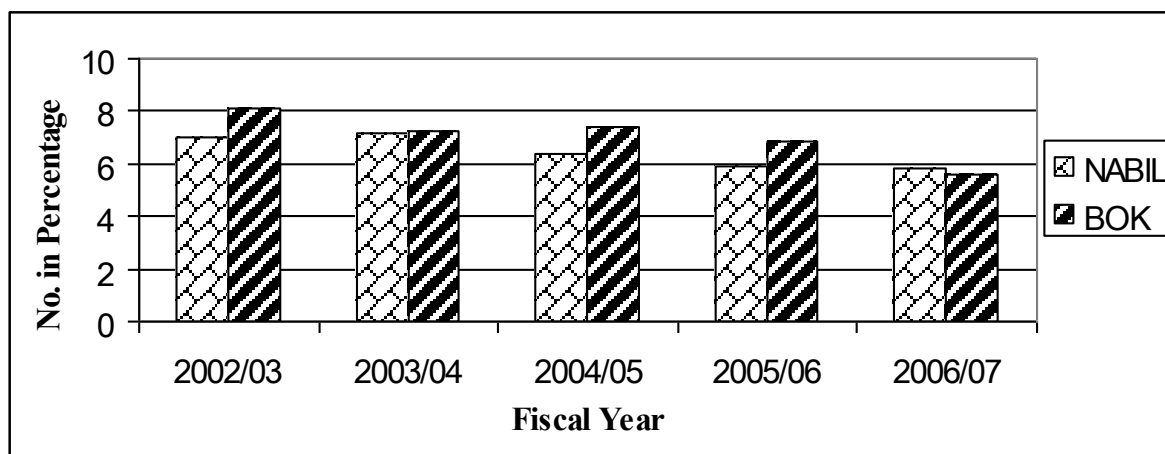
This ratio reflects the extent to which the banks are successful in mobilizing their total assets to generate high income as interest. A high ratio is a indicator of high earning power of the bank on its total working fund and vice-versa.

$$\text{Total Interest earned to total working fund ratio} = \frac{\text{TotalInterestEarned}}{\text{TotalWorkingFund}}$$

**Table No. 17: Total Interest Earned to Total Working Fund Ratio**

Banks	Total Interest Earned to Total Working Fund Ratio					Mean	S.D.	C.V.%
	Ratio							
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	6.97	7.13	6.35	5.87	5.83	6.43	0.604	9.39
BOK	8.08	7.28	7.44	6.89	5.62	7.06	0.91	12.89

**Figure No. 17: Total Interest Earned to Total Working Fund Ratio**



The above table shows, in FY 2003/04 NABIL has highest ratio (7.13) then after it goes on decreasing trend till the FY 2006/07. BOK has also

decreasing trends from the first FY 2002/03 to 2006/07. Its highest ratio is 8.08 in FY 2002/03 and lowest is 5.62% in FY 2006/07.

In the case of mean ratio we found NABIL has lowest while BOK has highest (6.43 < 7.06). That means BOK is successful in earning interest income ratio and satisfactory because high ratio is an indicator of high earning power of the bank of its total earning fund and V.V. The C.V. ratio of NABIL is low then BOK (9.39 < 12.89). It indicates, well BOK is successful and satisfies to earning interest income ratio but not uniform and highly variable then NABIL.

#### 4.1.3.8 Total Interest Paid to Total Working Fund Ratio

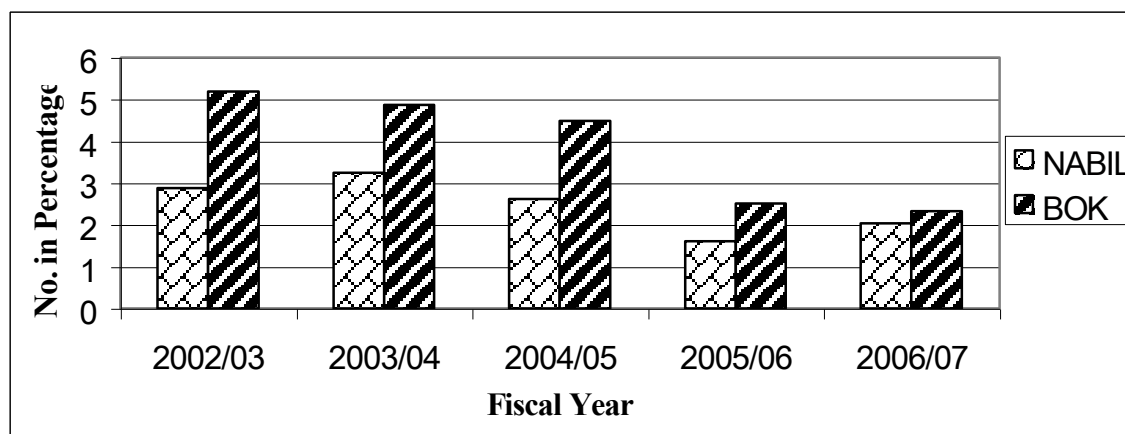
This ratio measures the percentage of total interest paid against the total working fund

$$\text{Total interest paid to total working fund ratio} = \frac{\text{Total interest paid}}{\text{Total Working fund}}$$

**Table No. 18 : Total Interest Paid to Total Working Fund Ratio**

Banks	Total Interest Paid to total working fund ratio					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	2.88	3.25	2.62	1.60	2.04	2.48	0.66	26.61
BOK	5.19	4.86	4.49	2.51	2.33	3.88	1.35	34.8

**Figure No. 18 : Total Interest Paid to Total Working Fund Ratio**



The above table shows the ratio of NABIL has ranged between 1.6 to 4% of the study period. The ratio has decreased from FY 2004/05 to 2006/07 or fluctuating trend

and the highest ratio in FY 2003/04 i.e. (3.25) and lowest ratio in FY 2005/06 (1.6%). BOK has also decreasing trend from FY 2002/03 to FY 2006/07 (5.19 to 2.33%). In initial year of the study period FY 2002/03 it has 5.19%.

In connection with average ratio, NABIL has lower than BOK (2.48 < 3.88). It means, the mode of interest payment of BOK is better than NABIL and seems to be successful to collect its working fund. On the other hand, NABIL's C.V. is lower than BOK (26.61% > 34.8%). Now, we said that paid the interest is low of NABIL compare to BOK but uniform and less variable.

#### 4.1.3.9 Total Interest Paid to Total Deposit

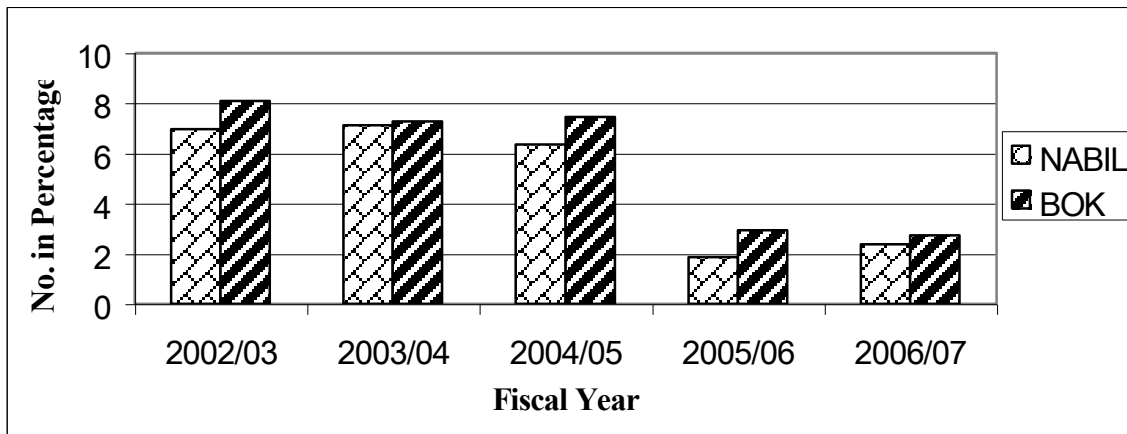
The ratio reflects how much that the banks would pay the interest to its depositors. As we know, if deposits are high, banks get benefits cause it has used the deposits in various profitable sectors. If deposits more in saving and fixed account, banks would have paid interest to the depositors. Efficiency of collecting non-interest bearing fund is good for banks. If cost of fund is low, banks get benefits. If current account's deposit is high, banks will use the amount for the certain period without paying interest.

$$\text{Total Interest Paid to total Deposit} = \frac{\text{TotalInterestPaid}}{\text{TotalDeposit}}$$

**Table No. 19 : Total Interest Paid to Total Deposit**

Banks	Total Interest paid to total deposit					Mean	S.D.	C.V.%
	2002/03	2003/04	2004/05	2005/06	2006/07			
NABIL	6.97	7.13	6.35	1.85	2.38	4.94	2.60	32.63
BOK	8.08	7.28	7.44	2.94	2.74	5.7	2.63	46.14

**Figure No. 19 : Total Interest Paid to Total Deposit**



From the above table, NABIL had paid higher interest in FY 2003/04 which was 7.13 and lowest IN FY 2005/06 (1.85). BOK also paid more interest in FY 2002/03 (8.08%) and lowest in FY 2006/07 (2.74). The average mean and C.V. of BOK is also high than NABIL which means that the BOK paid more interest to its depositors than NABIL. Low cost of fund is benefits for banks. It concludes that in BOK, non interest bearing deposit is low comparing with NABIL. If non interest bearing deposit is high, banks cost of fund will low which NABIL did. During the study period, NABIL paid less interest in each year than BOK and its average mean and C.V. is also low. That Mean NABIL's cost of fund is low which is good for Bank.

#### 4.1.4 Growth Ratio

Growth ratios are directly related to the fund mobilization and investment management of commercial bank. It represents how well the commercial bank maintaining the economic and financial position. Under this topic fifth types of growth ratios are as follows:

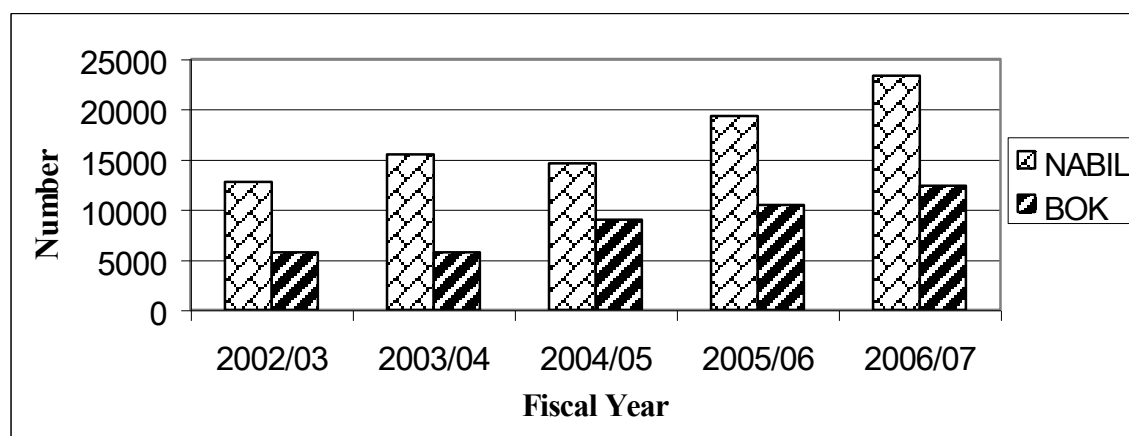
- 4.1.4.1 Growth ratio of total deposit
- 4.1.4.2 Growth ratio of Total loan and advances
- 4.1.4.3 Growth ratio of total investment
- 4.1.4.4 Growth ratio of total interest earned
- 4.1.4.5 Growth ratio of total interest paid

#### 4.1.4.1 Growth ratio of total deposit

**Table No. 20: Growth ratio of total deposit**

Banks	Growth Ratio of Total Deposit					Growth rate %
	2002/03	2003/04	2004/05	2005/06	2006/07	
NABIL	12779	15506	14587	19347	23342	13.47
BOK	5724	5723	8976	10485	12389	18.36

**Figure No. 20: Growth ratio of total deposit**



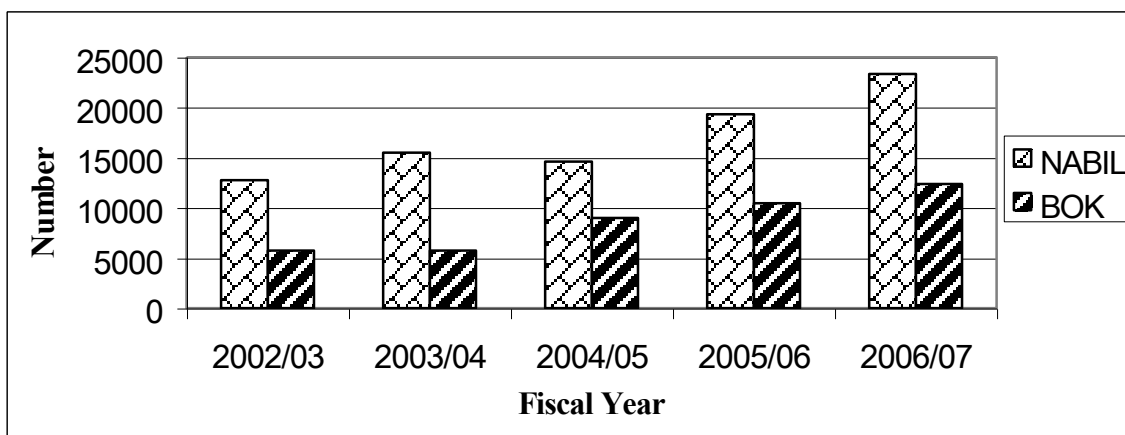
The above table shows that the growth ratio of NABIL deposit is lower than BOK. NABIL growth ratio is 13.74% while BOK has 18.36%. It means that the performance to collect deposit of BOK is very much success year by year than NABIL.

#### 4.1.4.2 Growth Ratio of Total Loan and Advances

**Table No. 21: Growth Ratio of Total Loan and Advances**

Banks	Growth Ratio of Total Loan and Advances					Growth rate%
	2002/03	2003/04	2004/05	2005/06	2006/07	
NABIL	7732	7437	10586	12923	15546	16.18
BOK	4255	4613	5913	7259	9399	18

**Figure No. 21: Growth Ratio of Total Loan and Advances**



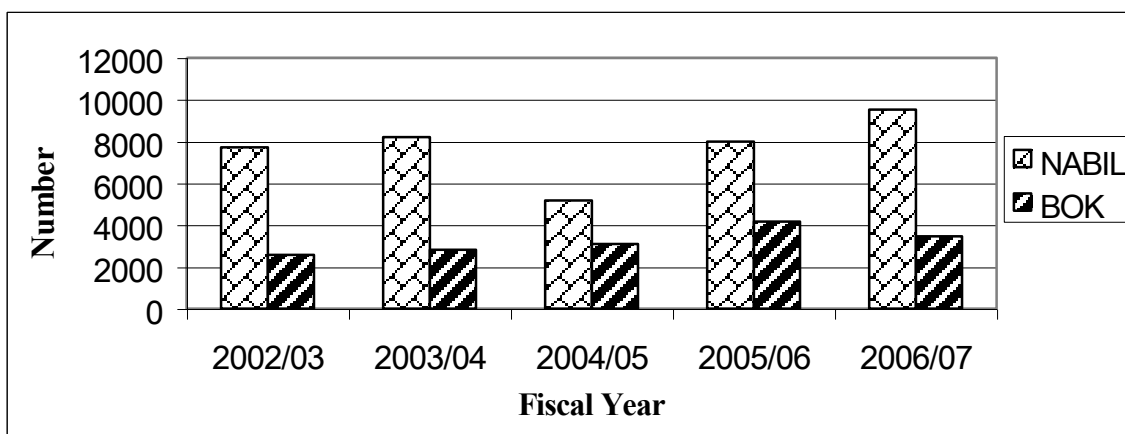
The above table shows the comparative that the growth ratio of loan and advances of NABIL has lower than BOK. BOK has maintained 18% ratio while NABIL has 16.18%. In this case also BOK performance to grant loan and advances is better by year by year comparison of NABIL.

#### 4.1.4.3 Growth Ratio of Total Investment

**Table No. 22: Growth Ratio of Total Investment**

Banks	Growth Ratio of Total Deposit					Growth rate %
	2002/03	2003/04	2004/05	2005/06	2006/07	
NABIL	7704	8199	5168	7987	9525	8.66
BOK	2562	2808	3089	4164	3465	7.52

**Figure No. 22: Growth Ratio of Total Investment**



Here, we found the NABIL's growth rates of total investment is better than BOK. Cause the above table shows NABIL has 8.66% growth ratio every year while BOK has 7.52%.

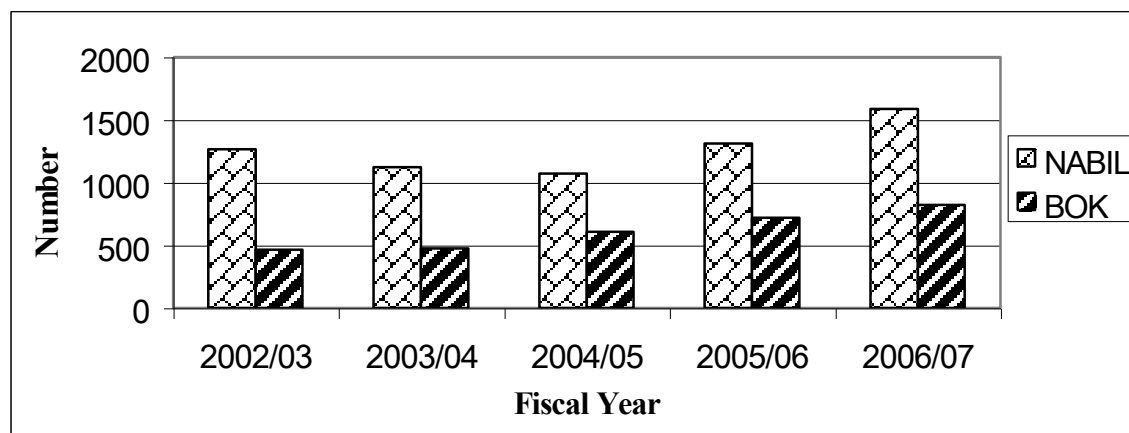
It means to earn the profit and fame it has investment its capital higher than BOK.

#### 4.1.4.4 Growth Ratio of Total Interest Earned

**Table No. 23: Growth Ratio of Total Interest Earned**

Banks	Growth Ratio of Total Interest Earned					Growth rate %
	2002/03	2003/04	2004/05	2005/06	2006/07	
NABIL	1266	1120	1069	1310	1588	5.55
BOK	465	473	607	718	819	12.48

**Figure No. 23: Growth Ratio of Total Interest Earned**



Here, the above table shows that the growth rate of interest earned of BOK is high than NABIL. In FY 2002/03 it had earned 1266 million maintaining the progress of earning interest. In FY 2006/07 It had earned 819 million. NABIL had also increased its earning ratio but compare with BOK its growth ratio is low

It reveals that BOK is doing very well to increase its growth ratio of interest earned.

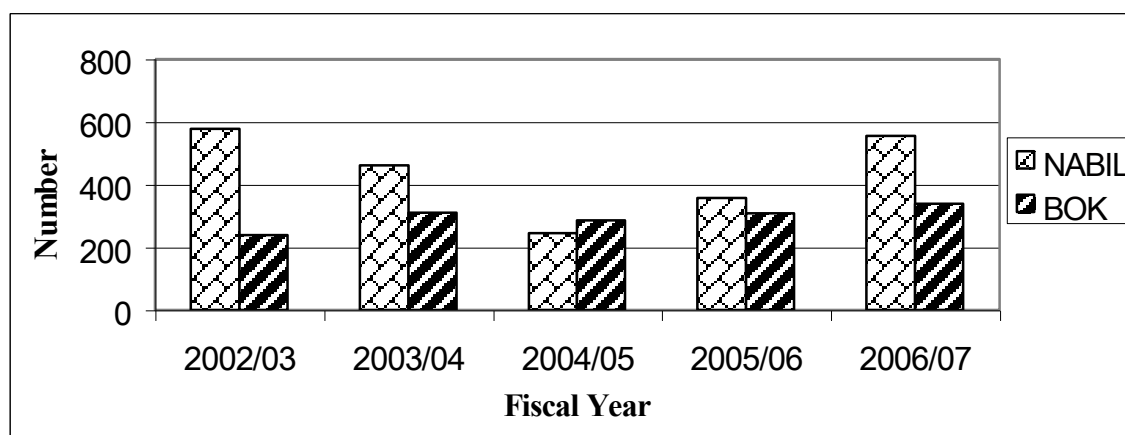


#### 4.1.4.5 Growth Ratio of Total Interest Paid

**Table No. 24: Growth Ratio of Total Interest Paid**

Banks	Growth Ratio of Total Interest Paid					Growth rate %
	2002/03	2003/04	2004/05	2005/06	2006/07	
NABIL	578	462	244	357	556	6.96
BOK	238	310	285	308	339	8.07

**Table No. 24: Growth Ratio of Total Interest Paid**



In the case of interest paid, here we found that the BOK is paid more interest to its depositors. It growth ratio is 8.07%. It clearly indicates that the BOK has high volume of interest bearing deposits. As we know, if low interest bearing deposits are high, the cost of fund is low. This is good for the banks and using the amount for certain time without paying interest.

In case of NABIL its growth ratio is 6.96% that reveals it had able to make high volume of non-interest bearing deposits. And have using the fund and make the profit. Its cost of fund is low.

## 4.2 Statistical Tools

### 4.2.1 Correlation

Correlation is a statistical tool, with the help of which, we can determine whether or not two or more variable are correlated and if they are correlated the degree (extent) and direction of correlation is determined.

Correlation is defined as the "relationship" (for association) between (among) the dependent variable (or factor) and (or one for more than one) independent variable(s) or factors. In other words, correlation is the relationship between (or among) two or more variables (i.e. only one variable dependent and one or more variable(s) independent). Correlation analysis is defined as the statistical technique which measure the degree and direction of relationship (or association) between/among the variables.

If the two or more variables are so related that the change in the value(s) of one (or more) independent variable(s) results the change in the value of dependent variable then they are said to have "correlation".

- i. As the expenditure depends on the income and increase in the monthly income result in increase in monthly and expenditure are said to be positively correlated.
- ii. As the demand of any commodity depends on the price of that commodity, an increase in the price of the commodity results in decrease of the quantity demanded. Hence, the two variables price (independent) and demand (dependent)\_ are said to be negatively correlated

Here, we are doing matrix correlation.

#### 4.2.1.1 Correlation Matris of NABIL Bank

Let,

Total Income =  $(x_1)$

Total Expenses = ( $x_2$ )

Capital and liabilities = ( $x_3$ )

Assets = ( $x_4$ )

### Correlation Matrix of NABIL Bank

**Table No. 25 : Correlation Matrix of NABIL Bank**

	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>
X <sub>1</sub>	1	0.9364	0.9457	0.8552
X <sub>2</sub>		1	0.8187	0.6781
X <sub>3</sub>			1	0.9177
X <sub>4</sub>				1

Doing the correlation matrix, we found that the relation between total income ( $x_1$ ) and capital and liabilities ( $x_3$ ) is nearly correlated where  $x_1x_3$  have 0.9457 while the relation between total expenses is little bit far than  $x_2$  where it has 0.9364 and  $x_1x_4$  has 0.8552

Like that the relation between total expense ( $x_2$ ) and capital liabilities ( $x_3$ ) also have nearly correlated where  $x_2x_3$  have 0.8187 matrix correlated. Similarly, capital and liabilities and assets also have correlated where  $x_3x_4$  have 0.9177

### 4.2.1.2 Correlation Matrix of BOK Bank

#### Correlation Matrix of BOK Bank

**Table No. 26 : Correlation Matrix of BOK Bank**

	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>
X <sub>1</sub>	1	0.8361	0.9966	0.9959
X <sub>2</sub>		1	0.8298	0.83039
X <sub>3</sub>			1	0.999
X <sub>4</sub>				1

As we already did the matrix correlation of NABIL, like that here we also doing the matrix correlation of BOK.

Here, we found that the relation of total assets to capital liabilities nearly related. In other words correlated where, it  $x_1x_3$  has 0.9966. From the above table it clearly shows that the relation between total expenses and total assets also has correlated  $x_2x_4$  0.83089 and lastly the relation of capital liabilities and assets have correlated.

Comparing the both bank correlation we found, in case of NABIL. Total income ( $x_1$ ) variable is highly correlated with capital and liabilities ( $x_3$ ) variable. Similarly, BOK has also liked same. Here, in above table its clearly shows that NABIL's total expends ( $x_2$ ) is highly correlated with capital liabilities ( $x_3$ ) but in case of BOK  $x_2$  is highly correlated with Assets. That means BOK assets is determined by its total expenses: like that capital liabilities ( $x_3$ ) of NABIL is highly correlated with its assets ( $x_4$ ). BOK also has same but BOK's capital liabilities is more highly correlated with its assets than NABIL. Here, NABIL's correlation of  $x_1x_4$  is 0.9177 while BOK has 0.9999.

#### 4.2.2. Trend Analysis

##### 4.2.2.1 Trend Analysis of Nabil

$$Y = a+bx$$

$$x = 2004$$

Let,

$$\text{Total Income} = (x_1)$$

$$\text{Total Expenses} = (x_2)$$

$$\text{Capital and liabilities} = (x_3)$$

$$\text{Assets} = (x_4)$$

Trend analysis of income of NABIL Bank

**Table No. 27 : Trend Analysis Income of NABIL Bank**

FX	X	X <sub>1</sub>	XX <sub>1</sub>	X <sup>2</sup>
----	---	----------------	-----------------	----------------

2002/03	-2	960	-1920	4
2003/04	-1	1176	-1176	1
2004/05	0	1484	0	0
2005/06	1	1751	1751	1
2006/07	2	2093	4186	4
		$\Sigma x_1=7464$	$\Sigma xx_2=2841$	$\Sigma x^2=10$

Where

$$a = \frac{\Sigma x_1}{n} = \frac{7464}{5} = \text{Rs. } 1492.8$$

$$b. \frac{\Sigma xx_1}{\Sigma x^2} = \frac{2841}{10} = \text{Rs. } 284.1$$

In above trend analysis table we found that till FY 2006/07, the income of NABIL Bank is growing up Rs. 284.1 in every year. Doing the trend analysis for FY 2009/10 will be.

FY	X
2002/03	-2
2003/04	-1
2004/05	0
2005/06	1
2006/07	2
2007/08	3
2008/09	4
2009/10	5

### Trend analysis till FY 2009/10

$$\begin{aligned}x_1 &= \text{Rs } (1492.8 + 284.1 \times 5) \\ &= \text{Rs. } 2913.3\end{aligned}$$

Therefore, we must have to say that in FY 2009/10 the NABIL income will be Rs. 2913.3.

### Trend Analysis of Total Expenses of NABIL Bank

**Table No. 28: Trend Analysis of Total Expenses of NABIL**

FX	X	X <sub>2</sub>	XX <sub>2</sub>	X <sup>2</sup>
2002/03	-2	487	-974	4
2003/04	-1	624	-624	1
2004/05	0	726	0	0
2005/06	1	853	853	1
2006/07	2	1098	2196	4
		$\sum x_2 = 3788$	$\sum xx_2 = 1451$	$\sum x^2 = 10$

Where

$$a = \frac{\sum x_2}{n} = \frac{3788}{5} = \text{Rs. } 757.6$$

$$b = \frac{\sum xx_2}{\sum x^2} = \frac{1451}{10} = \text{Rs. } 145.11$$

Here, We Found that the expenses will be raised up Rs 145.1 in every year

### Trend Analysis till 2009/10

$$\begin{aligned}x_2 &= \text{Rs } (757.6 + 145.1 \times 5) \\ &= \text{Rs } 1483.1\end{aligned}$$

In FY 2009/10 expenses will be Rs 1483.1.

**Table No. 29 : Trend analysis of Capital liabilities of NABIL Bank**

FX	X	X <sub>3</sub>	XX <sub>3</sub>	X <sup>2</sup>
2002/03	-2	17767	-35534	4
2003/04	-1	17626	-17626	1
2004/05	0	17064.08	0	0
2005/06	1	22329.97	22329.97	1
2006/07	2	27253.39	54506.78	4
		ΣX <sub>3</sub> =102040.44	ΣXX <sub>3</sub> =23667	ΣX <sup>2</sup> =10

Where

$$a = \frac{\Sigma x_3}{n} = \frac{102040.44}{5} = \text{Rs. } 20408.09$$

$$b. \frac{\Sigma xx_3}{\Sigma x^2} = \frac{23667}{10} = \text{Rs. } 2367.7$$

From above table it clearly shows that capital and liabilities will be increased every years @ 2367.7

**Trend Analysis till FY 2009/10**

$$\begin{aligned} X_3 &= \text{Rs. } (204098.09 + 2367 \times 5) \\ &= \text{Rs. } 32246.59 \end{aligned}$$

From analysis we found that in FY 2009/10, capital and liabilities will be Rs. 32246.59.

**Table No. 30 : Trend Analysis of Assets of NABIL Bank**

FX	X	X <sub>4</sub>	XX <sub>4</sub>	X <sup>2</sup>
2002/03	-2	17767	-35534	4
2003/04	-1	17626	-17626	1
2004/05	0	17064	0	0
2005/06	1	22330	22330	1
2006/07	2	27253	54506	4
		ΣX <sub>4</sub> =102040	ΣXX <sub>4</sub> =23676	ΣX <sup>2</sup> =10

Where

$$a = \frac{\sum x_3}{n} = \frac{102040}{5} = \text{Rs. } 20408$$

$$b. \frac{\sum xx_4}{\sum x^2} = \frac{23667}{10} = \text{Rs. } 2367.6$$

Assets will be increased @ Rs 2367.6 every year

### **Trend Analysis till FY 2009/10**

$$X_4 = \text{Rs } (20408 + 2367.6 \times 5)$$

$$= \text{Rs } 32246$$

In FY 2009/10 assets will be worth Rs. 32246

In conclusion NABIL has satisfactory performance. Here, we found the expenses will be low and income will be high. In every year income is growing up @ Rs. 284.1 and expenses will be Rs. 145.1. i.e. income was 1.96 time more than expenses. For capital and liabilities was increased Rs. 2367.7 in every year and also its assets. In one hand its good to increased its assets while in other hand its not good cause increasing the Assets was increasing the expenses.

### **4.2.2.2. Trend Analysis of BOK**

**Table No. 31: Trend Analysis of Income of BOK**

FY	X	X <sub>1</sub>	XX <sub>1</sub>	X <sup>2</sup>
2002/03	-2	417.23	-834.46	4
2003/04	-1	628.34	-628.34	1
2004/05	0	755.56	0	0
2005/06	1	894.58	894.58	1
2006/07	2	1051	2102	4
		$\sum X_1 = 3746.71$	$\sum XX_1 = 1533.78$	$\sum X^2 = 10$

Where,

$$a = \frac{\sum X_1}{n} = \frac{3746.71}{5} = \text{Rs } 749.34$$

$$b. \frac{\sum XX_1}{X^2} = \frac{1533.78}{10} = \text{Rs } 153.39$$



Here, the above table shows that the income of BOK has been increased every year @ Rs 153.39

**Trend Analysis till 2009/10**

$$X_1 = \text{Rs } (749.34 + 153.39 \times 5)$$

$$= \text{Rs } 1516.29$$

If the income will be increased every year @ Rs. 153.39, then in FY 2009/10 it will be reached on 1516.29

**Table No. 32 : Trend Analysis of Expenses of BOK**

FY	X	X <sub>2</sub>	XX <sub>2</sub>	X <sup>2</sup>
2002/03	-2	169	-338	4
2003/04	-1	257	-257	1
2004/05	0	288.04	0	0
2005/06	1	334	334	1
2006/07	2	264	528	4
		ΣX <sub>1</sub> =1312	ΣXX <sub>1</sub> =267	ΣX <sup>2</sup> =10

Where,

$$a = \frac{\Sigma X_2}{n} = \frac{1312}{5} = \text{Rs } 262.4$$

$$b. \frac{\Sigma XX_2}{X^2} = \frac{267}{10} = \text{Rs } 26.7$$

From the above table it clearly shows that the expenses will be increased @ Rs 26.7 every year.

**Trend Analysis till 2009/10**

$$X_2 = \text{Rs. } (262.4 + 26.7 \times 5)$$

$$= \text{Rs } 395.9$$

It will be Rs 395.9

**Table No. 33: Trend Analysis of Capital and Liabilities of BOK**

FY	X	X <sub>3</sub>	XX <sub>3</sub>	X <sup>2</sup>
2002/03	-2	6356	-12712	4

2003/04	-1	6354	-6354	1
2004/05	0	9888.53	0	0
2005/06	1	12278.33	12278.33	1
2006/07	2	14570.1	29140.2	4
		$\Sigma X_3=49471.9$	$\Sigma XX_3=22352.53$	$\Sigma X^2=10$

Where,

$$a. = \frac{\Sigma X_3}{n} = \frac{4944686}{5} = \text{Rs } 9889.37$$

$$b. \frac{\Sigma XX_3}{\Sigma X^2} = \frac{2235253}{10} = \text{Rs } 2235.25$$

In every year capital liabilities will be increased @ 2235.25

#### **Trend Analysis till FY 2009/10**

$$X_3 = \text{Rs } (9889.37 + 2235.25 \times 5)$$

$$= \text{Rs } . 21065.635$$

In FY 2009/10 the capital and liabilities will be Rs 21065.635

**Table No. 34: Trend Analysis of Assets of BOK**

FY	X	$X_4$	$XX_4$	$X^2$
2002/03	-2	6383	-12766	4
2003/04	-1	6354	-6354	1
2004/05	0	9888.5	0	0
2005/06	1	12276.33	12276.33	1
2006/07	2	14570.10	291140.2	4
		$\Sigma X_4=49471.9$	$\Sigma XX_4=22352.53$	$\Sigma X^2=10$

Where,

$$a. = \frac{\Sigma X_4}{n} = \frac{49471.93}{5} = \text{Rs } 9894.39$$

$$b. \frac{\Sigma XX_4}{\Sigma X^2} = \frac{22296.53}{10} = \text{Rs } 2229.65$$

The above table shows that the assets will be increased every year Rs @ 2229.65

### **Trend Analysis till FY 2009/10**

$$X_4 = \text{Rs } (9894.39 + 2229.65 \times 5)$$

$$= \text{Rs } . 21042.65$$

In FY 2009/10 the assets will be increased at Rs 21042.65.

In conclusion as we said that BOK is going on progress, in above table it clearly shows that the income is growing up every year @ Rs 153.39 while expenses is 26.67 and it increased its capital and liabilities Rs 2235.25. Increased its capital and liabilities in one hand its good and in other hand its bad cause if the liabilities will be increased every year the banks should must pay the interest to the debtors. If banks have growing up its liabilities every year the bank will also gone to bankruptcy. Making capital increased would be ideal of the money because the bank could not use its capital in other sectors to gain the profit. If banks will get the profit, share-holders, get dividend, its expand its branch, invest the more money in profitable sectors etc. But in other hand if bank have not sufficient capital whenever the depositors with draw their capital if they don't get it they got the negative impact for the banks. May be banks reputation will be gone. So Banks have must sufficient capital. BOK has also increased its assets every year Rs 2229.65.

To compare with NABIL, BOK has low volume of its assets, capital and liabilities, income and expense. Anyhow BOK is also doing well comparing with NABIL.

### 4.2.3 Test of Hypothesis

Test of hypothesis is one of the important application of statistical inference. “In testing of hypothesis, an assumption is made about the population parameter. To test whether the assumptions or hypothesis is right or not a sample is selected from the population, sample statistic is obtained, observe the difference between sample and the population hypothesized value, and test, whether the difference is significant. Smaller the difference the sample mean is close to the hypothesized value, and larger the difference the hypothesized value has low chance to be correct.

F-Test is applied in testing the equality of population variance, the equity of several population means and the significance of an observed sample correlation ratio and the linearity of regression.

F- Test is defined as,

F = Greater variance/ smaller variance

$$F = \frac{S_1^2}{S_2^2} \cong F \text{ distribution with } (V_1, V_2) \text{ d.f.}$$

$$S_1^2 = \frac{\Sigma(x_1 - \bar{x})^2}{n_1 - 1}$$

$$S_2^2 = \frac{\Sigma(x_2 - \bar{x}_2)^2}{n_2 - 1}$$

Degree of freedom (d.f.)

=  $V_1$  (numerator)

=  $N_1 - 1$

=  $V_2$  (Denominator)

=  $N_2 - 1$

**Decision Rule**

If calculated value of F is greater than table F at given level of significance  $\alpha$  for  $V_1$ , (numerator d.f.),  $V_2$  (denominator d.f.) null hypothesis  $H_0$  is rejected other wise accepted it.

#### 4.2.3.1 Current Ratio

Testing Hypothesis for current ratio is used for the comparison of two banks under current ratio. Here we used F-Test

Null hypothesis ( $H_0$ ) = Average return on current ratio of NABIL and BOK are not differ significantly.

Alternative Hypothesis ( $H_1$ ) = Average return on current ratio of NABIL and BOK are differ significantly.

#### F-Test (One tail)

F = Greater variance/smaller variance

$$F = \frac{S_1^2}{S_2^2} = \frac{0.000529}{0.00012996} = 4.07$$

$$_{\text{cal}} F = 4.07$$

DF.

$V_1$  (Numerator)

$$= 5-1 = 4$$

$V_2$  (Denomintor)

$$5-1 = 4$$

The table value of F = 6.39 at  $\alpha = 5\%$  for  $V_1 = 4$ ,  $V_2=4$

#### Decision:

Since  $_{\text{cal}} F (4.07) < _{\text{Tab}} F (6.39)$ , so, we accept  $H_0$  i.e. Average return on current ratio of NABIL and BOK are not differ significantly

## Two Tail

Let,

$$\text{NABIL} = \sigma_1^2$$

$$\text{BOK} = \sigma_2^2$$

We have,

$$\text{Numerator (V}_1) = 4$$

$$\text{Denominator (V}_2) = 4$$

$$\alpha = 0.05$$

If,

$$\frac{1}{F_{\text{tab}}} < f_{\text{cal}} < F_{\text{tab}} \text{ then } H_0 \text{ accepted otherwise rejected}$$

Null hypothesis ( $H_0$ ) = Variability of current ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ )

Alternative hypothesis ( $H_1$ ) = Variability of current ratio of NABI and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}} = (V_1, V_2, \alpha = 5\%)$$

$$= (4, 4, \alpha = 5\%)$$

$$= 4.07$$

Now,

$$F_{\text{tab}}(V_1, V_2, \alpha = 5\%) = \frac{1}{F(4,4, \alpha = 0.05)} = \frac{1}{4.07}$$

$$= 0.156$$

As we know,

$$F_{\text{cal}} = 0.000529/0.00012996$$

$$= 4.07$$

Here,

$$F_{\text{tab}} = 6.39, \frac{1}{F_{\text{tab}}} = F_{\text{cal}} = 4.07$$

Here, we found  $\frac{1}{f_{tab}}(0.156) < F_{cal}(4.07)$

$< F_{tab}(6.39)$  i.e. we accept  $H_0$ . It clearly indicates that both banks NABIL and BOK have equal current assets ratio.

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

Null hypothesis ( $H_0$ ) = Average return on cash and Bank balance to total deposit Ratio of NABIL and BOK are not differ significantly.

Alternative hypothesis ( $H_1$ ) = Average return on cash and Bank balance to total deposit Ratio of NABIL and BOK are differ.

$F = \text{Greater variance} / \text{Smaller variance}$

$$F = \frac{S_1^2}{S_2^2}$$

$$= 3.9204/3.8416$$

$$= 1.0205$$

$$_{cal} F = 1.0205$$

d.f.

$$V_1 = (\text{Numerator})$$

$$= 5-1 = 4$$

$$V_2 = \text{denominator}$$

$$= 5-1 = 4$$

The table value of  $F = 6.39$  at  $\alpha = 5\%$  for  $V_1 = 4$ ,  $V_2 = 4$

#### Decision

Since  $_{cal} f (1.0205) < _{Tab} F (6.39)$ . So, we accept  $H_0$  i.e. average return on cash and bank balance to total deposit Ratio of NABIL and BOK are not differ significantly.

## Two Tail

Null Hypothesis ( $H_0$ ) = Variability for average return on cash and Bank balance to total deposit Ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ )

Alternative hypothesis ( $H_1$ ) = Average return on cash and Bank balance to total deposit ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}}(V_1, V_2, \alpha = 0.05)$$

$$= (4,4, \alpha = 0.05)$$

$$= 6.39$$

$$F_{\text{tab}}(V_1, V_2, \alpha = 5.1\%) = \frac{1}{f(4,4, \alpha = 0.05)} = \frac{1}{6.39} = 0.156$$

$$F_{\text{cal}} = \frac{\text{Greater Variance}}{\text{Smaller variance}}$$

$$F = \frac{S_1^2}{S_2^2}$$

$$= 3.9204/0.8416$$

$$= 1.0205$$

$$F_{\text{cal}} = 1.0205$$

Here,

$$F_{\text{tab}} = 6.39$$

$$\frac{1}{F_{\text{tab}}} = 0.156$$

$$F_{\text{cal}} = 1.0205$$

Here, we found  $\frac{1}{f_{\text{tab}}}$  (0.156) <  $F_{\text{cal}}$  (1.0205) <  $F_{\text{tab}}$  (6.39) i.e. we accept  $H_0$ , it

indicates that cash and bank balance to total deposit ratio of both banks are equal.



#### 4.2.3.3. Cash and Bank Balance to Current Assets Ratio

Null Hypothesis ( $H_0$ ) = Average return on cash and bank balance to current assets ratio of NABIL and BOK are not differ significantly.

Alternative Hypothesis ( $H_1$ ) = Average return on cash and bank balance to current Assets ratio of NABIL and BOK are differ significantly.

F = Greater variance/smaller variance

$$F = \frac{S_1^2}{S_2^2}$$
$$= \frac{14.5161}{7.0756} = 2.05157$$

$$\text{Cal F} = 2.05175$$

d.f.

$$V_1 = (\text{numerator})$$

$$= 5-1$$

$$= 4$$

$$V_2 (\text{Denominator})$$

$$5-1$$

$$= 4$$

The table value of F = 6.39 at  $\alpha = 5\%$  For  $V_1 = 4$ ,  $V_2 = 4$

**Decision:**

Since  $\text{cal F} (2.05157) < \text{Tab F} (6.39)$ , so, we accept  $H_0$  i.e. Average return on cash and bank balance to current assets ratio of NABIL and BOK are not differ significantly.

## Two Tail

Null Hypothesis ( $H_0$ ) = Variability for cash and Bank Balance to current Assets Ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ )

Alternative hypothesis ( $H_1$ ) = variability for cash and Bank balance to current assets ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ ).

$$F_{tab} = (V_1, V_2, \alpha = 0.05)$$

$$= (4, 4, \alpha = 0.05)$$

$$= 6.39$$

$$F_{tab}(v_1, v_2, \alpha = 0.05) = \frac{1}{f(4, 4, \alpha = 0.05)} = \frac{1}{6.39} = 0.156$$

$$F_{cal} = \frac{\text{Greater variance}}{\text{Smaller variance}}$$

$$F = \frac{S_1^2}{S_2^2}$$

$$= \frac{14.5161}{7.0756} = 2.05157$$

$$F_{cal} = 2.05157$$

Here,

$$F_{tab} = 6.39$$

$$\frac{1}{F_{tab}} = 0.156$$

$$F_{cal} = 2.05157$$

Here, We found  $\frac{1}{f_{tab}} (0.156) < F_{cal} (2.05157) < F_{tab} (6.39)$  i.e. we accept  $H_0$ . It

shows we should accept that the cash and bank balance to current assets ratio of both banks are equal.

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

Null Hypothesis ( $H_0$ ) = Average return on investment on government securities to current assets ratio of NABIL and BOK are not differ significantly.

Alternative hypothesis ( $H_1$ ) = Average return on investment on government securities to current assets ratio of NABIL and BOK are differ significantly.

F = Greater variance/smaller variance

$$\begin{aligned} F &= \frac{S_1^2}{S_2^2} \\ &= \frac{358.7236}{8.1225} \\ &= 44.16 \end{aligned}$$

$$_{\text{cal}} F = 44.1$$

d.f.

$$V_1 = (\text{Numerator})$$

$$= 5-1$$

$$= 4$$

$$V_2 = (\text{Denominator})$$

$$= 5-1$$

$$= 4$$

The table value  $f = 6.39$  at  $\alpha = 5\%$  For  $V_1 = 4$ ,  $V_2 = 4$

#### Decision

Since  $_{\text{cal}} f (44.16) > _{\text{Tab}} F (6.39)$ , so we rejected  $H_0$  i.e. average return on investment on governed securities to current assets ratio of NABIL and BOK are differ significantly.

## Two Tail

Null Hypothesis (Ho) = Variability of Investment on government securities to current assets ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ )

Alternative hypothesis (H1) = Variability of investment on government securities to current assets ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}}(V_1, V_2, \alpha = 0.05) = \frac{1}{f(4,4, \alpha = 0.05)} = \frac{1}{6.39}$$

$$F_{\text{cal}} = \frac{\text{Greater variance}}{\text{Smaller variance}}$$

$$F = \frac{S_1^2}{S_2^2}$$

$$= \frac{358.7236}{8.1225}$$

$$= 44.16$$

$$F_{\text{cal}} = 44.16$$

Here,

$$F_{\text{tab}} = 6.39$$

$$\frac{1}{F_{\text{tab}}} = 0.156$$

$$f_{\text{cal}} = 44.16$$

Here, we found  $\frac{1}{f_{\text{tab}}}(0.156) < f_{\text{cal}}(44.16) > f_{\text{tab}}(6.39)$  i.e. we reject Ho. The above analysis shows that investment of government securities to current assets ratio of both banks are not equal because here we found that the  $f_{\text{cal}}$  is more greater than  $f_{\text{tab}}$ .

#### 4.2.3.5 Loan and Advances to Current Assets Ratio

Null hypothesis ( $H_0$ ) = Average return of loan and advances to current assets ratio of NABIL and BOK are not differ significantly

Alternative hypothesis ( $H_1$ ) = Average return on loan and advances to current assets ratio of NABIL and BOK are differ significantly.

F = greater variance/smaller variance

$$F = \frac{S_1^2}{S_2^2}$$

$$= 9/7.1289$$

$$= 1.26$$

$$\text{cal } F = 1.26$$

d.f.

$V_1$  (Numerator

$$= 5-1$$

$$= 4$$

$V_2$  = (Denominator)

$$= 5-1$$

$$= 4$$

The table value  $F = 6.39$  at  $\alpha = 5\%$ ,  $V_1 = 4$ ,  $V_2 = 4$

The table value of  $F (1.26) <_{\text{Tab}} F(6.39)$  So, we accepted  $H_0$  i.e. average return on loan and advances to current assets ratio of NABIL and BOK are not differ significantly.

## Two Tail

Null Hypothesis ( $H_0$ ) = Variability of loan and advances to current assets ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ )

Alternative hypothesis ( $H_1$ ) = variability of loan and advances to current assets ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ ).

$$f_{\text{tab}}(V_1, V_2, \alpha = 0.05)$$

$$= (4, 4, \alpha 0.05)$$

$$= 6.39$$

$$F_{\text{tab}}(V_1, V_2, \alpha = 0.05) = \frac{1}{F(4, 4, \alpha = 0.05)} = 0.156$$

$$F_{\text{cal}} F = \frac{S_1^2}{S_2^2}$$

$$= 9/7.1289$$

$$= 1.26$$

$$\text{Cal } F = 1.26$$

Here,

$$F_{\text{tab}} = 6.39$$

$$\frac{1}{F_{\text{tab}}} = 0.156$$

$$F_{\text{cal}} = 1.26$$

Here, we found  $\frac{1}{F_{\text{tab}}}(0.156) < F_{\text{cal}} (1.26) < F_{\text{tab}} (6.39)$  i.e. we accept  $H_0$ . It

indicates that loan and advances to current assets ratio of NABIL and BOK are equal.

### 4.2.3.6 Loan and Advances to Total Deposit Ratio

Null Hypothesis ( $H_0$ ) = Average return on loan and advances to total deposit ratio of NABIL and BOK are not differ significantly.

Alternative hypothesis ( $H_1$ )= Average return on loan and advances to total deposit ratio of NABIL and BOK are differ significantly.

$$F = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$F = \frac{S_1^2}{S_2^2}$$

$$= 83.7225/16.81 = 4.98$$

$$\text{cal } F = 4.98$$

d.f. :

$V_1$  (Numerator)

$$= 5-1$$

$$= 4$$

$V_2$  (Denominator)

$$= 5-1$$

$$= 4$$

The table value of  $F = 6.39$  at  $\alpha = 5\%$  for  $V_1 = 4$ ,  $V_2 = 4$

### **Decision**

Since  $\text{cal } F(4.98) < \text{Tab } F(6.39)$  So, we accepted  $H_0$  i.e. Average return on loan and advances to total deposit ratio of NABIL and BOK are not differ significantly.

### Two Tail:

Null Hypothesis ( $H_0$ ): Variability of loan and advances to total deposit ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ )

Alternative Hypothesis ( $H_1$ ) = Variability of loan and advances to total deposit Ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}} = (V_1, V_2, \alpha = 0.05)$$

$$= (4, 4, \alpha = 0.05)$$

$$= 6.39$$

$$F_{\text{tab}} = (V_1, V_2, \alpha = 0.05) = \frac{1}{f(4, 4, \alpha = 0.05)} = \frac{1}{6.39} = 0.156$$

$$F_{\text{cal}} = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$F = \frac{S_1^2}{S_2^2}$$

$$= 83.7225/16.81$$

$$= 4.98$$

Here,

$$F_{\text{tab}} = 6.39$$

$$\frac{1}{F_{\text{tab}}} = 0.156$$

$$F_{\text{cal}} = 4.98$$

Here, we found  $\frac{1}{F_{\text{tab}}}$  (0.156) <  $F_{\text{cal}}$  (4.98) <  $f_{\text{tab}}$  (6.39) i.e. we accept  $H_0$ . It clearly shows that the  $F_{\text{tab}}$  is greater than  $F_{\text{cal}}$  so, we must have to say that loan and advances to total deposit ratio of both banks NABIL and BOK have equal flow of loan and advances.



#### 4.2.3.7 Total Investment to Total Deposit

Null Hypothesis ( $H_0$ ) = Average return on total investment to total deposit of NABIL and BOK are not differ significantly.

Alternative Hypothesis ( $H_1$ ) = Average return on total deposit of NABIL and BOK are differ significantly.

$$F_{\text{cal}} = \frac{\text{GreaterVariance}}{\text{SmallerVariance}}$$

$$F = \frac{S_1^2}{S_2^2}$$

$$= 266.6689/64.6416$$

$$= 4.125$$

$$f_{\text{cal}} = 4.125$$

d.f. :

$$V_1 = (\text{Numerator})$$

$$= 5-1$$

$$=4$$

$$V_2(\text{Denominator})$$

$$= 5-1$$

$$=4$$

The table value of  $F = 6.39$  at  $\alpha = 5\%$  for  $V_1 = 4$ ,  $V_2 = 4$

#### Decision:

Since  $F_{\text{cal}} (4.125) < F_{\text{tab}} (6.39)$ , so we accepted  $H_0$  i.e. average return on total investment of total deposit of NABIL and BOK are not differ significantly

## Two Tail

Null Hypothesis ( $H_0$ )=Variability for total investment of total deposit of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ )

Alternative Hypothesis ( $H_1$ ) = Variability for total investment of total deposit of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}} = (V_1, V_2, \alpha = 0.05)$$

$$= (4, 4, \alpha = 0.05)$$

$$= 6.39$$

$$F_{\text{tab}}(V_1, V_2, \alpha = 5\%) = \frac{1}{f(4,4, \alpha = 0.05)} = \frac{1}{6.39} = 0.156$$

$$F_{\text{cal}} = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$= 266.6689 / 64.6416$$

$$= 4.125$$

Here,

$$F_{\text{tab}} = 6.39$$

$$\frac{1}{F_{\text{tab}}} = 0.156$$

$$F_{\text{cal}} = 4.125$$

Here, we found  $\frac{1}{F_{\text{tab}}}(0.156) < F_{\text{cal}}(4.125) < f_{\text{tab}}(6.39)$ , i.e. we accept  $H_0$ . The above analysis shows that doing the total investment of total deposit of both banks are equal because here we found that the  $f_{\text{cal}}$  is less than  $f_{\text{tab}}$ .

### 4.2.3.8. Loan and Advances to Total Working Fund Ratio

Null hypothesis ( $H_0$ ) = Average return on loan and advances to total working Fund Ratio of NABIL and BOK are not differ significantly.

Alternatives Hypothesis ( $H_1$ ) =Average return on loan and advances to total working fund ratio of NABIL and BOK are differ significantly

$$F = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$F = \frac{S_1^2}{S_2^2}$$

$$= 36.048/23.8144$$

$$= 1.514$$

$$\text{cal } F = 1.514$$

d.f.

$V_1$  : (Nominator)

$$= 5-1$$

$$= 4$$

$V_2$  (Denominator)

$$= 5-1$$

$$= 4$$

The table value of  $f = 6.39$  at 5% for  $V_1 = 4$ ,  $V_2 = 4$

### **Decision**

Since  $\text{cal } F (1.514) < \text{Tab } F (6.39)$ , So we accepted  $H_0$ . i.e. Average return on loan and advances to total working fund ratio of NABIL and BOK are not differ significantly.

## Two tail

Null Hypothesis ( $H_0$ ) = Variability for loan and advances to total working fund ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ )

Alternative Hypothesis ( $H_1$ )= Variability for loan and advances to total working fund ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}}(V_1, V_2, \alpha = 0.05)$$

$$= (4,4, \alpha = 0.05)$$

$$= 6.39$$

Now,

$$F_{\text{tab}}(V_1, V_2, \alpha = 0.05) = \frac{1}{F(4,4, \alpha = 0.05)} = \frac{1}{6.39}$$

$$= 0.156$$

$$F_{\text{cal}} \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$F = \frac{S_1^2}{S_2^2}$$

$$= 36.048/23.8144$$

$$= 1.514$$

$$\text{Cal } F = 1.514$$

Here,

$$F_{\text{tab}} = 6.39$$

$$\frac{1}{f_{\text{tab}}} = 0.156$$

$$F_{\text{cal}} = 1.514$$

Here we found  $\frac{1}{f_{\text{tab}}}(0.156) < F_{\text{cal}} (1.514) < F_{\text{tab}} (6.39)$  i.e. we accepted  $H_0$ . It clearly shows that the  $F_{\text{tab}}$  is greater than of  $F_{\text{cal}}$ . So, we must

have to say that the flow of loan and advances to total working fund ratio of both banks NABIL and BOK have equal.

#### **4.2.3.9 Investment on Government to Total Working Fund Ratio**

Null Hypothesis (H<sub>0</sub>): Average return on investment on Government securities to total working fund ratio of NABIL and BOK are not differ significantly.

Alternative Hypothesis (H<sub>1</sub>): Average return on investment on Government securities to total working fund ratio of NABIL and BOK are differ significantly

F = Greater Variance/Smaller Variance

$$f = \frac{S_1^2}{S_2^2}$$

$$= 310.112/54.0225$$

$$= 5.74$$

$$\text{Cal } f = 5.74$$

d.f.

V<sub>1</sub> (Numerator)

$$= 5-1 = 4$$

V<sub>2</sub> = (Denominator)

$$= 5-1 = 4$$

The table value of f = 6.39 at  $\alpha = 5\%$  for V<sub>1</sub>=4, V<sub>2</sub> = 4

#### **Decision**

Since  $\text{cal } F (5.74) < \text{tab } F(6.39)$ . So, we accepted H<sub>0</sub> i.e. average return on investment on government securities to total working fund ratio of NABIL and BOK are not differ significantly

### Two tail:

Null Hypothesis ( $H_0$ ): Variability for investment on Government securities to total working fund ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ ).

Alternative Hypothesis ( $H_1$ ): Variability for investment on Government securities to total working fund ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}} = (V_1, V_2, \alpha = 5\%)$$

$$= (4, 4, \alpha = 5\%)$$

$$= 6.39$$

$$F_{\text{tab}}(V_1, V_2, \alpha = 0.05) = \frac{1}{F(4, 4, \alpha = 0.05)} = \frac{1}{6.39} = 0.156$$

$$F_{\text{cal}} = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2} = 310.112/54.0225 = 5.74$$

$$\text{cal } f = 5.74$$

$$\text{Here, } F_{\text{tab}} = 6.39$$

$$\frac{1}{F_{\text{tab}}} = 0.156$$

$$F_{\text{cal}} = 5.74$$

Here, we found  $\frac{1}{F_{\text{tab}}}(0.156) < F_{\text{cal}}(5.74) < F_{\text{tab}}(6.39)$  i.e. so we accepted  $H_0$ . The above analysis shows that the investment on government securities to total working fund ratio of both banks is equal.

#### 4.2.3.10 Loan Loss Ratio

Null hypothesis ( $H_0$ ): Average return on loss ratio of NABIL and BOK are not differ significantly.

Alternative hypothesis ( $H_1$ ): Average return on loan loss ratio of NABIL and BOK are differ significantly.

$$F = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$F = \frac{S_1^2}{S_2^2}$$

$$= 6.9169/3.61$$

$$= 1.92$$

$$\text{Cal F} = 1.92$$

D.F.:

$V_1$  (Numerator)

$$= 5-1$$

$$= 4$$

$V_2$  (Denominator)

$$= 5-1$$

$$= 4$$

The table value of  $F = 6.39$  at  $\alpha = 5\%$  for  $V_1 = 4$ ,  $V_2 = 4$

#### Decision:

Since Cal F (1.92) < Tab F (6.39), So we accepted  $H_0$ . i.e. average return on loan loss ratio of NABIL and BOK are not differ significantly.

### Two tail:

Null Hypothesis ( $H_0$ ): Variability for loan loss ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ ).

Alternative Hypothesis ( $H_1$ ): Variability for loan loss ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}} = (V_1, V_2, \alpha = 5\%)$$

$$= (4, 4, \alpha = 5\%)$$

$$= 6.39$$

$$F_{\text{tab}}(V_1, V_2, \alpha = 0.05) \frac{1}{F(4, 4, \alpha = 0.05)} = \frac{1}{6.39} = 0.156$$

$$F_{\text{cal}} = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2}$$

$$= 6.9169/3.61$$

$$= 1.92$$

Here,

$$F_{\text{tab}} = 6.39$$

$$\frac{1}{F_{\text{tab}}} = 0.156$$

$$F_{\text{cal}} = 1.92$$

Here, we found  $\frac{1}{F_{\text{tab}}} = (0.156) < F_{\text{cal}} (1.92) < F_{\text{tab}} (6.39)$  i.e. we accept  $H_0$ . It clearly shows that the  $F_{\text{tab}}$  is greater than  $F_{\text{cal}}$  from the above analysis. We must have to say that the both banks have suffering equal loss on loan.



#### 4.2.3.11 Return on Total Working Fund Ratio

Null Hypothesis (Ho): Average return on investment on return on total working fund ratio of NABIL and BOK are not differ significantly.

Alternative Hypothesis (H<sub>1</sub>): Average return on return on total working fund ratio of NABIL and BOK are differ significantly

$$F = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2}$$

$$= 0.8836/0.4356$$

$$= 2.03$$

$$\text{cal } f = 2.03$$

d.f.

$$V_1: (\text{Numerator})$$

$$= 5-1$$

$$= 4$$

$$V_2 = (\text{Denominator})$$

$$= 5-1$$

$$= 4$$

The table value of  $f = 6.39$  at  $\alpha = 5\%$  For  $V_1 = 4$ ,  $V_2 = 4$

#### Decision

Since  $\text{cal } F (2.03) < \text{TAB } F(6.39)$ . So, we accepted Ho i.e. average return on return on total working fund ratio of NABIL and BOK are not differ significantly.

### Two tail:

Null Hypothesis ( $H_0$ ) = Variability for return on total working fund ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ ).

Alternative Hypothesis ( $H_1$ )= Variability for return on total working fund ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}} = (V_1, V_2, \alpha = 5\%)$$

$$= (4, 4, \alpha = 5\%)$$

$$= 6.39$$

$$F_{\text{tab}}(V_1, V_2, \alpha = 0.05) = \frac{1}{F(4, 4, \alpha = 0.05)} = \frac{1}{6.39} = 0.156$$

$$F_{\text{cal}} = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2}$$

$$= 0.8836/0.4356$$

$$= 2.03$$

Here,

$$F_{\text{tab}} = 6.39$$

$$\frac{1}{F_{\text{tab}}} = 0.156$$

$$F_{\text{cal}} = 2.03$$

Here, we found  $\frac{1}{F_{\text{tab}}} = (0.156) < F_{\text{cal}} (2.03) < F_{\text{tab}} (6.39)$  i.e. we accept  $H_0$ . The above analysis shows that the return on total working fund ratio of both banks NABIL and BOK are equal.

#### 4.2.3.12 Return on Loan and Advances Ratio

Null Hypothesis (Ho)= Average return on loan and advances ratio of NABIL and BOK are not differ significantly.

Alternative Hypothesis (H<sub>1</sub>)= Average return loan and advances ratio of NABIL and BOK are differ significantly.

$$F = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2}$$

$$= \frac{0.1681}{0.09}$$

$$= 1.87$$

$$\text{cal } f = 1.87$$

d.f.

$$V_1(\text{Numerator})$$

$$= 5-1$$

$$= 4$$

$$V_2 (\text{Denominator})$$

$$= 5-1$$

$$= 4$$

The table value of  $f = 6.39$  at  $\alpha = 5\%$  For  $V_1 = 4$ ,  $V_2 = 4$

#### Decision

Since  $\text{cal } F (1.87) < F_{\text{tab}} (6.39)$ . So, we accepted Ho i.e. average return on return on loan and advance ratio of NABIL and BOK are not differ significantly.

### Two tail:

Null Hypothesis ( $H_0$ )= Variability for return on loan and advances ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ ).

Alternative Hypothesis ( $H_1$ )= Variability for return on loan and advance ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}} = (V_1, V_2, \alpha = 5\%)$$

$$= (4, 4, \alpha = 5\%)$$

$$= 6.39$$

$$F_{\text{tab}}(V_1, V_2, \alpha = 0.05) = \frac{1}{F(4, 4, \alpha = 0.05)} = \frac{1}{6.39} = 0.156$$

$$F_{\text{cal}} = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2}$$

$$= \frac{0.1681}{0.09}$$

$$= 1.87$$

Here,

$$F_{\text{tab}} = 6.39$$

$$\frac{1}{F_{\text{tab}}} = 0.156$$

$$F_{\text{cal}} = 1.87$$

Here, we found  $\frac{1}{F_{\text{tab}}} = (0.156) < F_{\text{cal}} (1.87) < F_{\text{tab}} (6.39)$  i.e. we accept  $H_0$ . The above analysis shows that the return on loan and advances ratio of both banks NABIL and BOK are equal.

### 4.2.3.13 Interest Earned to Total Outside Assets Ratio

Null Hypothesis ( $H_0$ )= Average return on interest earned to total outside assets ratio of NABIL and BOK are not differ significantly.

Alternative Hypothesis ( $H_1$ )= Average return on interest earned to total outside asset ratio of NABIL and BOK are differ significantly.

$$F = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2}$$

$$= \frac{6.8644}{6.5536}$$

$$= 1.047$$

$$\text{cal } f = 1.047$$

d.f.

$V_1$ : (Numerator)

$$= 5-1$$

$$= 4$$

$V_2$  = (Denominator)

$$= 5-1$$

$$= 4$$

The table value of  $f = 6.39$  at  $\alpha = 5\%$  For  $V_1 = 4$ ,  $V_2 = 4$

#### Decision

Since  $\text{cal } F (1.047) < \text{Tab } F(6.39)$ . So, we accepted  $H_0$  i.e. average return on interest earned to total outside assets ratio of NABIL and BOK are not differ significantly.

### Two tail:

Null Hypothesis ( $H_0$ )= Variability for return on interest earned to total outside asset ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ ).

Alternative Hypothesis ( $H_1$ )= Variability for return on interest earned to total outside asset ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}} = (V_1, V_2, \alpha = 5\%)$$

$$= (4,4, \alpha = 5\%)$$

$$= 6.39$$

$$F_{\text{tab}}(V_1, V_2, \alpha = 0.05) = \frac{1}{F(4,4, \alpha = 0.05)} = \frac{1}{6.39} = 0.156$$

$$F_{\text{cal}} = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2}$$

$$= \frac{6.8644}{6.5536}$$

$$= 1.047$$

Here, we found  $\frac{1}{F_{\text{tab}}} = (0.156) < F_{\text{cal}} (1.047) < F_{\text{tab}} (6.39)$  i.e. we accept  $H_0$ . The above analysis shows that the interest earned to total outside assets ratio of both banks NABIL and BOK are equal.

#### 4.2.3.14 Total Interest Earned to Total Operating Ratio

Null Hypothesis ( $H_0$ ): Average return on total interest earned to total operating ratio of NABIL and BOK are not differ significantly.

Alternative Hypothesis ( $H_1$ ): Average return on total interest earned to total operating ratio of NABIL and BOK are differ significantly.

$$F = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2}$$
$$= \frac{481.3636}{142.5636}$$
$$= 3.38$$

$$_{\text{cal}} f = 3.38$$

d.f.

$V_1$ : (Numerator)

$$= 5-1$$

$$= 4$$

$V_2$  = (Denominator)

$$= 5-1$$

$$= 4$$

The table value of  $f = 6.39$  at  $\alpha = 5\%$  for  $V_1 = 4$ ,  $V_2 = 4$

### **Decision**

Since  $_{\text{cal}} F (3.38) < _{\text{Tab}} F(6.39)$ . So, we accepted  $H_0$  i.e. average return on interest earned to total operating ratio of NABIL and BOK are not differ significantly.

### Two tail:

Null Hypothesis ( $H_0$ ) = Variability for total interest earned to total operating ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ ).

Alternative Hypothesis ( $H_1$ ) = Variability for total interest earned to total operating ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}} = (V_1, V_2, \alpha = 5\%)$$

$$= (4, 4, \alpha = 5\%)$$

$$= 6.39$$

$$F_{\text{tab}}(V_1, V_2, \alpha = 0.05) = \frac{1}{F(4, 4, \alpha = 0.05)} = \frac{1}{6.39} = 0.156$$

$$F_{\text{cal}} = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2}$$

$$= \frac{481.3636}{142.5636}$$

$$= 3.38$$

$$\text{Cal } f = 3.38$$

Here,

$$F_{\text{tab}} = 6.39$$

$$\frac{1}{F_{\text{tab}}} = 0.156$$

$$F_{\text{cal}} = 3.38$$

Here, we found  $\frac{1}{F_{\text{tab}}} = (0.156) < F_{\text{cal}} (3.38) < F_{\text{tab}} (6.39)$  i.e. we accept  $H_0$ . The

above analysis shows that the interest earned to total operating assets ratio of both banks NABIL and BOK are equal.

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



Null Hypothesis ( $H_0$ ): Average return on total interest earned to total working fund ratio of NABIL and BOK are not differ significantly.

Alternative Hypothesis ( $H_1$ ): Average return on total interest earned to total working fund ratio of NABIL and BOK are differ significantly.

$$F = \frac{\text{Greater Variances}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2}$$

$$= \frac{0.8281}{0.3648}$$

$$= 2.27$$

$$\text{Cal } f = 2.27$$

d.f.

$V_1$ : (Numerator)

$$= 5-1$$

$$= 4$$

$V_2$  = (Denominator)

$$= 5-1$$

$$= 4$$

The table value of  $f = 6.39$  at  $\alpha = 5\%$  for  $V_1 = 4$ ,  $V_2 = 4$

### Decision

Since  $\text{cal } F (2.27) < \text{Tab } F(6.39)$ . So, we accepted  $H_0$  i.e. average return on interest earned to total working fund ratio of NABIL and BOK are not differ significantly.

### Two tail:

Null Hypothesis ( $H_0$ ) = Variability on total interest earned to total working fund ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ ).

Alternative Hypothesis ( $H_1$ ) = Variability for total interest earned to total working fund ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}} = (V_1, V_2, \alpha = 5\%)$$

$$= (4, 4, \alpha = 5\%)$$

$$= 6.39$$

$$F_{\text{tab}} (V_1, V_2, \alpha = 0.05) \frac{1}{F(4, 4, \alpha = 0.05)} = \frac{1}{6.39} = 0.156$$

$$F_{\text{cal}} = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2}$$

$$= \frac{0.8281}{0.3648}$$

$$= 2.27$$

$$\text{Cal } f = 2.27$$

Here,

$$F_{\text{tab}} = 6.39$$

$$\frac{1}{F_{\text{tab}}} = 0.156$$

$$F_{\text{cal}} = 2.27$$

Here, we found  $\frac{1}{F_{\text{tab}}} = (0.156) < F_{\text{cal}} (2.27) < F_{\text{tab}} (6.39)$  i.e. we accept  $H_0$ . The

above analysis shows that the getting interest earned to total working fund ratio of both banks NABIL and BOK are equal.

#### 4.2.3.16 Total Interest Paid to Total Working Fund Ratio

Null Hypothesis ( $H_0$ ) = Average return on total interest paid to total working fund ratio of NABIL and BOK are not differ significantly.

Alternative Hypothesis ( $H_1$ ) = Average return on total interest paid to total working fund ratio of NABIL and BOK are differ significantly.

$$F = \frac{\text{Greater Variances}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2}$$

$$= \frac{1.8225}{0.4356}$$

$$= 4.18$$

$$\text{Cal } f = 4.18$$

d.f.

$V_1$ : (Numerator)

$$= 5-1$$

$$= 4$$

$V_2$  = (Denominator)

$$= 5-1$$

$$= 4$$

The table value of  $f = 6.39$  at  $\alpha = 5\%$  for  $V_1 = 4$ ,  $V_2 = 4$

### **Decision**

Since Cal.  $F (4.18) < \text{Tab } F(6.39)$ . So, we accepted  $H_0$  i.e. average return on interest paid to total working fund ratio of NABIL and BOK are not differ significantly.

### Two tail:

Null Hypothesis ( $H_0$ ) = Variability for interest paid to total working fund ratio of NABIL and BOK are equal ( $\sigma_1^2 = \sigma_2^2$ ).

Alternative Hypothesis ( $H_1$ ) = Variability for interest paid to total working fund ratio of NABIL and BOK are not equal ( $\sigma_1^2 \neq \sigma_2^2$ )

$$F_{\text{tab}} = (V_1, V_2, \alpha = 5\%)$$

$$= (4, 4, \alpha = 5\%)$$

$$= 6.39$$

$$F_{\text{tab}}(V_1, V_2, \alpha = 0.05) = \frac{1}{F(4, 4, \alpha = 0.05)} = \frac{1}{6.39} = 0.156$$

$$F_{\text{cal}} = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$f = \frac{S_1^2}{S_2^2}$$

$$= \frac{1.8225}{0.4356}$$

$$= 4.18$$

$$\text{Cal } f = 2.27$$

Here,

$$F_{\text{tab}} = 6.39$$

$$\frac{1}{f_{\text{tab}}} = 0.156$$

$$F_{\text{cal}} = 4.18$$

Here, we found  $\frac{1}{F_{\text{tab}}} = (0.156) < F_{\text{cal}} (4.18) < F_{\text{tab}} (6.39)$  i.e. we accept  $H_0$ . The above analysis shows that NABIL and BOK had paid the interest to using the working fund.

### 4.3 Major Findings of the Study

Liquidity ratios are used for the measurement of the financial position of the organization, from long-term as well as short term solvency point of view. NABIL has the highest ratio in all the year ranging 1.05 to 1.08 and the combined mean is 1.064 except the FY 2003/04 and 2005/06 BOK has the lowest ratio ranging 1.01 to 1.04 this indicates that the NABIL has greater capacity to meet short term obligations and have sufficient current assets to discharge current liabilities. But it conclusion BOK also have meet the current ratio standard point 2:1. BOK has also tried to increase its current assets.

In case of cash and Bank balance to total deposit ratio, BOK also try to increase its current assets ratio. In case of cash and bank balance to total deposit ratio, BOK had maintain higher cash and bank balance than NABIL to improve execute modification on the better position regarding the meeting of demand of its customer on this deposit at any time. But might be NABIL has invest its capital to profitable sectors, to distribute the dividend to its shareholders. But NABIL has also maintained the cash and bank balance to meet the customers demand and also that the highest ratio shows the inefficiency of utilization of cash

Here, the researcher found the NABIL has invested its capital in government securities while BOK has less. NABIL combine mean is 23.52 and BOK has 6.12 to invest its current assets in government securities is profitable and non risky.

Providing the loan and advances to current assets ratio is the main function of the banks. Banks could not hold its all of the current assets as a cash and bank balance. So, it invests its current assets in loan and advances which create the profit for the banks. NABIL has done so well than BOK to

provide the loan and advances and combine mean is also 46.64 which is 6 times more than BOK. But it is also harmful to the bank because it can collect only the time of maturity. So, it would say that in case of liquidity ratio. NABIL performance is good and variability of ratios is less homogenous.

Activity Turnover ratio is evaluating the effectiveness to employment of the resources in a business concern. BOK has mobilized its total deposit on loan and advances and acquiring higher profit than NABIL. It also indicates that BOK has more uniform than NABIL. It also indicates that BOK has more uniform than NABIL in case of loan and advances to total deposit ratio. But in case of investment to total deposit ratio. NABIL has invest its highest portion of total deposit in profitable sectors

Loss of loan provision occurred when debtors fail to pay their loan. It shows how efficiently the banks manage its loan and advances. NABIL has highest loan loss on FY 2002/03 (5.54) and trying to make it low, so in FY 2006/07 it has less loan loss while BOK has in 8.67 in FY 2002/03 and also trying to make it low. Thus it seems NABIL has more efficient loan management policy than BOK. In conclusion, an investment in government securities and loan loss provision, NABIL has good performance and have earned the profit.

Profitability ratio measures the profit during the certain period, for expand of the organization and providing the dividend to its shareholders it plays the vital role.

During the study period in the case of return on total working fund, BOK has less return on total working fund than NABIL. After that it has done well to achieve the profit. NABIL has a higher profitability ratio than BOK but have decreasing trend but the combined mean ratio of NABIL is

greater than BOK which clearly shows the variability of the ratio is more uniform

In return on loan and advances also NABIL has good performance. It earned the profit by providing the loan to its good customers. BOK is also doing well because it has less return in every year, after that it has able to generate profit. Anyhow the combined mean of NABIL is higher than BOK and have earned more profit.

The amount of EPS measures the efficiency of a firm in relative terms. It determined the market of share. Here, EPS of NABIL is also good than BOK and have ranged between 84 to 138%. The combined mean is also 109.81 which indicate its share has a good price in the market.

In case of dividend ratio, during the study period in all fiscal years NABIL and BOK both are able to provide dividend to its shareholders. It has fluctuating trend able to provide the dividend to its shareholders. But the combined mean of NABIL is higher than BOK.

Total interest paid to total deposit of NABIL is also good. NABIL had paid low interest to its depositors and made a profit. It combined mean is lower than BOK. In NABIL the non-interest bearing deposit is high than BOK.

Growth ratio of total deposit of BOK is good. It has increasing its growth on total deposit @18.36% in each year while Nabil has 13.74%. If BOK is able to maintain or increase this ratio so, far, its total deposit will be increased.

Like this the growth ratio of loan and advances of BOK is also good. It has increase 18% every year which means it has provide loans more than NABIL. And also growth ratio of interest earned is better than NABIL.

Interest Paid of BOK is high than NABIL which is growing @ 8.07% while NABIL has 6.96%.

But in case of investment, NABIL's performance is good. It has invest in profitable sectors each year @8.66% while BOK has only 7.52% and have provide dividend to its shareholders

Trend Analysis: After data processing the researcher found that NABIL has doing better than BOK. Doing trend analysis of FY 2009/10 every steps like expenses Capital, liabilities, assets and income NABIL had done far better than BOK. It shows, in every year NABIL have 1.85 times more than BOK which is Rs. 284.1 million. Due NABIL has earn more profit, it increased its assets which is higher than BOK.

Matrix correlation: Doing the matrix correlation we found that NABIL and BOK both are highly correlates with capital and liabilities. NABIL expenses is highly correlated with capital and liabilities while BOK has determined its expenses in Assets.

As we did the f-test we found that most of the analysis are similar. That means tabulated f is greater than calculated F. But in some cases tabulated F is lower than calculated F.

In the case of An investment on government securities to current assets ratio the calculated F is 44.16 where as tabulated is 6.39. So the average difference of investment on government securities is statistical ly significant.

In the case of other ratio's calculated value is less than tabulated value. So, it is accepted null hypothesis. Other cases are same.



## **CHAPTER - V**

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

H we analyzed data by using financial and statistical tools where we got findings and recommendations depending upon the performance of the two commercial banks. So, the researcher had divided this chapter in to three parts.

- a. Summary
- b. Conclusion
- c. Recommendations

#### **5.1 Summary:**

NABIL and BOK both are commercial banks. Both banks main objective is to generate profit by providing quality service to its clients. Underdeveloped country like Nepal, Commercial banks through varieties of services and functions have contributed to the over growing economic enlistment of the country. They have been performing their roles to the best of their capacity like creating money. Extension of credit, safe keeping of values, facilitating or the foreign goods etc. Here, the researcher main objectives of the study are to analyze the financial position of the banks. To analyzing these, researcher used financial tools and statistical tools

Using the financial tools researcher found that the NABIL is doing better than BOK during the study period from FY 2002/03 to 2006/07. NABIL has sufficient current assets to meet its short-term obligation of its clients. Though it almost invest its capital in profitable sectors while BOK has used its deposit as loan and advances which takes a time of maturity to return. NABIL has invested most of its deposit to government securities. During the study period, every year had provided dividend to its shareholders and EPS is also high. But had provided dividend lower than

NABIL. Though, BOK is showing good performance in the banking sectors. Both banks have fluctuating loans loss provision and keeping good to reduce the loan loss. To analyze clearly shows that NABIL has more non interest bearing depositors while BOK does not have so NABIL used that money without bearing any interest.

The growth ratios of BOK are increasing every year in compare to NABIL. The analyze reveals that BOK is doing good performance to collect deposit which is increased per year @ 18.36%.

Trend analysis also shows the financial performance of Nabil and BOL's. Every year NABIL has increased its income by 284.1 million while BOK has 153.39 million which is nearly 1.856 times more.

F-test is applied in testing the equality of population variance. These all analysis shows that the Nabil's financial position's is highly strength and earn good reputation in the market. BOK is also showing a good performance by providing a dividend to its shareholders and financial position is also good but less than NABIL.

## **5.2 Conclusion**

Here, the researcher found that in compare with BOK, NABIL is doing well. NABIL has invested most of its capital in profitable sectors. Although, NABIL has also maintained the cash and bank balance to meet the customers demand but lesser than BOK. NABIL and BOK both have meet the normal standard current assets ratio to meet the short term obligation of its customers. To generate the profit and distribute the dividend to its share holders NABIL has also provided its capital as loan and advances but highest portion of capital used in non risky profitable sectors like government securities while BOK had mobilized lots of its total deposit as loan and advances to gain the profit

Due to more efficient loan policy, NABIL suffers less from loan loss provision. And have sufficient deposit of non bearing interest which can be used for a certain period. Cash flow of non bearing interest is high. Anyhow, BOK is also trying to do best in loan loss provision.

Due to NABIL has more deposits of non bearing interest, it had paid low interest to its depositors and gain the profit from this interest also. While, BOK's interest bearing depositors are high and have paid the interest to them.

To make the profits, BOK is taking higher risk than NABIL by providing the higher portion of its deposits as a loan. To make the profit, BOK is taking a higher risk than NABIL by providing the higher portion of its deposit as a loan

Due to NABIL has invest all most its capital in on-risky profitable sectors, its able to pay the dividend to its shareholders and the EPS of NABIL is good in market

The growth ratio of BOK is increasing per year. It has showing its good performance by increasing the total deposit, investment in profitable sectors, interested earning by providing a loan to clients etc while NABIL has less.

Doing the correlation matrix of NABIL and BOK, both banks have highly correlated its income with capital and liabilities.

As we did the f-test, we found that most of analysis are similar. That means tabulated F is greater than calculated F. But in some cases tabulated F is lower than calculated F.

In the case of An investment on Government securities to current assets ratio the calculated F is 44.16 where as tabulated is 6.39. So the average difference of investment on government securities is statistically significant.

### **5.3 Recommendations**

In commercial banks the liquidity portions affects external and internal factors such as saving for investment situations, central banks requirements, the leading policies management capability, prevailing interest rates etc. In this study, BOK is

trying to maintain the ratio of cash and bank balance but lower than NABIL. But both banks current ratio is not satisfactory. It is below its standard rate 2:1. Both banks are suggested to improve current assets while BOK is more.

Investment on Government securities are considered to be a free of risk of default. Because of the low risk feature government securities of any particular maturity yield the lowest interest rate. In this study, NABIL is trying to invest more in government securities to get a profit without risk but BOK is not. So risk is recommended to invest some of its funds to government securities for the benefit of itself.

In practice joint ventures banks are urban based, serve quite a few white, affluent, big customers and heavily dependent of fee based activities. To overcome its situation they should be accessible to rural area and provide loan and advances to its deposit. So, the customers is enjoying by getting depositing borrowing and other services.

Loss on loan of BOK and NABIL is increased in FY 2002/03. So, both banks are suggest, before providing the loan make sure that your clients is in good character and able to pay its loan or may take the collateral which is nearly two times more that your granted.

Profitability ratios in both banks such as returning on working capital return on loan and advances is not good. If resources held idel, banks have to bared more cost and result would be lower profit margin. It's recommended to use its funds in more profitable sectors.

From the analysis BOK is maintaining more amount as money at call or at short notice than NABIL. So, BOK is recommended to decrease its amount of all by increasing loan and advances.

It practice, deposited money is mainly tied up in loans. The larges items of the bank in the assets side is loan and advances. In the case of NABIL, negligence in administrating this assets could be the main cause of a liquidity crisis in the bank and

one of the main reason bank failure. It has been revealed form the study the NABIL loan and advances to total deposits ratios are little bit lower than BOK. So, NABIL is strongly recommended to follow up liberal lending policy and invest more and more percentage amount of deposits in loan and advance

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