

INVESTMENT POLICY OF COMMERCIAL BANKS IN NEPAL

A Thesis

Submitted By

Basant B.C.

Roll No.1417|2060|65

T.U.Registration No: 38794-92

MBS Symbol No: 9168 (1st year)

SHANKER DEV CAMPUS

Submitted to

Office of the Dean

Faculty of Management

Tribhuvan University

Kathmandu, Nepal

**In partial fulfillment of the requirement for the Degree of Master of Business
Studies (MBS)**

Putalisadak Kathmandu, Nepal.

February 2009.

RECOMMENDATION

This is to certify that the thesis

Submitted by

Basant B.C.

Entitled:

INVESTMENT POLICY OF COMMERCIAL
BANKS IN NEPAL

Has been prepared as approved by this department in the prescribed format of the Faculty of Management and is forwarded for examination.

VIVA-VOCE SHEET

We have conducted the viva-voce examination of the thesis

Submitted by

Basant B.C.

Entitled:

INVESTMENT POLICY OF COMMERCIAL
BANKS IN NEPAL

We found the thesis to be the original work of the student and written in according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirements for the Degree of Master's in Business Studies (MBS).

Viva-Voce Committee:

Chairperson Research Committee:

Member (Thesis Supervisor):

Member (External Expert):

DECLARATION

I hereby declare that the thesis “Investment Policy of Commercial Banks in Nepal” is submitted to Research Department of Shanker Dev Campus, Faculty of Management, Tribhuvan University for my original work, which had done for the partial fulfillment of requirements for the Master of Business Studies (M.B.S.) under the supervision of Joginder Goet Associate Lecturer of Shanker Dev Campus.

.....

Basant B.C.

Shanker Dev Campus

Roll No.1417|2060|65

T.U.Registration No: 38794-92

MBS Symbol No: 9168 (1st year)

ACKNOWLEDGEMENT

On behalf of in partial fulfillment of the requirements for the Degree of Master of Business Studies (M.B.S.), faculty of management of T.U. has been provided to the master degree students a valuable opportunity for the thesis. So, I would like to give the special thanks for the dean of the faculty management and my teacher Joginder Goet.

My thank also goes to Mr. Bishnu Mani Panth, Sr. Officer in Marketing Department in Asia Pacific Communication Associates Nepal (exclusive Marketer of The Himalayan Times & Annapurna Post) who is also a past student of MBS at Nepal Commerce Campus, for his regular help and necessary suggestions for this study. Thanks are also dues to the entire colleagues of my MBS batch of my college.

My deep appreciation also goes to T.U. Central Library, MOF Library, and NRB Library and other organizations and individuals who extended their helping hands at my need. I deeply indebted to Ms. Sweeta Timalsina & my family members for their encouragement and financial help to carry out the study.

At last I would like to extend thanks to the staffs of all concerned banks that helped me for providing data and valuable information.

Basant B.C.
Kathmandu, Nepal

TABLE OF CONTENTS

	<u>Page No:</u>
VIVA-VOCE SHEET	2
RECOMMENDATION	3
DECLARATION	4
ACKNOWLEDGEMENT	5
TABLE OF CONTENTS	6 to 9
LIST OF TABLES	10
LIST OF FIGURE	11
CHAPTER-I	12 to 27
1.1)BACKGROUND OF THE STUDY	12
1.1.1) EXISTANCE OF BANKING IN NEPAL	14
1.1.2) INVESTMENT POLICY OF COMMERCIAL BANK	16
1.1.3) INTRODUCTION OF SELECTED SAMPLE BANKS:	17
a) Nabil Bank Limited:	17
b) Everest Bank Limited:	20
c) Bank of Kathmandu:	21
1.2) FOCUS OF THE STUDY	22
1.3) STATEMENT OF PROBLEM	23
1.4) OBJECTIVES OF STUDY	24
1.5) SIGNIFICANCE OF THE STUDY	25
1.6) LIMITATIONS OF THE STUDY	26
1.7) ORGANIZATION OF THE STUDY	26

CHAPTER-II THE LITERATURE REVIEW	28 to 41
2.1) CONCEPTUAL FRAMEWORK	28
2.1.1) Principle of Sound Investment Policy	29
2.1.2) Investment Management Functions:	32
2.1.3) An Overview on NRB Rules Regarding Investment of a Commercial Banks.	34
2.2) REVIEW OF BOOKS	39
2.3) REVIEW OF ARTICLES	40
CHAPTER III RESEARCH METHODOLOGY	42 to 53
3.1) INTRODUCTION	42
3.2) RESEARCH DESIGN	42
3.3) NATURE AND SOURCES OF DATA	42
3.4) TOOLS OF DATA ANALYSIS	43
3.4.1) FINANCIAL TOOLS	43
3.4.2) STATICAL TOOLS	50
3.5) RESEARCH GAP:	53
CHAPTER-IV PRESENTATION AND ANALYSIS OF DATA	54 to 118
4.1) Financial Analysis of Commercial Bank:	54
4.1.1) Liquidity Ratio	54
4.1.1.1) Current Ratio	55
4.1.1.2) Cash and Bank Balance to Total Deposit Ratio	56
4.1.1.3) Cash and Bank Balance to Current Assets Ratio	57
4.1.1.4) Investment on Government Securities of Current Assets Ratio	59
4.1.1.5) Loans and Advances to Current Assets Ratio.	60
4.1.2) Asset Management Ratio	61
4.1.2.1) Loans and Advances to Total Deposits Ratio	62

4.1.2.2) Total Investment to Total Deposit Ratio	63
4.1.2.3) Loan and Advances to Total Working Fund Ratio	64
4.1.2.4) Investment on Government Securities to Total Working Funds Ratio	65
4.1.2.5) Investment on Shares and Debentures to Total Working Fund Ratio	67
4.1.2.6) Loan Loss Relation	68
4.1.3) Profitability Ratio	69
4.1.3.1) Return on Loan and Advances Ratio	70
4.1.3.2) Return on Total Working Fund Ratio	71
4.1.3.3) Total Interest Earned to Total outside Assets Ratio	72
4.1.3.4) Total Interest Earned to Total Working Fund Ratio	73
4.1.4) Risk Ratio	75
4.1.4.1) Liquidity Risk Ratio	75
4.1.4.2) Credit Risk Ratio	77
4.1.4.3) Capital Risk Ratio	78
4.2) Statistical Tools	80
4.2.1) Trend Analysis	80
4.2.1.1) Trend Analysis of Total Deposit	80
4.2.1.2) Trend Analysis of Loan and Advances	85
4.2.1.3) Trend Analysis of Total Investment	89
4.2.1.4) Trend Analysis of Net Profit	94
4.2.2) Test of Hypothesis	99
4.2.2.1) Test of Hypothesis on Loan and Advances to Total Deposits Ratio	99
4.2.3) Regression Analysis	102
4.2.3.1) Regression of Networking Capital and Net Profit	102

4.3) Major Findings of the study:	114
4.3.1) Finding from Primary Research	114
4.3.2) Findings form Secondary Data	115

CHAPTER-V SUMMARY, CONCLUSION AND

RECOMMENDATIONS	119 to 124
-----------------	------------

5.1) Summary:	119
5.2) Conclusion:	120
5.3) Recommendations:	121

REFERENCES	125
------------	-----

LIST OF TABLES

<u>S.N.</u>	<u>Page No:</u>
4.1.1.1) Current Ratio	55
4.1.1.2) Cash and Bank Balance to Total Deposit Ratio	56
4.1.1.3) Cash and Bank Balance to Current Assets Ratio	58
4.1.1.4) Investment on Government Securities of Current Assets Ratio	59
4.1.1.5) Loans and Advances to Current Assets Ratio	61
4.1.2.1) Loans and Advances to Total Deposits Ratio	62
4.1.2.2) Total Investment to Total Deposit Ratio	63
4.1.2.3) Loan and Advances to Total Working Fund Ratio	64
4.1.2.4) Investment on Government Securities to Total Working Funds Ratio	65
4.1.2.5) Investment on Shares and Debentures to Total Working Fund Ratio	67
4.1.2.6) Loan Loss Relation	68
4.1.3) Profitability Ratio	
4.1.3.1) Return on Loan and Advances Ratio	70
4.1.3.2) Return on Total Working Fund Ratio	71
4.1.3.3) Total Interest Earned to Total outside Assets Ratio	72
4.1.3.4) Total Interest Earned to Total Working Fund Ratio	73
4.1.4.1) Liquidity Risk Ratio	75
4.1.4.2) Credit Risk Ratio	77
4.1.4.3) Capital Risk Ratio	79
4.2.1.1) Trend Analysis of Total Deposit	83
4.2.1.2) Trend Analysis of Loan and Advances	88
4.2.1.3) Trend Analysis of Total Investment	92
4.2.1.4) Trend Analysis of Net Profit	97
4.2.2.1) Test of Hypothesis on Loan and Advances to Total Deposits Ratio	99
4.2.3.1) Regression of Networking Capital and Net Profit	107

LIST OF FIGURS

4.1.1.3) Cash and Bank Balance to Current Assets Ratio	58
4.1.1.4) Investment on Government Securities of Current Assets Ratio	60
4.1.3.4) Total Interest Earned to Total Working Fund Ratio	74
4.1.4.1) Liquidity Risk Ratio	76
4.1.4.2) Credit Risk Ratio	78
4.1.4.3) Capital Risk Ratio	79
4.2.1.1) Trend Analysis of Total Deposit	84
4.2.1.2) Trend Analysis of Loan and Advances	89
4.2.1.3) Trend Analysis of Total Investment	93
4.2.1.4) Trend Analysis of Net Profit	98

CHAPTER-I

1.1) BACKGROUND OF THE STUDY

World is suffering recession till now and investment is not secure in everywhere. Many industries have cut off their employers. Analyzing the present global meltdown and its impacts on Nepal, the global economic recession has not yet widely affected but that eventually it would. Government has not strong financial obligation to fight against the recession. Also, remittances from 'developing countries' workers employed overseas are likely to decline as these economic migrants. Nevertheless Commercial banks play vital role to develop financial structure because it collects fund for investment, financial flows and joint efforts to stabilize currency exchange rates. So it is very important to analysis the investment policy of commercial banks in Nepal.

Without development of commercial sector we cannot imagine the development of countries. Our country must collect the money from the different sectors for utilize scarce resources because we are very rich in natural resources. Our country is land locked and most of people are going to outside the country for seeking the job opportunity. Only the concentration of government sectors is not sufficient for development.

The commercial banking scenario in Nepal is undergoing tremendous change and expansion by existing ones has led to cut throat competition. While the commercial banks are vying with each other to introduce the latest products and services,

including technology enabled services, the banking habit is still evolving in a large section of the population because clear indication of this is, cash still being the most preferred mode, for settlement of financial transactions. The first and most crucial thought is about investment and after investment banks need to earn profits - to earn they need business - to get business they need customers and customers today are kings because so many commercial banks are trying to win them over. Commercial bank may offer higher interest on deposits to wean away a customer from an existing bank and lend its funds suitable places to repay investment at the end.

The main characteristic of least developed countries including Nepal in general is their economy based on agriculture. Current economic indicator of Nepal reveals that nearly 30% of people are living below the poverty line. Most of them are rely on agro-based occupation, which is far from sufficient. For the economic growth and prosperity of the people in Nepal, all the sectors that are probable in economic activities should be addressed as equal priorities and importance and the government to fulfill the target should allocate the adequate fund to boost up agro-based economy. Not only this but also we must boost up the industry like tourism and hydropower equally.

The business development leads the nation towards economic growth and prosperity. However, the geographical structure, socio economic condition and government stability are also need for survive the commercial banks. The developing countries in the world today are facing the main challenge of inadequacy of capital for the investment of the development activities. The government is responsible with its people for their interest of economic growth, social respect, and security and development activities by supporting the commercial banks activities.

1.1.1) EXISTANCE OF BANKING IN NEPAL

Banking concept is existed by goldsmiths and the rich people who issued the receipts to the common people against the promise of safe keeping on valuable items. By this way depositors would get back their gold and valuable things after paying a small amount for safekeeping and saving. The goldsmiths and the moneylenders become bankers of those days who started performing two functions of modern banking-accepting deposits and advancing loans.

Different phases of banking which are as follows:

) The first phase of Banking Development.

- Eight century, King “Gunkamdev” renovated the Kathmandu city by taking loan. At the end of same century merchant named “Shankhadhar” has started the “New Year” Nepal sambat after freeing all the people of Kathmandu from the debt.
- In the 11th century, during Malla reigns, there was an evidence of professional moneylender and buyer.
- Tejarath Adda was established in 1877 A.D., which provided loan at very low rate of 5%.

) The second phase of Banking Development.

- The modern banking in Nepal has started with establishment of Nepal Bank Ltd. In 1994 B.S.
- The development of banking sectors had not achieved their motto and the government formulates monetary policies so Nepal Rastra Bank was established in 2013 B.S. as the central bank of Nepal.
- In B.S. 2022 Government had set up Rastriya Banijya Bank as a fully

governmental commercial bank.

- The agricultural development bank was established on 2024 B.S. This bank was formed to enhance the life standard of the people who are involved in agriculture sector.

) The third phase of banking development.

The process on development of banking system is not satisfied from the first and second phase. So the Nepal was observing the events, which were taking places in the world. The country can't get the motto without importing the new technology from foreign country. So the real development formation of the banking system was started in Nepal. To establish and develop the Joint Venter commercial banks and financial institution, the Nepal had adopted the liberal free economic policy. By this way Nepal had allowed to establish the different joint venture banks under the collaboration with foreign banks.

) The fourth phase of banking development.

From 2041 B.S. His Majesty's Government of Nepal established 5 rural development banks. These are as follows:

- Eastern Rural Development Bank
- Central Rural Development Bank
- Western Rural Development Bank
- Mid-Western Rural Development Bank
- Far-Western Rural Development Bank

After 2041 B.S., the government gradually liberalized and opened up the financial sector and foreign banks had opened rapidly in Nepal. After this in 2041 B.S., NABIL Bank Ltd and other commercial banks had started to emerge from private sectors. As a result, now there are more than 30 commercial banks in our country. Now the banking sector is more liberalized and there are various types of banks in

modern banking system. It includes central, development and commercial banks. The evolution of the information technology the banking sectors are saving lots of time and money by the banking software. The invention of various banking systems for instance ATM, E-Banking, Mobile banking, cards like debit and credit card and Letter of credit etc. These things help the bank to generate more customers, goodwill and profit.

1.1.2) INVESTMENT POLICY OF COMMERCIAL BANK

Investment policy of commercial bank is very risky. The development of any commercial bank is depending on formation of sound investment policy, which is considered in the economic development. The good investment policy interact the both borrowers and lenders which help to increase the volume and quantity of deposit, loan and investment. The loan, which is provided by commercial bank, is totally depending on length of time, their purpose, profitability and safety etc. Commercial banks investment policies are considered at these fundamental while making investment policy.

The main strategies of investment policies are that which find the answer of the question like whom to invest and why to invest? The initial step of an investment policy involves determining the investor's objectives and amount of his or her invest able wealth because there is a virtual relation between the risk and return for the investor who wants to make lots of money.

Nowadays there is too much competition in the banking sector and less opportunity to make investment. In this situation commercial banks have got opportunity and threats in Nepal and it is necessary to search new opportunity for safety investment. So investment policy can ensure to minimize the risk and to maximize the profit.

Successful investors may invest certain amount to the many Sectors for safety.

1.1.3)INTRODUCTION OF SELECTED SAMPLE BANKS:

a) Nabil Bank Limited:

The introduction of Nabil Bank in Nepal on the 12th of July 1984 through a joint venture with Dubai Bank Ltd. under a Technical Service Agreement (TSA) marks a new dawn in the Nepalese banking industry. That is more admirable with the opening of then Nepal Arab Bank Ltd, Customer Service or marketing took a U-turn. That in substance accelerated the evolution in banking products and services thereafter in Nepal. The bank commenced with a team of about 50 staff members and Rs. 28 million as capital.

Today Nabil is entering the 25th year of operation which proved that it has through its past progressions and through different phases in the banking industry which achieved two things: first it has a large clientele base and supportive stakeholders, secondly, it has succeeded in positioning itself robustly in the market.

Today the Bank has established itself as the Bank of 1st choice. It is the largest bank in terms of the network and number of branches amongst the commercial banks with a wide network of ATMs and offerings including a range of diversified service products. It has a number of domains in their precedence of excellence those mirrors where it stands in the market. In this span of 24 years of banking operation Nabil has already distributed rich cash dividends, spectacular returns on asset and equity even

during the most trying times. All of which endorses the strength and drive with which Nabil proceeds.

Nabil have diversified their realms of business in the interests of customers and are also being inspired by the noble cause of adding value to economic development. Nabil have multiple sectors in focus to serve host of entrepreneurs, as their new strategies are to expand dynamically, exploring new avenues and opportunities. Nabil thus have packaged the service products into well a diversified range consisting of corporate banking, trade finance, along with consumer and retail banking services specifically, card products, microfinance and the like to reach out to the masses.

Nabil have been able to reach where they are today having lived their values of being at all times. Nabil have teamed together, built on their strengths, taking larger strides as they Surge Ahead Faster – Further together in the years ahead to be the 1st Choice Provider of Complete Financial Solutions of all the stakeholders.

With a focused approach for proliferation of business and economic activities, Corporate Banking division has been set up with an expert team to look at the major business activities in the country. By establishing a dedicated division, Nabil have committed to cater a gamut of banking and financial advisory needs. Ranging from business guarantees to off-shore banking linkages, asset conversion financing to asset protection financing, the division is set up for one window solution for all the corporate undertakings from sole proprietorship firm to multinational companies. Having one of the widest networks and diversified customer bases, finance are tuned with basics of business and have an in-depth knowledge of the industry scenario, locally and globally. This edge creates value for all their aspiring corporate businesses that seek financial assistance and advisory from Nabil. From readymade

products like overdraft, import loan and national and international undertaking on behalf of the customer through Letter of Credit or Bank Guarantees, Nabil design the products and services that best suit business needs. Having the widest network from Far East (Birtamod) to the Far West (Mahendranagar) the division takes care of the entrepreneurs that intend to undertake any kind of businesses with the highest standard of banking products and services provided. Nabil believe this adds value to the banking needs of the public who were deprived of quality banking services in the past and were under compulsion either to drop the business or operate at a lowered level. A client of Mahendranagar gets an equally advanced banking service and financial advisory that a client is provided in the capital.

Understanding the meaning of the adage, which goes, “In business time is money”, Corporate Banking is poised to cater the banking needs at minimum turnaround time within the purview of Best Business Practices (BPP) and Prudent Banking Norms (PBN), that helps to meet the business commitment and saves the cost that arises out of delay. Institution are committed to make their existing and potential clients experience a taste of fine banking working as partners to enable business growths with end-less boundaries while always being mindful of catering to their demands Just-in-Time (JIT).

b) Everest Bank Limited:

Everest Bank Limited had started its operation in 1994 and it joined the hand with Punjab National Bank (PNB) India as a joint venture partner in 1997. The bank has recorded an impressive growth in the every year. The sustained growth of the bank is attributable to its strong system and procedures, professional approach, quality

lending and highly motivated staff members. To reiterate their commitment towards customer excellence, the bank sponsored the Customer Focus Year 2006, conducted by The New Era for long-term customer relations.

The bank in association with Smart Choice Technology (SCT) is providing ATM services for its customers; EBL Debit Card can be accessed at more than 50 ATMs and over 250 Point of sales across the nation. The Bank has just kept SCT ATM at Tribhuvan International Airport for the convenience of the customers and the travelers; this bank is the first who placed ATM outlet at the Airport. EBL is playing a pivotal role in facilitating remittance to and from across globe. Being the first Nepalese bank to open a representative office in Delhi, India, the Nepalese in India can open account in Nepal from the designated branches of Punjab National Bank and remit their savings economically through banking channels to Nepal. The bank has a Drafts Drawing Arrangement with 175 branches of PNB all over the India.

The bank has advanced its' technology in handling of draft Drawn on Corporate Internet Banking. With the implementation of banking system, EBL can view status of draft, issue/mark stop payment, cancellation of drafts online. Drafts will also be paid easily due to online verification. The bank was conferred the 'NICCI Excellence Award' during the 9th, 10th & 11th Annual General Meeting of Nepal India Chamber of Commerce & Industry (NICCI). Four institutions were presented the excellence award under four different categories - Large Industries Medium Size Industries, Service & Small Sector Industry and Finance Sector.

Everest Bank Limited family express its' sincere gratitude for the tremendous response, unstinting support and kind co-operation it received from the Shareholders, other Investors and well wishers. The EBL family would also like to express its sincere gratitude for the unstinting support and kind co-operation

received from Securities Board of Nepal, Nepal Rastra Bank, Citizen Investment Trust, and Company Register's Office and to all the patrons of the bank for making the effort of the bank highly successful.

c) Bank of Kathmandu:

Bank of Kathmandu Limited (BOK) is today a landmark in the Nepalese commercial banking sector, as it is managed entirely by Nepalese professionals and now has the largest public shareholding. BOK started its operation in March 1995 with the objective of stimulating the Nepalese economy and taking it to new heights. BOK aims to add to the nation's economy and become globally competitive. From the beginning, BOK has focused on the following objectives.

- To contribute to the sustainable development of the nation by mobilizing domestic savings and channeling them into productive areas.
- To use the latest banking technology to provide better, reliable and efficient services at a reasonable cost.
- To facilitate trade by making financial transactions easier, faster and more reliable through relationships with foreign banks and money transfer agencies.
- To contribute to the overall socio-economic development of Nepal.

Bank of Kathmandu Limited is a culmination of comprehensive vision of the promoters to take the Nepalese economy to a newer realm in the global market. Each promoter of bank of Kathmandu has successfully demonstrated leadership skills, business acumen and entrepreneurial talents of his/her respective field.

The BOK is committed to providing products and services of the highest standards to its customers by understanding their requirements best suiting the market needs. In pursuit to deliver the products the services of the highest standards, BOK has state

of art technology for appropriate and efficient management information system and rendering quality services, gamut of corporate and retail banking products and services and centralized banking operations for better risk management, consistent service deliveries and lowering operation cost. The bank provide following facilities:

- 24 hour ATM card from Kamal Pokhari and New Road branches. The bank has also arranged from similar service 20 different locations of Kathmandu and pokhara.
- Bills payment system for cellular phones.
- Remittance of funds.
- Collection and payment of cheque, promissory notes and drafts.
- Issue letter of credit, debit card facility, locker etc.

1.2) FOCUS OF THE STUDY

This study fills the research gap on the study of investment policy of commercial banks. The depth of study on this subject is always necessary and acceptable for the developing countries like Nepal. We know that the commercial banks can reinforced the economical condition of every country and it highlights the investment policy of commercial banks such as deposit and investment. The study is also provides the information about the management policy of the banks that will help to take relative action for investors. On the side of investor it helps the basic knowledge for investment activities by maximum utilization of scares financial resource. On this topic I want to provide the information about the shareholders and investors to make decision to invest at different commercial bank.

This study deals with liquidity, assets management efficiency, profitability and risk and growth position of bank. The study highlights the overall investment portfolio of commercial banks.

1.3) STATEMENT OF PROBLEM

Due to the political instability and lack of monetary fund the overall growth rate of commercial banks have been far from satisfactory. Besides this, rapid destructions of existing infrastructure and about nix development for this sector our economy is nearly reach to unbalance but current political changes has conferred us a little hope to strengthen the growth of the banking sector. The mass investments and job opportunity in the country need to go for long walks. Commercial banks collect lots of deposits but very few investment opportunities. So banks use to discourage people by minimizing the interest rate on deposit and minimize their hold balance. The lack of sound investment policy is the cause for commercial banks not to properly utilizing its deposits and it will lead the commercial banks to the position of liquidation. If the funds are wrongly invested without knowledge of any financial risk, management risk, interest risk, liquidations risk, business risk and other related risk then it is not possible to get the maximum return. So the study deals with the following issue:

-) What is the relationship among investment, loan and advances with total deposit, net profit and outside assets?
-) How can the collected funds are properly used?
-) What is the profitability position of the banks?
-) What is the trend position of banks in terms of deposits collection and net profit?
-) What is the effect of investment decision on profitability position of the banks?
-) Is there significant relationship between loan and advances, total interest earned from the total assets etc?

1.4) OBJECTIVES OF STUDY

The basic objectives of the study on investment policy are to show overall review of NABIL, EBL and BOK. The main specific objectives of the study are:

-) To find out the relationships between total investment, loan, advances, deposit, net profit and outside assets of commercial banks.
-) To identify the investment priority of sampled commercial banks.
-) To assess the impact of investment on profitability.
-) To analyze and forecast the trend and structure of deposit utilization and its projection for five years of commercial banks.
-) To provide suggestions and possible guideline to improve investment policy and its problems.

1.5) SIGNIFICANCE OF THE STUDY

The establishment of joint venture bank, which gives a new horizon to the financial sector in Nepal. The study covers three commercial banks for instance Everest Bank, Nabil Bank and Bank of Kathmandu. These banks are new business tycoon of commercial banking sector. Commercial banks play the vital role to push up the economic growth by providing capital for the development of industry, trade and business. It collects the cash from small sectors and lends it at the right place. Besides this commercial banks render a numerous service to their customer in view of facilitating their economic and social life.

The focus of the study is to highlight the investment policies of joint venture banking sector, which may bridge the gap between deposits and investment policies. The

study should also provide the information to the management for taking action if they need.

The main purpose of study is found out the existing situation as well as future prospectus of marketing and financial return. The collected fund is utilized for good return and sustainability or possibilities. At first Return on Investment may sustain the institution and provide the handful income to the investor. The better investment policy is more valuable to the company, the higher return to the shareholders etc. We cannot ignore the argument that the different shareholders, general public and government are directly affected by the investment policy of the financial institution so researcher feels the needs of study in investment policy. We have scarce resource to utilize it for our beneficiary.

1.6) LIMITATIONS OF THE STUDY

On this topic we can get different types of limitation like short time period, reliability of statistical tools, lack of research experience and some other limitations for instance:

- a) Only three types of commercial banks are included for study due to the inadequate time period.
- b) The studies are focused on those factors, which are related with investment policy.
- c) This study is based on secondary data from the concerned banks.
- d) The study is based on the period of five year (2000/01 to 2005/06) of concerned banks.

1.7) ORGANIZATION OF THE STUDY

The Study Contains The Following Five Chapters:

Chapter First: Introduction.

Chapter Second: Review of Literature

Chapter Third: Research Methodology

Chapter Fourth: Presentation and Analysis of Data

Chapter Fifth: Summary, Conclusion & Recommendations.

Chapter first represents the introduction of the study related subject matter. Such as: background of the study, Focus of the study, Statement of the problem, Objectives of study, significant of the study, limitation of the study and organization of the study.

Chapter second refers the review of literature, which includes books review, journals review and annual reports, which published by the related commercial banks, other authorities review and related articles.

Chapter Third describes the research methodology of various sequential steps that have taken place in this study and material used as each steps which includes research design, data analysis, tools, ratio analysis, profitability ratio and risk ratio etc.

Chapter Fourth is analytical chapter, which deals with the presentation and analysis of data through the define course of research methodology. This chapter is also analysis the different statistical tools and financial tools.

Chapter fifth shows the summary, conclusion and recommendation of the study. Finally references has also included at the end of the chapter.

CHAPTER-II

THE LITERATURE REVIEW

This chapter is related with review of literature, which is concern with the study of this thesis. The first section of this chapter is conceptual framework of the study and the second section is the review of previous studies. The study of this chapter helps to take adequate feedback to broad importance on this topic.

2.1) CONCEPTUAL FRAMEWORK

Commercial Bank Act 2031 “Commercial Bank means a bank which operates currency exchange transactions, accepts deposits provide loan and performs the dealing relating to commerce and other than those banks which have been specified for the cooperative, agriculture, industry of likely any other specified objective”. The commercial banks are established under the Commercial Banks Acts, 2031 in Nepal that has been amended regularly. It has been amended for six times till today. Now Commercial Bank Act 2049 is activated.

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

Jack C. Francis states “Investing involves making a current commitment of funds in order to obtain an uncertain future return. It is a risky business that demands information. To process information effectively and select the best investment requires goals that are clear cut and realistic” (Francis, 1983:5)

Gitman, L.J. & Joehnk, “Investment is any vehicle into which funds can place with the expectation that will present or increase in value and generate positive returns.” (L.J. & Joehnk 1990:2)

William F. Sharpe and Alexander J. Gordon “Investment in its broadest sense, means sacrifice of certain present value for (possible uncertain) future value.” (Sharpe and Gordon; 1999:2)

In my view “Investment is the sacrifice of present value for earn future increased value”

2.1.1) Principle of Sound Investment Policy

The commercial banks are inspired with the goal of earning profit and without sound investment policy it is not possible. Therefore after establishment of banks the main function of bank is collecting money and invests it in safe and maximizes the return. The bank should be able to clear the policy of its investment by making a deep study on the subjects that which sector would be the more trustable and dependable to invest the amount, which they collected from the different sectors. The policies or principles are as follows:

(I) Principle of Liquidity

Liquidity is the lifeblood of banking system and liquidity is important for transitive motive, speculative motive and precautionary motive. So bank must invest the fund in such securities, which deserve more liquidity. Keeping more money in bank is the more liquidity but doesn't generate income to the bank. The quantity of liquidity is reduced the investment so maintained the liquidity in a proper way which provide the loan and to invest it in the success of commercial banks.

(II) Principle of Safety

To invest large amount of loan against weak securities by receiving commission to invest in new places without care and observation are not safety. Safety from probable risk must be considered for an investment decision-making. Market risks, price risks, geographical risks, political risks, managerial risks etc are always involving the investment. So the proper way of security mechanisms for investment must be cared for fighting with such risks. Character, capacity, capital, collateral and condition are followed the decision regarding the advances of fund.

(III) Principle of Profitability

The objectives of commercial bank are to earn profit. The banks can gain more profit from safe and long-term investment. Market interest rate, sectors to be invested, demand makers etc are the main subjects to consider. The banks should invest in such alternatives of investment from which the banks are maximizing the profit and interest.

(IV) Principle of Diversification

The principle of diversification means the banking policy of investing the money in the various sectors and the banks should not follow the policy of investment only one or two sectors. If it follows such policy in a proper sector then its investment should not be successful. The banks are studying and analyzing the different sectors where it is possible to earn more from little investment, which should extend its investment. If it invests in the many sectors, it becomes successful to keep it in balance. So diversification of portfolio help to minimize the risk and difference diversification of techniques have been developed for reduce portfolio risk.

(V) Principle of Marketability

The bank should adopt the principle of marketability in investment policy. In a certain way, the bank moves its investment for flow the loan against security. To invest the money, the bank should follow the policy of taking the security of high quality as far as possible. The market of Nepal is small and in such a small market for livingness to its banking transaction, the bank should flow its loan by taking the first class securities. The bank should keep in mind the main principle of marketability while it makes investment.

(VI) Principle of National Interest

The advance priority is given to government and national interest for assumes the greater importance than security especially in priority sector lending. The principle of national interest plays the major role to investment because national interest may

grant some sector or restrict the some sector.

(VII) Principle of Investment Horizon

The length of time to invest and get return is another important consideration for investment decision. The investment horizon is not affects only on the return and risk characteristic of investment alternatives but frequently the tax consequences associated with the return.

(VIII) Principle of Legality

Illegal securities will bring out many problems for the investors so commercial banks must follow the rules and regulations as well as different directions issued by NRB, Ministry of finance and others while mobilizing its funds.

2.1.2) Investment Management Functions

Every investment is not risk free and so the investment must be made in such a way for diversify the risk. According to this book the investment can be made on securities such as treasury bills long-term bond, common stocks etc. The focus of supply and demand interacts to determine a security market price. A security market is a mechanism for bringing together buyers and sellers of financial assets in order to facilitate trading. The investment decision has to go through the following process. **(Sharpe, Alexander & Bailey, 1999:36)**

(I) Set Investment Process

Setting the investment policy involves determine the investors objective and amount of wealth tax consideration etc because there is a positive relationship between risk and return for sensible investment.

(II) Security Analysis

Security analysis involves examines the number of securities. The purpose of analysis is to check whether the securities are miss-priced. The technical analysis means that types of analysis, which conducted on the basis of past history to predict future trend and fundamental analysis that calculates the intrinsic value of share, are conducted. Fundamental analysis tries to identify the real or true value of financial assets.

(III) Portfolio Construction

Portfolio construction involves identifying those specific assets in which to invest and what proportion the investors wealth portfolio construction involves the diversification, which minimizes the risk.

(IV) Portfolio Revision

The revision of portfolio is done from time to time. Due to changing pattern of risk the portfolio revision are done to minimize the risk.

(V) Portfolio Performance Evaluation

It determines performance of portfolio periodically regarding the return earned and risk experienced by the investors. The performance should be evaluated not only in the terms of returns but also the risks experienced. To evaluate the performance, appropriate measures and standard are needed.

2.1.3) An Overview on NRB Rules Regarding Investment of a Commercial Banks

Nepal Rastra Bank, the central bank of Nepal established in 2013 BS. It determines the major role of economic plans and implementation inside the country. The main objective of the Nepal Rastra Bank is to manage the economic financial transaction over the country. Systematically allocation management and implementation of economic factors over the state is governed by Nepal Rastra Bank, as a central bank. All the economic plans, programs, policy, strategies, implementation, evaluation made by government are performed under the direction of NRB. So NRB is the bank of government, which works for the welfare of nation, directions rules, regulations from NRB are major subject to run the commercial banks. Every step of the commercial banks is always observed by NRB, as a representative of the Nepalese government. To allocate and mobilized the deposits collected by commercial banks in different sectors of the different areas of the nation, the NRB as a central bank, formulates fundamental rules, regulations, directives, policies etc. In fact NRB controls the over the overall activities made by the commercial banks, as well as establishment or operation or dissolution of banks. For so NRB has formulated commercial banks act 2031 for the establishment and operation of commercial

banks. Here the directions, rules, regulations, directed by NRB terms of investment by commercial banks are briefly mentioned below as a NRB rules 2061:

(I) Liberal Policy of NRB

NRB has enhanced liberal policy for establishment new commercial banks in Nepal. For such objectives, NRB has regulated the following directions:

-) A minimum of Rs 2000 million of paid up capital is required for opening a new bank inside the kahtmandu value.
-) Similarly as per direction by NRB Rs 120 million is necessary for starting banking business out of Kathmandu.
-) In the same way, Rs 50 million paid up capital are necessary for opening center office of bank out of Kathmandu.
-) Commonly for establishing the commercial bank in rural areas, NRB has directed Rs 30 million as compulsory paid up capital.
-) The investor can invest his/her fund up to 10% of the paid up capital of each and 15% of paid up capital of all banks in average.
-) Basically the commercial bank can be invested maximum up to 70% of total paid up capital, if the bank is promoted by domestic investors and 30% of paid up capital should be as liquidity margin for repayment for certain deposit.
-) For joint venture bank, foreign investors can invest minimum 40% of paid up capital and 50% as maximum. Such bank should manage 30% of paid up capital as floatation for general public.

) Individually, firm or company or groups of company can invest up to 110% of paid up capital.

) Applications for the establishment of new banks are to be adopted within the stipulated time fixed by NRB.

(II) Investment on Priority Sectors

NRB has pointed priority sector as agriculture sector, cottage and small industry sector, service oriented sector, cooperative sector etc, in which the commercial bank must invest 12% of their total deposits. This provision is totally based on the objective for uplifting lifestyle of people in remote and village area.

(III) Investment in Co-Operative Sector (Deprived Sector)

The co-operative institution, rural development banks etc are licensed by NRB and that are also compulsory invested by commercial banks in certain ratio which determined to each JVBs. As per such regulation, JVB have to invest 3% of total outstanding credit to for co-operative sectors.

(IV) Direction for Raising Fund

The commercial banks are directed to raise the capital fund at minimum level of 500 million. For this, commercial banks can include paid up capital and reserve deduction net loss for meeting such requirement.

(V) Directive for Single Borrower Credit

NRB has barred the single borrower credit limit as 35% in the case of fund based credit and 50% in the case of non fund based credit, such as letter of credit, acceptance letter etc.

(VI) Regulation for Expansion of Commercial Banks

-) For opening of a branch with in the area of **kathmandu, Bhaktapur, Lalitpur, Pokhara, Birjunj, Biratnagar and Narayanghat**, Joint Venture banks need to open firstly, at least two branch in adjoining semi urban area and secondly, at least one branch in rural area not adjoining to any municipalities.
-) Banks are not required to open their new branch in semi urban or rural areas, if they open new branch outside the seven municipalities.
-) For the permission of establishment of a new branch, CBs have to specify the whole details about the new branch; they must open a branch in a rural or semi urban area, before opening in urban area.

(VII) Direction for Extension Counter of Joint Venture Banks

-) Commercial banks can't open extension in metropolitan and semi metropolitan area except during trade, fairs, festivals, ceremonies, celebrations etc, as a directed by NRB. Such extensions must be converted, as a branch with in 2 years, otherwise, must be closed.
-) The extension opened can accept deposit and make payment as well as exchange of foreign currencies after the permission from NRB.

) If the extension is opened in the areas of royal palace, hospitals, foreign diplomatic offices, those extensions are not allowed to operate as a branch.

(VIII) Direction for Extension Counter of Joint Venture Banks

) Commercial banks can't open extension in metropolitan and semi metropolitan area except during trade, fairs, festivals, ceremonies, celebrations etc, as a directed by NRB. Such extensions must be converted, as a branch with in 2 years, otherwise, must be closed.

) The extension opened can accept deposit and make payment as well as exchange of foreign currencies after the permission from NRB.

) If the extension is opened in the areas of royal palace, hospitals, foreign diplomatic offices, those extensions are not allowed to operate as a branch.

(IX) Credit for Shareholders

The individual or group, who holds more than 1% of shares of the commercial bank, can't borrow from same bank, under the directions form NRB 2061/B.S.

(X) Fluctuation in Interest

The agreement can be made between bank and customers for making change in bank loan interest rate up to 0.5% is now cancelled by NRB, to be effective from 2061/62 B.S.

2.2) REVIEW OF BOOKS

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

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

Sunity Shrestha explains in her book i.e. “Portfolio behaviors of commercial banks in Nepal.” added “the commercial banks fulfill the credit needs of various sector of the economy including agriculture, industry, commercial and social service sectors. The lending policy of commercial bank is based on the profit maximizing of the institution as well as the economic enhancement of the country.”

From the above definition, it is clear that an investment means to trade a known rupees amount today for some expected future stream of payment or benefits that will exceed current outlay by an amount that will compensate the investor for the time of uncertainty involved in expected future cash flows. Thus investment is the most important function of commercial banks. It is very challenging task for commercial banks. So the banks have very cautious while investing their funds in various sectors. The success of a bank is totally depending upon the proper management of its investment.

Investment management of commercial bank is guided by the investment policy adopted by the bank. The investment policy of the bank helps the investment operation of the bank to manage efficiently for increase the profit by minimizing the

inherent risk.

2.3) REVIEW OF ARTICLES

Sunity Shrestha (2055) in her article, “Lending operation of Commercial Banks of Nepal and its impact on GDP” has presented with the objectives to make an analysis of contribution of commercial banks lending to the gross domestic product (GDP) of Nepal. She has set hypothesis that there has been positive impact of lending of commercial banks to the GDP. In research methodology, she has considered GDP as the depended variable and various sectors of lending viz. Agriculture industrial commercial, service and general and social sectors as independent variables.

Bhagat Bista (2001), in his article, “Issues in Banking Reform” wrote that the banks are main vehicle in transferring currency from one country to other commercial banks which deals heavily in foreign exchange transactions.”

K. Pradhan (1999), has pointed out of some major issues on local commercial banks comparison of recently established joint venture banks through his article, “*Nepal Banijya Bank*”, *Upalabdhi tatha chunauti*. The study deals with the whole commercial banks system of Nepal in respect of their performance and profitability. Some of his finding relevant to his study is summarized below:

∫The deposit collection rate of local banks is very poor in comparison to joint venture banks.

∫The patterns of deposit are also different between these banks. The rent of current deposit in local banks is 9.34% only where as in the same joint venture banks is 52.6% but fixed deposit ratio is very high in local banks.

CHAPTER III

RESEARCH METHODOLOGY

3.1) INTRODUCTION

In this chapter, the methodology used for collecting and analyzing data will be discussed. Every research study can reach towards the proper conclusions adopting the proper methodology regarding the subject matter of the study. A research study can produce the fruitful results if an appropriate methodology is taken under consideration to highlight and evaluate the different aspects of the study.

3.2) RESEARCH DESIGN

This study will attempt to visualize the availability of internal borrowing and its structure. It is an integrated system that guided the researcher in formulating, implementing and controlling the study. The research designed for plan, structure and strategy of investigations, which is obtained the answer of the questions and to control variances. The study is based on secondary sources of data so descriptive and analytical research design has been used.

3.3) NATURE AND SOURCES OF DATA

The study is conducted on the basis of primary and secondary data as the main source of information. Secondary data relating to “Investment” such as deposit, loan

and advances and profit/loss which have been directly obtained from the balance sheet and the P/L a/c of concerned banks annual reports, collected from number of institution and authorities like NRB budget speech, NRB published books, bank bulletin, newspaper, previous studies, security exchange board, Nepal stock exchange Ltd etc. All the secondary data are observed, processed and tabulated at the time as per need and objectives. Various data and information are collected from the economic journal, periodicals, bulletins, magazines and other published and unpublished reports and documents from various sources.

Primary data is a data, which has not been used by others. Collected fresh data is primary data. It can be prepared by different sources like opinion poll, sampling, through correspondents etc. In this study, using questionnaire method, by the interview, has collected primary data and structured questionnaire methods have been used. Questions were asked to the executive leveled staffs of the related bank. The questions are three types like: yes/no questions, multiple choice questions and open-end questions.

3.4) TOOLS OF DATA ANALYSIS

Different financial as well as statistical tools will be employed for interpretation of the data analysis to fulfill the objectives of the study.

3.4.1) FINANCIAL TOOLS

This tool will focus on proportion analysis of

(A)Ratio analysis

(A.1) Liquidity ratios

The ability of a firm to meet its obligation in the short term is known as liquidity ratios.

Inside ratio analysis:

(A.1.1) Current ratios: This ratio shows the banks short-term solvency.

$$\text{Formula: Current Ratio} = \frac{\text{Current Assets}}{\text{Current liabilities}}$$

(A.1.2) Cash and bank balance total deposit ratio:

Cash and bank balance are the most liquid current assets. This ratio measures the percentage of the most liquid fund with the bank to the depositor.

$$\text{Cash and bank balance total deposit ratio} = \frac{\text{Cash in bank balance}}{\text{Total deposits}}$$

(A.1.3) Cash and bank balance to current assets ratio:

This ratio measures the proportion of most liquid assets of bank. Higher ratio shows the bank's ability to meet demand for cash.

$$\text{Cash and bank balance to current assets ratio} = \frac{\text{Cash in bank balance}}{\text{Current Assets}}$$

(A.1.4) Investment on government securities to current assetsratio:

This ratio is calculated to find out the percentage of current assets invested in

government securities i.e. treasury bills and development bonds.

Investment on Government Securities to current assets ratio =

$$\frac{\text{Investment on Government securities}}{\text{Total current assets}}$$

(A.1.5) Loan and advances to current assets ratio:

Loan and advances includes short and long term, overdraft revolving overdraft, standby credit, line of credit and other lending.

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

(A.2) Asset Management Ratio

Asset management ratio measures how efficiently the banks manage the resources at its command. The following ratios are used under this asset management ratio.

(A.2.1) Loan and advances to total deposit ratio:

This ratio is calculated to find out how to successfully the banks are utilizing their total deposits on loans and advances for profit generating purpose.

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

(A.2.2) Total investment to total deposits ratio:

Investment is one of the credited to earn income. This implies the utilization of firms deposit on investment government securities and shares debenture other companies

and bank.

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

(A.2.3) Loan and advance to working fund ratio:

Loan and advance are the major component of the total working fund (Total Assets). This indicates the deposits in the form of loan and advances to earn high return.

$$\text{Loan and advance to working fund ratio} = \frac{\text{Loan and Advance}}{\text{Total Working Fund}}$$

(A.2.4) Investment on government securities to working fund ratio:

This ratio shows that banks investment to government securities in comparison to the working fund.

$$\text{Investment to govt. securities ratio} = \frac{\text{Investment on govt policies}}{\text{Total working fund}}$$

(A.2.5) Investment on shares and debenture to total working fund ratio:

This ratio shows the banks investment on share and debenture of and other companies.

$$\text{Fund ratio} = \frac{\text{Investment on shares and debentures}}{\text{Total working fund}}$$

(A.2.6) Total OBS operation to loan and advances ratio:

The OBS operation shows the banks efficiency in conducting modern off balance sheet transaction in comparison to loan and advances i.e. issue letter of credit, letter of guarantees making other commitment etc.

$$\text{Total OBS operation to loan and advances ratio} = \frac{\text{Total OBS operation}}{\text{Loan and advances}}$$

(A.2.7) Loan loss ratio:

This ratio shows the possibility of loan default of a bank. It indicated how efficiently its loan and advances makes effort for loan portfolio.

$$\text{Loan loss ratio} = \frac{\text{Total Loss Provision}}{\text{Total loan Advances}}$$

(A.3) Profitability Ratios

Profitability ratios are calculated to measure the efficiency of operation of a firm in term of profit. It is the indicator of the financial performance of any institution. This implies that higher the profitability ratio, better the financial performance of bank and vice versa. Profitability position can be evaluated through following different ways:

(A.3.1) Return on loan and advances ratio:

This ratio indicates how efficiently the bank has employed its resources in the form of loan and advances.

$$\text{Return on loan and advances ratio} = \frac{\text{Net Profit}}{\text{Loan and Advances}}$$

(A.3.2) Return on equity ratio (ROE)

Net worth refers to the owner claim of a bank. The excess amount of total assets over total liabilities is known as net worth. This ratio measures how efficiently the banks have to use the funds of owners.

$$\text{Return on equity ratio (ROE)} = \frac{\text{Net Profit}}{\text{Total equity capital}}$$

(A.3.3) Return on total working fund ratio (ROA):

This ratio measures the overall profitability of all working funds i.e. total assets. A firm has to earn satisfactory return assets or working fund for its survival.

$$\text{Return on total working fund ratio (ROA)} = \frac{\text{Net Profit (Loss)}}{\text{Total Working Fund}}$$

(A.3.4) Total interest earned to total outside assets ratio:

This ratio measures the interest earning capacity of the bank through the efficient utilization of outside assets. Higher ratio implies efficient use of outside assets to earn interest.

$$\text{Total interest earned to total outside assets ratio} = \frac{\text{Total interest earned}}{\text{Total outside assets}}$$

(A.3.5) Total interest earned to total working fund ratio:

The ratio is calculated to find out the percentage of interest earned to total assets (working fund). Higher ratio implies better performance to the bank its terms of interest earning on its total working fund.

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

(A.4) RISK RATIOS

Risk taking is the prime business of the bank's investment management. It increases effectiveness and profitability of the bank. These ratios indicate the amount of risk associated with the various banking operation, which ultimately influences the banks investment policy.

(A.4.1) Liquidity Risk Ratio:

The liquidity risk ratio of the bank is defines its liquidity need for deposits. This cash and bank balance are the most liquidity assets and it is banks liquidity sources and deposits. The risk is low if funds are kept idle or as cash and bank balance, but this effects profitability and if bank make loan, its profitability and risk are also increased. Thus higher liquidity ratio indicates less risk and less profitability and vice versa.

$$\text{Liquidity Risk Ratio} = \frac{\text{Cash and bank balance}}{\text{Total Deposit}}$$

(A.4.2) Credit Risk Ratio:

Credit risk ratio is measures the possibility of loan not to be repaid or investment will deteriorate in quality or go into default with consequent loss to the bank. The definition of credit risk ratio is expressed as the percentage of non-performing loan to total loan and advances.

$$\text{Credit Risk Ratio} = \frac{\text{Total loan and advances}}{\text{Total assets}}$$

(A.4.3) Capital Risk Ratio:

The capital risk ratio of a bank indicates how much assets values may decline before the position of depositors and other creditors.

$$\text{Capital risk ratio} = \frac{\text{Capital (Paid up + Reserves)}}{\text{Risk weighted assets}}$$

3.4.2) STATICAL TOOLS

Some important statistical tools are used to achieve the objectives of this study.

(A) Co-efficient of Correlation Analysis

The correlation coefficient determines the relationship between the two or more variables. When two elements have zero correlation with each other they are unrelated in any way and have zero variance.

$$R = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{N \sum X^2 - (\sum X)^2} \sqrt{N \sum Y^2 - (\sum Y)^2}}$$

Where r = correlation factor

X = variable X

Y = variable y

N = No. of observation

(B) TREND ANALYSIS.

On this topic we calculate following different analysis:

- i) Trend analysis of total deposits**
- ii) Trend analysis of loan and advances**
- iii) Trend analysis of total investment**
- iv) Trend analysis of net profit.**

(C) ARITHMETIC MEAN

Arithmetic mean is the sum of all the observations divided by the number of observations

$$\text{A.M.} = \frac{\sum f}{n}$$

(D) TEST OF HYPOTHESIS.

Hypothesis is the pre-assumed answers to the problem of research. It provides the direction to the activities done or to be done by the researcher.

(E) REGRESSION ANALYSIS.

Regression analysis is used to estimate the likely of the variable from the known value of the other variable i.e. in regression analysis we established one kind of average irreversible functional relationship between the two variables.

Regression equation of Y on X is given by

$$\text{Y} = \text{a} + \text{bx}$$

Where,

Y = Dependent Variable

X = Independent Variable

a= Intercept of the line

b= Slope of the line.

The values of the constants 'a' and 'b' can be determined by solving two normal equations (applying principle of method of least square)

3.5) RESEARCH GAP:

Investment in different sectors is made on the basis of the directives and circulars of *Nepal Rastra Bank* as well as the investment guidelines and policy of the concerned commercial bank. Commercial banks should follow these directives and circulars. Furthermore, their own investment guidelines and policies should be in line with *NRB* directives and circulars. So the advanced study over the change of time is major concern for the researcher and concerned organization as well as industry as a whole. This study covers the more recent financial data, *NRB* circulars and guidelines than that of studies previously conducted.

The optimum diversification of loan and advances reduced the default risk of credit. It is the major concern of stakeholders to know the portfolio behavior of the bank. This study puts its effort to find out the proportion to total loan and advances of the bank disbursed to different sectors of economy and analysis the diversification of its investment.

In investment policy I have tried my best analysis to define the simple regression analysis. It is used to describe the nature of a relationship and to make predictions. So this study will be fulfilling the desire of interested persons, parties, scholars, teachers, businessman, civil society and government for academically as well as policy makers.

CHAPTER-IV

PRESENTATION AND ANALYSIS OF DATA

This chapter indicates the presentation and analysis of data, which has collected from various secondary sources. The chapter has been divided into two main sections. The first section of the chapter includes the presentation and analysis of data while the second section includes major findings of the study.

4.1) Financial Analysis of Commercial Bank:

The financial analysis can identify the financial strength and weakness of the commercial banks it is identifying relationship with balance sheet. The analysis of financial ratio shows the performance of the concern banks.

4.1.1) Liquidity Ratio

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

4.1.1.1) Current Ratio

This is the relationship between current assets and current liabilities. Current assets can be converted into cash within short period of time for instance within one year. Current liabilities are those obligation which are payable within short period.

Current assets consists the cash, bank balance, money at call or short terms notice, loan & advances, investment in government securities and other interest receivable and other miscellaneous current assets. Current liabilities consist of deposits, loan and advances, bills payable, tax provision, staff bonus, dividend payable and miscellaneous current liabilities.

Appendix: 4.a

Current Ratio (Rs. in million)

Banks	EBL			NABIL			BOK		
Fiscal Year	Current Assets	Current Liabilities	Ratio (Times)	Current Assets	Current Liabilities	Ratio (Times)	Current Assets	Current Liabilities	Ratio (Times)
2000/01	5049.85	4874.79	1.04	13161.68	17226.21	0.76	6260.47	6079.38	1.03
2000/01	6359.66	6063.87	1.05	13313.4	1051.82	1.27	6192.12	5815.18	1.06
2000/01	7836.89	7420.73	1.06	13868.3	15135.42	0.92	7224.66	6865.68	1.05
2000/01	9399.95	8928.24	1.05	14244.04	15135.13	0.94	9364.43	8845.59	1.06
2000/01	10352.13	11022.51	0.94	14971.8	15511.63	0.97	9310.27	9136.39	1.02
2000/01	11398.80	4783.90	2.38	13857.50	6661.00	2.08	8919.06	7399.33	1.21

Appendix: 4.b

Current Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06			
EBL	1.04	1.05	1.06	1.05	0.94	2.38	1.25	0.5055	40.33
NABIL	0.76	1.27	0.92	0.94	0.97	2.08	1.16	0.4398	38.02
BOK	1.03	1.06	1.05	1.06	1.02	1.21	1.07	0.0636	5.94

The above table all the banks have sound ability to meet their short-term obligations and in other words bank has capable of discharging the current obligations.

EBL and NABIL have higher Mean Deviation. The value of coefficient of variation of NABIL is 38.02 which is comparatively lower than EBL but much greater than BOK i.e. $40.33\% > 38.02\% > 5.94\%$ so we can say that current ratio of NABIL less consistence than EBL and slightly more consistence than BOK.

4.1.1.2) Cash and Bank Balance to Total Deposit Ratio

This ratio measures the promotion of most liquid assets i.e. cash and balance among the total current asset of bank. Higher ratio shows the bank ability to meet demand for cash.

Appendix: 4.c

Cash and Bank Balance to Total Deposit Ratio (Rs. in million)

Banks	EBL			NABIL			BOK		
	Cash & Bank Balance	Total Deposit	Ratio (%)	Cash & Bank Balance	Total Deposit	Ratio (%)	Cash & Bank Balance	Total Deposit	Ratio (%)
2000/01	834.9	4574.51	18.25	812.9	15839	5.13	1124.23	5713.49	19.68
2000/01	602.87	5466.6	11.03	1051.82	15506.43	6.78	683.65	5723.29	11.95
2000/01	1139.57	6694.96	17.02	1144.76	13447.66	8.51	692.71	6170.71	11.23
2000/01	631.81	8063.9	7.84	970.49	14119.03	6.87	782.85	7741.65	10.11
2000/01	1049.1	10097.69	10.39	559.38	14586.66	3.83	740.52	8942.75	8.28
2000/01	1552.97	13802.44	11.25	630.29	19347.4	3.26	728.7	10485	6.95

Appendix: 4.d

Cash and Bank Balance to Total Deposit Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6			
EBL	18.25	11.03	17.02	7.84	10.39	11.25	12.63	3.7256	29.50
NABIL	5.13	6.78	8.51	6.87	3.83	3.26	5.73	1.8349	32.02
BOK	19.68	11.95	11.23	10.11	8.28	6.95	11.37	4.0842	35.93

The above table shows the percentage of cash and bank balance to total deposit ratio of EBL, NABIL and BOK. There are better Mean, Standard Deviation and coefficient of variance on all commercial banks. But in average EBL has better liquidity position than others.

We can analysis that the ratio of NABIL has not better against the others and NABIL have to invest in more productive sectors like short-term marketable securities, treasury bills etc for enough liquidity which will helps the bank to improve its profitability.

4.1.1.3) Cash and Bank Balance to Current Assets Ratio

This ratio indicates the proportion of most liquid assets i.e. cash and bank balance to total current assets of banks. Higher ratio indicates the bank's ability to meet the daily cash requirement for their customer's deposit.

Appendix: 4.e

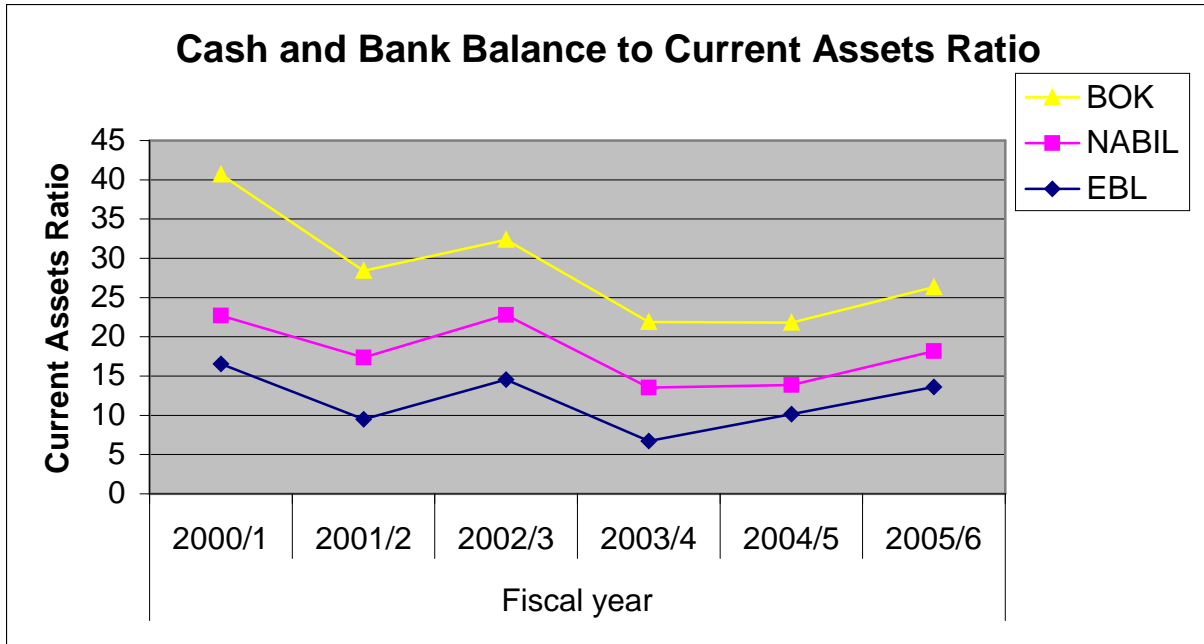
Cash and Bank Balance to Current Assets Ratio (Rs. in million)

Banks	EBL			NABIL			BOK		
Fiscal Year	Cash & Bank Balance	Current Assets	Ratio	Cash & Bank Balance	Current Assets	Ratio	Cash & Bank Balance	Current Assets	Ratio
2000/01	834	5049.85	16.53	812.9	13161.68	6.18	1124.23	6260.47	17.96
2001/02	602.87	6359.66	9.48	1051.82	13313.4	7.90	683.65	6192.12	11.04
2002/03	1139.57	7836.89	14.54	1144.76	13868.3	8.25	692.71	7224.66	9.59
2003/04	631.81	9399.95	6.72	970.49	14244.04	6.81	782.85	9364.43	8.36
2004/05	1049.1	10352.13	10.13	559.38	14971.8	3.74	740.52	9310.27	7.95
2005/06	1552.97	11398.8	13.62	630.29	13857.5	4.55	728.7	8919.06	8.17

Appendix: 4.f

Cash and Bank Balance to Current Assets Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6			
EBL	16.53	9.48	14.54	6.72	10.13	13.62	11.84	3.3457	28.27
NABIL	6.18	7.90	8.25	6.81	3.74	4.55	6.24	1.6447	26.36
BOK	17.96	11.04	9.59	8.36	7.95	8.17	10.51	3.4948	33.25



From the above data EBL has better position to pay customers deposit than other because it has higher mean 11.84 so EBL can pay against the current assets than others nevertheless it has also fluctuation trend. Although NABIL has lower ratio and it has lower fluctuation than other banks so it has low mean deviation 6.24. Banks need higher cash at bank balance to current assets ratio so NABIL is not good position at above data.

4.1.1.4) Investment on Government Securities of Current Assets Ratio

The ratio examines the portion of commercial banks current assets, which invested in different government securities such as treasury bills and government bonds. Commercial banks are interested to invest their collected funds on different securities, which issued by government to utilize their excess funds although government securities are not much liquid than cash and bank balance of

commercial banks but they can easily sell in the market or convert into the cash when they want.

Appendix: 4.g

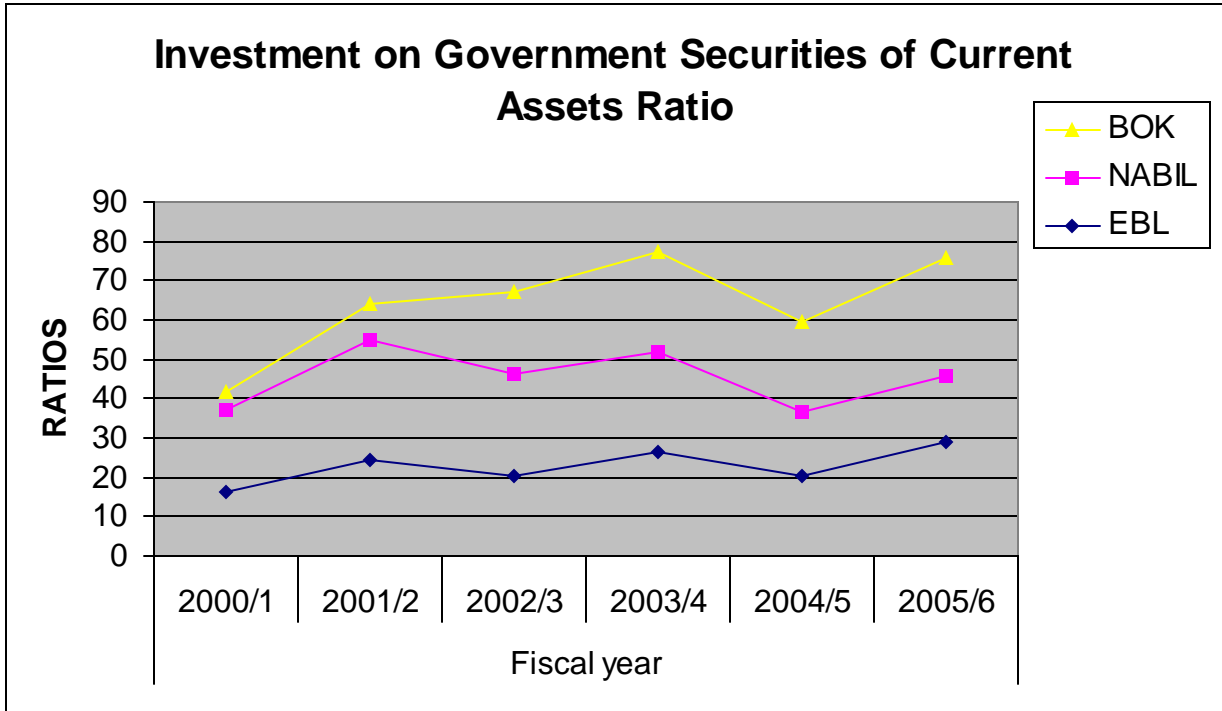
Investment on Government Securities of Current Assets Ratio (Rs. in million)

Banks	EBL			NABIL			BOK		
Fiscal Year	Investment on Govt Securities	Current Assets	Ratio (%)	Investment on Govt Securities	Current Assets	Ratio (%)	Investment on Govt Securities	Current Assets	Ratio (%)
2000/01	823	5049.85	16.30	2732.96	13161.68	20.76	300.81	6260.47	4.80
2001/02	1538.9	6359.66	24.20	4120.29	13313.4	30.95	542.65	6192.12	8.76
2002/03	1599.35	7836.89	20.41	3588.77	13868.3	25.88	1510.71	7224.66	20.91
2003/04	2466.43	9399.95	26.24	3672.63	14244.04	25.78	2371.77	9364.43	25.33
2004/05	2100.29	10352.13	20.29	2413.94	14971.8	16.12	2146.62	9310.27	23.06
2005/06	3322.44	11398.8	29.15	2301.46	13857.5	16.61	2658.37	8919.06	29.81

Appendix: 4.h

Investment on Government Securities of Current Assets Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6			
EBL	16.30	24.20	20.41	26.24	20.29	29.15	22.77	4.2499	18.67
NABIL	20.76	30.95	25.88	25.76	16.12	16.61	22.68	5.3511	23.59
BOK	4.80	8.76	20.91	25.33	23.06	29.81	18.78	8.9746	47.79



The mean ratio of EBL has slightly higher than NABIL but NABIL has gradually higher than BOK. It means EBL invested much portion of current assets at government securities than others. Except this EBL got fluctuation trend, BOK has increasing trend and NABIL has decreasing trend in average.

4.1.1.5) Loans and Advances to Current Assets Ratio

Loan and advances include short and long term loan, overdrafts etc. When the sufficient loan and advances are not granted then interest should be pay to unutilized deposits funds even higher loan and advances may effects liquidity position so the banks have to maintain its loan and advances on proper way.

Table 4.i**Loans and Advances to Current Assets Ratio (Rs. in million)**

Banks	EBL			NABIL			BOK		
Fiscal Year	Loans & Advances	Current Assets	Ratio (%)	Loans & Advances	Current Assets	Ratio (%)	Loans & Advances	Current Assets	Ratio (%)
2000/01	3005.76	5049.85	59.52	7732.64	13161.68	58.75	4127.05	6260.47	65.92
2001/02	3948.48	6359.66	62.09	7437.89	13313.4	55.87	4613.61	6192.12	74.51
2002/03	4908.46	7836.89	62.63	7755.95	13868.3	55.93	4542.7	7224.66	62.88
2003/04	5884.12	9399.95	62.60	8189.99	14244.04	57.50	5646.69	9364.43	60.30
2004/05	7618.67	10352.13	73.60	10586.17	14971.8	70.71	5912.58	9310.27	63.51
2005/06	9801.31	11398.8	85.99	12922.5	13857.5	93.25	7259.08	8919.06	81.39

Table 4.j**Loans and Advances to Current Assets Ratio**

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1 (%)	2001/2 (%)	2002/3 (%)	2003/4 (%)	2004/5 (%)	2005/6 (%)			
EBL	59.52	62.09	62.63	62.60	73.60	85.99	67.74	9.3043	13.74
NABIL	58.75	55.87	55.93	57.50	70.71	93.25	65.34	13.4841	20.64
BOK	65.92	74.51	62.88	60.30	63.51	81.39	68.09	7.4344	10.92

The above table indicates the all banks have more than 55% of ratios, which are better to maintain liquidity ratio. But we can say that BOK got higher utilization of current assets to loans and advances and S.D. and C.V. is also better than other banks. The lower S.D. and C.V. show the more variable and less consistent.

4.1.2) Asset Management Ratio

Utilization of assets can affects the profit of banking sector so banks must take concern to manage their assets. It measures the efficiency of the banking sectors.

4.1.2.1) Loans and Advances to Total Deposits Ratio

It refers the how successfully mobilized their deposits on loan and advances for generate the profit. Higher ratio indicates the better mobilization of total deposits although excess highest point is not better for liquidity purpose.

Table 4.k
Loans and Advances to Total Deposits Ratio (Rs. in million)

Banks	EBL			NABIL			BOK		
	Loans & Advances	Total Deposits	Ratio	Loans & Advances	Total Deposits	Ratio	Loans & Advances	Total Deposits	Ratio
2000/01	3005.76	4574.51	65.71	7732.64	15839	48.82	4127.05	5713.49	72.23
2001/02	3948.48	5466.6	72.23	7437.89	15506.43	47.97	4613.61	5723.29	80.61
2002/03	4908.46	6694.96	73.32	7755.95	13447.66	57.68	4542.7	6170.71	73.62
2003/04	5884.12	8063.9	72.97	8189.99	14119.03	58.01	5646.69	7741.65	72.94
2004/05	7618.67	10097.69	75.45	10586.17	14586.66	72.57	5912.58	8942.75	66.12
2005/06	9801.31	13802.44	71.01	12922.5	19347.4	66.79	7259.08	10485	69.23

Table 4.l
Loans and Advances to Total Deposits Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6			
EBL	65.71	72.23	73.32	72.97	75.45	71.01	71.78	3.0248	4.21
NABIL	48.82	47.97	57.68	58.01	72.57	66.79	58.64	8.8701	15.13
BOK	72.23	80.61	73.62	72.94	66.12	69.23	72.46	4.4475	6.14

The ratios of EBL and NABIL have increasing trend but BOK has fluctuation trend. In average EBL and BOK have better position for utilize their loans and advances than NABIL but we cannot forget that it affects the liquidity because banks have to pay the deposit with interest when it matures. C.V. is also satisfactory on EBL and BOK than NABIL because data are much consistence.

4.1.2.2) Total Investment to Total Deposit Ratio

Every commercial bank mobilized their deposits at different investments sectors like securities issued by government and other financial or non-financial sectors, other commercial or non-commercial sectors. The strategic banks may invest various sectors for maximize the profit.

Table 4.m

Total Investment to Total Deposit Ratio (Rs. in million)

Banks	EBL			NABIL			BOK		
	Total Investment	Total Deposits	Ratio %	Total Investment	Total Deposits	Ratio %	Total Investment	Total Deposits	Ratio %
2000/01	901.72	4574.51	19.71	7704.31	15839	48.64	419.82	5713.49	7.35
2001/02	1693.03	5466.6	30.97	8199.51	15506.43	52.88	667.46	5723.29	11.66
2002/03	1653.98	6694.96	24.70	6031.18	13447.66	44.85	1816.15	6170.71	29.43
2003/04	2535.7	8063.9	31.45	5835.95	14119.03	41.33	2477.4	7741.65	32.00
2004/05	2128.9	10097.69	21.08	4267.23	14586.66	29.25	2598.25	8942.75	29.05
2005/06	4200.52	13802.44	30.43	6178.53	19347.4	31.93	3378.13	10485	32.22

Table 4.n

Total Investment to Total Deposit Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1 (%)	2001/2 (%)	2002/3 (%)	2003/4 (%)	2004/5 (%)	2005/6 (%)			
EBL	19.71	30.97	24.70	31.45	21.08	30.43	26.39	4.8058	18.21
NABIL	48.64	52.88	44.85	41.33	29.25	31.93	41.48	8.4988	20.49
BOK	7.35	11.66	29.43	32.00	29.05	32.22	23.62	10.1257	42.87

From the above table it is found that the total investment to total deposit ratio of all three banks have fluctuating trend during study period of 2000/1 to 2005/6. The total investment to total deposit ratio of EBL has higher ratio of 30.97% at 2001/2 and lowest ratio 19.71% in FY 2000/1. Similarly NABIL has highest and lowest ratio of

52.88% and 29.25% in FY 2001/2 and 2004/5 respectively. But BOK has highest and lowest ratio of 32.22% and 7.35 in FY 2005/6 and 2000/1 respectively.

The comparison of the above data mean of EBL is 26.39% which is higher than BOK (23.62%) but lower than NABIL (41.48%) but when we analysis the c.v. EBL has lower than others. In average EBL is better than other banks.

4.1.2.3) Loan and Advances to Total Working Fund Ratio

Loan and advances is the major components of the total working fund and working fund is total assets (current assets, fixed assets, miscellaneous assets and investment, loan and advances and interest receivable). It is appropriate level to generate profit.

Table 4.o
Loan and Advances to Total Working Fund Ratio (Rs. in million)

Banks	EBL			NABIL			BOK		
Fiscal Year	Loan & Advances	Total Working Fund	Ratio %	Loan & Advances	Total Working Fund	Ratio %	Loan & Advances	Total Working Fund	Ratio %
2000/01	3005.76	5202.58	57.77	7732.64	17770.65	43.51	4127.05	6201.93	66.54
2001/02	3948.48	6616.89	59.67	7437.89	17529.25	42.43	4613.61	6356.65	72.58
2002/03	4908.46	8052.20	60.96	7755.95	16562.62	46.83	4542.7	7444.82	61.02
2003/04	5884.12	9608.56	61.24	8189.99	16745.48	48.91	5646.69	9496.34	59.46
2004/05	7618.67	11792.12	64.61	10586.17	17186.33	61.60	5912.58	9857.13	59.98
2005/06	9801.31	15959.3	61.41	12922.5	22330	57.87	7259.08	12278.3	59.12

Table 4.p
Loan and Advances to Total Working Fund Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1 (%)	2001/2 (%)	2002/3 (%)	2003/4 (%)	2004/5 (%)	2005/6 (%)			
EBL	57.77	59.67	60.96	61.24	64.61	61.41	60.94	2.0592	3.38
NABIL	43.51	42.43	46.83	48.91	61.60	57.87	50.19	7.1524	14.25
BOK	66.54	72.58	61.02	59.46	59.98	59.12	63.12	4.9135	7.78

The above data reflects that loan and advances to working fund ratio of EBL and NABIL have increasing trend but BOK has decreasing trend during the study period. The mean value of EBL has maintained the average loan and advances to total working fund ratio than others. The coefficient of variance of EBL has less than other banks and less variable. This regards EBL is in better position among other banks.

4.1.2.4) Investment on Government Securities to Total Working Funds Ratio

The commercial banks should never use all the total deposits resources as loan and advances and other credit for security and liquidity point of view. So the commercial banks seem to utilize their resources at purchasing government securities.

Table 4.q**Investment on Government Securities to Total Working Funds Ratio****(Rs. in million)**

Banks	EBL			NABIL			BOK		
Fiscal Year	Investment on Govt Securities	Total Working Fund	Ratio %	Investment on Govt Securities	Total Working Fund	Ratio %	Investment on Govt Securities	Total Working Fund	Ratio %
2000/01	823	5202.58	15.82	2732.96	17770.65	15.38	300.81	6201.93	4.85
2001/02	1538.90	6616.89	23.26	4120.29	17529.25	23.51	542.65	6356.65	8.54
2002/03	1599.35	8052.20	19.86	3588.77	16562.62	21.67	1510.71	7444.82	20.29
2003/04	2466.43	9608.56	25.67	3672.63	16745.48	21.93	2371.77	9496.34	24.98
2004/05	2100.29	11792.12	17.81	2413.94	17186.33	14.05	2146.62	9857.13	21.78
2005/06	3322.44	15959.3	20.82	2301.46	22330	10.31	2658.37	12278.3	21.65

Table 4.r**Investment on Government Securities to Total Working Funds Ratio**

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1 (%)	2001/2 (%)	2002/3 (%)	2003/4 (%)	2004/5 (%)	2005/6 (%)			
EBL	158.19	23.26	19.86	25.67	17.81	20.82	20.54	3.2657	15.90
NABIL	15.38	23.51	21.67	21.93	14.05	10.31	17.81	4.8418	27.19
BOK	4.85	8.54	20.29	24.98	21.78	21.65	17.02	7.5074	44.12

The above table shows that investment on government securities to total working fund ratio of all three banks have fluctuating trend. Likewise the mean of EBL is higher than other banks but c.v. is lower than other banks so EBL has invested its more portion of working funds on government securities than other banks. Government security is safe than other investment.

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

Now a day's commercial banks are interested to invest in shares and debenture at different types of companies and most of commercial banks in Nepal have purchased shares of regional development banks. This ratio reflects to extend on which banks are able to mobilize their total assets for purchase share and debenture of other companies to generate income and utilize their excess fund.

Table 4.s

Investment on Shares and Debentures to Total Working Fund Ratio (Rs. in million)

Banks	EBL			NABIL			BOK		
Fiscal Year	Investment on Share & Debenture	Total Working Fund	Ratio	Investment on Share & Debenture	Total Working Fund	Ratio	Investment on Share & Debenture	Total Working Fund	Ratio
2000/01	3.7	5202.58	0.07	18.82	17770.65	0.11	24.6	6201.93	0.4
2001/02	17.11	6616.89	0.26	22.22	17529.25	0.13	38.01	6356.65	0.6
2002/03	17.11	8052.2	0.21	22.22	16562.62	0.13	22.81	7444.82	0.31
2003/04	17.11	9608.56	0.18	22.22	16745.48	0.13	23.16	9496.34	0.24
2004/05	19.4	11792.12	0.16	27.36	17186.33	0.16	23.16	9857.13	0.23
2005/06	19.88	15959.3	0.12	27.56	22330	0.12	23.16	12278.3	0.19

Table 4.t

Investment on Shares and Debentures to Total Working Fund Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1 (%)	2001/2 (%)	2002/3 (%)	2003/4 (%)	2004/5 (%)	2005/6 (%)			
EBL	0.07	0.26	0.21	0.18	0.16	0.12	0.17	0.0610	36.61
NABIL	0.11	0.13	0.13	0.13	0.16	0.12	0.13	0.0153	11.75
BOK	0.40	0.60	0.31	0.24	0.23	0.19	0.33	0.1390	42.33

The table depicts that EBL has decreasing trend in the FY 2002/3 to 2005/6. NABIL has maintain same position up to 2003/4 and it has increasing trend in 2004/5 i.e. 0.13%, 0.13%, 0.13% and 0.16%. BOK has also in decreasing trend to investment on share and debenture to working fund ratio.

EBL has maintained medium investment on share and debentures to total working fund ratio than other in average. Coefficient of variation of EBL has higher than NABIL and lowers than BOK, which indicate that EBL has more variable and less consistent.

4.1.2.6) Loan Loss Relation

This is occurred when the debtors fail to pay their loan. The loss of the loan is not only the default of the debtors but it occurs on failure of recovery of loan by the side of bank. Negligence in this part makes a negative impact on the earning and capital of the bank. The loan loss ratio shows how efficiently the bank manages its loan and advances and makes effort for the timely recovery of loan.

Table 4.u
Loan Loss Relation (Rs. in millions)

Banks	EBL			NABIL			BOK		
	Loan Loss Provision	Loan and advances	Ratio	Loan Loss Provision	Loan and advances	Ratio	Loan Loss Provision	Loan and advances	Ratio
2000/01	33.5	3005.76	1.11	165.76	7732.64	2.14	62.96	4127.05	1.53
2001/02	34.73	3948.48	0.88	0	7437.89	0.00	127.49	4613.61	2.76
2002/03	45.75	4908.46	0.93	0	7755.95	0.00	82.62	4542.7	1.82
2003/04	81.78	5884.12	1.39	1.051	8189.99	0.01	101.26	5646.69	1.79
2004/05	88.92	7618.67	1.17	4.207	10586.17	0.04	133.92	5912.58	2.27
2005/06	70.47	9801.31	0.72	3.38	12922.5	0.03	78.38	7259.08	1.08

Table 4.v
Loan Loss Relation

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1 (%)	2001/2 (%)	2002/3 (%)	2003/4 (%)	2004/5 (%)	2005/6 (%)			
EBL	1.11	0.88	0.93	1.39	1.17	0.72	1.03	0.2176	21.06
NABIL	2.14	0.00	0.00	0.01	0.04	0.03	0.37	0.7917	213.97
BOK	1.53	2.76	1.82	1.79	2.27	1.08	1.88	0.5324	28.39

The above table refers that EBL has fluctuating trend, it has the maximum ratio of 1.39% at 2003/4 and minimum ratio of 0.72% at 2005/6. Similarly NABIL has not any data of 2001/2 and 2002/3. Likewise the BOK has followed fluctuating trend.

EBL has medium mean but Standard Deviation and Coefficient of variance are lowest so EBL is the best position of “Loan Loss Relation” than other. BOK is the second best position from the above data.

4.1.3) Profitability Ratio

Profitability ratios are very useful to measure the efficiency of operation of a firm in term of profit. Profit is the indicator of the financial performance of any types of firm. Thus the commercial banks acquire profit by providing different kinds of services. Higher the profitability ratio shows the higher efficiency of the management. Profitability ratios are as follows:

4.1.3.1) Return on Loan and Advances Ratio

Return on loan and advances ratio measures the earning capacity of banks on its total deposits, which mobilized, to loan and advances. Loan and advances are loan, cash credit, overdraft, bills purchased and discounted etc.

Table 4.w
Return on Loan and Advances Ratio (Rs. in millions)

Banks	EBL			NABIL			BOK		
	Net Profit	Loan and advances	Ratio	Net Profit	Loan and advances	Ratio	Net Profit	Loan and advances	Ratio
2000/01	69.70	3005.76	2.32	291.38	7732.64	3.77	65.36	4127.05	1.58
2001/02	85.35	3948.48	2.16	271.64	7437.89	3.65	9.28	4613.61	0.20
2002/03	94.18	4908.46	1.92	416.24	7755.95	5.37	82.13	4542.70	1.81
2003/04	143.57	5884.12	2.44	455.31	8189.99	5.56	127.48	5646.69	2.26
2004/05	170.80	7618.67	2.24	518.64	10586.17	4.90	139.52	5912.58	2.36
2005/06	237.38	9801.31	2.42	635.30	12922.50	4.92	202.44	7259.08	2.79

Table 4.x
Return on Loan and Advances Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1 (%)	2001/2 (%)	2002/3 (%)	2003/4 (%)	2004/5 (%)	2005/6 (%)			
EBL	2.32	2.16	1.92	2.44	2.24	2.42	2.25	0.1765	7.85
NABIL	3.77	3.65	5.37	5.56	4.90	4.92	4.70	0.7353	15.66
BOK	1.58	0.20	1.81	2.26	2.36	2.79	1.83	0.8274	45.13

The table reveals that EBL has decreasing trend in the beginning year and after 2003/4. It increases from 1.92% to 2.42% at the end of the period. So NABIL has maintained fluctuating trend where BOK has also decreasing trend in the first two year and after 2003/4 it has increasing trend.

Although the EBL has mid position of mean than other but S.D. and C.V. are lower than other banks so EBL has able to success in return on loan and advances ratio than other banks. The second best position of this ratio is gone to NABIL.

4.1.3.2) Return on Total Working Fund Ratio

We can say this ratio as a return on asset and this ratio measure the profit earning capacity by mobilizing available resources (total assets). The banks have to earn satisfactory return on assets or working funds, which have well managed and efficiently utilized. Net profit includes the profit that is reduced to the internal equities to all charges and expenses cost.

Table 4.y
Return on Total Working Fund Ratio (Rs. in millions)

Banks	EBL			NABIL			BOK		
	Net Profit	Working Fund	Ratio	Net Profit	Working Fund	Ratio	Net Profit	Working Fund	Ratio
2000/01	69.7	5202.58	1.34	291.38	17770.65	1.64	65.36	6201.93	1.05
2001/02	85.35	6616.89	1.29	271.64	17529.25	1.55	9.28	6356.65	0.15
2002/03	94.18	8052.2	1.17	416.24	16562.62	2.51	82.13	7444.82	1.10
2003/04	143.57	9608.56	1.49	455.31	16745.48	2.72	127.48	9496.34	1.34
2004/05	170.80	11792.12	1.45	518.64	17186.33	3.02	139.52	9857.13	1.42
2005/06	237.38	15959.30	1.49	635.30	22330	2.85	202.44	12278.30	1.65

Table 4.z
Return on Total Working Fund Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1 (%)	2001/2 (%)	2002/3 (%)	2003/4 (%)	2004/5 (%)	2005/6 (%)			
EBL	1.34	1.29	1.17	1.49	1.45	1.49	1.37	0.1172	8.55
NABIL	1.64	1.55	2.51	2.72	3.02	2.85	2.38	0.5773	24.24
BOK	1.05	0.15	1.1	1.34	1.42	1.65	1.12	0.4771	42.66

The above tables show the mean, S.D. and C.V. of EBL, NABIL and BOK from FY 2000/1 to 2005/6. EBL has fluctuating trend, which indicates that its profitability ratio is not consistent.

EBL has lowest S.D. and C.V. so EBL is the first position and we cannot say that second position on NABIL or BOK because S.D. of BOK is lower than NABIL but C.V. of NABIL is lower than BOK.

4.1.3.3) Total Interest Earned to Total outside Assets Ratio

This ratio measures the interest earning capacity of the bank through utilization of all outside assets. Higher the ratio indicates better use of outside assets of commercial banks. Total outside assets include loan and advances, investment on government securities, share and debentures and other all types of investment.

Table 4.I

Total Interest Earned to Total outside Assets Ratio (Rs. in millions)

Banks	EBL			NABIL			BOK		
	Interest Earned	Outside Assets	Ratio	Interest Earned	Outside Assets	Ratio	Interest Earned	Outside Assets	Ratio
2000/01	385.02	3907.48	9.85	1266.7	15436.95	8.21	465.03	4546.87	10.23
2001/02	443.82	5641.51	7.87	1120.7	15630.74	7.17	473.30	5281.07	8.96
2002/03	520.17	6562.44	7.93	1017.87	13787.13	7.38	496.81	6358.85	7.81
2003/04	657.25	8419.82	7.81	1001.61	14025.94	7.14	567.09	8124.09	6.98
2004/05	719.30	9747.57	7.38	1068.75	14853.40	7.20	607.09	8510.83	7.13
2005/06	903.11	14001.82	6.45	1310	19101.08	6.86	718.12	10633.8	6.75

Table 4.II**Total Interest Earned to Total outside Assets Ratio**

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1 (%)	2001/2 (%)	2002/3 (%)	2003/4 (%)	2004/5 (%)	2005/6 (%)			
EBL	9.85	7.87	7.93	7.81	7.38	6.45	7.88	1.0152	12.88
NABIL	8.21	7.17	7.38	7.14	7.20	6.86	7.33	0.4235	5.78
BOK	10.23	8.96	7.81	6.98	7.13	6.75	7.98	1.2441	15.60

The above data shows the decreasing trend on these banks. Mean are similar to each other but when we see the C.V. then NABIL bank has better position it is more variable or less consistent than other banks. So it has better position than other. When we cannot give the decision from the Mean Deviation that time S.D. and C.V. play major role to give the decision.

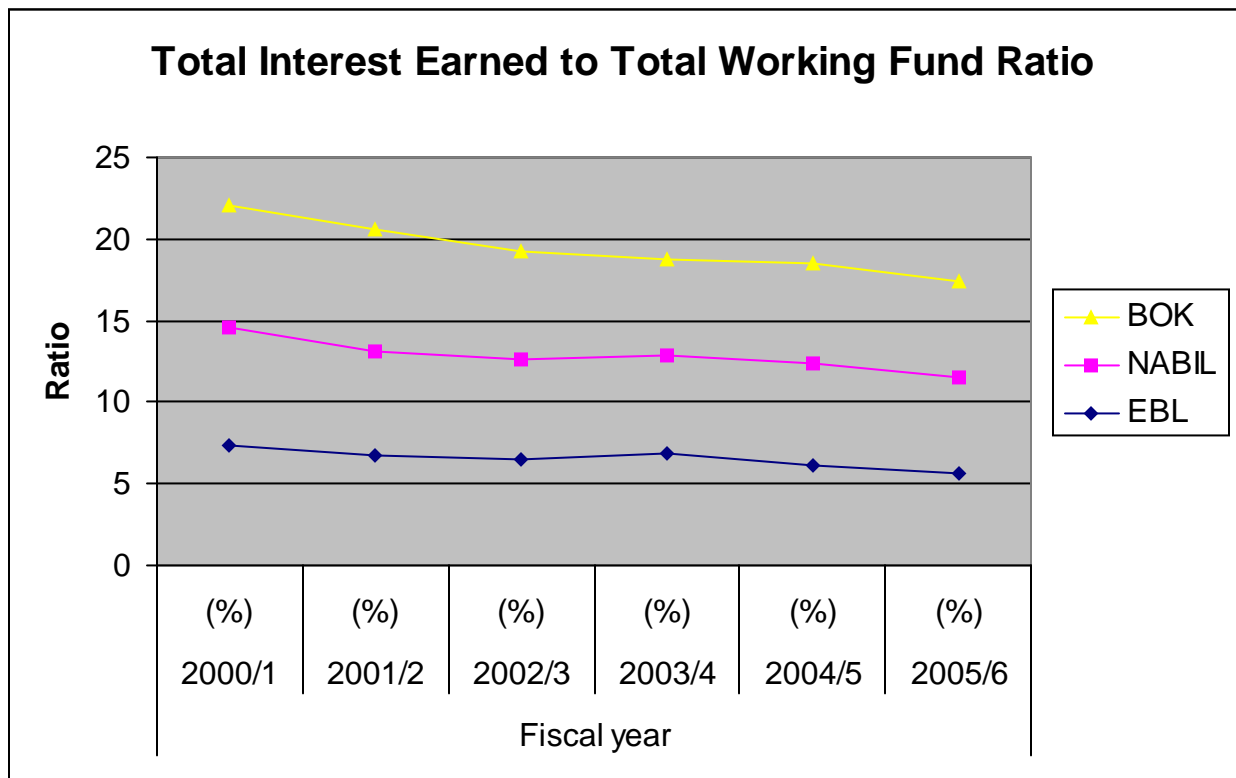
4.1.3.4) Total Interest Earned to Total Working Fund Ratio**Table 4.III****Total Interest Earned to Total Working Fund Ratio (Rs. in millions)**

Banks	EBL			NABIL			BOK		
	Interest Earned	Working Fund	Ratio	Interest Earned	Working Fund	Ratio	Interest Earned	Working Fund	Ratio
2000/01	385.02	5202.58	7.40	1266.70	17770.65	7.13	465.03	6201.93	7.5
2001/02	443.82	6616.89	6.71	1120.7	17529.25	6.39	473.30	6356.65	7.45
2002/03	520.17	8052.20	6.46	1017.87	16562.62	6.15	496.81	7444.82	6.67
2003/04	657.25	9608.56	6.84	1001.61	16745.48	5.98	567.09	9496.34	5.97
2004/05	719.30	11792.12	6.10	1068.75	17186.33	6.22	607.09	9857.13	6.16
2005/06	903.11	15959.30	5.66	1310	22330	5.87	718.12	12278.3	5.85

Table 4.IV

Total Interest Earned to Total Working Fund Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1 (%)	2001/2 (%)	2002/3 (%)	2003/4 (%)	2004/5 (%)	2005/6 (%)			
EBL	7.4	6.71	6.46	6.84	6.10	5.66	6.53	0.5526	8.46
NABIL	7.13	6.39	6.15	5.98	6.22	5.87	6.29	0.4108	6.53
BOK	7.5	7.45	6.67	5.97	6.16	5.85	6.6	0.6696	10.15



EBL has significantly higher Mean Deviation than other banks but when S.D. and C.V. is slightly lower than other banks so NABIL has better position because it has more variable but less consistent data. Although all are getting decreasing trend NABIL is the best and the fiscal year on 2000/1 got higher data of all three commercial banks.

4.1.4) Risk Ratio

4.1.4.1) Liquidity Risk Ratio

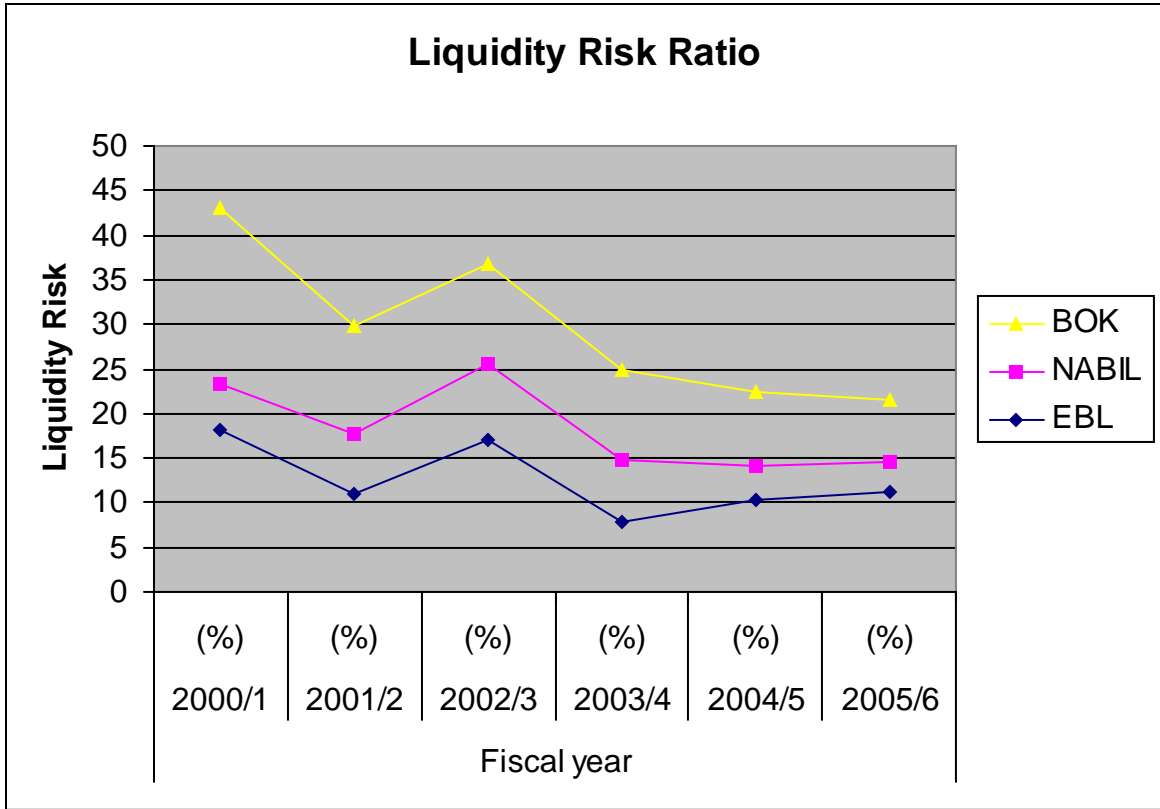
The liquidity risk of the bank defines its liquidity, which need for deposit. The higher liquidity indicates the less risk and less profitable bank and vice-versa. The ratio of cash and bank to total deposits is the indicator of the bank liquidity. The cash and bank balance are the most liquid assets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

Table 4.V
Liquidity Risk Ratio (Rs. in millions)

Banks	EBL			NABIL			BOK		
Fiscal Year	Cash and Bank Balance	Total Deposit	Ratio	Cash and Bank Balance	Total Deposit	Ratio	Cash and Bank Balance	Total Deposit	Ratio
2000/01	834.90	4574.51	18.25	812.90	15839.00	5.13	1124.23	5713.49	19.68
2001/02	602.87	5466.60	11.03	1051.82	15506.43	6.78	683.65	5723.29	11.95
2002/03	1139.57	6694.96	17.02	1144.76	13447.66	8.51	692.71	6170.71	11.23
2003/04	631.81	8063.90	7.84	970.49	14119.03	6.87	782.85	7741.65	10.11
2004/05	1049.1	10097.69	10.39	559.38	14586.66	3.83	740.52	8942.75	8.28
2005/06	1552.97	13802.44	11.25	630.29	19347.40	3.26	728.70	10485.00	6.95

Table 4.VI
Liquidity Risk Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1 (%)	2001/2 (%)	2002/3 (%)	2003/4 (%)	2004/5 (%)	2005/6 (%)			
EBL	18.25	11.03	17.02	7.84	10.39	11.25	12.63	3.7256	29.50
NABIL	5.13	6.78	8.51	6.87	3.83	3.26	5.73	1.8349	32.02
BOK	19.68	11.95	11.23	10.11	8.28	6.95	11.37	4.0842	35.93



The above table shows the percentage of liquidity ratio of EBL, NABIL and BOK. This table reflects the liquidity risk ratio of EBL is fluctuation trend i.e. it has maintained the maximum ratio of 18.25 in the FY 2000/1 and minimum ratio of 7.84% in FY 2003/4. Similarly NABIL and BOK liquidity risk ratio is in decreasing trend. The minimum ratio of both banks is 3.26% and 6.95% in the FY 2005/6 respectively.

While comparing the mean of three banks, NABIL is getting low Mean Deviation i.e. 5.73 so EBL is getting higher Mean such as 12.63 but it has lower C.V. for instance 29.50%. So it has more variable or less consistence than other banks.

4.1.4.2) Credit Risk Ratio

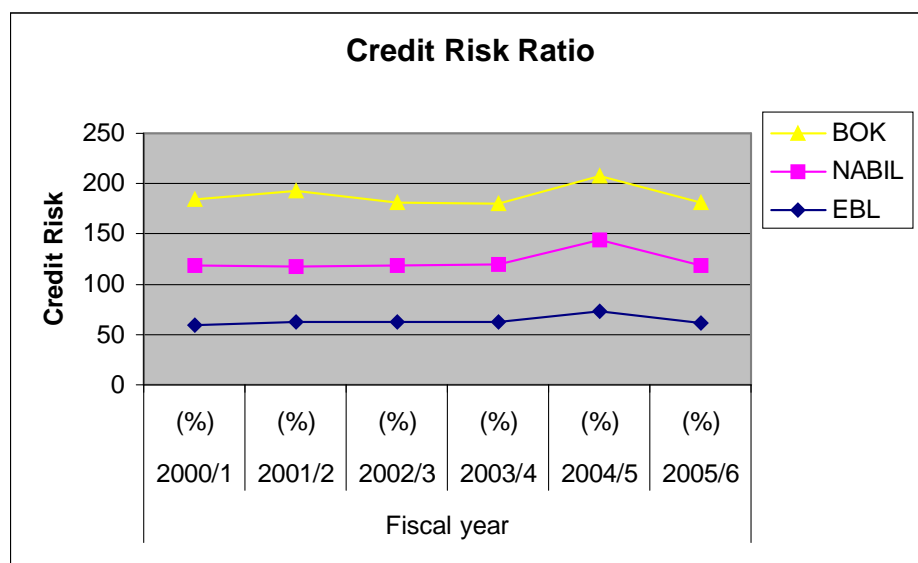
Bank utilized its collected funds to provide credit to different sectors while making the investment. It is very essential for the bank to examine the credit risk which is involved in the project. This ratio shows the proportion of non performing assets in total loan and advances of the bank.

Table 4.VII
Credit Risk Ratio (Rs. in millions)

Banks	EBL			NABIL			BOK		
Fiscal Year	Loan and Advances	Total Assets	Ratio	Loan and Advances	Total Assets	Ratio	Loan and Advances	Total Assets	Ratio
2000/01	3005	5049.85	59.52	7732.64	13161.68	58.75	4127.05	6260.47	65.92
2001/02	3948.48	6359.66	62.09	7437.89	13313.40	55.87	4613.61	6192.12	74.51
2002/03	4908.46	7836.89	62.63	7755.95	13868.30	55.93	4542.70	7224.66	62.88
2003/04	5884.12	9399.95	62.60	8189.99	14244.04	57.50	5646.69	9364.43	60.30
2004/05	7618.67	10352.13	73.60	10586.17	14971.80	70.71	5912.58	9310.27	63.51
2005/06	9801.31	15937.60	61.50	12922.50	22688.40	56.96	7259.08	11498.66	63.13

Table 4.VIII
Credit Risk Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1 (%)	2001/2 (%)	2002/3 (%)	2003/4 (%)	2004/5 (%)	2005/6 (%)			
EBL	59.52	62.09	62.63	62.60	73.60	61.50	63.66	4.5691	7.18
NABIL	58.75	55.87	55.93	57.50	70.71	56.96	59.29	5.2014	8.77
BOK	65.92	74.51	62.88	60.30	63.51	63.13	65.04	4.5383	6.98



The table shows the percentage of credit risk ratio on EBL, NABIL and BOK. The credit risk ratio of EBL is fluctuating trend during the study period and it has maintained the maximum ratio of 73.60% in 2004/5 but minimum ratio of 59.52% on 2000/1. Similarly NABIL has increasing trend of credit risk ratio, which has higher ratio of 70.71% at 2004/5, but BOK has decreasing trend.

The mean of EBL is between position on NABIL and BOK so it means EBL has average credit in comparison to both banks. The coefficient of variance of BOK is 6.98%, which is lower than other commercial banks Credit Risk Ratio. So it has more variable and less consistence data.

4.1.4.3) Capital Risk Ratio

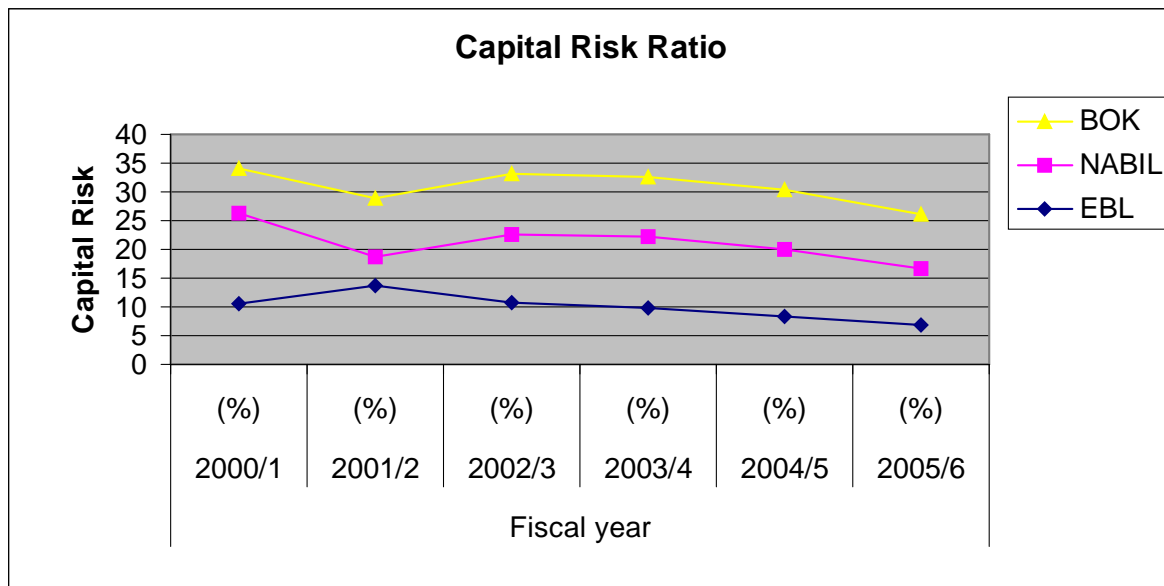
The capital risk ratio indicates the how much assets value may decline by the bank before the position deposition and other creditors is jeopardized. So the bank needs to maintain adequate capital for its assets, deposits liabilities and other corporate responsibilities. This ratio measures the ability of bank for deposit and inter-bank funds.

Table 4.IX
Capital Risk Ratio (Rs. in millions)

Banks	EBL			NABIL			BOK		
Fiscal Year	Capital	Risk Weight Assets	Ratio	Capital	Risk Weight Assets	Ratio	Capital	Risk Weight Assets	Ratio
2000/01	319.40	3005.76	10.63	1662.84	10563.62	15.74	327.18	4256.28	7.69
2001/02	586.59	4272.93	13.73	1146.42	22985.76	4.99	520.18	5074.23	10.25
2002/03	612.82	5707.03	10.74	1314.18	11153.13	11.78	579.13	5462.02	10.60
2003/04	680.32	6924.80	9.82	1481.68	11872	12.48	650.75	6306.13	10.32
2004/05	769.62	9195.60	8.37	1657.64	14193.07	11.68	720.74	6926.86	10.41
2005/06	769.62	11291.10	6.82	1657.64	16976.40	9.76	720.74	7583.65	9.50

Table 4.X
Capital Risk Ratio

Bank	Fiscal year						Mean	S.D.	C.V. %
	2000/1 (%)	2001/2 (%)	2002/3 (%)	2003/4 (%)	2004/5 (%)	2005/6 (%)			
EBL	10.63	13.73	10.74	9.82	8.37	6.82	10.02	2.1470	21.43
NABIL	15.74	4.99	11.78	12.48	11.68	9.76	11.07	3.2495	29.35
BOK	7.69	10.25	10.60	10.32	10.41	9.50	9.80	1.0022	10.23



From the above tables, it is clearly seen that the percentage of capital risk ratio of three different commercial banks which have fluctuation trend. NABIL has higher mean deviation i.e. 11.07% but when we see the S.D. and C.V. BOK is lower than other banks. Thus it can be concluded that EBL is stable and heterogeneous than NABIL but less stable and less heterogeneous in the comparison to the BOK because it has maintained less C.V. among the three banks.

4.2) Statistical Tools

4.2.1) Trend Analysis

4.2.1.1) Trend Analysis of Total Deposit

Under this topic we have to calculate the trend value of deposits on EBL, NABIL and BOK from mid July 2001 to 2006 and forecast for next five years from mid July 2005/06 to 2010/11.

Trend Analysis:

Trend Analysis of Total Deposit of EBL (Rs in Millions)

Fiscal Year(t)	Total Deposit(Y)	X=t-2003	X ²	XY	Y _c =a+bx
2001	4574.51	-2	4	-9149.02	2321.84
2002	5466.60	-1	1	-5466.60	5219.26
2003	6694.96	0	0	0.00	8116.68
2004	8063.90	1	1	8063.90	11014.1
2005	10097.69	2	4	20195.38	13911.52
2006	13802.44	3	9	41407.32	16808.94
Total	48700.1		19	55050.98	

$$a = \frac{\sum y}{n} = \frac{48700.1}{6} = 8116.68$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{55050.98}{19} = 2897.42$$

Project trend values of total deposit for next five years

Fiscal Year	X= t-2003	Y _c =a+bx
2007	4	19706.36
2008	5	22603.78
2009	6	25501.20
2010	7	28398.62
2011	8	31296.04

Trend Analysis of Total Deposit of NABIL (Rs in Millions)

Fiscal Year(t)	Total Deposit(Y)	X= t-2003	X ²	XY	Y _c =a+bx
2001	15839	-2	4	-31678	9774.348
2002	15506.43	-1	1	-15506.43	12624.354
2003	13447.66	0	0	0.00	15474.36
2004	14119.03	1	1	14119.03	18324.366
2005	14586.66	2	4	29173.32	21174.372
2006	19347.40	3	9	58042.20	24024.378
Total	92846.18		19	54150.12	

$$a = \frac{\sum y}{n} = \frac{92846.18}{6} = 15474.36$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{54150.12}{19} = 2850.006$$

Project trend values of total deposit for next five years

Fiscal Year	X= t-2003	Y _c =a+bx
2007	4	26874.384
2008	5	29724.39
2009	6	32574.396
2010	7	35424.402
2011	8	38274.408

Trend Analysis of Total Deposit of BOK (Rs in Millions)

Fiscal Year(t)	Total Deposit(Y)	X= t-2003	X ²	XY	Y _c =a+bx
2001	5713.49	-2	4	-11426.98	3259.459
2002	5723.29	-1	1	-5723.29	5361.137
2003	6170.71	0	0	0.00	7462.815
2004	7741.65	1	1	7741.65	9564.493
2005	8942.75	2	4	17885.50	11666.171
2006	10485	3	9	31455	13767.849
Total	44776.89		19	39931.88	

$$a = \frac{\sum y}{n} = \frac{44776.89}{6} = 7462.815$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{39931.88}{19} = 2101.678$$

Project trend values of total deposit for next five years

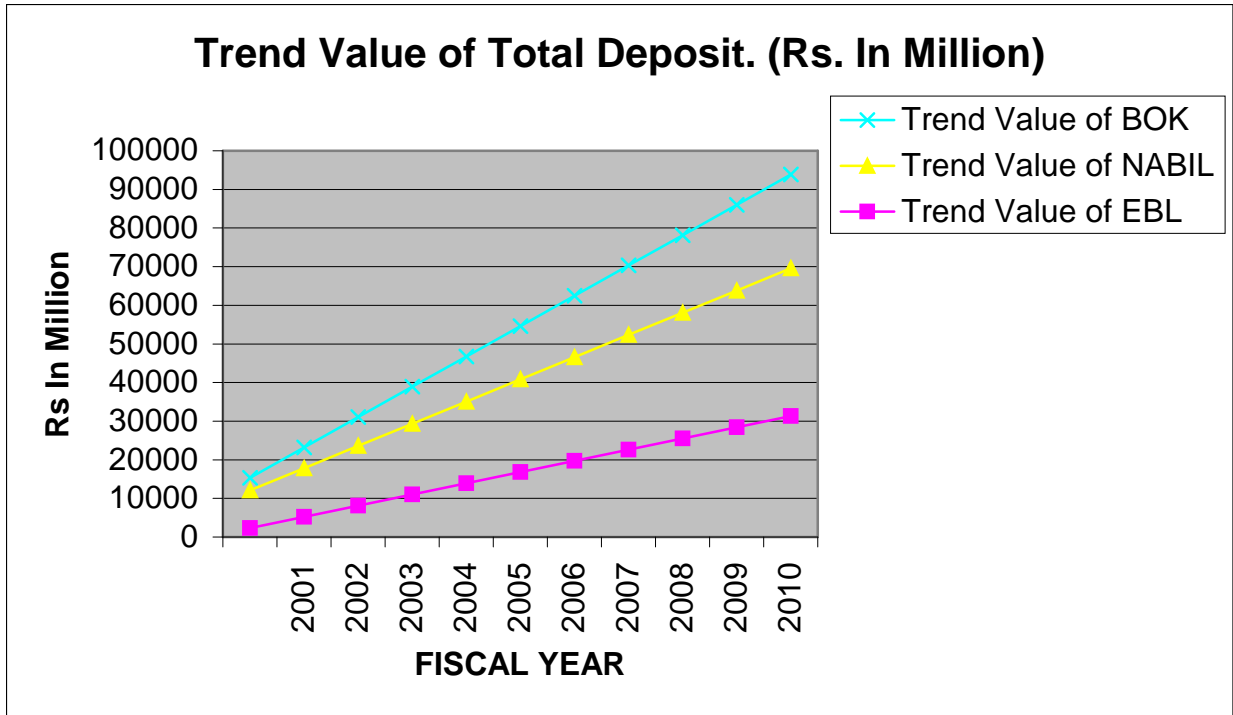
Fiscal Year	X= t-2003	$Y_c=a+bx$
2007	4	15869.527
2008	5	17971.205
2009	6	20072.883
2010	7	22174.561
2011	8	24276.239

Trend Value of Total Deposit (Rs. In Million)

Fiscal Year	Trend Value of EBL	Trend Value of NABIL	Trend Value of BOK
2001	2321.84	9774.35	3259.46
2002	5219.26	12624.4	5361.14
2003	8116.68	15474.4	7462.82
2004	11014.1	18324.4	9564.49
2005	13911.5	21174.4	11666.2
2006	16808.9	24024.4	13767.8
2007	19706.4	26874.4	15869.5
2008	22603.8	29724.4	17971.2
2009	25501.2	32574.4	20072.9
2010	28398.6	35424.4	22174.6
2011	31296.0	38274.4	24276.2

The above table shows the trend value of total deposit from 2005/6 to 2010/11 of the three different banks. The total deposits of EBL, NABIL and BOK have increasing trend.

By the analyzing the above trend value, it is found that the total deposit position collection of NABIL is better in comparison to BOK. The deposit position NABIL, EBL and BOK are increasing in the same proportion. So all bank have good position. Although all other things are remaining the same the total deposits of the NABIL will the highest deposit among the three banks under the study period.



4.2.1.2) Trend Analysis of Loan and Advances

Now the trend values of loan and advances of EBL, NABIL and BOK have calculated for five years from mid July 2001 to 2006 and the forecast for next five years till 2011.

Trend Analysis of Loan and Advances of EBL (Rs in Millions)

Fiscal Year(t)	Loan and Advances(Y)	X=t-2003	X ²	XY	Y _c =a+bx
2001	3005.76	-2	4	-6011.52	1591.093
2002	3948.48	-1	1	-3948.48	3726.113
2003	4908.46	0	0	0	5861.133
2004	5884.12	1	1	5884.12	7996.153
2005	7618.67	2	4	15237.34	10131.173

2006	9801.31	3	9	29403.921	12266.193
Total	35166.797		19	40565.381	

$$a = \frac{\sum y}{n} = \frac{35166.797}{6} = 5861.133 \quad b = \frac{\sum xy}{\sum x^2} = \frac{40565.381}{19} = 2135.02$$

Project trend values of Loan and Advances for next five years

Fiscal Year	X= t-2003	Y _c =a+bx
2007	4	14401.213
2008	5	16536.233
2009	6	18671.253
2010	7	20806.273
2011	8	22941.293

Trend Analysis of Loan and Advances of NABIL (Rs in Millions)

Fiscal Year(t)	Loan and Advances(Y)	X= t-2003	X ²	XY	Y _c =a+bx
2001	7732.64	-2	4	-15465.28	4343.483
2002	7437.89	-1	1	-7437.89	6723.84
2003	7755.95	0	0	0	9104.197
2004	8189.99	1	1	8189.99	11484.554
2005	10586.17	2	4	21172.34	13864.911
2006	12922.5	3	9	38767.62	16245.268
Total	54625.18		19	45226.78	

$$a = \frac{\sum y}{n} = \frac{54625.18}{6} = 9104.197 \quad b = \frac{\sum xy}{\sum x^2} = \frac{45226.78}{19} = 2380.357$$

Project trend values of Loan and Advances for next five years

Fiscal Year	X= t-2003	Y _c =a+bx
2007	4	18625.625
2008	5	21005.982
2009	6	23386.339
2010	7	25766.696
2011	8	28147.053

Trend Analysis of Loan and Advances of BOK (Rs in Millions)

Fiscal Year(t)	Loan and Advances(Y)	X= t-2003	X ²	XY	Y _c =a+bx
2001	4127.05	-2	4	-8254.1	2573.297
2002	4613.61	-1	1	-4613.61	3961.791
2003	4542.70	0	0	0.00	5350.285
2004	5646.69	1	1	5646.69	6738.779
2005	5912.58	2	4	11825.16	8127.273
2006	7259.08	3	9	21777.246	9515.767
Total	32101.712		19	26381.386	

$$a = \frac{\sum y}{n} = \frac{32101.712}{6} = 5350.285$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{26381.386}{19} = 1388.494$$

Project trend values of Loan and Advances for next five years

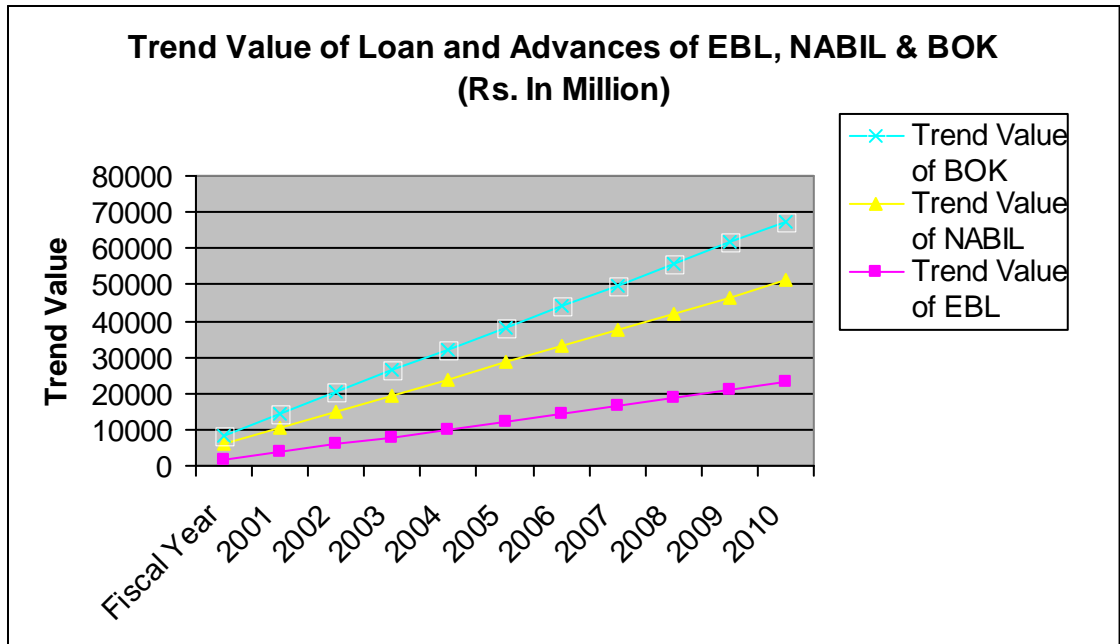
Fiscal Year	X= t-2003	$Y_c=a+bx$
2007	4	10904.261
2008	5	12292.755
2009	6	13681.249
2010	7	15069.743
2011	8	16458.237

Trend Value of Loan and Advances of EBL, NABIL & BOK (Rs. In Million)

Fiscal Year	Trend Value of EBL	Trend Value of NABIL	Trend Value of BOK
2001	1591.09	4343.48	2573.3
2002	3726.11	6723.84	3961.79
2003	5861.13	9104.2	5350.29
2004	7996.15	11484.6	6738.78
2005	10131.2	13864.9	8127.27
2006	12266.2	16245.3	9515.77
2007	14401.2	18625.6	10904.3
2008	16536.2	21006	12292.8
2009	18671.3	23386.3	13681.2
2010	20806.3	25766.7	15069.7
2011	22941.3	28147.1	16458.2

The above trend value of loan and advances on three banks have increasing trend. If other things are remaining same the total loan and advances of EBL will be 22941.30 million at 2011. Similarly the total loan and advances of BOK will be 16458.20 million at 2011 when all other remaining things are same but NABIL will get 28147.10 at 2011 which is the highest among the study period.

The trend of EBL has better than BOK but lower than NABIL. EBL and BOK may use the skill for the secured loans and NABIL has more secured loan than other because of less risk due to the sufficient collateral of its clients.



4.2.1.3) Trend Analysis of Total Investment

Inside this topic we have calculated trend values of total investment from the mid July 2001 to 2006 and forecasted from July 2006 to 2011. Because our main topic is under investment policy and this is the main part of all commercial banks.

Trend Analysis of Total Investment of EBL (Rs in Millions)

Fiscal Year(t)	Total Investment (Y)	X=t-2003	X ²	XY	$Y_c=a+bx$
2001	901.72	-2	4	-1803.44	512.1062
2002	1693.03	-1	1	-1693.03	1348.8741
2003	1653.98	0	0	0	2185.642
2004	2535.7	1	1	2535.7	3022.4099
2005	2128.9	2	4	4257.8	3859.1778
2006	4200.52	3	9	12601.56	4695.9457
Total	13113.85		19	15898.59	

$$a = \frac{\sum y}{n} = \frac{1311385}{6} = 2185.642$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{15898.59}{19} = 836.7679$$

Project trend values of Total Investment for next five years

Fiscal Year	X= t-2003	Y _c =a+bx
2007	4	5532.7136
2008	5	6369.4815
2009	6	7206.2494
2010	7	8043.0173
2011	8	8879.7852

Trend Analysis of Total Investment of NABIL (Rs in Millions)

Fiscal Year(t)	Total Investment (Y)	X= t-2003	X ²	XY	Y _c =a+bx
2001	7704.31	-2	4	-15408.62	5390.7288
2002	8199.51	-1	1	-8199.51	5880.0904
2003	6031.18	0	0	0	6369.452
2004	5835.95	1	1	5835.95	6858.8136
2005	4267.23	2	4	8534.46	7348.1752
2006	6178.53	3	9	18535.59	7837.5368
Total	38216.71		19	9297.87	

$$a = \frac{\sum y}{n} = \frac{38216.71}{6} = 6369.452$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{9297.87}{19} = 489.3616$$

Project trend values of Total Investment for next five years

Fiscal Year	X= t-2003	Y _c =a+bx
2007	4	8326.8984
2008	5	8816.26
2009	6	9305.6216
2010	7	9794.9832
2011	8	10284.3448

Trend Analysis of Total Investment of BOK (Rs in Millions)

Fiscal Year(t)	Total Investment (Y)	X= t-2003	X ²	XY	Y _c =a+bx
2001	419.82	-2	4	-839.64	176.95
2002	667.46	-1	1	-667.46	1034.91
2003	1816.15	0	0	0	1892.87
2004	2477.4	1	1	2477.4	2750.83
2005	2598.25	2	4	5196.5	3608.78
2006	3378.13	3	9	10134.39	4466.74
Total	11357.21		19	16301.19	

$$a = \frac{\sum y}{n} = \frac{11357.21}{6} = 1892.868$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{16301.19}{19} = 857.9574$$

Project trend values of Total Investment for next five years

Fiscal Year	X= t-2003	Y _c =a+bx
2007	4	5324.70
2008	5	6182.66

2009	6	7040.61
2010	7	7898.57
2011	8	8756.53

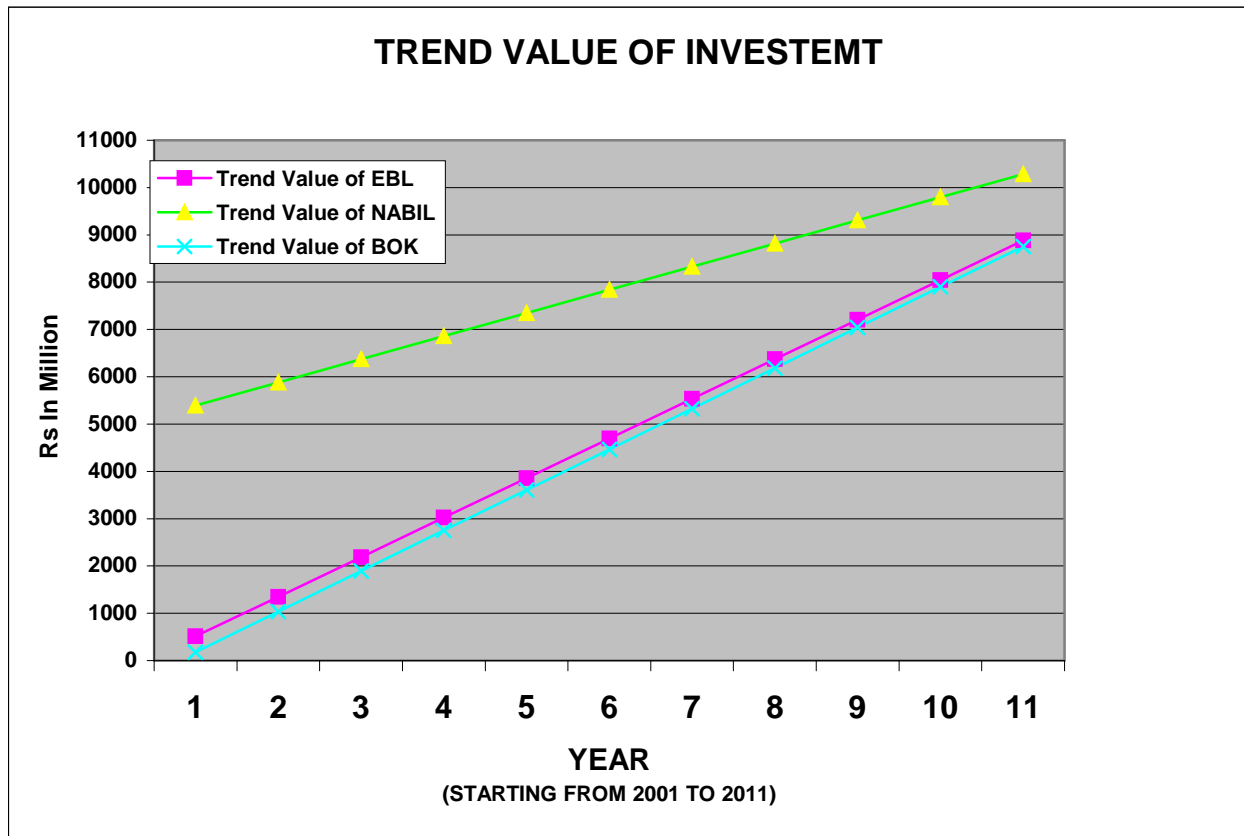
Trend Value of Total Investment of EBL, NABIL & BOK (Rs. In Million)

Fiscal Year	Trend Value of EBL	Trend Value of NABIL	Trend Value of BOK
2001	512.106	5390.73	176.95
2002	1348.87	5880.09	1034.91
2003	2185.64	6369.45	1892.87
2004	3022.41	6858.81	2750.83
2005	3859.18	7348.18	3608.78
2006	4695.95	7837.54	4466.74
2007	5532.71	8326.9	5324.7
2008	6369.48	8816.26	6182.66
2009	7206.25	9305.62	7040.61
2010	8043.02	9794.98	7898.57
2011	8879.79	10284.3	8756.53

If the other things will same then trend value of EBL will 8879.79, NABIL will 10284.3 and BOK will 8756.53 at the end of 2011. NABIL has highest trend value of total investment among the three banks. Because this bank is oldest bank and it has better position to invest the different sectors. It has also highest branches and now the education loan of NABIL is most believable than other banks.

The total investment of EBL, NABIL and BOK has increasing trend value and the highest trend investment value is 10284.3 (NABIL on 2011). So the total investment trend of NABIL is satisfactory among the three banks. From the above analysis we can say that BOK has not maintained the investment than others.

Trend Value of Total Investment of EBL, NABIL & BOK



4.2.1.4) Trend Analysis of Net Profit

Net profit is the main measurement of commercial banks so under this topic we describe the net profit of EBL, NABIL and BOK from the mid July 2001 to 2006 and forecasted trend of mid July 2006 to 2011 during the period of ten years.

Trend Analysis of Net Profit of EBL (Rs in Millions)

Fiscal Year(t)	Net Profit (Y)	X= t-2003	X ²	XY	Y _c =a+bx
2001	69.7	-2	4	-139.4	31.12
2002	85.35	-1	1	-85.35	82.31

2003	94.18	0	0	0	133.50
2004	143.57	1	1	143.57	184.68
2005	170.8	2	4	341.6	235.87
2006	237.38	3	9	712.14	287.06
Total	800.98		19	972.56	

$$a = \frac{\sum y}{n} = \frac{800.98}{6} = 133.4967$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{972.56}{19} = 51.18737$$

Project trend values of Net Profit for next five years.

Fiscal Year	X= t-2003	Y _c =a+bx
2007	4	338.25
2008	5	389.43
2009	6	440.62
2010	7	491.81
2011	8	543.00

Trend Analysis of Net Profit of NABIL (Rs in Millions)

Fiscal Year(t)	Net Profit (Y)	X= t-2003	X ²	XY	Y _c =a+bx
2001	291.38	-2	4	-582.76	163.62
2002	271.64	-1	1	-271.64	297.52
2003	416.24	0	0	0	431.42
2004	455.31	1	1	455.31	565.32
2005	518.64	2	4	1037.28	699.22
2006	635.3	3	9	1905.9	833.12
Total	2588.51		19	2544.09	

$$a = \frac{\sum y}{n} = \frac{2588.51}{6} = 431.4183$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{2544.09}{19} = 133.8995$$

Project trend values of Net Profit for next five years

Fiscal Year	X= t-2003	Y _c =a+bx
2007	4	967.02
2008	5	1100.92
2009	6	1234.82
2010	7	1368.71
2011	8	1502.61

Trend Analysis of Net Profit of BOK (Rs in Millions)

Fiscal Year(t)	Net Profit (Y)	X= t-2003	X ²	XY	Y _c =a+bx
2001	65.36	-2	4	-130.72	12.39
2002	9.28	-1	1	-9.28	58.38
2003	82.13	0	0	0	104.37
2004	127.48	1	1	127.48	150.36
2005	139.52	2	4	279.04	196.35
2006	202.44	3	9	607.32	242.34
Total	626.21		19	873.84	

$$a = \frac{\sum y}{n} = \frac{626.21}{6} = 104.3683$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{873.84}{19} = 45.99158$$

Project trend values of Net Profit for next five years

Fiscal Year	X= t-2003	$Y_c=a+bx$
2007	4	288.33
2008	5	334.33
2009	6	380.32
2010	7	426.31
2011	8	472.30

Trend Value of Net Profit of EBL, NABIL & BOK (Rs. In Millions)

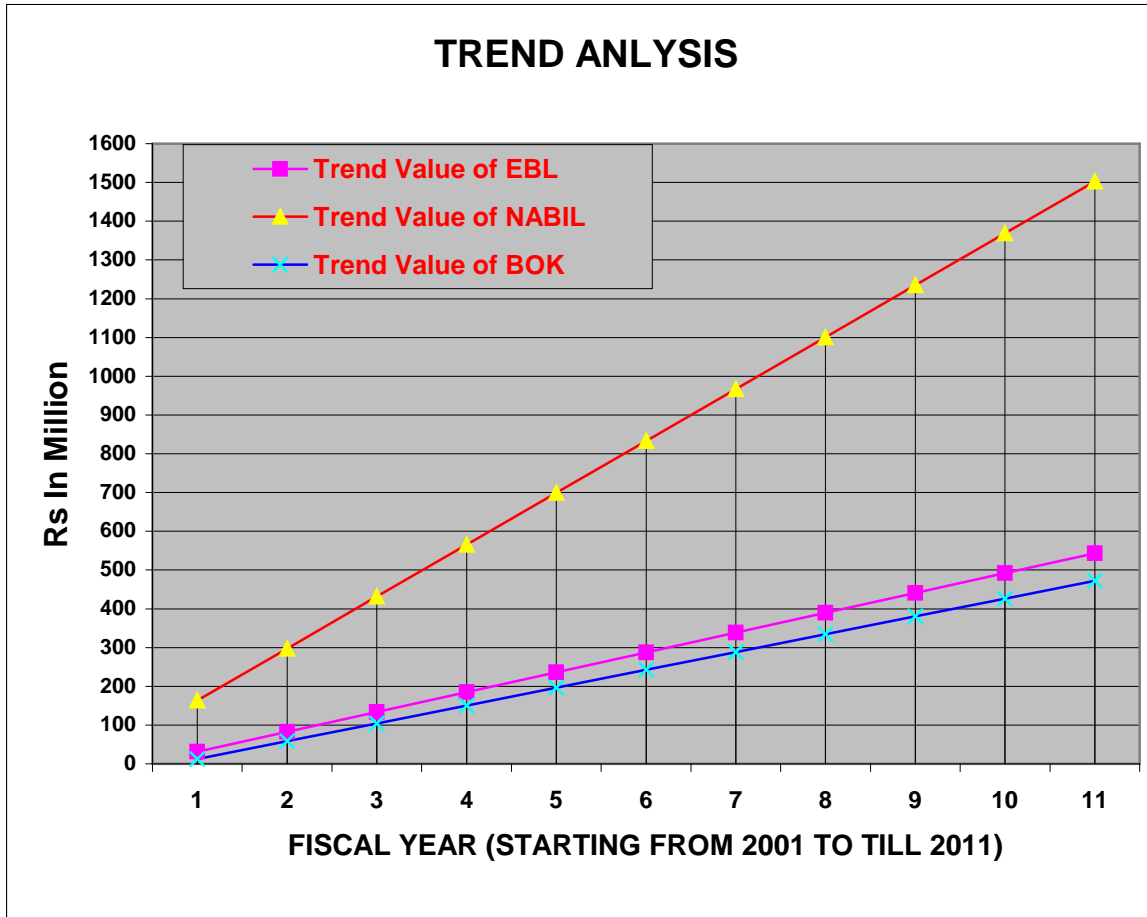
Fiscal Year	Trend Value of EBL	Trend Value of NABIL	Trend Value of BOK
2001	31.12	163.62	12.39
2002	82.31	297.52	58.38
2003	133.5	431.42	104.37
2004	184.68	565.32	150.36
2005	235.87	699.22	196.35
2006	287.06	833.12	242.34
2007	338.25	967.02	288.33
2008	389.43	1100.92	334.33
2009	440.62	1234.82	380.32
2010	491.81	1368.71	426.31
2011	543.0	1502.61	472.3

The above tables show the net profit of all three banks and which all have increasing trend value. The net profit of EBL will be 543 million in the mid July 2011 and similarly net profit of NABIL will be 1502.61 million, which is the highest among the three banks. The net profit of BOK will be 472.3 million and it is the lowest value among three banks during the study period.

The entire above bank have increasing trend of net profit and among these bank NABIL is getting maximum profit from its staffs skills, loan operation management

and banking services. NABIL has also future highest profit target which will be achievable. Except this EBL and BOK is investing to expand the banking services so its profit is lower than NABIL. All trends of net profit are increasing on these three banks.

Trend Value of Net Profit of EBL, NABIL & BOK



4.2.2) Test of Hypothesis

4.2.2.1) Test of Hypothesis on Loan and Advances to Total Deposits Ratio

For testing the ratios of loan and advances to total deposits of EBL, NABIL and BOK are taken under statistical tools T-test that is done below.

Loans and Advances to Total Deposits Ratios among EBL, NABIL and BOK.

Banks	EBL			NABIL			BOK		
Fiscal Year	x_1	X_1	X_1^2	x_2	X_2	X_2^2	x_3	X_3	X_3^2
2000/01	65.71	-6.07	36.87	48.82	-9.82	96.43	72.23	-0.23	0.05
2001/02	72.23	0.45	0.20	47.97	-10.67	113.85	80.61	8.15	66.45
2002/03	73.32	1.54	2.37	57.68	-0.96	0.92	73.62	1.16	1.35
2003/04	72.97	1.19	1.41	58.01	-0.63	0.40	72.94	0.48	0.23
2004/05	75.45	3.67	13.46	72.57	13.93	194.04	66.12	-634	40.17
2005/06	71.01	-0.77	1.60	66.79	8.15	66.42	69.23	-3.23	10.42
Total	430.69		54.90	351.84	0	472.07	434.75		118.68

We have,

$$\bar{X}_1 = \frac{\sum x_1}{n} \quad \bar{X}_2 = \frac{\sum x_2}{n} \quad \bar{X}_3 = \frac{\sum x_3}{n}$$

$$= \frac{430.69}{6} = 71.78 \quad = \frac{351.84}{6} = 58.64 \quad = \frac{434.75}{6} = 72.45$$

$$\text{Again, } X_1 = x_1 - \bar{X}_1 \quad X_2 = x_2 - \bar{X}_2 \quad X_3 = x_3 - \bar{X}_3$$

a) Test of Significance of Difference between EBL and NABIL

To test the significant relationship between EBL and NABIL under statistical tool, T-test has been done.

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{Sp^2 \left[\frac{1}{n_1} + \frac{1}{n_2} \right]}}$$

Where,

$$S_p^2 = \frac{1}{n_1 + n_2 - 2} \left(\sum x_1^2 + \sum x_2^2 \right)$$

$$= \frac{1}{6+6-2} \times (54.15+392.09)$$

$$= 52.697$$

Now,

Test statistics under H_0 is:

$$71.78-58.64$$

$$t = \frac{71.78-58.64}{\sqrt{52.90 \left(\frac{1}{6} + \frac{1}{6} \right)}}$$

$$=3.13518$$

With degree of frequency = $n_1 + n_2 - 2 = 6+6-2 = 10$

The calculated value of (t) = 3.13518

The calculated value of t at $\alpha = 0.05$ of 5% level of significance for two tailed test and for 10 degree of freedom is 1.812 i.e. $t_{0.05} (10) = 1.812$

Decision: Since the calculated value of t i.e. **3.13518** is greater than the tabulated value **1.812**, the null hypothesis (H_0) is rejected. This means there is significant difference between mean ratios of loans and advances to total deposit of **EBL** and **NABIL**.

b) Test of Significance of Difference between EBL and BOK

To test the significant relationship between EBL and BOK under statistical tool, T-test has been done.

$$\bar{X}_1 - \bar{X}_2$$

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{S_p^2 \left[\frac{1}{n_1} + \frac{1}{n_3} \right]}}$$

Where,

$$S_p^2 = \frac{1}{n_1 + n_3 - 2} \left(\sum x_1^2 + \sum x_3^2 \right)$$

$$= \frac{1}{5+5-2} \times (54.15+106.14)$$

$$= 17.358$$

Now,

Test statistics under H_0 is:

$$71.78 - 72.45$$

$$t = \frac{71.78 - 72.45}{\sqrt{17.358 \left(\frac{1}{6} + \frac{1}{6} \right)}}$$

$$t = 0.27854$$

With degree of frequency = $n_1 + n_2 - 2 = 6+6-2 = 10$

The calculated value of (t) = -0.27854

The tabulated value of at 5% level of significance for two tailed test and for 10 degree of freedom (D.F.) is 1.812 i.e. $t_{0.05}(10) = 1.812$

Decision, since the calculated value of t is **-0.27854** is lesser than the tabulated value **1.812**, the null hypothesis (**H₀**) is accepted. This means there is no significant difference between mean ratio of loan and advances to total deposit of **EBL** and **BOK**.

4.2.3) Regression Analysis

4.2.3.1) Regression of Networking Capital and Net Profit

Regression is the statistical tool, which is used to determine the statistical relationship between two or more variables and estimate the one variable on the basis of the other variable. Regression is the line, which gives the best estimate of one variable for any given value of the other variable. The regression line of Y on X. Estimate the most probably value of Y for given value of X.

X is Independent Variable.

Y is Dependent Variable

The regression equation of Y on X expressed as $Y=a+bx$

Where, a and b are parameters of the line.

Regression equation between net profits on total working fund of EBL

(Rs. In Millions)

Year	Working Fund (X)	Net Profit (Y)	X ²	Y ²	XY
2001	5202.58	69.70	27066838.66	4858.09	362619.83

2002	6616.89	85.35	43783233.27	7284.62	564751.56
2003	8052.20	94.18	64837924.84	8869.87	758356.20
2004	9608.56	143.57	92324425.27	20612.34	1379500.96
2005	11792.12	170.80	139054094.09	29172.64	2014094.10
2006	15959.28	237.38	254698618.12	56349.26	3788413.89
Total	57231.63	800.98	621765134.25	127146.83	8867736.53

X= Independent Variable

Y= Dependent Variable

Let the regression equation of Y on X is:

$$Y = a + bx \dots \dots \dots \text{equation (i)}$$

To find the value of a and b have two normal equation

$$y = n a + b \sum x \dots \dots \dots \text{equation (ii)}$$

$$xy = a \sum x + b \sum x^2 \dots \dots \dots \text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we got,

$$800.98 = 6a + 57231.63 b \dots \dots \dots \text{equation (iv)}$$

$$8867736.53 = a \cdot 57231.63 + b \cdot 621765134.25 \dots \dots \dots \text{equation (v)}$$

Now multiplying equation iv by 57231.63 and equation v by 6 then subtracting v , we got:

$$45841391 = 343389.78a + 3275459472b$$

$$-53206419.18 = -343389.78a + 3730590805.50b$$

$$-7365028.18 = -455131333.04b$$

$$b = 0.0161822$$

Putting the value of b in equation (iv) then we got.

$$800.98 = 6a + 57231.63 \times 0.0161822$$

$$a = -20.85$$

**Regression equation between net profits on total working fund of NABIL
(Rs. In Millions)**

Year	Working Fund (X)	Net Profit (Y)	X ²	Y ²	XY
2001	17770.7	291.38	315796001.42	84902.30	5178012.00
2002	17529.3	271.64	307274605.56	73788.29	4761645.47
2003	16562.6	416.24	274320381.26	173255.74	6894024.95
2004	16745.5	455.31	280411100.43	207307.20	7624384.50
2005	17186.3	518.64	295369938.87	268987.45	8913518.19
2006	22330	635.3	498627560.20	403606.09	14186229.94
Total	108124.30	2588.51	1971799587.75	1211847.07	47557815.05

X= Independent Variable

Y= Dependent Variable

Let the regression equation of Y on X is:

$$Y = a + bx \dots \dots \dots \text{equation (i)}$$

To find the value of a and b have two normal equation

$$y = n a + b \sum x \dots \dots \dots \text{equation (ii)}$$

$$xy = a \sum x + b \sum x^2 \dots \dots \dots \text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we got,

$$2588.51 = 6a + 108124.30 b \dots \dots \dots \text{equation (iv)}$$

$$47557815.05 = a 108124.30 + b 1971799587.75 \dots \dots \dots \text{equation (v)}$$

Now multiplying equation iv by 108124.30 and equation v by 6 then subtracting v ,
we got:

$$279880831.8 = 648745.8a + 11690864250.49b$$

$$\underline{\underline{285346890.3 = 648745.80a + 11830797526.50b}}$$

$$5466059 = -139933276.01b$$

$$b = 0.0390619$$

Putting the value of b in equation (iv) then we got.

$$2588.51 = 6a + 108124.30 \times 0.0390619$$

$$a = 272.50495$$

Regression equation between net profits on total working fund of BOK

(Rs. In Millions)

Year	Working Fund (X)	Net Profit (Y)	X ²	Y ²	XY
2001	6201.93	65.36	38463935.72	4271.93	405358.14
2002	6356.65	9.28	40406999.22	86.12	58989.71
2003	7444.82	82.13	55425344.83	6745.34	611443.07
2004	9496.34	127.48	90180473.40	16251.15	1210593.42
2005	9857.13	139.52	97163011.84	19465.83	1375266.78
2006	12278.33	202.44	150757387.59	40981.95	2485625.13
Total	51635.20	626.21	472397152.60	87802.32	6147276.25

X= Independent Variable

Y= Dependent Variable

Let the regression equation of Y on X is:

$$Y = a + bx \dots \dots \dots \text{equation (i)}$$

To find the value of a and b have two normal equation

$$y = n a + b \sum x \dots \dots \dots \text{equation (ii)}$$

$$xy = a \sum x + b \sum x^2 \dots \dots \dots \text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we got,

$$626.21 = 6a + 51635.20 b \dots \dots \dots \text{equation (iv)}$$

$$6147276.25 = a \sum 51635.20 + b \sum 472397152.60 \dots \dots \dots \text{equation (v)}$$

Now multiplying equation iv by 51635.20 and equation v by 6 then subtracting v , we got:

$$32334478.59 = 309811.2a + 2666193879b$$

$$\underline{\underline{36883657.5 = 309811.2 a + 2834382915.61b}}$$

$$-4549178.904 = -168189036.57b$$

$$b = 0.027048$$

Putting the value of b in equation (iv) then we got.

$$626.21 = 6a + 51635.20 \times 0.027048$$

$$a = 128.40$$

To find out the exact relationship between different variable simple regressions analysis has been done and results of the analysis have been tabled.

Calculation of Regression Equation between Net Profits on Total Working Fund

Banks	Regression Equation	Value (a) constant	Regression Coefficient (b)
EBL	$Y = -20.85 +$	$a = -20.85$	$b = 0.0161822$

	$0.0161822X$		
NABIL	$Y = 272.50495 + 0.0390619X$	$a = 272.50495$	$b = 0.0390619$
BOK	$Y = 128.40 + 0.027048X$	$a = 128.40$	$b = 0.027048$

The table shows the regression equation of net profit and net working fund in **EBL**, **NABIL** and **BOK**. According to the table regression equation of net profit on net working fund $Y = -20.85 + 0.0161822X$ in **EBL** is negative. The regression coefficient is positive i.e. **0.0161822** which indicates the positive relationship exists between net profit and net working fund. In other words, one million increase in net working funds leads to average about **0.0161822** million increase in net profit. The value of constant (a) is relatively low. The value of (a) indicates that if net working fund is **0** then the value of net profit is **-20.85** million. So from analysis it shows that the net profit will be decrease and net working fund also decrease.

On the other hand, regression coefficient of (b) is positive in case of **NABIL**, which indicates that one million increase in net working fund lead to an average about Rs. **-0.0390619** increases in net profit. According to the above table regression equation of net profit on net working fund regression coefficient is positive which reveals the positive relationship between net and working fund.

The test of t statistics helps us to conclude that in all three cases, the results are not statistically significant at 5% level of significance since the value of t is small than tabulated value.

Regression Equation between Net Profits on Total Deposit

Regression equation between net profits on total Deposit of EBL

(Rs. In Millions)

Year	Total Deposit (X)	Net Profit (Y)	X^2	Y^2	XY
2001	4574.51	69.7	20926141.74	4858.09	318843.35
2002	5466.6	85.35	29883715.56	7284.62	466574.31
2003	6694.96	94.18	44822489.40	8869.87	630531.33
2004	8063.9	143.57	65026483.21	20612.34	1157734.12
2005	10097.69	170.8	101963343.34	29172.64	1724685.45
2006	13802.44	237.38	190507349.95	56349.26	3276423.21
Total	48700.10	800.98	453129523.20	127146.83	7574791.77

X= Independent Variable

Y= Dependent Variable

Let the regression equation of Y on X is:

$$Y = a + bx \dots \dots \dots \text{equation (i)}$$

To find the value of a and b have two normal equation

$$y = n a + b \sum x \dots \dots \dots \text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots \dots \dots \text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we got,

$$800.98 = 6a + 48700.10 b \dots \dots \dots \text{equation (iv)}$$

$$7574791.77 = 48700.10 a + 453129523.20 b \dots \dots \dots \text{equation (v)}$$

Now multiplying equation iv by 48700.10 and equation v by 6 then subtracting v ,

we got:

$$39007806.1 = 292200.6a + 2371699740 b$$

$$\frac{45448750.63}{-6440944.534} = \frac{292200.6 a + 2718777139.21 b}{-347077399.20 b}$$

$$b = 0.0185577$$

Putting the value of b in equation (iv) then we got.

$$800.98 = 6a + 48700.10 \times 0.0185577$$

$$a = 17.129987$$

Regression equation between net profits on total Deposit of NABIL

(Rs. In Millions)

Year	Total Deposit (X)	Net Profit (Y)	X ²	Y ²	XY
2001	15839	291.38	250873921.00	84902.30	4615167.82
2002	15506.43	271.64	240449371.34	73788.29	4212166.65
2003	13447.66	416.24	180839559.48	173255.74	5597454.00
2004	14119.03	455.31	199347008.14	207307.20	6428535.55
2005	14586.66	518.64	212770649.96	268987.45	7565225.34
2006	19347.4	635.3	374321886.76	403606.09	12291403.22
Total	92846.18	2588.51	1458602396.68	1211847.07	40709952.58

X= Independent Variable

Y= Dependent Variable

Let the regression equation of Y on X is:

$$Y = a + bx \dots \dots \dots \text{equation (i)}$$

To find the value of a and b have two normal equation

$$y = n a + b x \dots\dots\dots\text{equation (ii)}$$

$$xy = a \sum x + b \sum x^2 \dots\dots\dots\text{equation (iii)}$$

Substituting the value of $\sum n$, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we got,

$$2588.51 = 6a + 92846.18 b \dots\dots\dots\text{equation (iv)}$$

$$40709952.58 = 92846.18 a + 1458602396.68 b \dots\dots\dots\text{equation (v)}$$

Now multiplying equation iv by 92846.18 and equation v by 6 then subtracting v , we got:

$$240333265.4 = 557077.08 a + 8620413141 b$$

$$\underline{\underline{244259715.5 = 557077.08 a + 8751614380.06 b}}$$

$$-3926450.06 = -131201239.47 b$$

$$b = 0.0299269$$

Putting the value of b in equation (iv) then we got.

$$2588.51 = 6a + 92846.18 \times 0.0299269$$

$$\mathbf{a = 31.681826}$$

Regression equation between net profits on total Deposit of BOK

(Rs. In Millions)

Year	Total Deposit (X)	Net Profit (Y)	X ²	Y ²	XY
2001	5713.49	65.36	32643967.98	4271.93	373433.71
2002	5723.29	9.28	32756048.42	86.12	53112.13
2003	6170.71	82.13	38077661.90	6745.34	506800.41
2004	7741.65	127.48	59933144.72	16251.15	986905.54
2005	8942.75	139.52	79972777.56	19465.83	1247692.48

2006	10485	202.44	109935225.00	40981.95	2122583.40
Total	44776.89	626.21	353318825.59	87802.32	5290527.67

X= Independent Variable

Y= Dependent Variable

Let the regression equation of Y on X is:

$$Y = a + bx \dots \dots \dots \text{equation (i)}$$

To find the value of a and b have two normal equation

$$y = n a + b \sum x \dots \dots \dots \text{equation (ii)}$$

$$xy = a \sum x + b \sum x^2 \dots \dots \dots \text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we got,

$$28039736.29 = 6a + 44776.89 b \dots \dots \dots \text{equation (iv)}$$

$$5290527.67 = 44776.89 a + 353318825.59 b \dots \dots \dots \text{equation (v)}$$

Now multiplying equation iv by 44776.89 and equation v by 6 then subtracting v , we got:

$$28039736.29 \times 44776.89 = 268661.34 a + 2004969878 b$$

$$\underline{\underline{31743166.03}} = \underline{\underline{268661.34 a}} + \underline{\underline{2119912953.56 b}}$$

$$-3703429.745 = -114943075.49 b$$

$$b = 0.0322197$$

Putting the value of b in equation (iv) then we got.

$$28039736.29 = 6a + 44776.89 \times 0.0322197$$

$$\mathbf{a = 136.08122}$$

Calculation of Regression Equation between Net Profits on Total Deposit

Banks	Regression Equation	Value (a) constant	Regression Coefficient (b)
EBL	$Y = 17.129 + 0.0185X$	$a = 17.129987$	$b = 0.0185577$
NABIL	$Y = 31.68 + 0.0299X$	$a = 31.681826$	$b = 0.0299269$
BOK	$Y = 136.08 + 0.0322X$	$a = 136.08$	$b = 0.0322197$

The above table is the collection of major output of simple regression analysis of net profit on total deposit.

The regression equation of net profit (Y) dependent variable on total deposit (X), independent variable $Y = 17.129987 + 0.0185577X$ in positive i.e. 0.0185577 which indicates the positive relationship exists between net profit and total deposit or it can be said that one million increase in total deposit leads to average 0.0185577 million increase in net profit. The value of constant (a) is relatively higher and in case of BOK the regression coefficient is positive or in other words one million increases in total deposit leads to average about 0.0322197 million increase in net profit. The value of constant (a) indicates that the net profit can be increase and total deposit is also increased. The regression coefficient of (b) is positive in case of NABIL i.e. 0.0299269 which indicates that one million increase in total deposit leads to an average about 0.0299269 increases in net profit. The regression coefficient is positive which reveals the positive relationship between net profit and total deposit. From the test of 't' statistics, it can concluded that in all three the results are not statistically significant at 5% level of significance since the value of t is smaller than tabulated value.

4.3) Major Findings of the study:

4.3.1) Finding From Primary Research

Following are the major findings from primary research:

- 1) A small primary survey was conducted to use structured questionnaire method. It was found that joint venture banks had invested their major portion of deposit in loan and advances to increase profitability.
- 2) They consider the manufacturing sector more appropriate for making investment.
- 3) Major problem being faced by the joint venture banks are facing limited investment opportunities and unexpected recession of the economic condition.
- 4) The joint venture banks are situated in urban areas to grab more opportunities.
- 5) The policies and guidelines of joint venture banks are not satisfactory for smooth operation of the banks.
- 6) Profitability is the major factor being considered by the joint venture banks while taking investment decision.

4.3.2) Findings form Secondary Data

- 1) The mean ratio of EBL is higher than NABIL and slightly lower than BOK. In general, the current ratio analysis of banks over the six years period indicates that it has been able to meet its short-term obligations and has satisfactory liquidity position.
- 2) The cash and bank balance to total deposit ratio of EBL has fluctuating trend. The mean ratio of this bank is higher than NABIL and BOK, which indicates that its liquidity position is better to serve its customers deposits withdrawal, demands.
- 3) The mean ratio of cash and bank balance to current assets of EBL is higher than NABIL and BOK. It states that liquidity position of EBL is better in this regard. The C.V. is 31.02% and on the basis of C.V. the ratios are seemed to be variable. EBL is better position in maintaining its cash and bank balance to meet its daily requirement to make the payments on customers deposit withdrawal in comparison with NABIL and BOK.
- 4) The mean ratio of investment on government securities to current asset of EBL is average in compared to NABIL and BOK, which states that its investment on government securities is slightly poor than that of BOK.
- 5) The analysis of Loan and advance to current assets ratio of three different banks have shown that BOK got higher utilization of current assets to loans and advances and S.D and C.V. are also better than other banks.
- 6) BOK has better position on loans and advances to total deposits ratio because it has highest mean such as 72.46 but when we analysis the S.D. and C.V. then the EBL has more variable and less consistent ratio.
- 7) Total investment to total deposit ratio of all three banks have fluctuating trend during the study period. After analysis the data the investment policy of EBL is the better position for the comparisons to the both banks.

- 8) The loans and advances to total working fund of ratio EBL is slightly lower than BOK and higher than NABIL. Its C.V. is 3.68%, which is lowest than that of other two banks. This regards the EBL has the better position among the other banks.
- 9) In case of investment on government securities to total working fund ratio, EBL is higher mean ratio than other compared banks. EBL has the highest mean ratio of 20.54% and lowest C.V. of 3.26%. So it indicates that EBL has better position among the three different commercial banks.
- 10) The investment on shares and debenture to total working fund ratios of EBL and BOK have fluctuating trend but NABIL has increasing trend. The mean ratio of EBL is found to be 17.0 with 36.61% C.V. between the other compared banks. It shows the ratio of EBL is very stable over the study period.
- 11) The mean ratio of EBL has found to be 1.03% with C.V. of 21.06% which is lowest than other banks. It shows that the bank manages its loan and advances and makes effort for timely recovery of loan so EBL got better position.
- 12) The mean ratio of EBL has found to be 2.25% with C.V. of 7.85% and C.V. is lowest than other banks. So its data is more stable over the study period.
- 13) The mean ratio of EBL is 1.37% with C.V. of 8.55% so it has better position than other banks.
- 14) The mean ratio of total interest earned to total outside assets of NABIL is lowest than other banks. The total interest earned to total outside assets ratio of the NABIL is more variable and less consistent to the comparison of EBL and BOK. Its lowest C.V. indicates that the ratio are satisfactory consistent during the study period.
- 15) Total interest earned to total working fund ratios of EBL have ranging from 7.40% in 2000/01 to 5.66% in 2005/06. The mean ratio of total interest earned to total working fund of EBL is 6.53% with 8.55% C.V. The ratio indicates that EBL has average earning power of the total assets.

- 16) Liquidity risk ratio of the all banks has decreasing trend. The mean liquidity risk ratio of EBL is highest than others and C.V. is lowest than the comparison with other banks. So EBL has maintained the ratio than other banks.
- 17) Credit risk ratios of the banks are fluctuating trend. The mean of the ratios of EBL is found to be 63.66%, which are higher than NABIL and lower than BOK. Similarly its C.V. is 7.18%, which is less in compared with other banks. It indicates than its credit policy is consistent than other banks.
- 18) Although BOK has low mean deviation but S.D. and C.V. are lower than other banks so it has less consistent data than other banks. Capital Risk ratio is also lower than other banks and this bank maintained the better position.
- 19) The trend value of BOK has highest value so this is the best in position and the second best position goes to NABIL for deposit the different sector.
- 20) Similarly, trend value of loan and advances of all banks have increasing trend. The growth rate of EBL is higher than BOK but lower than NABIL. It has maintained. So the performance of NABIL has grand loan and advances in comparison to other bank in the year by year.
- 21) The trend value of NABIL has hither than other commercial banks for total investment and its data is also real and reliable because its fluctuation is not much more than other banks.
- 22) The total net profit of all banks has increasing trends during the study periods. Among these banks the NABIL is getting three times more trend value of net profit than other banks.
- 23) The calculated value of t 3.13 is greater than that of the tabulated value 1.812, so there are significant differences between mean ratios of loan and advances to total deposit of EBL and NABIL. But there is no significant difference between mean ratio of loan and advances to total deposit of EBL and BOK, which indicates that it isn't, mobilized the total deposit on loan and advances for profit

generating purpose.

- 24) The regression equation of Net Profit on total working fund is positive in the case of NABIL and BOK and negative in the case of rest EBL. It indicates one million increases in net working fund leads to average 0.0390619 and 0.027048 increase in net profit of NABIL and BOK. Likewise in case of EBL one million increases in net working capital leads to average 0.0161822 decreases.
- 25) Simple regression of net profit on total deposit is positive of all banks. It reveals that one million increase on total deposit leads to average increment on net profit in the case of all three commercial banks

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1) Summary:

Commercial banks are major financial institutions and which occupy the quite important part in the framework of every economy because they provide capital for the development of industry, trade and business and other resources deflect sectors investing the saving collected as deposit commercial banks, by playing active role have changed the economic structure of the world. Commercial banks have its own role and contribution in the economic development; it maintains economic confidence of various segments and extends credit to people. The banking sector has to play developmental role to boost the economy by adopting the growth oriented investment policy and building up the financial structure for future economic development formulation of sound investment policies and planned effort pushed forward the force of economic growth.

The income and profit of the bank depends upon its lending procedure, lending policy and investment of its fund utilize in different securities. Commercial banks able to utilize its deposits properly i.e. providing loans and advances or lending for a profitable project, the reason behind it is lack of sound investment policy. The objective of this study is to evaluate the investment policies adopted by EBL, NABIL and BOK. The study is totally based on secondary sources of data i.e. population sample, financial tools, statistical tools; i.e. ratio analysis, asset management ratio, profitability ratio, risk ratio, test of hypothesis and regression analysis etc.

Regarding the investment policies of commercial banks there are basically five basic principles of the bank follow while providing the loan i.e. liquidity, profitability, security and suitability diversification. Various processes while making investment decision are applied in the study i.e. set investment process, security analysis, portfolio construction, revision, and performance evaluation. The data obtained from annual reports of the concerned banks; likewise the financial statements of six years (from 2000/01 to 2005/06) were selected for the purpose of evaluation.

5.2) Conclusion:

The liquidity position of EBL is comparatively better than that of NABIL and BOK. In spite of the current ratio is average between the other two banks and EBL has maintained the cash and bank balance to meet the customers demand. All the three banks have met the normal standard current assets ratio to meet the short-term obligation of its customers. EBL has invested highest sectors like government securities than BOK and lesser portion than that of NABIL. BOK has mobilized lots of its funds in order to gain the high profit.

From the analysis of assets management ratio it can be found that EBL is in better position as compared to that of NABIL and BOK. The loans and advances to total deposit ratio, loan and advances to total working fund ratio of EBL lies in NABIL and BOK. EBL has invested the highest portion of total working fund on government securities as compared to NABIL and BOK due to more efficient loan policy. NABIL suffers less from loan loss provision and it takes low credit risk and has sufficient deposits of none bearing interest, which can be used in a certain period. EBL has to try to best in loan loss provision. Investment on shares and debentures to total working fund ratio is higher in BOK.

The interest earned to total outside assets and return on total working fund ratio of EBL is lowest of all. But overall analysis of profitability ratios of EBL is average profitable in comparison to other compared bank i.e. NABIL and BOK. To make the profit BOK is taking highest risk by providing the higher portion of its deposit as a loan.

The return on loan and advances ratio and return on assets of EBL is lowest of all. The ratio suggests that earning capacity of the bank's loan and advances is satisfactory. The return on assets of the bank is good in average; it indicates the good earning capacity of the bank assets and good utilization of its assets.

The total interest paid to working fund ratio is less than the interest earned to total working fund ratio. So it is profitable position as it is getting higher return that is interest cost.

The degree of risk is average on EBL. The credit risk is higher than the compared banks. However the lowest C.V. of credit ratio and average C.V. of liquidity risk ratio and capital ratio over the study period provides for the assurance of consistency of the degree of risk. EBL has shown its good performance by increasing the total deposit, loan and advances and investment in profitable sectors interested earnings by providing loan to clients. The trend of the total investment, total deposit, loan and advances and net profit of EBL shows better position than that of NABIL and BOK.

5.3) Recommendations:

On the basis of the findings of the study, following recommendations can be drawn:-

) In commercial bank, the liquidity position affects external and internal factors such as saving for investment situations, central banks requirement, the leading policies management capacity etc. In this study it should try to lower the current

liabilities to improve its liquidity position. Current ratio of all three banks is not satisfactory. It is below its standard rate 2:1. So the banks are suggested to improve current assets. The ratio of cash and bank balance to total deposit and current assets of EBL is higher cash and bank balance which decrease profit of bank, so it is recommended to mobilize cash and bank balance in profitable as loan and advances.

) From the study, it is found that NABIL has not invested the funds in government securities than that of other banks. NABIL liquidity position shows that it has kept relatively funds, as cash and bank balance which doesn't earn any return. This ultimately affects profitability of bank and Investment in government securities i.e. TBs development bonds. Saving certificate are free of risk and highly in nature. So NABIL is recommended to invest its fund in government securities instead of keeping them idle "Something is better than nothing".

) In practically, joint ventured banks are urban based service, quite a few elite, a fluent big customer are heavily dependent on free-based activities. To overcome its situation they should be accessible to rural areas and possible loan and advances to its deposit. So the customers are enjoying by getting deposit borrowing and other services.

) EBL has invested it's more of the funds that is total investment on total deposit ratio but the percentages of investment on share and debenture in nominal. So it is suggested to invest more of its fund in share and debenture of different companies.

) Loan and advances to total deposit ratio of NABIL is lowest in compared to other banks. To overcome from the situation it is recommended to follow liberal lending policy and invest more and more of total deposit in loan and advances and maintain stability on the investment policy.

) The loan loss ratio of EBL and BOK have increased year by year so these banks are

recommended that before providing the loan make sure that your clients are in good character and able to pay its loan or may take the collateral which is nearly two times more than that of the guaranteed.

) Profitability ratios of banks are not satisfactory, if resources held idle bank have to beared more cost and result would be lower profit margin. So portfolio condition of a bank should be regularly revised from time to time. It should always try to maintain the equilibrium in the portfolio condition of the bank. The bank should use its funds in more portfolio sectors. It should utilize its risky assets and shareholders' funds and it should reduce its express and should try to collect cheaper fund being more profitable.

) It is seen that EBL has invested much of its fund in total outside assets but it has not achieved the desired result. So EBL should play tactfully while investing its fund keeping in mind the interest rate.

) NABIL has taken the low credit risk and it is one of the largest commercial bank of Nepal. The risk taken by EBL from the angle of credit risk and capital risk are in an average but the consistencies of the same are highly volatile which may result higher loss. So it should not test such risk on an experiment basis it should carefully study to achieve higher return from the above risk.

) In the light of growing competition in the banking sector the business of the bank is customer oriented. It should strengthen and active its marketing function, as it is an effective tool of attracting and retaining customers. The bank should develop on "Innovative approach to bank marketing and formulate new strategies of serving customers in a more convenient way.

) The investment policy of EBL is good in every aspect as studied above but the consistency in the above investment sectors is in equilibrium states. It is found that at time bank focuses much of its attention to one sector leaving other sector

untouched, so it is recommended to touch all the sectors and balance it effectively as to have the optimal performance of the bank.

After that to get success itself and to encourage financial and economic development of the country through industrialization and commercialization, the commercial bank must mobilize its fund and debentures of other financial and non-financial companies. If other sectors go up positively then bank can utilize its fund more and more by providing them loan or getting sufficient dividend on their share or interest on their debentures. Commercial banks needed to strengthen its economic structure to achieve piped overall development. They have to resort to innovative approach of banking there by bringing professionalism in their business. If they follow those suggestions they can have better reach to the modern innovative and competitive banking markets.

REFERENCES

BOOKS:

- 1) Bexley, James B. (1987). *Banking Management*. New Delhi: Sujeet Pulation.
- 2) Frank K. Reily, (1999). *Investment*. The Dryden Pryden Press. CBS Publishing Japan Ltd.
- 3) Gitman, L.J. and Joehnk. (1990). *Fundamentals of Investing*. 4th Edition Harper and Row Publishers.
- 4) Sharpe J. William and Gordon, J. Alexander, (1999). *Investment*. New Delhi Prentice Hall of India Pvt. Ltd.

Journals and Articles:

- 1) *Agriculture Projects Services*, “On – Going Evaluation of Intensive Banking Program in October 1995.
Annual Reports of Bank of Kathmandu Ltd. 2062
Annual Reports of Everest Bank Limited, 2062
Annual Reports of NABIL Bank Ltd. 2062
- 2) Bhagat Bista, (2001). *Issues in Banking Reform*. Nepal Rastra Bank Samachar, P.33. Gorkhapatra, 2059 Poush 7th .
- 3) K. Pradhan, (1991). *Nepalma Banijya Banking, Upalabdhi Tatha Chunauti*. Nepal Bank Patrika, p. 13.

Dissertations:

- 1) Dr. Sunity Shrestha, (1993). *Investment Planning of Commercial Banks in Nepal*. Ph. D. Thesis.

2) Upendra Tuladhar, (1999). *A Study on Investment Policy of NGBL in Comparison to other Joint Venture Banks (NABIL and HBL)*.

A Master Thesis, Shankar Dev Campus

Arithmetic mean return is appropriate as a measure of the central tendency of a distribution of return for particular period

The arithmetic mean return in case of a percentage change in value over a time period

3) Website of NABIL (www.nabilbank.com), EVEREST (www.everestbankltd.com) and BOK (www.bokltd.com)