

INVESTMENT PATTERN OF COMMERCIAL BANK
(WITH SPECIAL REFERENCE TO EVEREST BANK LIMITED & BANK OF KATHMANDU LIMITED)

A
THESIS

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RECOMMENDATION

This is to certify that the thesis

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(WITH SPECIAL REFERENCE TO EVEREST BANK LIMITED & BANK OF KATHMANDU LIMITED)

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

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Declaration

I here by declare that this thesis entitled “**Investment Pattern of commercial banks in Nepal**” (*WITH SPECIAL REFERENCE TO EVEREST BANK LIMITED & BANK OF KATHMANDU LIMITED*) submitted to Patan Multiple Campus, Faculty of Management, Tribhuvan University, is my original work. It is done in the form of Partial fulfillment of the requirement of the degree of Master of Business Studies (M.B.S.) under the supervision of Mr. Dinesh Man Malego, Thesis Supervisor, Patan Multiple Campus.

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ABBREVIATIONS

BOKL	:	Bank of Kathmandu Limited
C.V.	:	Coefficient of Variation
d.f.	:	Degree of Freedom
EBL	:	Everest Bank Limited
FY	:	Fiscal Year
GDP	:	Gross Domestic Production
Govt.	:	Government
JVBs	:	Joint Venture Banks
LTD	:	Limited
NB Bank	:	Nepal Bangladesh Bank Ltd.
No.	:	Number
NPL	:	Non-Performing Loan
NRB	:	Nepal Rastra Bank
P.Er	:	Probable Error
r	:	Coefficient of correlation
r^2	:	Coefficient of determination
S.D.	:	Standard Deviation
S.N.	:	Serial Number
B. S.	:	Bikram Sambat
i.e.	:	That is

MBS : Masters of Business Studies
TU : Tribhuvan University
NBBL : Nepal Bangladesh Bank Limited
NIBL : Nepal Investment Bank Limited
SCBL : Standard Chartered Bank Limited

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Chapter I

Introduction

1.1 Background of the study

Bank is the financial establishment for the deposits, loans exchange or issue of money and for the transmission of funds. Bank is the financial establishment where money is received for custody and repaid on demand. Banking is the business of providing financial services to consumers and businesses. Bank is the financial institution that deals with monetary matters. Banks are not only accepting deposits and granting loans but also, including wide range of services to the different segments of society, to facilitate the growth of trade, commerce, industry and agriculture of the national economy. Bank has played a very important part in the economic development of all the nations of the world therefore it is termed as the life blood of modern commerce.. In the absence and insufficiency of banking and financial facilities, the growth of the economic development becomes slow. So, bank is a resource for economic development which maintains the self confidence of various segments of the society and advances credit to the people.

Generally bank can be defined as an institution:

It facilitates individual to earn income by giving interest on the deposited money.

It provides security for the money of individuals as well as of institutions.

It fixes price of variable products by determining the value of currency.

That helps to the new industries by providing technical financial ideas and other services.

It forms capital and avails in terms of loan against securities for the industry, businessmen and other general public.

It mobilizes capital collected from the saving of the people in big deal or projects and help to raise the economy of the nation.

Therefore, summarizing the above, banks are those financial institutions that offer the widest range of financial services especially credit, savings and payment services and perform the widest range of financial functions.

Banking services serve two primary purposes. First, by supplying customers with the basic mediums-of-exchange (cash, checking accounts, and credit cards), banks play a key role in the way goods and services are purchased. Without these familiar methods of payment, goods could only be exchanged by barter (trading one good 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 the economy needs to produce more goods and grow. Enabling the flow of money from savers to investors is called financial intermediation, and it is extremely important to a free market.

The financial institution that mainly deals in accepting deposits of individuals and organizations, provide interest, formulate capitals and grant loans against securities that help to remove the deficiency of capital are commercial banks. They contribute significantly in the formulation and mobilization of internal capital and development effort. . They provide technical and administrative assistance to trading and commercial institutions. They also furnish necessary working capital according to the requirements for trade, commerce and even to the agriculture sectors. Their main purpose or objective is to earn reasonable profit as reward for their services to the society. They help to reduce the probability of inflation by increasing the interest rate in the boom period of economy and decreasing the interest rate in the depression period to motivate the investors for investment.

According to Nepal Commercial Bank Act 2031 B.S , A Commercial Bank is one which exchanges money, deposits money, Accepts deposits, grant loans and performs commercial banking function and which is not a bank meant for co-operation, agriculture, industries or for such specific purpose.

Commercial banks are so named because they specialize in loans to commercial and industrial businesses. According to the Black's law Dictionary "commercial bank" means a bank authorized to receive both demand and time deposits, to engage in trust services, to issue letter of credit, to rent time-deposit boxes, and to provide similar services. Commercial banks are owned by private investors, called stockholders, or by companies called bank holding companies. The vast majority of

commercial banks are owned by bank holding companies. (A holding company is a corporation that exists only to hold shares in another company.) In 1984, 62 percent of banks were owned by holding companies. In 2000, 76 percent of banks were owned by holding companies. The bank holding company form of ownership became increasingly attractive for several reasons. First, holding companies could engage in activities not permitted in the bank itself—for example, offering investment advice, underwriting securities, and engaging in other investment banking activities. But these activities were permitted in the bank if the holding company owned separate companies that offer these services.

Second, many states had laws that restricted a bank from opening branches to within a certain number of miles from the bank's main branch. By setting up a holding company, a banking firm could locate new banks around the state and therefore put branches in locations not previously available.

Nepalese commercial banks lag for behind fulfilling the responsibility to invest in the crucial sectors of the economy for the upliftment of the national economy. Thus the problem has become very serious one in developing countries like Nepal, which can be solve through formulation of sound investment pattern. Sound investment pattern can minimize interest rate spread and NPAs', which cause the bank failure. Sound investment policy ensures maximum amount of investment to all sectors with proper utilization. Nepalese commercial banks have not formulated their investment policy in an organized manner. They mainly rely upon the instruction and guidelines of Nepal Rastra Bank. They do not have clear view towards investment pattern. Furthermore, the implementation of pattern is not practiced in an effective way. Commercial banks and financial institutions are the backbone of the Nepalese economy at present, so they played catalytic role in economic growth. The establishment of joint venture banks in this sector has added more bricks in construction of Nepalese economy. Their investment ranges from small scale cottage industries to large industries. In making investment in loans and government securities one may always wonder which investment is better. The researchers Paul S. Anderson, William Silber, Tim S. Campbell and many other have compared the contribution of loans and advances and the investment on securities on the national income.

Investment, in its broad sense means the sacrifice of current currencies and resources for the sake of future currencies and resources. An investment is one of the decision of finance functions that involves the decision of capital to established commercial or industrial venture. In other words, it involves

commitment of funds into longterm assets that would yield benefits in coming future period.

Investment pattern is one fact of the overall spectrum of policies that guide banks investment operation. A healthy development of any bank depends upon its investment pattern. A sound and viable investment pattern can be effective one for the economy to attain the economic objectives directed towards the acceleration of the pace of development. A good investment pattern attracts both borrowers and lenders, which helps to increase the volume and quality of deposits, loan and investment. The loan provided by commercial bank is guided by several principles such as length of time, their purpose, profitability, safety etc. These fundamental principles of commercial banks investment are considered while making investment pattern. Investment operation of commercial banks is very risky one. For this, commercial banks have to pay due consideration while formulating investment pattern.

It can be therefore hypothesized that bank portfolio like loans, investment, cash, revenue, deposit and borrowing affects the national income. And also how the government policy affects these variables, such as the effect of an interest rate on the bank portfolio variables is of great concern. Therefore, when monitoring money and credit conditions, the central bank has to keep on eye on the portfolio behaviors. Credit extended by commercial banks is directly related to the national interest of the country.

Bank's main sources of funds are deposits, borrowed funds and capital. The uses of funds are loans, investment, cash assets and facilities. Deposits are the largest and most important funds providing source, which account 80 to 90percent of the banks total sources of funds. Demand deposits are payable on demand. A portion of deposits can be viewed as permanent and referred to as core deposits. The bank second source of funds, borrowing may be short term or long term. If the bank borrows long-term funds, it can be included in capital. Normally short- term funds are acquired in order to meet immediate need. The third major funds – providing function is capital. It is permanent source of funds to the bank. In other side, the most important funds-using function of a commercial bank is the lending function. Commercial banks are employing most of the total funds to loan and advance to earn income. The second major funds- using function of a bank is investment. The major investment is on securities. The final funds-using function is facilities. It doesn't provide explicit return but is necessary to support funds-using and funds-providing functions of the bank.

Liquidity can be defined as a process of providing for future cash needs by holding liquid assets or by preparing to issue marketable securities. Financial institution is compared with a grocery store, which may have a 'stock out' of certain commodities. But the financial institution cannot run without money needed to meet its withdrawals of deposit and repay borrowing as they become due. Liquidity is the ratio of the price obtainable from quick sale to the price expected from an orderly, timely sale.

The most common tool to test liquidity of a commercial bank is ratio analysis. The relationship of two accounting figures expressed mathematically is known as ratio. It is a quantitative relationship. Ratio summarizes the large quantities of financial data and helps to make quantitative judgement. Though the measuring liquidity of commercial banks by the use of ratio is an old practice, it is still in use and found to be the best financial tool. It is not only helpful for evaluating the current position, but also useful to indicate the direction of change when it is analyzed as trend taking the ratios over period of time.

The core functions of commercial banks are granting of credit. Although banks offer a wide spectrum of financial services, lending has traditionally been their main function. A loan is a credit of funds provided in promise of future repayment. In most of the cases a loan is simply the lending of money in return for a specific cost of interest from the borrower. Commercial banks are found to be providing loan to various sectors of economy such as agriculture, mining, transportation, communication, production, construction, and many more. Nowadays banks provide credit to meet almost everything of the public needs. Apart from public service, bank lending is a profitable activity. In fact it is the most profitable activity of commercial banking and hence the greatest contributor to bank profit.

Investment portfolio of a bank includes all of those assets that comprise secondary reserve and investment account. The secondary reserve is the asset of the bank that is easily and readily convertible into cash. It is created to replenish primary reserve in case of need. Once the bank has provided funds for its primary and secondary reserve and for loans to customers, funds may then be allocated to the investment account. Loan and advances can be distinguished from investment as the former carries the concept of the use of something for a relatively short period on the condition that it or its equivalent will be returned. But an investment on the other hand implies the outlay of fund for the purpose of obtaining a flow of funds for a relatively long period before the outlay of fund or the principle is returned. Investment decision always evaluates credit and money rate risk.

1.2 Focus of the study

This study is to find out liquidity and investment position of EBL and BOK. Liquidity is the ability of a bank to pay cash to depositors on demand. It is the arrangement and the allocation of funds in such a way that can be drawn immediately without any loss on principle. Liquidity means allocation of funds in close relation to their sources. The turnover characteristics of the sources should be supported by their respective uses. So the study evaluates EBL's and BOK's funds mobilization. Further, it also examines investment portfolio of EBL and BOK. In the banking system, investments are the allocations of funds to marketable securities and are accounted under a separate portfolio excluding loan and advance. The investment portfolio is the aggregation of marketable securities such as shares, debentures, bonds, etc including government securities. It has an important purpose to serve liquidity needs in case of contingencies. It has less return in compared to loan and advances. This study will examine the investment portfolio with liquid assets maintained by both the banks. The study will conclude on the policy and practices that EBL and BOK is adopting for the purpose of liquidity and investment management.

1.3 Introduction of Banks under study

There are two banks in the study i.e. Bank of Kathmandu Limited & Everest Bank Limited.

1.3.1 Bank of Katmandu Limited (BOKL)

Bank of Katmandu limited is a culmination of a comprehensive vision of the promoters to take the Nepalese economy to a newer realm in the globe market. Each promoter of bank of Katmandu has successfully demonstrated leadership skills business techniques and entrepreneurial talents in his/her respective field. It has become a landmark in the Nepalese banking sector among the few commercial banks. Incorporated in 1993, bank of Katmandu came into operation in March 1995 with the following predominant objectives:

Bank of Katmandu's activities globe around deposit mobilization, advancement of various credits, international banking including trade financing, inward and outward remittances and funds and portfolio management. Bank of Katmandu is committed to providing products and services of the highest standards to its customers by understanding their requirements best suiting the market needs. In pursuit to deliver the products and services of the highest standards. Bank of Kathmandu has state of art technologies for appropriate and efficient management information system and rendering quality services VSAT and radio modern for networking, SWIFT for international trade and transfer of funds around the world, correspondent banking relationships with over 200 banks world wide for effective and proficient execution of international trade and services and centralized banking operations for better risk management, consistent service deliveries and lowering operation costs.

1.3.2 Everest Bank Limited (EBL)

Everest Bank Limited (EBL) started its operations in 1994 with a view and objective of extending professionalized and efficient banking services to various segments of the society. EBL joined hands with Punjab National Bank (PNB), India, which has 113 years of bank history, as its joint venture partners in 1997. Drawing its strength from its joint venture partner, EBL has been steadily growing in its size and operations. An established itself as a leading Private Sector Bank, EBL is ranked as No. 2 bank by NRB as per CAELS. The bank is providing its services through a wide network of 27 branches across the nation. It is strong joint venture partner providing Technical Support Representative Office in India, to facilitate remittance in India. It has Direct Drawing Arrangement with PNB Bank & HDFC Bank, India whereby instant payment is done on presentation of the instrument. There are 170 remittance payment locations in Nepal.

All the major branches of the bank are connected through anywhere Branch Banking System (ABBS); a facility that enables a customer to do banking transactions from any of the branches irrespective of their having accounts in other branch. The Bank in association with Smart Choice Technology (SCT) is providing ATM services for its customers.

EBL is playing a pivotal role in facilitating remittance to and from across globe The Bank recognizes the value of offering a complete range of

services. EBL have pioneered in extending various customer friendly products such as Home Loan, Education Loan, EBL Flexi Loan, EBL Property Plus (Future Lease Rentals), Home Equity Loan, Car Loan, Loan Against Shares, Loan Against Life Insurance Policies.

1.4 Statement of Problem

Nepal being a developing country is trying to embark upon the path of economic development by economic growth rate and development all sectors of economy. Even though, the process of economic development depends upon various factors, how ever economists are now convinced that capital formation and its proper utilization play a paramount role.

However, the cause of decline of Nepal's economic crisis is not because of lack of resources but instead it is because of improper utilization of available resources. The economic growth of under developed country is widely depends upon the utilization of available resources. The reasons behind it is political instability, low investor confidences, lack of knowledge on investment management, lack of improved prospectus to investors, restriction on foreign portfolio investment on Nepal, lack of efficient capital market and slow privatization process. Investment Economic development and self-economic reliance are the must in today's world. These can only be achieved through the acceleration of investment and capital formation in the country.

Nepalese commercial banks have not formulated their investment pattern in an organized manner. They mainly rely upon the instructions and guidelines of Nepal Rastra Bank. They do not have clear view towards investment policy. Furthermore, the implementation of policy is not practiced in an effective way. Commercial banks have to face tough competition due to limited and narrow capital market and investment opportunities. Management liquidity and investment portfolio has become vital in commercial banking business. Every commercial bank is, therefore, concentrating on investment management. They are searching areas that carry feature of investment and side-by-side can safeguard their liquidity need. Thus the present study will make a modest attempt to analyze investment pattern of EBL comparing with BOK.

The problems specially related to investment function of the joint venture banks and commercial banks of Nepal have been presented briefly as under:

1. Are they maintaining sufficient liquidity position?

2. Are the both banks' fund mobilization & investment pattern more effective and efficient?
3. What is the relationship of investment & loan and advances with total deposits and total net profit?
4. Does the degree of success in investment strategy successful to utilize its available fund of EBL and BOK?
5. What is the customers' views & ideas regarding the existing services and adopted investment policy of commercial bank?

1.5 Objectives of the Study

The purpose of the study is to analyze and examine the investment pattern of commercial banks i.e. Everest Bank Ltd and Bank of Kathmandu Ltd . The main objectives of the study are as follows:

1. To make comparative study of EBL and BOK on investment pattern.
2. To analyze deposit utilization and its projection.
3. To make the comparative study of investment, deposit loan and advances, and net profit.
4. To provide the suggestion & recommendations of listed commercial banks on the basis of findings of the analysis.

1.6 Signification of the study

Despite the fact that commercial bank is the oldest and quantitatively the largest financial institution in any country .Commercial banks occupy an important place in the framework of every economy because it provides capital for the development of industry, trade & business banks render services to their customers in view of facilitating their economics of social life. The signification of commercial banks in the net issues of all financial institutions is much higher in such countries than in the ones with higher stage of economic development.

The study mainly fills a research gap on the study of commercial banks of Nepal. The study will provide useful feedback to the policy makers of the bank, & becomes a useful reference for other commercial banks of Nepal and central bank for the formulation of appropriate strategies. The effort is

to made highlight the investment pattern of commercial banks expecting that the study can be bridge which fulfills the gap between deposit & investment. On the other hand, the study would provide information to management of the bank that would help them to take corrective action and last but not least the study evaluated the investment pattern of commercial bank and finds loopholes and significantly contributes to make the policy sound.

1.7 Limitation of the study

Liquidity and investment figures of the banks are analyzed by using appropriate tool of quantitative analysis. The analysis is limited to the internal data of the banks. External factors affecting liquidity and investment of the banks could not be measured by quantitative expression. Therefore, they were analyzed by using descriptive method based on informal interviews of the concerned officials **of the** banks. The limitation of the study is another aspect of study. This study is also conducted with some certain limitations. There are some limitations, which are as follows:

This study is based on secondary data collected form the bank.

- Only two banks (EBL & BOK) are taken and to compare the investment pattern.
- The whole study is based on data of 5 years.
- This study concentrate only on those factors that are related with investment.

Among many factors affecting investment decision and valuation of firm. Only certain factors are studied.

1.8 Organization of the Study

The Study has been divided into 5 chapters.

Chapter 1: Introduction

It includes background, introduction, significance of the study, statement of the problem, objectives of the study, limitation of study and organization of the study.

Chapter 2: Review of Literature

It deals with the review of available literature. It includes conceptual/theoretical review, review of books, articles & previous thesis etc.

Chapter 3: Research Methodology

It covers on research design, sample, sources of data and methods of analysis.

Chapter 4: Data Presentation & Analysis

This chapter mainly concerns to analyze and evaluate data with the help of analytical tools procedure & interprets the result obtained.

Chapter 5: Summary, Conclusion & Recommendations

It sums up the results obtained through analysis and recommends some suggestions. This chapter will highlight the major findings of the study.

CHAPTER II

REVIEW OF LITERATURE

This chapter is principally apprehensive with the review of literature to the investment pattern of commercial banks. It deals with the review of the related studies and different aspects of the topic investment pattern of commercial banks. Every study is based on the past knowledge. The past knowledge or the previous studies should not be ignored as it provides foundation to the present study.

For this study, various books, journals, published and unpublished documents such as: Articles, Research Reports, Previous Thesis, and Prospectus are consulted and reviewed.

2.1 Conceptual Framework

Traditional approach of financial management was limited to the extent of raising funds from outside and administration of those funds. It never looked at the possibility of the funds that can be generated internally. It was viewed that the problem of financial management was related to corporate enterprises only. With the introduction of the concept of financial management, its scope has been broadened. According to the modern concept, financial management covers both acquisitions of funds and its allocation. Apart from acquiring external funds, it looks after the efficient and useful allocation of funds to various uses.

Financial management is the function of investment decision, financing decision, dividend decision to create value. The decisions are related to overall valuation of a firm. Financial management maximizes value of the firm. Selection of the best means of financing determines the firm's financing cost of different source of financing. There are also financing risks while selecting optimum financing mix. The risks can be covered against the possible losses with the help of hedging device.

Financial management is a skillful control, planning and executed of financial resources. Finance functions are long-term asset-mix decision, capital mix-decision, profit allocation decision and short- term asset –mix (liquidity) decision. Investment in current assets affects a firm's profitability and liquidity. If the firm does not invest adequate funds in current assets, it may become illiquid. Meanwhile, it may be losing profit on the idle current assets, as it does not earn anything. Financial managers are searching a technique of managing current assets that estimates firm's need and make sure that funds would be made available when needed.

The financial institutions of the country have neither been effortful to mobilize resources nor they have been able to invest available resources. On one hand, the major parts of their commercial loans are concentrated among the few individuals whereas the small traders and entrepreneurs are facing difficulties to receive loans on other. The only solution to this problem is to encourage competition in banking sector.

2.1.1 Concept of Banking System

The concept of banking system had started a long time back during ancient times. There was reference to the activities of moneychangers in the temple of Jerusalem in the New Testament. In ancient Greece the famous temples of Delphi and Olympia served as great depositories for peoples' surplus funds and there were the centers of money lending transaction. Indeed the traces of "rudimentary banking" were found in Chilean, Egyptian and Phoenician history. The development of banking in ancient Rome roughly followed the Greek pattern. Banking suffered void after the fall of the Roman Empire after the death of Emperor Justinian in 565 AD, and it was not until the revival of trade and commerce in the Middle Ages that the lessons of finance were learnt a new from the beginning. Money lending in the Middle Ages was, however, largely confined to the Jews since the Christians were forbidden by the canon law to indulge in the sinful act of lending money to other on interest.

However, as the hold of the Church lessened with the development of trade and commerce about the thirteenth century Christians also took to the lucrative business of money-lending, thereby entering into keen competition with the Jews who had hitherto monopolized the business. As a public enterprise, banking made its first beginning around the middle of the 12th century in Italy and the Bank of Venice founded in 1157 AD, was the first

public banking institution. Following it were established the Bank of Barcelona and the Bank of Genoa in 1401 and 1407 respectively. The Bank of Venice and Bank of Genoa continued to operate until the end of 18th century. With expansion of commercial activities in Northern Europe there sprang up a number of private banking houses in Europe and slowly it spread throughout the world.

In Nepal, similar to other countries goldsmith and landlords were the ancient bankers in Nepal. Tejarath Adda established during the tenure of then Prime Minister Rannodip Singh was the first step towards the institutional development of banking in Nepal though all the banking activities were carried out by it. Tejarath Adda did not collect deposits from the public but provides loans to government employees and public against bullions.

The history of banking has started after the establishment of Nepal Bank Ltd. in 1937 AD. At that time, the economy of country was highly influenced by the Indian market. It laid the foundation of modern financial system in Nepal. It was a joint venture between government and the private sector. After then, the Nepal Rastra Bank came into existence as a central bank in 1956 AD under the Nepal Rastra Bank Act 1955. The second commercial bank is Rastriya Banijya Bank was established in 1966 AD. After establishment of these two commercial banks, other commercial banks did not come into existence until 1984 AD. The commercial banking act 1974 was amended in 1984 AD to increase the competition between commercial banks. As per the provision made in this act, private sector was given freedom in opening commercial bank. As a result, Nabil Bank Limited (as decided by the annual general meeting held on 12 August 2001 the bank has been renamed as Nabil Bank Limited, before this it was called Nepal Arab Bank Limited) was established in 1984 AD as a joint venture bank. And then, Nepal Indoseuz Bank Limited and Nepal Grindlays Bank Limited (later it has been called Standard Chartered) Nepal Bangladesh Bank Limited were established in 1986, 1987 and 1994 respectively.

2.1.2 Concept of Commercial Bank

The financial institution that mainly deals in accepting deposits of individuals and organizations, provide interest, formulate capitals and grant loans against securities that help to remove the deficiency of capital are

commercial banks. They contribute significantly in the formulation and mobilization of internal capital and development effort. They provide technical and administrative assistance to trading and commercial institutions. They also furnish necessary working capital according to the requirements for trade, commerce and even to the agriculture sectors. They also perform agency function to make life easier and play an important role in credit creation. So, they are being the means for the upliftment of society. They help to reduce the probability of inflation by increasing the interest rate in the boom period of economy and decreasing the interest rate in the depression period to motivate the investors for investment. The commercial banks are those banks that pool together the savings of the community and arrange for their productive use. They supply the financial needs of modern business by various means. They accept deposits from the public on the condition that they are repayable on demands or on short notice. Commercial Banks are restricted to invest their funds in corporate securities. Their business is confined to financing the short-term needs of trade and industry such as working capital financing. They can not finance in fixed assets. They grant loans in the form of cash credits and overdrafts. A part from financing, they also render services like collection of bills and cheques, safekeeping of valuables, financial advising and act to their customers.

" A commercial banks one which exchange money, accepts deposits, grant loan and performs commercial transactions. Commercial banking functions and which is not a bank meant for cooperative, agriculture, industries of for such specific purpose"(Commercial Bank, Act 1974, 2031BS)

"Commercial Bank is corporation which accepts demand deposits subject to check and makes short term loans to business enterprise, regardless of the scope of its other services."(American Institute of Banking, "Principals of Banks Operation", USA, 1972, pp 345)

"A bank is a business organization that receives and holds deposits of funds form others makes loans or extends credits and transfer funds by written order of depositors."(Encyclopedia, The World Book, Grolier incorporated, Vol. 3, 1984)

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

shareholders." (Edmister.O.Robert, Ph. D., "Financial Institution", 1980, p 73)

"Principally Commercial Banks accept deposits and provide loans primary to business firms thereby facilitating the transfer of funds in the economy."(Gupta.O.P, Abral PN Dictionary of Commerce, New Delhi)

Commercial bank as financial institution performs a number of internal functions. Among them providing credit considered as most important one. Credit being the most important function of commercial banks, affects overall development of country. So far as, pace of economic development is considered, it is directly related to the quality and quantity of credit, which is derived from various financial institutions, especially commercial banks in Nepal.

2.1.3 Investment Pattern

An investment pattern is design of commitment of money that is expected to generate additional money. Every investment pattern entails some degree of risk, it requires a present certain sacrifice for a future uncertain benefit. Investment by individuals, business and government involves a present sacrifice of income to get on expected future benefit. As result investment raises a nation's standard of living. Investment is the flow of resources into the production of new capital. It is the labor, steel and other inputs devoted to the construction of factories, warehouses, railroads and other pieces of capital during some period of time. The utilization of money in the expectation of future return in the form of income or capital gain, the creation of more money through the use of existing capital, money put in property or other venture with the expectation of making a profit with sufficient security to return and protect the capital; not speculation, the act of investing; laying out money or capital in an enterprise with the expectation of profit, money that is invested with an expectation profit, the creation of more money through the use of existing capital is sound investment pattern. The use of capital to create more money usually includes the idea that safety of principal is important.

A bank receives funds in the following ways:

* Capital fund, borrowing, deposits other liabilities.

These funds are invested in following assets:

- * Cash and Bank balance, Investment.
- * Loan, Advances and Bills purchased / Discounted (Credit), Fixed Assets, Other Assets.

Lending is the primary function and major source of income of bank so it is very vital to understand the lending risk associated with the advance made to the borrower. In order to assess the lending risk, the lender should know how the business of borrower operates and how they can be evaluated in terms of leading risks.

2.1.4 Features of Sound lending policy

The income and profit of the bank depend upon its lending procedure, lending policy and investment of its fund in different securities. The greater the credit created by the bank, the higher will be the profitability. A sound lending and investment policy is not only pre-requisite for banks' profitability but also crucially significant for the promotion of commercial savings of a backward country like Nepal.

Some necessities for sound investment pattern which most of the banks must consider can be explained as follows:

*** Profitability**

Commercial banks invest on those sectors that drive the maximum income. A commercial bank wants to maximize its volume of wealth through maximization of wealth through maximization of return on their investments. So, they must invest their fund where they gain satisfied margin of profit. The profit of commercial banks mainly depends on the interest rate, volume of loan, its time period and nature of investment in different securities.

*** Diversification**

"A bank should not put all its eggs on the same basket". This saying is very important to all investors as well as banks and it should be careful not to

grant loan in only one sector i.e. to minimize risk and maximize return, a bank must diversify its investment on different sectors.

*** Safety and Security**

The bank should not invest its funds in those securities, which are subject to much volatile since a small change causes a huge loss. Similarly speculative businessmen who is bankrupt at once or earns millions in a minute should not be finalized at all. The bank should accept that type of securities, which are commercial, marketable and having high market price. In this case, "MAST" should be followed for the investment i.e. M = Marketability, A = Ascertainability, S = Stability, T = Transferability. In other hand five "C" should be followed in arriving the decision regarding the advances of fund. The five "C" stands for character, Capacity, Capital, Collateral and Condition.

*** Liquidity**

People deposit money at the bank in different accounts with the confidence that the bank will return their money when they need. To maintain such confidence of the depositors, the bank must keep this point in mind while investing its excess fund in different securities or at the time of lending so that it can meet current or short-term obligations when they become due for payment. Once the confidence is lost in depositors' eye, they may withdraw all their deposits with in a short period without giving any chance to the bank to manage. Even the best bank can hardly survive in such situation. If it makes advances for long term there is no likelihood of it being able to recall such loans in time to meet the demands of its depositors. Hence, the liquidity position of a bank is an important factor that it must be able to meet its cash need either by its cash in case of demand for such from its customers. There is no sense if the bank has adequate assets but not liquid i.e. they can't serve the purpose of liquidity when required.

*** Tangibility**

Though it may be considered that tangible property doesn't yield an income a part from direct satisfaction of possession of property, many times, intangible securities have lost their value due to price level inflation. A commercial bank should prefer tangible securities to intangible one.

*** Suitability**

Bank should always know that why customer need loan because if the borrower misuses the loan granted by bank, he will never be able to repay loan. In order to avoid such misuse advances should be allowed to select the suitable borrowers and it should demand all the essential detail information about the scheme of the project in which the bank is lending for. Bank must keep in mind the overall development plans of the nation and the credit policy of the concerned authority i.e. central bank.

*** Legality**

Illegal securities will bring out many problems for the investors. A commercial bank must follow the rules and regulation and directions issued by Nepal Rastra Bank (NRB), Ministry of finance and others, while mobilizing the funds.

2.1.5 Various forms of credit

The credit could be in various forms depending upon the purpose of credit and credit period. Following are the main credit types frequently requested to the bank.

*** Term Loans :**

Term loans use for fixed assets acquisition, Project loan, Stock buyback, refinancing debt, investment etc. Credit facility made available by a bank in lump sum repayable or fixed installment method. Bank targets to recover it by cash flow from operation or specific source. It is risky to insufficient cash generation or no identified source of repayment.

*** Hire purchase :**

Bank will extend hire purchase loan to eligible applicants having definite source of income combined with the ability to offer collateral to purchase goods /commodities, generally for personal use. Bank may also extend such facilities to institutions to acquire moveable fixed assets for institutional use. The goods/commodities mainly include automobiles, construction equipment, and office equipment. Hire purchase is an agreement for the bailment of goods under which the bailer may buy the goods yet the ownership continues to remain with the person/institution that gives the

commodities/goods on hire. Cash flow from operation is specific source of repayment. It is also risky to insufficient cash generation or no identified source of repayment.

*** Working capital loan :**

Loan's main purpose is to meet working capital requirement. Credit facility to meet working capital requirement will make available to the borrower for a certain period as required by borrower .The working capital gap is calculated by subtracting current liabilities from current assets. Normally the bank finance 75% or working capital gap and clients should manage 25% of working capital. It has also risky part to insufficient cash generation.

*** Home loan :**

Banks provide this type of loan for housing facility to the customer. Bank will extend housing loan to the customer having definite source of income. Bank will finance upto 80% total value of assets. Banks recover loan repayment by cash from operation or specific source. It has risky part to insufficient cash generation.

*** Letter of credit :**

A L/C is established on behalf of the customer in favor of the exporter/seller for the import of goods and service up to the approved limit. Since this is a contingent liability for the bank, bank credits customer's L/C account. Normally, a certain percent fund is taken from the customer and margin account is created.

*** Guarantee :**

Guarantee is issued on behalf of the customer in favor of the other party up to the approved limit. Since this is also a contingent liabilities. Normally, a certain percent amount is taken from the customer.

*** Overdraft :**

Borrower can draw a cheque in current account up to the approved limit at any time as per the need.

* **Bill purchase :**

Bank purchases the bill drawn on other branch/banks and credit the proceeds to the borrower's account less commission and margin, if any.

* **Additional financing :**

The borrower may request to the bank for the additional financing for one or more steps. Such request should be critically analyzed in order to establish that the request is genuine requirement of the borrower. The additional credit request should be analyzed the same way as an original request.

2.2 Review of Related Studies

2.2.1 Review of Books

Various people have given their view related with regarding the investment pattern of commercial banks, which has been written below:

Kevin A. Hassett(2008) has given his view on investment in this way, “ By Investment, economists mean the production of goods that will be used to produce other goods.”

Willam J Sharpe and Alexander J Gorden(1996) defined Investment in this way, "Investment, in its broadest sense, means the sacrifice of current dollars for future dollars. Two different attributes are generally involved: time and risk.

The sacrifice takes place in the present and is certain. The reward comes later, if at all and the magnitude is generally uncertain. In some cases, the element of time predominates (e.g. Govt. bonds).

Mr. Shakespeare, Vaidya(1997) has given his great view on sound investment policy, according to him, "A sound investment policy of bank is such that its funds are distributed on different types of assets with good

profitability on the one hand and provides maximum safety and security to the depositors and bank on the other hand. More ever, risk in banking sector trends to be concentrated in the loan portfolio. When a bank gets into serious financial trouble its problem usually spring from significant amounts of loan that have become uncollectible due to mismanagement, illegal manipulation of loan, misguided lending policy or unexpected economic downturn."

Dr Preeti Singh(1985) has defined investment in the way "Investment is the employment of funds with the aim of achieving additional income of growth of values."

J.M.Chaney and Moses(1998) said, " The investment objective is to increase systematically the individuals, wealth, defined as asset minus liabilities. An investor seeking higher return must be willing to face higher level of risk."

Jones P. Charles(1991) emphasizing on the proper management of an investor's wealth, says, "Investment as the commitment of funds to one or more assets that will be held over some future time period. Investment is concerned with the management of an investor's wealth, which is the sum of current income and present value of all future income.

As per **H. D. Crosse**(1963) "Lending is the essential of commercial banking; consequently, the formulation and implementation of sound lending policies are among the most important responsibilities of the bank directors and management." According to him the lending policy should have adequate and careful consideration over community needs, size of loan portfolio, character of loan, credit worthiness of borrower and assets pledged to security borrowing interest rate.

2.2.2 Review of Research Papers

Mr Bhagat Bista (Bista Bhagat ,Nepalma Adhunik Banking Byabastha, 2048) in

his research paper "Nepalma Adhunik Banking Byabastha" has made an attempts to highlight some of the important indicators, which have contributed to the efficiency and performance of joint venture bank. He has concluded that "the joint venture banks have brought in many new banking

techniques such as computerization, hypothecation, consortium finance and modern fee based activities into economy."

Govinda Bahadur Thapa(Thapa Govinda Bahadur , "Financial System of Nepal",Vol 3,1995 p 29) has expressed his view that the commercial banks including foreign joint venture banks seem to be doing pretty well in mobilizing deposits. Likewise, loans and advances of these banks are also increasing. But compared to the high credit needs particularly by the newly emerging industries, the banks still seem to lack adequate funds. The banks are increasing their lending to non-traditional sectors along with the traditional sectors.

Nepal Bank Ltd. and Rastriya Banijya Bank are operating with a normal profit, the later turning towards negative from time to time. Because of non-recovery of accrued interest, the margin between interest income and interest expense is declining. Because of concentration of these two local banks, in traditional off-balance sheet operations, these banks have not been able to increase their income from commission and discount. On the contrary, they have got heavy burden of personal and administrative overheads. Similarly, due to accumulated overdue and defaulting loans, profit position of these banks has been seriously affected. On the other hand, the foreign joint venture banks have been distributing large amount of bonus and dividends to its employees and shareholders. Because of their effective persuasion for loan recovery, overdue and defaulting loans have been limited resulting in high margin between interest income and interest expenses. Similarly, concentrations of these banks to modern off-banks balance sheet operations and efficient personnel management have added to the maximization of their profits. At the end of his paper, he concludes that by its very nature of the public sector the domestic banks couldn't compete with the private sector banks. So, only remedy to the problems of these banks, as the government decided is to handover the ownership as well as the management of these bans to the private hand.

Shiba Raj Shrestha,(Shrestha, Shiba Raj, "Portfolio Management in Commercial Bank, Theory and Practice", Nepal Bank Patrika, Baisakh, 2055BS) Deputy Chief Officer of Nepal Rastra Bank, Banking operation Department, has given a short glimpse in the "Portfolio Management in Commercial Bank, Theory and Practice."

Shrestha has highlighted following issues in the article. The portfolio management becomes very important both for individuals as well as

institutional investors. Investors would like to select a best mix of investment assets subject to following aspect:

- * Higher return which is comparable with alternative opportunities available according to the risk class of investor.
- * Good liquidity with adequate safety of investment.
- * Certain capital gains
- * Maximum tax concession
- * Flexible investment
- * Economic, efficient and effective investment mix.

However, Shrestha has suggested measures to be adopted for liquidity of a good portfolio and its management.

- * To find out the invisible assets (generally securities) having scope for better returns depending upon individual characteristics like age, health, need, disposition, liquidity, tax liability etc.
- * To find out the risk of the securities depending upon the attitude of investor towards risk.
- * To develop alternative investment strategies for selecting a better portfolio, this will ensure a trade-off between risk and return so as to attach the primary objective of wealth maximization at lower risk.
- * To identify securities for investment to refuse volatility of return and risk.

2.2.3 Review of Articles

Under this heading effort has been made to examine and review some related articles published in bulletins, magazines, newspapers, journals and dissertation paper.

Mr. .K. Pradhan(Pradhan .K. Banijaya Bankharu Prathamikta Chhetrama Lagani Garna Bhandha Harjana Tirna Tayar,1999, Nepal Samachar Patra.) has pointed out some major issue in local commercial banks in comparison of recently established joint venture banks though his article "Nepalma Banijaya Bank, Upalabdhhi tatha Chunauti".

The study deals with the completely commercial banking system of Nepal in respect of their performance and profitability. Some of his finding relevant to this study is summarized as;

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

* The patterns of deposit are also different between these banks. The ratio of current deposit in local banks is 9.34% only where the same as the joint venture banks is 52%. However, the fixed ratio is very high in local banks.

Mr. Dependra B. Kshetry(Kshetry Banking Industry Management For Investment 2001,The free market,Baishak edition page21) has given the present scenario of Nepalese commercial banks as well as lending and investment overview in his article "Banking Industry: Magnet for investors", According to him " the commercial banks in operation, Nepal bank limited the pioneer bank and Rastriya Banijaya Bank dominate at least from the point of view branch expansion, deposit mobilization and lending. Over 60% of deposit with the banking system go to two commercial banks further. He just said that commercial banks are becoming urban bias, which is manifested from the trend of withdrawing rural branches of government and semi-government banks on the pleasure of unsuitable security situation while the joint venture banks limit their branches at the most to the periphery of urban areas. Up until January 2000, the bank branches numbered 513 units catering for 36000 people a branch. Concentration of banking units into urban areas is growing overtime. Of the 27 commercial bank branches closed after political change, 15 were from rural areas.")

According to this article just 8.3% of branches are working in rural areas belongs to Agriculture Development Bank of Nepal and joint venture banks, rest 91.7%of the branches are related to NBL and RBB.

Similarly **Mr. Ramesh Lal Shrestha**(Shrestha Ramesh Lal, "A study on Deposit and Credit of commercial banks in Nepal" Nepal Rastra Bank Samachar, NRB,1988.) in his article, " A study on deposits and credits of commercial banks in Nepal", concluded that the credit deposit ratio would be 51.30% other thing remaining the same. In Nepal, which was the lowest under the period of review. So he had strongly recommended that the commercial bank should try to give more credit entering new field as far as possible. Otherwise, they might not be able to absorb even its total expenses

In the journal **New Business Age**, **Mr. Sharma** on his article entitled, **Banking the Future on competition** the commercial banks are establishing and operating mostly in urban areas. From his studies he found that:

Commercial banks are establishing and providing their service in urban area only. They don't have interest to establish in rural areas. Only his branch of Nepal Bank Ltd and Rastriya Banijya Bank Ltd. are running in those sectors.

They have maximum tax concession.

They don't properly analyze the credit system.

He found that due to the lack of Investment avenues, banks are tempted to invest without proper credit appraisal and personal guarantee, whose negatives side effects would show colors only after four or five years.

In the journal **The Economic Journal of Nepal** (2002, Oct-Dec), Radheshyam Pradhan on his article entitled, saving is income not consumed It is one the important and perhaps the chief sources of Investment. In developing countries about 45% of the incremental saving is invested domestically, while in developed countries about 75% of the incremental saving is invested domestically. This suggests that capital is more mobile in developing countries than in developed countries. Saving are of great significance in a country's development. While saving results in high economic growth rate, rapid development leads in turn high savings. Nepal's saving rate is lower as to other developing countries, however, even to achieve 5 to 6 percent economic growth rate, more than 25 percent annual Investment of GDP is considered necessary. As the country's current domestic saving are about 14% the economic resources are short by nearly 11% in proportion of the GDP.

The situation is such that huge portion of Investment has still to be made with external resources. The amount of saving of a typical household in Nepal is small because of the people have limited opportunities for Investment. They prefer to spend saving on commodities rather than on financial assets. This restricts the process of financial intermediation, which might otherwise bring benefits such as reduction of Investment risk and increase in liquidity. When capital is highly mobile international, saving from abroad can also finance the investment needed at home. When capital is not mobile internationally, saving form abroad will limit Investment at home

Wherever there is Investment there must be capital formation .The development of an economy requires expansion of productive activities, which in turn is the result of the capital formation, which is the capital stock of country. The change in the capital stock of the country is known as

Investment. Therefore Capital formation is closely related to investment. Investment generally takes two forms:

1. Financial Investment and
2. Physical Investment

Physical Investment related to real Investment in the economy or industry, which is known as capital formation. Capital formation shows the change in gross fixed assets of production units of manufacturing industries. Capital formation refers to the creation of physical productive facilities such as building tools, equipment and roads. The process of adding to the amount of stock of the real assets produces growth in the economy. It means increasing a country's stock of real capital. It implies additions to the existing supply of capital goods in a country. It represents an additional of new capital stock to existing stock after deducting depreciation, damage and other physical deterioration of the existing capital stock. Economic progress in country depends upon its rate of capital formation. Hence, a key factor in the development of an economy is the mobilization of domestic resources. In the process of capital formation, the capacity to save by certain classes of people and institution becomes quit important. These people have varied asset-preferences, which change from time to time. The need of entrepreneurs who actually use saving for productive purpose also varies over time.

In the journal of **Info Himalayan** (2003:4) **Yadav Pant**, a bank is a service-oriented institution, which provides many kinds of services for its customer, all of which are equally important. Moreover, the quality of service should be up to the mark to meet the customer's requirement. Customers are the key players for a service organization, without whom such organization can ever exist.

2.2.3 Review of Thesis

Before this, several thesis works have been conducted by various students regarding the various aspects of commercial banks of such as financial performance, lending policy, investment policy, interest rate structure, resource mobilization and capital structure. Some of them as supported to relevant for the study are presented below:

Dr Sunity Shrestha (1993) has conducted a study on “Investment planning of commercial banks in Nepal with the objectives of:

- To evaluate the financial performance of commercial banks in Nepal.
- To examine the investment of commercial banks of Nepal with reference to securities, loan & advance.
- To establish the relationship of bank portfolio variables with the national income and interest rate.
- The research was conducted on the basis of primary and secondary data of Commercial bank.

The research findings of the study are summarized as:

- The general trend of commercial banks asset holding is growing. Deposits have been a major source of funds. The excess reserve level of the banks allows idle money and loss of opportunity. Debt equity ratios are very high, greater than 100%.
- The return ratios are on the average higher for foreign joint venture banks than for the Nepalese bank but return of asset found to be statistically some. Risk taking attitude is higher in foreign joint venture banks. The total management achievement index is higher in case of foreign banks in comparison to the Nepalese banks.
- The hypothesis that the commercial banks have non professional style of decision making in investment has been accepted. The investment of commercial banks in shares and securities is normal and found to have strategic decision towards investment in shares and securities. Field form the security has been found to be satisfactory.
- Investment in various economic sectors shows industrial and commercial sector taking higher share of loan till 1990.

The research conclusions of the study are summarized as:

- The secured loan analysis showed commercial loan as being very important followed by social and industrial loan. The loan loss ratio has been found to be increased with low recovery of loan.
- Demand of bank credit has been found to be affected by the national income and lending and Treasury bill rate.
- Lending in priority sector showed cottage and small industry sector sharing higher loans.
- Priority sector lending showed positive impact on the national income.

- Interest rates, lending rate deposit rate were found to constitute a set of significant variables affecting the bank portfolio composition.

Mr Raja Ram Khadka (1998) conducted a study on “A study on the investment policy of NABIL Bank Ltd in comparison to other joint venture banks in Nepal” with the objective of:

- To evaluate the liquidity, asset management efficiency and profitability positions in relations to fund mobilizations of NABIL Bank Ltd in comparison to other joint venture Banks.
- To discuss fund mobilization and investment policy of NABIL Bank Ltd in respect to its fee-based off-balance sheet transactions and fee-based on-balance sheet transactions in comparison to other JVBS.
- To evaluate the growth ratios of loan & advance and total investment with respective growth rate of total deposits and net profit of NABIL Bank Ltd in comparison to other JVBS.
- To find out the relationship between deposits and total investment deposit and loan & advances and net profit and outside assets of NABIL Bank Ltd in comparison to other JVBS.

The study was conducted though secondary data.

The research findings of the study are as follows.

- The liquidity position of NABIL Bank Ltd is comparatively worse than that of other JVBS. NABIL Bank has more portions of current assets as loans and advances but less portion as investment on government securities.
- NABIL Bank Ltd is comparatively less successful in on balance sheet operations as well as off balance sheet operations than of other JVBS.
- Profitability position of NABIL Bank Ltd is comparatively not better than that of other JVBS. The mean ratio of return on loan & advances of NABIL Bank Ltd has been found slightly lower than that of other JVBS and the return has been found less homogeneous than that of other JVBS. Similarly the mean ratio of total interest earned to total outside assets of Nabil Bank Ltd has been found slightly lower than that of other JVBS.
- Though NABIL Banks Ltd seems to be more successful to increase its sources of funds as well as mobilization of it by increasing loan and advances and total investment, it seems to be failure to maintain its high growth rate of profit in comparison to that of other JVBS.

On the basis of the study, following conclusion as below:

- The liquidity position of a bank may be affected by external as well as internal factors. The affecting factors may be interest rates; supply and demand position factors may be interest rates, supply and demand position of loans and advances as well as savings, investment situations, central bank's directives, the lending policies capability of management, strategic planning and flow situations.
- To get the success in competitive banking environment, depositor's money must be utilized as loan & advances. The largest item of the bank in the assets side is loan & advances Negligence in administering this asset could be the main cause of a liquidity crisis in the bank and one of the main reasons of a bank failure.
Before mobilizing fund well, NABIL is recommended to collect a large variety of deposit scheme like cumulative deposit scheme, prize bonds scheme, gift cheque scheme, house building deposit scheme, monthly interest and many others.

Mr. Upendra Tuladhar (2000) conducted a study on "A study on investment policy of Nepal Grindlays Bank Limited in comparison to other Joint Venture Banks of Nepal" with the objective of:

- To study the fund mobilization and investment policy with respect to fee-based off-balance sheet transaction and fund based on balance sheet transactions.
- To study the liquidity, efficiency of assets Management and profitability position.
- To evaluate the growth rate of loan and advances views and total investment with respective growth rate of total deposit and net profit.
- To perform a empirical study of the customer's views and ideas regarding the existing service and adopted investment policy of the Joint Venture Banks.

The study is mainly based on secondary data and in same aspects of the study primary data are also collected through questionnaire surveys of 100 respondents.

The research findings of the study are as follow:

From the analyses of primary data concerning in which sector should JVBS; 28.37% respondents emphasized on educational sector to be invested by these JBVS as the potential investment sector. Consequently poverty stricken and deprived sector was given second priority (26.24%), whereas industrial sector (18.44%), tourism sector (16%), agricultural sector (16%),

and Construction sector (4.25%) are given third, fourth, fifth and sixth priority respectively.

From the analysis of secondary data, following conclusions were drawn;

- Nepal Grindland Bank LTD has maintained consistent and successful liquidity than Nabil Bank LTD and Himalayan Bank LTD.
- The mean of total investment to total deposits ratio of Nepal Grindlays Bank LTD is higher than the other JBVS. The mean of the loan and advance to total deposited of Nepal Grindlays Bank Ltd is less inconsistent than NABIL Bank Ltd and Himalayan Bank Ltd.

Mr. Lila Prasad Ojha (2002) concluded a study on lending practices: A study on NABIL Bank Ltd. SCB Nepal Ltd and Himalayan Bank Ltd. With the objective of :

- To determine the liquidity position, the impact of deposit in liquidity and its effect on lending practices.
- To measure the bank's lending strength.
- To analyze the portfolio behaviors of lending and measuring the ratio and volume of loans and advances made in agriculture, priority and productive sector.
- To measure the lending performances in quality, efficiency and its contribution in total income.

The study was conducted on the basis of secondary data.

The research findings of the the study are:

- The measurement of liquidity has revealed that the mean current ratio of all the three banks is not widely varied. All of them are capable in discharging their current liability by current asset.
- The loans and advances and investment to deposits ratio has shown that NABIL Bank Ltd has delayed the highest proportion of its total deposits in earning activities. This is the indicative of that in fund mobilizing activities NABIL Ltd is significantly both.
- The absolute measures of lending strength have revealed that the mean volume of net assets and deposits is highest in SCBNC with moderate variation. The volume of net assets of Himalayan Bank Ltd. Is the least due to the low share capital, reserves and surplus in its capital mix But the volume contributed by Himalayan Bank Ltd in case of loans and advances is highly appreciable as compared to its net assets. The volume of loans and

advances contributed by NABIL Bank Ltd. Is the greatest in five years of study period. The mean investment in NABIL Bank Ltd is the highest but the investment on government securities of SCBNC is highest.

- The mean ratio of interest income to total income has concluded that the contribution of interest income in total income is higher in case of Himalayan Bank Ltd and lower in case of SCBNC. The interest expenses to total deposits ratio indicate that the cost of fund in Himalayan Bank Ltd is the highest and that of SCBNL is the least.

The research conclusions of the study are as follows:

- The ratio of investment to investment and loan and advances has measured the total portion of investment in total of investment and loans and advances. The mean ratio among the banks doesn't have deviated significantly.
- The portfolio analysis has revealed that the flow of loans and advances in agriculture sector is the lowest priority sectors among these commercial banks. The contribution of all banks in industrial sector is appreciable. The contribution made by Himalayan bank ltd in industrial sector is the greatest and that of SCBNL is the least.
- The total income to total assets ratio measures the earning power of each rupee employed by the bank. NABIL's ratio in this is the best. The ratio of total income to total expenses reflects the earning capacity of a rupee of expenses. The productively of expenses in SCBNL is the best.
- The performance of SCBNL is significantly better than other two banks in case of profitability. Eps is highest in case of SCBNL.

Kanchan Sharma (2005) "Investment policy and re-payment of loan investment of joint venture bank in Nepal" with objective of:

- To highlight the overall investment portfolio of listed bank.
- To analyze the liquidity, assets management efficiency profitability, risk and growth the portion of listed bank.
- To examine the fund mobilization and investment policy and payment of loan investment of listed bank through off balance sheet and on balance sheet activities.
- To analyze deposit utilization and its relationship with total investment and net profit of bank.
- To provide the suggestion for improving the investment policy and repayment of loan investment of listed joint venture bank on the basis of findings of the analysis.

The research findings of the study are as followed:

- HBL seems very poor liquidity position among the four banks and NBBL has quite successful to maintain its liquidity positions among the four banks. From the analysis of current assets of four banks we can say that except HBBL all other banks have very less amount of current assets to meet its immediate each obligations.
- NBBL has high ratio of loan & advance to total working fund ratio whereas SCBL has least ratio among the four banks and NIBL and HBL has average ratio.
- Return of loan and advance ratio of SCBL is best among the four banks. NIBL has also satisfactory return ratio but the HBL and NBBL has worst return ratio. High ratio indicates high earning capacity of the banks.
- The risk behind making investment of granting loan is measured by credit risk ratio. From the analysis NBBL has a high credit risk where as SCBL has least credit risk ratio among there banks.
- NBBL has highest growth ratio of total deposit and NIBL has least growth ratio. SCBL and HBL have satisfactory growth ratios. NIBL has fluctuating trend of total deposit.
- The purpose of computing coefficient of correlation between outside assets and net profit is to find out whether net profit is significantly correlated with respective total assets or net. Form the analysis NIBL and HBL has moderate degree of correlation and SCBL has high degree of correlation, NBBL has low degree of correlation between outside asset and net profit.

Following conclusion were made by the study,

- Liquidity ratio shows that all the banks has maintain satisfactory but NBBL has maintain sound liquidity positions than the other banks and SCBL has big proportion of govt. securities in current assets.
- All banks have successful on better mobilizations of funds as loan & advance to total deposit and total working fund.
- Interest earned to total operating income ratio measures the magnitude of interest income on total income. All banks have high proportion of interest earned in its total operating income and among them.
- Higher the risk, higher will be return. Risk ratio measures bank ability to attract deposits and in – bank funds. It also determines the level of profit. From the analysis we concluded that SCBL has choose high capital risk ratio where as some time SCBL has least credit risk ratio among selected banks.

A Study done by **Tilak Kumar Raya** (2008), entitled with "Investment policy and Analysis of Commercial Banks in Nepal" made a comparative study of SCBL with NIBL and NB Bank.

The main objectives were as follows:

- To discuss fund mobilization and Investment policy of SCBL in respect to its fee based off-balance sheet transaction and fund based on balance sheet transaction.
- To evaluate the quality, efficiency and profitability and risk position.
- To evaluate trend of deposit, Investment, loan and advances and projection for next years.

The main findings were as follows:

- Mean current ratio of SCBL is slightly higher than that of SCBL and Nepal Investment bank.
- Mean ratio of cash and bank balance to total deposit of SCBL is lower than NIBL and NBBL.
- Liquidity position of SCBL is comparatively better than NIBL and NBBL. It has the lowest cash and bank balance to total deposit and cash and bank balance to current ratio. SCBL has a good deposit collection. It has made enough Investment on government securities but it has maintained low Investment policy on loan and advances.
- SCBL is comparatively average successful in its on balance sheet operation. But off balance sheet operation activities in compared to NIBL and NBBL has maintained the strong position.
- There is significant relationship between deposit of loan and advances and between asset and net profit of SCBL.

He recommended the SCBL for effective portfolio management and for project oriented approach. He also suggested enhancing the Off Balance Sheet operation. D. Shrestha (2003) in her thesis, "Investment Analysis of Commercial Banks" a comparative study of HBL and Nepal SBI Bank said that only joint venture commercial banks are running in profit. And HBL is one of the successful commercial bank of Nepal. Nepal SBI is still in developing period. HBL has made a great achievement

within last 10 years period. It has also invested in different sectors. These commercial banks should take favorable step for the development of rural parts of the country.

Banks plays a crucial role in sustainable development of least developed countries. Because of bottlenecks inherent in the economic of least developed countries are either unemployed or under-employed or only seasonally employed. It can absorb the population in gainful employment activities. Thus, they can play an important role in poverty alleviation in the country. The major sources for financial resources to industries in the least developed countries are the commercial banks. They account almost 80 to 90% of the total lending to enterprise. This study is concerned with the Investment analysis of commercial banks of Nepal.

2.3 Research Gap

The purpose of this study is to draw some ideas concerning to the maintain good investment policy and to see what new contribution can be made and to receive some ideas, knowledge and suggestion in relation to maintain good investment policies of sample companies.

The previous students cannot be ignored because they provide the foundation to the present study. In other words there has to be continuity research. This continuity research is ensured by linking the present study with the past research studies. It is clear that the reference of new research cannot be found on the exact topic that is "Investment Analysis of Commercial banks in Nepal". Therefore to complete this research many book, journals, articles and various 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, here the researcher is going to analyze the different policy in this topic.

It is the new topic for the research work. It is expected to the uncovered areas of this research work will be studied. The gaping between old and new research work will be focused and filled up based on the given objectives and limitation in this research.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

Research Methodology is the process of obtaining the solutions by collection, analysis and interpretation using mathematical and statistical tools. It is systematic and planned process which makes the solutions of the problem. For fulfilling the research objectives of the study, it covers both the financial and statistical tools Research Methodology describes the methods & process applied in entire study. It sequentially refers to the various steps to be adopted by a researcher. “Research methodology is the process of arriving at the solution of the problem through planned and systematic dealing with the collection, analysis and interpretation of facts and figures. Research is a systematic method of finding right solutions for the problem where as research methodology refers to the various sequential steps to adopt by a researcher in studying a problem with certain objective in view.” (Kothari, C. R., “Research Methodology, Methods and Techniques”, New Delhi, 1998)

The basic objective of this study is to evaluate the Investment Pattern of EBL as comparison to BOK so that EBL’s performance is below or average or above from other one. In order to reach and accomplish the objectives of the study, different activities are carried out and different stages are crossed during the study period. This study covers quantitative methodology in a greater extent and also used the descriptive part based on both technical aspect and logical aspect. The research tries to perform a well designed quantitative and qualitative research in a very clear and direct way using both financial and statistical tools. The research methodology adopted for the present study is mentioned in this chapter which deals with research design, sources of data, population and sampling, data collection, processing and tabulating procedure and methodology.

3.2 Research Design

A research is the arrangement of conditions for collection and analysis of data that aims to combine relevance to the research purpose. Research design is the plan, structure and strategy of investigations conceived so as to obtain answers to research questions and to control variances. It is the arrangement of conditions for collection and analysis of data. To achieve the objective of the study, descriptive and analytical research design has been used.

3.3 Population and Sampling

Population refers to the industry of same nature and its services and product in general. So the total commercial banks are the population of data and the bank under study constitutes the sample for the study. There are 31 commercial banks operating all over the Nepal and most of the stocks are traded actively in the stock market. In this study among 31 banks Everest bank limited and Bank of Katmandu Ltd are selected as sample. The total population of commercial banks are as follows:

Table No.I
List of Commercial Banks in Nepal

S.N	Commercial Banks	Head Office	Established Date (A.D.)
1	Nepal Bank Limited	D Dharmapath,Kathmandu	15-Nov-37
2	Rastriya Banijya Bank	Sinhadurbar,Kathmandu	23-Jan-66
3	Agriculture Development Bank	Ramshahpath,Kathmandu	02-Jan-68
4	Nabil Bank Limited	Kantipath,Kathmandu	16-Jul-84
5	Nepal Investment Bank Limited	Durbarmarg,Kathmandu	27-Feb-86
6	Standard Chartered Bank Limited	New Baneshwor,Kathmandu	30-Jan-87
7	Himalayan Bank Limited	Thamel,Kathmandu	18-Jan-93
8	Nepal SBI Bank Limited	Hattisar,Kathmandu	07-Jul-93
9	Nepal Bangladesh Bank	New Baneshwor,Kathmandu	06-May-94
10	Everest Bank Limited	Lazimpat,Kathmandu	18-Oct-94
11	Bank of Kathmandu Limited	Kamladi,Kathmandu	12-Mar-95
12	Nepal Credit & Commerce Bank Ltd.	Siddharthanagar,Rupandehi	14-Oct-96
13	Lumbini Bank Limited	Narayangadh,Chitwan	17-Jul-98
14	Nepal Industrial & commercial Bank Ltd.	Biratnagar,Morang	21-Jul-98
15	Machhapuchhre Bank Limited	Pokhara,Kaski	03-Oct-00
16	Kumari Bank Limited	Putalisadak,Kathmandu	03-Apr-01
17	Laxmi Bank Limited	Birjung,Parsa	03-Apr-02
18	Siddhartha Bank Limited	Kamladi,Kathmandu	24-Dec-02
19	Global Bank Limited	Birgunj,Parsa	02-Jan-07
20	Citizens Bank International Limited	Kamladi,Kathmandu	21-Jun-07
21	Prime Commercial Bank Limited	New Road,Kathmandu	24-Sep-07
22	Sunrise Bank Limited	Gairidhara,Kathmandu	12-Oct-07
23	Bank of Asia Nepal Limited	Tripureshwor,Kathmandu	12-Oct-07
24	DCBL Bank Limited	Kamladi,Kathmandu	23-Jan-01
25	NMB Bank Limited	Babarmahal,Kathmandu	26-Nov-96
26	Kist Merchant Bank & Finance Ltd	Anamnagar,Kathmandu	21-Feb-03
27	Janata Bank Nepal Ltd	New Baneshwor,Kathmandu	05-Apr-10
28	Mega Bank Nepal Ltd	Kantipath,Kathmandu	23-Jul-10
29	Commerz & Trust Bank Nepal Ltd	Kamladi, Kathmandu	20-Sep-10
30	Civil Bank Ltd	Kamladi, Kathmandu	23-Nov-10
31	Century Commercial Bank Ltd	Putalisadak, Kathmandu	23-Jan-11

3.4 Sources of Data

Mainly, the study is conducted on the basis of the secondary data. Data are collected from secondary sources. The data are presented in this study are secondary type. The secondary sources of data are those that have been used from published sources or used by someone previously. The annual reports of the concerned banks are the major sources of data for the study. Besides the annual reports of the banks, the following sources of data have also been used in the course of the study:

- NRB reports and bulletins
- NEPSE reports
- Various articles published in the newspaper.
- Annual reports of the related banks.
- The websites of the selected banks.
- Periodic returns submitted by the banks' head office to NRB.
- Various publications dealing in the subject matter of the study.

All the secondary data are compiled, processed and tabulated in the time series as per the need and objectives. Formal and informal talks with the concerned authorities of the banks were also helpful to obtain the additional information of the related problem.

3.5 Data Collection Technique

This study is mainly based on secondary data obtained from various sources mentioned above. The annual reports of EBL for the study periods is obtained from its head office which is located in Naya Baneshwor, Kathmandu and regarding the annual reports and other information of BOK, obtained from its head office which is in Kamal Pokhari, Kathmandu. The data on same aspects of the bank has also been obtained from the publications and websites of Nepal Stock Exchange. Some supplementary data & information and literature review have been collected from different campuses and NRB publications, different journals, magazines and other published & unpublished reports documented by the concern authorities.

3.6 Data Analysis Tools

Presentation and analysis of the collected data is the core of research work. The collected raw data are first presented in systematic manner in tabular forms and then analyzed by applying different financial and statistical tools

to achieve the objective of the study. The analysis of data will be done according to the pattern of data available. Beside these, some graph charts and tables have been presented. The analysis tools are as follows:

3.6.1 Financial Tools

Financial tools are used to examine the strength and weakness of firm. In this study financial tools like ratio analysis and financial statement analysis have been used. Ratio analysis is the one of the most important tool of financial tool that has been used in this study. Financial ratio is the mathematical relationship between two accounting figures. Ratio can be expressed in terms of percentage, proportion and as coefficient. Even through there are many ratios to analyze and interpret the financial statement, only those ratios have been covered in this study which are related to the investment operation of the bank. Different types of ratios have been used in this study are as follows:

(A) Liquidity Ratios:

Liquidity ratios are quick measures of the firms' ability to provide sufficient cash to conduct business over the short period. From them, much insight can be obtained into present cash solvency of the bank and its ability to remain solvent in the event of adversities. It is measurement of speed with which a bank's assets can be converted into cash to meet deposit withdrawal and other current obligations.

(B) Assets Management Ratios:

Assets Management ratio measures how efficiently the bank manages the resources at its command.

(C) Profitability Ratios:

Profitability ratios are calculated to measure the efficiency of operation of a firm in term of profit. It is the indicator of the financial performance of any institution. This implies that higher the profitability ratio better the financial performance of the bank and vice-versa.

(D) Risk Ratios:

Risk taking is the prime business of banks investment management, increases effectiveness and profitability of the bank. These ratio indicate the amount of risk associated with the various banks operations.

(E) Growth Ratios:

Growth ratios are directly related to the fund mobilization and investment management of a commercial bank. Growth ratio represents how well commercial bank is maintaining its economic position.

3.6.2 Statistical Tools

To achieve the objective of study, some statistical tools are used such as coefficient of correlation, mean, standard deviation, coefficient of variation, trend analysis have been used.

Mean

It is simply an average. It is defined as the sum of numerical values of each and every observation divided by the total number of observations. It is given by formula:

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

Where, \bar{X} = Mean of the Values
N = No. of Observation

Standard Deviation

The standard deviation measures the absolute dispersion. It is said that higher the value of standard deviation higher the variability and vice-versa. It is denoted by small Greek letter δ (sigma). Karl Pearson introduced the concept of standard deviation in 1823. The formula for calculation of standard deviation is:

$$\delta = \sqrt{\frac{\sum x^2}{N}}$$

Where, $x^2 = (X - \bar{X})^2$

Coefficient of Variation

The standard deviation calculated in the above formula gives an absolute measure of dispersion. Hence, where the mean value of the variables is not equal, it is not appropriate to compare two pairs of variables based on standard deviation only. The coefficient of variation measures the relative measures of dispersion, hence capable to compare two variables independently in terms of their variability. It is expressed in percentage. The coefficient of variation (C.V.) is given by the following formula:

$$\text{Coefficient of Variation (C. V.)} = \frac{\delta}{X}$$

Coefficient of correlation

Correlation is a statistical device designed to measure the degree of association between two or more variables. In other word, this analysis identifies and interprets the relationship between the two or more variables. The correlation between the different variables of a bank is compared to measure the performance of these banks. If between two variables, increase or decrease in one cause increase or decrease in another, then such variables are correlated variables. The reliability of the value of coefficient of correlation is measured by probable error. It interprets whether two or more variables are correlated positively or negatively i.e. the value of correlation lies between +1 to -1. This tool analyzes the relationship between those variables of the bank which are helpful to make appropriate investment pattern regarding deposit collection, fund mobilization and profit maximization. The Karl Pearson Coefficient of Correlation (r) is given by the following formula:

$$\text{Coefficient of Correlation (r)} = \frac{N \sum dx dy - \sum dx \cdot \sum dy}{\sqrt{N \sum dx^2 - (\sum dx)^2} \sqrt{N \sum dy^2 - (\sum dy)^2}}$$

Where,

N = Number of pairs of observation.

During the analysis of data, correlation coefficient is calculated by using the statistical formula 'CORREL' on excel data sheet on computer.

$$\text{Probable Error of r (P. Er.)} = 0.6745 \frac{1-r^2}{\sqrt{N}}$$

The coefficient of correlation has been interpreted based on probable error (P. Er.). If the value of correlation coefficient is greater than 6 times the

value of probable error the correlation coefficient is deemed as significant and reliable. If the value of correlation coefficient is less than probable error, the correlation coefficient is said to be insignificant and there is no evidence of correlation. Karl Pearson's coefficient of correlation has been used to find out the relationship between following variables:

- (i) Coefficient of correlation between Deposits and Loans & Advances.
- (ii) Coefficient of correlation between Deposits and Investment.
- (iii) Coefficient of correlation between Outside assets and Net Profit.

Trend Analysis

There are various methods for trend analysis but the appropriate method of determining trend is least square method. Using this method, it has been estimated the future trend values of different variables. For estimation following formula can be used:

$$Y = a + bx$$

Where,

Y = Dependent Variable

a = Y intercept

b = Slope of the trend line

x = Independent Variable

This method will make trend analysis of following variable:

- a) Trend analysis of Total deposits.
- b) Trend analysis of Loan and Advances.
- c) Trend analysis of Total investment.
- d) Trend analysis of Net Profit.

Test of Hypothesis

It tests the significance regarding the parameters of the population on the basis of sample drawn from the population. This test has been concluded on the various ratios related with the banking business.

- (a) There is no difference in the mean ratio of loan and advances to total deposit ratio of EBL and BOK.
- (b) There is no difference in the mean ratio of total investment to total deposit ratio of EBL and BOK.

- (c) There is no difference in the mean ratio of investment on government securities to total working fund of EBL and BOK.
- (d) There is no difference in the mean ratio of return on loan and advances of EBL and BOK.
- (e) There is no difference in the mean ratio of total interest earned to Outside Assets of EBL and BOK.
- (f) There is no difference in the mean ratio of Loan and Advance to Current Assets of EBL and BOK.

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

The main objective of the present work is to make a comparative study of a relatively successful banks like Everest Bank Limited, and Bank of Kathmandu. In this chapter, we mainly study financial performances related to investment pattern and fund mobilization in study period. We evaluate and analyze the investment pattern and fund mobilization, using both the financial and statistical tools.

4.1 Analysis of Financial Ratios

In financial ratio, different type of ratios like Liquidity Ratio, Assets Management Ratio and Profitability Ratios are used. Only the ratios related to the investment management are analyzed. Secondary data published in annual report of the banks are used for the purpose.

4.1.1 Liquidity Ratio

Liquidity ratios are used to judge the ability of banks to meet its short term liabilities that are likely to mature in the short period. From them, much insight can be obtained into present cash solvency of the bank and its ability to remain solvent. It is measurement of speed with which a bank's assets can be converted in to cash to meet deposit withdrawal and other current obligations.

The following ratios are evaluated under liquidity ratios

4.1.1.1 Current Ratio

This ratio shows the short term solvency of a firm. This shows the ability of the firm to meet its current obligation. Normally the standard norm of current ratio is 2:1, for the banking and seasonal business current ratio of 1:1 is considered. High ratio indicates that, the bank is maintaining high liquidity to meet the current obligation. And low ratio indicates that the bank is maintaining low liquidity. Higher ratio is not favorable because it freezes the cash in bank and could not be invested properly in profitable

sector. Lower ratio also no preferable because they do not meet current obligations. Current ratio can be calculated by the following formula:

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

Where,

Current Assets includes cash and bank balance, money at call on short term notice, loan and advances, investment in government securities and other interest receivable and other miscellaneous assets.

Current Liabilities includes deposits, loan and advances, bills payable, tax provision, staff bonus payable, dividend payable and miscellaneous current liabilities.

Calculation of mean, standard deviation and coefficient of variation of current ratios

Current ratio of EBL and BOK from the fiscal year 2005/2006 to 2009/2010 is given below in Table No 1 (details in Annex A1). Mean is calculated by AVERAGE, Standard deviation is calculated by STDEV and C. V. is calculated by S.D/Mean * 100 in Excel Spreadsheet Software application of Computer.

**Table No – 1
Current ratio (Times)**

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	1.03	1.04	1.05	1.03	1.05	1.04	0.004	0.38
BOK	1.07	1.07	1.01	1.03	1.08	1.052	0.0121	1.15

The above Table No 1 depicts that the current assets of all commercial banks have exceed the current liabilities during the five years period. In general it can be said that the all the banks have sound ability to meet their short term obligations.

In the case of EBL, the current ratios are in fluctuating trend, whereas BOK has increased in beginning and after 2007 it has decreasing trend and again it increased in 2009. In an average, both have maintained average current ratio. Liquidity position of EBL is lower than of BOK i.e. 1.04<1.052. So BOK has maintained good liquidity position.

Likewise, the co-efficient of variance (C.V.) of BOK is less consistent than EBL i.e. 1.15%>0.38%, means C.V. of BOK is more. Both banks have average ratio but risk factor of BOK is more than EBL. It shows the point of view of working capital policy, BOK has followed aggressive working

capital policy by attracting more current liabilities i.e. current and saving deposits and deploying them into liquid sectors.

4.1.1.2 Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance are the most liquid current assets. This ratio measures the percentage of most liquid fund with the bank to immediate payment to the depositors. Higher the ratio, greater will the ability to meet sudden demand of deposits. But every high ratio is not desirable, since bank have to pay interest on deposits. The ratio is calculated by dividing cash and bank balance to total deposit. This can be presented as:

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

Where,

Deposit includes current deposits, saving deposits, fixed deposit, money at call on short notice and other type of deposits.

Cash and bank balance to total deposit ratio of EBL and BOK from fiscal year 2005/06 to 2009/10 is presented in Table No 2. The details are shown in Annex A2)

Table No – 2
Cash and Bank Balance to total deposit (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	11.2	13.15	11.13	18.5	21.17	15.03	1.82	12.10
BOK	6.9	10.62	9.1	12.07	8.85	9.51	0.78	8.2

Table No 2 shows that the mean, standard deviation and co – efficient of variation of cash and bank balance to total deposit ratios of both bank are better. EBL has fluctuating trend like wise 11.2%, 13.15%, 11.13%, 18.5% & 21.17% from FY 2005/06 to 2009/10 respectively. BOK has also maintained in fluctuating trend like 6.9%, 10.62%, 9.1%, 12.07% & 8.85% from the FY 2005/06 to 2009/10.

In average, EBL has maintained higher cash and bank balance to total deposits ratio than BOK. It states that the liquidity position of EBL is better in this regard. The CV of EBL is 12.10% which are comparatively lesser than 8.2% of BOK. It shows the current ratio of BOK is less heterogeneous than EBL. BOK has maintained low ratio, it shows that the same difficulties to meet the demand of its customers on their deposit to pay at any time but it may be earn more due to invested cash to different sectors.

Though high ratio indicates its high ability to pay for depositors and to invest the different sectors but also very high ratio shows the inefficiency. All deposit amounts mostly to invest other sectors due to investing opportunity bills, etc ensuring enough liquidity which will help the bank to improve its profitability.

4.1.1.3 Cash and Bank Balance to Current Assets Ratio

This ratio shows that the liquidity capacity of bank on the basis of Cash and Bank balance, it is most liquid assets. Higher ratio indicates the banks ability to meet the daily cash requirement of their customer deposit and vice-versa. But higher ratio is not preferred as there accounts do not earn return enough to meet the interest on deposit. Lower ratio is also very dangerous as the bank may not be able to make payment against the cheques presented by the customers. Therefore, bank has to maintain the cash and bank balance to current assets ratio in such a manner that it should have the adequate cash for the customer's demand against deposit when required and thus less interest is required to be paid against the cash deposit. Cash and bank balance are assets that constitute the cash on hand, foreign currency on hand, cheques and other cash items, balance with domestic bank and balance held abroad. The following relation computes this ratio

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

Table No 3 shows the cash and bank balance to current assets ratio and the details is shown in Annex A3.

Table No – 3
Cash & Bank Balance to Current Asset Ratio (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	10.25	11.52	10.19	17.51	19.68	13.83	1.78	12.87
BOK	6.03	9.68	8.87	11.46	7.96	8.8	0.81	9.16

Table No.3 shows the cash and bank balance to current ratio of both banks is better as they show the ability to manage the deposit withdrawals from the customers. EBL has followed the increasing trend to the year 2006 and it decreases in the year 2007 and it increases in 2008. In the other hand BOK

has followed the fluctuating trend as 6.03%, 9.68%, 8.87% 11.46% & 7.96% to the year 2009.

In average ratio, EBL has maintained higher cash and bank balance to current asset ratio than BOK. It states that the high liquidity position of EBL is better. In this regard, the co-efficient of variance between the above ratio of BOK 9.16% which is comparatively lower than 12.87% of EBL. It shows the current ratios are more heterogeneous than EBL.

Above analysis depicts that liquidity position of EBL meets its daily requirement to make the payments on customer deposits. In contrast BOK may invest their fund in more productive sectors and EBL has to mobilize their funds in profitable sector.

4.1.1.4 Investment on Government Securities to Current Assets Ratio

The commercial bank wants to diversify their investment by investing in the lower risk items such as government securities. Though government securities are not so liquid as cash and bank balance of commercial banks, but they can be easily sold in the market or they can be converted into cash in other ways. The investment on government securities to current assets ratio could be used to examine that portion of commercial banks current assets that is invested on different government securities. The objective of the commercial banks is to maximize profit but government securities yield low return so more fund invested on government securities by the bank is not preferable to achieve banks' goal. High ratio shows higher portion of amount invested in government securities and vice-versa.

The ratio is calculated by dividing investment on government securities by current assets. This can be presented as:

Investment on Government Securities by Current Assets

$$= \frac{\text{Investment on Govt. Securities}}{\text{Current Assets}}$$

The details of the Table No 4 are shown in Annex A4.

Table No - 4
Investment on Government Securities to Current Assets Ratio (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	23.42	22.66	18.42	14.62	10.96	18.02	2.12	11.76
BOK	22.03	17.15	13.01	9.16	13.08	14.89	1.98	13.28

Above the Table No.4 reveals that EBL's investment on government securities to current ratio has decreasing trend and BOK has decreasing trend to the year 2008 & it increases in 2009. EBL's highest ratio is 23.42% and lowest ratio is 10.96 % during the study and other hand BOK's highest ratio is 22.03% in the beginning year and lowest is 9.16% in the year 2008 during the study.

In overall the mean ratio of investment on government securities to current asset of EBL is greater than that of BOK. But C.V of EBL is lower than BOK.

It can be concluded that EBL has invested its more portion of current assets as government securities than that of BOK. Lastly, it is concluded that EBL has liquidity portion from the point of view of investment on government securities is slightly poorer than that of BOK.

4.1.1.5 Loan and Advances to Current Assets Ratio (%)

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

To make a high profit mobilizing its fund in the best way, a commercial bank should not keep its all collected funds as cash and bank balance but they should be invested as loan and advances to the customers. If sufficient loan and advances cannot be granted, it should pay interest on those utilized deposits funds and may lose some earnings, but high loan and advances may also be harmful to keep the bank in most liquid position because they can only be collected at the time of maturity. Thus, a bank must maintain its loan and advances in appropriate level to find out portion of current asset, which is granted as loan and advances.

We have,

$$\text{Loan \& Advances to Current Asset Ratio (\%)} = \frac{\text{Loan \& Advances}}{\text{Current Asset}}$$

The table No 5 below shows the ratio of loan and advance to current asset ratio of EBL and BOK (Detail in Annexure A5)

Table No – 5
Loans & Advances to Current Asset Ratio (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	64.7	65.82	70.06	67.86	69.36	67.56	0.91	1.35
BOK	60.15	69.13	76.72	76.92	73.77	71.34	2.80	3.93

The comparative Table No 5 listed above shows that EBL has fluctuating trend & BOK has increasing trend to the year 2008 & it decreases in the year 2009 on their loan & advance to current asset ratios. EBL has higher ratio 70.06% in fiscal year 2007/08 and lower ratio 64.7% in 2005/06. BOK has higher ratio 76.92% and lower ratio 60.15% during the study.

While examining the mean ratio, EBL has maintained i.e. 67.56% which is lower than mean of BOK i.e. 71.34%. On the other side, co-efficient of variation is less in case of EBL i.e. 1.35% < 3.93%. It indicates that high uniform of EBL in comparison to BOK.

Lastly, we can say that EBL is better to mobilize its funds as loan & advances with respect to current assets in comparison to BOK. The mean reveals that EBL loan & advances to current assets is satisfactory than BOK.

4.1.2 Assets Management Ratio / Activity Ratio

Assets Management ratio measures the efficiency of the bank to manage its assets in profitable and satisfactory manner. A commercial bank must be able to manage its assets properly to earn high profit, to satisfy its customers for its own existence.

Though the following activity ratios the assets management ability of BOK has been measured in comparison to EBL.

4.1.2.1 Loan and Advances to Total Deposit Ratio

This ratio measures the extent to which the banks are able to mobilize their total deposits on loan and advances for the purpose of profit maximization.

Better mobilization of collected deposits is indicated by the high ratio of loan and advances to deposit and vice-versa.

This ratio is computed by dividing loan and advances by total deposit. This can be presented as:

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

Table No 6 shows the loan and advances to total deposit ratio and the details are shown in Annex A6.

Table No – 6
Loan and Advances to Total Deposit Ratio (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	71.01	75.14	76.49	71.68	74.61	73.79	0.94	1.27
BOK	69.23	75.87	78.71	80.99	82.03	77.37	2.05	2.65

From the comparative Table No 6 listed above, it is clear to us that both EBL recorded falling & rising trend & BOK maintained rising trend during the period under study. In case of EBL, it seems to be successful to maintain highest loan & advance to total deposit ratio in fiscal year 2007/08 i.e. 76.49% but its record of lowest ratio under study period is 71.01% in fiscal year 2005/06. Likewise BOK has maintained loan & advance to total deposit ratio is 82.03% in fiscal year 2009/10 and lowest ratio in 2005/06 is 69.23% only.

On the other hand, when mean ratio of loan & advance of EBL and BOK, BOK seems to be slightly strong to mobilize its deposits as loan & advance in comparison EBL because BOK's mean ratio under study period is 77.37% but in case of EBL, it is 73.79%. On the basis of co-efficient of variation, we can say that EBL's loan & advance ratio is more consistent than of BOK because of its lower CV i.e. 1.27% < 2.65%.

From the above description it can be concluded that BOK is good position to mobilize its total deposits as loan & advance in comparison to EBL. But higher ratio is not better from the point of view of liquidity as the loan & advances is not as liquid as cash & bank balance.

4.1.2.2 Total Investment to Total Deposit Ratio

This ratio of total investment to total deposit measures the extent to which the banks are able to mobilize their deposits on investment in various securities. High ratio is the indicator of high success to mobilize the banking fund as investment and vice-versa though various factors such as availability of fund, liquidity requirement, central bank norms etc are to be considered in general.

This ratio is calculated by dividing total investment by total deposit. The details are shown in Annex A7 . The formula for this ratio would be:

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

Table No – 7
Total Investment to Total Deposit Ratio (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	30.43	27.41	21.10	17.85	13.56	22.07	2.75	12.48
BOK	32.18	24.15	20.24	15.39	16.09	21.61	2.75	12.73

In the Table No 7, EBL has maintained successfully total investment to total deposit ratio, its highest ratio is 30.43% the fiscal year 05/06 however EBL has decreasing ratio in study period but BOK has highest ratio i.e. 32.18% in the year 05/06.BOK has fluctuating trend in the study period.

The mean value of EBL is 22.07 %which are greater than mean value of BOK i.e.21.61%. The co-efficient of variance of EBL is lowest than coefficient of variance of BOK i.e. 12.48% <12.73%.

So, it is quite clear from the above analysis that EBL is successfully utilizing its resources on investment.

4.1.2.3 Loan and Advances to Total Working Fund Ratio

Commercial bank should be very aware in mobilizing total working fund, where total working fund is the total assets. It is composed of current assets, fixed assets, miscellaneous assets and investment, loans for development banks or in other words it includes all assets of balance sheet items but excludes off balance sheet items like LC, letter of guarantee etc.

This ratio reflects the extent to which commercial banks are success in mobilizing their assets loan and advances for the purpose of income

generation. A high ratio indicates better mobilization of fund as loan and advances and vice-versa.

The ratio is calculated by dividing total loan and advances by total working funds. The details of Table No 8 are shown in Annex A8. The formula for this ratio is:

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

Table No – 8
Loan and Advances to Total Working Fund Ratio (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	61.41	63.76	67.55	64.70	66.59	64.80	0.97	1.49
BOK	59.12	64.46	70.32	71.46	71.23	67.32	2.16	3.21

According to above Table No 8, ratio of EBL is in fluctuating ratio in study period i.e. 61.41%, 63.76 %, 67.55%, 64.70% & 66.59% in fiscal year 05/06, 06/07, 07/08, 08/09 & 09/10 respectively. In other hand ratio of BOK is increased to the year 2008 & it decreases in 2009. It's highest ratio is 71.46% in fiscal year 2008/09 and lowest ratio is 59.12% in fiscal year 2005/06.

The mean of EBL is lower than BOK i.e. 64.80% < 67.32%. It states that the position of EBL is average in this regard. The co-efficient of variation is lower i.e. 1.49% than that BOK i.e. 3.21%. It shows the loan & advances to working fund ratio is less variable or more stable than BOK.

From above analysis it can be concluded that EBL fund mobilization in terms of loan & advance with respects to total working fund is more satisfactory than that of BOK, EBL has satisfied of ratios point of view in fund mobilization term.

4.1.2.4 Investment on Government Securities to Total Working Fund Ratio

All the resources of a bank are never used as loan and advances. So, the commercial banks have to diversify their investment to minimize the risk by investing their investable funds in different secured or unsecured sectors. A bank mobilizes its fund by purchasing government securities which is considered secured and very low risky securities. This ratio is very important to know whether the banks are able to successfully mobilizing its

some portion of investment in the government securities to maximize its income. The high ratio indicates that the bank is using good effort to mobilize its fund in the government securities.

The ratio can be calculated by dividing investment on government securities by total working fund. The ratio is shown in Table No 9 and details are shown in Annex A9 . The formula for this ratio can be presented as:

Investment on Government Securities to Total Working Fund Ratio

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

Table No – 9
Investment on Government Securities to Total Working Fund Ratio(%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	22.24	21.95	17.76	13.94	10.52	17.28	2.03	11.77
BOK	21.65	15.99	11.92	8.51	12.63	14.14	1.99	14.05

From the above Table No 9 it is clearly seen that investment on government securities to working fund ratio of EBL is in decreasing trend. EBL has maintained decreasing trend i.e. 22.24% > 21.95% > 17.76% > 13.94% > 10.52% in FY 2005/06 to 2009/10 respectively. BOK has decreasing trend to the year 2008 & it increases in 2009 i.e. 21.65% > 15.99% > 11.92% > 8.51% < 12.63% in the FY 2005/06 to 2009/10 respectively.

In the average, EBL has maintained higher mean value than BOK. The coefficient of variation is lower than that of BOK i.e. 11.77% < 14.05%. So it is less variable than BOK.

From the above analysis, it can be concluded that though EBL has invested more portion of working fund on government securities as BOK, both EBL and BOK have no certain investment policy towards government securities.

4.1.2.5 Investment on Shares and Debentures to Total Working Fund Ratio

The sustainability and profitability of the banks count if it can flow its deposits in the investment and loan and advances in the very optimum level. Now a days, commercial banks are making investment diversification i.e. banks are interested to invest its fund not only in loan and advances but

also in government securities, bonds and shares etc issued by different companies.

The ratio of investment on shares and debenture to total working fund reveals that whether the banks are successful or not in mobilizing their total assets on shares and debentures of other companies to generate incomes. High ratio indicates more portion of working fund is invested in the shares and debentures and vice-versa.

The ratio can be calculated by dividing investment on shares and debenture by total working fund. Table No 10 shows ratios of investment on shares and debenture to total working fund, and the details of Table no10 are in Annex A10. The formula for this ratio is:

Investment on Shares and Debenture to Total Working Fund Ratio

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

Table No – 10
Investment on Shares and Debentures to Total Working Fund Ratio(%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	0.12	0.09	0.37	0.28	0.25	0.22	0.05	21.09
BOK	0.76	0.62	0.64	0.60	0.17	0.56	0.13	23.39

On the basis of above comparative Table No 10, it has been found that both EBL & BOK have very nominal percentage of total working fund as investment on shares and debentures. In all cases, the ratio percentage is less than 1. However, if we compare them, EBL has invested on share & debentures of other companies in fluctuating ratio in each year throughout the study period and in case of BOK, it has been fluctuating.

On the basis of mean ratios, EBL has not invested on shares and debentures as BOK i.e. 0.22% < 0.56%. Moreover co-efficient of variation of EBL ratio is also lower than of BOK i.e. 21.09% < 23.39%. It means investment ratios of EBL are more consistent than that of BOK.

From the above analysis, it has been clear that EBL has less Percentage of investment on share and debenture of other companies in comparison to BOK.

4.1.3 Profitability Ratio

Profitability ratios are calculated to measure the efficiency of operation of firm in terms of profit. It is the indicator of the financial performance of any institution. This implies that higher the profitability ratio better the performance of the bank and vice-versa.

4.1.3.1 Return on Total Working Fund Ratio

It measures the profit earning capacity by utilizing available resources i.e. total assets. Return will be higher if the banks working fund is well managed and are efficiently utilized, maximizing taxes within the legal options available will also improve the return.

We have,

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

Where, net profit includes the profit that is left to the internal equities after all costs, charge & expenses, which is shown in the table of EBL and BOK below (Details in Annexure A11)

Table No – 11
Return on total working fund Ratio (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	1.48	1.38	1.66	1.73	2.01	1.65	0.09	5.91
BOK	1.64	1.80	2.04	2.25	2.18	1.98	0.10	5.20

From the above Table No 11 shows that the profitability of EBL is fluctuating trend. Its highest ratio is 2.01% in FLY 09/10 and lowest ratio is 1.38% in FLY 06/07, where as the profitability of BOK's it increases trend throughout the study period. But it decreases in the end of the year i.e. 1.64% < 1.80% < 2.04% < 2.25% > 2.18%.

When the mean ratio are observed, the BOK is high return than EBL i.e. 1.98% > 1.65%. So, BOK is highly efficiency to earn net profit and return as well. On the other hand CV of EBL is higher than BOK i.e. 5.91% < 5.20%.

From the above analysis it can be said the BOK is strong position in the earning capacity by utilizing available resources than EBL. But EBL is

significant and consistently more stable to earn capacity maintained and net profit generated than BOK.

4.1.3.2 Total Interest Earned to Total outside Assets Ratio

It reflects that the extent to which the bank is successful to earn interest as major income on all the outside assets. Higher the ratio higher will be the earning power of total outside assets. This is very important ratio, as the main asset is the outside asset of a commercial bank.

We have,

$$\text{Total interest earned to Total outside asset} = \frac{\text{Total interest earned}}{\text{Total outside asset}}$$

The total outside assets includes loan & advances, investment on government securities, share and debenture and other all types of investment.

The table below exhibits total interest earned to total outside assets ratio from FY 2005/06 to 2009/10 (Details in Annexure A12)

Table No – 12
Total interest Earned to Total outside assets ratio (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	6.45	6.14	6.62	7.33	9.53	7.21	0.55	7.58
BOK	6.75	6.61	6.60	7.73	9.39	7.42	0.48	6.47

The above Table No 12 shows the ratio of total interest earned to total outside assets of EBL has maintained decreasing trend for first two years and increased in last three years throughout study period i.e.6.45% >6.14% < 6.62 % < 7.33% < 9.53% in FLY 2005/06 to 2009/10 respectively. And other hand BOK has maintained decreasing trend for first three years and increased in the last two years i.e.6.75% > 6.61% > 6.60% < 7.73%< 9.39%.

In the average, the mean ratio of total interest earned to total outside assets ratio of EBL is lower than BOK i.e. 7.42%> 7.21 % and the co-efficient of variation of BOK is lower than that of EBL..

From the above analysis, it can be concluded that EBL has inefficiently failed to use its fund (outside assets) to earn high interest income in comparison to the BOK. Moreover, its ratios are more consistent than that of BOK.

4.1.3.3 Return on Loan and Advances Ratio

The return on loan and advances ratio measures the earning capacity of commercial banks on its deposits mobilized on loan and advances. Most loan and advances includes loan cash credit, overdraft, bills purchased and discounted. While comparing two or more firms or company the highest ratio reveals a high success to mobilize fund as loan and advances and vice-versa.

The formula for return on loan and advances ratio is:

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

The table No 13 shows the return on loan and advances ratio of EBL and BOK. The details of table are in Annex A13.

Table No – 13
Return on Loan and Advances Ratio (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	2.42	2.17	2.46	2.67	3.02	2.55	0.13	4.99
BOK	2.78	2.79	2.90	3.15	3.06	2.94	0.07	2.24

The above listed Table No 13 reveals that EBL's return on loan & advances ratios have fluctuating trend. It decreases in second year and increases in third year from 2.46% to 3.02%. In case of BOK, it has increasing trend through out study period 2008/09 but decreases in the last year.

On the other hand, when mean ratios are taken, BOK has maintained the highest ratio in compared to EBL. The co-efficient of variance of EBL is higher than that of BOK. This it can be concluded the profit for loan & advances is more stable than that of BOK.

Thus, it can be concluded that BOK is able to earn high return on its loans & advances in comparison to EBL. Moreover, its low CV shows its more homogeneous ratios during the study period.

4.1.3.4 Total Interest Earned to Total Working Fund Ratio

The ratio of total interest earned to total working fund depicts the extent on which the banks are successful in mobilizing their total assets to generate high income as interest. This ratio is calculated to find out the percentage of

interest earned to total assets. Higher ratio implies better performance of the bank in terms of interest earning on its total working fund.

The details are shown in Annex A14. The ratio can be calculated by the following formula:

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

Table No – 14
Total Interest Earned to Total Working Fund Ratio (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	5.60	5.34	5.70	5.92	7.50	6.01	0.34	5.71
BOK	5.85	5.62	5.84	6.58	7.99	6.38	0.39	6.10

The above Table No 14 shows that the ratio of EBL exhibits decrease in second year, then after it increases in next three years i.e. 5.60 % > 5.34% < 5.70% < 5.92% < 7.50% through study period. The ratio of BOK is also in decreasing and increasing trend, i.e. 5.85% > 5.62% < 5.84% < 6.58% < 7.99%.

After observing the mean ratio, it is found that the BOK is more than EBL. The co-efficient of variance of BOK is less than that of EBL, i.e. 6.01% < 6.38%.

From the above Table No 14 it can be concluded that the ratio of total interest earned to total working fund ratio of BOK is satisfactory in compared to other bank. That means the total interest earned to total working fund ratio is consistent in comparison to BOK.

4.1.3.5 Total Interest Paid to Total Working Fund Ratio

The ratio of total interest paid to total working fund measures the percentage of total interest paid against the working fund. A high ratio indicates the higher interest expenses on total working fund and vice-versa.

The ratio is calculated by dividing total interest paid by total working fund. The details are shown in Annex A15. The formula would be:

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

Table No – 15
Total Interest Paid to Total Working Fund Ratio (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	2.51	2.41	2.33	2.74	3.80	2.76	0.24	8.73
BOK	2.50	2.33	2.36	2.75	3.86	2.76	0.25	9.23

The Table No 15 shows that the interest paid to total working fund ratios of EBL has maintained in decreasing trend for three years and increases in the last two years during study period i.e. 2.51% > 2.41% > 2.33 % < 2.74% < 3.80% in FLY 2005/06 to 2009/10. And other hand BOK has also maintained fluctuating trend during the year i.e. 2.50% > 2.33 % < 2.36% < 2.75% < 3.86% in FLY 2005/06 to 2009/10.

The mean ratio of EBL i.e. 2.76% is equal to that of BOK. It means BOK paid equal interest during the study period. On the other hand EBL's lower co-efficient of variation i.e. 8.73% in comparison to BOK. It indicates that i.e. 9.23% ratios is slightly more study ratio than that of EBL.

In conclusion, we can say that EBL is in better position from payment of interest point of view. It seems to be successful to collect its working fund from less expensive sources in comparisons to others.

4.1.4 Risk Ratio

The possibility of risk makes banks investment a challenging task. Bank has to take risk to get return on investment. The risk taken is compensated by the increase in profit. A bank has to take high if it expects high return on its investment. So, the banks opting for high profit, has to accept the risk and manage it efficiency. Through following ratio, effort has been made to measure the level of risk.

- i) Credit Risk Ratio
- ii) Capital Risk Ratios

4.1.4.1 Credit Risk Ratio

It is very essential for a bank to scrutinize two projects i.e. the risk involved in it to avoid default of non-payment of loan before making investment on them. Bank makes investment by utilizing its collected fund. The risk behind making investment or granting loan or providing is measured by credit risk ratio. Actually credit risk ratio shows the proportion of non-

performing assets in total loan and advances of a bank. But due to unavailability of related data, the ratio is calculated with the help of loan & advances and total assets.

We have,

$$\text{Credit risk ratio} = \frac{\text{Total Loan and Advances}}{\text{Total Assets}}$$

The following table shows the comparative credit risk ratio of EBL and BOK for the FY 2005/06 to 2009/10 (Details in Annexure-A16)

Table No – 16
Credit Risk Ratio (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	61.66	63.76	67.55	64.70	66.59	64.85	0.93	1.44
BOK	59.12	64.46	70.32	71.46	71.23	67.32	2.16	3.21

The above Table No 16 shows EBL has maintained fluctuating trend during the study year i.e. 61.66% < 63.74% < 67.55% > 64.70% < 66.59% and its opposite BOK has maintained in increasing trend for first four years and it decreases in last year i.e. 59.12 < 64.46 < 70.32 < 71.46 > 71.23%.

The mean ratio of EBL is less than BOK i.e. 64.85% < 67.32%. It means BOK has higher credit in compare to EBL. In the case of co-efficient of variation EBL is lower than BOK i.e. 1.44% < 3.21%. It means EBL credit policy is more consistent than that of BOK.

From the above analysis, it can be concluded that the credit risk of BOK is higher in compare to EBL because high investment creates high profit and high risk.

4.1.4.2 Capital Risk Ratio

The capital risk of a bank indicates how much assets value may decline before the position of deposition and other creditors is jeopardized. Therefore, a bank must maintain adequate capital in relation to the nature and condition of its assets, its deposits liabilities and other corporate responsibilities. 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, and its ROE will be higher and vice versa.

We have,

$$\text{Capital risk ratio} = \frac{\text{Capital}}{\text{Risk Weighted Assets}}$$

(Only loan and advances is taken as risk weighted assets.)

The following table shows the capital risk ratio of the EBL and BOK (Details in Annexure-A17)

Table No – 17
Capital Risk Ratio (%)

Banks	Fiscal Year					Mean	SD	CV (%)
	2005/06	2006/07	2007/08	2008/09	2009/10			
EBL	3.86	3.79	4.53	3.51	4.64	4.07	0.20	4.85
BOK	6.39	6.42	4.84	5.76	8.16	6.31	0.49	7.70

Above Table No 17 shows that the capital risk ratio of the EBL bank has followed fluctuating trend. It ranges from 3.86%,3.79%,4.53%,3.51% to 4.64%. But BOK has maintained decreasing trend to the year 2007 & it increases in 2008 to 2009 which has highest on the FLY 09/10 of 8.16% and lowest on the FLY 2007/08 of 4.84%.

In average, EBL maintained lowest capital risk i.e. 4.07% < 6.31%. The coefficient of variation of EBL is 4.85% which is comparatively low position than 7.70% of BOK.

Thus, it is concluded that the capital risk of BOK is greater than EBL. EBL is more consistent than BOK.

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 bank maintaining the economic and financial position. Under this topic, four types of growth ratios are studied which are as follows:

- i) Growth Ratio of Total Deposit
- ii) Growth Ratio of Total Loan & Advances
- iii) Growth Ratio of Total Investment
- iv) Growth Ratio of Total Net profit

The ratio can be calculated by dividing the last period figure by the first period figure then by referring to the compound interest tables. (Details in Annexure-B1)

**Table No – 18
Growth Ratio of Total Deposit (%)**

Banks	Fiscal Year					Growth Ratio(%)
	2005/06	2006/07	2007/08	2008/09	2009/10	
EBL	13802.44	18185.38	23976.31	33322.95	36932.31	27.90
BOK	10485.36	12388.94	15833.77	18083.99	20315.82	17.98

The above comparative Table No 18 shows that the growth rate of EBL deposit is higher than that of BOK i.e. 27.90% > 17.98%. It means that the performance of EBL to collect greater deposit compared to BOK is better year by year.

**Table No – 19
Growth ratios of Loan & Advance (%)**

Banks	Fiscal Year					Growth Ratio(%)
	2005/06	2006/07	2007/08	2008/09	2009/10	
EBL	9801.31	13664.08	18339.09	23884.67	27556.36	29.49
BOK	7259.08	9399.33	12462.64	14647.3	16664.93	23.09

The above comparatives Table No 19 shows that the growth ratio of EBL's loan & advances is almost higher than that of BOK. EBL has maintained ratio of 29.49% where as BOK maintained 23.09%. It means the performance of EBL to grant loan & advances is better in comparison to BOK.

**Table No – 20
Growth Ratio of Total Investment (%)**

Banks	Fiscal Year					Growth Ratio(%)
	2005/06	2006/07	2007/08	2008/09	2009/10	
EBL	4200.52	4984.31	5059.55	5948.48	5008.31	4.49
BOK	3374.71	2992.43	3204.07	2783.6	3269.2	-0.8

The above comparative Table No 20 shows that the growth ratio of EBL's investment is higher than that of BOK. EBL has maintained 4.49% where as BOK has maintained negative ratio -0.8%. In the view of investment EBL has impressive growth rate.

Table No -21
Growth Ratio of Total Net Profit (%)

Banks	Fiscal Year					Growth Ratio(%)
	2005/06	2006/07	2007/08	2008/09	2009/10	
EBL	237.3	296.41	451.21	638.74	831.76	32.08
BOK	202.44	262.39	361.51	461.74	509.28	25.94

The above comparatives Table No 21 shows that the EBL's net profit is higher than that of BOK i.e. 32.08% > 25.94%. It means that EBL has maintained high growth rate in comparison to BOK.

4.2 Statistical Analysis

Some statistical tools such as coefficient of correlation analysis between different variables like deposits and loan and advances, net profit and loan and advances etc, trend analysis of deposits mobilization and its projection of next 5 years and test of hypothesis etc are studied under this analysis.

4.2.1 Coefficient of Correlation Analysis

Karl Pearson's coefficient of correlation has been used to find out the relationship between deposit and loan and advances, deposit and investment and outside assets to net profit. Value of coefficient of correlation lies between -1 to +1. If value of coefficient of correlation is positive then there is positive relation between dependent variable and independent variable, i.e. as increment in independent variable dependent variable also increases and vice versa. If value of coefficient of correlation is negative then there is negative relation between dependent variable and independent variable, i.e. as increment in independent variable dependent variable decreases and vice versa.

4.2.1.1 Coefficient of Correlation between Deposits and Loan and Advances

Coefficient of correlation between deposit and loan and advances measures the degree of relationship between the two variables: deposits and loan and advances. In the commercial banks deposits are the main crucial source of fund for lending to its clients. Similarly, loan and advances are very important to mobilize the collected deposits. In the analysis made here the deposit is considered the independent variables (X) and loan and advances are dependent variables (Y). The main objectives is finding out the

coefficient of correlation (r) between these two variables is to justify whether deposits are increased or decreased.

The value of correlation coefficient ' r ', ' r^2 ', Probable Error 'P.E.r' and '6P.E.r' between two variables of EBL and BOK during the study period. While analyzing between these variables if correlation coefficient (r) becomes less than the six times probable error (6P.E.r) then r is not considered significant at all i.e. there is no evidence of correlation. Likewise, in the similar ways if the value of r is found more than the 6P.E.' r ' the value of r is considered significant i.e. practically the correlation is certain.

Table No – 22
Correlation between Deposits and Loan and Advances

Banks	Evaluation Criteria			
	r	r^2	P.Er.	6P.E.r.
EBL	0.9971	0.9942	0.0017	0.0102
BOK	0.10	0.01	0.2986	1.7917

From the above Table No 22,(Details in Annex C1) it is shown that the co-efficient of correlation between deposits and loan & advances of EBL is 0.9971. It shows positive relationship between these two variables. Moreover, when we consider the value of co-efficient of determination $r^2 = 0.9942$ and it means 99.42% of the variation in the dependent variance (loan & advances) has been explained by the independent variance (deposit). Further, value of P.Er is 0.0017 and 6P.Er is 0.0102, it shows that the value of co-efficient of correlation r is highly greater than the value of 6P.Er which reveals that the value of r is significant. In other words, there is significant relationship between deposits and loan & advances in case of EBL.

In the case of BOK also that the co-efficient of correlation between deposit and loan and advance these two variables. Similarly, the value of co-efficient of determination r^2 is found 0.01 which shows that 1% in the dependent variable (loan & advance) has been explained by the independent variable (deposit). Further, value of P.Er is 0.2986 and 6P.Er is 1.7917 shows that the value of co-efficient of correlation r is lower than 6 times probable error (6P.Er). Therefore, value of ' r ' is insignificant. It can be concluded there is insignificant and the bank is failed in mobilizing their deposit and loan & advances.

From the above analysis, it can be concluded that EBL is successful in mobilizing their deposits as loan & advance. Value of r and r^2 for EBL is

positive and greater than the value of six times of their probable Error (6.PEr). BOK has lowest value of r that indicates the negative position of it in mobilizing deposit as loan & advances in compare to EBL.

4.2.1.2 Coefficient of Correlation between Deposits and Investment

Coefficient of correlation between deposits and investment measures the degree of relationship between the two variables: deposits and investment. In the analysis made here, the deposit is considered the independent variable (X) and investment is dependent variable (Y). The main theme of finding out the correlation of coefficient (r) between these variables are to justify whether the relationship between deposits and investments have any relation or not.

The value of correlation coefficient 'r', 'r²', Probable Error 'P.E.r' and '6P.E.r' between two variables of EBL and BOK during the study period. While analyzing between these variables if correlation coefficient (r) becomes less than the six times probable error (6P.E.r) the r is not considered significant at all i.e. there is no evidence of correlation. Likewise, in the similar ways if the value of r is found more than the 6P.E.'r' the value of r is considered significant i.e. practically the correlation is certain.

**Table No – 23
Correlation between Deposits and Investment**

Banks	Evaluation Criteria			
	r	r ²	P.Er.	6P.E.r.
EBL	0.6977	0.4868	0.1548	0.9288
BOK	-0.2631	0.0692	0.2808	1.6846

From above listed Table No 23,(Details in Annex C2) it has been found that the co-efficient of correlation between total deposit (independent) and loan & advance (dependent) is 0.6977 in case of EBL which indicates positive correlation between these two variables. On the other hand, considering the value of co-efficient of determination (r²) i.e. 0.4868 indicates that 48.68% of the variation in the dependent variable (loan & advance) has been explained by independent variable (deposit). Moreover, by considering the probable Error, we can further say that there is not significant relationship between total deposits and loan & advances in case of EBL. Similarly, considering the value of r i.e. 0.6977 and comparing it with 6PEr i.e. 0.9288, we can find of r is not significant.

Likewise, in case of BOK, the Karl Pearson's co-efficient of correlation between deposits (independent variable) and loan & advances (dependent variable) is -0.2631 which indicates negative correlation between these two variables. Similarly, the value of co-efficient of determination (r^2) is found 0.0692 which shows that 6.92% in the dependent variable (loan & advance) has been explained by the independent variable (deposit). Moreover, by application of probable error, the value of ($r = -0.2631$) is less than six times of probable Error (=1.6846) which means the relationship between deposits and loan & advances is insignificant. In other words, both banks are not successful to mobilize their funds in proper way in loan & advances.

Lastly, we can draw a conclusion for the above analysis that EBL, there is positive relationship between deposit & loan & advance & BOK has insignificant relation between two variables. The relationship is significant and the value of r^2 shows high percent in the dependent variable has been explained by the independent variable. This indicates that EBL is little bit successful utilizing deposits as loan & advance. Moreover, we can further conclude that BOK has insignificant relation between deposits and loan & advances.

4.2.1.3 Coefficient of Correlation between Outside Asset and Net Profit

Coefficient of correlation 'r' between outside asset and net profit measures the degree of relationship between these two variables. Here, outside asset is independent variable (X) and net profit is dependent variable (Y). The purpose of computing coefficient of correlation between outside asset and net profit is to find out whether the net profit is significantly correlated with respective total asset or not.

The table No 24 shows the value of r, r^2 , P.Er, 6p.Er. between outside asset and net profit of EBL and BOK for the study period 2005/06 to 2009/10 (Details in Annexure-C3)

**Table No – 24
Correlation between Outside Asset and Net Profit**

Banks	Evaluation Criteria			
	r	r^2	P.Er.	6P.E.r.
EBL	0.9776	0.9557	0.0132	0.0792
BOK	0.9924	0.9849	0.0046	0.0273

From above listed Table No 24, it has been found that the co-efficient of correlation between total outside assets (independent) and net profit (dependent) is 0.9776 in case of EBL which indicates positive correlation between these two variables. On the other hand, considering the value of co-efficient of determination (r^2) i.e. 0.9557 indicates that 95.57% of the variation in the dependent variable (Net profit) has been explained by the independent variable (total outside assets). Moreover, by considering the probable Error, we can further say that there is significant relationship between total outside assets and net profit because the value of r i.e. 0.9776 is greater than six times of the PEr i.e. 0.0792. It indicates that EBL is capable to earn net profit by mobilizing its total outside assets.

Similarly the Karl Pearson's co-efficient of correlation between total asset and net profit in the case of BOK is found 0.9924 which indicates that there is positive relationship between two variables. If we again consider the value of co-efficient of determination (r^2) is found 0.9849. Moreover on the basis of comparison between value of 6PEr and r , we can further conclude that there is significant relationship between the two variables.

In conclusion, it can say that in case of EBL & BOK the values of 'r' are significant and the values of co-efficient of determination are also high. But it can further say that BOK has higher correlation between total outside assets and net profit in comparison to EBL because its co-efficient of correlation between total assets and net profit is higher than that of EBL.

4.2.2 Trend Analysis

This analyses the trend of the deposits, loan and advances, investment and net profit of EBL and BOK from the year 2008/09 to 2009/10 and make forecast for the following 5 years i.e. till 2014/15. The forecast base on the following assumptions:

- a) The forecast will be true only when the limitation of least square method is followed.
- b) The other things that affects to it directly or indirectly will remains constant.
- c) The central bank (NRB) will not change its directions and guidelines to commercial banks.
- d) The bank will remain in present situation.
- e) The economy will remain in the present stage.

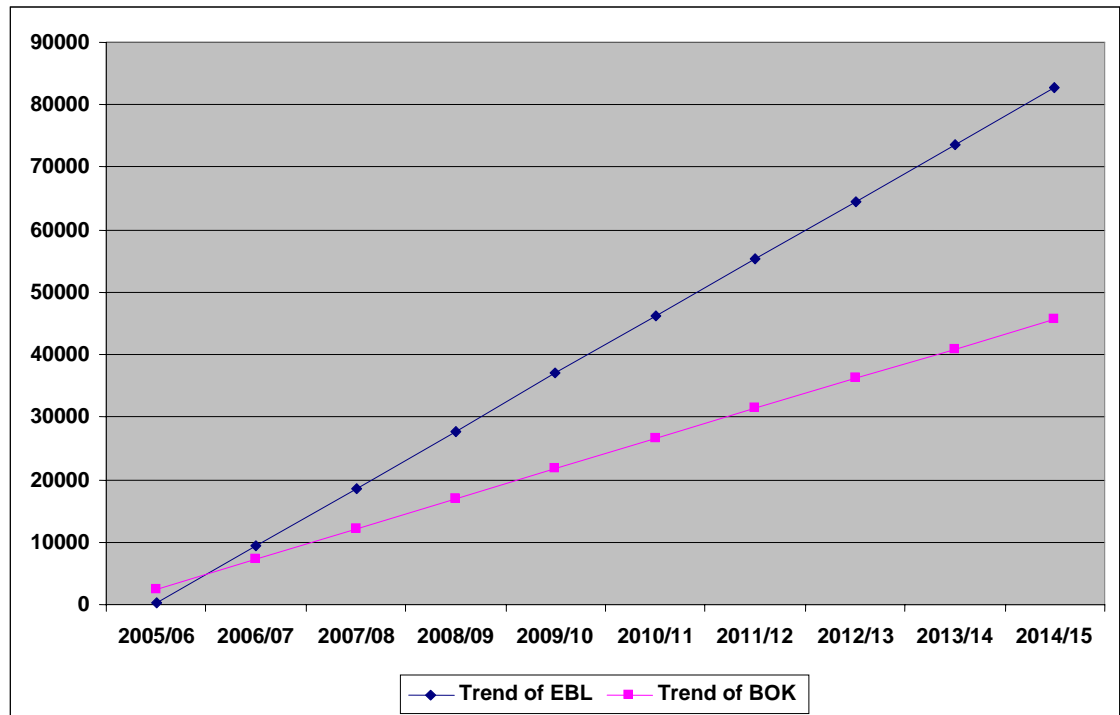
4.2.2.1 Trend Analysis of Loan and Advances

The scenario of the total loan and advances in the study periods is calculated and the next five years trend value of loan and advances on the basis of last five years loan and advances trend. Under this heading, the trend value of loan and advances has been calculated on the basis of study period the forecasted values are expected.

Table No – 25
Trend Analysis of Loan and Advances

Year	Trend of EBL	Trend of BOK
2005/06	356.82	2462.8
2006/07	9502.96	7274.73
2007/08	18649.1	12086.7
2008/09	27795.2	16898.6
2009/10	36941.4	21710.5
2010/11	46087.52	26522.5
2011/12	55233.66	31334.4
2012/13	64379.8	36146.3
2013/14	73525.94	40958.2
2014/15	82672.08	45770.2

Trend value of Loan & Advances of EBL & BOK



The above Table No 25 shows that the loan & advances of both banks have increasing trend. If other things remaining the same, the total loan & advances of EBL will be 82672.08 by 2014/15 that is the highest amount the BOK will be 45770.2 by 2014/15 which is lower than EBL ,(Details in Annex C4)

From above trend analysis it is found that the loan & advances position of EBL is highest in compared to BOK. The calculated trend values of loan & advances of EBL & BOK are filled in the trend line given.

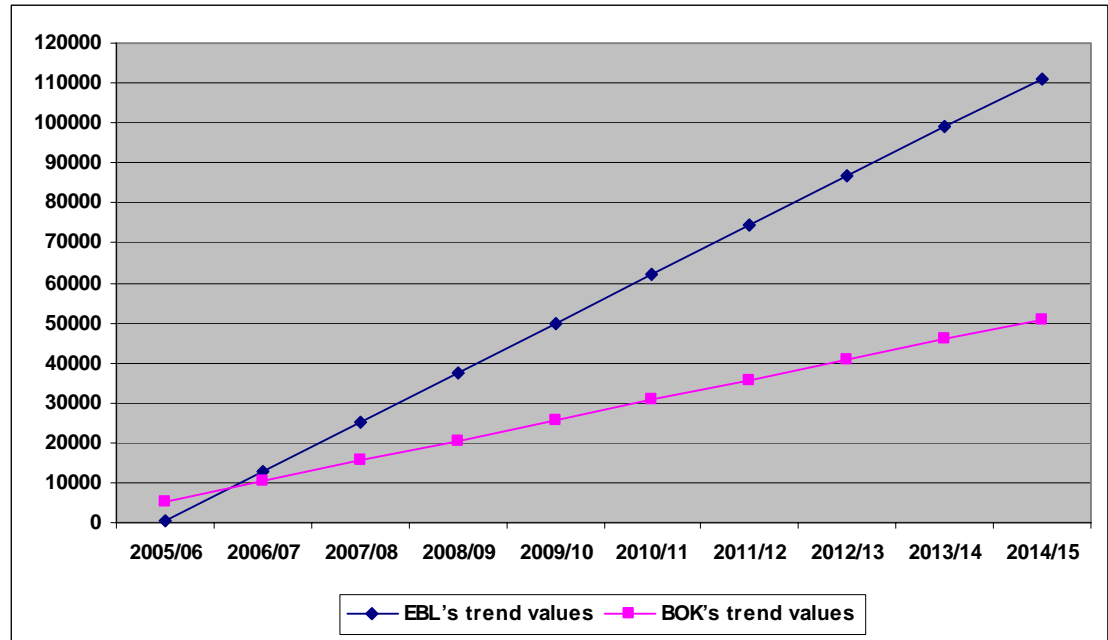
4.2.2.2 Trend Analysis of Total Deposit

The scenario of the total deposits in this study periods is calculated and the next five years trend value of deposits is forecasted on the basis of last 5 years deposit trend. The calculated trend value of the study periods is on the basis of real data and on the basis of these values the trend values are expected. This value may except if any assumptions are not changed

**Table No – 26
Trend Analysis of Total Deposit**

Year	EBL's trend values	BOK's trend values
2005/06	684.96	5279.18
2006/07	12964.4	10350.4
2007/08	25243.9	15421.6
2008/09	37523.3	20492.8
2009/10	49802.8	25564
2010/11	62082.3	30635.2
2011/12	74361.7	35706.4
2012/13	86641.2	40777.6
2013/14	98920.6	45848.8
2014/15	111200	50920

Trend value of deposit of EBL& BOK



Considering the trend values the total deposit value is growing in the both banks. However growth in EBL will be high to the extent of 111200 by 2014/15. As EBL remained aggressive in the last 5 years in improving deposits portfolio, it has been projected a better performance than BOK. Similarly the deposits of BOK will be 50920 for the year 2014/15. The calculated trend values of deposit of EBL & BOK are fitted in the trend line. From above analysis, it is found that the deposit collection position of EBL is highly growing than that of BOK.

From above trend analysis it is found that the Total deposit position of EBL is highest in compared to BOK. The calculated trend values of Total deposit of EBL & BOK are filled in the trend line given. ,(Details in Annex C5)

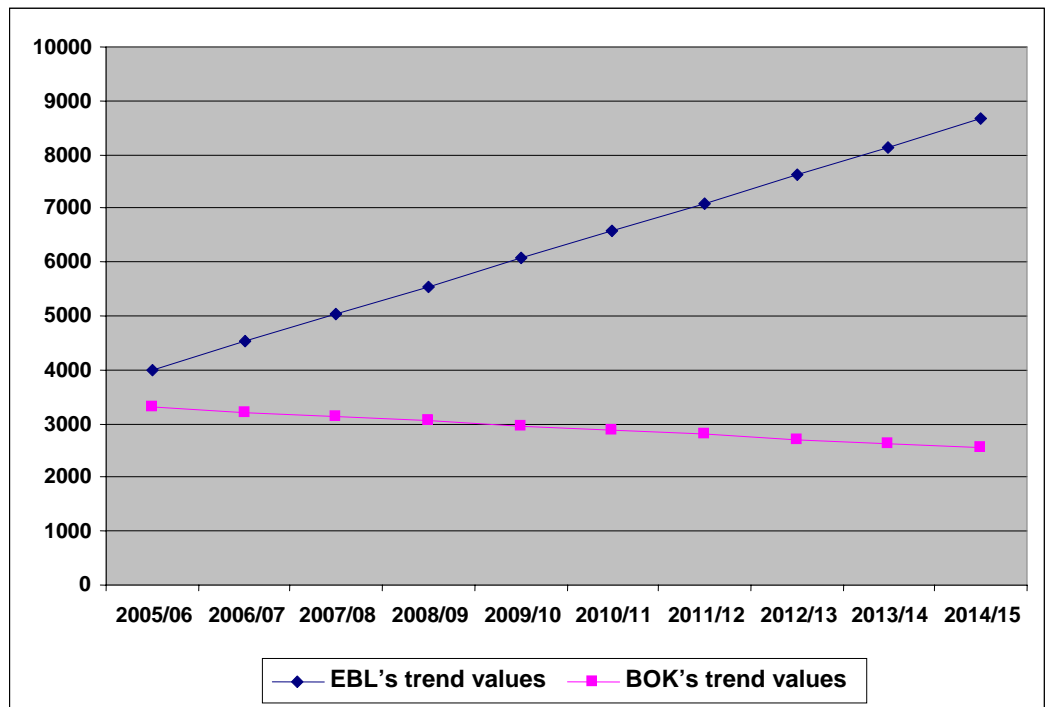
4.2.2.3 Trend Analysis of Investment

The scenario of total investment in the study period is calculated and the next five years value of investment is forecasted on the basis of last five years of investment trend. Under this heading, the trend value of investment from year 2010 to 2015 is forecasted on the basis of real data.

**Table No – 27
Trend Analysis of Investment**

Year	EBL's trend values	BOK's trend values
2005/06	4008.33	3292.74
2006/07	4524.28	3208.77
2007/08	5040.23	3124.8
2008/09	5556.18	3040.83
2009/10	6072.13	2956.86
2010/11	6588.08	2872.89
2011/12	7104.03	2788.92
2012/13	7619.98	2704.95
2013/14	8135.93	2620.98
2014/15	8651.88	2537.01

Trend value of Investment of EBL & BOK



The above Table No 27 shows the total investment of EBL has the increasing trend value and BOK has decreasing trend. Other things remaining the same, the total investment of the EBL will be 8651.88 by

2014/15 which is highest amount than BOK. Similarly, the total investment of BOK will be 2537.01 by 2014/15. ,(Details in Annex C6)

From above trend analysis it is found that the total investment trend value of EBL is very much higher than BOK. The calculated trend values of total investment of EBL & BOK are filled in the trend line.

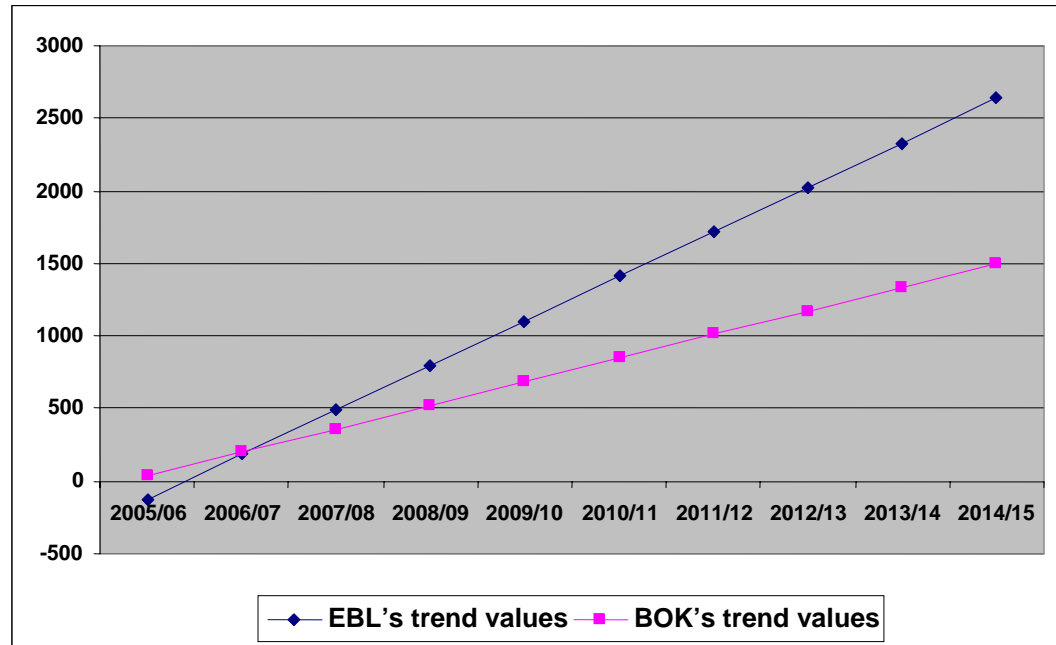
4.2.2.4 Trend Analysis of Net Profit

The scenario of the net profit in the study periods is calculated and the next five years trend value of net profit is forecasted on the basis of last five years. The calculated trend value of the study period is basis on the real data and the trend values are forecasted.

**Table No – 28
Trend Analysis of Net Profit**

Year	EBL's trend values	BOK's trend values
2005/06	-121.52	34.25
2006/07	184.78	196.86
2007/08	491.08	359.47
2008/09	797.38	522.08
2009/10	1103.68	684.69
2010/11	1409.98	847.3
2011/12	1716.28	1009.91
2012/13	2022.58	1172.52
2013/14	2328.88	1335.13
2014/15	2635.18	1497.74

Trend value of Net Profit of EBL & BOK



The above Table No 28 shows that the net profit of EBL and BOK have increasing trend value. Other things remaining the same, the net profit of EBL will be 2635.18 by 2014/15. Similarly the net profit of BOK will be 1497.74 by 2014/15.

From the above trend analysis, it is found that the net profit of EBL is highest for the years in study period than BOK. The calculated trend values of Net profit are filled in the trend line, (Details in Annex C7).

4.2.3 Test of Hypothesis

In this topic, effort has been made to test the significance regarding the parameter of the population on the basis of sample drawn from the population. Generally, following steps are followed for the test of hypothesis.

- Formulating hypothesis
- Null Hypothesis
- Alternative Hypothesis
- Computing the test statistic
- Fixing the level of significance
- Finding critical region
- Deciding two tailed or one tailed test
- Making decision

In the following lines, some of main hypothesis tests are calculated and decision is made

Null Hypothesis (H_o): $\mu_1 = \mu_2$ i.e., there is no significant difference between mean ratios of loan & advances to total deposit of EBL and BOK.
 Alternative Hypothesis (h_1): $\mu_1 \neq \mu_2$ i.e., there is significant difference between mean ratios of loans & advances to total deposits of EBL and BOK.

T-test

If we draw a large number of small samples i.e. ($n < 30$) and compute the mean for each sample and the plot the frequency distribution of these means, the resulting sampling distribution would be t-test. On these study sample are taken only for five years i.e. ($5 < 30$)

Assumption

- i) The parent population from which the sample is drawn is normal or approximately normal.
- ii) The given sample is drawn by random sampling method.
- iii) The population standard deviation (σ) is not known.

4.2.3.1 Test of hypothesis on loans & advances to total deposit ratios between EBL and BOK.

Here ratios of loans & advances to total deposits of EBL and BOK are taken and are carried out under t-test of significance difference.

Let,

Loan and advances to total deposit ratios of EBL and BOK are x_1 and x_2 respectively.

Table No – 29

Fiscal Year	EBL			BOK		
	x_1	$X_1(x_1 - \bar{x}_1)$	X_1^2	x_2	$X_2(x_2 - \bar{x}_2)$	X_2^2
2005/06	71.01	-2.78	7.7284	69.23	-8.14	66.2596
2006/07	75.14	1.35	1.8225	75.87	-1.5	2.25
2007/08	76.49	2.7	7.29	78.71	1.34	1.7956
2008/09	71.68	-2.11	4.4521	80.99	3.62	13.1044
2009/10	74.61	0.82	0.6724	82.03	4.66	21.7156
	368.93		21.9654	386.83		105.1252

$$\begin{aligned} \text{Mean } (\bar{x}_1) &= \frac{\sum x_1}{n} \\ &= \frac{368.93}{5} \\ &= 73.79 \end{aligned}$$

$$\begin{aligned} \text{Mean } (\bar{x}_2) &= \frac{\sum x_1}{n} \\ &= \frac{386.83}{5} \\ &= 77.37 \end{aligned}$$

Test of significance of differences between EBL & BOK

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_2$

i.e. there is not significant difference between mean ratios of loan and advances to total deposit of EBL and BOK.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_2$ (two tailed test)

i.e. there is significant difference between mean ratios of loan and advances to total deposit of EBL and BOK.

Under H_0 the test statistics

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \approx \dots\dots\dots t(n_1 + n_2 - 2) d.f.$$

Where,

$$\begin{aligned} s^2 &= \frac{1}{n_1 + n_2 - 2} (\sum x_1^2 + \sum x_2^2) \\ &= \frac{1}{5 + 5 - 2} (21.97 + 105.13) \\ &= \frac{1}{8} \times 127.1 \\ &= 15.89 \end{aligned}$$

Now, Text statistics under H_0 is,

$$\begin{aligned}
t &= \frac{73.79 - 77.37}{\sqrt{15.89\left(\frac{1}{5} + \frac{1}{5}\right)}} \\
&= \frac{-3.58}{\sqrt{15.89(1.04)}} \\
&= \frac{-3.58}{\sqrt{16.5256}} \\
&= \frac{-3.58}{4.065} \\
&= -0.8807
\end{aligned}$$

The calculated value of (t) = -0.8807

Tabulated value of “t” (two tailed test) 5% level for (n₁+n₂-2) d.f. i.e. 8, the value is 2.306.

Decision:

Since the calculated value of (t) i.e. -0.8807 is less than the tabulated value i.e. 2.306, the null hypothesis is accepted i.e. there is no significant difference between mean ratios of loan & advance to total deposit of EBL & BOK.

4.2.3.2 Test of hypothesis on total investment to total deposit ratio of EBL & BOK.

Let,

Total investment to total deposit ratios of EBL & BOK are x₁ and x₂ respectively.

Table No – 30

Fiscal Year	EBL			BOK		
	x ₁	X ₁ (x ₁ - \bar{x}_1)	X ₁ ²	x ₂	X ₂ (x ₂ - \bar{x}_2)	X ₂ ²
2005/06	30.43	8.36	69.8896	32.18	10.57	111.7249
2006/07	27.41	5.34	28.5156	24.15	2.54	6.4516
2007/08	21.1	-0.97	0.9409	20.24	-1.37	1.8769
2008/09	17.85	-4.22	17.8084	15.39	-6.22	38.6884
2009/10	13.56	-8.51	72.4201	16.09	-5.52	30.4704
	110.35		189.5746	108.05		189.2122

$$\begin{aligned}\text{Mean } (\bar{x}_1) &= \frac{\sum x_1}{n} \\ &= \frac{110.35}{5} \\ &= 22.07\end{aligned}$$

$$\begin{aligned}\text{Mean } (\bar{x}_2) &= \frac{\sum x_1}{n} \\ &= \frac{108.05}{5} \\ &= 21.61\end{aligned}$$

Test of significance of differences between EBL & BOK

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_2$

i.e. there is not significant difference between mean ratios of Total investment to total deposit ratios of EBL & BOK.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_2$ (two tailed test)

i.e. there is significant difference between mean ratios of Total investment to total deposit ratios of EBL & BOK.

Under H_0 the test statistics

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \approx \dots\dots\dots t(n_1 + n_2 - 2) d.f.$$

Where,

$$\begin{aligned}s^2 &= \frac{1}{n_1 + n_2 - 2} (\sum x_1^2 + \sum x_2^2) \\ &= \frac{1}{5 + 5 - 2} (189.57 + 189.21) \\ &= \frac{1}{8} \times 378.78 \\ &= 47.35\end{aligned}$$

Now, Test statistics under H_0 is,

$$\begin{aligned}
t &= \frac{22.07 - 21.61}{\sqrt{47.35\left(\frac{1}{5} + \frac{1}{5}\right)}} \\
&= \frac{0.46}{\sqrt{47.35(1.04)}} \\
&= \frac{0.46}{\sqrt{49.244}} \\
&= \frac{0.63}{7.0174} \\
&= 0.0897
\end{aligned}$$

The calculated value of (t) = 0.0897

Tabulated value of “t” (two tailed test) 5% level for (n₁+n₂-2) d.f. i.e. 8, the value is 2.306.

Decision:

Since the calculated value of (t) i.e. 0.0897 is less than the tabulated value i.e. 2.306, the null hypothesis is accepted i.e. there is no significant difference between mean ratios of Investment to total deposit of EBL & BOK.

4.2.3.3 Test of hypothesis on investment on government securities to total working fund ratio of EBL & BOK.

Let,

Total investment on government securities ratios of EBL & BOK are x₁ and x₂ respectively.

Table No – 31

Fiscal Year	EBL			BOK		
	x ₁	X ₁ (x ₁ - \bar{x}_1)	X ₁ ²	x ₂	X ₂ (x ₂ - \bar{x}_2)	X ₂ ²
2005/06	22.24	4.96	24.6016	21.65	7.51	56.4001
2006/07	21.95	4.67	21.8089	15.99	1.85	3.4225
2007/08	17.76	0.48	0.2304	11.92	-2.22	4.9284
2008/09	13.94	-3.34	11.1556	8.51	-5.63	31.6969
2009/10	10.52	-6.76	45.6976	12.63	-1.51	2.2801
	86.41		103.4941	70.7	0	98.728

$$\begin{aligned} \text{Mean } (\bar{x}_1) &= \frac{\sum x_1}{n} \\ &= \frac{86.41}{5} \\ &= 17.28 \end{aligned}$$

$$\begin{aligned} \text{Mean } (\bar{x}_2) &= \frac{\sum x_1}{n} \\ &= \frac{70.7}{5} \\ &= 14.14 \end{aligned}$$

Test of significance of differences between EBL & BOK

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_2$

i.e. there is not significant difference between mean ratios of Total investment on government securities of EBL & BOK.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_2$ (two tailed test)

i.e. there is significant difference between mean ratios of Total investment on government securities of EBL & BOK.

Under H_0 the test statistics

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \approx \dots\dots\dots t(n_1 + n_2 - 2) d.f.$$

Where,

$$\begin{aligned} s^2 &= \frac{1}{n_1 + n_2 - 2} (\sum x_1^2 + \sum x_2^2) \\ &= \frac{1}{5 + 5 - 2} (103.49 + 98.73) \\ &= \frac{1}{8} \times 202.22 \\ &= 25.28 \end{aligned}$$

Now, Test statistics under H_0 is,

$$\begin{aligned}
t &= \frac{17.28 - 14.14}{\sqrt{25.28 \left(\frac{1}{5} + \frac{1}{5} \right)}} \\
&= \frac{3.14}{\sqrt{25.28(1.04)}} \\
&= \frac{3.14}{\sqrt{26.2912}} \\
&= \frac{3.14}{5.1275} \\
&= 0.6124
\end{aligned}$$

The calculated value of (t) = 0.6124

Tabulated value of “t” (two tailed test) 5% level for (n₁+n₂-2) d.f. i.e. 8, the value is 2.306.

Decision:

Since the calculated value of (t) i.e. 0.6124 is less than the tabulated value i.e. 2.306, the null hypothesis is accepted i.e. there is no significant difference between mean ratios of Total investment on government securities of EBL & BOK.

4.2.3.4 Test of hypothesis on Loan & Advances to Current Assets ratio of EBL & BOK.

Let,

Loan & Advances to Current Assets ratios of EBL & BOK are x₁ and x₂ respectively.

Table No – 32

Fiscal Year	EBL			BOK		
	x ₁	X ₁ (x ₁ - \bar{x}_1)	X ₁ ²	x ₂	X ₂ (x ₂ - \bar{x}_2)	X ₂ ²
2005/06	64.7	-2.86	8.1796	60.15	-11.19	125.2161
2006/07	65.82	-1.74	3.0276	69.13	-2.21	4.8841
2007/08	70.06	2.5	6.25	76.72	5.38	28.9444
2008/09	67.86	0.3	0.09	76.93	5.59	31.2481
2009/10	69.36	1.8	3.24	73.77	2.43	5.9049
	337.8		20.7872	356.7		196.1976

$$\begin{aligned}
\text{Mean } (\bar{x}_1) &= \frac{\sum x_1}{n} \\
&= \frac{337.8}{5} \\
&= 67.56
\end{aligned}$$

$$\begin{aligned}
\text{Mean } (\bar{x}_2) &= \frac{\sum x_2}{n} \\
&= \frac{356.7}{5} \\
&= 71.34
\end{aligned}$$

Test of significance of differences between EBL & BOK

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_2$

i.e. there is not significant difference between mean ratios of Loan & Advances to Current Assets of EBL & BOK.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_2$ (two tailed test)

i.e. there is significant difference between mean ratios of Loan & Advances to Current Assets of EBL & BOK.

Under H_0 the test statistics,

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \approx \dots\dots\dots t(n_1 + n_2 - 2) d.f.$$

Where,

$$\begin{aligned} s^2 &= \frac{1}{n_1 + n_2 - 2} (\sum x_1^2 + \sum x_2^2) \\ &= \frac{1}{5 + 5 - 2} (20.79 + 196.20) \\ &= \frac{1}{8} \times 216.99 \\ &= 27.12 \end{aligned}$$

Now, Test statistics under H_0 is,

$$\begin{aligned} t &= \frac{67.56 - 71.34}{\sqrt{27.12 \left(\frac{1}{5} + \frac{1}{5} \right)}} \\ &= \frac{-3.78}{\sqrt{27.12(1.04)}} \\ &= \frac{-3.78}{\sqrt{28.2048}} \\ &= \frac{-3.78}{5.3108} \\ &= -0.7118 \end{aligned}$$

The calculated value of (t) = -0.7118

Tabulated value of “t” (two tailed test) 5% level for (n₁+n₂-2) d.f. i.e. 8, the value is 2.306.

Decision:

Since the calculated value of (t) i.e. -0.7118 is less than the tabulated value i.e. 2.306, the null hypothesis is accepted i.e. there is no significant difference between mean ratios of Loan & Advances to Current Assets of EBL & BOK.

4.2.3.5 Test of hypothesis on return on loans and advances ratio of EBL & BOK.

Let,

Return on loans and advances ratio of EBL & BOK are x_1 and x_2 respectively.

Table No – 33

Fiscal Year	EBL			BOK		
	x_1	$X_1(x_1 - \bar{x}_1)$	X_1^2	x_2	$X_2(x_2 - \bar{x}_2)$	X_2^2
2005/06	2.42	-0.13	0.0169	2.78	-0.16	0.0256
2006/07	2.17	-0.38	0.1444	2.79	-0.15	0.0225
2007/08	2.46	-0.09	0.0081	2.9	-0.04	0.0016
2008/09	2.67	0.12	0.0144	3.15	0.21	0.0441
2009/10	3.02	0.47	0.2209	3.06	0.12	0.0144
	12.74		0.4047	14.68		0.1082

$$\begin{aligned} \text{Mean } (\bar{x}_1) &= \frac{\sum x_1}{n} \\ &= \frac{12.74}{5} \\ &= 2.55 \end{aligned}$$

$$\begin{aligned} \text{Mean } (\bar{x}_2) &= \frac{\sum x_2}{n} \\ &= \frac{14.68}{5} \\ &= 2.94 \end{aligned}$$

Test of significance of differences between EBL & BOK

Here,

Null Hypothesis (H₀): $\bar{x}_1 = \bar{x}_2$

i.e. there is not significant difference between mean ratios of return on loans and advances of EBL & BOK.

Alternative Hypothesis (H₁): $\bar{x}_1 \neq \bar{x}_2$ (two tailed test)

i.e. there is significant difference between mean ratios of return on loans and advances of EBL & BOK.

Under H_o the test statistics

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \approx \dots\dots\dots t(n_1 + n_2 - 2) d.f.$$

Where,

$$\begin{aligned} s^2 &= \frac{1}{n_1 + n_2 - 2} (\sum x_1^2 + \sum x_2^2) \\ &= \frac{1}{5 + 5 - 2} (0.4047 + 0.1082) \\ &= \frac{1}{8} \times 0.5129 \\ &= 0.064 \end{aligned}$$

Now, Test statistics under H_o is,

$$\begin{aligned} t &= \frac{2.55 - 2.94}{\sqrt{0.064 \left(\frac{1}{5} + \frac{1}{5} \right)}} \\ &= \frac{-0.39}{\sqrt{0.064(1.04)}} \\ &= \frac{-0.39}{\sqrt{0.06656}} \\ &= \frac{-0.39}{0.2580} \\ &= -1.512 \end{aligned}$$

The calculated value of (t) = -1.512
 Tabulated value of “t” (two tailed test) 5% level for (n_1+n_2-2) d.f. i.e. 8, the value is 2.306.

Decision:

Since the calculated value of (t) i.e. -1.512 is less than the tabulated value i.e. 2.306, the null hypothesis is accepted i.e. there is no significant difference between mean ratios of return on loans and advances of EBL & BOK.

4.2.3.6 Test of hypothesis on Total interest Earned to total outside assets ratio of EBL & BOK.

Let,

Total interest Earned to total outside assets ratios of EBL & BOK are x_1 and x_2 respectively.

Table No – 34

Fiscal Year	EBL			BOK		
	x_1	$X_1(x_1 - \bar{x}_1)$	X_1^2	x_2	$X_2(x_2 - \bar{x}_2)$	X_2^2
2005/06	5.6	-0.41	0.1681	5.85	-0.53	0.2809
2006/07	5.34	-0.67	0.4489	5.62	-0.76	0.5776
2007/08	5.7	-0.31	0.0961	5.84	-0.54	0.2916
2008/09	5.92	-0.09	0.0081	6.58	0.2	0.04
2009/10	7.5	1.49	2.2201	7.99	1.61	2.5921
		30.06	2.9413	31.88		3.7822

$$\begin{aligned} \text{Mean } (\bar{x}_1) &= \frac{\sum x_1}{n} \\ &= \frac{30.06}{5} \\ &= 6.01 \end{aligned}$$

$$\begin{aligned} \text{Mean } (\bar{x}_2) &= \frac{\sum x_2}{n} \\ &= \frac{31.88}{5} \\ &= 6.38 \end{aligned}$$

Test of significance of differences between EBL & BOK

Here,

Null Hypothesis (H_0): $\bar{x}_1 = \bar{x}_2$

i.e. there is not significant difference between mean ratios of total interest earned to total outside assets of EBL & BOK.

Alternative Hypothesis (H_1): $\bar{x}_1 \neq \bar{x}_2$ (two tailed test)

i.e. there is significant difference between mean ratios of total interest earned to total outside assets of EBL & BOK.

Under H_0 , the test statistics

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{S^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \approx \dots\dots\dots t(n_1 + n_2 - 2) d.f.$$

Where,

$$\begin{aligned} s^2 &= \frac{1}{n_1 + n_2 - 2} (\sum x_1^2 + \sum x_2^2) \\ &= \frac{1}{5 + 5 - 2} (2.9413 + 3.7822) \\ &= \frac{1}{8} \times 6.7235 \\ &= 0.8404 \end{aligned}$$

Now, Test statistics under H_o is,

$$\begin{aligned} t &= \frac{6.01 - 6.38}{\sqrt{0.8404 \left(\frac{1}{5} + \frac{1}{5} \right)}} \\ &= \frac{-0.37}{\sqrt{0.8404(1.04)}} \\ &= \frac{-0.37}{\sqrt{0.8740}} \\ &= \frac{-0.37}{0.9349} \\ &= -0.3958 \end{aligned}$$

The calculated value of (t) = -0.3958

Tabulated value of “t” (two tailed test) 5% level for (n₁+n₂-2) d.f. i.e. 8, the value is 2.306.

Decision:

Since the calculated value of (t) i.e. -0.3958 is less than the tabulated value i.e. 2.306, the null hypothesis is accepted i.e. there is no significant difference between mean ratios of total interest earned to total outside assets of EBL & BOK.

4.2.4 Major findings of the study

The main findings of the study are derived on the analysis of financial data of EBL & BOK is given below:

1. Liquidity Ratio

The Liquidity position of EBL and BOK reveals that:

- From the analysis of current ratio, it is found that the mean ratio of both banks are not much different comparatively risk factor of BOK is more than EBL. The ratio of BOK is less consistent than EBL.
- The mean ratio of cash & bank balance to total deposits of EBL is higher than BOK. It states that the liquidity position of EBL is better in this regard. And the ratio of EBL is more variable than that of BOK.
- The mean ratio of investment on government securities to current ratio of EBL is higher than that of BOK. EBL has satisfactory invested its more portion of current asset as government securities because its CV is higher than BOK which is consistent than BOK.
- The mean ratio of cash & bank balance to current asset of EBL is higher than BOK. It states that the liquidity position of EBL is better than BOK. And the ratio of EBL is less variable than that of BOK.
- The mean ratio of loan & advance to current assets of EBL is lower than BOK. EBL has maintained variability of ratio which is lower than BOK. It indicates that the liquidity position of EBL is more consistent.

The above result shows that the liquidity position of EBL is comparatively better than BOK. It has the highest Cash & Bank balance to total deposit, cash & bank balance to current asset ratio. At last it can be concluded that EBL has good deposit collection, it has made enough investment on government securities but it has maintained moderate investment pattern on loan & advance.

2. Asset Management Ratio (Activity Ratio)

The assets management ratio of EBL & BOK reveals that:

- The mean ratio of loan & advance to total deposit of BOK is higher than EBL. It can be concluded that BOK is more stable than EBL.
- The mean ratio of total investment to total deposit of EBL is higher than BOK. The variability of the ratio is higher than that of EBL.

- In case of loan & advance to working fund ratio, EBL is lower than BOK. The ratio of EBL is more consistent than that of BOK.
- The mean ratio of investment on government securities to total working fund of EBL is higher than BOK. EBL is more consistent than BOK.
- The mean ratio of investment on share & debenture to total working fund of BOK is higher than EBL. The ratio of BOK is more stable than EBL.

From the above analysis, it helps BOK is comparatively successful in its on balance sheet operation in compared to EBL.

3. Profitability Ratio

The profitability ratios of EBL & BOK reveal that:

- The mean ratio of return on total working fund of BOK is higher than EBL. On the other hand, the ratio of EBL is more variable in compared to BOK.
- The mean ratio of total interest earned to total outside assets of EBL is lower than BOK. The total interest earned to total outside assets ratio of the BOK is less variable in comparison EBL.
- The mean ratio of EBL is lower than BOK. The variability of ratio of BOK is lower than that of EBL.
- The mean ratio of total interest earned to total working fund of EBL is lower than BOK. The ratio of EBL is more variable than that of BOK.
- The mean ratio of total interest paid to total working fund of EBL is equal to BOK. The ratio of EBL is more consistent than BOK.

From the above findings of profitability ratios, it can be concluded that the BOK is good profitable in comparison to EBL. The bank must maintain its high profit margin for the well being in future.

4. Risk Ratio

The risk ratios of EBL & BOK show that:

- The mean credit risk ratio of EBL is lower than BOK. The ratio of EBL is more consistent than BOK.

- The mean capital risk ratio of EBL is lower than BOK. The variability of the ratio of EBL is more than BOK. It indicates that the capital risk ratio consistent.

From the above findings, it can be concluded that EBL has moderate risk in BOK regarding various aspects of the banking function.

5. Growth Ratio

From the analysis of growth ratios of EBL & BOK it reveals that:

- The growth ratio of EBL's deposit is higher than BOK. EBL has maintained growth rate of 27.98% whereas BOK has 17.98%. It means the performance of EBL to collect greater deposit in comparison to BOK.
- The growth ratio of EBL's loan & advances is higher than BOK. EBL has invested their fund at the rate of 29.49% where as BOK has invested their fund at the rate of 23.09%. It means the performance of EBL to grant loan & advances in compared to studied bank is better.
- The growth ratio of EBL's investment is higher than BOK. EBL has maintained 4.49% whereas BOK has maintained -0.8%. In the view of investment, the growth of investment of EBL is quite fine but BOK has failed to maintain the growth.
- The growth rate of EBL's net profit is higher than BOK; EBL has maintained 32.08% whereas BOK has maintained 25.94%. It means that EBL improved its performance year by year.

From the above analysis, it can be concluded that EBL has maintained high growth ratios in total deposit, loan & advance, investment & Net profit. We must say that the bank is successful in increasing its sources of funds and its mobilization.

6. Co-efficient of Correlation Analysis

Co-efficient of correlation analysis between different variables of EBL & BOK it reveals that:

- EBL has the highest value of co-efficient of correlation between deposit & loan & advance than BOK. This indicates the better position of it in mobilization of deposit as loan & advance in compared to BOK.

- EBL has higher value of co-efficient of correlation between deposit & investment than BOK. It indicates that the deposit & investment relation is better than BOK. It indicates that the deposit in mobilizing as an investment of EBL is sufficient.
- BOK has higher value of co-efficient of correlation between outside asset and net profit than other compared banks. This indicated that BOK is capable to earn net profit by mobilizing its total outside assets in compared to EBL.

From the above analysis, it can be concluded that there is significant relationship between deposit and loan & advances and outside assets and net profit but insignificant relation in deposit & total investment of EBL and BOK.

7. Trend analysis and Projection for Next five years

The trend analysis of deposit loan & advances, total investment and net profit and projection for next five years of EBL & BOK reveals that:

- The deposits of both banks have increasing trend. The total deposit of EBL will be 82672.1 million in 2014/15 which is the highest deposit among the study period. Similarly, the total deposit of BOK will be 45770.2 million in 2014/15. The deposit collection of EBL is better than BOK.
- The loan and advances of both banks have increasing trend. The total loan & advances of EBL will be 111200 million in 2014/15 which is highest among the study period. Similarly, the total loan & advance of BOK will be 50920 million in 2014/15. The loan & advances position of EBL is better than BOK.
- The total investments of EBL has increasing trend. The total investment of EBL will be 8651.88 million in 2014/15. Similarly BOK's total investment will be 2537.01 million in 2014/15 which has decreasing trend in the study period.
- The net profit of EBL will be 2635.18 million in 2014/15. Both banks have increasing trend. The net profit of BOK will be 1497.74 million in 2014/15 that is the highest net profit among the study period. The position of EBL in regard to utilization of the fund to earn profit is better than BOK.

8. Test of Hypothesis

From the test of significant regarding the parameter of the population, it has been found that:

- There is no significant difference between mean of loans and advances to total deposit of EBL & BOK.
- There is no significant difference between mean of total investment and total deposit ratio of EBL & BOK.
- There is no significant difference between mean of investment of government securities to current assets ratio of EBL & BOK.
- There is no significant difference between mean of loan & advance to current asset ratio of EBL & BOK.
- There is no significant difference between mean of total interest earned to total outside asset ratio of EBL & BOK.
- There is no significant difference between mean of return on loan & advance of EBL & BOK.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATION

Commercial banks play an important role for economic development of a country as they provide capital for the development of industry, trade and business by investing the saving collected as deposits from public. They provide various services to their customers facilitating their economic and their social life. They are the most important ingredients for integrated and speedy development of a country. Therefore, a competitive and reliable banking system is essential to every country for the development and economic upliftment.

This chapter consists of the summary, conclusions and recommendations from this study.

5.1 Summary

Nepal is a developing country and its economic development is impossible without the development of different sectors like Agriculture, Industry, Trade and Service etc. for the development in these sectors a regular supply of financial resources is necessary which is available through the financial institutions. The capital formation leads to increase in the size of the national output, income and employment, makes the economy free from the burden of foreign debt. Thus domestic capital formation helps in making a country self-sustainable and it does not need to outsider's help.

Investment operation of commercial banks is quite risky one. It is the most important factor from the view point of shareholders and bank management. For this, commercial banks have to pay due consideration while formulating investment pattern. A healthy development of any commercial bank depends upon its investment pattern. A good investment pattern attracts both borrowers and lenders, which helps to increase the quality and quantity of deposits, loan and investment.

The major source of income of banks is interest income from loans and investments and fee based income. As loan and advances dominate the asset side of the balance sheet of any bank; similarly earnings from such loan and advances occupy a major space in income statement of the bank. However, it is very important to be reminded that most of the bank failures

in the world are due to the shrinkage in the value of loans and advances. Hence, loan is known as risky asset and investment operation of the commercial banks is risky one. Risk of nonpayment of loan is known as credit risk or default risk. Performing loans have multiple benefits to the society by helping for the growth of economy while non-performing loans erode even existing capital.

Though several commercial banks have been established in our country within short period of time, stable, strong and appropriate investment has not been followed by the commercial banks to earn sufficient return. They have not been able to utilize their funds more efficiently and productively. Thus proper utilization of the resources has becomes relevant and current issue for the banks. The directions and guidance provided by Nepal Rastra Bank are the major policy statements for Nepalese Commercial banks.

The main objective of the study is investment pattern of commercial bank (with reference to EBL & BOK) and to suggest measures to improve the investment Pattern of the bank. The study has been constrained by various common limitations and study is based on secondary data from F/Y 2005/06 to 2009/10. The data have been basically obtained form annual reports and financial statements, official records, periodicals, journals and bulletins, various published reports and relevant unpublished master's thesis. Beside this, discussions with the concerned authorities of the banks were held to obtain the additional information on the related problem.

Financial as well as statistical tools have been used in order to analyze and interpret the data and information. Under financial analysis, various financial ratios related to the investment function of commercial banks i.e. liquidity ratio, assets management ratio, activity ratio, profitability ratio have been analyzed and interpreted. Under statistical analysis, some relevant statistical tools i.e. coefficient of correlation and trend analysis have been used. This analysis gives clear picture of the performance of the bank with regard to its investment operation.

5.2 Conclusion

Based on the analysis and interpretations on Chapter 4, the following conclusions have been drawn which are summarized below;

In this study, the financial tools ratio analysis viz. Liquidity ratio, assets management ratio, profitability ratio, growth ratio are used. The statistical tools like percentage, mean standard deviation, co-efficient of variation, co-

efficient of correlation, trend analysis and test of hypothesis have been used for the analysis and interpretation of the data. The data which were employed in this research are secondary in nature. They are obtained from annual reports of the concerned banks, likewise, the financial statement of five years (from 2005/06 to 2009/10) were selected for the purpose evaluation.

- The analysis of liquidity position of these commercial banks shows different position. The current ratio measures only rupees worth of current assets and total rupees worth of current liabilities, i.e. it indicates the availability of current asset in rupees for everyone rupee of current liability. A ratio greater than one means the firm has more current assets than current liabilities claims against them. Generally, the current ratio of 2 is referred as acceptable, but acceptability of the value depends on the industry in which a firm operates. For the banks and the utility firms, a current ratio of 1 or above would be considered acceptable. The liquidity position of BOK is comparatively better than EBL. EBL has the highest cash and bank balance to total deposit, cash and bank to current assets ratio. EBL has good deposit collection and has made enough investment on government securities but it has maintained moderate investment pattern on loan and advances.
- The turnover of the commercial banks is the main indication of income generating activity. These ratios are used to judge how efficiently the firm has been using its resources. From the analysis of turnover of these two banks, BOK has better turnover than EBL in terms of loan & advances to total deposit ratio. Thus BOK has better utilization of resources in income generating activities that EBL which definitely leads the bank to increase in income and this making an increment profit for the organization.
- The analysis of profitability of these two commercial banks is also different. The over all calculation seems to be better for BOK. Return on asset ratio is calculated to reveal the overall operating efficiency of a firm which indicates the earning power of the firm. The calculation helps to conclude that BOK's profitability in relation to return on total working fund is better than EBL.
- Initially the major part of these Banks was consisting of business and industrial loan; this is the indication of investment on productive sector. Now a days these banks are slowly turn on line purchase and housing financing. Strengthening and the institutionalization of the commercial banks is very important to have a meaningful relationship between

commercial banks and national development through shift of credit to the productive industrial sector. At the same time the series of reforms such as consolidation of commercial banks, directing alternation to venture capital financing, appropriate risk return trade of by linking credit to timely repayment schedules, avoiding imperfections allowing flexibility in lending.

- Trend analysis of loan & advance, total investment, Net profit & total deposit are in increasing trend of both the banks.
- Test of hypothesis concludes that there is no significant difference between mean ratio of loans and advances to total deposit, total investment and total deposit, investment of government securities to current assets, loan & advances to current asset, interest earned to total outside asset and return on loan & advance of EBL & BOK

5.3 Recommendations

On the basis of analysis and finding the following recommendation can be suggest to overcome the weakness, inefficiency and to improve present fund mobilization, bank's quality and last but not least investment pattern.

- The liquidity position of a bank may be affected by external as well as internal factors. The ratio of cash and bank balance to total deposit and current assets of EBL is higher than that of BOK. It means EBL has higher cash & bank balance than BOK and it shows EBL has higher idle cash & bank balance. It may decrease profit of bank. EBL is recommended to mobilize its idle cash & bank balance in profitable sector as loan & advances.
- It is good to invest more on share & debentures as it encourages financial and economic development of the country. A commercial bank must mobilize its fund in different sector such as to purchase share & debentures of other financial and non financial companies out of total working fund. EBL has invested its more of the funds i.e. total investment on total deposit ratio in comparison to BOK but percentage of investment on share and debentures is little lower so, BOK is recommended to invest more of its fund in share & debenture of different companies.
- To get success in competitive banking environment, depositor's money must be utilized as loan & advance. The largest amount of the bank in the asset side is loan & advances. If it is neglected, then it could be the main cause of liquidity crisis in the bank and one of the main reasons for a

bank's failure. It has been found from the study that BOK's loan & advances to total deposit ratio is better in compared to EBL's stability is not consistent than that of BOK. To overcome this situation, EBL is strongly recommended to follow liberal lending policy and invest more and more percentage of total deposit in loan & advances and similarly maintain more stability on the investment pattern.

- Portfolio condition of a bank should be regularly revised from time to time. It should always try to maintain the equilibrium in the portfolio condition of the bank. So, it can be said "all eggs should not be kept in the same basket". The bank should mark continuous efforts to explore new, competitive and high yielding investment opportunities to optimize their investment portfolio.
- Bank should invest their collected deposits in profitable sector. The growth of investment pattern of both banks are not too much satisfactory. EBL has very low percentage of growth rate whereas BOK has declining trend. The investment pattern of both banks should be improved. Bank should take some recent actions regarding this situation.
- From the study it has been revealed that EBL has given more priority to invest its fund in government securities than that of BOK. Though securities issued by a government are considered to be free of risk of default, such securities yield the lowest interest rates of a particular maturity due to low risk feature. So, EBL is re-commended giving importance to the government securities only should be abandoned.
- Branches existing in some limited areas will not enable a bank to boost up its campaign of deposit mobilization and credit disbursement as desired. HMG/N has also encouraged commercial banks to expand the banking services in rural areas and communities without making unfavorable impact in their profits. Therefore BOK is re-commended to open new branches at certain places every year after making feasibility of studies. Before making choice of particular place for opening a branch, saving and business potentiality of that area should be studied well. This will be very helpful to the bank in tapping the resources of different places.
- EBL has to make way for small depositors and entrepreneurs for the promotion and mobilization of small investor's fund. So it is recommended that the bank should fix minimum level of bank balance and the amount needed to open an account should also be affordable for such small depositor's.

- Before mobilizing funds BOK, EBL are recommended to collect a large variety of deposit through schemes like cumulative deposit scheme, price bonds scheme, gift claque scheme, house buildings deposit scheme, recurring deposit scheme, deposit linked life insurance scheme and many others. Currently EBL has developed many such schemes for mobilizing funds in compared with BOK.
- The risk taken by EBL, from the angle of credit and capital are in an average whereas the consistencies of the same are highly volatile which may result higher loss. The bank should not test those risks on an experiment basis as seen from the consistency angle. Later, before taking any of the risk as stated above, EBL should carefully study it so as to achieve higher returns from the above risk.
- It is suggested to both the banks that they should use well-trained manpower. Well-trained man power will provide better services to the bank and customer. They will try to increase the operating efficiency of the bank, so the banks have to conduct 'training school' for their personnel. They should strongly sponsor social programs contests etc for maintaining favorable public image.

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Everest Bank Limited
Lazimpat
Kathmandu, Nepal
Comparative Balance Sheet

Particulars	Fiscal Year				
	2005/06	2006/07	2007/08	2008/09	2009/10
Assets					
A. Current Assets	15147.86	20759.24	26174.67	35195.08	39729.53
1) Cash & Bank Balance	1552.96	2390.53	2667.97	6164.36	7818.81
2) Money at call & short	66.96	0	346	0	0
3) Loans & Advances	9801.31	13664.08	18339.09	23884.67	27556.36
4) Investment	4200.52	4984.31	5059.55	5948.48	5008.31
i. Government security	3548.62	4704.63	4821.61	5146.05	4354.36
ii. Other	632.82				
iii. Share	19.08	19.89	16.23	17.11	17.11
iv. Debenture			84.93	84.93	84.93
5) Interest Receivable	208.1				
6) Misc. Current Asset	147.92				
B Fixed Asset (Net)	152.89	170.1	360.51	427.16	463.09
C. other assets	7.44	222.66	376.22	492.17	536.19
Total Assets	15959.29	21431.68	27149.34	36916.84	41382.75
Capital and Liabilities					
C. Current Liabilities	14696.48	19930.16	24928.1	34101.22	37919.01
7. Deposit & Other	13802.44	18185.38	23976.31	33322.95	36932.31
i) Saving		9029.26	11883.86	14782.33	13360.04
ii) Fixed		5626.66	6446.18	7049.98	10440.28
iii) Current		1673.2	2492.35	4859.95	4173.32
iv) Call & Short Deposit		1573.4	2780.65	6294.01	8412.8
v) Other		282.86	373.27	336.68	545.87
8. Short term loan					
9. Bills payable	15.81	26.77	49.43	148.66	145.51
10. Tax provision		15.28	41.14	20.52	-1.14
11. Staff bonus	34.56	45.47	65.87	89.13	118.8
12. Divided payable		68.15	140.78	230.52	276.25
13. Misc current Liabilities	843.67	1589.11	654.57	289.44	447.28
14. Deferred Liabilities	140			312	404.6
E. Share capital	378	518	831.4	838.82	1279.61
F. Share holder's reserve	444.81	683.52	1089.84	1364.8	1479.53
17. Debenture	300	300	300	300	300
Total Liabilities	15959.29	21431.68	27149.34	36916.84	41382.75

(Rs-In Millions)

Annex A2
Everest Bank Limited
Lazimpat
Kathmandu, Nepal
Comparative Profit and Loss Account

(Rs In millions)

Particulars	2005/06	2006/07	2007/08	2008/09	2009/10
Interest Income	903.41	1144.41	1548.66	2186.81	3102.45
Interest expenses	401.39	517.17	632.61	1012.87	1572.79
Net interest income	502.01	627.24	916.05	1173.94	1529.66
Commission and discount	96.83	117.72	150.26	202.09	208.12
Other operating income	48.9	67.97	79.13	106.4	142.31
Exchange income	14.39	28.4	64.45	62.53	47.88
Total operating Income	662.15	841.33	1209.89	1544.96	1927.97
Employees	70.92	86.12	157.96	186.92	226.36
Other operating expense	143.56	177.55	233.77	292.01	352.51
Exchange Loss	0	0	0	0	0
Operating Profit Before Provision	447.66	577.66	818.16	1066.03	1349.1
Provisions for possible losses	70.46	89.7	99.34	93.08	77.01
Operating Profit	377.2	487.96	718.82	972.95	1272.09
Non-Operating Income/Expenses	2.95	1.32	4.52	5.01	12.34
Return From Loan Loss Provision	0	11.69	20.2	8.04	83.55
Profit From Ordinary activities	380.15	500.97	743.54	986	1367.98
Extra ordinary Income /Expenses	0	0.79	18.99	5.55	61.19
Net Profit including all activities	380.15	500.18	724.55	980.45	1306.79
Provision For Staff Bonus	34.566	-45.47	65.87	89.13	118.8
Provision For Income Tax	108.3	158.3	207.47	252.58	356.23
-This Year	106.75	158.3	216.91	276.86	357.02
-Up to Last Year	1.55		-9.45	24.28	0.79
Net Profit/Loss	237.284	296.41	451.21	638.74	831.76

Annex A1
Bank of Kathmandu Limited

Kamal Pokhari
Kathmandu, Nepal

Comparative Balance Sheet

Particulars	Fiscal Year				
	2005/06	2006/07	2007/08	2008/09	2009/10
Assets					
A. Current Assets	12066.77	13596.54	16243.37	19040.36	22590.62
1. Cash & Bank balance	728/69	1315.91	1440.47	2182.13	1798.36
2. Money at call & short	594/05	259.28	72.68	243.35	931.99
3. Loans & Advances	7259.08	9399.33	12462.64	14647.3	16664.93
4. Investment	3281.26	2992.43	3204.07	2783.6	3269.2
(i) Govt. Securities	2658.37	2332.04	2113.23	1744.97	2954.93
(ii) Others	622.89				
Share	93.45	25.56	28.32	29.21	23.16
Debenture		64.61	85.73	94.54	16.99
5. Interest receivable other Asset	30.61				
6. Misc. Current Assets	173.08	289.98	154.35	222.61	240.41
B. Fixed Asset (Net)	110.75	320.85	387.27	417.04	491.29
7. Misc. Assets (Non banking assets)	7.36	3.63	0.45	0	0
Total Assets	12278.33	14581.41	17721.93	20496.02	23396.17

Capital and Liabilities					
C. Current Liabilities	11238.6	12658.15	16079.87	18454.42	20822.64
8. Deposit & other	10485.36	12388.94	15833.77	18083.99	20315.82
(i) Saving	4581.96	5527.29	6596.11	7260.31	6723.17
(ii) Fixed	2709.75	3037.17	3703.18	4474.62	6383.58
(iii) Current	1409.1	1661.79	2092.34	2294.43	2747.4
(iv) Call & short Deposit	16188.55	1966.48	3198.14	3823.4	4093.9
(v) Other	165.97	196.21	244	231.23	367.77
9. Bills Payable	11.62	25.78	51.57	51.12	35.7
10. Staff bonus	30.12	52.79	38.34	66.13	73.19
11. Dividend payables	158.32	135.59	32.8	77.33	177.32
12 Misc. Cur. Liabilities	553.18	55.05	123.39	175.85	220.61
D.15. Deferred Liabilities	-				
(i) Long term loan	-	200	200	200	200
(ii) Other Deferred	-	730	100	100	300
E. Share capital	663.58	603.14	603.14	844.4	1359.48
F. share holders reserves	376.15				
13. General reserve		197.78	511.33	700.18	464.28
14. Capital reserve		106.83	106.83	0.17	0.17
15. Exchange fluctuation		16.64	19.15	25.93	31.97
16. Other reserve		50.88	79.45	136.23	164.82
17. Inappropriate profit		17.99	22.16	34.69	52.81
Total Liabilities	12278.33	14581.41	17721.93	20496.02	23396.17

(Rs-In Millions)

Annex A2
Bank of Kathmandu
Kamal Pokhari
Kathmandu, Nepal
Comparative Profit and Loss Account

(Rs In millions)

Particulars	2005/06	2006/07	2007/08	2008/09	2009/10
Interest Income	718.12	819	1034.16	1347.76	1870.85
Interest expenses	308.16	339.18	417.54	563.11	902.93
Net interest income	409.96	479.82	616.62	784.65	967.92
Commission and discount	70.78	97.43	129.42	150.92	160.07
Other operating income	16.97	19	23.17	43.22	73.93
Exchange income	78.96	80.83	93.77	136.04	140.79
Total operating Income	576.67	677.08	862.98	1114.83	1342.71
Employees	59.12	69.74	90.6	146.49	168.51
Other operating expense	117.59	138.43	170.48	233.67	294.46
Exchange Loss	0			0	0
Operating Profit Before Provision	399.54	468.91	601.9	734.67	879.74
Provisions for possible losses	78.38	81.89	38.44	33.75	119.4
Operating Profit	321.57	387.02	563.46	700.92	760.34
Non-Operating Income/Expenses	1.09	-2.78	0.81	-2.03	2.92
Return From Loan Loss Provision	103.87	37.1	61.83	21.58	41.82
Profit From Ordinary activities	426.53	421.34	626.1	720.47	805.08
Extra ordinary Income /Expenses	-95.2	0.41	-45.4	6.93	0
Net Profit including all activities	331.32	421.75	580.7	727.4	805.08
Provision For Staff Bonus	30.12	38.34	52.79	66.13	73.19
Provision For Income Tax	98.76	121.02	166.4	199.53	222.61
-This Year	93.23	115.42	162.54	200.3	218.99
-Up to Last Year	5.53	5.6	3.87	-0.77	3.62
Previous tax					
Net Profit/Loss	202.44	262.39	361.51	461.74	509.28

**Annexure-A1
Current Ratio
EBL**

(Rs-In Millions)

Year	Current Assets	Current Liabilities	Ratio
2005/06	15147.86	14696.48	1.03
2006/07	20759.24	19930.16	1.04
2007/08	26174.67	24928.1	1.05
2008/09	35195.08	34101.22	1.03
2009/10	39729.53	37919.01	1.05

BOK

Year	Current Assets	Current Liabilities	Ratio
2005/06	12066.77	11238.6	1.07
2006/07	13596.54	12658.15	1.07
2007/08	16243.37	16079.87	1.01
2008/09	19040.36	18454.42	1.03
2009/10	22590.62	20822.64	1.08

**Annexure-A2
Cash & Bank balance to total deposit Ratio
EBL**

(Rs-In Millions)

Year	Cash and Bank	Total deposit	Ratio
2005/06	1552.96	13802.44	11.2
2006/07	2390.53	18185.38	13.15
2007/08	2667.97	23976.31	11.13
2008/09	6164.36	33322.95	18.5
2009/10	7818.81	36932.31	21.17

BOK

(Rs-In Millions)

Year	Cash and Bank	Total deposit	Ratio
2005/06	728.69	10485.36	6.9
2006/07	1315.91	12388.94	10.62
2007/08	1440.47	15833.77	9.1
2008/09	2182.13	18083.99	12.07
2009/10	1798.36	20315.82	8.85

**Annexure-A3
Cash and Bank Balance to Current Assets Ratio
EBL**

(Rs-In Millions)

Year	Cash and Bank Balance	Current Assets	Ratio
2005/06	1552.96	15147.86	10.25
2006/07	2390.53	20759.24	11.52
2007/08	2667.97	26174.67	10.19
2008/09	6164.36	35195.08	17.51
2009/10	7818.81	39729.53	19.68

BOK

(Rs-In Millions)

Year	Cash and Bank Balance	Current Assets	Ratio
2005/06	728.69	12066.77	6.03
2006/07	1315.91	13596.54	9.68
2007/08	1440.47	16243.37	8.87
2008/09	2182.13	19040.36	11.46
2009/10	1798.36	22590.62	7.96

Annexure-A4

Investment on Government Securities to Current Asset Ratio**EBL**

(Rs-In Millions)

Year	Government Securities	Current Assets	Ratio
2005/06	3548.62	15147.86	23.42
2006/07	4704.63	20759.24	22.66
2007/08	4821.61	26174.67	18.42
2008/09	5146.05	35195.08	14.62
2009/10	4354.36	39729.53	10.96

BOK

(Rs-In Millions)

Year	Government Securities	Current Assets	Ratio
2005/06	2658.37	12066.77	22.03
2006/07	2332.04	13596.54	17.15
2007/08	2113.23	16243.37	13.01
2008/09	1744.97	19040.36	9.16
2009/10	2954.93	22590.62	13.08

Annexure-A5

Loan and Advances to Current Asset Ratio**EBL**

(Rs-In Millions)

Year	Loan and Advances	Asset Current	Ratio
2005/06	9801.31	15147.86	64.7
2006/07	13664.08	20759.24	65.82
2007/08	18339.09	26174.67	70.06
2008/09	23884.67	35195.08	67.86
2009/10	27556.36	39729.53	69.36

BOK

(Rs-In Millions)

Year	Loan and Advances	Asset Current	Ratio
2005/06	7259.08	12066.77	60.15
2006/07	9399.33	13596.54	69.13
2007/08	12462.64	16243.37	76.72
2008/09	14647.3	19040.36	76.92
2009/10	16664.93	22590.62	73.77

Annexure-A6
Loan & Advances to total deposit Ratio
EBL

(Rs-In Millions)

Year	Loan & Advances	Total deposit	Ratio
2005/06	9801.31	13802.44	71.01
2006/07	13664.08	18185.38	75.14
2007/08	18339.09	23976.31	76.49
2008/09	23884.67	33322.95	71.68
2009/10	27556.36	36932.31	74.61

BOK

(Rs-In Millions)

Year	Loan & Advances	Total deposit	Ratio
2005/06	7259.08	10485.36	69.23
2006/07	9399.33	12388.94	78.87
2007/08	12462.64	15833.77	78.71
2008/09	14647.3	18083.99	80.99
2009/10	16664.93	20315.82	82.03

Annexure-A7
Total Investment to total deposit Ratio
EBL

(Rs-In Millions)

Year	Total Investment	Total deposit	Ratio
2005/06	4200.52	13802.44	30.43
2006/07	4984.31	18185.38	27.41
2007/08	5059.55	23976.31	21.1
2008/09	5948.48	33322.95	17.85
2009/10	5008.31	36932.31	13.56

BOK

(Rs-In Millions)

Year	Total Investment	Total deposit	Ratio
2005/06	3374.71	10485.36	32.18
2006/07	2992.43	12388.94	24.15
2007/08	3204.07	15833.77	20.24
2008/09	2783.6	18083.99	15.39
2009/10	3269.2	20315.82	16.09

Annexure-A8
Loans and Advances to total working fund Ratio
EBL

(Rs-In Millions)

Year	Loans and Advances	Total working fund	Ratio
2005/06	9801.31	15959.29	61.41
2006/07	13664.08	21431.68	63.76
2007/08	18339.09	27149.34	67.55
2008/09	23884.67	36916.84	64.7
2009/10	27556.36	41382.75	66.59

BOK

(Rs-In Millions)

Year	Loans and Advances	Total working fund	Ratio
2005/06	7259.08	12278.33	59.12
2006/07	9399.33	14581.41	60.46
2007/08	12462.64	17721.93	70.32
2008/09	14647.3	20496.03	71.46
2009/10	16664.93	23396.17	71.23

Annexure-A9
Investment on Government Securities to total working fund ratio
EBL

(Rs-In Millions)

Year	Investment on Govt securities	Total working fund	Ratio
2005/06	3548.62	15959.29	22.24
2006/07	4704.63	21431.68	21.95
2007/08	4821.61	27149.34	17.76
2008/09	5146.05	36916.84	13.94
2009/10	4354.36	41382.75	10.52

BOK

(Rs-In Millions)

Year	Investment on Govt securities	Total working fund	Ratio
2005/06	2658.37	12078.33	21.65
2006/07	2332.04	14581.41	15.99
2007/08	2113.23	17721.93	11.92
2008/09	1744.97	20496.03	8.51
2009/10	2954.93	23396.17	12.63

Annexure-A10

Investment on Share & Debenture to total working fund Ratio

EBL

(Rs-In Millions)

Year	Investment on Share & Debt	Total working fund	Ratio
2005/06	19.08	15959.29	0.12
2006/07	19.89	21431.68	0.09
2007/08	101.16	27149.34	0.37
2008/09	102.04	36916.84	0.28
2009/10	102.04	41382.75	0.25

BOK

(Rs-In Millions)

Year	Investment on Share & Debt	Total working fund	Ratio
2005/06	93.45	12278.33	0.76
2006/07	90.17	14581.41	0.62
2007/08	114.05	17721.93	0.64
2008/09	123.75	20496.03	0.6
2009/10	40.15	23396.17	0.17

Annexure-A11

Return on total working fund Ratio

EBL

(Rs-In Millions)

Year	Net profit	Total working fund	Ratio
2005/06	237.3	15959.29	1.48
2006/07	296.41	21431.68	1.38
2007/08	451.21	27149.34	1.66
2008/09	638.74	36916.84	1.73
2009/10	831.76	41382.75	2.01

BOK

(Rs-In Millions)

Year	Net profit	Total working fund	Ratio
2005/06	202.44	12278.33	1.64
2006/07	262.39	14581.41	1.8
2007/08	361.51	17721.93	2.04
2008/09	461.74	20496.03	2.25
2009/10	509.28	23396.17	2.18

Annexure-A12

Total Interest Earned to Total outside Assets Ratio

EBL

(Rs-In Millions)

Year	Interest Earned	Outside Assets	Ratio
2005/06	903.41	14001.83	6.45
2006/07	1144.41	18648.39	6.14
2007/08	1548.66	23398.64	6.62
2008/09	2186.81	29833.15	7.33
2009/10	3102.45	32564.67	9.53

BOK

(Rs-In Millions)

Year	Interest Earned	Outside Assets	Ratio
2005/06	718.12	10633.79	6.75
2006/07	819	12391.76	6.61
2007/08	1034.16	15666.71	6.6
2008/09	1347.76	17430.9	7.73
2009/10	1870.85	19934.13	9.39

Annexure-A13

Return on Loan & Advances Ratio**EBL**

(Rs-In Millions)

Year	Net profit	Loan & Advance	Ratio
2005/06	237.3	9801.31	2.42
2006/07	296.41	13664.08	2.17
2007/08	451.21	18339.09	2.46
2008/09	638.74	23884.67	2.67
2009/10	831.76	27556.36	3.02

BOK

(Rs-In Millions)

Year	Net profit	Loan & Advance	Ratio
2005/06	202.44	7259.08	2.78
2006/07	262.39	9399.33	2.79
2007/08	361.51	12462.64	2.9
2008/09	461.74	14647.3	3.15
2009/10	509.28	16664.93	3.06

Annexure-A14

Total Interest Earned to total working fund Ratio**EBL**

(Rs-In Millions)

Year	Total Interest	Earned total	Ratio
2005/06	903.41	15959.29	5.6
2006/07	1144.41	21431.68	5.34
2007/08	1548.66	27149.34	5.7
2008/09	2186.81	36916.84	5.92
2009/10	3102.45	41382.75	7.5

BOK

(Rs-In Millions)

Year	Total Interest	Earned total	Ratio
2005/06	718.12	12278.33	5.85
2006/07	819	14581.41	5.62
2007/08	1034.16	17721.93	5.84
2008/09	1347.76	20496.03	6.58
2009/10	1870.85	23396.17	7.99

Annexure-A15
Total Interest paid to total working fund Ratio
EBL

(Rs-In Millions)

Year	Interest paid	Working fund	Ratio
2005/06	401.39	15959.29	2.51
2006/07	517.17	21431.68	2.41
2007/08	632.61	27149.34	2.33
2008/09	1012.87	36916.84	2.74
2009/10	1572.79	41382.75	3.8

BOK

(Rs-In Millions)

Year	Interest paid	Working fund	Ratio
2005/06	308.16	12278.33	2.5
2006/07	339.18	14581.41	2.33
2007/08	417.54	17721.93	2.36
2008/09	563.11	20496.03	2.75
2009/10	902.93	23396.17	3.86

Annexure-A16
Credit Risk Ratio
EBL

(Rs-In Millions)

Year	Loan & Advances	Total Assets	Ratio
2005/06	9801.31	15959.29	61.66
2006/07	13664.08	21431.68	63.76
2007/08	18339.09	27149.34	67.55
2008/09	23884.67	36916.84	64.7
2009/10	27556.36	41382.75	66.59

BOK

(Rs-In Millions)

Year	Loans and Advances	Total Assets	Ratio
2005/06	7259.08	12278.33	59.12
2006/07	9399.33	14581.41	64.46
2007/08	12462.64	17721.93	70.32
2008/09	14647.3	20496.03	71.46
2009/10	16664.93	23396.17	71.23

Annexure-A17
Capital Risk Ratio
EBL

(Rs-In Millions)

(Rs-In Millions)

Year	Share Capital	Loan and Advances	Ratio
2005/06	378	9801.31	3.86
2006/07	518	13664.08	3.79
2007/08	831.4	18339.09	4.53
2008/09	838.82	23884.67	3.51
2009/10	1279.61	27556.36	4.64

BOK

(Rs-In Millions)

Year	Share Capital	Loan and Advances	Ratio
2005/06	463.58	7259.08	6.39
2006/07	603.14	9399.33	6.42
2007/08	603.14	12462.64	4.84
2008/09	844.4	14647.3	5.76
2009/10	1359.48	16664.93	8.16

ANNEXURE-B1
Sample Calculation of Growth Rate

D_n = Total Investment in the n^{th} year
 D_o = Total Investment in the initial year
 g = Growth rate
 $n = 5$

Now, we have

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

$$D_{2009/10} = D_{2005/06} (1+g)^{5-1}$$

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

$$36932.31 = 13802.44 (1+g)^{5-1}$$

$$2.6758 = (1+g)^{5-1}$$

$$(1+g)^4 = 2.6758$$

$$1+g = (2.6758)^{\frac{1}{4}}$$

$$1+g = 1.2790$$

$$g = 27.90\%$$

Annexure C1

Correlation between Total deposit & Loan advance of EBL

Year	deposit(x)	dx=x-25000	dx ²	Loan/adv(y)	dy=y-18000	dy ²	dx.dy
2005/06	13802.44	-11197.56	125385350	9801.31	-8198.69	67218517.72	91805323.2
2006/07	18185.38	-6814.62	46439045.7	13664.08	-4335.92	18800202.25	29547647.15
2007/08	23976.31	-1023.69	1047941.22	18339.09	339.09	114982.0281	-347123.0421
2008/09	33322.95	8322.95	69271496.7	23884.67	5884.67	34629341.01	48977814.18
2009/10	36932.31	11932.31	142380022	27556.36	9556.36	91324016.45	114029450
		1219.39	384523856	93245.51	3245.51	212087059.4	284013111.5

$$\begin{aligned}
 r &= \frac{N \sum dx dy - \sum dx \cdot \sum dy}{\sqrt{N \sum dx^2 - (\sum dx)^2} \sqrt{N \sum dy^2 - (\sum dy)^2}} \\
 &= \frac{5 \times 284013111.5 - 1219.39 \times 3245.51}{\sqrt{5 \times 384523856 - (1219.39)^2} \sqrt{5 \times 212087059.4 - (3245.51)^2}} \\
 &= \frac{1420065557.5 - 3957542.44}{\sqrt{1922619280 - 1486911.97} \sqrt{1060435297 - 10533335.16}} \\
 &= \frac{1416108015.06}{43830.72 \times 32402.19} \\
 &= \frac{1416108015.06}{1420211317.27} \\
 &= 0.9971
 \end{aligned}$$

Correlation between Total deposit & Loan advance of BOK

Year	deposit(x)	dx=x-15000	dx ²	Loan/adv(y)	dy=y-12000	dy ²	dx.dy
2005/06	10485.36	-4514.64	20381974.3	7259.08	-4740.92	22476322.45	21403547.07
2006/07	12388.94	-2611.06	6817634.32	9399.33	-2600.67	6763484.449	6790505.41
2007/08	15833.77	833.77	695172.413	12462.64	462.64	214035.7696	385735.3528
2008/09	18083.99	3083.99	9510994.32	14647.3	2647.3	7008197.29	8164246.727
2009/10	20315.82	5315.82	28257942.3	16664.93	4664.93	21761571.9	24797928.19
		2107.88	65663717.7	60433.28	433.28	58223611.86	61541962.75

$$\begin{aligned}
r &= \frac{N \sum dxdy - \sum dx \cdot \sum dy}{\sqrt{N \sum dx^2 - (\sum dx)^2} \sqrt{N \sum dy^2 - (\sum dy)^2}} \\
&= \frac{5 \times 61541962.75 - 2107.88 \times 433.28}{\sqrt{5 \times 65663717.7 - (2107.88)^2} \sqrt{5 \times 58223611.86 - (433.28)^2}} \\
&= \frac{307709813.75 - 913302.25}{\sqrt{328318588.5 - 4443158.09} \sqrt{291118059.3 - 187731.56}} \\
&= \frac{306796511.5}{17996.54 \times 17056.68} \\
&= \frac{306796511.5}{306961223.89} \\
&= 0.10
\end{aligned}$$

Annexure C2

Correlation between Total deposit & Investment of EBL

Year	deposit(x)	dx=x-25000	dx ²	Inv(y)	dy=y-5000	dy ²	dx.dy
2005/06	13802.44	-11197.56	125385350	4200.52	-799.48	639168.2704	8952225.269
2006/07	18185.38	-6814.62	46439045.7	4984.31	-15.69	246.1761	106921.3878
2007/08	23976.31	-1023.69	1047941.22	5059.55	59.55	3546.2025	-60960.7395
2008/09	33322.95	8322.95	69271496.7	5948.48	948.48	899614.3104	7894151.616
2009/10	36932.31	11932.31	142380022	5008.31	8.31	69.0561	99157.4961
		1219.39	384523856	25201.17	201.17	1542644.016	16991495.03

$$\begin{aligned}
r &= \frac{N \sum dxdy - \sum dx \cdot \sum dy}{\sqrt{N \sum dx^2 - (\sum dx)^2} \sqrt{N \sum dy^2 - (\sum dy)^2}} \\
&= \frac{5 \times 16991495.03 - 1219.39 \times 201.17}{\sqrt{5 \times 384523856 - (1219.39)^2} \sqrt{5 \times 1542644.02 - (201.17)^2}} \\
&= \frac{84957475.15 - 245304.69}{\sqrt{1922619280 - 1486911.97} \sqrt{7713220.1 - 40469.37}} \\
&= \frac{84712170.46}{43830.72 \times 2769.97} \\
&= \frac{84712170.46}{121409779.48} \\
&= 0.6977
\end{aligned}$$

Correlation between Total deposit & Investment of BOK

Year	deposit(x)	dx=x-15000	dx ²	Inv(y)	dy=y-3000	dy ²	dx.dy
2005/06	10485.36	-4514.64	20381974.3	3374.71	374.71	140407.5841	-1691680.754
2006/07	12388.94	-2611.06	6817634.32	2992.43	-7.57	57.3049	19765.7242
2007/08	15833.77	833.77	695172.413	3204.07	204.07	41644.5649	170147.4439
2008/09	18083.99	3083.99	9510994.32	2783.6	-216.4	46828.96	-667375.436
2009/10	20315.82	5315.82	28257942.3	3269.2	269.2	72468.64	1431018.744
		2107.88	65663717.7	15624.01	624.01	301407.0539	-738124.2783

$$\begin{aligned}
 r &= \frac{N \sum dx dy - \sum dx \cdot \sum dy}{\sqrt{N \sum dx^2 - \sum dx^2} \sqrt{N \sum dy^2 - (\sum dy)^2}} \\
 &= \frac{5 \times -738124.28 - 2107.88 \times 624.01}{\sqrt{5 \times 65663717.7 - (2107.88)^2} \sqrt{5 \times 301407.05 - (624.01)^2}} \\
 &= \frac{-3690621.4 - 1315338.20}{\sqrt{328318588.5 - 4443158.09} \sqrt{1507035.25 - 389388.48}} \\
 &= \frac{-5005959.6}{17996.54 \times 1057.19} \\
 &= \frac{-5005959.6}{19025762.12} \\
 &= -0.2631
 \end{aligned}$$

Annexure C3

Correlation Coefficient between Outside Asset & Net Profit of EBL

Year	Outside Asset	dx=x-23000	dx ²	Net Profit(y)	dy=y-400	dy ²	dx.dy
2005/06	14001.83	-8998.17	80967063.3	237.3	-162.7	26471.29	1464002.259
2006/07	18648.39	-4351.61	18936509.6	296.41	-103.59	10730.8881	450783.2799
2007/08	23398.64	398.64	158913.85	451.21	51.21	2622.4641	20414.3544
2008/09	29833.15	6833.15	46691938.9	638.74	238.74	56996.7876	1631346.231
2009/10	32564.67	9564.67	91482912.2	831.76	431.76	186416.6976	4129641.919
		3446.68	238237338	2455.42	455.42	283238.1274	7696188.044

$$\begin{aligned}
r &= \frac{N \sum dxdy - \sum dx \cdot \sum dy}{\sqrt{N \sum dx^2 - (\sum dx)^2} \sqrt{N \sum dy^2 - (\sum dy)^2}} \\
&= \frac{5 \times 7696188 .04 - 3446 .68 \times 455 .42}{\sqrt{5 \times 238237338 - (3446 .68)^2} \sqrt{5 \times 283238 .13 - (455 .42)^2}} \\
&= \frac{38480940 .2 - 1569687 .01}{\sqrt{1191186690 - 11879603 .02} \sqrt{1416190 .65 - 207407 .38}} \\
&= \frac{36911253 .19}{34341 .04 \times 1099 .45} \\
&= \frac{36911253 .19}{37756256 .43} \\
&= 0.9776
\end{aligned}$$

Correlation Coefficient between Outside Asset & Net Profit of BOK

Year	Outside Ass	dx=x-15000	dx ²	Net Profit(y)	dy=y-300	dy ²	dx.dy
2005/06	10633.79	-4366.21	19063789.8	202.44	-97.56	9517.9536	425967.4476
2006/07	12391.76	-2608.24	6802915.9	262.39	-37.61	1414.5121	98095.9064
2007/08	15666.71	666.71	444502.224	361.51	61.51	3783.4801	41009.3321
2008/09	17430.9	2430.9	5909274.81	461.74	161.74	26159.8276	393173.766
2009/10	19934.13	4934.13	24345638.9	509.28	209.28	43798.1184	1032614.726
		1057.29	56566121.6	1797.36	297.36	84673.8918	1990861.179

$$\begin{aligned}
r &= \frac{N \sum dxdy - \sum dx \cdot \sum dy}{\sqrt{N \sum dx^2 - (\sum dx)^2} \sqrt{N \sum dy^2 - (\sum dy)^2}} \\
&= \frac{5 \times 1990861 .18 - 1057 .29 \times 297 .36}{\sqrt{5 \times 56566121 .6 - (1057 .29)^2} \sqrt{5 \times 84673 .89 - (297 .36)^2}} \\
&= \frac{9954305 .9 - 314395 .75}{\sqrt{282830608 - 1117862 .14} \sqrt{423369 .45 - 88422 .97}} \\
&= \frac{9639910 .15}{16784 .30 \times 578 .75} \\
&= \frac{9639910 .15}{9713913 .63} \\
&= 0.9924
\end{aligned}$$

Annexure C4

Trend Analysis of Loan and Advance of EBL (Sample Calculation)

Year(T)	Loan & Advance	X =	X ²	XY	Y _c = a+bX
		(T-2006.5)			
2005/06	9801.31	-2	4	-19602.62	356.82
2006/07	13664.08	-1	2	-13664.08	9502.96
2007/08	18339.09	0	0	0	18649.1
2008/09	23884.67	1	2	23884.67	27795.24
2009/10	27556.36	2	4	55112.72	36941.38
	93245.51	0.00	12.00	45730.69	

$$\begin{aligned}
 N = 5 \quad a &= \frac{\sum y}{N} \\
 &= \frac{93245.51}{5} \\
 &= 18649.10
 \end{aligned}$$

$$\begin{aligned}
 b &= \frac{\sum xy}{N} \\
 &= \frac{45730.69}{5} \\
 &= 9146.14
 \end{aligned}$$

The equation of the straight line trend is $Y_c = a + bX$

$$Y_c = 18649.10 + 9146.14X$$

Trend Analysis of Loan and Advance of EBL (2010-2015)

Year(T)	X =(T-2011.5)	Y _c = a+bX
2010/11	3	46087.52
2011/12	4	55233.66
2012/13	5	64379.8
2013/14	6	73525.94
2014/15	7	82672.08

Trend Analysis of Loan and Advance of BOK (Sample Calculation)

Year(T)	Loan & Advance (Y)	X =	X ²	XY	Y _c = a+bX
		(T-2006.5)			
2005/06	7259.08	-2	4	-14518.16	2462.8
2006/07	9399.33	-1	2	-9399.33	7274.73
2007/08	12462.64	0	0	0	12086.66
2008/09	14647.3	1	2	14647.3	16898.59
2009/10	16664.93	2	4	33329.86	21710.52
	60433.28	0.00	12.00	24059.67	

$$\begin{aligned}
 a &= \frac{\sum y}{N} & b &= \frac{\sum xy}{N} \\
 N = 5 &= \frac{60433 \cdot 28}{5} & &= \frac{24059 \cdot 67}{5} \\
 &= 12086 \cdot 66 & &= 4811 \cdot 93
 \end{aligned}$$

The equation of the straight line trend is $Y_c = a + bX$

$$Y_c = 12086.66 + 4811.93X$$

Trend Analysis of Loan and Advance of BOK (2010-2015)

Year(T)	X=(T-2006.5)	Yc= a+bX
2010/11	3	26522.45
2011/12	4	31334.38
2012/13	5	36146.31
2013/14	6	40958.24
2014/15	7	45770.17

Annexure C5

Trend Analysis of Total Deposit of EBL (Sample Calculation)

Year(T)	Total Deposit(Y)	X = (T-2003.5)	X ²	XY	Y _c = a+bX
2005/06	13802.44	-2	4	-27604.88	684.96
2006/07	18185.38	-1	2	-18185.38	12964.42
2007/08	23976.31	0	0	0	25243.88
2008/09	33322.95	1	2	33322.95	37523.34
2009/10	36932.31	2	4	73864.62	49802.8
	126219.39	0	12	61397.31	

$$\begin{aligned}
 N = 5 \quad a &= \frac{\sum y}{N} & b &= \frac{\sum xy}{N} \\
 &= \frac{126219 \cdot 39}{5} & &= \frac{61397 \cdot 3}{5} \\
 &= 25243 \cdot 88 & &= 12279 \cdot 46
 \end{aligned}$$

The equation of the straight line trend is $Y_c = a + bX$

$$Y_c = 25243.88 + 12279.46X$$

Trend Analysis of Total Deposit of EBL (2009-2014)

Year(T)	X =(T-2006.5)	Yc= a+bX
2010/11	3	62082.26
2011/12	4	74361.72
2012/13	5	86641.18
2013/14	6	98920.64
2014/15	7	111200.1

Trend Analysis of Total Deposit of BOK (Sample Calculation)

Year(T)	Total Deposit(Y)	X =	X ²	XY	Y _c = a+bX
		(T-2003.5)			
2005/06	10485.36	-2	4	-20970.72	5279.18
2006/07	12388.94	-1	2	-12388.94	10350.38
2007/08	15833.77	0	0	0	15421.58
2008/09	18083.99	1	2	18083.99	20492.78
2009/10	20315.82	2	4	40631.64	25563.98
	77107.88	0	12	25355.97	

$$\begin{aligned}
 N = 5 \quad a &= \frac{\sum y}{N} \\
 &= \frac{77107.88}{5} \\
 &= 15421.58
 \end{aligned}$$

$$\begin{aligned}
 b &= \frac{\sum xy}{N} \\
 &= \frac{25356}{5} \\
 &= 5071.2
 \end{aligned}$$

The equation of the straight line trend is $Y_c = a + bX$

$$Y_c = 15421.58 + 5071.2X$$

Trend Analysis of Total Deposit of BOK (2010-2015)

Year(T)	X =(T-2006.5)	Yc= a+bX
2010/11	3	30635.18
2011/12	4	35706.38
2012/13	5	40777.58
2013/14	6	45848.78
2014/15	7	50919.98

Annexure C6

Trend Analysis of Total Investment of EBL (Sample Calculation)

Year(T)	Investment(Y)	X =	X ²	XY	Y _c = a+bX
		(T-2003.5)			
2005/06	4200.52	-2	4	-8401.04	4008.33
2006/07	4984.31	-1	2	-4984.31	4524.28
2007/08	5059.55	0	0	0	5040.23
2008/09	5948.48	1	2	5948.48	5556.18
2009/10	5008.31	2	4	10016.62	6072.13
	25201.17	0	12	2579.75	

$$a = \frac{\sum y}{N} \qquad b = \frac{\sum xy}{N}$$

$$N = 5 = \frac{25201.17}{5} \qquad = \frac{2579.75}{5}$$

$$= 5040.23 \qquad = 515.95$$

The equation of the straight line trend is $Y_c = a + bX$

$$Y_c = 5040.23 + 515.95X$$

Trend Analysis of Total Investment of EBL (2010-2015)

Year(T)	X=(T-2006.5)	Y _c = a+bX
2010/11	3	6588.08
2011/12	4	7104.03
2012/13	5	7619.98
2013/14	6	8135.93
2014/15	7	8651.88

Trend Analysis of Total Investment of BOK (Sample Calculation)

Year(T)	Investment(Y)	X =	X ²	XY	Y _c = a+bX
		(T-2003.5)			
2005/06	3374.71	-2	4	-6749.42	3292.74
2006/07	2992.43	-1	2	-2992.43	3208.77
2007/08	3204.07	0	0	0	3124.8
2008/09	2783.6	1	2	2783.6	3040.83
2009/10	3269.2	2	4	6538.4	2956.86
	15624.01	0	12	-419.85	

$$\begin{aligned}
 a &= \frac{\sum y}{N} \\
 &= \frac{15624}{5} \\
 &= 3124.80
 \end{aligned}$$

$$\begin{aligned}
 b &= \frac{\sum xy}{N} \\
 &= \frac{-419.85}{5} \\
 &= -83.97
 \end{aligned}$$

Trend Analysis of Total Investment of BOK (2010-2015)

Year(T)	X=(T-2006.5)	Y _c = a+bX
2010/11	3	2872.89
2011/12	4	2788.92
2012/13	5	2704.95
2013/14	6	2620.98
2014/15	7	2537.01

Annexure C7

Trend Analysis of Net Profit of EBL (Sample Calculation)

Year(T)	Net Profit(Y)	X = (T-2003.5)	X ²	XY	Y _c = a+bX
2005/06	237.3	-2	4	-474.6	-121.52
2006/07	296.41	-1	2	-296.41	184.78
2007/08	451.21	0	0	0	491.08
2008/09	638.74	1	2	638.74	797.38
2009/10	831.76	2	4	1663.52	1103.68
	2455.42	0	12	1531.25	

$$\begin{aligned}
 N = 5 \quad a &= \frac{\sum y}{N} \\
 &= \frac{2455.42}{5} \\
 &= 491.08
 \end{aligned}$$

$$\begin{aligned}
 b &= \frac{\sum xy}{N} \\
 &= \frac{1531.25}{5} \\
 &= 306.25
 \end{aligned}$$

The equation of the straight line trend is $Y_c = a + bX$
 $Y_c = 491.08 + 306.25X$

Trend Analysis of Net Profit of EBL (2010-2015)

Year(T)	X = (T-2006.5)	Y _c = a+bX
2010/11	3	1409.98
2011/12	4	1716.28
2012/13	5	2022.58
2013/14	6	2328.88
2014/15	7	2635.18

Trend Analysis of Net Profit of BOK (Sample Calculation)

Year(T)	Net Profit(Y)	$X = (T-2003.5)$	X^2	XY	$Y_c = a+bX$
2005/06	202.44	-2	4	-404.88	34.25
2006/07	262.39	-1	2	-262.39	196.86
2007/08	361.51	0	0	0	359.47
2008/09	461.74	1	2	461.74	522.08
2009/10	509.28	2	4	1018.56	684.69
	1797.36	0	12	813.03	

$$\begin{aligned}
 N = 5 \quad a &= \frac{\sum y}{N} \\
 &= \frac{1797.36}{5} \\
 &= 359.47
 \end{aligned}$$

$$\begin{aligned}
 b &= \frac{\sum xy}{N} \\
 &= \frac{813.03}{5} \\
 &= 162.61
 \end{aligned}$$

The equation of the straight line trend is $Y_c = a + bX$

$$Y_c = 359.47 + 162.61X$$

Trend Analysis of Net Profit of BOK (2010-2015)

Year(T)	$X = (T-2006.5)$	$Y_c = a+bX$
2010/11	3	847.3
2011/12	4	1009.91
2012/13	5	1172.52
2013/14	6	1335.13
2014/15	7	1497.74