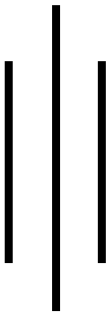
A COMPARATIVE STUDY ON INVESTMENT POLICY & ANALYSIS OF COMMERCIAL BANKS IN NEPAL

(With reference to Nepal Bangladesh Bank Ltd., Everest Bank Ltd. & Bank of Kathmandu Ltd.)



SUBMITTED BY:

Jyoti Agrawal

Shanker Dev Campus

Campus Roll No.:2041/064

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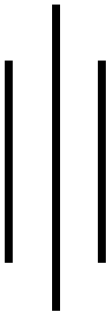

A THESIS SUBMITTED TO:

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Kathmandu, Nepal

March, 2014

RECOMMENDATION

This is to certify that the thesis

Submitted by:

Jyoti Agrawal

Entitled:

A COMPARATIVE STUDY ON

INVESTMENT POLICY & ANALYSIS OF COMMERCIAL BANKS IN NEPAL

(With reference to Nepal Bangladesh Bank Ltd., Everest Bank Ltd. & Bank of Kathmandu Ltd.)

has been prepared as approved by this department in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.

…….	……	……
Prof. Prakash Singh Pradhan	**Prof. Dr. Kamal Deep Dhakal**	**Prof. Prakash Singh Pradhan**
(Thesis supervisor)	**(Head, Research Department)**	**(Campus Chief)**

…….

Mr. Kiran Thapa

(Thesis Supervisor)

VIVA-VOCE SHEET

We have conducted the viva-voce examination of the thesis presented

By:

Jyoti Agrawal

Entitled:

INVESTMENT POLICY & ANALYSIS OF COMMERCIAL BANKS IN NEPAL

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And found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment for the

Degree of Master of Business Studies (M.B.S.)

Viva-voce Committee

Head, Research Department ……..

Member (Thesis supervisor) ……..

Member (Thesis supervisor) ……..

Member (External Expert) ……..

DECLARATION

I hereby declare that the data and work presented in this thesis entitled **"A Comparative Study on investment policy & analysis of commercial banks in Nepal (With reference to Nepal Bangladesh Bank Ltd., Everest Bank Ltd. & Bank of Kathmandu Ltd)"** submitted to Shankar Dev Campus, Faculty of Management, Tribhuvan University is my original work done for the partial fulfillment of the requirement of the Degree of Master of Business Studies (MBS) under the guidance and supervision of **Asso. Prof.Mr. Prakash Singh Pradhan** Campus Chief of Shanker Dev and **Mr. Kiran Thapa** Lecturer of Shanker Dev Campus.

……

Jyoti Agrawal

Shanker Dev Campus

Campus Roll No: 2041/064

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Despite my utmost care and effort, I bear the full responsibility for any error that might have occurred in this study report and welcome the comments from you all.

Jyoti Agrawal

TABLE OF CONTENTS

CHAPTER III: RESEARCH METHODOLOGY

CHAPTER IV: DATA PRESENTATION AND ANALYSIS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

B.S.	Bikram Sambat
BOKL	Bank of Kathmandu limited
C.D.	Credit Deposit
C.V.	Coefficient of Variance
CRR	Cash Reserve Ratio
EBL	Everest Bank Ltd.
F/Y	Fiscal Year
GDP	Gross Domestic Product
JVB	Joint Venture Banks
NBBL	Nepal Bangladesh Bank Ltd.
NEPSE	Nepal Stock Exchange
NGBL	Nepal Grindlays Bank Ltd.
NIBL	Nepal Investment Bank Ltd.
NRB	Nepal Rastra Bank
NSBI	Nepal SBI Bank Ltd.
P.E.	Probable Error
ROA	Return on Assets
ROE	Return on Equity
S.D.	Standard Deviation
SCBNL	Standard Chartered Bank Nepal
T.U.	Tribhuvan University

CHAPTER I

INTRODUCTION

1.1 Background of the study

In general, investment means utilization of money, which may be surplus of income over expenditure and/or borrowings, for the purpose of attaining financial gains, in the form of profits in future. That means, some return is anticipated in any sort of investment, and investment is possible when there is saving over income after the expenses that generally are unavoidable.

“The word investment brings forth visions of profit, risk, speculations, and wealth. For the uninformed, investing may result in disaster, for the knowledgeable, the investment process can be exciting as well as financially rewarding” (Gupta; 1984).

Investment usually involves putting money into a bet, which is not necessarily marketable in order to enjoy a series of return the investment is expected to yield. On the other hand speculation is usually a shorter run phenomenon. Speculators tend to buy assets with the expecting of a profit than can be earned from subsequent price charge and sale. Investment is usually made expecting a certain stream of income, which has existed, will not change in the future.

According William F. Sharpe, Gordon J. Alexander and Jeffery V. Baily “Investment in its broadest sense means the sacrifice of current dollars for future dollars. Two different attributes are generally involved time and risk. The sacrifice takes place in the present and its magnitude generally is certain” (Sharpe Alexander and Baily, 1998: 1).

“Investment in its broadest sense means sacrifice of current rupees for future rupees” it is defined by William F. Sharpe and Alexander J Gordon for the term 'Investment' Therefore, every investment entails some degree of risk.

Investment policy is the proper management of any fund or wealth to maximize value or to obtain this high or favorable return with law risk considering the protection of Invest forms the inflation and other possible harms. Banks are disbursing their money as investment in trade business and industry. Due to the grown on banking sector in Nepal and huge competition, investment are comparatively losses. Therefore, Banks should be follow the principle of investment for profit. An investment policy should ensure maximum profit and minimum Risk. Investment policy determines the investor's objective and the amount of its investable wealth because there is possible relation between risk and return for sensible investment strategies.

Thus it is very clear that there is not necessarily a return for every investment made; that means, there always is the factor involved, which is the risk. And surprisingly, risk has a proportional relation with the return; the more the risk, the more the gain. But it is the risk itself that has the capacity of turning an investment into a complete failure. Since we are talking about the investment of money for the sake of financial gains, by risk, we mean the risks like inflation, interest rate fluctuation, market failure, risk of nonpayment, shortages of raw materials, strikes, power failure, and etc. and ironically, not all the risks are insurable.

Banking means the business of providing financial services to costumers and to other businesses. The basic services a bank provides are checking accounts, which can be used like money to make payment and purchase goods and services; saving accounts and time deposits that can be used to save money for future use; loans that consumers and businesses can use to purchase goods and services; and basic cash management services such as check cashing and foreign services; commercial banks, savings and loan associations, savings banks and credit unions.

A broader definition of a bank is any financial institution that receives, collects, transfers, pays, exchanges, lends, invests or safeguards money for its customers. This broader definition includes much other financial institution that is not usually thought of as banks but which nevertheless provide one or more of these broadly defined banking services.

These institutions include finance companies, pension funds, security brokers and dealers, mortgage companies and real estate investment trusts.

Banking services are extremely important in a free market economy. Banking services serve two primary purposes. First, by supplying customers with the basic mediums-of-exchange (cash, checking accounts and credit cards), bank plays a key role in the way goods and services are purchased. Without these familiar methods of payments, goods could only be exchanged by barter (trading one goods for another), which is extremely time consuming and inefficient second, by accepting money deposits from savers and then lending the money to borrowers. Banks encourage the flow of money to productive use and investments. This in turn allows the economy to grow. Without this flow, savings would sit idle in someone's safe or pocket; money would not be available to borrow, people would not be able to purchase cars or houses and businesses would not be able to build the new factories.

Dr. Hart defines a bank as "A person or company carrying on the business of receiving moneys and collecting draft for customers subject to the obligation of honoring cheques drawn upon them time to time by customers to the extent of the amount available on their current accounts.

1.1.1 History of Nepalese Banking System

The history of banking in Nepal is believed to be started from the time of Prime Minister Ranoddip Singh in 1877 A.D. he introduced many financial and economic reforms. The Tejaratha Adda was established at that time and its basic purpose was to provide credit facilities to the general public at a very concessional interest rate. The Tejarath Adda disbursed credit to the people on the basis of collateral of gold and silver. All employees of government were also eligible for this type of loan, which was settled by deducting from their salary. Tejaratha Adda extended credit only; it did not accept deposits from the public.But the real banking started with the establishment of Nepal bank limited in 1994 B.S which was founded by Judda Samsher. It was the first bank of Nepal. Its main function was to provide loans and accept deposits. Later Nepal Rastra Bank was established as a central bank in 2013 B.S. The bank was completely government

ownership bank and it also started to issues notes since 2016 B.S. Then after, several commercial banks have been established in the recent years.

The initiation of formal banking system in Nepal commenced with the establishment in 1937 of Nepal Bank Limited (NBL), the first Nepalese commercial bank. The country's central bank, Nepal Rastra Bank (NRB) was established in 1956 by Act of 1955, after nearly two decades of NBL having been in existence. A decade after the establishment of NRB, Rastriya Banijya Bank (RBB), a commercial bank under the ownership of His Majesty's Government of Nepal (HMG/N) was established. Thereafter, HMG/N adopted open and liberalized policies in the mid 1980s reflected by the structural adjustment process, which included privatization, tariff adjustments, liberalization of industrial licensing, easing of terms of foreign investment and more liberal trade and foreign exchange regime was initiated. With the adoption of liberalization policy, there has been rapid development of the domestic financial system both in terms of number of financial institutions and as ratio of financial assets to the GDP. As of July 2005, the number of commercial banks has reached 17 and their branches numbered 375. A total of 60 finance companies and other Development Banks and numerous credit cooperatives have also been established. Total financial assets in 2004/2005 reached around 54.09 percent of GDP and the M2/GDP ratio, which shows the financial sector development or financial deepening increased from in 12.4 percent in 1975 to 50.9 percent in 2000.

In the context of banking development, the 1980s saw a major structural change in financial sector policies, regulations and institutional developments. HMG/N emphasized the role of the private sector for the investment in the financial sector. The financial sector liberalization, started already in the early eighties with the liberalization of the interest rates, encompassed further deregulation of interest rates, relaxation of entry barriers for domestic and foreign banks, restructuring of public sector commercial banks and withdrawal of central bank control over their portfolio management. These policies opened the doors for foreigners to enter into banking sector under joint venture. Consequently, the third commercial bank in Nepal, or the first foreign joint venture bank, was set up as Nepal Arab Bank Ltd (now called as NABIL Bank Ltd). in 1984.

Thereafter, two foreign joint venture banks, Nepal Indosuez Bank Ltd. (now called as Nepal Investment Bank) and Nepal Grindlays Bank Ltd (now called as Standard Chartered Bank Nepal Ltd.) was established in 1986 and 1987 respectively. There after, another 12 commercial banks have been established within the period of 12 years. Nepalese banking system has now a wide geographic reach and institutional diversification. Although, Nepalese financial sector is dynamic, a lot of scope for development of this sector exists. This is because the banking and non-banking sectors have not been able to capture all the potentialities of business till this time. It is evident from the Rural Credit Survey Report that the majority of rural credit is supplied by the unorganized sector at a very high cost – perhaps being at two or three time of the formal sector - suggesting that the financial sector is still in the path of gradual development. Overdue loans and inefficiency of the older and the larger of commercial banks have aggravated and have been made to compete with the new trim banks with no rural operations. Also, the commercial banks, domestic or joint venture have shown little innovation and positive attitude in identifying new areas of saving and investment opportunities.

There are 31 commercial banks, 88 development banks, 88 financial companies, 18 micro credit (Grameen) development banks and 16 saving and credit co-operation(licensed by Nepal Rastra Bank) are established so far in Nepal. The bank with the largest network in Nepal is The Nepal Bank Ltd. These commercial banks and financial institutions have played significant roles in creating banking habit among the people, widening area and business communities and the government in various ways.

With evolution of globalization and liberal economic policies, Nepalese financial sector is also able to attract foreign investors as well as private investors within the country.

The following are the list of Major Commercial Banks in Nepal:

Table 1.1

List of Licensed Commercial Banks in Nepal

Commercial Banks	**Year of Establishment(BS)**
Nepal Bank Limited	1994
Rastriya Banijya Bank	2022
NABIL Bank Ltd.	2041
Nepal Investment Bank Ltd.	2042
Standard Chartered Bank Ltd.	2043
Himalayan Bank Ltd.	2049
Nepal SBI Bank Ltd.	2050
Nepal Bangladesh Bank Ltd.	2051
Everest Bank Ltd.	2051
Bank of Kathmandu Ltd.	2051
Nepal Credit & Commerce Bank Ltd.	2053
NMB Bank Ltd.	2053
Lumbini Bank Ltd.	2055
Kumari Bank Ltd.	2056
Machhapuchhre Bank Ltd.	2057
DCBL Bank Ltd.	2057
Laxmi Bank Ltd.	2058
Kist Bank Ltd.	2058
Siddhartha Bank Ltd.	2059
Global Bank Ltd.	2063
Citizens International Bank Ltd.	2063
Prime Commercial Bank Ltd.	2064
Sunrise Bank Ltd.	2064
Janta Bank Ltd.	2066
Mega Bank Nepal Ltd.	2067
Commerz and Trust Bank Nepal Ltd.	2067
Civil Bank Ltd.	2067
Century Commercial Bank Ltd.	2068
Sanima Bank Ltd.	2068
NIC Asia Nepal Ltd.	2070

Source: "www.nrb.org.np"

Nepal is one of the developing countries of the world. Over 85% of people of the country live in rural area. Estimated GNP for the year 2006/07 is US $ 311 (Forum, international year book 2063). It is a landlocked country with poor economic status gradually lifts its dependency on agriculture in order to solve its problem of poverty. Economic status of

our country is growing very slowly, so development of different institutions is essential for the rapid economic development. So the non agricultural sector can also help in economic development and reduction of unemployment to a large extent hence for this various industrial, financial institution, Health institution has been developed. Establishment of such institutions is not sufficient their successful operation is also necessary. For successful operation finance plays a vital role in each organization, finance is the art and science of managing money which is concerned with the process, institution markets and involved in the transfer of money among individual, business and government.

1.1.2 Concept of Commercial Banks

Since the study is concerned with the investment done by commercial banks, now we move on to what a commercial bank is. A commercial Bank is such an institution that renders the public and organizations with the services related to the finances.

Commercial bank plays vital roles to collect money in the state. Generally, commercial banks are required by the central bank to earmark a portion of their loan portfolio to priority lending for agriculture, cottage industry, services etc., which includes 0.25% to 3% to the deprived sector (poor population). Under this obligation, commercial banks can lend directly to individuals or self-help groups, charging a 6-7% interest rate, or provide wholesale funds or equity to microfinance providers serving the poor in Nepal.

Two thirds of the priority and deprived sector lending and investment are provided by the two public commercial banks, Nepal Bank Limited and Rastriya Banijya Bank. Until recently the priority lending was set at 12% of the loan portfolio. It is now being phased out, ending completely in 2012, while the 3% deprived sector requirement will stay in place, and therefore loan and investment in microfinance with it. As of mid July 2003, Rs.22,605 million were affected to the priority sector, while Rs. 3,563 million allocated to deprived sector lending, from which 132.6 million was in the form of equity. Under this requirement, investments made by commercial banks in the Rural Microfinance Development Center, an apex organization providing wholesale fund to microfinance, can be seen as a new link between the formal finance sector and microfinance.

“ A commercial bank is one which exchanges money, deposits money, accepts deposits, grants loans, and perform commercial banking function, which is not a bank meant for cooperative, agriculture, industries, or for such specific purpose” (Singh; 2063).

A bank bridges the gap between the primary borrowers and lenders of money by accepting deposits from that part of the society that has been able to save their money and lending to the other part which seeks money either for further investment or for fulfilling the obligations of life.

All of the three commercial banks in the study are joint venture banks. “A joint venture is forming of two forces between two or more enterprises for the purpose of carrying out a specific operation (industry or commercial investment, production, trade” (Gupta; 1984).

Joint venture banks are commercial banks of corporate bodies, i.e., joining of two or more enterprises, with the aim of carrying out particular activities like investment in industries, trades, and commerce by negotiating among various groups of industries or trades to attain joint exchange of goods and services, sharing the competitive benefits by performing joint investment schemes.

Commercial banks are profit oriented organizations; thus they aim at earning profits for fulfilling their objectives like wealth maximization, profit maximization, expansion and growth, growth in goodwill, and etc. investment is required for the purpose of earning profits. The banks invest the funds collected through accepting deposits from general public and organizations in various accounts, and/or borrowings from other outside investors, be it other commercial banks or foreign investors. And in this world, which is getting dynamic day by day, and the ever growing competition, more investment opportunities are emerging; but on the contrary, they are getting relatively fewer as well. Thus in such critical conditions, joint venture banks can be regarded as better able and best suited for the purpose of investment since they have adequate funds for the same, as ell as more advanced technologies, more convenient global networks, state of the art working environments, and more efficient human resources. Apart from these, for the

best anticipated results, near to the best investment policies are a must since they are the policies the implementation of which can turn into a total success or a complete mishap. And of course, can turn investment into a total success or a complete mishap. And of course, there are numerous factors that affect the formulation of investment policies; government rules and regulations, monetary policies, taxation rules, political stability, competition, and many more. Thus investment policies are to be formulated subject to the constraints such that there are more return and considerably lesser risks.

1.1.3 Brief Introduction of Sample Banks

In the study, the investment policy and analysis of three joint venture commercial banks in Nepal are studied and analyzed. The brief introduction of the sample banks is given below:

Introduction of Nepal Bangladesh Bank Limited (NBBL)

Nepal Bangladesh Bank Ltd was established in the year 1994 with IFIC Bank Ltd of Bangladesh with the goal to become "The Bank for Everyone". Over the years bank has been successful to increase the paid up capital to Rs 2 Billion. Its Head Office is situated at New Baneshwor, Bijuli Bazar, Kathmandu.

The prime objective of this bank is to render hospitality to the valued customer. With a network of 19 branches and a corporate office, bank has been providing the extensive services to the valued customer. To facilitate the valued customer bank had successfully install 16 ATMs and holiday banking for their convenience.

The bank has earned the glory of making available the services for almost all the top business houses. Top exporter and importers of the country have established banking relationship with the bank with a substantial volume of foreign business which has enhanced the bank's popularity in the international trade font.

With the continuous support of valued customers the bank has made all round progress in every sphere of its operation. NBBL ensure valued customer to deliver the innovative products and services as per requirement which will be highly beneficial to create the value.

Vision & Mission

To offer financial services and become "the bank for everyone" by dedicating the progress and growth of the bank to the community, customers, employees and stakeholders by:

- Fulfilling financial expectation of all level of society.
- Providing excellent customer services by offering personalized quality services and products.
- Giving reasonable returns to all related stakeholders.
- Using the latest technology aimed at customer satisfaction & act as an effective catalyst for socio-economic developments.
- Maintaining high standard corporate governance in all levels.

Share Capital of Nepal Bangladesh Bank Ltd.

(As on 31st Ashad 2070)

Share Capital	**Amount (Nrs)**
Authorized Capital 30000000@100	3000000000
Issued Capital 20093956@100	2009395600
Paid up Capital 20093956@100	2009395600

Source: Annual Report of NBBL

Introduction of Everest Bank Ltd (EBL)

Everest Bank Limited (EBL) is a name we can depend on for professionalized and efficient banking services with to more than 5 lakhs customers today. Founded in 1994, the bank has been one of the leading banks of the country and has been catering its services to various segments of the society since then. With clients from all walks of life, the bank has helped develop the nation corporately, agriculturally and industrially. So one can say with all earnestly that Everest Bank Limited is truly a Nepalese bank

Everest Bank Limited (EBL) provides customer-friendly services through its Branch Network and all its branches are connected through Anywhere Branch Banking System (ABBS), which enables customers for operational transactions from any branches. The bank has 50 Branches, 67 ATM Counters, 5 extension counter & 20 Revenue Collection across the country making it a very efficient and accessible bank for its customers, anytime, anywhere.

Bank has set up its representative offices at New Delhi (India) to support Nepalese citizen remitting money and advising banking related services.

I. Corporate Vision & Mission

Vision

- To position it as a progressive & customer friendly bank providing financial and other related services.
- To cater to various segments of society using advanced technology.
- To be committed to excellence in corporate values.

Mission

- To provide excellent professional services & improve its position as a leader in the field of financial related services.
- To build & maintain a team of motivated and committed workforce with high work ethos.

- To use the latest technology aimed at customer satisfaction & act as an effective catalyst for socio-economic developments.

Share Capital of Everest Bank Ltd.

(As on 31st Ashad 2070)

Share Capital	**Amount (Nrs)**
Authorized Capital 20000000@100	2000000000
Issued Capital 17611264.1@100	1761126410
Paid up Capital 17611264.1@100	1761126410

Source: Annual Report of EBL

Introduction of Bank of Kathmandu ltd. (BOKL)

Bank of Kathmandu Limited has become a prominent name in the Nepalese banking sector. Bank of Kathmandu Ltd. has become a glorify there corporate slogan "We make your life easier''. For the success of the above slogan Bank of Kathmandu is committed to deliver quality service to customers, generating good return to shareholders, providing attractive incentives to employees and serving the community through stronger corporate social responsibility endeavor.

We would also like to elucidate that Bank of Kathmandu is committed to delivering quality service to customers, generating good return to shareholders, providing attractive incentives to employees and serving the community through stronger corporate social responsibility.

BOK started its operation in March 1995 with the objective to stimulate the Nepalese economy and take it to newer heights. BOK also aims to facilitate the nation's economy and to become more competitive globally.

Vision

To become a significant contributor to the economic development of Nepal by distinguishing the Bank as an efficient, competitive, safe and top-quality financial institution.

Mission Statement

To offer financial services and become the "Bank of Choice" by dedicating the progress and growth of the institution to the community, customers, employees and stockholders by:

- Promoting economic growth and becoming a caring corporate citizen
- Providing excellent customer services by offering personalized quality services and products
- Including modern technologies of banking that add value to customer services
- Following strict risk-control mechanisms
- Providing challenging career and learning opportunities for our employees

Share Capital of Bank of Kathmandu Ltd.

(As on 31st Ashad 2070)

Share Capital	**Amount (Nrs)**
Authorized Capital 20000000@100	2000000000
Issued Capital 16843967@100	1684396700
Paid up Capital 16843967@100	1684396700

Source: Annual Report of BOKL

1.2 Focus of the study

Out of whole the investment policy and analysis of only three joint venture commercial banks of Nepal are analyzed and studied in this report, using various financial and statistical tools. The main focus of the study has been to study and compare the financial soundness of the banks by analyzing and comparing their investment policy and activities, to see how these banks stand and how they are able to face each other in the common competitive grounds that they share. The main focus of the study is also to highlight the investment policies of commercial banks with the expectation that the study can bridge the gap between deposit and investments. On the other hand, the study would provide information to management of the bank that would help them to take corrective actions.

1.3 Statement of the problem

Nepal as an economically backward country, most of its resources remain unused due to the lack of financing. This inadequacy of financing can be removed by the participation of foreign investors in the commercial banks. With this view, joint venture banks are welcomed in Nepal. Joint venture banks are in many numbers at present days. They have significantly contributed in making flow of funds within the country. But only the establishment of commercial banks does not guarantee success. Success of commercial bank depends upon its performance.

In other word, their contribution for the economic development purely depends upon their performance. If the performance is good enough, it will be positive for all the sectors. Therefore, the paramount significant is not the establishment of commercial bank, but how efficiently they are performing. How will the commercial banks of Nepal are doing is a matter of great concern. What will be their situation in future are some arose question.

As it is said, “Morning shows the day” the present performance forecasts their future position. There are some of the problems that have been encouraged this search study. Investment policymaking and the implementation of the same are not easy tasks. The investment policy of a commercial bank is influenced by lot of factors present in the

environment in which the bank operates. In a country like Nepal which has the mixed economy policy, commercial banks are required to follow rules and regulations regarding investment and loans and advances imposed by the government and the central bank.

Though several commercial banks have been established in short period, but sufficient return has not been earned. Strong, stable and appropriate investment policy has not been followed. A huge collection and investment policy plays vital role for the economic development of whole country.

However, this study only takes into consideration the operational and Investment policy and analysis of the commercial banks as Nepal Bangladesh Bank Ltd, Everest Bank Ltd, and Bank of Kathmandu Ltd. It has been tried to see how efficiently these commercial banks have been able to utilize their funds for their desired success. Comparison has also been made in the study between various investments related activities of these banks. Basically, the study has tried to get answers for the following questions.

- How far have the banks been successful in utilizing the funds that they collect through different deposit accounts and outside borrowings?
- Have the banks been able to meet the obligations?
- What is the relationship between total investment, loans and advances, deposit and net profit of the selected commercial banks?
- What are the comparative positions of three banks in terms of liquidity, leverage, risk position and profitability ratio?
- What is the investment trend of the selected commercial banks?
- Which bank among the three seems to have been performing the best amongst themselves?

1.4 Objectives of the study

The basic objective of this study is to examine, evaluate and analyze the investment policies and behaviors of the selected three commercial banks. To achieve this prime objective, the following objectives are also considered in this study.

- To examine the fund mobilization of the banks under study.
- To highlight the relation between total investments, deposit, loans and net profit of the banks under study.
- To evaluate the liquidity, assets management, efficiency, profitability and risk position of the banks.
- To examine the growth rate of banks in terms of deposits, loans and advances, investment and profitability of the banks.
- To explore the Investment trend and their projection for next five years of the selected commercial banks.
- To recommend the banks for its performance and suggest possible guidelines to improve the investment policy of the chosen banks based on the findings of the study.

1.5 Significance of the study

Thesis writing is very significant to the student. It helps the student to broaden their mind by studying directly without others proper guide. It helps to know overall performance of the banks under study. In the study the investment policy and practices of three joint venture commercial banks of Nepal namely Nepal Bangladesh bank ltd., Everest Bank ltd., and Bank of kathmandu Ltd., have been analyzed. The previous thesis reviewed for the preparation of the study has only encompassed the investment activities of the banks of the earlier years.

Beside from above things, this case study is important for following reasons:

- To increase the knowledge of the student in banking field.
- To practice what we study theoretically.
- This report is also helpful to general readers who want to know about the banks.
- To provide information to customers of the banks.

Commercial Banks affect the economic condition of the whole country. The study is made to highlight the investment policy of commercial banks. This helps to bridge the gap between deposits and investment policies. The study will help the management of Everest Bank Ltd., Nepal Bangladesh Bank Ltd, and Bank of Kathmandu Ltd. to improve their performance and to take action if necessary. In Nepal, there are few resources, which have been made in the area of investment policy of commercial Banks. Investment policy is one of the essential and the main function where the whole banking business is related. There are various Problems in effective investment of commercial banks of Nepal, which affect their performance to the greater extent. Commercial banks performance does not seem satisfactory in terms of utilizing its resources efficiently in productive sectors. Hence, the main significance of the study of investment policy analysis of Nepalese commercial banks is to help how to minimize risk on investment and maximize return through portfolio analysis. Similarly, the study of commercial Banks investment trend, risk return pattern, portfolio management, credit management and effect on investment decision on earning will strive to disclose the internal weakness of the banks and furnish the ideas for improvement. The research will provide require information to various people and parties such as general reader, investors, shareholders, brokers, financial agencies, businessmen, depositors, customers. The study will be helpful to use as a pilot work for future research.

Therefore, such study gives us a chance to increase our both internal and external abilities as well as the suggestion from the teachers, give a great idea to progress the banking system of our country. This study is also significant since it compares and contrasts one commercial bank, which in the latest year of study faced unprecedented huge loss, with other two well operating commercial banks. The study has been conducted to analyze the

existing investment practices of commercial banks and to point out defects present in it and provide suggestive recommendations for its improvement.

1.6 Limitations of the study

It has been tried to make the study comprehensive and useful to the fullest as far as practicable. This case study has following limitation:

- The study is exclusively based on the data related to investment policies of the banks only.
- The study is confined to evaluate the investment policy and analysis of only three commercial banks in Nepal. Though contemporary and equal holding banks are chosen for study, the results may not represent the investment policy of all banks.
- The truth of research result is based upon the available data from the banks.
- Basically the secondary data has been used for analysis which are collected from the financial statements, annual reports, articles, publications, journals, and articles in websites, and only a period of five fiscal years is considered.
- Sometimes the uncooperative behavior of the banks is also creating difficulty in preparing report.
- All the required material is not given by the banks. They want to keep their transaction secret.
- The commercial bank has many branches spread all over Nepal, the information and data for this study is collected only through its Head office.
- Only some statistical Methodology has been considered for computation or analysis of the data.

1.7 Organization of the study

To make the study more scientific and for easy understanding, it has been divided and presented in different chapters, each chapter dealing with a different part of the study. The chapters are as follows:

Chapter 1: Introduction

The first chapter deals with the introductory part of the study. It deals with the general background of the study, focus of the study, statement of the problem, objective of the study, significance of the study, limitations of the study.

Chapter 2: Review of literature

It includes conceptual review work, journals, previous thesis, websites, articles, annual reports etc.

Chapter 3: Research Methodology

This chapter deals with the methodology under which the study has been conducted. It is concerned with all the information that is related with how the required data have been collected from the population and how they have been presented.

Chapter 4: Presentation and Analysis of Data

In this chapter, the available secondary data to the investment policy and analysis of the banks under study collected through various sources are analyzed and interpreted using the financial and statistical tools. This is the most important part of the study.

Chapter 5: Summary, Conclusions and Recommendations

This is the suggestive framework containing the summary, conclusions and recommendations of the whole research work regarding some possible improvements in their investment activities.

Bibliography and appendices have been presented at the end of the thesis.

CHAPTER II

REVIEW OF LITERATURE

The second chapter encloses the review of literature performed for the study. This chapter consists of review of literature relevant to the investment policy and analysis of commercial banks. It has been tried to refer to as many sources of information in the form of articles, thesis as possible for the better understanding of researches already held in the past and to show the gap that previous researches have failed to meet.

This chapter has been divided into two part, conceptual framework and review of related studies.

2.1 Conceptual Framework

Investment and savings are closely related factors. The remaining income after the consumption of the same is the saving. And it is this saving that makes the background for the creation of investment. Every investor seeks to achieve some return for the investment done by him. Thus investment activity is concerned with the utilization and management of the investors wealth, which is either his savings or borrowed money, in productive areas in order to own more wealth in the form of profits in future. It becomes the duty of the investor to manage his investment in such as way that it more or less ensures the maximum possible profits as well as to protect his investment from financial hazards like inflation, depression, taxes, and etc.

For better understanding of the term investment, various books have been reviewed, and below have been presented the definitions of investment by various authors.

“Investment, in the broadest sense, means the sacrifice of current dollar for future dollars” (Sharpe and Alexander; 1999:1). In this definition, the authors have emphasized on two different attributes of investment, time and risk.

“…Investing entails a continuous flow of decision which cannot be avoided. All investment choices are made at point of time in respect of personal investment ends and

in contemplation of an uncertain future" (Bhalla; 1983:1). As is clear, investment is made with the anticipation of making profits in the future. Thus proper consideration has to be made while making investment decisions.

"Investment is made in assets. Assets in all are of two types real assets (land, building, factures etc.) and financial assets (stock, bond, t-bills etc.). These two investments are not competitive but complementary. Highly developed institutions for financial greatly facilitate real investment" (Bhattarai; 2004:142).

"Investment is the employment of funds with the aim of achieving additional income or growth in value. The essential quality of an investment is that it involves 'waiting' for a reward" (Singh; 1991:1). The author means that it is the waiting done for which the reward or the return in the form of profits is anticipated.

Further, the author says, Investment is the allocation of monetary resources to assets that are expected to yield some gain or positive return over a given period of time. These assets may range from safe investments to risky investments. Investments in this form are also called 'Financial Investment' (Singh; 1991:1). Financial investment means the allocation of funds in securities, and all other investments made yield t\return in the form of interest. Since the study has the subject matter of investment activities of commercial banks, we focus only on the financial investment.

"Investment policy involves determining the investor's objectives and the amount of his or her invest able wealth. Because there is a positive relationship between risk and return for sensible investment strategies, it is not appropriate for an investor to say that his or her objective is to 'make a lot of money'. What is appropriate for an investor in this situation is to state that the objective is to attempt to make a lot of money while recognizing that there is some chance that large losses may be incurred. Investment objectives should be stated in terms of both risk and return" (Francis, 1980:1).

It is not necessary that there should always be a good return for all the investments made. Although the investors are interested in making large amount of profits, there are many

other factors that determine whether there will be enough profit or any profit at all. For any investment to be profitable, there always has to be the risk factor. There is more profit if the volume of risk involved is more too. Thus, investment policy making is a very difficult task. As the study is based on the investment activities of commercial banks, the definitions of commercial banks by various authors have been reviewed.

“A commercial bank is a bank which deals in exchanging currency, accepting deposits, giving loans and doing commercial transaction” (Singh;2062:5). Commercial banks are financial institutions that provide various financial assistance to the public and other institutions. Of the many functions that commercial banks perform, the major functions are to accept deposits and give loans.

Further, as per Singh ….the bank is an institution, which accepts deposits from the public and in turn advance loans to business and personal customers. It is the financial institution which provides wide range of banking services such as saving, credit payment, remittance etc. Hence, a bank may be called the financial supermarket providing all kinds of monetary services, which is necessary for the industrialization and economic development of a country. "Commercial banks bridge the gap between the sources of money and the borrowers of money. One of the main functions of a commercial bank is to invest the funds collected through deposit in other profitable investments in the form of credit and other investments. A very big part of a commercial bank's profit is earned from the difference in interest income over its interest expenses.

“Commercial banks bring into being the most important ingredient of the money supply-demand deposits through the creation of credit in the form of loans and investments. Banks are the custodians of the community's money as well as the suppliers of its liquidity” (Crosse and Hempel; 1980:3-4).

According to Nepal Company Act 2031 B.S, a commercial bank refers to such type of bank which deals in money exchange accepting deposit advance loan and commercial transaction except specific banking related to co-operative agriculture industry and other

objective. Basic source of funds of commercial bank are capital reserve, undistributed profit and several of deposits. Basic uses of the funds are loans advance and investment.

2.1.1 Some Important Terms

The study in this section comprises of some important terms of banking which are given below:

A. Loan and Advances

Loans, advances and overdraft are the main source of income for a bank. Bank deposits can cross beyond a desired level but the level of loans, advances and overdraft will never cross it. The facilities of granting loan, advances and overdraft are the main service in which customers of the bank can enjoy.

Funds borrowed from the banks are much cheaper than those borrowed from unorganized money lenders. The demand for loan has excessively increased due to cheaper interest rate. Furthermore, an increase in an economic and business activity always increases the demand for funds. Due to limited resources and increasing loans, there is some fear that commercial banks and other financial institutions too many take more preferential collateral while granting loans causing unnecessary botheration to the general customers. Such loans from the institutions would be available on special request only and there is a chance of utilization of resources in economically less productive fields. There lies the undesirable effect, of low interest rate.

In addition to this, some portion of loan, advances and overdraft includes that amount which is given to staff of the bank for house loan, vehicle loan, personal loan and others, in mobilization of commercial banks fund, loan, advances and overdrafts have occupied a large portion (Bhandari, 2003).

B. Deposits

It is the important source of liquidity collected from general public, business and other government agencies. It is the direct claim of outsiders in the bank. The total assets of banks are financed by more than 75% from the deposits. Bank's deposits are the amount

it owes to its customers. A minimum balance is fixed for the depositors. Nepalese commercial banks have introduced different type of deposit account.

Deposits are categorized under:

- Current Deposit
- Saving Deposit
- Fixed Deposit

C. Investment on Government Securities, Shares and Debenture

It is treated as a second source of banking business. A commercial bank may extend credit by purchasing government securities bond and share for several reasons. It may wish to have high-grade marketable securities to liquidate if its primary reserve becomes inadequate. It includes holding of short-term government bonds like treasury bills, development bonds and other securities purchased in the open market and readily converted into cash. These security bears low risk, low return but higher liquidity.

D. Investment on Other Company's Share and Debenture

Commercial banks invest their excess funds in the shares and debentures of other companies. They generally invest when there is excess of funds over the required when there is no alternative opportunity to make investment in the profitable sector. For example, most of the Nepalese commercial banks feel convenient to invest in the rural development bank's share as this complies both with NRB regulations for priority sector lending and also they get moderate return from them. Nowadays, the commercial banks of Nepal have purchased shares and debentures of regional development banks, NIDC and other development banks etc. These types of investment are made for their income generating power and for other advantages like tax shelter.

E. Other use of Funds

Commercial bank must maintain the minimum bank balance with NRB as prescribe by the bank. They have to maintain the cash balance in local currency in the vault of the bank. They must maintain the minimum of 6% in fixed deposit, 8% in current and saving

deposits and 3% of minimum cash balance in local currency at NRB. A part of the funds should be used for bank balance in foreign bank and to purchase fixed assets like land, building, furniture, computer, stationery etc.

F. Off Balance Sheet Activities

These are items like letter of credit, letter of guarantee, commission, bills for collection etc. Nowadays, these activities are stressfully highlighted by some economists and finance specialist, to expand the modern transaction of a bank. These activities are very important, as they are the good source of profit to the bank though they have high risk. These items are not recognized as assets or liabilities in Balance Sheet, but are the future purchase or sale of assets, which are contingent obligation. Some of the items can be defined as:

- A letter of credit is defined as a written undertaking issued by the bank on behalf of the seller at a request, on the instruction of the buyer to pay at sight or at a determinable future date up to stated sum of money within a prescribe time limit and against stipulated documents or other conditions.
- Letter of guarantee is a definite and irrevocable undertaking by a bank on behalf of its customer to make payment up to a specified sum of money to the beneficiary on demand in case of default by its customers. The need of bank guarantee arises in business. Naturally, business customers enjoy this service. Sometimes, personal customers also may need a bank guarantee.
- Bills are received in the form of cheques / drafts. Business and personal customer receive the cheques / drafts drawn on other banks. Banks collects the proceeds of such cheques and pay to the customers.
- Remittance is the process of sending and receiving fund from various places as per the necessity of the day. This function of bank has benefited both the business and personal customers. Fund transfer is made through various modes like demand draft, telegraphic payment order, swift, and fax and mail order payment.

2.1.2 Features of Sound Credit and Investment Policy

The scope of a commercial bank in the modern world is getting wider and wider day by day. Today, the banking service is reaching more and more areas of the world and even the mere thought of a world without banking is a nightmare, because banks have become so much a part of the world and the people's lives.

Although accepting deposits and granting loans are not only tasks hat the banks conduct, the role that these factors play in the bank is the most important. Banks have been
Offering many services to the people, and thus earning money in many different ways as commissions, e.g. from remittance, and etc. yet, it basically is the income from the lending that the banks do that constitutes the most of the banks incomes. Thus banks have to take into consideration the factors that make an investment a sound one, and they are as follows:

a. Safety and Security

It is mandatory for the investments to be safe for the commercial banks to invest in them. There ought not to be too much of volatility in them, ands they have to be secured against tangible, durable, marketable, and high-market-value collateral. As the future is uncertain, it is a must in order to save the banks from possible loss should the loan go bad. A bank should be very much conscious in investing procedures and profitable sectors. It should never invest its fund on those securities, which are subjected to too much for volatility (Depreciation are fluctuation) because a little alternation may cause a great loss. It must not invest its fund into speculative businessman, who may be bankrupt at once and who may earn millions in minute also. Only Commercial durable, marketable and high market valued securities should be accepted. For This purpose "MAST" should be followed, where MAST stands for:

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

Thus safety and security is the first feature that must be present in any potential investment.

b. Profitability

Only those sectors should be taken into consideration for the purpose of investment that has the potential of being moderately of highly possible. The borrower should have the capability of paying the periodical installments, which is true only when his incomes are positive and stable. Thus the banks have to carry out required studies and procedures to make sure that there will be adequate inflow of money in the potential investments to pay out the periodical dues as well as to carry out successfully the operation of the borrower's business venture. In case the investment is made in the non business sectors, the borrower ought to have enough income from other sources to meet up with the dues.

c. Liquidity

The banks must have enough holding for being able to meet up with their short- term obligations. It is profitable for the banks to invest more and more of their collected funds, but they must as well be able to pay back the money of the depositors on demand. Thus they have to mange the portfolio of different accounts in which they collect the deposits. For example, the banks have to be able to pay the depositors any amount the depositors wish to withdraw from their current and/or saving accounts (depending on the rules of the banks); and on the other hand, they can hold the money for the time being that they collect in their fixed and term deposits.

d. Diversification

Banks carry out the practice of investing in diversified sectors because it may not be safe to invest in one sector only. As the saying goes, "A bank should not lay all its eggs on the same baskets", in order to minimize the risk, banks should diversify their investments in different fields. Diversification of the investments is performed with the hope that if there is loss in one sector, it will be covered by the profit in another sector.

e. Purpose of Loan

The purpose why a borrower wants money from bank as loan must be learned and understand aptly. There can be the risk of default and misuse of the loan granted, which may not ensure receiving the dues from the borrower. Thus, all the essential documents and procedures have to be fulfilled while granting loans, and there ought to be periodic inspection by the bank in order to make sure the loan amount is being used as promised.

f. Legality

Nepal Rastra Bank and the Ministry of Finance have their own directives and rules, regulations regarding the banks' lending and investment, which must be followed strictly as the banks are allowed to invest in the legal sectors and securities only.

2.1.3 Sources of funds for the Investment

There are different sources of funds for the investment of the bank.

a. Capital

Capital is the lifeblood of the trade and commerce. Capital is needed for the operation of the bank as in other business. But, it is only a nominal source. Still it can be used for the investment purpose. The capital fund consists of two elements like

I) Shares

These are the sources of fund to invest. By increasing the issue of share, the bank can increase its capital.

II) General Reserves

The bank is required to assign certain percentage of its profit to the reserves. This reserve is also invested.

b) Accumulated profit

When there is a need of more funds for investment, the bank can retain the accumulated profit. The bank invests its accumulated profit.

c) Deposits

Deposits are the main source of funds. By providing certain rate of interest, commercial banks call for the deposit from the customer. Mainly, banks accept three types of deposits i.e. current deposit, fixed deposit, saving deposit. These different types of deposits are used for lending the money to different sectors like agriculture, productive work, trade, irrigation and industry. The deposits will lead to increase in the working capital of the bank.

d) External and Internal Borrowings

The funds can be collected by borrowings money through different banks or different institutions. In a developing country like Nepal, borrowing is very important. The commercial bank may not have sufficient fund to invest in different sector. In that case it has to borrow from other bank or other institutions. Generally the commercial bank borrows from two sources i.e. external and internal. Generally an external borrowing means the borrowings from foreign banks, and foreign government. Internally, the commercial bank borrows mainly from Nepal Rastra Bank. So the commercial bank cannot provide loan or investment without the funds. From the above different source of fund the commercial bank grants loan.

2.1.4 Factors Affecting Investment Decision Making

The commercial banks are most of the times interested in investing more and moiré of their funds in profitable sectors. But there are many factors that affect the investment decision-making which are as follows:

a. Liquidity Position

The commercial banks should always be prepared to return the money of the depositors on demand. That is why the banks are required to hold adequate funds in order to fulfill the depositors' withdrawal demand. A bank having sufficient pool of liquid assets to cover its liability shall be considered a bank having satisfactory liquidity position. Quantifying same principle, when a liquid asset to short-term liabilities is more than 100%, the bank has sufficient liquid assets to meet its obligation reflecting a comfortable scenario in terms of liquidity. The ratio shall be monitored on a weekly basis. Other

Liquid assets and liabilities, which are not defined, should be included on the remaining term to maturity.

b. Compulsory Reserve Ratio

Nepal Rastra Bank's rule for the ratio of funds that the commercial banks have to hold as compulsory reserve affects the amount of fund that is available for investment. As per directives, commercial banks have to maintain the minimum l\balance of 4.5% of fixed deposit and 7% of current and saving deposit accounts. The banks are also required to maintain 2% of cash balance of all local currency accounts.

c. Investment in priority, Deprived Sectors

Nepal Rastra Banks has its own directives to the commercial banks that require them to invest in priority and deprived sectors. Investment in the deprived sectors reduces the fund that can be invested in more profitable areas. But this is necessary from the standpoint of the commercial banks' requirement of fulfilling the social obligations. NRB however has been more liberal in this matter than before.

d. Infrastructure

Infrastructure for the industrial and economic development of a country also affects the investment of commercial banks. If there is better facility of electricity, water supplies, communication, and etc, the commercial banks have better opportunities of investing their funds in productive sectors.

e. Political Situation

For easy and profitable investment making, there has to be stable political situation in the country. In the context of Nepal that has been facing political crisis for some years, commercial banks do not have as much opportunities to make more profits through investment as they would if there had been strong and stable political situation. And the recurrent strikes definitely have a very adverse impact in almost all the fields.

f. Investment Policy

The investment policy of the commercial bank itself also affects its investment. If a bank has conservative lending policy, it will not invest too much of its funds in the form of loans; and in the other hand, if the bank has aggressive lending policy, it will look for and more profitable where it can invest it funds.

g. Competition

The competition among the commercial banks themselves who share the same market opportunities that is available for a commercial bank. The bank that has the ability of identifying and exploiting the investment opportunities certainly does get to earn more profits through more investments.

h. Interest Yield

If the banks can earn lucrative interest incomes from potential investments, they are interested in investing in those areas even by borrowing funds from outside.

2.1.5 Investment Attributes

Since there is much at stake in an investment decision, an investor should consider the basic attributes of investments when deciding on a suitable option. At least four investment attributes are integral to sound decisions in this sphere:

) Safety

Although the degree of risk varies across investment types, all investments bear risk. Therefore, it is important to determine how much risk is involved in an investment. The average performance of an investment normally provides a good indicator. However, past performance is merely a guide to future performance - not a guarantee. Some investments, like variable annuities, may have a safety net while others expose the investor to comprehensive losses in the event of failure. Investors should also consider whether they could manage the safety risk associated with an investment -financially and psychologically.

⟩ Rate of return

Investments (growth options) generally provide higher rates of return compared to other asset classes - cash and income options. The rate of return compensates for the level of risk involved. Therefore, higher risk investments should necessarily bear higher rates of return to attract investors. It is important not to be preoccupied with the rate of return without assessing its relation to safety.

⟩ Liquidity

A liquid investment is one you can easily convert to cash or cash equivalents. In other words, a liquid investment is tradable- there are ample buyers and sellers on the market for a liquid investment. An example of a liquid investment is currency trading. When you trade currencies, there is always someone willing to buy when you want to sell and vice versa. With other investments, like stock options, you may hold an illiquid asset at various points in your investment horizon.

⟩ Duration

The duration of an investment-, particularly how long it may take to generate a healthy rate of return- is a vital consideration for an investor. The investment horizon should match the period that your funds must be invested for or how long it would take to generate a desired return.

2.1.6 Review of NRB Directives

NRB is the apex institution in the money and capital market. It is the central bank of the nation that directs, supervises and controls the function of commercial banks and other financial institutions. The commercial banks in Nepal must follow the Nepal rastra Bank directives. These directives are meant for regulating, supervising, and monitoring the activities of the banks. For, the study, NRB directives have also been reviewed. According to the directives, the commercial banks are required to invest 40% of their total advances in productive sector, which includes 12% in priority sector along with deprived sector.

⟩ Directives regarding Interest rates spread

The interest rate spread, the difference between interests charged on loan and advances and the interest paid to the depositors has widened significantly. This has caused lower financial intermediation. Therefore, NRB has required commercial banks to limit interest rate spread between deposit and lending rates to a maximum extent of 5%. NRB has also provided commercial banks with new calculation method of interest spread for a certain period recently.

⟩ Provisions for Investment in the deprived sector

Some rules, which are formulated by NRB, affect the areas of credit and investment extension to the deprived sector by the commercial banks. According to the new provision, with effect from 3rd quarter of F/Y 1995/96, investment in shares of the rural development bank by commercial banks, which used to be counted for the priority sector lending now is to be included under the deprived sector lending.

⟩ Provisions for credit to the priority sector

With the objective of mitigating the unemployment, poverty, economic inequality and thus upgrading the deprived and low income people, the project of national development and priority sector lending has been categorized as priority sector loan. With the view to make credit available to small agricultural, industrial, and service sector and promote income at employment opportunities, NRB has directed the commercial banks to extent at least 12% of their total outstanding loans to the priority sector. (Shrestha 2002:95)

Commercial banks credit to the deprived sector is also a part of priority sector. Under priority sector, credit to agriculture, cottage & small industries and credit to the services are counted commercial banks loan to the co-operatives licensed by NRB is also to be computed as the priority sector credit from the F/Y 1995/96 onwards.

⟩ Provisions for Investment in Productive sector

Nepal, being a developing country needs to develop infrastructure and other primary productive sectors like agriculture, industry, etc. For this, NRB has directed commercial

banks to extend at least 40% of their total credit to the productive sectors. Loans to priority sector, agriculture sector & industrial sector have to be included in productive sector investment.

⁾ Provision for the single borrower credit limit

With the objectives of lowering the risk of over concentration of bank loans to a few borrowers and also to increase the access of small and middle size borrower to the bank loans, NRB directed commercial banks to set an upper limit on the amount of loan financed to an individual, firm, company or group of companies. According to this, CBs are required not to exceed the single borrower limit of 35% in the case of fund based credit and 50% in the case of non- fund based credit such as letter of credit, guarantee, acceptance letter & commitment.

Likewise, in the case of consortium financing, commercial banks are permitted to extend an additional 10% credit above the limit fixed by the NRB as before. In addition, Nepal oil corporation, Agriculture inputs Corporation and Nepal Food Corporation for their imports of petrol, diesel, kerosene, fertilizer and foodstuff have been removed from the restrictions of single borrower limit.

⁾ Provision for minimization of liquidity risk

Commercial banks are required to monitor their liquidity risk. This is to minimize risk inherent in the activities and portfolio of the banks. According to the regulations, a gap found between maturing assets and maturing liabilities is the liquidity risk. They are monitoring their assets and liabilities on the basis of maturity period. Maturity periods such as 0-90, 91-180, 181-270,271-365 days and above year are classified for the purpose of checking.

⁾ Cash reserve requirements (CRR)

To ensure adequate liquidity in the commercial banks to meet the depositors demand for cash at anytime and to inject the confidence in depositors' regarding the safety of their deposited funds, commercial banks are required to have maximum CRR. In this, regard, NRB has directed commercial banks to deposit minimum 8% of current and saving and

6% of fixed deposits an the NRB cash reserve. The commercial banks are further required ti have 3% cash of total deposits in their own bank as secondary reserve.

) Provisions Relating to Classification of Loans/advances and Loan Losses

Having exercised the powers conferred by Section 79 of the Nepal Rastra Bank Act, 2002, the following Directives have been issued with regard to classification of credit/advances and provisions to be made for its possible loss by the institution obtaining licenses from this. Bank to carry out financial transactions.

1. Classification of loans/advances:

Entire loans and advances extended by a licensed institution have to be classified asfollows based on expiry of the deadline of repayment of the principal and interest of such loans/advances:-

(a) Pass: Loans/advances which have not overdue and which are overdue by a period up to three months.

(b) Sub-standard: Loans/advances which are overdue by a period from three months to a maximum period of six moths.

(c) Doubtful: Loans/advances which are overdue by a period from six-months to a maximum period of one year.

(d) Loss: Loans/advances which are overdue by a period of more than one year.

The loans which are in pass class and which have been rescheduled/restructured Are called as "the performing loan, and the sub-standard, doubtful and loss Categories are called non-performing loans.

Provision to be maintained for loan loss

(1) For the loans and bills purchase classified according to these Directives, the following Loan loss provision shall be maintained based on the remaining amount of principal:

Loan classification Minimum Provision for loan loss

Classification of Loan	Loan Loss Provision

(a) Pass	1 percent
(b) Sub-standard	25 percent
(c) Doubtful	50 percent
(d) Loss loan/the loan extended to blacklisted persons, firms, company or corporate body	100 percent

Provided that in case of the insured loans, it would be required to make provision of only 25 percent of the provision referred to in sub-clause (1)

2.1.7 Regulations relating to Investment in share and securities by commercial banks

1. Banks should prepare written policy relating to investment in shares and securities of the other organized institutions. Such policies should be implemented only under approval of board of directors.

2. Banks may invest in shares and securities of anyone of organized institution not exceeding 10% of paid up capital of such organized institution. Any amount of investment more in excess of this limit for pursue of calculation of the capital fund should be deducted from the core capital fund.

3. The total amount of investment should be restricted to 30% of the paid up capital of the bank. Any amount of investment made in excess of 30% of paid up capital of bank for the purpose of calculation of capital fund should be deducted from the core capital fund.

4. Banks should invest in the shares and securities of organized institutions, which are already listed in the stock exchange where arrangement exists for listing within one year.

5. Where the shares and securities are not listed within the period prescribed provisioning equivalent, the whole amount of such investment should be provided and credited to investment adjustments reserve. The outstanding amount of such reserve should not be utilized for any other purpose till the said shares and securities of the organized institution are listed.

2.2 Review of Related Studies

Here, in this part, the reviews of related studies conducted for the preparation of the study are presented. Various reviews of books, journals, articles, master's degree theses have been presented below.

2.2.1 Review of Books

Sharpe, Alexander and Bailey (2000), said in the book "Investment *analysis and management*" that investment in its broadest since, means that sacrifices of current dollars for future dollars. Two different attributes are generally involved: Time & Risk. The sacrifice takes place in the present & is certain. The reward comes later of at all and the magnitude is generally uncertain.

1. Real Investment: Generally, if involves some kind of tangible assets such as: land, machinery & factories.
2. Financial Investment: Involves contract has written on piece of paper such as: common stocks & bonds.

Baidhya (1997) "A sound investment policy of a bank is such that its fund is distributed in different types of assets with good probability on the one hand and provides maximum safety and security to the depositors and banks on the other hand. Moreover, risk in banking sectors tend to be concentrated in the loan portfolio. When a bank gets into a serious financial trouble its problem usually comes from the significant amount of loan that have become uncollectable due to mismanagement, illegal manipulation of loan, misguided leading policy or unexpected economic downturn. Therefore, the bank investment policy must be such that it ensures that it is sound and prudent in order to protect public funds" (Baidhya, 1997: 46-47).

Cross & Hempal (1980) "Commercial banks bring into being the moot important ingredient of the money supply demand deposits through the creation of credit in the form of loans & investment. Banks are the custodians of the community's money as well as the suppliers of its liquidity, since the study is concerted with the investment activities

of commercial in Nepal, we take in to consideration exclusively the sector that are required for & relented to the same."

Reilly (1986) in his book "*Investment analysis management & portfolio management*" has defined the term investment, "Investment is the current commitment of funds for a period of time to obtain a future flow of funds that will compensate the investment unit for the time the funds are committed for the expected rate of inflation & also for the uncertainly involved in the future flow of fund". (Investment, Japan: the oryden Press, CBS Publisher Ltd.).

Gitman and John (1990) "Investment is any vehicle into which funds can be placed with the expectation that will preserve or increase in value and generate positive return".(Gitman, 1990:47).

Pandey (1990) in his book "*Financial management*". In investment decision, expenditure and benefit should be measured in cash. In investment analysis, cash flow is more important than accounting profit. It may also be pointed out that investment decision affects the firm's value. The firm's value will increase if investments are profitable and add to the shareholders wealth. Thus, investment should be evaluated on the basis of a criterion, which is compatible with the objectives of the shareholders fund maximization. An investment wills all to the shareholders wealth if it yields benefit in excess to the minimum benefits as per the opportunity cost of capital (Pandey, 1999: 407).

Shrestha (1995) explains in her book, "Portfolio behavior of commercial banks sector of the economy including agriculture, industry, commercial & social service sectors. The lending policy of commercial is based on the profit maximizing of the institution as well as the economic enhancement of the country."

From above definition, it is clear that an investment means to trade a know rupee amount for some expected future steam of payment or benefits that will exceed currently outlay by an amount that will compensate the investor for the time of uncertainly involved in

expected future cash flows. This investment is the most important function of commercial banks. It is very challenging task for commercial banks. So, a bank has to be very cautions while investing their funds in various sectors. The success of a bank heavily depends upon the proper management of its investable funds.

Radhaswami (1979) It may be said that a bank must strike a balance between liquidity, profitability and safety. The secret of successful banking is to distribute resources between the various forms of assets in such a way as to get a sound balance between liquidity and profitability so that there is cash (on hand quickly realizable) to meet every claim for the bank to pay its way and earn profit for its shareholders (Radhaswami, 1979: 24).

Investment management of 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 be efficient and profitable by minimizing the inherent risk. So that an investment word is attach in economics risk and return theory of future result.

Bhattarai (2005) "*Investment Theory and Practice*". Investments are made in assets. Assets generally are two types: real assets (Land, Building, Factories etc) and financial assets (stock, Bonds, T-Bills etc.). These two types of investment are not competitive but complementary. Highly developed institution for financial greatly facilitate real investment."

Nowadays, more and more banks have developed formal written lending policies in recent years. They provide guidance for the lending officers and there by establish a greater degree of uniformity in lending practices. Since lending is important both to the bank and to the community it serves, loans policies must be worked out carefully after considering many factors like as follows.

- |Capital position
- Risk and profitably of various types of loans

- Stability of deposits
- Economic Condition
- Influence of Monetary and Fiscal policy
- Ability and experience of banks personnel
- Credit needs of the area served

Commercial banks follow their own investment policy. However, few banks have followed the written investment policy and few other banks do not follow the written investment policy. Those who object to follow the written investment policy those who feel that the economic environment of banking changes so rapidly that a formal written statement would become dated within a short time. It is true that banking operates in a changing environment, but changes do not occur rapidly that they cannot be incorporated into a written policy.

2.2.2 Review of Articles & Journals

Bajracharya (2007) "*Monetary Policy and Deposit Mobilization in Nepal*" had concluded that the mobilization of domestic saving is one of the monetary policies in Nepal. For this purpose commercial banks stood as the vital and active financial intermediary for generating resources in the form of deposit of the private sector for providing credit to the investor's in different sector for providing credit to the investor's in different aspects of economy.

Shrestha (2045) in his article had the conclusion that the credit deposit ratio of the commercial banks, other things remaining the same, would be 51.30 percent by the Year 2004 A.D. ,which however was the lowest under the period of review. Shrestha recommended that the commercial banks try to enter more and more new fields in lending.

Morris (1990) in his discussion paper "*Latin America's Banking System in the 1980*" has concluded that most of the banks concentrated on compliance with central bank's rules on reserve requirements, credit allocation and interest rates. While analyzing loan

portfolio, operating efficiency and soundness of bank, investment management has largely been overlooked. He further adds that mismanagement in financial institutions has involved inadequate and over-optimistic loan appraisal, lower loan recovery, high risk diversification of lending and investments, high risk concentration, connected and insider lending, loan mismatching etc. this had led many banks of developing to the failure in 1980.

Shrestha (2055) in her article has presented with the objectives of making an analysis of the contribution of the commercial banks' lending to the GDP. She set GDP as the dependent variable and lending in various sectors like agriculture, industries, commerce, services, and general and social services as independent variables in her research methodology. A multiple regression technique had been applied to analyze the contribution. The researcher came up with the findings that all the variables except the service sector lending had positive impact on GDP.

Kishi (1996) in his article States that an introduction of the reform in banking sectors is an integrate part of the liberal economic policy. Most of the banks and finance companies have welcomed this policy. They regard this policy will increase the healthy competition among the financial institutions.

Due to the poor investment policies and government handling, Nepal Bank limited and Rastriya Banijya Bank have an increased volume of non- performing assets. Now, Nepal Rastra Bank has given the management of these banks to foreign parties on contract in order to improve the financial conditions of these banks. The policy of giving the management of the banks to foreign parties in contract is the part of financial sector reform policy of NRB.

Pradhan (1996) has published a glimpse on investment in different sectors, its problem and prospects through his article "*Deposit mobilization, its problem and prospects"*. In his article, he has expressed that deposit if the lifeblood of any financial institution and be it a commercial bank, finance company, cooperative or non- government organization.

Most Nepalese do not go for saving in institutional manner. They are very much used of saving in the form of cash, ornaments or kind.

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

The results presented in this chapter suggest that in all cases GDP is significantly associated with saving, investment and capital formation both at current prices and in real terms. The results of the empirical analysis led to three conclusions: First, saving, investment and capital formation have positive impact on economic development. Second, the current values and past values of saving, investment and capital formation have positive impact on economic development but the current values have the largest impact. Third, there is a strong role played by saving and capital formation on economic development while weak role played by investment. (Pradhan, 2003; PP123-133).

2.2.3Review of Master's Degree Thesis

On the topic of investment policy, financial performance, lending policy, many students of TU have prepared their theses in the past. For better understanding, many previous thesis reports have been studied during the preparation of this report. And below have been presented the objectives, research methodologies, findings, conclusions, and gaps of such related theses.

Pokharel (1983) conducted her research on "Investment policy of Rastriya Banijya Bank" with the following objectives:

- To review the investment policy of Rastriya Banijya Bank.
- To examine if the bank had been fully mobilizing its deposits.
- To establish the relationship between deposits and loans & advances and the effect on them by the change in interest rates.
- To forward recommendations for improvement in the bank's investment policy.

The study was conducted based on various secondary data available, and various financial and statistical tools were used to analyze the available data.

Pokharel came up with the following findings at the end:

- Rastriya Banijya Bank's investment pattern suggested that the investment was directed mainly towards the security of gold and silver.
- The study revealed that the bank then did not have any specific policies and direction towards investment other than following Nepal Rastra Bank's directives.
- The study showed that due to the bank's not having any definite deposit policy, the bank's deposit was not properly mobilized.
- The study said that the changes in interest rates in deposits did not have any effect on the deposit collection of the bank; it neither raised deposits nor it dropped that.
- Pokharel wished to recommend that the bank perform sincere checking and supervision from time to time.

Pokharel's study was focused only on Rastriya Banijya Bank, thus the study does not tells us about the investment pattern and policy of other commercial banks in Nepal.

Shrestha(1993) conducted a study on "Investment Planning of Commercial Banks in Nepal" with the following objectives.

- To evaluate the financial performance of the commercial banks in Nepal.
- To study the investment of banks with reference to securities, loans & advances.

- To establish the relationship of banks' portfolio variables with national income and interest rates.

Shrestha's research was conducted based on primary and secondary data, and various financial and statistical tools were used to analyze the data.

The research came up with the following findings:

- The study showed that the trend of commercial banks' fund holding was growing, deposit collection being the major sources of fund. This resulted in the banks' having idle money, which meant loss of opportunities. Debt equity ratios were high, even higher than 100%.
- Banks established with foreign joint venture showed the tendency of more risk taking than other Nepalese banks. The return ratios of foreign joint venture banks on the average were higher than that of Nepalese banks. It also held true for the total management achievement index then.
- The study had the hypothesis that the commercial banks had nonprofessional style of decision making, which was accepted on testing.
- Yield from the banks' investment in securities like shares proved to be satisfactory, but the banks did not have strategic decision towards investment in such.
- Investment in industrial and commercial sectors had higher share of the total investment.
- The study showed that cottage and small industry consisted most of the priority sector lending, and such lending had positive impact on national income.
- Commercial lending proved to be more secure than that in social and industrial
- Due to inadequate recovery of loans, increase in loan loss ratio was seen.

Shrestha'a research was found to be very comprehensive in nature, and she has made remarkable efforts to examine the investment planning of commercial banks in Nepal.

Khadka (1998) conducted a study titled “A study on the Investment policy of Nabil Bank Ltd. In comparison to other Joint Venture Banks of Nepal” with the following objectives.

- To evaluate the liquidity, asset management efficiency, and profitability positions of Nabil Bank Ltd. In comparison to other joint venture banks (they are, Nepal Grindlays Bank Ltd. and Indosuez Bank Ltd.)
- To evaluate and compare fund mobilization and investment policy of Nabil Bank Ltd., with respect to fund- based balance sheet items and fee based off balance sheet items, with that of other JVBs.
- To evaluate and compare Nabil's growth ratios of loans & advances and total investment, with respect to the growth ratios of total deposits and net profit, with that of other JVBs.
- To evaluate and compare the relationship of deposits with total investment, loans & advances and relation of net profit and outside assets of Nabil with that of other JVBs.

Khadka's research was basically based on the secondary data. Various financial ratios were calculated and compared. The study was also based on analysis of data using various and statistical tools.

The findings of his research are stated below:

- The study showed that Nabil's liquidity position was weaker than that of other JVBs.
- Both balance sheet and off- balance sheet operations of Nabil was less successful than that of the other JVBs.
- The study showed that Nabil seemed to be more successful in increasing its funds as well as fund mobilization through increase in credit and investment than the other JVBs, it did not prove successful in maintaining high growth rate of profits like the other JVBs. The profitability ratios of Nabil were comparatively lesser than that of the other banks.
- According to the study, there were significant relationships between deposits and loans & advances, outside assets and net profit of both Nabil and the other JVBs.; but the relationship was not significant between deposits and total investment.

Khadka seems to have made justice to his research by analyzing the necessary financial ratios and statistical relationships.

Shahi (1999) conducted research with the title "Investment Policy of Commercial Banks in Nepal"with the following objective:

- To evaluate the liquidity position, asset management efficiency, profitability and risk position of Nepal Bank Ltd. in comparison to other joint venture banks (they are, Nabil, NGBL and Indosuez Bank Ltd.)
- To analyze and compare fund mobilization and investment policy of Nepal Bank Ltd., with respect to fund- based balance sheet and fee based off balance sheet transactions, with that of other JVBs.
- To evaluate and compare the relationship of deposits , loans & advances, investment , net profit of NBL with that of other JVBs.
- To project the deposit mobilization of NBL for further five years and compare it with that of JVBs.

Shahi's study was conducted based on available secondary data. He has employed various financial and statistical tools to analyze and interpret the available data.

The study came up with the following findings:

- NBL had better liquidity position than the JVBs; but there was not the consistency in the liquidity, which showed NBL did not have any specific policy.
- The mean of loans & advances to total deposit ratio, total investment to total deposit ratio, investment on government securities to total working fund ratio,and total off-balance sheet operation to loans & advances ratio of NBL were less successful than those of the JVBs. The study concluded that NBL did not have any definite policy regarding the management of its funds.
- NBL also seemed to be behind the JVBs in profitability position. NBL had greater risk ratios than the others.
- Nbl proved to be less successful in increasing its deposits, loans & advances, other investments, and profits than the JVBs.

- NBL's deposits had negative relationships with loans & advances; but on the contrary, it was positive in the case of the JVBs.
- In Shahi's study, the trend analysis for next five years showed higher values for deposit and loans & advances for NBL but lower trend values for next profit and total investment, as compared with the JVBs.
- NBL had high liquidity holding as well as high loan loss ratios due to weak loan recovery.
- The study concluded that NBL lacked innovative appraisal process, proper collateral evaluation, and regular supervision, which were the key problems for the bank's success.

Shahi's study is very inclusive of all the required information with accordance to the objectives of his study.

Tuladhar (2000) conducted his research on "A Study on Investment Policy of Nepal Grindlays Bank Limited in comparison to other Joint Venture Banks of Nepal" with the following objectives:

- To study the fund mobilization and investment policy regarding the fund-based balance sheet and fee-based off-balance sheet transactions.
- To evaluate the liquidity, asset management, and profitability ratios of the banks.
- To evaluate the growth ratios of loans & advances and total investment with respect to the growth ratios of total deposit and net profit.
- To conduct a survey to find out the views and ideas of the customers regarding the existing services of the joint venture banks.

Tuladhar conducted a survey of 100 respondents through questionnaire for his study.

The findings of his study are as follows:

- NGBL seemed to have more consistent and successful liquidity ratios than Nabil and HBL.

- The mean of total investment to total deposit ratios of NGBL was higher than the other JVBs; whereas, that of loans & advances to total deposit ratio of NGBL was lower and inconsistent than the others.
- The mean of loans & advances to working fund ratio of NGBL was higher but investment on government securities to working fund ratio of the same bank was lower than the other banks.
- The study showed the mean of investment on shares on debentures to total working fund ratio of NGBL was less than that of the other JVBs.
- The study showed that HBL had the highest growth ratios of loans & advances, then came NGBL and Nabil respectively in this regard.
- The growth ratios of total investment of NGBL and Nabil were negative but that of HBL was positive.
- HBL seemed to have higher growth ratios of net profit than NGBL, and the same of NGBL was a bit more satisfactory than Nabil's.
- The profitability position of NGBL seemed to be higher than that of Nabil and HBL.

The respondents of the survey that Tuladhar conducted favored the following sectors, which has been shown in percentages, for the JVBs to invest:

Educational sectors	:	28.37 %
Poverty stricken and deprived sectors	:	26.24 %
Industrial sector	:	18.44 %
Tourism sector	:	16 %
Agricultural sector	:	16 %
Construction sector	:	4.25 %

In the survey, 43% of the respondents said that they understood all the facilities provided by the banks and the rest stood against it. On being asked why there had been increase in the minimum threshold balance and reduction in interest rates, 50% of the respondents said that it was due to the banks' not having enough investment opportunities; 33% of the

respondents said that the banks were trying to discourage the lower level depositors indirectly, 10% of the respondents said that it was because the banks already had enough deposit collection, and 7% said it was for some other different reasons.

On being asked why the JVBs had fewer branches in rural areas, 52.94% of the respondents said that it was because the banks were profit oriented only, 19.73% said that it was due to lack of communication facilities, and another 19.73% said it was due to not having network among the areas, 7.60% said that it was because of some other reasons.

Tuladhar's study has been unique from other studies since his study has been based on primary data whereas all other studies had been based on secondary data only.

The questionnaire prepared by Tuladhar had been prepared for the banks customers. Thus, the survey was only able to receive information from the customers of the banks, which do not necessarily have enough knowledge about banking investment activities.

Loudari (2001) carried out his study titled "A Study on Investment Policy of Nepal Indosuez Bank Ltd. in comparison to Nepal SBI Bank Ltd." with the following objectives.

- To examine the liquidity position, asset management ,and profitability positions and investment policy of Nepal Indosuez Bank Ltd. in comparison to Nepal SBI Bank Ltd.
- To study and compare the growth ratios of loans& advances, investment, total deposit, and net profit of the two banks. .
- To analyze and compare the relationship of deposit, loans & advances, investment, net profit and outside assets of the banks..

Loudari's study has been based on available secondary data, and his study came out with the following findings:

- Current ratios for both of the banks were found to be satisfactory.
- The cash reserves of both the banks showed fluctuated pattern; however, both of the banks managed to maintain the CRR as directed by Nepal Rastra Bank.

- Nepal SBI seemed to have increase in its investment in government securities but just the opposite in the case of Nepal Indosuez Bank.
- Indosuez Bank's current ratio and cash reserve ratio were found to be better than that of Nepal SBI; but Indosuez's ratios of cash and bank balance, investment on government securities, and loans & advances to current assets were lower than that of Nepal SBI.
- Indosuez's deposit mobilization was less effective than Nepal SBI's, and the investment of the former on government securities and shares and debentures of other companies was lesser in amount than the latter's.
- Indosuez had better return on total assets, on loans & advances, and interest earning than Nepal SBI.
- Indosuez's growth ratios of total deposit, loans & advances, total investment, and net profit were lesser than that of Nepal SBI.
- The trend values of loans & advances to total deposit ratio and total investment to total deposit ratio of both banks were found to be decreasing.

Ojha(2002) conducted research on **"***Lending Practices*: A Study on Nabil Bank Ltd., SCB Nepal Ltd.,and Himalayan BankLtd." with the following objectives:

- To evaluate the liquidity position and the effect of deposit on lending.
- To evaluate the bank's credit progress.
- To analyze the lending portfolio and to measure the portion of loans in the fields of agriculture and priority and productive sectors.
- To measure the quality, efficiency of lending process and its contribution on total income.

Ojha's study was basically based on the available secondary data. Ojha's research findings are as follows:

- The current ratios of all three banks, Nabil, SCBNL, and HBL, were found to be good fairly consistent.

- Total liability to total assets of SCBNL was found to be highest due to the bank having a large portion of capital from shareholders' equity. HBL was found to have larger portion on interest bearing deposits in its total deposit.

The study was focused only on the lending activities of the banks under study. The research findings were based on the conclusions from the ratios calculated only.

Raya (2003) conducted the study on "Investment policy and analysis of commercial banks in Nepal": A Comparative study of standard chartered Bank Ltd. With Nepal Investment Bank and Nepal Bangladesh Bank Ltd. The main objectives of the thesis are as follows:

- To discuss fund mobilization and investment policy in respect to its fee based off balance sheet transaction and fund based on balance sheet transaction.
- Evaluation of the liquidity, efficiency, profitability, and risk position.
- To evaluate the growth ratios of loans and advances, total investments with financial variables.
- To analyze the trends of deposits utilization towards total investment.

The above analysis had the following findings:

- SCBNL is comparatively better than NIBL and NIBL has the lowest cash and Bank balance deposits.
- SCBNL has good deposits collection and had made enough investment on the government securities but maintained low investment policy.
- It is strongly recommended to follow liberal lending policy and maintain more stability on the investment policy.
- At times, the bank focuses much of its attention to one sector leaving the other sectors untouched so recommended to touch all the sectors and balance it effectively so as to have the optimal performance of the bank.

Joshi (2005) conducted her research on "Investment Policy of Commercial Banks in Nepal" with the objectives as follows:

- To discuss fund mobilization and investment policy of EBL, Nabil, and BOKL.
- To evaluate liquidity, efficiency, profitability, and risk positions.
- To evaluate the growth ratios of loan and advances, total investment with other financial variables.
- To analyze the deposit mobilization trend with regards to total investment and loans & advances.
- To perform hypothetical tests in order to see there was significant difference between the various ratios of the three banks.

The study was based on available on secondary data, and the study had the following findings.

- Liquidity Position of EBL was found to be comparatively better than that of Nabil and BOKL due to EBL having the highest cash and bank balance to total deposit ratio and cash & bank balance to current assets ratio. EBL had adequate investment in government securities and moderate policy on loans &advances.
- EBL was found to be average successful in its balance sheet operation compared to Nabil and BOKL.
- The study said that EBL was average profitable in comparison to the other two banks.
- The mean credit risk ratio of EBL was found to be higher than Nabil and lower than ABOKL, but the ratio of EBL was more consistent than the others. The capital risk ratio of EBL was found to be the highest among the three.
- EBL had the highest growth ratios of deposit, loans & advances, and net profit than Nabil and BOKL.Growth ratio of EBL', investment was more than Nabil's and less than BOKL's.
- Trend analysis and projection for future conducted in the study showed that EBL would have higher deposit and loans & advances in Mid July 2008 than BOKL but lower than Nabil.

- As per the study, total investment of EBL in Mid July 2008 would be far lesser than that of Nabil but a little higher than BOKL. The study projected that EBL would have the highest net profit in Mid July 2008 than both Nabil and BOKL.
- Testing of Hypothesis revealed that there was no significant difference between the mean ratios of total investment to total deposit, mean ratios of return on loans& advances, and mean ratios of total interest earned to total outside assets of all three banks. Significant difference was found between the mean ratios of loans& advances to total deposit ratio of EBL and Nabil but no significant difference that of EBL and BOKL.

From the findings of her study, Joshi recommended EBL that it collect large funds through various deposits and mobilize the idle cash. She also recommended EBL that it invests in shares & debentures of other companies and that it follow liberal and diversified lending policy. She also recommended EBL reduce its minimum balance requirements while opening deposit accounts with it. It was recommended that EBL have strong loan recovery schemes, to reduce expenses, and to have innovative marketing to tact with the market competition.

Shrestha (2007) has conducted the thesis on "A Comparative Analysis on Investment Performance of commercial banks in Nepal". The specific objectives of the research were as follows:

- To analyze the investment activities and fund mobilization with respect to fund based on- balance sheet transactions and fee based off balance sheet transactions.
- To study the asset utilization system, profitability and risk position of commercial banks under study.
- To assess the deposit utilization trends and its projection for the future.
- To evaluate the growth ratios of loan and advance and total investment and respective growth rate of total deposit and net profit.
- To appraise the suggestion on the basis of findings for further growth of the banks under study.

With the technical and fundamental analysis the following findings can be achieved.
The findings of the study conducted through the secondary data are as follows:

- The liquidity position of NIBL was stronger than NABIL and HBL.
- At the same time, liquidity position of NIBL was highly fluctuation, which showed that NIBL bore higher risk than other two banks.
- NIBL had the least investment in Government Securities, which considered the least risky asset.
- From the analysis of assets, management ratio of NIBL in comparison to the NABIL and HBL was more successful regarding asset management and deposit mobilization.
- NIBL's investment on shares and debentures was high in comparison to the other two banks but its performance regarding total investment has been very poor.
- In the profitability analysis, none of the three banks profitability position was clearly better. However, NABIL was slightly better profitability. Therefore, their profitability ratios were in moderate position.

Dhakal (2008) has conducted the thesis on "An Investment Policy of Commercial banks in Nepal". The specific objectives of the research were as follows:

- To find out the relationship between total investment, loans & advances, deposit, net profit and outside assets.
- To assess the impact of investment on profitability.
- To identify the investment priority sectors of sampled commercial banks.
- 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 guidelines to improve investment policy and its problems.
- The study was conducted based on primary and secondary data. Various financial ratios were calculated and compared. The study was also based on analysis of data using various and statistical tools.

The major findings are as follows:

- The liquidity position of Everest Bank Ltd.(EBL) was comparatively better than that of Nabil Bank Ltd.(NABIL) and Bank of Kathmandu Ltd. (BOKL).
- All the three banks had met the normal standard current asset ratio to meet the short term obligations of their customers.
- EBL had invested the most in Government Securities, followed by BOK and NABIL.
- BOK had mobilized a huge sum its funds to earn the profit.
- The loans and advances to total deposit ratio, loan and advances to total working fund ratio of EBL lied in between those of Nabil and BOK.
- Overall analysis of profitability ratios showed that EBL was on an average profitable in comparison to other bank i.e. NABIL and BOK.
- The trend of the total investment, total deposit, loan and advances and net profit of EBL showed better position than that of NABIL and BOK.

Rana (2009) conducted a study on "Investment policy of commercial banks (With reference to NABIL Bank Ltd and Nepal Investment Bank Ltd." The specific objectives of the research were as follows:

- To analyze the deposit utilization for five years of NABIL & NIBL.
- To find out relationship between total investment, deposit, loan & advance and net profit.
- To evaluate the liquidity, efficiency, risk position and profitability of the selected banks.
- To analyze the financial position of NABIL and NIBL in terms of deposit collection and investment procedure.
- To suggest and recommend on the investment policy of sample banks.

The major findings are as follows:

- It is found from the study that the amount of total deposit collected by Nabil Bank in each year during 5 years of the study period is higher than that of NIBL. Similarly, investment to total deposit ratio and the amount of total Investment made by Nabil Bank for the same period is also higher. Beside total deposit

collected and total investment made, total loan and advances of Nabil Bank is also Higher during first three years but afterward it is lower than that of NIBL. It is clear that Investment policy adopted by Nabil Bank is sound from profit point of view.

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

Thapa (2010) conducted a study on "A study on investment Analysis of commercial banks in Nepal" (A Case study of Nepal investment bank, Himalayan Bank, Nepal SBI Bank, Everest Bank Ltd. & Bank of Kathmandu Ltd.) The main objective of the study is to compare investment policy of concern banks and discuss the fund mobilization of sample bank.

The other specific objectives are as follows:

- To analyze the present position of commercial banks regarding investment policy.
- To analyze the investment trend and their projection of selected commercial banks..

- To identify investment sector of selected commercial banks.
- To identify the impact of investment policy on performance.
- To provide suitable suggestion and recommendations for the improvement of the bank's performance.

Research methodology

For the study of the thesis, descriptive and analytical research design has been taken. Some financial and statistical tools have been taken to examine facts and descriptive technique has been adopted to evaluate investment performance of the selected commercial banks.

The major findings of the study are:

- The main ratio of HBL investment to total commercial banks investment is extremely higher than other selected banks.
- The mean ratio of investment on government securities to current asset of NSBL is higher than that of other banks. All the banks have invested fewer funds to share and capital of other company.
- During the study period, the mean ratio of investment to total deposit of HBL is higher than that of other banks. The mean ratio of investment on loan & advances to total deposit of NSBL is higher than the other banks. The mean ratio of total deposit to total investment to total assets ratio of HBL is higher than the other banks. Similarly, the mean ratio of Investment on government securities to total assets ratio of NSBL is higher than the other commercial banks. The mean ratio of investment on shares and debentures to total assets ratio of BOKL is higher than the other banks. BOKL has used its more funds on investment on shares and debentures of other companies.
- There is highly positive and significantly correlation between total deposit and net profit of all the selected banks.

- The main factors considered while taking investment decision, the profitability is considered as main factor while security, political climate, level of income and government policy is considered as other factors respectively.

Shrestha (2011) conducted a study on "Investment policy of commercial banks in Nepal" (A Comparison between Nabil Bank Ltd., Nepal Investment Bank Ltd. & Nepal SBI Bank Ltd.) The specific objectives of the research were as follows:

- To examine the investment policy of NABIL, NIBL and NSBI Bank Ltd.
- To examine the utilization of available fund of the banks under study.
- To evaluate the liquidity, profitability and risk position of the banks.
- To analyze relationship between deposits, loan and advances, investment, net profit and compare them with NABIL, NIBL and NSBI Bank Ltd.
- To make a comparative study on fund mobilization & investment policy on NABIL, NIBL and NSBI Bank Ltd.

The major findings of the study are:

- The liquidity position of NIBL is comparatively higher than NABIL and NSBI.
- NSBI has highest investment policy towards investment to total deposits and government securities to total working fund but lower shares and debentures to total working funds. NSBI has stable and consistent ratios than that of other two banks.
- Nabil has average profit in comparison to other compared banks. To earn high profit in future the bank must maintain its high profit margin.
- NIBL has high risk ratio NSBI has average consistency. The NIBL & NSBI should maintain risk against credit fund to earn high profit.
- There is a significant relationship between deposit and total investment & deposit and loans & advances but negative relationship between outside assets and net profit of NABIL.

Thanait (2012) conducted a study on "Investment policy of commercial banks in Nepal" (A Comparison between Nabil Bank Ltd., Nepal Investment Bank Ltd. & Nepal SBI Bank Ltd.) The specific objectives of the research were as follows:

- To see fund mobilization and investment policy of NABIL and EBL.
- To evaluate the liquidity, profitability and risk position of the banks.
- To see the growth ratios of loans & advances, total investment with respect to NABIL & EBL.
- To analyze relationship between total deposits, loan and advances, investment, net profit and compare them with NABIL and EBL.
- To see the trend of their deposits & loans and advances, investment and net profit of the selected banks.

Research methodology

For the study of the thesis, descriptive and analytical research design has been taken. Some financial and statistical tools have been taken to examine facts and descriptive technique has been adopted to evaluate investment performance of the selected commercial banks.

The major findings of the study are:

- The liquidity position of EBL is comparatively higher than NABIL.
- EBL has highest investment policy towards investment to total deposits and government securities to total working fund but lower shares and debentures to total working funds. NABIL has stable and consistent ratios than that of other two banks.
- Nabil has average profit in comparison to EBL. To earn high profit in future the bank must maintain its high profit margin.
- NABIL has high risk ratio. EBL has average consistency. The NABILL & EBL should maintain risk against credit fund to earn high profit.
- There is a significant relationship between deposit and total investment & deposit and loans & advances but insignificant relationship between outside assets and net profit of NABIL.

Shiwakoti (2013) conducted a study on "Investment Analysis of commercial banks in Nepal" (A Case study of Nepal Investment Bank Ltd., Himalayan Bank & Nepal SBI Bank Ltd., Everest bank Ltd. & Bank of Kathmandu ltd.) The specific objectives of the research were as follows:

- To analyze percentage of investment made by selected commercial banks in total investment made by commercial banks.
- To analyze the segregation of investment of banks.
- To examine the relationship between investment and total assets of the banks.
- To explore investment trend and their projection for next five years of the selected commercial banks.
- To make the suggestion and recommendation for the selected commercial banks.

Research methodology

For the study of the thesis, descriptive and analytical research design has been taken. Some financial and statistical tools have been taken to examine facts and descriptive technique has been adopted to evaluate investment performance of the selected commercial banks.

The major findings of the study are:

- NSBI has invested least of their funds in government securities than other banks. All the banks had invested fewer funds to share and capital of other company. The commercial banks mostly invest on the government securities, NRB bond and share and debentures of other company.
- The mean ratio of investment on total deposit of HBL is higher than other banks. The mean ratio of investment on loans & advances to deposit ratio of EBL is higher than other banks. The mean ratio of total investment to total assets ratio of HBL is higher than other banks. The mean ratio of investment on government securities to total assets ratio of EBL is higher than other banks. The mean ratio of investment on shares and debentures to total assets ratio of BOKL is higher than other banks.

- The growth ratio of investment of HBL is higher than other selected banks. The growth ratio of loans & advances of EBL is higher than other banks. The growth ratio of deposits of NSBI is higher than other banks.

- There is a significant relationship between investment plus loans & advances to total deposit between HBL and NIBL. There is a significant relationship between investment plus loans & advances to total deposit between EBL and NSBI. There is a significant relationship between investment plus loans & advances to total deposit between EBL and BOKL.

2.2.4 Research Gaps

While reviewing the books and articles and past studies, it is found that banks are not just the storehouse of the country's wealth but are reservoirs of resources necessary for economic development and employment generation. Due to the slowdown on the world economy and deteriorating law and other situations of the country, much study with the past ensures this continuity in research. It is clear that the reference of new research cannot be found on the exact topic i.e. "Investment Policy and Analysis of Commercial banks in Nepal". Therefore to complete this research, many books, journals, articles and carious published and unpublished dissertation and field opinion are followed as guideline to make the research easier and smooth through the reference materials. The researcher can find out the gaping from the past research that has to be fulfilled by the present research work. In this regard, the researcher is going to analyze the different policy in this topic. It is expected that the uncovered areas of the research work will be studied. The gaping between the old and the new research work will be focused and filled up based on the given objectives and limitations of this research.

At the time of the preparation of this study, the time and scene has changed. New data have been used for analysis; and contemporary commercial banks that share the same grounds for opportunities and threats have been selected for analysis and comparison.

The scene in the commercial banks' working ground has changed in many ways. There is growing competition, and on the other hand, the country risk has been increasing due to the recent volatility in the present political and social situations.

The study is also unique because it has tried to show the circumstances and effects of positive and negative profits of a commercial bank.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

The research methodology is the process of coming to the solution of the problem through planned and systematic dealing wit the collected analysis and interpretation of the facts and figures. “Research methodology is a way to systematically solve the research problem” (Kothari, 1990:10). As this field work is entirely related with the investment activities of the three commercial bank of Nepal. So only the need and useful methodology has been used.

For the purpose of achieving the objectives, the below mention methodology is proposed to follow. It includes research design, nature of data, data gathering procedure, presentation and analysis technique.

3.2 Research Design

Research design is a controlling part for the collection of the data and it helps to collect the accurate information, which is related to the research topic. A true research design is basically concerned with various steps to collect the data for analysis draw a relevant conclusion. Research design is a plan structure and strategy of investigation conceived so as to obtain answers to research questions and to control variance through the analysis of data. (Kothari, 1990:22).

“Research Design means an overall framework or plan for the collection and analysis of data” (Wolf and Pant, 2003:74).

For the analytical purpose, the annual report published by the bank and other data had been collected from different sources, published on different years. Periods cover six fiscal years.

The first step of research design is to collect necessary information and data concerning the study. Therefore, research design means the definite procedure and techniques, which guide the study as profound ways of doing research. Descriptive and analytical research design has been used in the study. Descriptive research is essentially a fact finding approach relative largely to the present and abstracting generalizations by the cross sectional study of the current situations. In the other words, it identifies problems or justifies current conditions and practices to make comparisons and evaluations in making future plans and decisions.

3.3 Nature and Sources of Data

This case study is primarily based on secondary data that were provided by the commercial Banks. The prospectus of the company and audited annual reports that contain Balance Sheet and profit and Loss a/c. The other additional information has been collected form the various sources.

3.4 Population and Sample

Since the study is related to the investment activities of commercial banks of Nepal, data necessary for the study have been taken from various sources relating to the investment activities of the banks. Nearly, three dozen commercial banks, five dozen development banks, over six dozen finance companies and several hundred cooperatives are chugging ahead full stream. Currently, there are 160 licensed deposit taking institutions and at least two dozen financial institutions including five A class commercial banks are in a pipeline. Analysis of the investment activities of all the commercial banks that operate in Nepal is a tedious and difficult task. Since almost all of them are guided and monitored by Nepal Rastra Bank, and since all of them operate under the same circumstances and opportunities, for simplicity, all of the three banks have their headquarters in kathmandu and share similar opportunities and threats. They face the equal competition in market, and thus the study of their investment activities will help us understand the investment policy and analysis of the commercial banks in Nepal, in general.

3.5 Tools used for analysis:

The attempt has been made to analyze the tabulated data to review the financial and investment aspect of commercial banks. Statistical like mean, standard deviation, coefficient of variance (C.V.), percentage, trend and correlation are used. This analysis mainly based on financial aspect i.e. strength, weakness, opportunity, threat etc. Analysis is also done to know about the bank in brief

Data Analysis Tools

In the study various financial and statistical tools on the available data have been used to achieve the objectives of the study.

For the financial analysis part, various ratios of the banks have been calculated and compared. Likewise, in the statistical analysis part, Karl Pearson's Coefficient of correlation, trend analysis, test of hypothesis have been computed and compared.

Various financial and statistical analytical tools used in the study are as follows:

3.5.1 Financial Tools

Various financial tools have been used to examine the financial strengths and weaknesses of the banks under study. The following financial ratios have been calculated and analyzed.

3.5.1.1 Ratio Analysis

Financial ratio is the mathematical relationship between two accounting figures. Various financial ratios of the banks under study have been calculated, analyzed, and compared. "Ratio analysis is a part of the whole process of analysis of financial statements of any business or industrial concern especially to take output and credit decisions" (Kothari, 1984). Ratio analysis is used to compare the financial performance and status of two or more different firms or a single firm over different periods. In the study, only those financial ratios that are concerned with the investment activities of commercial banks are calculated. The ratios are a follows:

A. Liquidity Ratios

Liquidity ratios show the ability of organizations to meet their short term liabilities. These ratios are helpful in evaluating the present cash solvency of the banks and their ability to remain solvent in the event of difficulties.

The following liquidity ratios have been calculated in the study:

i. Current Ratio

Current ratio is the ratio of current assets to current liabilities; it shows the short-term solvency. It is the relationship of current assets with current liabilities. By current assets of banks, we understand the cash & bank balance, money at call or short notice, bills receivable, loans & advances and bills purchased and discounted, investments and other miscellaneous current assets. Current liabilities consist of provision, staff bonus, and other miscellaneous current liabilities.

Current ratio is calculated as,

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

The standard current ratio 2:1; however, but the current ratio of a bank tends to vary depending on various circumstances caused by seasonal business ratio and the nature of business.

ii. Cash & bank Balance to Total Deposit Ratio

Cash & bank Balance is the most liquid form of current assets. The cash& bank Balance to total Deposit Ratio measures the bank's ability to pay money to its depositors on demand. Cash & Bank balance of the bank consist of local and foreign cash in vault, balance with other banks, balance in central bank, and amount held in foreign banks. Total deposit is the total of deposits held by the bank in its various deposit accounts.

Cash & bank Balance to Total Deposit Ratio is calculated as,

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

iii. Cash & bank Balance to Current Asset Ratio

The cash & bank balance to current asset ratio shows the bank's ability to meet it's demand for cash. The higher the ratio, the better able the banks are to meet their daily cash requirements of paying its customers and vice versa. The ratio is calculated by dividing current assets by cash & bank balance. It is computed as follows:

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

If the ratio is too high, that means that the bank has too much of liquid asset available, which means the bank has to pay interest on the deposits and less interest income due to the liquid asset not being invested.

Too low ratio means the bank is not able to meet with the immediate cash requirements.

iv. Investment on government securities to Current Asset Ratio

This ratio tells us how much of current asset is invested by the bank on different government securities. Investment in government securities is risk free investment and they are highly marketable, but the return from the same is usually low. Banks invest in government securities to use their excess funds that are idle. This ratio is computed as:

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

v. Loans & advances to Current Assets Ratio

Loans & advances to current assets ratio shows the ratio in which the banks invest in loans & advances out of the current assets. Loans & advances are the key earning sources of a commercial bank. To earn high profits by mobilizing the funds, commercial banks

should invest the funds as loans & advances to its various customers. This ratios is computed by dividing the current asset by loans & advances as follows:

$$\text{Loans \& advances to Current Assets Ratio} = \frac{\text{Loans \& Advances}}{\text{Current Assets}}$$

B. Asset Management Ratios

A commercial bank has to be able to manage its assets such that it is able to earn high profits, to satisfy its customers, and to grow. The asset management ratios tell us how efficient the banks are in managing the available resources. The following asset management ratios have been calculated in the study.

i. Loans & Advances to Total Deposit Ratio

The loans & advances to total deposit ratio measures the ratio of loans & advances over total deposit, thereby showing how much of the total deposit the banks have utilized in credit. A high ratio of loans & advances indicates better mobilization of deposits, and vice versa. This ratio is calculated as follows:

$$\text{Loans \& Advances to Total Deposit Ratio} = \frac{\text{Loans \& Advances}}{\text{Total deposit}}$$

ii. Total Investment to Total Deposit Ratio

This ratio measures what part of total deposit the bank has utilized in its total investment. Total investment is the sum of loans & advances, investment in government securities and investment in shares & debentures of other companies. The high total investment to total deposit ratio means that the bank has been able to utilize its deposits in profitable sectors, but this also means more risks. This ratio is calculated by dividing total deposit by total investment as follows:

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

iii. Loans & Advances to Total Working Fund Ratio

Loans & advances are the main elements of the working fund or total assets. This ratio shows how much of total working fund has the bank utilized as credit given by it. This ratio is calculated as follows:

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

Here, total working fund is the sum of total assets of the bank, namely current assets, total fixed assets, loans& advances, investment, and other sundry assets.

iv. Investment on Government Securities to Total Working Fund Ratio

The ratio shows the percentage of total working fund investment in government securities. This ratio is calculated by dividing total working fund by investment on government securities as follows:

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

v. Investment on Shares & Debentures to Total Working Fund Ratio

This ratio shows the percentage of bank's investment on shares & debentures of other companies over its total working fund. This ratio is calculated as follows:

$$\text{Investment on Shares \& Deb. to Total Working Fund Ratio} = \frac{\text{Investment on Shares \& Debentures}}{\text{Total Working Fund}}$$

vi. Loan Loss Ratio

Loss of loan is occurred when the debtor's fail to pay their loan. Loss of loan is not only the default of debtor's but it is because of the failure of recovery of loan by the bank.

Negligence in its part makes a negative impact on the earnings and capital of a bank very badly. Greater loan loss provision is made high income statement if high loss is expected. But this will lead to low profit and possible losses that produce low increase or decrease in capital. The loan loss ratio shows how efficiently the bank manages its loan and advances and, makes effort for timely recovery of loan. This ratio is calculated as follows:

$$\text{Loan Loss Ratio} = \frac{\text{Loan Loss Provision}}{\text{Loans \& Advances}}$$

C. Profitability Ratios

Profitability Ratios are calculated to measure the efficiency of operation of a firm in terms of profit. It is the indicator of the financial performance of the firm. Higher the profitability ratios, better is the financial performance of the bank and vice versa. In the study, the following profitability ratios have been calculated.

i. Return on Loans & Advances Ratio

This Ratio shows the efficiency of the banks in utilizing their resources in earning good return from their loans & advances. This ratio is calculated by dividing the net profit by loans & advances as follows:

$$\text{Return on Loans \& Advances} = \frac{\text{Net Profit}}{\text{Loans \& Advances}}$$

ii. Return on Total Working Fund Ratio (ROA)

Return on total working fund ratio measures the overall profitability of total assets, i.e. the total working fund. This ratio is also known as ROA (return on assets). This ratio is calculated by dividing net profits by total working fund as follows:

$$\text{Return on Total Working Fund Ratio} = \frac{\text{Net Profit}}{\text{Total Working Fund}}$$

iii. Return on Equity (ROE)

Return on equity is the ratio of net profit over equity or net worth is the sum of share capital, reserves, and accumulated profit. It is the owner's (shareholders) claim of the bank. This ratio measures the efficiency of the banks in using the funds of the owners. This ratio is calculated by dividing net profit by total equity (net worth) as follows:

$$\text{Return on Equity (ROE)} = \frac{\text{Net Profit}}{\text{Equity (Net Worth)}}$$

iv. Total Interest Earned to Total outside Assets Ratio

Total outside assets is the sum of loans & advances, bills purchased and discounted, and total investment. Banks earn return in the form of interest as interest on loans & advances, interest on government securities, and interest on debentures of other companies. This ratio measures ratio of total interest earned over total assets that the banks invest outside of the bank. It measures the interest earning capacity of the bank through efficient utilization its funds. This ratio is calculated by dividing total interest earned by total outside assets as follows:

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

High ratio indicates that there has been proper utilization of outside assets which results in considerable volume of interest income.

v. Total Interest Earned to Total Working Fund Ratio

Total Interest Earned to total working fund ratio is calculated to find the percentage of interest earned to total assets. Higher ratio indicates the better performance of the firm in the form of interest earning on its working fund. The ratio is calculated as:

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

vi. Total Interest Earned to Total Operating Income Ratio

Total Interest Earned to total operating income ratio is calculated to find out the ratio of interest income of firm. It indicates how efficiently the bank has mobilized its resources to bear the interest on invested assets. This ratio is calculated by dividing total interest earned by total operating income as follows:

$$\text{Total Interest Earned to Total Operating Income Ratio} = \frac{\text{Total Interest Earned}}{\text{Total Operating Income}}$$

vii. Total Interest Paid to Total Working Fund Ratio

This ratio is calculated to find out the percentage of interest paid on liabilities with respect to total working fund.

This ratio can be calculated by dividing total interest paid by total working fund as follows:

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

D. Risk Ratios

In the modern world where businesses get over challenging day by day, newer and more risks are emerging. To make more profits from business ventures, more risks have to be assumed as more the risk, more the profit. Thus, commercial banks that seek to make high profits have to assume risks and manage them efficiently. The following risk ratios have been calculated in the study.

i. Liquidity Risk Ratio

Liquidity Risk Ratio measures the level of risk associated with the liquid assets, i.e. cash & bank balance that the bank maintains in order to meeting with the purpose of satisfying the depositors demand for cash. Higher the ratio, lower is the liquid risk. The risk is calculated by dividing cash & bank balance by total deposits as follows:

$$\text{Liquidity Risk Ratio} = \frac{\text{Total Cash \& Bank Balance}}{\text{Total Deposit}}$$

ii. Credit Risk Ratio (Total Loans & Advances to Total Assets Ratio)

Credit risk ratios measure the possibility of loan being bad. Here, the credit risk ratio has been calculated as follows:

$$\text{Credit Risk Ratio} = \frac{\text{Total Loans \& Advances}}{\text{Total Assets}}$$

iii. Capital Risk Ratio (Capital to risk weighted assets ratio)

Capital risk ratio measures banks' ability to attract deposits and interbank funds. It also determines the level of profit, a bank can earn if a bank chooses to take high capital risk. The capital risk is directly related to return on equity.

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

iii. Interest Rate Risk Ratio

This ratio shows the decline in the net interest income due to the change in the interest rates charged by the banks on its deposits and loan and advances. Higher interest rate risk ratios suggest the banks to increase the interest rates on deposit and loans & advances, to increase net interest income and vice versa. This ratio is calculated by dividing interest sensitive assets (Loans & advances, investment, investment in treasury bills, development bonds, and other investments) by interest sensitive liabilities (deposits and borrowings) as follows:

$$\text{Interest Rate Risk Ratio} = \frac{\text{Interest Sensitive Assets}}{\text{Interest Sensitive Liabilities}}$$

E Growth Ratios

Growth ratios measure how well the firm is maintaining its economic position in its industry. It is directly related to the fund mobilization and investment management of a commercial bank. The following growth ratios are calculated in this study.

- Growth ratio of total deposit
- Growth ratio of loan & advances
- Growth ratio of total investment
- Growth ratio of net profit

Mathematically, it is calculated as,

$$\text{Factor} = \frac{\text{Last Year Figure}}{\text{First Year Figure}}$$

$$\text{Factor} = (1+ g)^{n-1}$$

Where,

g = growth ratio

n = number of period

Again, growth ratio is measured in percentage

3.5.2 Statistical Tools

Various statistical tools have been used in the study to achieve the desired objectives. The coefficient of correlation between various variables, trend analysis, and testing of hypothesis (t-statistic) have been used in the study.

3.5.2.1 Coefficient of Correlation Analysis

The correlation is a statistical tool which studies the relationship between two variables and correlation analysis involves various techniques used for studying and measuring the extent of the relationship between two variables. The coefficient of correlation among various variables has been calculated in the study to find out the relationship between them, to see how one variable affects the other variable. In the study, Karl Pearson's coefficient of correlation has been used to find out the relationship between various variables. The coefficient of correlation lies between+1 and -1. If the coefficient of

correlation is +1 or near to that, there is positive relationship, if the coefficient is -1 or near to that, there is negative relationship. If the coefficient of correlation is 0, it means that there is no relationship between the variables. Besides, the coefficient of correlation, the following is also calculated as the study of coefficient of correlation analysis.

The mathematical formula for computing **r** is:

$$r = \frac{N\sum xy - \sum x.\sum y}{\sqrt{\sum NX^2 - (\sum x)^2}.\sqrt{N\sum y^2 - (\sum y)^2}}$$

Probable Error: the probable error of the correlation coefficient is the basic for the interpretation of its value and is defined as:

$$P.E. = 0.6745\ \frac{1-r2}{\sqrt{n}} = 0.6745\ S.E$$

Here,

r = coefficient of correlation

n = number of pair of observations

S.E. = Standard Error of correlation coefficient = $\left[\frac{1-r^2}{\sqrt{n}}\right]$

When r<Pe, the value of r is not significant at all, i.e., there is no evidence of correlation. When r > 6 Pe, the value of r is significant, i.e. the correlation is certain. In the study, the following coefficients of correlations are calculated:

a) Coefficient of correlation between total deposits and loans & advances.
b) Coefficient of correlation between total deposits and total investment.
c) Coefficient of correlation between net profit and total outside assets.

Standard Deviation (S.D.): The standard deviation measures the deviation in the calculation of average. It measures the absolute dispersion. A small measure of S.D means a high degree of uniformity of the observations as well as homogeneity in the

series. A high level of S.D. means that there is greater dispersion in the observations. Standard deviation is calculated as:

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

Where, X = variables in an observation

N = number of observations

Coefficient of variance (C.V.): The coefficient of variance is calculated to find out the consistency in the observations in a series of data. Higher the C.V., higher is the degree of inconsistency, lowers the C.V., and lower is the degree of consistency. Thus, a relatively lower of C.V., is sought. Coefficient of variation is calculated as:

$$C.V. = \frac{\sigma}{\bar{x}} \quad 100\%$$

Where,

σ = Standard Deviation (S.D.)

$\bar{x}$ = mean of the data in an observation

3.5.2.2 Trend Analysis (Least Square Linear Method)

Among the various methods of determining of a time series, the most popular mathematical method is the least square method. Using this method, the forecasting of future values of various variables has been calculated. Trend analysis has been performed using the following way.

Y= a+bx

Where, y=dependent variable

X=independent variable

a=interest of the trend line

b=slope

The following least square linear trend calculations have been carried out.

a) Trend analysis of total deposits.
b) Trend analysis of loans & advances.
c) Trend analysis of total investment.
d) Trend analysis of net profit.

3.5.2.3 Testing of Hypothesis

To test the significance of the difference to independent means, we perform the testing of hypothesis; and since the sample size is less than 30, we use the T-test. The formula for t holds valid under the following assumptions.

i.) Population variances are equal but unknown.
ii.) Two samples are random and independent of each other.
iii.) Parent populations from which samples have been drawn are normally distributed.

The step used in testing the significance of difference between two means for small sample (n<30) is as follows:

Step1

Formulate the null hypothesis (Ho) and alternative hypothesis (H1) as:
Null hypothesis Ho:$\mu_1 = \mu_2$
i.e., the samples have been drawn from the normal populations with the same mean, or the two population means do not differ significantly.

Alternative hypothesis H1: $\mu_1 \neq \mu_2$(two tailed test). The samples have not been drawn from the normal populations with the same means, or the two population means do differ significantly.

Step 2

Compute the test static under the assumption that $\sigma 12 = \sigma 22 = \sigma 2$
i.e., the population variances are equal but unknown, the test statistic under

Ho: μ1= μ2 is

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{S^2\left[\frac{1}{n_1}+\frac{1}{n_2}\right]}}$$

That is, the test statistic t follows t- distribution with $n_1 + n_2 - 2$ degree of freedom

Where,

$X_1 = \sum X_1/n_1$ and $X_2=\sum X_2/n_2$

S2 = an unbiased estimate of the common population variance σ2 based on both the samples. The value of S2 is calculated the following way:

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum d_1^2 - \frac{(\sum d_1)^2}{n_1} + \sum d_2^2 - \frac{(\sum d_2)^2}{n_2}\right]$$

Where, $d_1 = X_1-A_1$, $d_2=X_2-A_2$

A_1=assumed mean taken from X_1

A_2= assumed mean taken from X_2

Step 3

Obtain the tabulated value of t for (n_1+ n_2 -2) d.f. at level of significance according as whether alternative hypothesis is one tailed or two tailed test.

Step 4

Make a decision by comparing the calculated value of t with the tabulated value of t. If the calculated value of t ≤ tabulated t, it is not significant and Ho is accepted. . If the calculated value of t ≥ tabulated t, it is significant, then Ho is rejected.

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

In this chapter, the data collected from the various sources, as mentioned in the earlier chapter, have been filtered and only the data necessary for the analysis of the investment policy and analysis of the banks have been used. The analysis of available secondary data has been conducted using various financial and statistical tools. Comparisons have also been made regarding calculated values.

The analysis of various ratios and values has been presented in numerous tabular forms for simplicity and easy understanding. Many figures have also been presented in this chapter. This chapter has basically been divided into two different parts, each dealing with a different aspect of data analysis.

In the first part, the financial analysis of the three banks has been presented. The second part deals with the analysis of data using the statistical tools.

4.1 Financial Analysis

In this part of the data analysis, various financial tools have been used to evaluate and analyze the major financial performance elated to fund mobilization and investment activities of the banks under study. That means not all but only those financial ratios that are important for the analysis of investment activities of the banks have been calculated here.

Before the calculation and tabulation of the financial ratios of the banks, a simple overview of the investments done by the banks as compared with their respective current assets has been presented.

In the following tables 4.1, 4.2, 4.3, the amount of loans and advances, investment in government securities and investment in shares and debentures of other companies of the

three banks have been presented in the tabular format along with the percentage of such investments over the respective total working fund (total assets) of the banks.

Table 4.1

Percentage of various Investments out of Total Working Fund of NBBL

(In Million Rs.)

F/Y	Total Working Fund	Loans & Advances	%	Investment in Govt. Securities	%	Investment In Shares & Debentures	%	Total %
2063/64	7254.54	4409.01	60.77	826.8	11.39	182.2	2.51	74.67
2064/65	9391.02	5457.81	58.11	1221.8	13.01	194.2	2.07	73.19
2065/66	11964.55	6704.94	56.04	1715.8	14.34	130.1	1.09	71.47
2066/67	12531.04	7809.54	62.32	1419.7	11.33	268.6	2.14	75.79
2067/68	14004.76	8452.73	60.35	2113.8	15.09	358.9	2.56	78.00
2068/69	20169.75	10330.07	51.21	3724.9	18.46	283.55	0.14	69.81

Source: Annual Report of NBBL (Detail in Appendix 1 (I))

In table 4.1, the various investments done by NBBL have been presented over the six year study period. All the three types of investments of NBBL show an increasing trend throughout the study period. The total working fund shows an increasing trend. However, there has been substantial rises in the amounts of Loans & advances and investment in government securities in the latest year of study as compared with the initial year of study. There however has been only a slight increase in shares and debentures of other companies in the latest year as compared with the initial year of study. The investment in shares & debentures was 182.2 million in the initial year of study, and it increases to 358.9 million in the latest year of study. NBBL has the maximum portion of total outside assets out of its total assets in the year 2067/ 68where the percentage reaches as high as 78%.

Table 4.2

Percentage of various Investments out of Total Working Fund of EBL

(In Million Rs.)

F/Y	Total Working Fund	Loans & Advances	%	Investment in Govt. Securities	%	Investment In Shares & Debentures	%	Total %
2063/64	21432.57	13664.08	63.75	3614.54	16.86	19.08	0.09	80.69
2064/65	27149.34	18339.08	67.55	4906.5	18.07	99.55	0.37	79.85
2065/66	36916.84	23884.67	64.70	5146	13.94	100.43	0.27	78.91
2066/67	41382.76	27556.35	66.59	4354.4	10.52	100.43	0.24	77.35
2067/68	46236.21	31057.69	67.17	7145.0	15.45	107.97	0.23	82.85
2068/69	55813.12	35910.97	64.34	6068.9	10.87	109.17	0.19	75.4

Source: Annual Report of EBL (Detail in Appendix 1 (II))

Table 4.2 shows the various investments of EBL over the study period as compared with its total assets. Both the total assets (total working fund) and loans & advances of EBL show an increasing trend throughout the study period. The investments in government securities also show an increasing trend. There also is a substantial increase in investment in shares & debentures of other companied in the latest year compared with the first year of study. The percentage of total outside assets out of the total assets of EBL is the highest in the year 2067/68 at 82.85%.

Table 4.3

Percentage of various Investments out of Total Working Fund of BOKL

(In Million Rs.)

F/Y	Total Working Fund	Loans & Advances	%	Investment In Govt. Securities	%	Investment In Shares & Debentures	%	Total %
2063/64	14581.39	9399.32	64.46	2332.0	16.0	87.41	0.6	81.06
2064/65	17721.92	12462.63	70.32	2113.2	11.92	111.30	0.63	82.87
2065/66	20496.0	14647.29	71.46	1745	8.51	120.99	0.59	80.56
2066/67	23396.19	16664.93	71.22	2954.93	12.63	40.140	0.17	84.02
2067/68	24757.75	17468.19	70.55	4002.1	16.16	40.140	0.16	86.87
2068/69	28881.99	18813.93	65.14	5037.6	17.44	41.60	0.14	82.72

Source: Annual Report of BOKL (Detail in Appendix 1 (III))

Table 4.3 shows the various investments of BOKL over the study period as compared with its total assets. The total assets (total working fund) of BOKL show an increasing trend throughout the study period. The investments in government securities also show an increasing trend. There has been an increase in BOKL'S investment in shares & debentures of other companies up to the year 2065/66 thereafter it starts decreasing in the latest year of study.

The above tables 4.1, 4.2, 4.3, were just the overview of the various investments done by the three banks, and their contribution in the total assets of the concerned banks. Now, the financial analysis of the available data has been presented below.

The following are the financial ratios that have been calculated under this part of data analysis.

4.1.1 Liquidity Ratios

The commercial banks are required to pay to their depositors the amount that they have in their accounts on demand and/or maturity of the accounts. Thus they need to have sufficient liquidity to pay to the depositors. They also need liquidity to fulfill their operational obligations. Below are calculated various liquidity ratios of the three banks under study.

4.1.1.1 Current Ratio

Current ratio indicates the ability of a bank to meet its current obligation. Current ratio is the broad measure of liquidity position of the financial institutions. Current Ratio is calculated by current assets by current liabilities. The widely accepted standard of current ratio is 2:1 but accurate standard depends on circumstances in case of banking and seasonal business ratio such as 1:1 etc. Current ratio of the banks under study have been calculated, and presented below in table.

Table 4.4

Current Ratios (times)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	0.73	0.80	1.09	1.19	1.16	1.15	1.02	0.17	16.86
EBL	1.06	1.07	1.07	1.08	1.07	1.06	1.06	0.14	13.34
BOKL	1.06	1.07	1.09	1.10	1.09	1.09	1.08	0.1	9.25

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 1 (IV))

Table 4.4 shows the current ratios of the three banks under study. Although the optimal standard current ratio is considered to be 2:1, the banks have ratios less than that due to different nature of their business.

The above table shows that NBBL has increasing trend of current ratios except in the year 2067/68 & 2068/69.It is maximum in the year 2066/67 at 1.19 and is the least, even less than 1, in the year 2063/64. EBL has a more consistent current ratio than the other two. The ratio of EBL is the maximum in the year 2066/67 at 1.08. It is the least in the year 2063/64 at 1.06. BOKL has a current ratio in an increasing trend except in the year 2067/68. It is the maximum in the year 2066/67 at 1.10 and the least in the year 2063/64 at 1.06.It seems that in the latest year NBBL stands out to be best able to meet the current obligations with the maximum current ratio.

Studying the mean of the ratios BOKL has had the highest mean ratio of 1.08, followed by EBL with mean 1.06 and then NBBL with 1.02 of the mean ratio. NBBL's coefficient of variation of the current ratios is the greatest among the three with C.V. 16.86, followed by EBL with C.V. 13.34, and then BOKL with C.V. 9.25. The ratios show that NBBL is highly inconsistent with the ratios and BOKL with the most consistent in the ratios.

4.1.1.2 Cash & bank balance to Total Deposit Ratio

Cash & bank balance to total deposit ratio is calculated by dividing cash & bank balance by total deposit. It measures a bank's ability to meet the immediate liquid fund requirement for all unanticipated calls on its deposits.

Very low cash & bank balance to total deposit ratio indicates low efficiency of the bank to meet its liquid fund requirement. A very high ratio is also not desirable because it means the bank has more idle cash than required.

The following table shows the calculated cash & bank balance to total deposit ratio of the three banks under the study period of six years.

Table 4.5

Cash & Bank Balance to Total Deposit Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	12.40	17.67	25.72	20.47	21.41	29.55	21.20	5.50	25.94
EBL	13.25	11.12	18.50	21.17	14.88	20.72	16.60	3.81	22.95
BOKL	10.62	9.08	12.06	8.85	7.99	13.53	10.35	1.96	18.95

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 1 (V))

Table no. 4.5 shows the Total mean, S.D. and C.V. of cash & bank balance to total deposit ratio of the three chosen commercial banks. Contents of the table show the percentage of cash & bank balance to total deposit ratio position of NBBL, EBL and BOKL.

The table shows that NBBL has an increasing trend of cash and bank balance to total deposit ratio except in the years 2066/67 & 2067/68. The ratio is the maximum in the year 2068/69 at 29.55 and the least in the year 2063/64 at 12.40. EBL has fluctuating trend of cash and bank balance to total deposit ratio. The ratio is maximum in the year 2066/67 at 21.17 and the least in the year 2064/65 at 11.12. BOKL has a decreasing trend of cash and bank balance to total deposit ratio throughout the study period except in the year 2068/69. It is maximum in the year 2068/69 at 13.53 and the least in the year 2067/68 at 7.99.

The mean of the ratios is the greatest in the case of NBBL at 21.20 and the least in the case of BOKL at 10.35. It shows that NBBL has the better ability of meeting with the immediate liquid fund requirements than the other two. The coefficient of variation of the ratios in the case of BOKL is the least at 18.95 and that is the greatest in the case of

NBBL at 25.94. It shows that the ratios of NBBL is the least consistent and BOKL the most consistent.

4.1.1.3 Cash & Bank Balance to Current Assets Ratio

Cash and bank balance ratio shows the portion of cash bank balance on current asset ratio, which shows the bank's ability to make quick payment to its customers.

A high ratio indicates that the bank is able to meet its daily cash requirements and vice-versa. But neither a too high ratio nor a too low one is desirable. A too high cash & bank balance to current assets ratio means that the bank has idle cash with it which means only added cost for interest to be paid to its deposits. If the ratio is too low, it might indicate towards the bank's being unable to meet its cash requirements of paying its deposits promptly and adequately.

This ratio of the three banks under study over the study period of the years 2064 to 2069 have been presented below in table.

Table 4.6

Cash & Bank Balance to Current Assets Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	16.36	20.80	21.74	16.63	18	25.12	19.77	3.15	15.93
EBL	11.24	9.95	16.89	19.10	13.37	18.75	14.88	3.59	24.11
BOKL	10.81	10.10	10.86	7.85	6.92	11.93	9.74	1.81	18.56

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 1 (VI))

Table no. 4.6 shows the Total mean, S.D. and C.V. of cash & bank balance to Current Assets ratio of the three chosen commercial banks. Contents of the table show the percentage of cash & bank balance to Current Assets ratio position of NBBL, EBL and BOKL.

The above table shows that the cash & bank balance to current assets ratio of all the three banks have been fluctuating over the years. NBBL has the ratio in increasing trend over the starting three years and decreases in the forth year and then again starts increasing in

the last year of study. The ratio was maximum in the year 2068/69 at 25.12 and the minimum in the year 2063/64 at 16.36. EBL's ratio shows a fluctuating trend. The ratio is highest in the year 2066/67 at 19.10 and the lowest in the year 2064/65 at 9.95.The ratios of BOKL is in decreasing trend except in the year 2065/66.The ratio is maximum in the year 206/69 at 11.93 and minimum in the year 2067/68 at 6.92.

Studying the mean of the ratios shows that NBBL has had the highest mean of cash & bank balance to current assets ratio at 19.77, followed by EBL, and then BOKL with the lowest ratio at 9.74.It shows that liquidity position of NBBL is higher than that of EBL and BOKL. The coefficient of variation of the ratios of EBL is the highest which is 24.11 which shows that EBL has had fluctuating ratios over the study period. The coefficient of variation of the NBBL is the least, only 15.93, which means the ratios of NBBL have been fairly consistent than the other two banks.

4.1.1.4 Investment on Government Securities to Current Assets Ratio

All the commercial banks in Nepal have their investments in government securities. Investment in such is regarded to be safe, but less lucrative than other sectors. Investment in such securities is not as liquid as cash and bank balance, but they are highly marketable. Investment on government securities to current assets ratio shows the portion of current assets that is occupied by investment on government securities.

The following table shows the investment on government securities to current assets ratio of the banks over period of the six years.

Table 4.7

Investment on Government Securities to Current Assets Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	11.62	13.21	14.50	11.47	15.47	18.68	14.15	2.48	17.52
EBL	22.12	18.31	14.10	10.64	15.60	10.98	15.29	4.03	26.40
BOKL	16.36	12.19	8.69	12.90	16.49	17.78	14.06	3.16	22.50

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 1 (VII))

Table no. 4.7 shows the Total mean, S.D. and C.V. of Investment on Government Securities to Current Assets ratio of the chosen commercial banks. Contents of the table show the percentage of Investment on Government Securities to Current Assets ratio position of NBBL, EBL and BOKL.

NBBL's ratio seems to be in fluctuating trend where the ratio is in increasing fashion up to the starting three years and decreases in 2066/67 and then again starts increasing in the last year of study. The ratio was maximum in the year 2068/69 at 18.68 and the minimum in the year 2066/67 at 11.47. Similarly, the ratios of EBL is in decreasing trend for the first four years and then starts increasing in the latest year of study. The ratio is highest in the year 2063/64 at 22.12 and the lowest in the year 2066/67 at 10.64. The ratio of BOKL is in fluctuating trend. The ratio is maximum in the year 2068/69 at 17.78 and the minimum in the year 2065/66 at 8.69.

EBL has had the highest mean of ratios at 15.29, followed by NBBL and BOKL the lowest at 14.06. Thus, we can conclude that EBL has had the greatest portion of its current assets in investment on government securities among the three, and NBBL has had the lowest portion of its current assets in the same. The coefficient of variation of the ratios is the highest in the case of EBL at 26.40, which shows that the ratios have been very inconsistent over the years, followed by BOKL at 22.50, and then that of NBBL the lowest among the three at 17.52.

4.1.1.5 Loans & Advances to current Assets Ratio

Loans & advances play a vital role in a commercial bank. The income from loans & advances has a very big part to play in a banks income and thus profits. The banks collect deposits from public and organizations in lower interest rates and grant loans & advances to other parties in higher interest rates. The income they earn from such loans & advances, the banks uses them in paying interest on their deposits and meeting other operational expenses. Thus, commercial banks are always interested in investing more and more of their current assets in loans & advances.

Loans & Advances to current assets ratio shows the portion invested by commercial bank as loans & advances to other parties over its current assets. This ratio has to be kept in an optimum level. Too high ratio means a large portion of current assets invested as loans & advances, which means increased risks. If the ratio is too low, the banks have to find other sectors that generate income to compensate for the income they could earn if they had more investments in loans & advances.

The table below shows the loans & advances to current assets ratio of the banks.

Table 4.8

Loans & Advances to current Assets Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	61.97	59.04	56.70	63.10	61.71	51.80	59.05	3.92	6.65
EBL	64.26	68.45	65.45	67.34	67.84	64.98	66.38	1.81	2.73
BOKL	65.96	71.89	72.94	75.75	72.01	66.39	70.32	3.05	4.34

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 1 (VIII))

Table No. 4.8 shows the total mean, S.D, and C.V. of loans & advances to current Assets ratio of the chosen three commercial banks. Contents of the table show the percentage of loans & advances to Current Assets ratio position of NBBL, EBL and BOKL.

The above table shows that NBBL has decreasing trend of & Advances to current Assets Ratio except in the year 2066/67. There has been gradual decrease in this ratio in the recent years due to the banks following a more conservative credit policy in the latest years. The ratio is at the peak in the year 2066/67 when it reaches 63.10. NBBL's ratio is the lowest in the year 2068/69 at 51.80. EBL on the other has had the ratio in fluctuating trend. The ratio is the maximum in the year 2064/65 at 68.45 and lowest in the year 2063/64 at 64.26. The ratio has never reached more than 70% of the current assets. Similarly, BOKL's ratio is also in increasing trend except in the last two years of the study. The ratio was maximum in the year 2066/67 at 75.75 and lowest in the year 2063/64 at 65.96.

Studying the mean of the loans & advances to current assets ratio shows that BOKL has the highest mean ratio, 70.32, followed by EBL. NBBL has the lowest mean ratio of 59.05. NBBL has had the highest percentage of coefficient of variation at 6.65%, followed by BOKL at 4.34, and then EBL having the lowest coefficient of variation at 2.73 only, making the most consistent in the loans & advances to current assets ratio.

4.1.2 Assets Management Ratios

The asset management ratios show how much the banks have been able to manage their assets in order to earn high profit as well as to satisfy its customers. These ratios also measure the bank's efficiency to manage its resources as it commands.

The following assets management ratios have been calculated and analyzed in the study.

4.1.2.1 Loans & Advances to Total Deposit Ratio

Loans & advances to total deposit is also known as the C.D. ratio (Credit/ Deposit ratio). This ratio measures the percentage of loans & advances over total deposit. This ratio tells us how much the banks have been able to mobilize their deposits in loans & advances. A higher ratio indicates that the bank has been able to utilize the fund collected in its deposits in the credit sector, but too high ratio is not desirable either for the liquidity point of view. The following table shows the loans & advances to total deposit ratios of the three banks over the six year study period.

Table 4.9

Loans & Advances to Total Deposit Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	46.97	50.14	67.06	77.69	73.42	60.93	62.70	11.31	18.03
EBL	75.13	76.49	71.68	74.61	75.51	71.81	74.20	2.02	2.72
BOKL	75.87	78.71	81	82.03	83.10	75.28	79.32	3.27	4.12

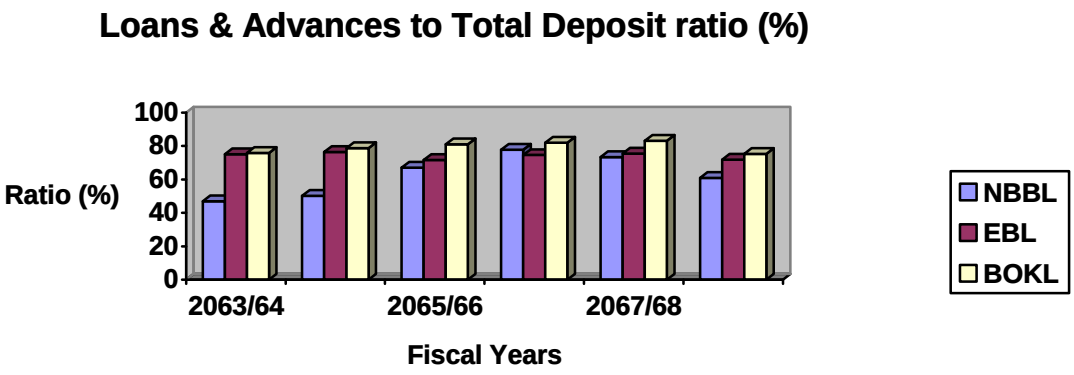
Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 2 (I))

Table no. 4.9 shows the total mean, S.D, and C.V. of loans & advances to total deposit ratio of the chosen three banks i.e. NBBL, EBL and BOKL.

The Loans & advances to total deposit ratio of NBBL is in increasing trend over the study period except in the last two years of study period. The ratio was the maximum in the year 2066/67 at 77.69 and the lowest in the year 2063/64 at 46.97.The ratio of EBL are found to be in fluctuating trend throughout the study period. The ratio is in increasing trend over the first two years. The ratio was maximum in the year 2064/65 at 76.49 and the least in the year 2065/66 at 71.68. Similarly, the ratios of BOKL are in increasing trend throughout the study period. The ratio was maximum in the year 2067/68 at 83.10 and the least in the year 2068/69 at 75.28.

BOKL has the highest mean of the ratios at 79.32, followed by EBL and then NBBL the least at 62.70.It shows that BOKL has strong position regarding the mobilization of Total deposit on loan & advances. EBL has the lowest coefficient of variation at 2.72, which means that the bank loans & advances to total deposit ratios have been very consistent. NBBL seems to be the least consistent in this ratio, with the C.V. of 18.03, the highest among the three.

Figure 1



4.1.2.2 Total Investment to Total Deposit Ratio

The primary focus of the commercial banks is to invest in the credit sector, as apparently, credit sector is generally more lucrative than investing in securities and stock. To avoid idle cash holding, they invest their excess funds in other sectors in the form of investments. Total investment to total deposit ratio measures the portion of deposits with

banks invested in outside sectors, in the form of investment in government securities and that in shares & debentures of other companies. If the ratio is very high, it means that the bank is following a conservative credit policy, and if it is very low, it means that the banks are more focused in investment in loans & advances.

The following table shows the ratio of the banks under study.

Table 4.10

Total Investment to Total Deposit Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	11.02	12.77	22.23	21.01	20.66	23.34	18.50	4.80	25.94
EBL	27.41	21.10	17.85	13.56	18.82	15.73	19.07	4.44	23.28
BOKL	24.15	20.23	15.39	16.09	20.39	20.99	19.54	2.99	15.31

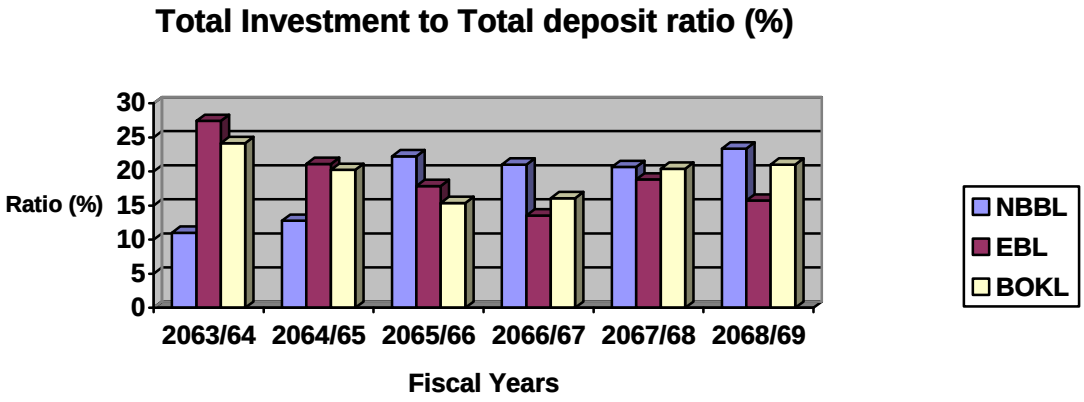
Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 2 (II))

Table no. 4.10 shows the total mean, S.D, and C.V. of total investment to total deposit ratio of the chosen three banks i.e. NBBL, EBL and BOKL.

The total investment to total deposit ratio for NBBL seems to be very fluctuating. The ratio was maximum in the year 2065 /66 at 22.23 and the ratio was lowest in the year 2063/64 at 11.02. Similarly, the total investment to total deposit ratio of EBL is also in fluctuating trend, as the ratio was decreasing in the starting four years and increases in the last year of the study. The ratio was maximum in the year 2063/64 at 27.41 and the ratio was lowest in the year 2066/67 at 13.56. Similarly, the ratios of BOKL is in decreasing trend throughout the period except in the year 2067/68.The ratio was maximum in the year 2063/64 at 24.15 and the lowest in the year 2065/66 at 15.39.

BOKL has the highest mean of the ratios at 19.54, followed by EBL with mean 19.07 and then NBBL the least at 18.50.It shows that BOKL is more successful to utilize its deposit by investing its fund in different securities and other financial and non financial companies. BOKL has the lowest coefficient of variation at 15.31, which means that the banks total investment to total deposit ratios have been very consistent. NBBL seems to be the least consistent in this ratio, with the C.V. of 25.94, the highest among the three.

Figure 2



4.1.2.3 Loans & Advances to Total Working Fund Ratio

For a commercial bank, the total assets mean the total working fund. Loans & advances to total working fund ratio measures the ratio of investment done by the banks in the form of loans & advances over the total assets of the banks. Since investment in loans & advances is the most lucrative allocation of funds for commercial banks, this ratio measures the ratio of the total assets in lucrative business over the whole total assets. In other words, this ratio reflects the extent to which the commercial banks are success in mobilizing their assets on loan & advances for the purpose of income generating. A very high ratio is not desirable since it involves a high ratio of risk involved; and a very low ratio may indicate towards business failure of the bank.

The ratio of the three banks under study over the study period of the years 2064 to 2069 have been presented below in table:

Table 4.11

Loans & Advances to Total Working Fund Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	60.77	58.11	56.04	62.32	60.35	51.21	58.13	3.75	6.45
EBL	63.75	67.55	64.70	66.59	67.17	64.34	65.68	1.62	2.47
BOKL	64.46	70.32	71.46	71.23	70.56	65.14	68.86	2.94	4.27

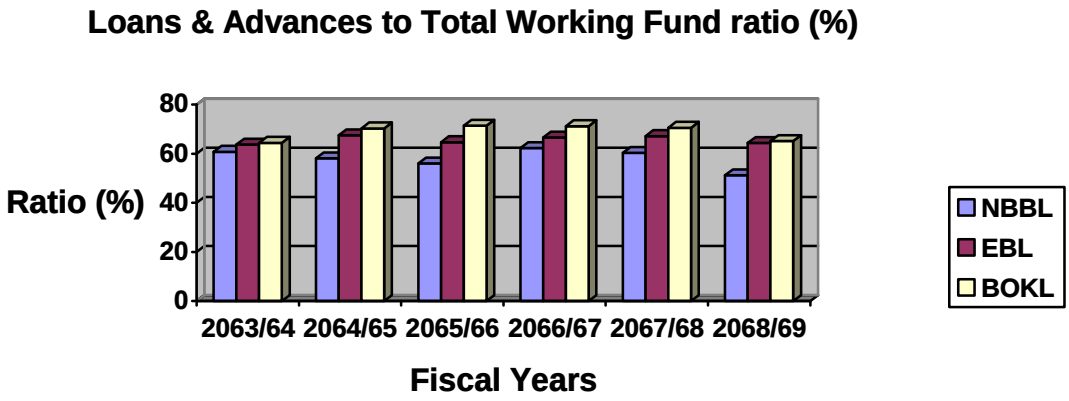
Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 2 (III))

Table no. 4.11 shows the total mean, S.D, and C.V. of loan & advances to total working fund ratio of NBBL,EBL and BOKL.

Loans & Advances to Total Working Fund Ratio of NBBL is the highest in the year 2066/67 at 62.32 and the lowest in the year 2065/66 at 56.04. That of EBL is the highest in the year 2064/65 at 67.55 and the lowest in the year 2063/64 at 63.75. BOKL has the highest ratio in the year 2065/66 at 71.46 and the lowest in the year 2063/64 at 64.46.

The mean of the ratios is the highest of BOKL at 68.86, followed by EBL at 65.68, and then, that of NBBL the lowest at 58.13 indicating that BOKL has done better utilization of funds as loan & advances for the purpose of income generation. In the same manner, coefficient of variation of NBBL is the highest at 6.45 signifying that NBBL has had the most variations in the ratios, followed by BOKL at 4.27 C.V., and then, EBL the lowest C.V at 2.47, making it the most consistent in the ratios among the three banks.

Figure 3



4.1.2.4 Investment on Government Securities to Total working Fund Ratio

Investment in government securities is the risk free investment; however, investment in such is not very lucrative. Commercial banks invest their funds in such securities to utilize their idle cash that on the other hand bears interest. The investment on government securities to total working fund ratio measures the portion of total assets mobilized in risk-free investments in the form of investment in government securities.

The following table shows the ratios of the commercial banks under study.

Table 4.12

Investment in Government Securities to total working Fund Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	11.39	13.01	14.34	11.33	15.09	18.46	13.93	2.5	17.94
EBL	21.95	18.07	13.94	10.52	15.45	10.87	15.13	4.04	26.71
BOKL	16.0	11.92	8.51	12.63	16.16	17.44	13.77	3.09	22.50

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 2 (IV))

Table no. 4.12 shows the total mean, S.D, and C.V. of investment on government securities to total working fund ratio of NBBL,EBL and BOKL.

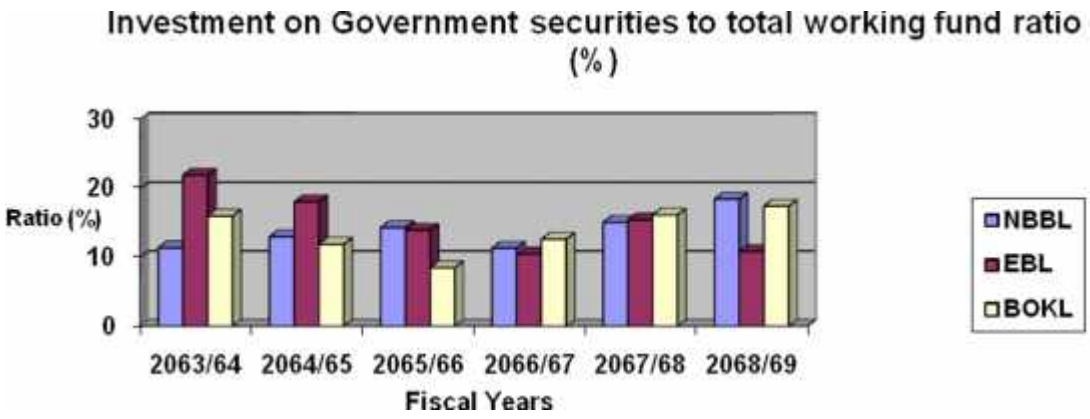
The investment on government securities to total working fund ratio of NBBL show an increasing trend except in the year 2066/67. The ratio is highest in the year 2068/69 at 18.46 and the lowest in the year 2066/67 at only 11.33. Similarly, the investment on government securities to total working fund ratio of EBL is in decreasing trend except in the year 2067/68. The ratio was maximum in the year 2063/64 at 21.95 and the ratio was lowest in the year 2066/67 at 10.52. Similarly, the ratio of BOKL is in fluctuating trend throughout the period. The ratio was maximum in the year 2068/69 at 17.44 and the lowest in the year 2065/66 at 8.51.

Studying the mean of the ratios EBL has had the highest mean at 15.13, and that of BOKL is the lowest at 13.77. In the same manner, coefficient of variation of EBL is the highest at 26.71 signifying that EBL has had the most variations in the ratios, followed by

BOKL, and then NBBL the lowest C.V at 17.94, making it the most consistent in the ratios.

From the above analysis, we can say that EBL is more successful in mobilizing its funds as investment in government securities.

Figure 4



4.1.2.5 Investments on shares & debentures to Total Working Fund Ratio

There are two types of investment i.e. investment in government securities and investment on shares and debentures. Commercial banks also invest their funds in the stock of other companies. This is important for the banks since this allows them to invest their funds in income earning sectors; and this is important for the nation as well since this allows the new companies to establish. Investment in shares & debentures to total working fund ratio measures the ratio of total assets invested in shares & debentures over the whole total assets. It reflects the extent on which the banks are successful to mobilize their total assets on purchase of shares and debentures of other companies to generate incomes and utilize their excess fund.

The following table shows the ratios of the banks over the study period.

Table 4.13

Investment on Shares & Debentures to Total Working Fund Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	2.51	2.06	1.08	2.14	2.56	0.14	1.74	0.87	50.40
EBL	0.089	0.37	0.27	0.24	0.23	0.19	0.23	0.09	38.69
BOKL	0.76	0.6	0.63	0.59	0.17	0.14	0.48	0.22	45.83

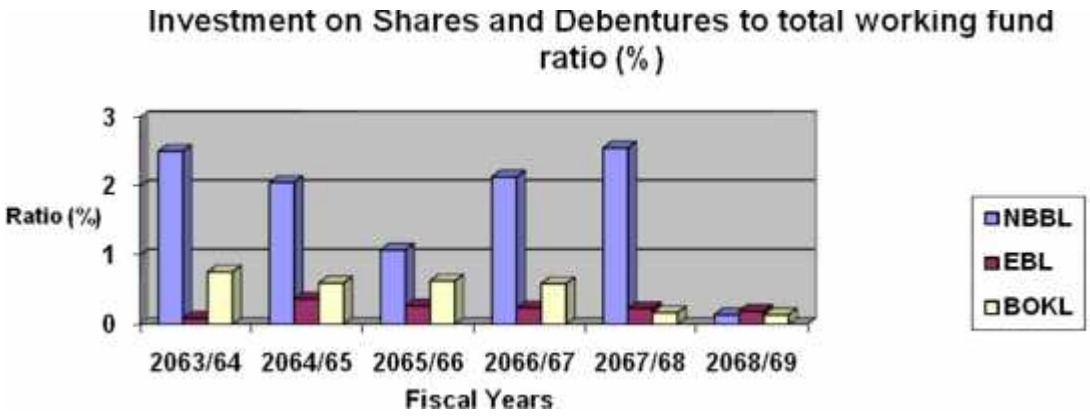
Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 2(V))

Table no. 4.13 shows the total mean, S.D, and C.V. of investment on shares & debentures to total working fund ratio of NBBL,EBL and BOKL.

The Investment on Shares & Debentures to Total Working Fund Ratio of NBBL shows a fluctuating trend. It has the highest ratio in the year 2066/67 at 2.14 and the lowest in the year 2068/69 at 0.14. EBL ratios of investment on Shares & Debentures to Total Working Fund Ratio show a decreasing trend over the study period. The ratio is maximum in the year 2064/65 at 0.37 and minimum in the year 2063/64 at 0.089.The ratio of BOKL also shows a decreasing trend throughout the study period. The ratio is highest in the year 2063/64 at 0.76 and the lowest in the year 2064/65 at 0.6.

NBBL has the highest mean of ratios at 1.74, followed by BOKL at 0.48 and then EBL at 0.23.NBBL C.V. shows 50.40%, followed by BOKL with C.V. 45.83, and then EBL with C.V. 38.69. Studying the above ratios EBL seems to be the least consistent with the highest C.V. and NBBL seems to more consistent than the other two banks.

Figure 5



4.1.2.6. Loan Loss Ratio

When the debtors are unable to pay the loan the loss of loan occurred. It occurs not only because of debtor's failure but also because of failure of recovery of loan by bank. If higher loss is expected then greater loan loss provision is made. Higher ratio leads to low profit and indicates low efficiency of the bank.

The following table shows the ratios of the three banks over the study period.

Table 4.14

Loan Loss Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	82.41	60.48	35.44	19.63	21.29	5.93	37.53	26.26	69.97
EBL	3.06	2.71	2.44	2.17	1.94	1.96	2.38	0.39	14.08
BOKL	3.04	2.23	2.03	2.32	2.80	2.68	2.51	0.4	15.93

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 2 (VI))

Table no. 4.14 shows the total mean, S.D, and C.V. of loan loss ratio of NBBL, EBL and BOKL.

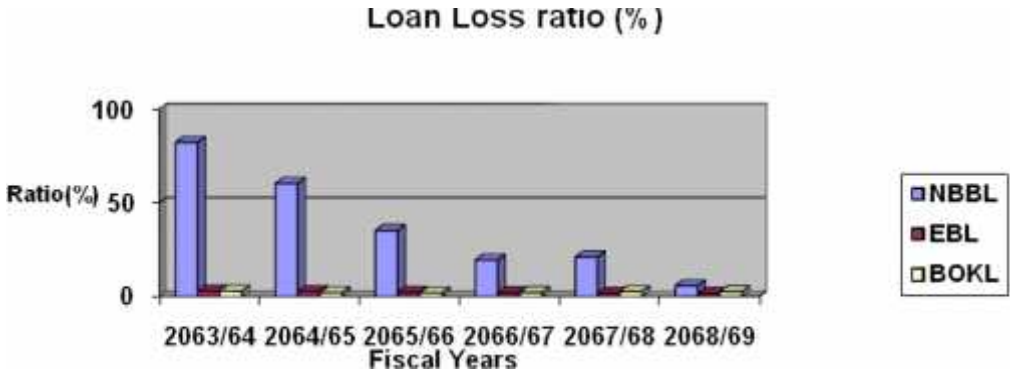
NRB has directed all the commercial bank to classify loan into four different categories on the basis of loan overdue period and as per the present norms of

NRB. Commercial banks need to maintain loan loss provision of 1% for pass loan. 25% for sub-standard, 50% for doubtful and 100% for loss on the basis classification of loan. The table shows that NBBL has an average mean ratio of 37.53%. The ratios are in decreasing trend through out the years. The highest loan loss ratio of the bank is 82.41% in the year 2063/64 and the lowest in the year 2068/69 at 5.93. The S.D of the bank is 26.26 and C.V is 69.97 %.

EBL has an average mean ratio of 2.38%. The ratios are in decreasing trend throughout the study period. It has highest loan loss ratio of 3.06% in the year 2063/64 and lowest in the year 2067/68 at 1.94. S.D of the bank is 0.39 and C.V is 14.08 %.Similarly, BOKL has an average mean ratio of 2.51%. The ratios are in decreasing trend throughout the study period except in the year 2066/67 & 2067/68. It has highest loan loss ratio of 3.04% in the year 2063/64 and lowest in the year 2065/66 at 2.03. S.D of the bank is 0.4 and C.V is 15.93 %.

It is clear from the above comparative table that NBBL has higher mean ratio than that of EBL and BOKL. It means NBBL can earn more profit than EBL and BOKL. NBBL has higher percentage of C.V among the three banks making it the most inconsistent in the ratio. BOKL has C.V of 15.93 and EBL having the C.V of 14.08 % making it the most consistent among the three banks.

Figure 6



4.1.3 Profitability Ratios

Commercial banks are profit-oriented service-sector business organizations. Their main objective is to earn profit providing various banking services to their customers. They are required to earn sufficient profits for various operational and business related matters, as well as to exploit opportunities available in the market. The profitability ratios indicate towards the overall efficiency of the commercial banks. The profitability ratios show the ratio of income as well as net profit over various other variables. The following profitability ratios have been calculated to measure the profit earning capacity of the commercial banks under study.

4.1.31 Return on Loans & Advances Ratio

Return on loans & advances shows the ratio of net profits over the total loans & advances. This ratio thus shows what percentage of the investment in loans & advances could be realized as net profits.

The following table shows the return on loans & advances ratio of the three banks.

Table 4.15

Return on Loans & Advances Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	(24.07)	10.93	32.19	13.08	(1.63)	7.83	6.38	16.96	265.83
EBL	2.17	2.46	2.67	3.02	3.00	3.03	2.72	0.36	13.33
BOKL	2.79	2.90	3.15	3.05	3.46	3.22	3.09	0.28	9.06

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 3 (I))

Table no. 4.15 shows the total mean, S.D, and C.V. of return on Loans & advances ratio of NBBL, EBL and BOKL.

The return on Loans & advances ratio of NBBL show decreasing trend throughout the study period. The ratio is the highest at 32.19 in the year 2065/66. The bank has had negative profit in the year 2063/64 and 2067/68 due to high provisioning the bank had to make for its overdue loans. The ratio of NBBL is the lowest in the year 2063/64 with -

24.07 and in the year 2067/68 with -1.63. EBL's return on Loans & advances ratio is in increasing order, where there is a slight decrease in the ratio in the year 2067/68. The return on Loans & advances ratio is the highest in the year 2068/69 at 3.03 and the lowest in the year 2063/64 at 2.17. BOKL also has had the ratio in increasing order throughout the study period except in the year 2068/69. BOKL has had the ratio highest in the year 2067/68 at 3.46 and lowest in the year 2063/64 at 2.79.

NBBL has the highest mean of ratios at 6.38 which show that it has high net profits over the total loans and advances ratio. And EBL has the lowest mean of ratios at 2.72 showing that it has low net profits over the total loans and advances ratio. The coefficient of Variation of BOKL is the lowest among the three at only 9.06, followed by EBL with 13.33, and NBBL having the highest C.V. with 265.83 making the bank the most inconsistent in the ratio among the three banks.

4.1.3.2 Return on Total Working Fund Ratio

Return on total working fund ratio measures the percentage represented by net profits over the total assets. This ratio shows us how much of the total assets the bank has been able to earn as net profits.

The following table shows the calculation of the ratios of the three banks.

Table 4.16

Return on Total Working Fund Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	(14.63)	6.35	18.04	8.15	(0.98)	4.01	3.49	9.91	284.16
EBL	1.38	1.66	1.73	2.01	2.01	1.95	1.79	0.21	11.96
BOKL	1.80	2.04	2.25	2.18	2.44	2.10	2.13	0.20	9.48

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 3 (II))

Table no. 4.16 shows the total mean, S.D, and C.V. of return on Total working Fund ratio of the chosen banks i.e. NBBL, EBL and BOKL.

The return on Total working fund ratio of NBBL is the highest in the year 2065/66 at 18.04 and the lowest in the years 2063/64 and 2067/68 at -14.63 and -0.98. The ratio of EBL is the highest in the year 2067/68 at 2.01 and the lowest in the year 2063/64 at 1.38. Similarly, the ratio of BOKL is the highest in the year 2067/68 at 2.44 and the lowest in the year 2063/64 at 1.80.

NBBL has the maximum mean of the ratios, which is 3.49, followed by BOKL at 2.13 and with the least mean ratio of EBL with 1.79.It shows that NBBL has strong earning capacity than the other two banks. The coefficient of Variation of BOKL ratio shows consistency with the C.V of 9.48 only. The C.V of EBL is 11.96. It shows that NBBL's C.V proves to be the most inconsistent with 284.16%.

4.1.3.3 Return on Equity

The return on equity shows the ratio of net profits over equity, which is the net worth of the banks. It is the owner's (shareholders) claim of the bank. This ratio measures the efficiency of the banks in using the funds of the owners.

The following table shows the calculation of the return on equity ratios of the three banks under study.

Table 4.17

Return on Equity (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	140.45	(27.21)	193.35	47.73	(6.13)	27.40	45.93	70.91	154.38
EBL	24.67	23.49	28.99	30.15	26.38	26.10	26.63	2.30	8.66
BOKL	26.72	26.93	26.51	24.56	24.85	22.50	25.34	1.64	6.47

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 3 (III))

Table no. 4.17 shows the total mean, S.D, and C.V. of return on Equity of the chosen banks i.e. NBBL, EBL and BOKL.

The return on equity ratios of NBBL shows a decreasing trend throughout the study period except in the year 2065/66. The ratio is the highest at 193.35 in the year 2065/66

and the lowest in the year 2064/65 and 2067/68 at -27.17 & -6.13. EBL's ratios show fluctuating trend of return on equity. The ROE of EBL is maximum in 2066/67 at 30.15 and minimum in the year 2064/65 at 23.49. Similarly, Return on Equity ratios of BOKL also shows fluctuating trend, it was maximum in the year 2064/65 at 26.93 and minimum in the year 2068/69 at 22.50.

NBBL has the highest mean of ratios, which is 45.93. The mean ratio of EBL stands at 26.63. BOKL having the lowest mean of ratios at 25.34. It indicates that NBBL is more successful in mobilizing its capital than the other two. It is clear that NBBL has more earning power than that of EBL & BOKL. NBBL has maximum return on earning which is pleasing to the shareholders and in the case of EBL & BOKL, it is just acceptable.
BOKL's ratio shows consistency with the C.V of 6.47 only. The C.V of EBL is 8.66. It shows that NBBL's C.V proves to be the most inconsistent at 154.38.

4.1.3.4 Total Interest Earned to Total outside Assets Ratio

Interest income is the main income of a commercial bank. Thus, a commercial bank strives at investing its funds in more and more interest-generating investment sectors, in the form of loans & advances. The total interest earned to total outside assets ratio shows what percentage of total outside assets the banks have been able to earn in the form of interest income.

The following table shows the total interest earned to total outside assets ratios of the three banks under study.

Table 4.18

Total Interest Earned to Total outside Assets Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	18.04	12.09	14.97	11.76	13.26	10.76	13.48	2.43	18.02
EBL	6.13	6.61	7.33	9.52	11.26	10.50	8.54	1.47	17.20
BOKL	6.60	6.60	7.73	9.38	10.97	10.89	8.69	1.85	21.34

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 3 (IV))

Table no. 4.18 shows the total mean, S.D, and C.V. of total interest Earned to total outside assets ratio of the chosen banks i.e. NBBL, EBL and BOKL.

Total Interest Earned to Total outside Assets Ratio of NBBL shows a fluctuating trend over the study period. The ratio is the highest in the year 2063/64 at 18.04 and lowest in the year 2068/69 at 10.76. EBL has the ratio in the increasing trend over the study period except in the year 2068/69, where the ratio is highest in the year 2067/68 at 11.16 and lowest in the year 2063/64 at 6.13. BOKL also has the ratio in increasing trend where the ratio is highest in the year 2067/68 at 10.97 and lowest in the year 2063/64 at 6.60.

NBBL has the highest mean of ratios at 13.48, followed by BOKL at 8.69 and EBL with 8.54. Despite having a negative profit in the latest year of study, NBBL nevertheless has been successful at earning good amount of interest income. The coefficient of variation of the ratios of BOKL is the highest at 21.34, followed by NBBL at 18.02, and then EBL with that of 17.20 only, making EBL the most consistent in the ratio.

4.1.3.5 Total Interest Earned to Total Working Fund Ratio

Total interest earned to total working fund ratio of total interest earned over total assets of the banks. This ratio actually reveals the earning capacity of a commercial bank by mobilizing its working fund. A high ratio is the indicator of high earning power of the bank on its total working fund and vice- versa.

The following table shows the total interest earned over total assets ratios of the three banks over the study period.

Table 4.19

Total Interest Earned to Total Working Fund Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	13.53	8.82	11.17	9.31	10.25	7.58	10.11	1.89	18.74
EBL	5.34	5.70	5.92	7.50	9.37	8.88	7.11	1.61	22.75
BOKL	5.61	5.83	6.57	8.0	9.64	9.07	7.45	1.57	21.09

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 3 (V))

Table no. 4.19 shows the total mean, S.D, and C.V. of total interest Earned to total working fund ratio of the chosen banks i.e. NBBL, EBL and BOKL.

NBBL's has the ratios in fluctuating trend. It has the highest ratio in the year 2063/64 at 13.53 and the lowest in the year 2068/69 at 7.58.EBL has the ratios in increasing fashion throughout the study period except in the year 2068/69. EBL has the highest ratio in the year 2067/68 at 9.37 and the lowest in the year 2063/64 at 5.34. Similarly, BOKL also has the ratios in increasing trend. The ratio is highest in the year 2067/68 at 9.64 and the lowest in the year 2063/64 at 5.61.

NBBL has the highest mean of ratios, which is 10.11, followed by BOKL at 7.45 and EBL with 7.11. NBBL nevertheless has been successful at earning good amount of interest income. The coefficient of Variation is the highest in EBL with 22.75, followed by BOKL at 21.09 and NBBL with 18.74 only, making NBBL the most consistent in the ratio.

4.1.3.6 Total Interest Earned to Total Operating Income Ratio

Total Interest Earned to total operating income ratio is calculated to find out the ratio of interest income of firm. It indicates how efficiently the bank has mobilized its resources to bear the interest on invested assets.

The following table shows the ratios of the three banks over the study period.

Table 4.20

Total Interest Earned to Total Operating Income Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	123.73	101.44	106.51	124.61	149.17	189.50	132.49	29.75	22.45
EBL	136.02	127.99	141.54	160.91	197.49	176.26	156.70	24.32	15.52
BOKL	120.96	119.83	120.89	139.33	155.15	170.70	137.81	19.48	14.14

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 3 (VI))

Table no. 4.20 shows the total mean, S.D, and C.V. of total interest Earned to total operating income ratio of the chosen banks i.e. NBBL, EBL and BOKL.

NBBL's ratios is in increasing trend. The ratio seems increasing in the last three years. The ratio is the highest in the year 2068/69 at 189.50 and the lowest in the year 2064/65 at 101.44. EBL has the ratio in an increasing trend throughout the study period except in the year 2064/65 & 2068/69. The ratio is the highest in the year 2067/68 at 197.49 and lowest in the year 2064/65 at 127.99. Similarly, BOKL also has an increasing trend of the ratios throughout the study period. The ratio is maximum in the year 2068/69 where the ratio reaches at 170.70 and minimum in the year 2064/65 at 119.83.

Studying the mean of the ratios, EBL has the highest ratio at 156.70, followed by BOKL at 137.81 and then NBBL's ratio at 132.49. Studying the coefficient of Variation, NBBL's C.V seems to be the highest among the three at 22.45 %, followed by EBL at 15.52 and then of BOKL at 14.14%. NBBL seems to be the most inconsistent among the three banks as it has highest percentage of Coefficient of Variation (C.V.).

4.1.3.7 Total Interest Paid to Total Working Fund Ratio

Deposits are the main source of funds for the commercial banks. They have to pay interest on such deposits as well as to borrowing from outside. It however depends on how much they have to pay as interest expense on their deposit composition. The total interest paid to total working fund ratio shows the ratio of total interest paid over the total assets.

The following table shows the ratios of the banks under the study.

Table 4.21

Total Interest Paid to Total Working Fund Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	5.95	4.23	3.42	3.80	5.32	5.14	4.64	0.91	16.63
EBL	2.41	2.33	2.74	3.80	5.48	5.14	3.65	1.27	34.79
BOKL	2.32	2.35	2.74	3.86	4.92	5.14	3.55	1.17	33.06

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 3(VI))

Table no. 4.21 shows the total mean, S.D, and C.V. of total interest Paid to total operating income ratio of the chosen banks i.e. NBBL, EBL and BOKL.

NBBL's ratios show a fluctuating trend. The ratio seems increasing in the last three years. The ratio is the highest in the year 2063/64 at 5.95 and 2067/68 at and 5.32 and the lowest in the year 2065/66 at 3.42.EBL has the ratio in an increasing trend throughout the study period except in the year 2068/69. The ratio is the highest in the year 2067/68 at 5.48 and lowest in the year 2064/65 at 2.33. Similarly, BOKL also has a increasing trend of the ratios throughout the study period. The ratio is maximum in the year 2068/69 where the ratio reaches at 5.14 and minimum in the year 2063/64 at 2.32.

Studying the mean of the ratios, NBBL has the highest mean ratio at 4.64, followed by EBL at 3.65 and then BOKL's ratio at 3.55. Studying the coefficient of Variation, EBL's C.V seems to be the highest among the three at 34.79, followed by BOKL and then of NBBL. EBL seems to be the most inconsistent among the three banks.

4.1.4 Risk ratios

The possibility of risk makes bank's investment a challenging task. Bank has to take risk to get return on investment. It increases effectiveness and profitability of the bank. If a bank expects high return on its investment, it has to accept the risk and manage it efficiently.

Through following ratios, effort has been made to measure the level of risk.

4.1.4.1 Liquidity Risk Ratio

The liquidity risk ratio measures the level of risk associated with the liquid assets i.e. cash, bank balance, etc that are kept in the bank for the purpose of satisfying the depositor's demand for cash. Higher the ratio, lower the liquidity risks.

The following table shows the liquidity risk ratios of the three banks over the study period.

Table 4.22

Liquidity Risk Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	12.40	17.67	25.72	20.47	21.41	29.55	21.20	5.50	25.94
EBL	13.25	11.12	18.50	21.17	14.88	20.72	16.60	3.81	22.95
BOKL	10.62	9.08	12.06	8.85	7.99	13.53	10.35	1.96	18.95

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 4(I))

Table no. 4.22 shows the total mean, S.D, and C.V. of Liquidity Risk Ratio of the chosen banks i.e. NBBL, EBL and BOKL.

The above table shows that NBBL has also increasing trend of cash and bank balance to total deposit ratio except the year 2066/67.The ratio is maximum in the year 2068/69 at 29.55 and the least in the year 2063/64 at 12.40. EBL has fluctuating trend of cash and bank balance to total deposit ratio. The ratio is the maximum in the year 2066/67 at 21.17 and the least in the year 2064/65 at 11.12. BOKL has a fluctuating trend of cash and bank balance to total deposit ratio throughout the study period. It is maximum in the year 2068/69 at 13.53 and the least in the year 2067/68 at 7.99.

The mean of the ratios is the greatest in the case of NBBL at 21.20 and the least in the case of BOKL at 10.35. It shows that NBBL has the better ability of meeting with the immediate liquid fund requirements than the other two. The coefficient of variation of the ratios in the case of BOKL is the least at 18.95 and that is the greatest in the case of NBBL at 25.94.The C.V. of EBL is 22.95. It shows that the ratios of NBBL are the least consistent and BOKL the most consistent.

4.1.4.2 Credit Risk Ratio

Credit risk ratios measure the possibility that the loan will not be repaid or that investment will deteriorate in quality or go into default with consequent loss to the bank. Actually, credit risk ratio shows the proportion of non performing assets in total loan & advances of the bank.

The following table shows the ratios of the three banks over the study period.

Table 4.23

Credit Risk Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	60.77	58.11	56.04	62.32	60.35	51.21	58.13	3.75	6.45
EBL	63.75	67.55	64.70	66.59	67.17	64.34	65.68	1.62	2.47
BOKL	64.46	70.32	71.46	71.23	70.56	65.14	68.86	2.94	4.27

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 4(II))

Table no. 4.23 shows the Total mean, S.D. and C.V. of credit risk ratio of the chosen commercial banks. Contents of the table show the percentage of loans & advances to total working fund ratio position of NBBL, EBL and BOKL.

Loans & Advances to Total Working Fund Ratio of NBBL is the highest in the year 2066/67 at 62.32 and the lowest in the year 2068/69 at 51.21. That of EBL is the highest in the year 2064/65 at 67.55 and the lowest in the year 2063/64 at 63.75. BOKL has the highest ratio in the year 2065/66 at 71.46 and the lowest in the year 2063/64 at 64.46.

The mean of the ratios is the highest of BOKL at 68.86, and that of NBBL is the lowest at 58.13. In the same manner, coefficient of variation of NBBL is the highest at 6.45 signifying that NBBL has had the most variations in the ratios, and EBL the lowest C.V at 2.47, making it the most consistent in the ratios among the three banks.

4.1.4.3 Capital Risk Ratio

Capital risk ratio measures banks' ability to attract deposits and inter bank funds. It also determines the level of profit, a bank can earn if a bank chooses to take high capital risk. The capital risk is directly related to return on equity.

The following table shows the capital risk ratios of the three banks over the study period.

Table 4.24

Capital Risk Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	(23.55)	(16.49)	6.62	12.87	10.19	11.86	0.25	14.60	5840
EBL	11.19	11.34	11.04	10.56	10.43	11.02	10.93	0.32	2.96
BOKL	12.38	11.47	11.91	11.45	11.62	11.07	11.65	0.41	3.50

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 4(III))

Table no. 4.24 shows the Total mean, S.D. and C.V. of capital risk ratio of the chosen commercial banks. Contents of the table show the percentage of capital risk ratio position of NBBL, EBL and BOKL.

NBBL shows fluctuating trend of capital risk ratio. The ratio was negative in the first two years of the study period. The ratio was maximum in the year 2066/67 at 12.87 and minimum in the year 2063/64 & 2064/65 at -23.55 & -16.49. EBL also shows a fluctuating ratio in terms of capital risk. The ratio is highest in the year 2064/65 at 11.34 and the least in the year 2067/68 at 10.43.Similarly, BOKL has its ratio maximum in the year 2063/64 at 12.38 and the minimum in the year at 2066/67 at 11.45.

The mean of the ratios of NBBL is 0.25. BOKL has the highest mean with 11.65, followed by EBL with mean 10.93. NBBL shows the highest C.V and EBL shows the lowest C.V making it the most consistent among the two banks.

4.1.4.4 Interest Rate Risk Ratio

The main source of profit for a commercial bank is the income through difference between the interest rate it charges on its loans & advances ad the interest rate it gives on its deposits. The interest rate structure determines the asset and liability portfolios of the bank. The possibility of loss due to change in interest rate is known as interest rate risk. Interest rate risk is calculated by dividing the interest sensitive assets (short term securities and various term loans) by interest sensitive liabilities (deposits, excluding current deposit, and borrowings).

The following table shows the calculation of interest rate risk ratio of the commercial banks under study.

Table 4.25

Interest Rate Risk Ratio (%)

Bank	Fiscal Year						Mean	S.D.	C.V. (%)
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69			
NBBL	84.15	86.54	96.04	108.17	100.98	100.88	96.11	8.46	8.80
EBL	111.67	106.79	99.14	94.97	102.64	96.18	101.89	6.03	5.92
BOKL	106.51	111.44	106.67	109.10	110.0	105.41	108.18	2.52	2.33

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 4(IV))

Table no. 4.25 shows the Total mean, S.D. and C.V. of Interest rate risk ratio of the chosen commercial banks. Contents of the table show the percentage of interest rate risk position of NBBL, EBL and BOKL.

NBBL shows increasing trend in interest rate risk except in the year 2067/68 & 2068/69 where it decreases to 100.98 & 100.88. NBBL has the highest interest rate risk ratio in the year 2066/67 at 108.17 and the lowest in the year 2063/64 at 84.15.EBL shows a fluctuating trend. EBL has the highest ratio in the year 2063/64 at 111.67 and the lowest in the year 2066/67 at 94.97. BOKL has the highest ratio in the year 2064/65 at 111.44 and lowest in the year 2068/69 at 105.41.

Studying the mean of the ratios, BOKL has the highest ratio at 108.18, followed by EBL with 101.89, and NBBL with 96.11.BOKL has the highest mean of the interest rate risk ratios among the three banks, as it has more interest earning assets than interest bearing liabilities. NBBL has the highest coefficient of variation at 8.80 making it the most inconsistent in the ratio among the three banks. BOKL has the lowest C.V. with 2.33 making it the most consistent in the ratio.

4.1.5 Growth Ratio

Growth ratios are directly related to the fund mobilization and investment management of a commercial bank. It represents how well the commercial banks are maintaining its economic position. Higher ratio indicates better the performance of the bank and vice-versa.

Under, this section, growth ratio of Total Deposit, loan & advances, Total investment and Net Profit are calculated.

i Growth ratio to Total Deposit

The following table shows the growth ratio of total deposit of the banks over the study period.

Table 4.26

Growth Ratio of Total Deposit (%)

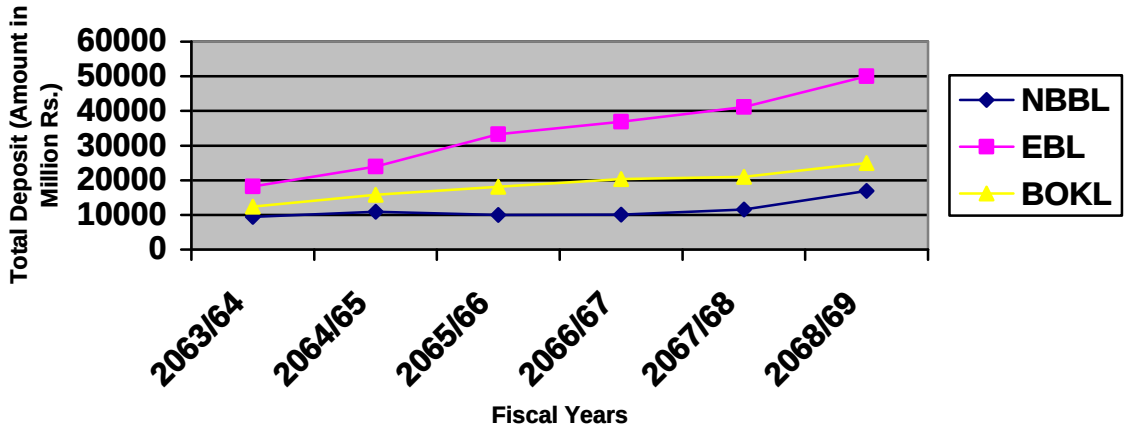
(In Million Rs.)

Bank	Fiscal Year						Growth Ratio
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69	
NBBL	9385.94	10883.65	9997.70	10052.18	11511.67	16952.70	12.6
EBL	18186.25	23976.29	33322.94	36932.31	41127.91	50006.10	22.42
BOKL	12388.92	15833.73	18083.98	20315.83	21018.42	24991.44	15.06

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 5 A (i,ii,iii))

The above table shows that the growth ratio NBBL is less than that of EBL and BOKL. We can see that the growth ratio of NBBL is 12.6 only. EBL has the highest growth ratio of 22.42 followed by BOKL, 15.06. The above position of growth rate indicates that EBL used to increase its deposit collection very tightly than BOKL and NBBL.

Figure 7



ii Growth ratio of Loan & Advances

The following table shows the growth ratios of loan & advances of the banks over the study period.

Table 4.27

Growth Ratio of Loan & Advances (%)

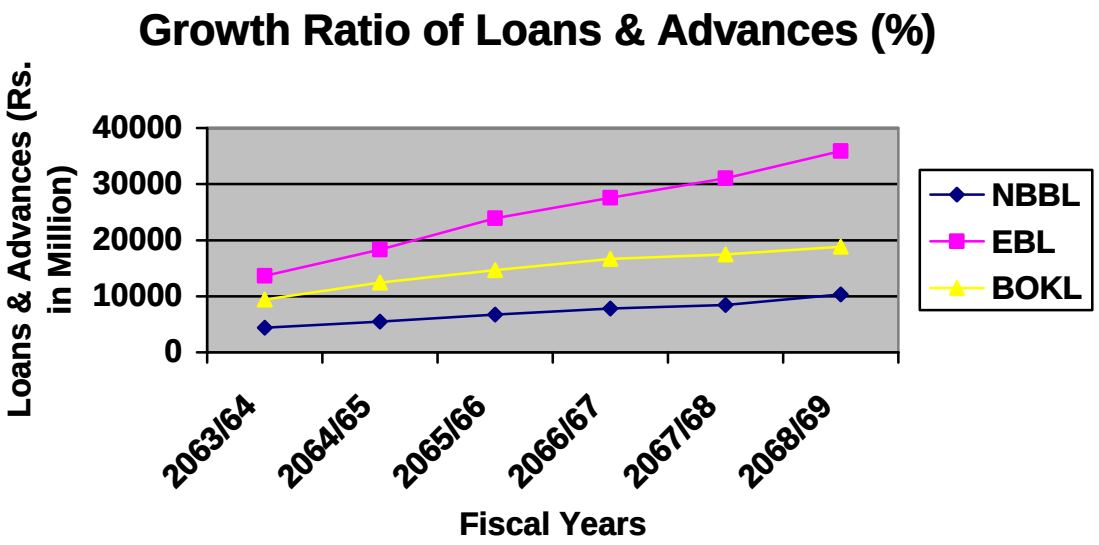
(In Million Rs.)

Bank	Fiscal Year						Growth Ratio
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69	
NBBL	4409.01	5457.8	6704.94	7809.54	8452.73	10330.07	18.63
EBL	13664.8	18339.08	23884.67	27556.35	31057.69	35910.97	21.24
BOKL	9399.32	12462.63	14647.29	16664.93	17468.19	18813.93	14.86

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 5 B (i,ii,iii))

The above table shows the growth ratio of loan & advances. The Growth rate of BOKL and NBBL seems to be quite low i.e. 14.86 & 18.63 respectively. The growth rate of EBL seems to be the highest at 21.24. This position of Growth ratio indicates that the performance of EBL to grant loan & advances is better than that of NBBL & BOKL.

Figure 8



iii Growth Ratio of Total Investment

The following table shows the growth ratio of total investment of the banks over the study period.

Table 4.28

Growth Ratio of Total Investment (%)

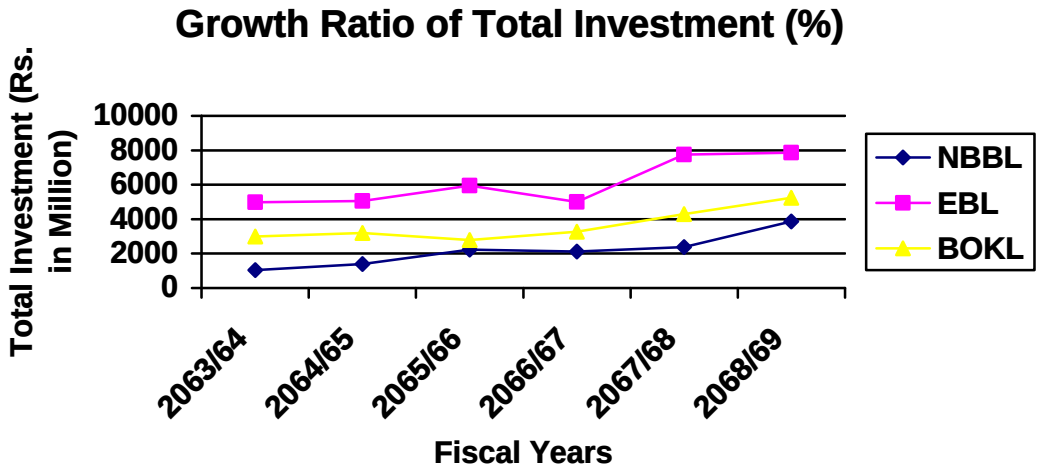
(In Million Rs.)

Bank	Fiscal Year						Growth Ratio
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69	
NBBL	1034.56	1389.90	2222.43	2112.75	2378.27	3868.95	30
EBL	4984.31	5059.55	5948.48	5008.31	7743.93	7863.62	9.4
BOKL	2992.43	3204.06	2783.60	3269.20	4286.60	5246.68	11

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 5 C (i,ii,iii))

The above table shows the growth ratio of Total investment of the chosen three banks. The growth ratio of total investment is the highest in NBBL and the lowest in BOKL. NBBL has the growth ratio of 30, followed by BOKL11, and then of EBL 9.4.

Figure 9



iv Growth ratio of Net Profit

The following table shows the growth ratio of net profit of the banks over the study period.

Table 4.29

Growth Ratio of Net Profit (%)

(In Million Rs.)

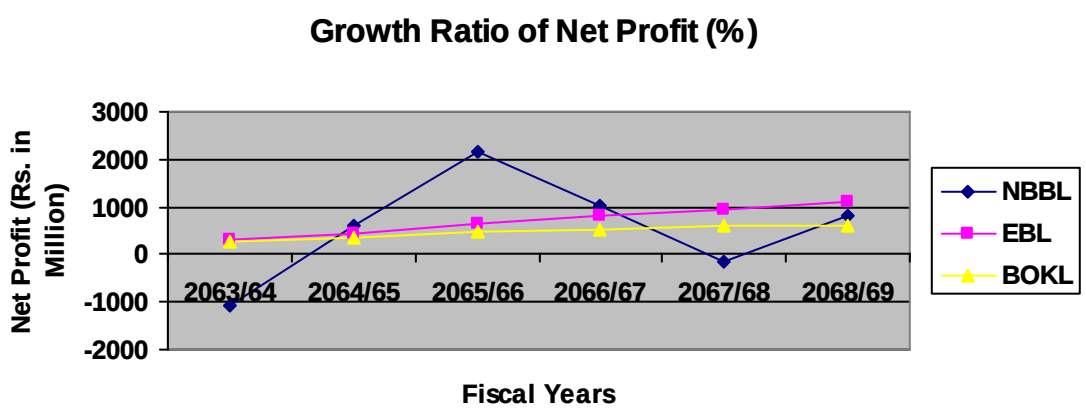
Bank	Fiscal Year						Growth Ratio
	2063/64	2064/65	2065/66	2066/67	2067/68	2068/69	
NBBL	(1061.58)	596.48	2158.10	1021.38	(138.16)	809.47	-194.65
EBL	296.41	451.21	638.73	831.8	931.30	1090.56	29.76
BOKL	262.38	361.49	461.73	509.26	605.15	607.66	18.22

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 5 D (i,ii,iii))

The above table shows the Net Profit of the chosen banks i.e. NBBL, EBL, and BOKL. NBBL shows a negative growth rate in the net profit. EBL has the highest growth rate in the net profit of 29.76, followed by BOKL having growth rate in Net Profit of 18.22.

Studying the above position of growth rate, EBL shows better position than BOKL and NBBL as it has the highest growth rate in its profit, which is followed by BOKL & NBBL.

Figure 10



4.2 Coefficient of Correlation Analysis

Under this, Karl Pearson's co-efficient of correlation is used to find out the relationship between deposit and loan & advances, Total Deposit and total investment, Total outside assets and net profit.

4.2.1 Coefficient of correlation between Total Deposits and Loans &Advances

Coefficient of correlation between Total deposits and loans &advances measures the degree of relationship between these two variables. The purpose of correlation analysis between deposit and loan & advances is to find out whether the deposit is significantly used as loan & advances or not. In this analysis, deposit is considered as independent variables, (x) and loan & advances as dependent variable (y).

Table 4.30

Correlation between Total Deposit and Loans & Advances

Bank	Evaluation Criteria			
	(r)	**(r^2)**	**P.E.**	**6XP.E.**
NBBL	0.82	0.68	0.087	0.52
EBL	0.995	0.991	0.0024	0.015
BOKL	0.981	0.963	0.011	0.06

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 7 I (A, B, C))

From the table, the Coefficient of correlation (r) between NBBL's deposit and loans and advances is found to be 0.82, which shows a positive relationship between the two variables. Moreover, the coefficient of determination (r^2) is found to be 0.68 which means that 68 % of the variation in the dependent variable is explained by the independent variable, which in this case are loans & advances and deposit respectively. The value of probable error is calculated at 0.087, and 6 x P.E. is 0.52 which is less than the value of (r). Thus we can say that the value of (r) is significant and it shows a significant relationship between NBBL's two variables deposit and loans and advances.

In the same way the coefficient of correlation (r) between EBL's deposit and loans and advances is found to be 0.995, which shows a very high positive relationship between the two variables. Moreover, the coefficient of determination (r^2) is found to be 0.991 which means that 99.1 % of the variation in the dependent variable is explained by the independent variable, which in this case are loans & advances and deposit respectively. The value of probable error is calculated at 0.0024, and 6 x P.E. is 0.015 which is less than the value of (r). Thus we can say that the value of (r) is significant and it shows a significant relationship between EBL's two variables deposit and loans and advances.

In the same way the coefficient of correlation (r) between BOKL's deposit and loans and advances is found to be 0.981, which shows a very high positive relationship between the two variables. Moreover, the coefficient of determination (r^2) is found to be 0.963 which means that 96.3 % of the variation in the dependent variable is explained by the independent variable, which in this case are loans & advances and deposit respectively. The value of probable error is calculated at 0.010, and 6 x P.E. is 0.06 which is less than

the value of (r). Thus we can say that the value of (r) is significant and shows a significant relationship between two variables deposit and loans and advances.

From the above table, we can conclude that EBL and BOKL has the highest value of coefficient correlation between the deposit and loans & advances followed by NBBL with 0.82 coefficient of correlation. EBL shows the highest coefficient of determination (r^2) among the three and the difference between the value of (r) and 6 x P.E. is the highest EBL, followed by BOKL and then by NBBL. Thus, from the above analysis, we can say that EBL has been better able to mobilize its deposit and loans and advances than the other two. All the three banks have nevertheless had positive and significant Correlation coefficients.

4.2.1.2 Coefficient of correlation between Total Deposits and Total Investment

Like loans & advances, commercial banks make investments in government securities and shares & debentures of other companies from the fund collected through their deposits. The coefficient of correlation between total deposit and total investment measures the degree of relationship between these two variables. In the correlation analysis, total deposit is the independent variable and total investment is the dependent variable since the amount of investment depends upon the amount available through deposits. The objective of calculating correlation coefficient between these two variables is to justify whether the deposits are significantly used in the form of investments or not, as well as to find out the relationship between them.

The following table shows the computed values of coefficient of correlation (r), coefficient of determination (r^2), Probable error (P.E.), and 6X P.E. of the three banks

Table 4.31

Correlation between Total Deposit and Total Investment

Bank	Evaluation Criteria			
	(r)	**(r^2)**	**P.E.**	**6XP.E.**
NBBL	0.847	0.718	0.08	0.46
EBL	0.82	0.675	0.089	0.53
BOKL	0.81	0.66	0.092	0.55

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 7 II (A, B, C))

From the table, the Coefficient of correlation (r) between NBBL's Total deposit and Total investment is found to be 0.84, which shows a positive relationship between the two variables. Moreover, the coefficient of determination (r^2) is found to be 0.718 which means that 71.8 % of the variation in the dependent variable is explained by the independent variables, which in this case are total deposit and total investment respectively. The value of probable error is calculated at 0.08, and 6 x P.E. is 0.46 which is less than the value of (r) (0.84>0.46) Thus we can say that the value of (r) is significant.

In the same way the coefficient of correlation (r) between EBL's Total deposit and Total investment is found to be 0.822, which shows a positive relationship between the two variables. Moreover, the coefficient of determination (r^2) is found to be 0.675 which means that 67.5 % of the variation in the dependent variable is explained by the independent variables, which in this case are total deposit and total investment respectively. The value of probable error is calculated at 0.089, and 6 x P.E. is 0.53 which is less than the value of (r). Thus we can say that the value of (r) is significant and it shows a significant relationship between EBL's two variables total deposit and total investment.

In the same way the coefficient of correlation (r) between BOKL's Total deposit and Total Investment is found to be 0.81, which shows a positive relationship between the two variables. Moreover, the coefficient of determination (r^2) is found to be 0.662 which means that 6.62 % of the variation in the dependent variable is explained by the independent variable, which in this case is total deposit and total investment respectively.

The value of probable error is calculated at 0.092, and 6 x P.E. is 0.557 which is less than the value of (r), (0.81>0.557). Thus we can say that the value of (r) is significant and shows a significant relationship between two variables total deposit and total investment.

From the above table, we can conclude that NBBL has the highest value of coefficient correlation between the total deposit and total investment followed by EBL with 0.82 coefficient of correlation, followed by BOKL with 0.81. NBBL shows the highest coefficient of determination (r^2) among the three and the difference between the value of (r) and 6 x P.E. is the highest in NBBL, followed by EBL and then by BOKL. Thus, from the above analysis, we can say that NBBL has been better able to mobilize its total deposit and total investment than the other two. All the three banks have nevertheless had positive and significant Correlation coefficients.

4.2.1.3 Coefficient of correlation between Net Profits and Total outside Assets

The correlation analysis also has been performed between the net profits and the total outside assets of the three banks. This explains the relationship between the dependent variable (net profit) and the independent variable (total outside assets), and the effect of independent variable on the dependent one. By outside assets, we mean the total investment done by the commercial banks in the form of total loans & advances, investment in government securities, and investment in shares & debentures of other companies. The investment of funds in outside sectors generates the primary and most important source of income for the commercial banks. Thus the correlation analysis between these two variables is regarded as very important.

The following table shows the calculated coefficients for the various values related to correlation analysis.

Table 4.32

Correlation between Net Profits and Total outside Assets

Bank	Evaluation Criteria			
	(r)	**(r^2)**	**P.E.**	**6XP.E.**
NBBL	0.35	0.127	0.24	1.44
EBL	0.99	0.98	0.005	0.029
BOKL	0.98	0.96	0.011	0.066

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 7 III (A, B, C))

The above table shows that NBBL has 0.35 calculated values for coefficient of correlation (r) between its net profits and total outside assets. The bank has positives relationship between the net profit and total outside assets. The coefficient of determination (r^2) has been found to be 0.127 which means that 12.7% of the variation in the net profits is explained by the total outside assets. The probable error (P.E.) has been calculated 0.24, and 6 x P.E. at 1.44. Here, 6 x P.E. is found to be more than (r) (1.44 >0.35) which means that the value for (r) is not significant. Thus, there is insignificant relationship between the net profits and total outside assets of NBBL.

In case of EBL, the coefficient of correlation (r) is found to be 0.99 which means that there is a high positive relationship between the net profits and total outside assets of EBL. The coefficient of determination (r^2) has been found to be 0.982 which means that 98.2% of the variation in the dependent variable is explained by the independent variable. The probable error (P.E.) has been calculated 0.005, and 6 x P.E. is 0.029. Here, 6 x P.E. is found to be less than (r) (0.99 >0.029) which means that the value for (r) is significant. Thus, we can say that there is very high positive and significant relationship between the net profits and total outside assets of EBL.

BOKL is found to have the coefficient of correlation (r) of 0.98 which means that there is very high positive relationship between the net profits and total outside assets. The coefficient of determination (r^2) has been found to be 0.960 which means that 96.0% of the variation in the dependent variable is explained by the independent variable. The probable error (P.E.) has been calculated 0.010, and 6 x P.E. is 0.066. Here, 6 x P.E. is found to be less than (r) (0.98 >0.066) which means that the value for (r) is significant.

Thus, we can say that there is very high positive and significant relationship between the net profits and total outside assets of BOKL.

Comparing the three banks, EBL is found to have the highest coefficient of correlation (r) between the net profits and total outside assets as well as the highest coefficient of determination (r^2) among the three banks. The calculated coefficient of BOKL is also found to be very high, near to 1 and 100%. The difference between the (r) and 6 x P.E. is found to be the greatest among the three in EBL, making EBL having the most significant value for (r). BOKL is also found to have a high positive relationship between the two variables, and the (r) is also found to be significant. NBBL is found to have positive relationship between the two variables, but the value for (r) is not found to be significant.

4.2.2 Trend Analysis

In the trend analysis, the trend of deposit collection, its utilization in the form of loans & advances and total investment, and the net profit of NBBL, EBL, AND BOKL have been analyzed using the least square method. Here, the forecasting for the next five years from the latest year of study has also been performed. The following assumptions have been made for the projections:

- It has been assumed that all other things remain unchanged.
- The projection holds true when the limitations for least square method is carried out.
- It has been assumed that the economy will run in the present status.
- It has been assumed that the banks will run in the present position.
- NRB directives to the commercial banks will remain unchanged.

4.2.2.1 Trend Analysis of Total Deposits

Using the least square method for trend analysis, the trend values for total deposit for the three banks have been calculated for next five years from 2070 through 2074. The following table shows the trend values of total deposit for NBBL, EBL and BOKL.

Table 4.33

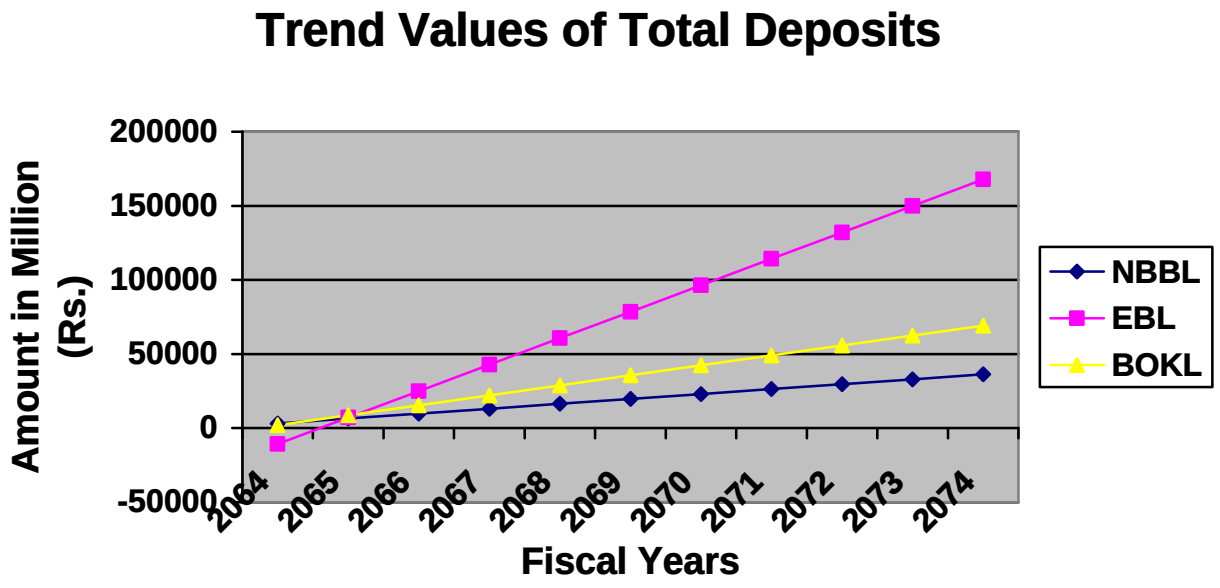
Trend Values of Total Deposits

F/Y	Total Deposits (In Million Rs.)		
	NBBL	**EBL**	**BOKL**
2064	3177.36	(10692.07)	1939.03
2065	6492.43	7154.87	8672.25
2066	9806.79	25001.82	15405.45
2067	13121.15	42848.77	22138.65
2068	16435.5	60695.72	28871.85
2069	19749.87	78542.67	35605.05
2070	23064.23	96389.62	42338.25
2071	26378.59	114236.57	45071.45
2072	29692.95	132083.52	55804.65
2073	33007.31	149930.47	62537.85
2074	36321.67	167777.42	69271.05

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 8 (I, II, III))

The above table shows that the chosen three banks i.e. NBBL, EBL and BOKL have had increasing trend in their deposit collections. According to the table, EBL will have the highest deposit collection among the three banks, by the year 2074 with the deposit of Rs. 124852.1 million followed by BOKL with Rs. 52313.86 million, and NBBL with Rs. 15838.15 million .The following is the presentation of the trend values of total deposits of the three banks in a chart form.

Figure 11


Trend Values of Total Deposits
Amount in Million (Rs.)
200000
150000
100000
50000
0
-50000
2064
2065
2066
2067
2068
2069
2070
2071
2072
2073
2074
Fiscal Years
NBBL
EBL
BOKL

4.2.2.2 Trend Analysis of Loans & Advances

Trend values of loans & advances of the three banks calculated for 6 years, from 2064 to 2069 as well as forecasted values of loans & advances for 5 years from 2070 to 2074 have been shown below.

Table 4.34

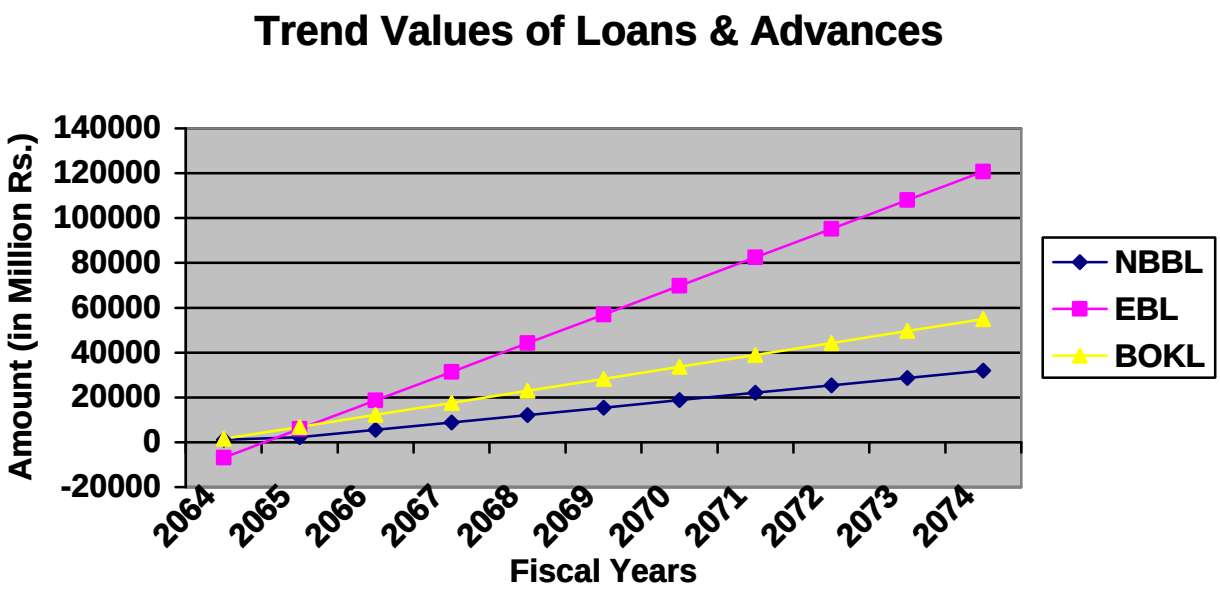
Trend Values of Loans & Advances

F/Y	Loans & Advances (In Million Rs.)		
	NBBL	**EBL**	**BOKL**
2064	4409.01	(6819.1)	1553.65
2065	5457.8	5936.06	6895.94
2066	6704.94	18691.22	12238.23
2067	7809.54	31446.38	17580.52
2068	8452.73	44201.54	22922.81
2069	10330.07	56956.7	28265.10
2070	18771.62	69711.86	33607.39
2071	22079.51	82467.02	38949.68
2072	25387.40	95222.18	44291.97
2073	28695.29	107977.34	49634.26
2074	32003.18	120732.5	54976.55

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 9 (I, II, III))

The above table shows the trend values of loans & advances for the chosen banks under study. The forecasted value for loans & advances for NBBL for the year 2074 will be Rs. 23269.44million. EBL is expected to have Rs. 93307.57 million worth of loans & advances, and BOKL will have that amounting to Rs. 46672.47 million. From the above table, it is clear that EBL is expected to have the highest amount of loans & advances by 2074, followed by BOKL, and then NBBL .The following is the presentation of the trend values of loans & advances of the banks in a chart form.

Figure 12


Trend Values of Loans & Advances
Amount (in Million Rs.)
140000
120000
100000
80000
60000
40000
20000
0
-20000
2064
2065
2066
2067
2068
2069
2070
2071
2072
2073
2074
Fiscal Years
NBBL
EBL
BOKL

4.2.2.3 Trend Analysis of Total Investment

Using the least square method, the trend values of the total investment of the three banks have been calculated from 2064 to 2069, and forecasted values for the same for 5 years, from 2070 to 2074 have been calculated. The following table shows the trend values for the total investment for the banks under study.

Table 4.35

Trend Values of Total Investment

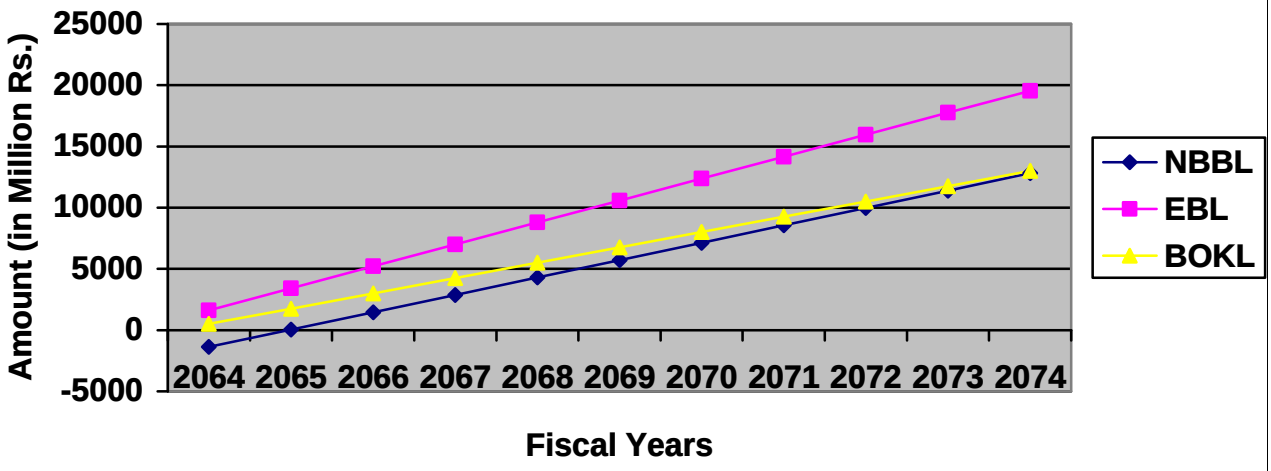
F/Y	Total Investment (In Million Rs.)		
	NBBL	**EBL**	**BOKL**
2064	(1379.54)	1620.76	504.49
2065	39.4	3413.0	1754.86
2066	1458.34	5205.24	3005.23
2067	2877.28	6997.48	4255.60
2068	4296.22	8789.72	5505.97
2069	5715.16	10581.96	6756.34
2070	7134.1	12374.2	8006.71
2071	8553.04	14166.44	9257.08
2072	9971.98	15958.68	10507.45
2073	11390.92	17750.92	11757.82
2074	12809.86	19543.16	13008.19

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 10 (I, II, III))

The table shows that the chosen three banks i.e. NBBL, EBL and BOKL show an increasing trend in their trend values of their total investment. NBBL is forecasted to have the total investment of Rs. 7283.98 million by the year 2074. EBL is forecasted to have the total investment of of Rs. 14497.71 million by the year 2074 and BOKL of Rs. 7552.7million by the same year. Thus, this analysis shows that EBL will have the highest total investments by the year 2074, followed by BOKL and NBBL. The following figure shows the demonstration of the above trend values in a chart form.

Figure 13

Trend values of Total Investment



4.2.2.4 Trend Analysis of Net Profit

The net profit of the three banks for 6 years from 2064 through 2069, and then forecasting of the same for the next five years, from 2070 to 2074 have been presented in the following table.

Table 4.36

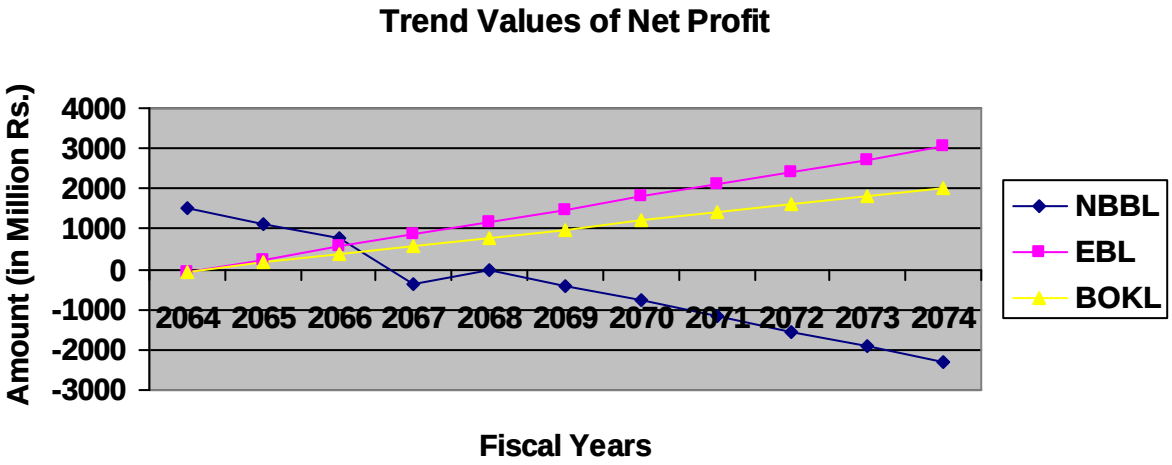
Trend Values of Net Profit

F/Y	Net Profit (In Million Rs.)		
	NBBL	**EBL**	**BOKL**
2064	1522.885	(72.80)	(53.91)
2065	1139.42	238.98	154.83
2066	755.99	550.77	363.57
2067	(372.56)	862.56	572.31
2068	(10.86)	1174.35	781.05
2069	(394.29)	1486.14	989.79
2070	(777.72)	1797.93	1198.53
2071	(1161.15)	2109.72	1407.27
2072	(1544.58)	2421.51	1616.01
2073	(1928.01)	2733.30	1824.75
2074	(2311.44)	3045.09	2033.49

Source: Annual Report of NBBL, EBL & BOKL (Detail in Appendix 11 (I, II, III))

The above table shows that the trend values of net profit for the chosen two banks are in increasing trend. The trend values of net profit for NBBL are in decreasing trend. NBBL is expected to earn a loss of Rs. 2644.04 million by the year 2074. EBL's Net profit shows a continuous increasing trend. EBL is expected to make a net profit of Rs. 3270.45 million by the year 2074. BOKL is forecasted to have a net profit of Rs. 1773.28 million by the same year.

Figure 14


Trend Values of Net Profit
Amount (in Million Rs.)
4000
3000
2000
1000
0
-1000
-2000
-3000
2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074
Fiscal Years
NBBL
EBL
BOKL

4.2.3 Testing of Hypothesis

Here, under testing of hypothesis, it has been tried to test the significance regarding the parameter of the population on the basis of sample drawn from the population. The following steps have been carried out for the testing of hypothesis.

i) Formulating hypothesis – (a) null hypothesis and (b) alternative hypothesis

ii) Computing the test statistic

iii) Fixing the level of significance

iv) Finding the critical region

v) Deciding two- tailed or one-tailed test

vi) Decision making

4.2.3.1 Test of Hypothesis on Loans & Advances to Total Deposit Ratio of NBBL and EBL

Let, the loans & advances to total deposit ratio of NBBL and EBL be X1 and X2 respectively.

Table 4.37

Test of Hypothesis on Loans & Advances to Total Deposit Ratio of NBBL and EBL

F/Y	NBBL			EBL		
	X_1	d_1	d_1^2	X_2	d_2	d_2^2
2063/64	46.97	(15.73)	247.43	75.13	0.93	0.87
2064/65	50.14	(12.56)	157.75	76.49	2.29	5.24
2065/66	67.06	4.36	19.00	71.68	(2.52)	6.35
2066/67	77.69	14.99	224.70	74.61	0.41	0.17
2067/68	73.42	10.72	114.91	75.51	1.31	1.71
2068/69	60.93	(1.77)	3.13	71.81	(2.39)	5.71
Total	**376.21**	**0.00**	**748.22**	**445.23**	**0**	**20.05**
Mean	**62.70**			**74.20**		

Source: Annual Report of NBBL & EBL

Now,

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum d_1^2 - \frac{(\sum d_1)^2}{n_1} + \sum d_2^2 - \frac{(\sum d_2)^2}{n_2}\right]$$

$$= \frac{1}{6+6-2}\left[784.92 - \frac{(0)^2}{6} + 20.05 - \frac{(0)^2}{6}\right]$$

$$= \frac{1}{10}(784.92 + 20.05)$$

$$= 76.89$$

Now,

Null Hypothesis (Ho): $\mu x_1 = \mu x_2$; i.e. there is no significant difference between the mean of loans & advances to total deposit ratio of NBBL and EBL.

Alternative Hypothesis (H_1): $\mu x_1 \neq \mu x_2$; i.e. there is significant difference between the mean of loans & advances to total deposit ratio of NBBL and EBL.

Under Ho, the test statistic is,

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{S^2\left[\frac{1}{n_1} + \frac{1}{n_2}\right]}}$$ with degree of freedom (d.f) $n_1 + n_2 - 2$

$$= \frac{62.70 - 74.20}{\sqrt{76.89\left[\frac{1}{6} + \frac{1}{6}\right]}}$$

$$= \frac{-11.5}{5.06}$$

$$= 2.27$$

Tabulated value for't' (two tailed test) at 5% level of significance for ($n_1 + n_2 - 2 = 10$) d.f is 2.228

Decision: Here, the calculated value for |t| 2.27 is more than tabulated value 2.228. Thus, Null hypothesis is rejected i.e. alternative hypothesis is accepted which means that there is significance relationship between the mean ratios of loans & advances to total deposit ratio of NBBL and EBL.

4.2.3.2 Test of Hypothesis on Loan & Advances to Total Deposit Ratio of NBBL and BOKL

Let, the loans & advances to total deposit ratio of NBBL and BOKL be X_1 and X_2 respectively.

Table 4.38

Test of Hypothesis on Loan & Advances to Total Deposit Ratio of NBBL and BOKL

F/Y	NBBL			BOKL		
	X_1	d_1	d_1^2	X_2	d_2	d_2^2
2063/64	46.97	(15.73)	247.43	75.87	(3.45)	18.25
2064/65	50.14	(12.56)	157.75	78.71	(0.61)	2.05
2065/66	67.06	4.36	19.00	81	1.68	0.73
2066/67	77.69	14.99	224.70	82.03	2.71	3.56
2067/68	73.42	10.72	114.91	83.10	3.78	8.76
2068/69	60.93	(1.77)	3.13	75.28	(4.04)	16.32
Total	**376.21**	**0.00**	**748.22**	**475.96**	**0**	**53.03**
Mean	**62.70**			**79.32**		

Source: Annual Report of NBBL & BOKL

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum d_1^2 - \frac{(\sum d_1)^2}{n_1} + \sum d_2^2 - \frac{(\sum d_2)^2}{n_2}\right]$$

$$= \frac{1}{6+6-2}\left[784.92 - \frac{(0)^2}{6} + 53.03 - \frac{(0)^2}{6}\right]$$

$$= \frac{1}{10}(784.92 + 53.03)$$

$$= 80.19$$

Now,

Null Hypothesis (Ho): $\mu x_1 = \mu x_2$; i.e. there is no significant difference between the mean of loans & advances to total deposit ratio of NBBL and BOKL.

Alternative Hypothesis (H_1): $\mu x_1 \neq \mu x_2$; i.e. there is significant difference between the mean of loans & advances to total deposit ratio of NBBL and BOKL.

Under Ho, the test statistic is,

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{S^2\left[\frac{1}{n_1} + \frac{1}{n_2}\right]}}$$ with degree of freedom (d.f) $n_1 + n_2 - 2$

$$= \frac{62.70 - 79.32}{\sqrt{80.19\left[\frac{1}{6} + \frac{1}{6}\right]}}$$

$$= \frac{-16.62}{\sqrt{26.73}}$$

$$= \frac{-16.62}{5.17}$$

$$= -3.21$$

Tabulated value for 't' (two tailed test) at 5% level of significance for ($n_1 + n_2 - 2 = 10$) d.f is 2.228.

Decision: Here, the calculated value for |t| 3.241 is more than tabulated value 2.228. Thus, Null hypothesis is rejected i.e. alternative hypothesis is accepted which means that there is significance relationship between the mean ratios of loans & advances to total deposit ratio of NBBL and BOKL.

4.2.3.3 Test of Hypothesis on Total Investment to Total Deposit Ratio of NBBL and EBL

Let, the total investment to total deposit ratios of NBBL and EBL be X_1 and X_2 respectively.

Table 4.39

Test of Hypothesis on Total Investment to Total Deposit Ratio of NBBL and EBL

F/Y	NBBL			EBL		
	X_1	d_1	d_1^2	X_2	d_2	d_2^2
2063/64	11.02	-7.48	55.95	27.41	8.34	69.55
2064/65	12.77	-5.73	32.83	21.10	2.03	4.12
2065/66	22.23	3.73	13.91	17.85	-1.22	1.48
2066/67	21.01	2.51	6.30	13.56	-5.51	30.36
2067/68	20.66	2.16	4.66	18.82	-0.25	0.062
2068/69	23.34	4.84	23.42	15.73	-3.34	11.15
Total	**111.03**	**0**	**137.07**	**114.47**	**0**	**116.72**
Mean	**18.50**			**19.07**		

Source: Annual Report of NBBL & EBL

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum d_1^2 - \frac{(\sum d_1)^2}{n_1} + \sum d_2^2 - \frac{(\sum d_2)^2}{n_2}\right]$$

$$= \frac{1}{6+6-2}\left[137.07 - \frac{(0)^2}{6} + 116.72 - \frac{(0)^2}{6}\right]$$

$$= \frac{1}{10}\ (137.07 + 116.72)$$

$$= 25.37$$

Now,

Null Hypothesis (Ho): $\mu x_1 = \mu x_2$; i.e. there is no significant difference between the mean of total investment to total deposit ratio of NBBL and EBL.

Alternative Hypothesis (H_1): $\mu x_1 \neq \mu x_2$; i.e. there is significant difference between the mean of total investment to total deposit ratio of NBBL and EBL.

Under Ho, the test statistic is,

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{S^2\left[\frac{1}{n_1}+\frac{1}{n_2}\right]}}$$ with degree of freedom (d.f) $n_1 + n_2 - 2$

$$= \frac{18.50 - 19.07}{\sqrt{263.53\left[\frac{1}{6}+\frac{1}{6}\right]}}$$

$$= \frac{-0.57}{\sqrt{8.46}}$$

$$= \frac{-0.57}{2.91}$$

= - 0.19

Tabulated value for't' (two tailed test) at 5% level of significance for ($n_1 + n_2 - 2 = 10$) d.f is 2.228

Decision: Here, the calculated value for |t| 0.19 is less than tabulated value 2.228. Thus, Null hypothesis is accepted i.e. alternative hypothesis is rejected which means that there is no significance relationship between the mean ratios of loans & advances to total deposit ratio of NBBL and EBL.

4.2.3.4 Test of Hypothesis on Total Investment to Total Deposit Ratio of NBBL and BOKL

Let, the total investment to total deposit ratios of NBBL and BOKL be X_1 and X_2 respectively.

Table 4.40

Test of Hypothesis on Total Investment to Total Deposit Ratio of NBBL and BOKL

F/Y	NBBL			BOKL		
	X_1	d_1	d_1^2	X_2	d_2	d_2^2
2063/64	11.02	-7.48	55.95	24.15	4.61	21.25
2064/65	12.77	-5.73	32.83	20.23	0.69	0.47
2065/66	22.33	3.73	13.91	15.39	-4.15	17.22
2066/67	21.01	2.51	6.30	16.09	-3.45	11.90
2067/68	20.66	2.16	4.66	20.39	0.85	0.72
2068/69	23.34	4.84	23.42	20.99	1.45	2.10
Total	**111.03**	**0**	**137.07**	117.24	0	53.66
Mean	**18.50**			19.54		

Source: Annual Report of NBBL & BOKL

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum d_1^2 - \frac{(\sum d_1)^2}{n_1} + \sum d_2^2 - \frac{(\sum d_2)^2}{n_2}\right]$$

$$= \frac{1}{6+6-2}\left[137.07 - \frac{(0)^2}{6} + 53.66 - \frac{(0)^2}{6}\right]$$

$$= \frac{1}{10}(137.07 + 53.66)$$

$$= 19.07$$

Now,

Null Hypothesis (Ho): $\mu x_1 = \mu x_2$; i.e. there is no significant difference between the mean of total investment to total deposit ratio of NBBL and BOKL.

Alternative Hypothesis (H1): $\mu x_1 \neq \mu x_2$; i.e. there is significant difference between the mean of total investment to total deposit ratio of NBBL and BOKL.

Under Ho, the test statistic is,

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{S^2\left[\frac{1}{n_1}+\frac{1}{n_2}\right]}}$$ with degree of freedom (d.f) $n_1 + n_2 - 2$

$$= \frac{18.50 - 19.54}{\sqrt{19.07\left[\frac{1}{6}+\frac{1}{6}\right]}}$$

$$= \frac{-1.04}{\sqrt{6.35}}$$

$$= \frac{-0.57}{2.52}$$

$$= -0.41$$

Tabulated value for't' (two tailed test) at 5% level of significance for ($n_1 + n_2 - 2 = 10$) d.f is 2.228

Decision: Here, the calculated value for |t| 0.41 is less than tabulated value 2.228. Thus, Null hypothesis is accepted i.e. alternative hypothesis is rejected which means that there

is no significance relationship between the mean ratios of total investment to total deposit ratio of NBBL and BOKL.

4.2.3.5 Test of Hypothesis on Investment on Government securities to Current Assets Ratio of NBBL and EBL

Let, the Investment on Government Securities to current assets ratios of NBBL and EBL be X_1 and X_2 respectively.

Table 4.41

Test of Hypothesis on the Inv. on Government Securities to current assets ratio of NBBL and EBL

F/Y	NBBL			EBL		
	X_1	d_1	d_1^2	X_2	d_2	d_2^2
2063/64	11.62	-2.53	6.40	22.12	6.83	46.64
2064/65	13.21	-0.94	0.88	18.31	3.02	9.12
2065/66	14.50	0.35	0.12	14.10	-1.19	1.41
2066/67	11.47	-2.68	7.18	10.64	-4.65	21.62
2067/68	15.43	1.28	1.63	15.60	0.31	0.096
2068/69	18.68	4.53	20.52	10.98	4.31	18.58
Total	**84.91**	**0**	**36.73**	**91.75**	**0**	**97.46**
Mean	**14.15**			15.29		

Source: Annual Report of NBBL & EBL

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum d_1^2 - \frac{(\sum d_1)^2}{n_1} + \sum d_2^2 - \frac{(\sum d_2)^2}{n_2}\right]$$

$$= \frac{1}{6+6-2}\left[36.73 - \frac{(0)^2}{6} + 97.46 - \frac{(0)^2}{6}\right]$$

$$= \frac{1}{10}(36.73 + 97.46)$$

$$= 13.41$$

Now,

Null Hypothesis (Ho): $\mu x_1 = \mu x_2$; i.e. there is no significant difference between the mean of investment on government securities to current assets ratio of NBBL and EBL.

Alternative Hypothesis (H1): $\mu x_1 \neq \mu x_2$; i.e. there is significant difference between the mean of investment on government securities to current assets ratio of NBBL and EBL.

Under Ho, the test statistic is,

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{S^2\left[\frac{1}{n_1} + \frac{1}{n_2}\right]}}$$ with degree of freedom (d.f) $n_1 + n_2 - 2$

$$= \frac{14.15 - 15.29}{\sqrt{13.41\left[\frac{1}{6} + \frac{1}{6}\right]}}$$

$$= \frac{-1.14}{\sqrt{4.47}}$$

$$= \frac{-1.14}{2.11}$$

$$= -0.54$$

Tabulated value for't' (two tailed test) at 5% level of significance for ($n_1 + n_2 - 2 = 10$) d.f is 2.228

Decision: Here, the calculated value for |t| 0.54 is less than tabulated value 2.228. Thus, Null hypothesis is accepted i.e. alternative hypothesis is rejected which means that there is no significance relationship between the mean ratios of investment on government securities to current assets ratio of NBBL and EBL.

4.2.3.6 Test of Hypothesis on Investment on Government securities to Current Assets Ratio of NBBL and BOKL

Let, the investment on government securities to current assets ratios of NBBL and BOKL be X_1 and X_2 respectively.

Table 4.42

Test of Hypothesis on the Inv. on Government Securities to current assets ratio of NBBL and BOKL

F/Y	NBBL			BOKL		
	X_1	d_1	d_1^2	X_2	d_2	d_2^2
2063/64	11.62	-2.53	6.40	16.36	2.3	5.29
2064/65	13.21	-0.94	0.88	12.19	-1.87	3.50
2065/66	14.50	0.35	0.12	8.69	-5.37	28.83
2066/67	11.47	-2.68	7.18	12.90	-1.16	1.34
2067/68	15.43	1.28	1.63	16.49	2.43	5.90
2068/69	18.68	4.53	20.52	17.78	3.72	13.83
Total	**84.91**	**0**	**36.73**	**84.41**	**0**	**58.69**
Mean	**14.15**			14.06		

Source: Annual Report of NBBL & BOKL

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum d_1^2 - \frac{(\sum d_1)^2}{n_1} + \sum d_2^2 - \frac{(\sum d_2)^2}{n_2}\right]$$

$$= \frac{1}{6+6-2}\left[36.73 - \frac{(0)^2}{6} + 58.69 - \frac{(0)^2}{6}\right]$$

$$= \frac{1}{10}(36.73 + 58.69)$$

$$= 9.54$$

Now,

Null Hypothesis (Ho): $\mu x_1 = \mu x_2$; i.e. there is no significant difference between the mean of investment on government securities to current assets ratio of NBBL and BOKL.

Alternative Hypothesis (H1): $\mu x_1 \neq \mu x_2$; i.e. there is significant difference between the mean of investment on government securities to current assets ratio of NBBL and BOKL.

Under Ho, the test statistic is,

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{S^2\left[\frac{1}{n_1}+\frac{1}{n_2}\right]}}$$ with degree of freedom (d.f) $n_1 + n_2 - 2$

$$= \frac{14.15 - 14.06}{\sqrt{9.54\left[\frac{1}{6} + \frac{1}{6}\right]}}$$

$$= \frac{-0.09}{\sqrt{3.18}}$$

$$= \frac{-0.09}{1.78}$$

$$= -0.05$$

Tabulated value for 't' (two tailed test) at 5% level of significance for ($n_1 + n_2 - 2 = 10$) d.f is 2.228

Decision: Here, the calculated value for |t| 0.05 is less than tabulated value 2.228. Thus, Null hypothesis is accepted i.e. alternative hypothesis is rejected which means that there is no significance relationship between the mean ratios of total investment to total deposit ratio of NBBL and BOKL.

4.2.3.7Test of Hypothesis on Loans and Advances to Current Assets Ratio of NBBL and EBL

Let, the loans & advances to Current assets ratios of NBBL and EBL be X_1 and X_2 respectively.

Table 4.43

Test of Hypothesis on loans & advances to Current assets ratio of NBBL and EBL

F/Y	NBBL			EBL		
	X_1	d_1	d_1^2	X_2	d_2	d_2^2
2063/64	61.97	2.92	8.52	64.26	-2.12	4.49
2064/65	59.04	-0.01	0.00	68.45	2.07	4.28
2065/66	56.70	-2.35	5.52	65.45	-0.93	0.86
2066/67	63.10	4.05	16.40	67.34	0.96	0.92
2067/68	61.71	2.66	7.07	67.84	1.171.46	2.13
2068/69	51.80	-7.25	52.56	64.98	-1.4	1.96
Total	**354.23**	**0**	**90.07**	**398.32**	**0**	**14.64**
Mean	**59.05**			**66.38**		

Source: Annual Report of NBBL & EBL

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum d_1^2 - \frac{(\sum d_1)^2}{n_1} + \sum d_2^2 - \frac{(\sum d_2)^2}{n_2}\right]$$

$$= \frac{1}{6+6-2}\left[90.07 - \frac{(0)^2}{6} + 14.64 - \frac{(0)^2}{6}\right]$$

$$= \frac{1}{10}(90.07 + 14.64)$$

$$= 10.47$$

Now,

Null Hypothesis (Ho): $\mu x_1 = \mu x_2$; i.e. there is no significant difference between the mean of loans & advances to Current assets ratio of NBBL and EBL

Alternative Hypothesis (H1): $\mu x_1 \neq \mu x_2$; i.e. there is significant difference between the mean loans & advances to Current assets ratio of NBBL and EBL.

Under Ho, the test statistic is,

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{S^2\left[\frac{1}{n_1} + \frac{1}{n_2}\right]}}$$ with degree of freedom (d.f) $n_1 + n_2 - 2$

$$= \frac{59.05 - 66.38}{\sqrt{10.47\left[\frac{1}{6} + \frac{1}{6}\right]}}$$

$$= \frac{7.33}{\sqrt{3.49}}$$

$$= \frac{7.33}{1.86}$$

$$= -3.92$$

Tabulated value for't' (two tailed test) at 5% level of significance for ($n_1 + n_2 - 2 = 10$) d.f is 2.228

Decision: Here, the calculated value for |t| 3.92 is more than tabulated value 2.228. Thus, Null hypothesis is rejected i.e. alternative hypothesis is accepted which means that there is significance relationship between the mean ratios of loans & advances to Current assets ratios of NBBL and BOKL.

4.2.3.8 Test of Hypothesis on Loans and Advances to Current Assets Ratio of NBBL and BOKL

Let, the loans & advances to Current assets ratios of NBBL and BOKL be X_1 and X_2 respectively.

Table 4.44

Test of Hypothesis on loans & advances to Current assets ratio of NBBL and BOKL

F/Y	NBBL			BOKL		
	X_1	d_1	d_1^2	X_2	d_2	d_2^2
2063/64	61.97	2.92	8.52	65.96	-4.36	19
2064/65	59.04	-0.01	0.00	71.89	1.57	2.46
2065/66	56.70	-2.35	5.52	72.94	2.62	6.86
2066/67	63.10	4.05	16.40	72.75	2.43	5.90
2067/68	61.71	2.66	7.07	72.01	1.69	2.85
2068/69	51.80	-7.25	52.56	66.39	-3.93	15.44
Total	**354.32**	**0**	**90.07**	**421.94**	**0**	**52.51**
Mean	**59.05**			**70.32**		

Source: Annual Report of NBBL & BOKL

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum d_1^2 - \frac{(\sum d_1)^2}{n_1} + \sum d_2^2 - \frac{(\sum d_2)^2}{n_2}\right]$$

$$= \frac{1}{6+6-2}\left[90.07 - \frac{(0)^2}{6} + 52.51 - \frac{(0)^2}{6}\right]$$

$$= \frac{1}{10}\ (90.07 + 52.51)$$

$$= 14.25$$

Now,

Null Hypothesis (Ho): $\mu x_1 = \mu x_2$; i.e. there is no significant difference between the mean of loans & advances to Current assets ratios of NBBL and BOKL.

Alternative Hypothesis (H1): $\mu x_1 \neq \mu x_2$; i.e. there is significant difference between the mean of loans & advances to Current assets ratios of NBBL and BOKL.

Under Ho, the test statistic is,

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{S^2\left[\frac{1}{n_1} + \frac{1}{n_2}\right]}}$$ with degree of freedom (d.f) $n_1 + n_2 - 2$

$$= \frac{59.05 - 52.51}{\sqrt{147.25\left[\frac{1}{6} + \frac{1}{6}\right]}}$$

$$= \frac{6.54}{\sqrt{4.75}}$$

$$= \frac{6.54}{2.18}$$

$$= 3$$

Tabulated value for't' (two tailed test) at 5% level of significance for ($n_1 + n_2 - 2 = 10$) d.f is 2.228

Decision: Here, the calculated value for |t| 3 is more than tabulated value 2.228. Thus, Null hypothesis is rejected i.e. alternative hypothesis is accepted which means that there is significance relationship between the mean ratios of loans & advances to Current assets ratios of NBBL and BOKL.

4.2.3.9 Test of Hypothesis on Return on Loans & Advances Ratios of NBBL and EBL

Let, the return on loans & advances ratios of NBBL and EBL be X_1 and X_2 respectively.

Table 4.45

Test of Hypothesis on return on loans & advances ratio of NBBL and EBL

F/Y	NBBL			EBL		
	X_1	d_1	d_1^2	X_2	d_2	d_2^2
2063/64	(24.07)	-30.45	927.20	2.17	-0.55	0.30
2064/65	10.93	4.55	20.70	2.46	-0.26	0.067
2065/66	32.19	25.81	666.15	2.67	-0.05	0.00
2066/67	13.08	6.7	44.89	3.02	0.3	0.09
2067/68	(1.63)	-8.01	64.16	3.0	0.28	0.08
2068/69	7.83	1.45	2.10	3.03	0.31	0.09
Total	**38.33**	**0**	**1725.20**	**16.35**	**0**	**0.63**
Mean	**6.38**			**2.72**		

Source: Annual Report of NBBL & EBL

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum d_1^2 - \frac{(\sum d_1)^2}{n_1} + \sum d_2^2 - \frac{(\sum d_2)^2}{n_2}\right]$$

$$= \frac{1}{6+6-2}\left[1725.20 - \frac{(0)^2}{6} + 0.63 - \frac{(0)^2}{6}\right]$$

$$= \frac{1}{10}\ (1725.20 + 0.63)$$

$$= 172.58$$

Now,

Null Hypothesis (Ho): $\mu x_1 = \mu x2$; i.e. there is no significant difference between the mean of return on loans & advances ratios of NBBL and EBL.

Alternative Hypothesis (H_1): $\mu x_1 \neq \mu x_2$; i.e. there is significant difference between the mean of return on loans & advances ratios of NBBL and EBL.

Under Ho, the test statistic is,

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{S^2\left[\frac{1}{n_1}+\frac{1}{n_2}\right]}}$$ with degree of freedom (d.f) $n_1 + n_2 - 2$

$$= \frac{6.38 - 2.72}{\sqrt{172.58\left[\frac{1}{6}+\frac{1}{6}\right]}}$$

$$= \frac{3.66}{\sqrt{57.52}}$$

$$= \frac{3.66}{7.58}$$

= 0.48

Tabulated value for't' (two tailed test) at 5% level of significance for ($n_1 + n_2 - 2 = 10$) d.f is 2.228

Decision: Here, the calculated value for |t| 0.48 is less than tabulated value 2.228. Thus, Null hypothesis is accepted i.e. alternative hypothesis is rejected which means that there is no significance relationship between the mean ratios of return on loans & advances ratios of NBBL and EBL.

4.2.3.10 Test of Hypothesis on Return on Loans & Advances Ratios of NBBL and BOKL

Let, the return on loans & advances ratios of NBBL and BOKL be X_1 and X_2 respectively.

Table 4.46

Test of Hypothesis on return on loans & advances ratio of NBBL and BOKL

F/Y	NBBL			BOKL		
	X_1	d_1	d_1^2	X_2	d_2	d_2^2
2063/64	(24.07)	-30.45	927.20	2.79	-0.3	0.09
2064/65	10.93	4.55	20.70	2.90	-0.19	0.036
2065/66	32.19	25.81	666.15	3.15	0.06	0.00
2066/67	13.08	6.7	44.89	3.05	-0.04	0.00
2067/68	(1.63)	-8.01	64.16	3.46	0.37	0.137
2068/69	7.83	1.45	2.10	3.22	0.13	0.017
Total	**38.33**	**0**	**1725.20**	**18.57**	**0**	**0.28**
Mean	**6.38**			**3.09**		

Source: Annual Report of NBBL & BOKL

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum d_1^2 - \frac{(\sum d_1)^2}{n_1} + \sum d_2^2 - \frac{(\sum d_2)^2}{n_2}\right]$$

$$= \frac{1}{6+6-2}\left[35.32 - \frac{(0)^2}{6} + 22.64 - \frac{(0)^2}{6}\right]$$

$$= \frac{1}{10}(35.32 + 22.64)$$

$$= 5.79$$

Now,

Null Hypothesis (Ho): $\mu x_1 = \mu x_2$; i.e. there is no significant difference between the mean of return on loans & advances ratios of NBBL and BOKL.

Alternative Hypothesis (H_1): $\mu x_1 \neq \mu x_2$; i.e. there is significant difference between the mean of return on loans & advances ratios of NBBL and BOKL.

Under Ho, the test statistic is,

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{S^2\left[\frac{1}{n_1} + \frac{1}{n_2}\right]}}$$ With degree of freedom (d.f) $n_1 + n_2 - 2$

$$= \frac{6.38 - 3.09}{\sqrt{172.54\left[\frac{1}{6} + \frac{1}{6}\right]}}$$

$$= \frac{3.29}{\sqrt{57.51}}$$

$$= \frac{3.29}{7.58}$$

$$= 0.43$$

Tabulated value for't' (two tailed test) at 5% level of significance for ($n_1 + n_2 - 2 = 10$) d.f is 2.228

Decision: Here, the calculated value for |t| 0.43 is less than tabulated value 2.228. Thus, Null hypothesis is accepted i.e. alternative hypothesis is rejected which means that there is no significance relationship between the mean ratios of return on loans & advances ratios of NBBL and BOKL.

4.2.3.11 Test of Hypothesis on Total Interest Earned to Total outside Assets Ratio of NBBL and EBL

Let, the total interest earned to total outside assets ratios of NBBL and EBL be X_1 and X_2 respectively.

Table 4.47

Test of Hypothesis on total interest earned to total outside assets ratio of NBBL and EBL

F/Y	NBBL			EBL		
	X_1	d_1	d_1^2	X_2	d_2	d_2^2
2063/64	18.04	4.56	20.79	6.13	-2.41	5.80
2064/65	12.09	-1.39	1.93	6.61	-1.93	3.72
2065/66	14.97	1.49	2.22	7.33	-1.21	1.46
2066/67	11.76	-1.72	2.95	9.52	0.98	0.96
2067/68	13.26	-0.22	0.04	11.16	2.62	6.86
2068/69	10.76	-2.72	7.39	10.50	1.96	3.84
Total	**80.88**	**0**	**35.32**	**51.25**	**0**	**22.64**
Mean	**13.48**			**8.54**		

Source: Annual Report of NBBL& EBL

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum d_1^2 - \frac{(\sum d_1)^2}{n_1} + \sum d_2^2 - \frac{(\sum d_2)^2}{n_2}\right]$$

$$= \frac{1}{6+6-2}\left[35.32 - \frac{(0)^2}{6} + 22.64 - \frac{(0)^2}{6}\right]$$

$$= \frac{1}{10}(35.32 + 22.64)$$

$$= 5.79$$

Now,

Null Hypothesis (Ho): $\mu x_1 = \mu x_2$; i.e. there is no significant difference between the mean of total interest earned to total outside assets ratio of NBBL and EBL.

Alternative Hypothesis (H_1): $\mu x_1 \neq \mu x_2$; i.e. there is significant difference between the mean of total interest earned to total outside assets ratio of NBBL and EBL.

Under Ho, the test statistic is,

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{S^2\left[\frac{1}{n_1} + \frac{1}{n_2}\right]}}$$ With degree of freedom (d.f) $n_1 + n_2 - 2$

$$= \frac{13.48 - 8.54}{\sqrt{5.79\left[\frac{1}{6} + \frac{1}{6}\right]}}$$

$$= \frac{4.94}{\sqrt{1.93}}$$

$$= \frac{4.94}{1.38}$$

$$= 3.55$$

Tabulated value for 't' (two tailed test) at 5% level of significance for ($n_1 + n_2 - 2 = 10$) d.f is 2.228

Decision: Here, the calculated value for't' 3.55 is more than tabulated value 2.228. Thus, Null hypothesis is rejected i.e. alternative hypothesis is accepted which means that there is significance relationship between the mean ratios of total interest earned to total outside assets ratios of NBBL and EBL.

4.2.3.12 Test of Hypothesis on Total Interest Earned to Total outside Assets Ratio of NBBL and BOKL

Let, the total interest earned to total outside assets ratios of NBBL and BOKL be X_1 and X_2 respectively.

Table 4.48

Test of Hypothesis on total interest earned to total outside assets ratio of NBBL and BOKL

F/Y	NBBL			BOKL		
	X_1	d_1	d_1^2	X_2	d_2	d_2^2
2063/64	18.04	4.56	20.79	6.60	-2.09	4.36
2064/65	12.09	-1.39	1.93	6.60	-2.09	4.36
2065/66	14.97	1.49	2.22	7.73	-0.96	0.92
2066/67	11.76	-1.72	2.95	9.38	0.69	0.47
2067/68	13.26	-0.22	0.04	10.97	2.28	5.20
2068/69	10.76	-2.72	7.39	10.89	2.2	4.84
Total	**80.88**	**0**	**35.32**	**52.17**	**0**	**20.15**
Mean	**13.48**			**8.69**		

Source: Annual Report of NBBL & BOKL

$$S^2 = \frac{1}{n_1+n_2-2}\left[\sum d_1^2 - \frac{(\sum d_1)^2}{n_1} + \sum d_2^2 - \frac{(\sum d_2)^2}{n_2}\right]$$

$$= \frac{1}{6+6-2}\left[35.32 - \frac{(0)^2}{6} + 20.15 - \frac{(0)^2}{6}\right]$$

$$= \frac{1}{10}(35.32 + 20.15)$$

$$= 5.54$$

Now,

Null Hypothesis (Ho): $\mu x_1 = \mu x_2$; i.e. there is no significant difference between the mean of total interest earned to total outside assets ratio of NBBL and BOKL.

Alternative Hypothesis (H_1): $\mu x_1 \neq \mu x_2$; i.e. there is significant difference between the mean of total interest earned to total outside assets ratio of NBBL and BOKL.

Under Ho, the test statistic is,

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{S^2\left[\frac{1}{n_1} + \frac{1}{n_2}\right]}}$$ with degree of freedom (d.f) $n_1 + n_2 - 2$

$$= \frac{13.48 - 8.69}{\sqrt{5.54\left[\frac{1}{6} + \frac{1}{6}\right]}}$$

$$= \frac{4.79}{\sqrt{1.84}}$$

$$= \frac{4.79}{1.36}$$

$$= 3.52$$

Tabulated value for 't' (two tailed test) at 5% level of significance for ($n_1 + n_2 - 2 = 10$) d.f is 2.228

Decision: Here, the calculated value for't' 3.52 is more than tabulated value 2.228. Thus, Null hypothesis is rejected i.e. alternative hypothesis is accepted which means that there is significance relationship between the mean ratios of total interest earned to total outside assets ratios of NBBL and BOKL.

4.3 Major findings of the study

The major findings of the analysis of various investment related data collected of the banks through various sources can be given below:

Liquidity Ratios

The liquidity ratios of the three banks have been calculated over the period of 2064 to 2069, and the major findings are as follows:

- The current ratios of the banks in the study period of 6 years revealed that EBL has the mean current ratio at 1.06, BOKL has the mean current ratio at 1.08; the mean of the ratios of NBBL is a little lower at 1.02.From the analysis of current ratio, it is found that NBBL has maintained lower current ratio than that of EBL and BOKL.

- Studying the mean of the cash & bank balance to total deposit ratio, NBBL shows to have the highest mean ratio, followed by EBL, and then BOKL. All the three banks show fluctuation in the ratios throughout the study period.

- NBBL has the highest mean of the cash & bank balance to current assets ratio, followed by EBL, and then BOKL. The ratios of all the three banks have yet shown fluctuating trend.

- All the three banks have substantial rise in their investment in government securities to current assets ratios in the latest year of study as compared to the initial year of study. EBL has the highest mean of the ratios, followed by NBBL and then BOKL.

- In the latest year of study, all the three banks have slight decrease in their loans & advances to current assets ratios from the first year of study. BOKL has the highest mean of the ratios, followed by EBL and then NBBL.

From the above findings, it is clear that NBBL has shown to have better liquidity position than the other two, for it has more liquid assets holding. BOKL though has more of its current assets in the form of loans and advances. EBL has the highest investment in government securities to current assets ratio.

Asset Management Ratios

The asset management ratios calculated in the study has the following findings:

- The mean of the loans & advances to total deposit ratios of BOKL is the highest among the three banks, which means that BOKL has more of its deposits invested in the form of loans & advances, followed by EBL. NBBL has the lowest of the mean of the ratios. The ratios show highest consistency in EBL with the lowest C.V at 2.72, followed by BOKL at 4.12. NBBL proves to have the lowest degree of consistency in the ratios with the highest C.V of 18.03%.

- BOKL has the highest mean of the total investment to total deposit ratios at 19.54, followed by EBL with mean 19.07, and then NBBL with 18.50. BOKL has the highest consistency in the ratios with the lowest C.V of 15.31.EBLwith C.V. 23.28. The coefficient of variation of NBBL is the highest at 25.94%.

- BOKL has the highest mean of the loans advances to total working fund ratios with mean 68.86, followed by EBL at 65.68 and then NBBL with 58.13. However, EBL has the highest degree of consistency in the ratios among all with the C.V 2.47of %, followed by BOKL with 4.27% of C.V, and the NBBL with 6.45% of C.V.

- EBL has the highest mean of the investment on government securities to total working fund ratios at 15.13, followed by NBBL with mean 13.93 and then BOKL with mean 13.77. EBL proves to have the highest inconsistency in the ratios among the three with the highest C.V at 26.71%. NBBL proves to have the highest consistency in the ratios with the lowest C.V at17.94%.

- NBBL has the highest mean of the investment on shares & debentures to total working fund ratio, followed by BOKL and then EBL. EBL proves to have the highest degree of consistency with C.V. of 38.69% where NBBL proves to have the highest degree of inconsistency with C.V. at 50.40.

- NBBL has the highest mean of the loan loss ratio at 37.53, followed by BOKL at 2.51, and then EBL with 2.38. NBBL shows the highest degree of inconsistency with C.V. 69.97%, followed by BOKL. EBL shows the highest degree of consistency with the lowest C.V. of 14.08%.

From the above findings we can conclude that an investment in loans & advances from their total deposits of BOKL is highest and NBBL is the lowest. BOKL however has highest ratio in investment to total deposit other than loans and advances. Out of their total assets, EBL has more of its investments in government securities and less in shares

& debentures. Similarly, NBBL has the highest mean of the investment on shares & debentures to total working fund ratio.

Profitability Ratios

The profitability ratios calculated in the study have the following findings:

- NBBL has the highest mean ratio of return on loans & advances, followed by BOKL and then EBL.NBBL shows negative net profits in the latest year of study. Both EBL and BOKL have increase in their ratios in the latest year of study from the first year of study. BOKL has the highest degree of consistency in the ratios and NBBL proves to have lowest degree of consistency with the highest C.V.

- NBBL also has the highest mean of return on total working fund ratios as well as the highest degree of inconsistency, followed by BOKL and then EBL. It shows that NBBL has strong earning capacity than the other two banks. The coefficient of Variation of BOKL ratio shows the least degree of inconsistency among the three banks.

- In the case of return on equity, NBBL has the highest mean of the ratios, followed by EBL. BOKL has the lowest mean of ratios. It indicates that NBBL is more successful in mobilizing its capital than the other two. It is clear that NBBL has more earning power than that of EBL & BOKL. But, NBBL proves to be the most inconsistent with the highest C.V. and BOKL proves to be the most consistent with the lowest C.V.

- NBBL has the highest mean of the total interest earned to total outside assets ratio as well as the highest degree of consistency, and is followed by BOKL and then EBL. Despite having a negative profit in the latest year of study, NBBL nevertheless has been successful at earning good amount of interest income. BOKL proves to be the most inconsistent with the highest C.V. and EBL proves to be the most consistent with the lowest C.V.

- NBBL has the highest mean of the total interest earned to total working fund ratio as well as the highest degree of consistency. NBBL nevertheless has been successful at earning good amount of interest income BOKL and EBL have similar mean of the ratios. EBL however proves to have the highest degree of inconsistency in the ratios.

- Studying the mean of the ratios, EBL has the highest total interest earned to total operating income ratio as well as the lowest degree of inconsistency. It is followed by BOKL and then NBBL.

- NBBL has the highest mean of the total interest paid to total working fund ratios, followed EBL and then BOKL. Studying the coefficient of Variation, EBL's C.V seems to be the highest among the three at 34.74, followed by BOKL and then of NBBL. EBL seems to be the most inconsistent among the three banks.

All the three banks have to invest their fund on profitable sectors for maintaining their higher profit margin in future. NBBL has had considerable increase in its loan loss provision amount in the latest year of the study as compared to the previous years, (details in 2VI). This has led to its having negative profitability ratios.

Risk Ratios

In the study, three types of risk ratios of the banks under study have been calculated. They show the following findings:

- All the three banks show inconsistent risk ratios. NBBL has the highest mean of liquidity risk ratios, followed by EBL, and then by BOKL. It shows that NBBL has the better ability of meeting with the immediate liquid fund requirements than the other two. BOKL however shows the most consistency in the ratios and NBBL shows the most inconsistent in the ratios.

- BOKL has the highest mean of the credit risk ratio, followed by EBL, and then NBBL. EBL however has the most consistent ratios among the three. In the same manner, coefficient of variation of NBBL is the highest at 6.45 signifying that it has had the most variations in the ratios. EBL proves to be the most consistent with the lowest C.V.

- BOKL has the highest mean of the capital risk ratio, followed by EBL. The mean of the ratios of NBBL is the lowest. EBL shows the high degree of consistency in its ratio whereas NBBL proves to be the most inconsistent with the highest C.V.

- BOKL has the highest mean of the interest rate risk ratios since it has more interest earning assets then interest bearing liabilities. NBBL has the lowest mean of interest rate risk ratios among the three banks. NBBL has the highest C.V. making it the most inconsistent in the ratio among the three banks. BOKL has the lowest C.V. making it the most consistent in the ratio.

From the above findings, it is clear that BOKL has maintained higher risk ratios in terms of credit risk ratio, capital risk ratio, interest rate risk ratio. EBL has maintained average risk ratio. NBBL has maintained higher liquidity ratio.

Growth Ratios

In the study, four types of Growth ratios of the banks under study have been calculated. They show the following findings:

- The growth ratio of total Deposit of NBBL is less than that of EBL and BOKL, which indicates that the performance of EBL and BOKL to collect deposit is better than that of NBBL. BOKL shows satisfactory growth rate in collecting total deposits. EBL proves to be the finest in collecting Total deposits.

- The growth ratio of Loan & advances of EBL if higher than NBBL and BOKL. BOKL has the lowest growth ratio of loan & advances, which indicates that the performance of NBBL and BOKL to grant loan & advances is not satisfactory.

- The growth ratio of total investment of NBBL is the highest in comparison to EBL and BOKL. EBL's total investment growth rate is the lowest.

- The growth ratio of Net profit of EBL is higher than NBBL and BOKL, which indicates that EBL is successful to earn more profit. BOKL growth ratio of net profit is satisfactory. But, NBBL shows negative growth ratio in the net profit which indicate that NBBL could not earn more profit.

From the above findings, it can be concluded that EBL's growth ratio is better than that of NBBL's and BOKL's. EBL has maintained high growth ratios in total deposit, loans & advances and net profit. BOKL's growth ratio is satisfactory. NBBL has very fluctuating growth ratios. NBBL has maintained higher growth ratios in total investment.

Coefficient of Correlation Analysis

In the study, various correlation coefficients of different variables of the three bans have been calculated. The results have been shown below:

- The correlation analysis of the loans & advances and total deposits of the banks show positive relationship between the two variables. The coefficient of correlation however is the highest (near to 1) in case of EBL .NBBL shows the lowest coefficient of correlation between loans & advances and total deposits. EBL also shows to have the highest coefficient of determination among the three. BOKL shows coefficient of correlation near to 1. Moreover, the coefficient of determination (r^2) is found to be 0.963. Thus, the study shows that all the three banks show a significant and positive relationship between two variables deposit and loans and advances.

- NBBL has the highest value of coefficient correlation between the total deposit and total investment followed by EBL with 0.82 coefficient of correlation, followed by BOKL with 0.81. NBBL shows the highest coefficient of determination (r^2) among the three and the difference between the value of (r) and 6 x P.E. is the highest in NBBL, followed by EBL and then by BOKL. Thus, the study shows that all the three banks show a significant and positive relationship between two variables deposit and loans and advances.

- NBBL show insignificant relationship between net profits and total outside assets. Comparing the three banks, EBL is found to have the highest coefficient of correlation (r) between the net profits and total outside assets as well as the highest coefficient of determination (r^2) among the three banks. The calculated coefficient of correlation (r) of BOKL is also found to be very high. The difference between the (r) and 6 x P.E. is found to be the greatest among the three in EBL as well, making EBL having the most significant value for (r). BOKL is also found to have a high positive relationship between the two variables, and the (r) is also found to be significant. NBBL is found to have positive relationship between the two variables, but the value for (r) is not found to be significant.

From the above findings, we can observe that all the three banks shows positive relationship between loans & advances and total deposits, the total deposit and total investment, net profits and total outside assets. EBL and BOKL has the highest value of coefficient correlation between the total deposit and loans & advances. NBBL has the highest value of coefficient correlation between the total deposit and total investment followed by EBL, and then BOKL. EBL is found to have the highest coefficient of correlation (r) between the net profits and total outside assets as well as the highest coefficient of determination (r^2) among the three banks. NBBL shows insignificant relationship between the two variables as the value of 6XP.E. is more than the value of (r). Thus we can say that the value of (r) is non significant in the case of NBBL.

Trend Analysis

In the study, the trend values for total deposits, loans& advances, total investment, and net profits have been calculated. Below has been presented the conclusion drawn from the trend analysis.

- The trend analysis of the total deposits of the banks shows that EBL is forecasted to have the maximum total deposits in the year 2074, followed by BOKL, and then by NBBL.

- Trend analysis performed on the total loans & advances of the banks shows that EBL is likely to have the largest loans & advances amounts in the year 2074, followed by BOKL, and then NBBL.

- Trend analysis of total investments show that EBL is expected to have the greatest total investment amount in the year 2074, which will be followed by BOKL, and then NBBL.

- According to the trend analysis done on the net profits of the three banks, if the present trend persisted, NBBL is likely to have huge loss in the year 2074. EBL is likely to have the greatest net profits. BOKL is also likely to have progressive net profits.

From the above findings, it is clear that EBL is expected or forecasted to have the highest amount of Loans & advances, Total deposit, Total investment and Net Profit in the next five years, followed by BOKL, and then NBBL.

Testing of Hypothesis

Testing of hypotheses has been conducted in the study on different variables of the three banks. The conclusions drawn from the study have been presented below.

- The study shows that there is significant difference between the mean ratios of loans & advances to total deposit ratio of NBBL and EBL.
- The study shows there is significant difference between the mean ratios of loans & advances to total deposit ratio of NBBL and BOKL.
- There is no significant difference between the mean ratios of total investment to total deposit ratio of NBBL and EBL.
- The testing of hypothesis in the study shows that there is no significant difference between the mean ratios of Total investment to total deposit ratio of NBBL and BOKL.
- There is no significant difference between the mean ratios of investment on government securities to current assets ratio of NBBL and EBL.
- There is no significant difference between the mean ratios of investment on government securities to current assets ratio of NBBL and BOKL.
- The study shows that there is significant difference between the mean of loans & advances to current assets ratio of NBBL and EBL.
- There is significant difference between the mean of loans & advances to current assets ratio of NBBL and BOKL.
- There is no significant difference between the mean of return on loans & advances ratios of NBBL and EBL.
- There is no significant difference between the mean of return on loans & advances ratios of NBBL and BOKL
- From the study, we see that there is significant difference between the mean of total interest earned to total outside assets ratio of NBBL and EBL.
- There is significant difference between the mean of total interest earned to total outside assets ratio of NBBL and BOKL.

CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

In this chapter, the summary has been presented along with conclusions and actionable recommendations. There is a brief introduction to all the chapters of the study as well as the overall summary from the analysis of the relevant data. Since a study would not be complete without any suggestive findings, the study has also tried to point out errors in the investment policy and analysis of the banks under study as well as the corrective suggestions for the elimination of the same, with the hope of giving directions for further growth and improvement in the banks' operation.

5.1 Summary

The economic development of a country depends upon the development of the commerce and industry. There is no doubt that banking promotes the development of commerce because banking sector itself is the part of commerce. The process of economic development depends upon various factors. However, economists are now convinced that capital formation and its proper utilization play a paramount role for rapid economic development.

The economic growth was quite sluggish during the first three and a half decade during the Maoist insurgency and later on, the economic rate has been quite dismal. At present, overall economic growth rate is still declining year by year. Reasons Behind such decline are insecure economic condition, decrease in the tourist arrival, decreasing production and export of carpet, garment and pashmina industry and political situation of a country.
The evolution of the organized financial system in Nepal has more recent history than in any other countries of the world. In Nepalese context, the history of banking is hardly seven decade. However, after the announcement of liberal and free market economy based policy, Nepalese banks and financial sectors started having greater network and

access to national and international markets. The role of commercial banks in a country like Nepal can hardly be overlooked. In a country like ours where the infrastructure for development is not very strong, the commercial banks play a vital role in the industrialization, growth in businesses, as well as the general upliftment in the lives of the people. There are such organized sectors that manage the demand and supply of money in the country. Commercial banks play a vital role, which deals with other people's money, and stimulate saving by mobilizing idle resources to those sectors where the objectives opportunities as available. Modern banks provide various services to their customers in view of facilitating their economic and social life.

The objective of the commercial banks is always to earn more profit by investing or granting loan & advances to the profitable, secured and marketable sectors. The commercial banks manage the demand and supply of money through accepting deposits from the general public and organizations and granting loans to others. For the deposits that they accept, they have to pay certain interest. For that matter, they need to invest the collected deposits in various profitable sectors. One of the major investments done by the commercial banks is the lending in various sectors. They also invest their funds in risk free government securities as well as the shares and debentures of other companies.
But they should be careful while performing the credit creation function; the banks should never invest its funds in those securities, which are of fluctuating nature. And, commercial banks must follow the rules and regulations as well as different directions issued by central bank and ministry of finance while mobilizing the funds.

In the study, the word investment covers the analysis of wide range of activities i.e. the investment of income, saving or any other collected fund. If there is no savings, there is no existence of investment. Saving and investment are interrelated. Investment policy is a facet of the overall spectrum of policies that guides banks' investment operations and it ensures efficient allocation of funds to achieve the economic development of the nation. A sound and viable investment policy attracts both borrowers and lenders, which help to increase the volume and quality of deposit, loan and investment. Therefore, the investment policy should be carefully planned and analyzed. Some sources of funds for

the investment of bank are capital, general reserves, accumulated profit, deposits, and internal & external borrowings. Similarly, some important banking terms which are frequently used in investment are loan & advances, investment in government securities, shares and debentures, deposits, etc.

The study has been prepared with the subject matter of investment policies of commercial banks of Nepal. For this matter, three commercial banks, NBBL, EBL, and BOKL have been drawn. For the preparation of the study, numerous theses, books, journals, internet sites, periodicals, NRB directives, annual reports have been reviewed. Secondary data required for the study, from the period of 2064 to 2069, have been collected from various sources. On the available data, various financial and statistical analyses have been performed. Ratio analyses have been performed on various investment related variables of those banks. Trend analysis, correlation analysis, as well as testing of hypothesis have also been conducted in the study. The data presentation and analysis along with major findings of the study have been presented in the preceding chapter IV. And now, the conclusions derived from the study have been presented in the succeeding section.

5.2 Conclusion

From the analysis of various available secondary data using many financial and statistical tools, the study has come up with the following conclusions:

- NBBL has shown to have better liquidity position than the other two, for it has more liquid assets holding. BOKL though has more of its current assets in the form of loans and advances. EBL has the highest investment in government securities to current assets ratio.

- From the study, we can conclude that an investment in loans & advances from their total deposits of BOKL is highest and NBBL is the lowest. EBL however has highest ratio in investment to total deposit other than loans and advances. Out of their total assets, EBL has more of its investments in government securities and less in shares & debentures.

- The study shows that NBBL proves to have the finest return among the three. But, it also has the highest degree of inconsistency in the return ratios. Besides, NBBL has the highest interest incomes among the three and has good consistency in it over the study period. Due to its having huge deposits, it also pays the highest amount as interest expenses and proves to have consistency in it.

- BOKL has more interest sensitive assets than interest sensitive liabilities. NBBL proves to be the most able to pay off its depositors since it has the highest mean of the liquidity risk ratios, and again BOKL has the highest mean of the credit risk ratios which shows that it has relatively the most of its total assets in the form of loans and advances. All the three ratios should not be either very high or very low. All three of them prove to excel at least in one of the ratios.

- Investment in government securities is a very safe but not a very lucrative investment for commercial banks. This however is very necessary for the country's economic development. The banks under study do not seem to have made large investments in government securities.

- For the overall economic development of a country, there has to be growth and development of financial and business sectors. The banks under study do not seem to have made enough investments in shares and debentures of other companies. The investment in such sectors of EBL and BOKL does not reach even 1% of their total assets, except NBBL.

- NBBL is found to have negative profits in the year 2064/65 and 2067/68 of the study due to huge amount of provisioning for loan loss. This has happened due to the bank's not complying with NRB rules in the previous years.

- NBBL is found to have impressive amount of interest income, but the bank shows decline in its loans & advances amount in the latest year of study.

- From the analysis of growth ratio, it seems that EBL has higher growth rate in total deposit, loans & advances, net profit but it has average growth rate in total investment. NBBL shows negative growth rate in its net profit. BOKL's growth rate proves to be satisfactory

- The increasing loss seen in the trend values of NBBL's net profits is very unlikely as the losses caused by huge amounts of provision made for bad loans will be written back as the loans will be recovered, and there will be increment in its net profits.

- The trend analysis shows that EBL is expected to have the largest amount of total deposits, loans & advances, total investment and net profits among the three banks .BOKL is also projected to have progressive total deposits, loans & advances, total investments and net profits. Similarly, NBBL is expected to have huge loss in the days to come.

5.3 Recommendations

Based on its analysis and findings, the study tries to put forward the following recommendations to the banks under study for betterment in the field of their investments.

- For the growth of new establishment of businesses, the banks under study need to make huge growths in their investment in shares and debentures of other companies. The study shows that investment made by these banks in such areas is

very minimal. Government securities offer lower interest rate than others. So, investment in shares and debentures helps to maintain the sound portfolio of the bank. EBL and BOKL are recommended to invest its fund on purchase of shares and debentures of other financial companies.

- Total investment made by the selected bank is in fluctuating trend. So the banks must seek new places or sectors for investment, with potentiality of high return and low risk and should make rational investment.

- Profitability is the main indicator of the financial performance of any financial institutions. In this study, we can see that Profitability ratio of NBBL is good although having negative profits in the initial year and the second last year of study. EBL and BOKL is recommended to increase its return on working fund and interest earning capacity by investing more funds in loan & advances and different types of securities.

- A commercial bank must maintain its satisfactory liquidity position to meet the credit need of its customers; however, internal as well as external factors affect the liquidity position of the banks. As BOKL has maintained lower cash and bank balance to total deposit ratio and current assets than NBBL and EBL, BOKL is recommended to increase cash and bank balance to meet the requirement of cash for various purposes. NBBL and EBL is able to maintain higher liquidity ratio but it should be enough careful that it should not be more than the required level.

- The study comes with this suggestion that NBBL should be more aware in the times to come in order to make sure that all the directives imposed by the central bank are strictly followed, especially the directives for booking of loan loss provision, so that the bank does not have to face any instance of negative profits again in the future. The case of negative profits in NBBL however is only a temporary phenomenon; however, such incidents may cause many long term afflictions to the bank.

- If a bank expects high return on its investment, it has to accept risk. The risk taken by NBBL from the angle of Liquidity risk is average whereas credit risk, capital risk and interest rate risk is lower than that of BOKL and EBL. Its consistency is highly volatile which may result in higher loss. The bank should not take high risk. So, NBBL is recommended that it should carefully analyze the above risks to achieve higher returns.

- The growth ratios represent how well the commercial banks are maintaining their economic and financial position; it is directly related to the fund mobilization and investment. EBL's growth ratio is better than that of NBBL's and BOKL's. BOKL's growth ratio is satisfactory. NBBL has very fluctuating growth rate. It is recommended to increase its growth ratio in terms of deposits, loan & advances and net profit. The growth ratio of net profit of NBBL is negative in comparison to EBL and BOKL. So, NBBL is recommended to diversify its investment on more profitable sector and adopt sound investment policy.

- Co-efficient of correlation analysis interprets the relationship between two or more variables. Co-efficient of correlation between loans & advances and deposit, total deposit and total investment, outside assets and net profit of NBBL is non-significant, which shows that there is insignificant relationship between these two variables. It shows that NBBL has weak position regarding the mobilization of total deposit on loan & advances. Similarly, NBBL is not successful to utilize its deposit by investing its fund in different securities and other financial and non financial companies. It reveals that NBBL is not able to earn net profit by mobilizing its total outside assets. So, NBBL is recommended to innovate new strategies to improve its present conditions.

- To get success in the competitive banking environment, depositor's money must be utilized as loan & advances. The largest item of the bank in the asset side is loan & advances. If it is neglected, then it would be the main cause of liquidity

crisis in the bank. NBBL's loans & advances to total deposit ratio and loan & advances to total working fund ratio is lower than that of EBL and BOKL. To overcome this situation, NBBL is strongly recommended to follow liberal lending policy and invest more percentage of total deposit and total working fund in loans & advances.

- The study also wishes to suggest NBBL to make effective strategies in recovering its bad loans so that the huge expenses made for loan loss provisioning can be reversed and the bank can again enjoy positive profits.

- The country currently is facing a very economically and financially fragile situation. Thus the study recommends that all the three banks need to increase their shares of investment in government securities.

- In the light of growing competition in the banking sector, the business of the bank should be customer oriented. The bank is recommended to adopt new technology and services. All most all commercial banks in Nepal are providing various facilities such as financial switch system (SWIFT), Automatic Teller Machine (ATM), Visa Electron debit card, international credit card, locker services, lending against gold and silver services, parking service, 24 hour services etc. Beside these facilities bank should be involved in different kind of social and community development activities. The bank should be able to provide more personalized services and a better environment for its customers.

- Majority of commercial banks have been found to be profit oriented ignoring their social responsibility, which is not a proper strategy to sustain in long run. So all the banks are suggested to render their services even in the rural areas providing special loans to the deprived and priority sectors, which might further intensify the goodwill of the banks in future.

- With the entry of many new commercial banks in the market as well as probable more newcomers in the future, not to forget the entry of foreign commercial banks in the year 2010, the competition between the banks is growing and expected to grow even higher in the days to come. Thus the study recommends that the banks make efficient and sufficient preparations, both technologically and strategically, to be able to face and win new challenges in the future.

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APPENDICES

Appendix 1

I

Percentage of various Investments out of Total Working Fund of NBBL

F/Y	Total Working Fund (Rs.In million)	Loans & Advances (Rs.In million)	%	Investment in Govt. Securities (Rs.In million)	%	Investment in shares & Debentures (Rs.In million)	%	Total %
2063/64	7254.54	4409.01	60.77	826.8	11.39	182.2	2.51	74.67
2064/65	9391.02	5457.81	58.11	1221.8	13.01	194.2	2.07	73.19
2065/66	11964.55	6704.94	56.04	1715.8	14.34	130.1	1.09	71.47
2066/67	12531.04	7809.54	62.32	1419.7	11.33	268.6	2.14	75.79
2067/68	14004.76	8452.73	60.35	2113.8	15.09	358.9	2.56	78.00
2068/69	20169.75	10330.07	51.21	3724.9	18.46	283.55	0.14	69.81

Source: "Annual Report of Nepal Bangladesh Bank Ltd."

II

Percentage of various Investments out of Total Working Fund of EBL

F/Y	Total Working Fund (Rs.In million)	Loans & Advances (Rs.In million)	%	Investment in Govt. Securities (Rs.In million)	%	Investment in Shares& Debentures (Rs.In million)	%	Total %
2063/64	21432.57	13664.08	63.75	3614.54	16.86	19.08	0.09	80.69
2064/65	27149.34	18339.08	67.55	4906.5	18.07	99.55	0.37	79.85
2065/66	36916.84	23884.67	64.70	5146	13.94	100.43	0.27	78.91
2066/67	41382.76	27556.35	66.59	4354.4	10.52	100.43	0.24	77.35
2067/68	46236.21	31057.69	67.17	7145.0	15.45	107.97	0.23	82.85
2068/69	55813.12	35910.97	64.34	6068.9	10.87	109.17	0.19	75.4

Source: "Annual Report of Everest Bank Ltd."

III

Percentage of various Investments out of Total Working Fund of BOKL

F/Y	Total Working Fund (Rs.In million)	Loans & Advances (Rs.In million)	%	Investment In Govt. Securities (Rs.In million)	%	Investment in Shares& Debentures (Rs.In million)	%	Total %
2063/64	14581.39	9399.32	64.46	2332.0	16.0	87.41	0.6	81.06
2064/65	17721.92	12462.63	70.32	2113.2	11.92	111.30	0.63	82.87
2065/66	20496.0	14647.29	71.46	1745	8.51	120.99	0.59	80.56
2066/67	23396.19	16664.93	71.22	2954.93	12.63	40.140	0.17	84.02
2067/68	24757.75	17468.19	70.55	4002.1	16.16	40.140	0.16	86.87
2068/69	28881.99	18813.93	65.14	5037.6	17.44	41.60	0.14	82.72

Source: "Annual Report of Bank of Kathmandu Ltd."

Liquidity Ratio

IV

Current Ratio

F/Y	Current Assets (Rs. In million)			Current Liabilities (Rs. In million)			Ratio (Times)		
	NBBL	**EBL**	**BOKL**	**NBBL**	**EBL**	**BOKL**	**NBBL**	**EBL**	**BOKL**
2063/64	7113.74	21262.47	14249.25	9648.71	19931.06	13388.12	0.73	1.06	1.06
2064/65	9243.28	26788.83	17334.65	11552.47	24928.10	16079.85	0.80	1.07	1.07
2065/66	11825.35	36489.69	20078.96	10852.31	34101.22	18454.41	1.09	1.07	1.09
2066/67	12375.71	40919.66	22904.89	10397.47	37920.16	20822.66	1.19	1.08	1.10
2067/68	13697.25	45775.95	24255.75	11753.58	42822.66	22122.56	1.16	1.07	1.09
2068/69	19941.76	55265.20	28336.38	17215.79	51635.82	25981.15	1.15	1.07	1.09

Source: "Annual Report of NBBL, EBL & BOKL."

V

Cash & Bank Balance to Total Deposit Ratio

F/Y	Cash & bank balance (Rs. In million)			Total deposit (Rs. In million)			Cash & bank balance to Total deposit Ratio (%)		
	NBBL	**EBL**	**BOKL**	**NBBL**	**EBL**	**BOKL**	**NBBL**	**EBL**	**BOKL**
2063/64	1164.05	2391.42	1315.90	9385.95	18186.25	12388.92	12.40	13.25	10.62
2064/65	1922.84	2667.97	1440.46	10883.65	23976.30	15833.73	17.67	11.12	9.09
2065/66	2571.41	6164.37	2182.11	9997.7	33322.94	18083.98	25.72	18.50	12.06
2066/67	2058.30	7818.81	1798.36	10052.18	36932.31	20315.83	20.47	21.17	8.85
2067/68	2464.92	6122.86	167893	11511.67	41127.91	21018.42	21.41	14.88	7.99
2068/69	4663.70	9860.74	2721.71	16952.70	50006.10	24991.44	29.55	20.72	13.53

Source: "Annual Report of NBBL, EBL & BOKL."

VI

Cash & Bank Balance to Current Assets Ratio

F/Y	Cash & bank balance (Rs. In million)			Current assets (Rs. In million)			Cash &bank balance to current assets Ratio (%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	1164.05	2391.42	1315.90	7113.74	21262.47	14249.25	16.36	1124	10.81
2064/65	1922.84	2667.97	1440.46	9243.28	26788.83	17334.65	20.80	9.95	10.10
2065/66	2571.41	6164.37	2182.11	11825.35	36489.69	20078.96	21.74	16.89	10.86
2066/67	2058.30	7818.81	1798.36	12375.71	40919.66	22904.89	16.63	19.10	7.85
2067/68	2464.92	6122.86	167893	13697.25	45775.95	24255.75	17.99	13.37	6.92
2068/69	4663.70	9860.74	2721.71	19941.76	55265.20	28336.38	25.12	18.75	11.93

Source: "Annual Report of NBBL, EBL & BOKL."

VII

Investment on Government Securities to Current Assets Ratio

F/Y	Investment on Gov. securities (Rs. In million)			Current assets (Rs. In million)			Investment on Gov. securities to current assets Ratio (%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	826.8	4704.6	2332.04	7113.74	21262.47	14249.25	11.62	22.12	16.36
2064/65	1221.8	4906.5	2113.22	9243.28	26788.83	17334.65	13.21	18.31	12.19
2065/66	1715.8	5146.04	1744.97	11825.35	36489.69	20078.96	14.50	14.10	8.69
2066/67	1521.8	4354.35	2954.93	12375.71	40919.66	22904.89	11.47	10.64	12.90
2067/68	2113.8	7145.0	4002.1	13697.25	45775.95	24255.75	15.43	15.60	16.49
2068/69	3724.9	6068.9	5037.6	19941.76	55265.20	28336.38	18.68	10.98	17.78

Source: "Annual Report of NBBL, EBL & BOKL."

VIII

Loans & Advances to Current Assets Ratio

F/Y	Loans & Advances (Rs. In million)			Current assets (Rs. In million)			Loans & Advances to current assets Ratio (%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	4409.01	13664.08	9399.32	7113.74	21262.47	14249.25	61.97	64.26	65.96
2064/65	5457.81	18339.08	12462.63	9243.28	26788.83	17334.65	59.04	68.45	71.89
2065/66	6704.94	23884.67	14647.29	11825.35	36489.69	20078.96	56.70	65.45	72.94
2066/67	7809.54	27556.35	16664.93	12375.71	40919.66	22904.89	63.10	67.34	72.75
2067/68	8452.73	31057.69	17468.19	13697.25	45775.95	24255.75	61.71	67.84	72.01
2068/69	10330.07	35910.97	18813.93	19941.76	55265.20	28336.38	51.80	64.98	66.39

Source: "Annual Report of NBBL, EBL & BOKL."

Appendix 2

Asset Management ratio

I

Loans & Advances to Total Deposit Ratio

F/Y	Loans & Advances (Rs. In million)			Total deposit (Rs. In million)			Loans & Advances to Total Deposit Ratio		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	4409.01	13664.08	9399.32	9385.95	18186.25	12388.92	46.97	75.13	75.87
2064/65	5457.81	18339.08	12462.63	10883.65	23976.30	15833.73	50.14	76.49	78.71
2065/66	6704.94	23884.67	14647.29	9997.7	33322.94	18083.98	67.06	71.68	81.0
2066/67	7809.54	27556.35	16664.93	10052.18	36932.31	20315.83	77.69	74.61	82.03
2067/68	8452.73	31057.69	17468.19	11511.67	41127.91	21018.42	73.42	75.51	83.10
2068/69	10330.07	35910.97	18813.93	16952.70	50006.10	24991.44	60.93	71.81	75.28

Source: "Annual Report of NBBL, EBL & BOKL."

II

Total Investment to Total Deposit Ratio

F/Y	Total Investment (Rs. In million)			Total deposit (Rs. In million)			Total Investment to Total Deposit Ratio(%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	1034.56	4984.31	2992.43	9385.95	18186.25	12388.92	11.02	27.41	24.15
2064/65	1389.90	5059.55	3204.06	10883.65	23976.30	15833.73	12.77	21.10	20.23
2065/66	2222.43	5948.48	2783.60	9997.7	33322.94	18083.98	22.23	17.85	15.39
2066/67	2112.75	5008.30	3269.20	10052.18	36932.31	20315.83	21.01	13.56	16.09
2067/68	2378.26	7743.92	4286.60	11511.67	41127.91	21018.42	20.66	18.82	20.39
2068/69	3868.95	7863.62	5246.68	16952.70	50006.10	24991.44	23.34	15.73	20.99

Source: "Annual Report of NBBL, EBL & BOKL."

III
Loans & Advances to Total Working Fund Ratio

F/Y	Loans & Advances (Rs. In million)			Total working fund (Rs. In million)			Loans & Advances to Total Working Fund Ratio (%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	4409.01	13664.08	9399.32	7254.54	21432.57	14581.39	60.77	63.75	64.46
2064/65	5457.81	18339.08	12462.63	9391.02	27149.34	17721.92	58.11	67.55	70.32
2065/66	6704.94	23884.67	14647.29	11964.55	36916.84	20496.00	56.04	64.70	71.46
2066/67	7809.54	27556.35	16664.93	12531.04	41382.76	23396.19	62.32	66.59	71.23
2067/68	8452.73	31057.69	17468.19	14004.76	46236.21	24757.75	60.35	67.17	70.56
2068/69	10330.07	35910.97	18813.93	20169.75	55813.12	28881.99	51.21	64.34	65.14

Source: "Annual Report of NBBL, EBL & BOKL."

IV
Investment on Government Securities to Total Working Fund Ratio

F/Y	Investment on Government Securities (Rs. In million)			Total Working Fund (Rs. In million)			Investment on govt. securities to Total Working Fund Ratio(%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	826.8	4704.6	2332.04	7254.54	21432.57	14581.39	11.39	21.95	16.0
2064/65	1221.8	4906.5	2113.22	9391.02	27149.34	17721.92	13.01	18.07	11.92
2065/66	1715.8	5146.04	1744.97	11964.55	36916.84	20496.00	14.34	13.94	8.51
2066/67	1521.8	4354.35	2954.93	12531.04	41382.76	23396.19	12.14	10.52	12.63
2067/68	2113.8	7145.0	4002.1	14004.76	46236.21	24757.75	15.09	15.45	16.16
2068/69	3724.9	6068.9	5037.6	20169.75	55813.12	28881.99	18.46	10.87	17.44

Source: "Annual Report of NBBL, EBL & BOKL."

V
Investment on shares & Debentures to Total Working Fund Ratio

F/Y	Investment on shares & Debentures (Rs. In million)			Total Working Fund (Rs. In million)			Investment on shares & Debentures to Total Working Fund Ratio(%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	182.2	19.08	87.41	7254.54	21432.57	14581.39	2.51	0.089	0.6
2064/65	194.2	99.55	111.30	9391.02	27149.34	17721.92	2.07	0.37	0.63
2065/66	130.1	100.43	120.99	11964.55	36916.84	20496.00	1.09	0.27	0.59
2066/67	172.7	100.43	40.140	12531.04	41382.76	23396.19	1.38	0.24	0.17
2067/68	268.6	107.97	40.140	14004.76	46236.21	24757.75	1.91	0.23	0.16
2068/69	283.55	109.17	41.60	20169.75	55813.12	28881.99	0.14	0.19	0.14

Source: "Annual Report of NBBL, EBL & BOKL."

VI
Loan Loss Provision to Loan & Advances Ratio

F/Y	Loan Loss Provision (Rs. In million)			Loan & Advances (Rs. In million)			Loan Loss Ratio (%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	3633.7	418.6	286.5	4409.01	13664.08	9399.32	82.41	3.06	3.048
2064/65	3301.4	497.3	279.0	5457.81	18339.08	12462.63	51.75	2.71	2.23
2065/66	2376.3	584.9	297.5	6704.94	23884.67	14647.29	35.44	2.44	2.3
2066/67	1533.2	600.0	387.1	7809.54	27556.35	16664.93	19.63	2.17	2.32
2067/68	1779.6	604.2	488.8	8452.73	31057.69	17468.19	21.05	1.94	2.8
2068/69	6130.85	705.85	505.19	10330.07	35910.97	18813.93	5.93	1.96	2.68

Source: "Annual Report of NBBL, EBL & BOKL."

Appendix 3

Profitability Ratios

I
Return on Loans & Advances Ratio

F/Y	Net Profit (Rs. In million)			Loans & Advances (Rs. In million)			Return on Loans & Advances Ratio (%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	(1061.58)	296.41	262.38	4409.01	13664.08	9399.32	(24.07)	2.17	2.79
2064/65	596.48	451.21	361.49	5457.81	18339.08	12462.63	10.93	2.46	2.90
2065/66	2158.10	638.73	461.73	6704.94	23884.67	14647.29	32.19	2.67	3.15
2066/67	1021.38	831.8	509.26	7809.54	27556.35	16664.93	13.08	3.02	3.05
2067/68	(138.15)	931.30	605.15	8452.73	31057.69	17468.19	(1.63)	3.0	3.46
2068/69	809.47	1090.56	607.66	10330.07	35910.97	18813.93	7.83	3.03	3.22

Source: "Annual Report of NBBL, EBL & BOKL."

II
Return on Total Working fund Ratio

F/Y	Net Profit (Rs. In million)			Total Working Fund (Rs. In million)			Return on Total Working Fund Ratio (%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	(1061.58)	296.41	262.38	7254.54	21432.57	14581.39	(14.63)	1.38	1.80
2064/65	596.48	451.218	361.49	9391.02	27149.34	17721.92	6.35	1.66	2.04
2065/66	2158.10	638.73	461.73	11964.55	36916.84	20496.00	18.04	1.73	2.25
2066/67	1021.38	831.8	509.26	12531.04	41382.76	23396.19	8.15	2.01	2.18
2067/68	(138.15)	931.30	605.15	14004.76	46236.21	24757.75	(0.98)	2.01	2.44
2068/69	809.47	1090.56	607.66	20169.75	55813.12	28881.99	4.01	1.95	2.10

Source: "Annual Report of NBBL, EBL & BOKL."

III

Return on Equity

F/Y	Net Profit (Rs. In million)			Equity (Rs. In million)			Return on Equity (%)		
	NBBL	**EBL**	**BOKL**	**NBBL**	**EBL**	**BOKL**	**NBBL**	**EBL**	**BOKL**
2063/64	(1061.58)	296.41	262.38	(2624.16)	1201.51	981.978	40.45	24.67	26.72
2064/65	596.48	451.21	361.49	(2191.44)	1921.23	1342.07	(27.17)	23.49	26.93
2065/66	2158.10	638.73	461.73	1112.24	2203.62	1741.59	193.35	28.99	26.51
2066/67	1021.38	831.8	509.26	2133.59	2759.13	2073.52	47.73	30.15	24.56
2067/68	(138.15)	931.30	605.15	2251.17	3113.54	2435.18	(6.13)	26.38	24.85
2068/69	809.47	1090.56	607.66	2953.96	4177.30	2700.83	27.40	26.10	22.50

Source: "Annual Report of NBBL, EBL & BOKL."

IV

Total Interest Earned to Total outside Assets Ratio

F/Y	Total Interest Earned (Rs. In million)			Total Outside Assets (Rs. In million)			Total Interest Earned to Total Outside Assets Ratio (%)		
	NBBL	**EBL**	**BOKL**	**NBBL**	**EBL**	**BOKL**	**NBBL**	**EBL**	**BOKL**
2063/64	982.19	1144.41	819.00	5443.57	18648.39	12391.75	18.04	6.13	6.60
2064/65	828.27	1548.65	1034.15	6847.71	23398.63	15666.70	12.09	6.61	6.60
2065/66	1337.11	2186.81	1347.75	8927.37	29833.15	17430.89	14.97	7.33	7.73
2066/67	1167.62	3102.45	1870.84	9922.29	32564.65	19934.13	11.76	9.52	9.38
2067/68	1436.67	4331.02	2386.78	10830.99	38801.62	21754.79	13.26	11.16	10.97
2068/69	1529.04	4959.99	2620.89	14199.02	43774.59	24060.61	10.76	10.50	10.89

Source: "Annual Report of NBBL, EBL & BOKL."

V
Total Interest Earned to Total Working Fund Ratio

F/Y	Total Interest Earned (Rs. In million)			Total Working Fund (Rs. In million)			Total Interest Earned to Total Working Fund Ratio (%)		
	NBBL	**EBL**	**BOKL**	**NBBL**	**EBL**	**BOKL**	**NBBL**	**EBL**	**BOKL**
2063/64	982.19	1144.41	819.00	7254.54	21432.57	14581.39	13.53	5.34	5.61
2064/65	828.27	1548.65	1034.15	9391.02	27149.34	17721.92	8.82	5.70	5.83
2065/66	1337.11	2186.81	1347.75	11964.55	36916.84	20496.00	11.17	5.92	6.57
2066/67	1167.62	3102.45	1870.84	12531.04	41382.76	23396.19	9.31	7.50	8.0
2067/68	1436.67	4331.02	2386.78	14004.76	46236.21	24757.75	10.25	9.37	9.64
2068/69	1529.04	4959.99	2620.89	20169.75	55813.12	28881.99	7.58	8.88	9.07

Source: "Annual Report of NBBL, EBL & BOKL."

VI
Total Interest Earned to Total Operating Income Ratio

F/Y	Total Interest Earned (Rs. In million)			Total operating Income (Rs. In million)			Total Interest Earned to Total operating Income Ratio (%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	982.19	1144.41	819.00	793.81	841.33	677.08	123.73	136.02	120.96
2064/65	828.27	1548.65	1034.15	816.46	1209.89	862.96	101.44	127.99	119.83
2065/66	1337.11	2186.81	1347.75	1255.35	1544.96	1114.82	106.51	141.54	120.89
2066/67	1167.62	3102.45	1870.84	936.97	1927.97	1338.52	124.61	160.91	139.33
2067/68	1436.67	4331.02	2386.78	963.08	2192.94	1538.32	149.17	197.49	155.15
2068/69	1529.04	4959.99	2620.89	806.85	2609.73	1535.31	189.50	176.26	170.70

Source: "Annual Report of NBBL, EBL & BOKL."

VII
Total Interest Paid to Total Working Fund Ratio

F/Y	Total Interest Paid (Rs. In million)			Total Working Fund (Rs. In million)			Total Interest Paid to Total Working Fund Ratio (%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	432.21	517.16	339.18	7254.54	21432.57	14581.39	5.95	2.41	2.32
2064/65	397.99	632.61	417.54	9391.02	27149.34	17721.92	4.23	2.33	2.35
2065/66	409.77	1012.87	563.11	11964.55	36916.84	20496.00	3.42	2.74	2.74
2066/67	476.78	1572.79	902.93	12531.04	41382.76	23396.19	3.80	3.8	3.86
2067/68	745.22	2535.87	1218.79	14004.76	46236.21	24757.75	5.32	5.48	4.92
2068/69	1037.81	2873.33	1484.53	20169.75	55813.12	28881.99	5.14	5.14	5.14

Source: "Annual Report of NBBL, EBL & BOKL."

Appendix 4

Risk Ratios

I
Liquidity Risk Ratio (Total Cash & Bank balance to Total Deposit Ratio)

F/Y	Total cash & Bank balance (Rs. In million)			Total Deposit (Rs. In million)			Liquidity Risk Ratio (%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	1164.05	2391.42	1315.90	9385.95	18186.25	12388.92	12.40	13.25	10.62
2064/65	1922.84	2667.97	1440.46	10883.65	23976.30	15833.73	17.67	11.12	10.0
2065/66	2571.41	6164.37	2182.11	9997.7	33322.94	18083.98	25.72	18.50	12.06
2066/67	2058.30	7818.81	1798.36	10052.18	36932.31	20315.83	20.47	21.17	8.85
2067/68	2464.92	6122.86	167893	11511.67	41127.91	21018.42	21.41	14.88	7.99
2068/69	4663.70	9860.74	2721.71	16952.70	50006.10	24991.44	29.55	20.72	13.53

II
Credit Risk Ratio (Loans & Advances to Total Assets Ratio)

F/Y	Loans& Advances (Rs. In million)			Total Working Fund (Rs. In million)			Loans & Advances to Total Working Fund Ratio (%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	4409.01	13664.08	9399.32	7254.54	21432.57	14581.39	60.77	63.75	64.46
2064/65	5457.81	18339.08	12462.63	9391.02	27149.34	17721.92	58.11	67.55	70.32
2065/66	6704.94	23884.67	14647.29	11964.55	36916.84	20496.00	56.04	64.70	71.46
2066/67	7809.54	27556.35	16664.93	12531.04	41382.76	23396.19	62.32	66.59	71.23
2067/68	8452.73	31057.69	17468.19	14004.76	46236.21	24757.75	60.35	67.17	70.56
2068/69	10330.07	35910.97	18813.93	20169.75	55813.12	28881.99	51.21	64.34	65.14

Source: "Annual Report of NBBL, EBL & BOKL."

III
Capital Risk Ratio

F/Y	Capital (Rs. In million)			Risk Weighted Assets (Rs. In million)			Capital Risk Ratio (%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	(2707.44)	1676.12	1265.83	11496.56	14978.73	10224.79	(23.55)	11.20	12.62
2064/65	(2151.40)	2387.13	1635.16	13046.69	21050.52	14255.97	(18.17)	11.44	11.93
2065/66	855.60	2875.90	2067.70	12924.47	26049.81	17361.04	5.55	11.34	11.68
2066/67	1112.24	2203.62	1741.60	8642.11	20867.61	15210.48	12.63	10.77	10.85
2067/68	1845.66	2759.14	2071.36	18112.46	26453.88	17825.81	10.19	10.43	11.62
2068/69	2144.5	3113.5	2435.2	18081.78	28253.17	21998.19	11.86	11.02	11.07

Source: "Annual Report of NBBL, EBL & BOKL."

IV
Interest Rate Risk Ratio

F/Y	Interest Sensitive assets (Rs. In million)			Interest Sensitive liabilities (Rs. In million)			Interest Rate Risk Ratio (%)		
	NBBL	EBL	BOKL	NBBL	EBL	BOKL	NBBL	EBL	BOKL
2063/64	4737.27	17546.95	11633.74	5629.56	15712.24	10921.75	84.15	111.67	106.51
2064/65	6210.93	21869.22	14688.80	7139.08	20478.07	13179.85	86.54	106.79	111.44
2065/66	7591.22	27663.16	16102.53	7903.78	27425.44	15095.20	96.04	99.14	106.67
2066/67	8756.98	29484.52	18108.27	8095.63	31044.92	16597.72	108.17	94.97	109.10
2067/68	9404.35	34486.55	19373.86	9312.34	33597.21	17611.24	100.98	102.64	110.0
2068/69	9394.33	38814.60	21439.72	9312.34	40355.59	20339.16	100.88	96.18	105.41

Appendix 5

Growth Ratios

A. Growth ratio of Total deposit

i. Growth ratio of NBBL (%)

$$\text{Factor} = \frac{\text{Last Year Figure}}{\text{First Year Figure}}$$

$$= \frac{16952.70}{9385.94}$$

$$= 1.806$$

$\text{Factor} = (1+ g)^{n-1}$

$1.806 = (1 + g)^{6-1}$

$g = (1.81)^{1/5} - 1$

$g = 12.6\ \%$

ii. Growth ratio of EBL (%)

$$\text{Factor} = \frac{\text{Last Year Figure}}{\text{First Year Figure}}$$

$$= \frac{50006.10}{18186.25}$$

$$= 2.74$$

$\text{Factor} = (1+ g)^{n-1}$

$2.74 = (1 + g)^{6-1}$

$g = 22.42\ \%$

iii. Growth ratio of BOKL (%)

$$\text{Factor} = \frac{\text{Last Year Figure}}{\text{First Year Figure}}$$

$$= \frac{24991.44}{12388.92}$$

= 2.017

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

2.017 = $(1 + g)^{6-1}$

g = $(2.017)^{1/5} - 1$

g = 15.06%

B. Growth ratio of Loans & Advances

i. Growth ratio of NBBL (%)

$$\text{Factor} = \frac{\text{Last Year Figure}}{\text{First Year Figure}}$$

$$= \frac{10330.07}{4409.01}$$

= 2.34

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

2.34 = $(1 + g)^{6-1}$

g = $(2.34)^{1/5} - 1$

g = 18.53 %

ii. Growth ratio of EBL (%)

$$\text{Factor} = \frac{\text{Last Year Figure}}{\text{First Year Figure}}$$

$$= \frac{35910.97}{13664.08}$$

= 2.62

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

g = $(2.62)^{1/5} - 1$

g = 21.24 %

iii. Growth ratio of BOKL (%)

$$\text{Factor} = \frac{\text{Last Year Figure}}{\text{First Year Figure}}$$

$$= \frac{18813.93}{9399.32}$$

$$= 2.0$$

$\text{Factor} = (1+ g)^{n-1}$

$g = (2.0)^{1/5} - 1$

$g = 14.86\ \%$

C. Growth ratio of Total investment

i. Growth ratio of NBBL (%)

$$\text{Factor} = \frac{\text{Last Year Figure}}{\text{First Year Figure}}$$

$$= \frac{3868.95}{1034.56}$$

$$= 3.73$$

$\text{Factor} = (1+ g)^{n-1}$

$3.73 = (1 + g)^{6-1}$

$g = 30\ \%$

ii. Growth ratio of EBL (%)

$$\text{Factor} = \frac{\text{Last Year Figure}}{\text{First Year Figure}}$$

$$= \frac{7863.62}{4984.31}$$

$$= 1.57$$

$\text{Factor} = (1+ g)^{n-1}$

g = $(1.57)^{1/5}$ -1

g = 9.4 %

iii. Growth ratio of BOKL (%)

$$\text{Factor} = \frac{\text{Last Year Figure}}{\text{First Year Figure}}$$

$$= \frac{5246.68}{2992.43}$$

$$= 1.75$$

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

$1.75 = (1 + g)^{6-1}$

g = $(1.75)^{1/5}$ -1

g = 11 %

D. Growth ratio of Net Profit

i. Growth ratio of NBBL (%)

$$\text{Factor} = \frac{\text{Last Year Figure}}{\text{First Year Figure}}$$

$$= \frac{809.47}{-1061.58}$$

$$= -0.76$$

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

$-0.76 = (1 + g)^{6-1}$

g = $(-0.76)^{1/5}$ -1

g = 194.65%

ii. Growth ratio of EBL (%)

$$\text{Factor} = \frac{\text{Last Year Figure}}{\text{First Year Figure}}$$

$$= \frac{10920.56}{296.41}$$

$$= 3.68$$

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

g = $(3.68)^{1/5} - 1$

g = 29.76%

ii. Growth ratio of BOKL (%)

$$\text{Factor} = \frac{\text{Last Year Figure}}{\text{First Year Figure}}$$

$$= \frac{607.66}{262.38}$$

$$= 2.31$$

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

2.31= $(1 + g)^{6-1}$

g = $(2.31)^{1/5} - 1$

g = 18.22 %

Appendix 6

Calculation of Mean, standard deviation (S.D) &Coefficient of Variation (C.V)

F/Y	NBBL		EBL		BOKL	
	X_1	X_1^2	X_1	X_1^2	X_1	X_1^2
2063/64	0.73	0.53	1.06	1.12	1.06	1.12
2064/65	0.80	0.64	1.07	1.14	1.07	1.14
2065/66	1.09	1.19	1.07	1.14	1.09	1.18
2066/67	1.19	1.41	1.08	1.16	1.10	1.21
2067/68	1.16	1.34	1.06	1.12	1.09	1.18
2068/69	1.15	1.32	1.07	1.14	1.09	1.18
Total	**6.12**	**6.43**	**6.41**	**6.84**	**6.5**	**7.01**
Mean	**1.02**		**1.06**		**1.08**	

For NBBL

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

= $\sqrt{\frac{6.43}{6} - (1.02)^2}$

= $\sqrt{1.07 - 1.04}$

= $\sqrt{0.0296}$

= 0.17

C.V = $\frac{0.17}{1.02} x100$

= 16.86 %

For EBL

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

$= \sqrt{\frac{6.84}{6} - (1.06)^2}$

$= \sqrt{1.14 - 1.12}$

$= \sqrt{0.02}$

$= 0.14$

C.V= $\frac{0.14}{1.06} x100$

= 13.34 %

For BOKL

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

$= \sqrt{\frac{7.01}{6} - (1.08)^2}$

$= \sqrt{1.17 - 1.16}$

$= \sqrt{0.01}$

= 0.1

C.V= $\frac{0.1}{1.08} x100$

= 9.25 %

Appendix 7
I
A

Coefficient of correlation Between Total Deposits and Loans & Advances

NBBL

F/Y	Total Deposits (Rs.in Million) (X)	Total Loans & Advances (Rs.in Million) (Y)	$x = X - \bar{X}$	x^2	$y = Y - \bar{Y}$	y^2	xy
2063/64	9385.94	4409.01	(2078.03)	4318208.68	(2785)	7756225.00	5787313.55
2064/65	10883.65	5457.80	(580.32)	336771.30	(1736.21)	3014425.16	1007557.38
2065/66	9997.70	6704.94	(1466.27)	2149947.71	(489.07)	239189.46	717108.66
2066/67	10052.18	7809.54	(1411.79)	1993151.00	615.53	378877.18	(868999.09)
2067/68	11511.67	8452.73	47.7	2257.29	1258.72	1584376.00	60040.94
2068/69	16952.70	10330.07	5488.73	30126157.01	3136.06	9834872.32	17212986.6
Total	**∑X= 68783.84**	**∑Y = 43164.09**	**∑ x = 0**	**∑ x^2 = 36776545.28**	**∑ y=0**	**∑ y^2 = 22807965.12**	**∑xy= 23916008.04**
Mean	**11463.97**	**7194.01**					

$$r = \frac{N\sum xy - \sum x.\sum y}{\sqrt{\sum NX^2 - (\sum x)^2}.\sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{6x23916008.04 - 0x0}{\sqrt{6x36776545.28 - (0)^2}.\sqrt{6x22807965.12 - (0)^2}}$$

= 0.82

r^2 = 0.681

Probable Error (P.E) = $0.6745\left[\frac{1-r^2}{\sqrt{n}}\right]$

= $0.6745\left[\frac{1-0.681}{\sqrt{6}}\right]$

= 0.087

6 X P.E = 6 X 0.096

=0.527

B

Coefficient of correlation Between Total Deposits and Loans & Advances

EBL

F/Y	Total Deposits (Rs.in Million) (X)	Total Loans & Advances (Rs.in Million) (Y)	$x = X - \bar{X}$	x^2	$y = Y - \bar{Y}$	y^2	xy
2063/64	18186.25	13664.08	(15739.05)	247717695.0	(11403.92)	130049391.4	179486867.1
2064/65	23976.30	18339.08	(9949.01)	98982799.9	(6728.921)	45278364.37	66946092.37
2065/66	33322.94	23884.67	(602.36)	362837.56	(1183.33)	1400269.89	712790.65
2066/67	36932.31	27556.36	3007.07	9042109.14	2488.35	6191885.72	7482493.33
2067/68	41127.91	31057.69	7202.61	51877590.8	5989.69	35876386.3	43141401.09
2068/69	50006.10	35910.97	16080.8	258592128.6	10842.97	117569998.0	174363632.0
Total	**∑X = 203551.8**	**∑Y= 150412.84**	**∑x = 0**	**∑x^2 = 666575161.0**	**∑y= 0**	**∑y^2 = 336366296.8**	**∑xy = 471491765.5**
Mean	**33925.3**	**25068.00**					

$$r = \frac{N\sum xy - \sum x.\sum y}{\sqrt{\sum NX^2 - (\sum x)^2}.\sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{6x471474917 65.5 - 0x0}{\sqrt{6x666575161 - (0)^2}.\sqrt{6x336366296.8 - (0)^2}}$$

= 0.995

r^2 = 0.991

Probable Error (P.E) = $0.6745\left[\frac{1-r^2}{\sqrt{n}}\right]$

$=0.6745\left[\frac{1-0.991}{\sqrt{6}}\right]$

= 0.00247

6 X P.E = 6 X 0.0024

= 0.015

C

Coefficient of correlation Between Total Deposits and Loans & Advances

BOKL

F/Y	Total Deposits (Rs.in Million) (X)	Total Loans & Advances (Rs.in Million) (Y)	$x = X - \bar{X}$	x^2	$y = Y - \bar{Y}$	y^2	xy
2063/64	12388.92	9399.32	(6383.13)	40744348.6	(5510.05)	30360684.06	35171365.46
2064/65	15833.73	12462.63	(2938.32)	8633724.42	(2446.75)	5986585.56	7189334.46
2065/66	18083.98	14647.29	(688.07)	473440.32	(262.09)	68691.16	180336.26
2066/67	20315.83	16664.93	1543.78	2383256.68	1755.55	3081955.80	2710182.98
2067/68	21018.42	17468.19	2246.37	5046178.17	2558.81	6547508.61	5748034.02
2068/69	24991.44	18813.93	6219.39	38680811.97	3904.55	15245510.7	24283919.22
Total	**∑X = 112632.32**	**∑Y= 89456.31**	**∑x = 0**	**$\sum x^2$ =95961760.16**	**∑y= 0**	**$\sum y^2$ = 61290935.89**	**∑xy= 75283172.4**
Mean	**18772.05**	**14909.38**					

$$r = \frac{N\sum xy - \sum x \sum y}{\sqrt{\sum NX^2 - (\sum x)^2}\sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{6x75283172.4 - 0x0}{\sqrt{6x95961760.16 - (0)^2}.\sqrt{6x61290935.89 - (0)^2}}$$

= 0.981

$r^2 = 0.963$

Probable Error (P.E) $= 0.6745\left[\frac{1-r^2}{\sqrt{n}}\right]$

$$=0.6745\left[\frac{1-0.963}{\sqrt{6}}\right]$$

= 0.010

6 X P.E = 6 X 0.010

= 0.06

II

A

Coefficient of correlation Between Total Deposits and Total Investment

NBBL

F/Y	Total Deposits (Rs.in Million) (X)	Total Investment (Rs.in Million) (Y)	$x = X - \overline{X}$	x^2	$y = Y - \overline{Y}$	y^2	xy
2063/64	9385.94	1034.56	(2078.03)	4318208.68	(1133.25)	1284255.56	2354927.49
2064/65	10883.65	1389.90	(580.32)	336771.30	(777.91)	605143.96	45143.6.73
2065/66	9997.70	2222.43	(1466.27)	2149947.71	(1945.38)	3784503.34	2852452.33
2066/67	10052.18	2112.75	(1411.79)	1993151.00	(55.06)	3031.60	77733.15
2067/68	11511.67	2378.27	47.7	2257.29	210.46	44293.41	10038.94
2068/69	16952.70	3868.95	5488.73	30126157.01	1701.14	2893877.3	9337098.15
Total	**∑X= 68783.84**	**∑Y= 13006.86**	**∑ x = 0**	**∑ x^2 = 36776545.28**	**∑y=0**	**∑y^2 = 8615105.17**	**∑xy = 1508368.68**
Mean	**11463.97**	**2167.81**					

$$r = \frac{N\sum xy - \sum x.\sum y}{\sqrt{\sum NX^2 - (\sum x)^2}.\sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{6x15086368-0x0}{\sqrt{6x36776545.28-(0)^2}.\sqrt{6x8615105.17-(0)^2}}$$

= 0.847

$r^2 = 0.718$

Probable Error (P.E) = $0.6745\left[\frac{1-r^2}{\sqrt{n}}\right]$

$$= 0.6745\left[\frac{1-0.718}{\sqrt{6}}\right]$$

= 0.077

6 X P.E = 6 X 0.077

= 0.466

B

Coefficient of correlation Between Total Deposits and Total Investment

EBL

F/Y	Total Deposits (Rs.in Million) (X)	Total Investment (Rs.in Million) (Y)	$x = X - \bar{X}$	x^2	$y = Y - \bar{Y}$	y^2	xy
2063/64	18186.25	4984.31	(15739.05)	247717694.9	(1117	1247800.70	17581305.8
2064/65	23976.30	5059.55	(9949.01)	98982799.98	(1041.81)	1085368.07	10364978.11
2065/66	33322.94	5948.48	(602.36)	362837.56	(152.88)	23372.29	92088.79
2066/67	36932.31	5008.30	3007.01	9042109.14	(1093.05)	1194758.30	(3286812.28)
2067/68	41127.91	7743.93	7202.61	51877590.81	1642.57	2698036.20	11830791.11
2068/69	50006.10	7863.62	16080.8	258592128.6	1762.26	3105560.31	28338550.61
Total	**∑X = 203551.81**	**∑Y= 36608.2**	**∑x = 0**	**$\sum x^2$ = 666575161.0**	**∑y= 0**	**$\sum y^2$ = 9354895.87**	**∑xy= 64920902.14**
Mean	**33925.3**	**6101.36**					

$$r = \frac{N\sum xy - \sum x.\sum y}{\sqrt{\sum NX^2 - (\sum x)^2}.\sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{6x64920902.14 - 0x0}{\sqrt{6x666575161 - (0)^2}.\sqrt{6x5628251.71 - (0)^2}}$$

= 0.822

$r^2 = 0.675$

Probable Error (P.E) = $0.6745\left[\frac{1-r^2}{\sqrt{n}}\right]$

$$=0.6745\left[\frac{1-0.675}{\sqrt{6}}\right]$$

= 0.089

6 X P.E = 6 X 0.089

= 0.537

C

Coefficient of correlation Between Total Deposits and Total Investment BOKL

F/Y	Total Deposits (Rs.in Million) (X)	Total Investment (Rs.in Million) (Y)	$x = X - \overline{X}$	x^2	$y = Y - \overline{Y}$	y^2	xy
2063/64	12388.92	2992.43	(6383.12)	40744220.93	(637.99)	407031.24	4070366.73
2064/65	15833.73	3204.067	(2938.32)	8633724.42	(426.36)	181782.84	1252782.11
2065/66	18083.98	2783.598	(688.07)	473440.32	(846.82)	717104.11	582671.43
2066/67	20315.83	3269.204	1543.78	2383256.68	(361.22)	130479.88	(557644.21)
2067/68	21018.42	4286.60	2246.37	5046178.17	656.18	430572.19	1474023.06
2068/69	24991.44	5246.68	6219.39	38680811.97	1616.26	2612296.38	10052151.28
Total	**∑X= 112632.33**	**∑Y= 21782.57**	**∑x = 0**	**$\sum x^2$ = 95961632.49**	**∑y= 0**	**$\sum y^2$= 4479366.64**	**∑xy= 16876350.4**
Mean	**18772.05**	**3630.42**					

$$r = \frac{N\sum xy - \sum x.\sum y}{\sqrt{\sum NX^2 - (\sum x)^2}.\sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{6x1687635O.4 - 0x0}{\sqrt{6x95961632.49 - (0)^2}.\sqrt{6x4479366.64 - (0)^2}}$$

= 0.81

$r^2 = 0.662$

Probable Error (P.E) = $0.6745\left[\frac{1-r^2}{\sqrt{n}}\right]$

$$=0.6745\left[\frac{1-0.662}{\sqrt{6}}\right]$$

= 0.092

6 X P.E = 6 X 0.092

= 0.557

III

A

Coefficient of correlation Between Net Profit and Total outside Assets

NBBL

F/Y	Net Profit (Rs.in Million) (X)	Total outside Assets(Rs.in Million) (Y)	$x = X - \bar{X}$	x^2	$y = Y - \bar{Y}$	y^2	xy
2063/64	(1061.58)	5443.57	(1625.86)	2643420.74	(3918.25)	15352683.06	6370525.94
2064/65	596.48	6847.71	32.2	1036.84	(2514.11)	6320749.09	(80954.34)
2065/66	2158.10	8927.37	1593.82	2540262.19	(434.45)	188746.80	(692435.09)
2066/67	1021.38	9922.29	457.1	208940.41	560.47	314126.62	256190.83
2067/68	(138.16)	10830.99	(702.44)	493421.95	1469.17	2158460.49	(1032003.77)
2068/69	809.47		245.19	60118.13	4837.2	23398503.84	1186033.07
Total	**∑X= 3385.69**	**∑Y = 56170.95**	**∑ x = 0**	**$\sum x^2$ = 5947200.26**	**∑ y=0**	**$\sum y^2$ = 47733269.9**	**∑xy = 6007356.63**
Mean	**564.28**	**9361.82**					

$$r = \frac{N\sum xy - \sum x.\sum y}{\sqrt{\sum NX^2 - (\sum x)^2}.\sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{6x6007356.63 - 0x0}{\sqrt{6x5947200.26 - (0)^2}.\sqrt{6x47733269.9 - (0)^2}}$$

= 0.35

$r^2 = 0.1271$

Probable Error (P.E) = $0.6745\left[\frac{1-r^2}{\sqrt{n}}\right]$

$$=0.6745\left[\frac{1-0.127}{\sqrt{6}}\right]$$

= 0.240

6 X P.E = 6 X 0.240
= 1.442

B

Coefficient of correlation Between Net Profit and Total outside Assets

EBL

F/Y	**Net Profit (Rs.in Million) (X)**	**Total outside Assets(Rs.in Million) (Y)**	**x =X-$\overline{X}$**	**x^2**	**y = Y - $\overline{Y}$**	**y^2**	**xy**
2063/64	296.409	18648.39	(410.26)	168313.26	(12521.78)	156795099.6	5137185.46
2064/65	451.218	23398.63	(255.45)	65229.16	(7771.54)	60396911.69	1985239.89
2065/66	638.73	29833.15	(67.94)	4615.84	(1337.02)	1787635.85	90837.47
2066/67	831.8	32564.65	125.13	15657.51	1394.47	1944560.52	174490.03
2067/68	931.30	38801.618	224.63	50458.63	7631.44	58238922.26	1714250.36
2068/69	1090.56	43774.60	3863.89	147374.60	12604.42	158871529.6	4838710.79
Total	**∑X= 4240.02**	**∑Y = 187021.05**	**∑ x = 0**	**$\sum x^2$ = 451649.0**	**∑ y=0**	**$\sum y^2$ = 438034659.5**	**∑xy = 13940714.0**
Mean	**706.67**	**31170.17**					

$$r = \frac{N\sum xy - \sum x.\sum y}{\sqrt{\sum NX^2 - (\sum x)^2}.\sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{6\ X13940714 - 0X0}{\sqrt{6\ X\ 451649 - (0)\ 2}\quad \sqrt{6\ X438034659.5 - (0)\ 2}}$$

= 0.991

$r^2 = 0.982$

Probable Error (P.E) = $0.6745\left[\frac{1-r^2}{\sqrt{n}}\right]$

$$=0.6745\left[\frac{1-0.982}{\sqrt{6}}\right]$$

= 0.0049

6 X P.E = 6 X 0.0049

= 0.029

C

Coefficient of correlation Between Net Profit and Total outside Assets

BOKL

F/Y	**Net Profit (Rs.in Million) (X)**	**Total outside Assets(Rs.in Million) (Y)**	**$x = X - \bar{X}$**	**x^2**	**$y = Y - \bar{Y}$**	**y^2**	**xy**
2063/64	262.38	12391.5	(205.56)	42254.91	(6148.06)	37798641.76	12637965.21
2064/65	361.49	15666.70	(106.45)	11331.60	(2873.11)	8254761.07	305842.55
2065/66	461.73	17430.89	(6.21)	38.56	(1108.92)	1229703.56	6886.39
2066/67	509.26	19934.13	41.32	1707.59	1394.32	1944128.26	57613.30
2067/68	605.15	21754.79	137.21	18826.58	3214.98	10336096.4	441127.40
2068/69	607.66	24060.61	139.72	19521.67	5520.8	30479232.64	771366.17
Total	**∑X=2807.69**	**∑Y = 111238.87**	**∑ x = 0**	**∑ x^2 = 93680.91**	**∑ y=0**	**∑y^2= 90042563.69**	**∑xy = 2846631.02**
Mean	**467.94**	**18539.81**					

$$r = \frac{N\sum xy - \sum x.\sum y}{\sqrt{\sum NX^2 - (\sum x)^2}.\sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{6x2846631.02 - 0x0}{\sqrt{6x936870.91 - (0)^2}.\sqrt{6x900425653.69 - (0)^2}}$$

= 0.9801

r^2 = 0.960

Probable Error (P.E) = 0.6745 $\left[\frac{1-r^2}{\sqrt{n}}\right]$

$$=0.6745\left[\frac{1-0.960}{\sqrt{6}}\right]$$

= 0.010

6 X P.E = 6 X 0.010

= 0.0650

Appendix 8

I

Trend values of total deposits of NBBL

Year (t)	**Total Deposits (y)**	**x (t-2066.5)**	**x^2**	**xy**	**yc = a +bx yc=11463.97 +3314.36x**
2064	9385.94	-2.5	6.25	-23464.87	3177.36
2065	10883.65	-1.5	2.25	-16325.47	6492.43
2066	9997.70	-0.5	0.25	-4998.85	9806.79
2067	10052.18	0.5	0.25	5026.09	13121.15
2068	11511.67	1.5	2.25	17267.50	16435.5
2069	16952.70	2.5	6.25	42381.75	19749.87
Total	**68783.84**	**0**	**17.5**	**19886.15**	
N =6					

a = 11463.97

b = 3314.36

Trend Values of Total Deposits of NBBL

Year (t)	x (t-2066.5)	yc = a +bx yc= 11463.97 +3314.36x
2070	3.5	23064.23
2071	4.5	26378.59
2072	5.5	29692.95
2073	6.5	33007.31
2074	7.5	36321.67

II
Trend Values of Total deposits of EBL

Year (t)	Total Deposits (y)	x(t-2066.5)	x^2	xy	yc = a +bx yc=33925.30 +17846.95x
2064	18186.25	-2.5	6.25	-45465.62	(10692.07)
2065	23976.29	-1.5	2.25	-35964.43	7154.87
2066	33322.94	-0.5	0.25	-16661.47	25001.82
2067	36932.31	0.5	0.25	18466.15	42848.77
2068	41127.91	1.5	2.25	61691.86	60695.72
2069	50006.10	2.5	6.25	125015.25	78542.67
Total	**203551.81**	**0**	**17.5**	**107081.74**	
N =6					

a = 33925.30

b = 17846.95

Trend Values of Total Deposits of EBL

Year (t)	x (t-2066.5)	yc = a +bx yc= 33925.30 +17846.95x
2070	3.5	96389.62
2071	4.5	114236.57
2072	5.5	132083.52
2073	6.5	149930.47
2074	7.5	167777.42

III
Trend Values of Total deposits of BOKL

Year (t)	Total Deposits (y)	x(t-2066.5)	x^2	xy	yc = a +bx yc=18772.05+6733.20x
2064	12388.92	-2.5	6.25	-30972.322	1939.03
2065	15833.73	-1.5	2.25	-23750.59	8672.25
2066	18083.98	-0.5	0.25	-9041.99	15405.45
2067	20315.83	0.5	0.25	10157.91	22138.65
2068	21018.42	1.5	2.25	31527.63	28871.85
2069	24991.44	2.5	6.25	62478.6	35605.05
Total	**112632.32**	**0**	**17.5**	**40399.24**	
N =6					

a = 18772.05
b = 6733.20

Trend Values of Total Deposits of BOKL

Year (t)	x (t-2066.5)	yc = a +bx yc= 18772.05+6733.20x
2070	3.5	42338.25
2071	4.5	45071.45
2072	5.5	55804.65
2073	6.5	62537.85
2074	7.5	69271.05

Appendix 9

II
Trend Values of Loans & Advances of NBBL

Year (t)	Loans & Advances (y)	x(t-2066.5)	x^2	xy	yc = a +bx yc=7194.01 +3307.89x
2064	4409.01	-2.5	6.25	-11022.52	4409.01
2065	5457.80	-1.5	2.25	-8186.7	5457.8
2066	6704.94	-0.5	0.25	-3352.47	6704.94
2067	7809.54	0.5	0.25	3904.77	7809.54
2068	8452.73	1.5	2.25	12679.09	8452.73
2069	10330.07	2.5	6.25	25825.17	10330.07
Total	**43164.09**	**0**	**17.5**	**19847.34**	
N =6					

a = 7194.01

b = 3307.89

Trend Values of Loans & Advances of NBBL

Year (t)	**x (t-2066.5)**	**yc = a +bx** **yc= 7194.01+3307.89x**
2070	3.5	18771.62
2071	4.5	22079.51
2072	5.5	25387.40
2073	6.5	28695.29
2074	7.5	32003.18

II
Trend Values of Loans & Advances of EBL

Year (t)	**Loans & Advances (y)**	**x(t-2066.5)**	**x^2**	**xy**	**yc = a +bx** **yc=25068.80 +12755.16x**
2064	13664.08	-2.5	6.25		(6819.1)
2065	18339.08	-1.5	2.25		5936.06
2066	23884.67	-0.5	0.25		18691.22
2067	27556.35	0.5	0.25		31446.38
2068	31057.69	1.5	2.25		44201.54
2069	35910.97	2.5	6.25		56956.7
Total	**150412.84**		**17.5**		
N =6					

a = 25068.80

b = 12755.16

Trend Values of Loans & Advances of EBL

Year (t)	**x (t-2066.5)**	**yc = a +bx** **yc= 25068.80 +12755.16x**
2070	3.5	69711.86
2071	4.5	82467.02
2072	5.5	95222.18
2073	6.5	107977.34
2074	7.5	120732.5

III
Trend Values of Loans & Advances of BOKL

Year (t)	Loans & Advances (y)	x(t-2066.5)	x^2	xy	yc = a +bx yc=14909.38+5342.29x
2064	9399.32	-2.5	6.25	1553.65	1553.65
2065	12462.63	-1.5	2.25	6895.94	6895.94
2066	14647.30	-0.5	0.25	12238.23	12238.23
2067	16664.93	0.5	0.25	17580.52	17580.52
2068	17468.19	1.5	2.25	22922.81	22922.81
2069	18813.93	2.5	6.25	28265.10	28265.10
Total	**89456.31**	**0**	**17.5**		
N =6					

a = 14909.38

b = 5342.29

Trend Values of Loans & Advances of BOKL

Year (t)	x (t-2066.5)	yc = a +bx yc= 14909.38 +5342.29x
2070	3.5	33607.39
2071	4.5	38949.68
2072	5.5	44291.97
2073	6.5	49634.26
2074	7.5	54976.55

Appendix 10

I
Trend Values of Total Investment of NBBL

Year (t)	Total Investment (y)	x(t-2066.5)	x^2	xy	yc = a +bx yc=2167.81+1418.94x
2064	1034.56	-2.5	6.25	-2586.4	(1379.54)
2065	1389.90	-1.5	2.25	-2084.85	39.4
2066	2222.43	-0.5	0.25	-1111.21	1458.34
2067	2112.75	0.5	0.25	1056.37	2877.28
2068	2378.27	1.5	2.25	3567.40	4296.22
2069	3868.95	2.5	6.25	9672.37	5715.16
Total	**13006.86**		**17.5**	**8513.68**	
N =6					

a = 2167.81

b = 1418.94

Trend Values of Total Investment of NBBL

Year (t)	**x (t-2066.5)**	**yc = a +bx** **yc= 2167.81 +1418.94x**
2070	3.5	7134.1
2071	4.5	8553.04
2072	5.5	9971.98
2073	6.5	11390.92
2074	7.5	12809.86

II
Trend Values of Total Investment of EBL

Year (t)	**Total Investment (y)**	**x(t-2066.5)**	**x^2**	**xy**	**yc = a +bx** **yc=6101.36+1792.24x**
2064	4984.31	-2.5	6.25	-12460.77	1620.76
2065	5059.55	-1.5	2.25	-7589.32	3413.0
2066	5948.48	-0.5	0.25	-2974.24	5205.24
2067	5008.30	0.5	0.25	2504.15	6997.48
2068	7743.93	1.5	2.25	11015.89	8789.72
2069	7863.62	2.5	6.25	19659.05	10581.96
Total	**36608.2**	**0**	**17.5**	**10754.74**	
N =6					

a = 6101.36

b = 1792.24

Trend Values of Total Investment of EBL

Year (t)	**x(t-2066.5)**	**yc = a +bx** **yc= 6101.36 +1792.24x**
2070	3.5	12374.2
2071	4.5	14166.44
2072	5.5	15958.68
2073	6.5	17750.92
2074	7.5	19543.16

III
Trend Values of Total Investment of BOKL

Year (t)	Total Investment (y)	x(t-2066.5)	x^2	xy	yc = a +bx yc=3630.42-1250.37x
2064	2992.43	-2.5	6.25	-7481.07	504.49
2065	3204.06	-1.5	2.25	-4806.09	1754.86
2066	2783.59	-0.5	0.25	-1391.8	3005.23
2067	3269.20	0.5	0.25	1634.6	4255.60
2068	4286.60	1.5	2.25	6429.9	5505.97
2069	5246.68	2.5	6.25	13116.7	6756.34
Total	**21782.57**	**0**	**17.5**	**7502.24**	
N =6					

a = 3630.42

b = 1250.37

Trend Values of Total Investment of BOKL

Year (t)	x (t-2066.5)	yc = a +bx yc= 3630.42+1250.37x
2070	3.5	8006.71
2071	4.5	9257.08
2072	5.5	10507.45
2073	6.5	11757.82
2074	7.5	13008.19

Appendix 11

I
Trend Values of Net Profit of NBBL

Year (t)	Net Profit (y)	x(t-2066.5)	x^2	xy	yc = a +bx yc=564.28-383.43x
2064	(1061.58)	-2.5	6.25	-2653.95	1522.885
2065	596.48	-1.5	2.25	-894.72	1139.42
2066	2158.10	-0.5	0.25	-1079.05	755.99
2067	1021.38	0.5	0.25	510.69	(372.56)
2068	(138.16)	1.5	2.25	-207.24	(10.86)
2069	809.47	2.5	6.25	2023.67	(394.29)
Total	**3385.69**	**0**	**17.5**	**-2300.6**	
N =6					

a = 564.28

b = (383.43)

Trend Values of Net Profit of NBBL

Year (t)	**x (t-2066.5)**	**yc = a +bx** **yc= 564.28-383.43x**
2070	3.5	(777.72)
2071	4.5	(1161.15)
2072	5.5	(1544.58)
2073	6.5	(1928.01)
2074	7.5	(2311.44)

II
Trend Values of Net Profit of EBL

Year (t)	**Net Profit (y)**	**x(t-2066.5)**	**x^2**	**xy**	**yc = a +bx** **yc=706.67+311.79x**
2064	296.41	-2.5	6.25	-741.02	(72.80)
2065	451.21	-1.5	2.25	-676.81	238.98
2066	638.73	-0.5	0.25	-319.36	550.77
2067	831.8	0.5	0.25	415.9	862.56
2068	931.30	1.5	2.25	465.65	1174.35
2069	1090.56	2.5	6.25	2726.4	1486.14
Total	**4240.02**	**0**	**17.5**	**1870.76**	
N =6					

a = 706.67

b = 311.79

Trend Values of Net Profit of EBL

Year (t)	**x (t-2066.5)**	**yc = a +bx** **yc= 706.67+311.79x**
2070	3.5	1797.93
2071	4.5	2109.72
2072	5.5	2421.51
2073	6.5	2733.30
2074	7.5	3045.09

III
Trend Values of Net Profit of BOKL

Year (t)	Net Profit (y)	x(t-2066.5)	x^2	xy	yc = a +bx yc=467.94+208.74x
2064	262.38	-2.5	6.25	-655.95	(53.91)
2065	361.49	-1.5	2.25	-542.23	154.83
2066	461.73	-0.5	0.25	-230.86	363.57
2067	509.26	0.5	0.25	254.63	572.31
2068	605.15	1.5	2.25	907.72	781.05
2069	607.66	2.5	6.25	1519.15	989.79
Total	**2807.69**	**0**	**17.5**	**1252.46**	
N =6					

a = 467.94

b = 208.74

Trend Values of Net Profit of BOKL

Year (t)	x (t-2066.5)	yc = a +bx yc= 467.94+208.74x
2070	3.5	1198.53
2071	4.5	1407.27
2072	5.5	1616.01
2073	6.5	1824.75
2074	7.5	2033.49