

# **Investment Policy of Commercial Banks of Nepal**

**(A case study on Nepal Investment Bank and Everest Bank)**

A Thesis

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Submitted to:

Office of Dean

Faculty of Management

Tribhuvan University

**In Partial Fulfillment of Requirement for Degree of Masters in  
Business Studies (MBS)**

Kathmandu, Nepal

January, 2013

# **RECOMMENDATION**

This is to certify the thesis submitted by

**Man Singh Thapa**

Entitled

**Investment Policy of Commercial Banks of Nepal**

**(A case study on Nepal Investment Bank and Everest Bank)**

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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# VIVA-VOCE SHEET

We have conducted viva-voce examination of the thesis prepared by

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**Investment Policy of Commercial Banks of Nepal**

**(A case study on Nepal Investment Bank and Everest Bank)**

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

Viva-Voce Committee

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Member (Thesis Supervisor) .....

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## DECLARATION

I hereby declare that the work reported in this thesis entitled **Investment Policy of Commercial Banks of Nepal (A case study on Nepal Investment Bank and Everest Bank)** submitted to the Office of the Dean, Faculty of Management, Tribhuvan University is my original work done in the form of partial fulfillment of requirement for the Master's Degree in Business Studies (MBS) under the supervision of **Mr. Tri-ratna Manandhar**, Lecturer of Shanker Dev Campus, Tribhuvan University.

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# ACKNOWLEDGEMENT

This research work is my sincere and original work as a partial fulfillment of requirement for the MBS Degree. Every possibility that could make the study better was considered. Beside my effort, I have to remember several persons who were helpful in accomplishment of this work.

My sincere gratitude is towards my supervisor Mr. Tri Ratna Manandhar for his special guidance, inspiration and intellectual suggestions throughout the study period. Without his helpful behavior and supervision, the completion of the work would be impossible.

I am grateful towards authors and scholars whose writings and findings have been quoted in this study. I am also thankful to authors and researchers whose studies are not cited here but their researches and articles were gone under the review to make clear vision and achieve the objectives of the study.

I am thankful to all the staff members of Shanker Dev Campus Library who provided references and reading materials during the study period.

Finally, I would like to remember my family members and friends for their continuous support and encouragement.

Thank you.

Man Singh Thapa  
Researcher

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## Abbreviations

A.D.	Anno Domini
AGM	Annual General Meeting
ATM	Automated Teller Machine
BOK	Bank of Kathmandu
B.S.	Bikram Sambat
C.V.	Coefficient of Variance
CR	Current Ratio
CRR	Cash Reserved Ratio
EBL	Everest Bank Limited
F/Y	Fiscal Year
GDP	Gross Domestic Product
HBL	Himalayan Bank Limited
i.e.	That is
IMF	International Monetary Fund
JVB	Joint Venture Bank
Ltd.	Limited
MBS	Masters of Business Studies
NABIL	Nabil Bank Limited
NBBL	Nepal Bangladesh Bank Limited
NBL	Nepal Bank Limited
NEPSE	Nepal Stock Exchange
NIBL	Nepal Investment Bank Limited
NPA	Non Performing Assets
NRB	Nepal Rastra Bank
P.Er.	Probable Error
PNB	Punjab National Bank
r.	Coefficient of correlation
RBB	Rastriya Banijya Bank
Rs.	Rupees
SBI	State Bank of India
SCBNL	Standard Chartered Bank Nepal Limited
S.D.	Standard Deviation
SEBON	Security Board of Nepal
T.U.	Tribhuvan University

# **CHAPTER-I**

## **INTRODUCTION**

### **1.1. Background of the Study**

Nepal is one of the developing countries. It is situated between two well developed countries, India and China, with fine economic condition. Nepal is landlocked between these enormous countries and struggling to grasp the economic advantage from them. The overall development of Nepal is in slow pace. The physical and financial infrastructure is not well developed. Almost half of the population lies under the poverty line. Most of the people struggle for fulfillment of basic needs. Hence, the first priority of the government is to uplift the economic condition of its people. But this has been of great challenge.

The economic development is one of the most vital aspects of the overall development of the country. Nepal, being a developing country, the economic growth and development plays an important role in its prospering development. The economic development depends upon various factors. It should be facilitated by economic growth rate and development of all economic sectors. However, the economists are convinced that capital formation and proper utilization plays the paramount role in the economic development process. For this, the scattered financial resources should be collected from the masses and invested in the commercial and economic activities.

The economic development is largely enhanced by financial institutions. Financial institutions are of great utility as they work as saver of the money from the public that makes a large pool of the financial resources. Without the assistance and support of the financial institutions the economic activities of the country cannot be carried forward.

Bank is the major financial institution which deals with capitalization of scattered resources and distributes them to the needed sectors. It is built up to provide financial services to consumers and business. It accepts the deposit from the public and mobilizes the fund to productive sectors. Banks provide capital for the

development of the industry, trade and business. Hence, banks play catalytic role in the capital formation and investment. Under the supervision of central bank commercial banks formulate sound investment policy to mobilize spare resources in right places.

Commercial banks are banks that deal with financial transactions like exchanging currency, accepting deposit, giving loan etc. They are the most sophisticated institution providing wide range of financial services. Commercial banks develop a large pool of financial resources receiving deposit. Collecting fund is not only a task of banks. The collected funds should be properly invested in productive sectors. The investment is one of major function followed by the collection of funds.

According to the Section 2(a) of Commercial Bank Act 2031, "Commercial Bank means a Bank which operates currency exchange transactions, accepts deposit, provide loan and performs dealing related to the commerce except the Banks which have been specified for the co-operative, agricultural, industry or similar other specific objectives."

Investment is the sacrifice of property at present monetary value with the expectation of certain return in the future. The saving helps the formation of the capital for investment. The primary goal of the investor is the return that has been promised at a certain period. Investment in real assets like building, automobiles, factory and machinery is real investment and investment in financial assets like stock, bonds and debentures is financial investment.

"Investment in actual sense refers to the sacrifice of current dollars for future dollars." (Sharpe, 1986:9).

"Investment may be defined as the purchase by an individual or institutional investor of financial or real asset that produces a return proportional to the risk over some future investment period." (Amling 1994:147)

Investment involves two attributes time and risk. The sacrifice takes place at present and is certain. The reward comes later and its magnitude is uncertain. The time and risk play dominant role in investment and return.

So, the investment is allocation of required capital to the productive sector that is likely to produce favorable return that is known as profit. From the viewpoint of the investor there should be the compulsory return on the investment. Hence, the investment is the financial decision of making maximum profit from the maximum utilization of minimum capital.

The investment of the fund is guided by the investment policy of the investor. It is the subject of proper management of fund to increase wealth under different uncertainties. Investor seeks to manage his wealth properly to obtain most from it, while protecting it from inflation, taxes and other possible harm. For this, proper management of investment portfolio can be helpful to minimize the deviation from the expected return.

"Investment policy involves determining the investor's objective and amount of his or her inevitable wealth. It is not appropriate for an investor to say that his or her objective is to make a lot of money." (Clarke 1989:10) Hence, the investor should be aware of the chances of great loss. So, he or she should list the objective in terms of both risk and return.

Investment is a risky and uncertain job. On the other hand, there is intense competition growing along with time. Political situation, technological changes, social awareness also affects the investing environment. So, every commercial bank should follow a sound investment and fund mobilizing policy to maximize the quality and quantity of investment and thus fulfill the objective of profit maximization and social welfare. The good investment policy will guide the bank throughout the lifetime. Since, saving is the backbone of the investment; the investment policy should facilitate the deposit and saving. The wrong investment policy may cause loss to the investors and customers, which leads to the loss of credibility of the firm. Therefore, the investment policy of commercial bank can be one of the major interests to the depositors and investors.

## **1.2. History of Banking**

It is difficult to say from where the word "Bank" came from. There are different views about the origin of bank. But, the origin of the bank is mostly linked to: Latin word "bancus", Italian word "banca" and French word "banque" which of all has same meaning bench. Another view is that word bank has been derived from German word "bach" that means joint fund. Hence, the evolution of bank is non-phenomenon.

The banking activities were carried far before than the origin of the modern banking concept. People used to apply these activities through lending, trading etc.

"The Bank of Venice" established in 1157A.D. in Italy is regarded as the first modern bank in the world. Later "The Bank of Barcelona" was established in Spain in 1401A.D. Subsequently, "The Bank of Genon" was established in 1407. "The Bank of England" was established in 1694. After the introduction of Banking-Act 1833, the real growth of banking was accelerated. In India, "The Bank of Hindustan" established in 1770 is the first banking institution.

At beginning the functions of commercial banks were confined to accepting deposits and giving loans. But nowadays it has wide range of public services. The main function of commercial bank is to collect great amount of money from public in the form of savings and provide short term loans for the development of industry, business etc.

In Nepalese history, it can be seen the incident of borrowing and lending money in different occasions, mostly by the rulers. However, the first Nepalese institution with some of banking function was Tejarath Adda established in 1933B.S. during the tenure of Rana prime minister Ranodhip Singh. This Adda provided loan against bullions to people at very low interest rate, but didn't accept deposit.

The real banking history of the Nepal starts from 1937 A.D. with the establishment of Nepal Bank Limited (NBL) with 51 percent of the shares under government control. NBL was the first commercial bank with elementary financial functions. Later in 1956 A.D.(14<sup>th</sup> Baishakh 2013) Nepal Rastra Bank (NRB) was setup under "Nepal Bank Act 2012" with an objective of supervising, protecting

and directing the functions of commercial banks. Since then, it has been working as the central bank of Nepal. Every commercial transaction of the commercial banks is regulated by the NRB. Then in 1966 A.D.(2022-10-10B.S.) Rastriya Banijya Bank (RBB) was established under the total control of the state to spread the banking services in both rural and urban areas of the country. In 1963, a cooperative bank was established which was converted into Agricultural Bank in 1967A.D. Since then, various financial institutions have been established such as commercial banks, insurance companies, finance companies, cooperatives, stock exchange company etc.

### **1.3. Brief Profile of Sample Banks**

#### **1.3.1. Nepal Investment Bank Limited (NIBL)**

Nepal Investment Bank Limited (NIBL) was established under as third joint venture bank in 21<sup>st</sup> January 1986A.D., previously as Nepal Indosuez Bank. It was initially managed by Banque Indosuez, Paris. 50% of shares was held by French partner, Credit Agricole Indosuez. The French group sold all of shares to Nepalese promoters on April 25, 2002. Then, the 15<sup>th</sup> Annual General Meeting, held on May 31, 2002, the name was changed to Nepal Investment Bank Limited.

The structure of ownership of shares is as follows:

- A group of companies holding 50% of capital
- Rastriya Banijya Bank holding 15% of capital
- Rastriya Beema Sansthan holding 15% of capital
- Remaining 20% of capital being held by General Public.

NIBL provides following services in addition to normal services.

- Tele Banking
- Retail Banking
- Corporate Banking
- Trade Finance
- Treasury

- Credit card facilities
- SWIFT
- Deposite Locker
- Mobile Bill payment
- ATM
- International trade and bank guarantee
- E-banking

The bank was awarded as "The Bank of the Year" 2003, 2005 and 2008.

### **1.3.2. Everest Bank Limited (EBL)**

Everest Bank Limited (EBL) was established as joint venture bank in 1994A.D. Punjab National Bank (PNB) holds 20% of shares as a joint venture partner.

The structure of ownership of shares is as follows:

- Nepalese promoters holding 50% of capital
- Punjab National Bank (PNB) holding 20% of capital
- 30% of capital being held by General Public.

EBL provides following services in addition to normal services.

- Tele Banking
- Retail Banking
- Corporate Banking
- Trade Finance
- Treasury
- Credit card facilities
- SWIFT
- Deposite Locker
- Mobile Bill payment
- ATM
- International trade and bank guarantee
- E-banking



The bank was awarded as "The Bank of the Year" 2006.

#### **1.4. Statement of Problem**

Investment means using money, time and other properties to earn interest or profit as return at certain period. The term investment deals with the questions as "who invests", "where to invest" and "the expected return on investment." The general public makes the deposit to the bank for saving. This is utilized by the bank in investment.

Commercial banks in Nepal are having difficulty in secure investment due to the lack of political stability and unsecured climate. There is also burden of heavy regulatory procedure. They also lack sound investment policy regarding the proper utilization of deposits. They almost rely on the NRB's instructions and guidelines.

It is seen that the investment by Nepalese banks is broadly made in government securities like treasury bills, bonds, debentures, corporate shares etc. They are more interested in less risky sectors. Investment in tourism, garments and trading is also increasing as well. The loan on different private securities has also been one of investments by commercial banks.

The major goal of the investment made by commercial banks is the profit maximization and economic enhancement of the country. The effective mobilization of the available funds is one of important activities of the commercial banks. For this each commercial bank sets its own criteria, under which every decision is made. The effective investment policy is the prime factor of commercial decisions.

This study will try to answer the following questions:

- Do the investment policies of the commercial banks assist the deposit from the public?
- Whether the available fund is mobilized effectively?
- Does the investment decision of the banks contribute to the performance of the commercial banks?

### **1.5. Objective of the Study**

The major objective of this study is to evaluate the investment policy of related banks. Some of specific objectives are listed as:

- To examine the investment policy of Nepal Investment Bank and Everest Bank.
- To study the utilization of the available fund of sample banks.
- To evaluate liquidity, profitability and risk position of NIBL and EBL.
- To examine the relation between deposit, loan, investment and return.

### **1.6. Significance of the Study**

The significance of the study of the investment of the commercial banks has been felt for following reasons.

Firstly, the economic development of the country mostly depends upon the effective mobilization of the available funds. Investment is a crucial factor of the economic development. So, the investment policy of the commercial bank should assist the national economy. Therefore, this study will help to improve the situation and make correction to the gaps found.

Secondly, the study will have theoretical significance adding the literature to the existing Nepalese investment management and financial management.

Thirdly, the study will have practical significance. The findings and conclusion of the study can be used by the management of the banks as a guide in the financial and investment policy management. This will also be useful to the teachers and students as a reading material.

### **1.7. Limitation of the Study**

The study has been done as the partial fulfillment of the requirement of the masters' degree and has been finished within the limited time. So, it has several limitations.

- The study only deals with the investment policy of related commercial banks. Hence, the study may or may not be applicable to other commercial banks.
- The study is mainly based on the secondary data collected from bulletins, journals, annual reports available from concern banks and Nepal Rastra Bank articles and publications.
- The study covers the limited time period from fiscal year 2007/08 to 2011/12.
- Only few related statistical tools have been used for the analysis of the data.
- The study is limited to the presentation of the researcher and doesn't guide the whole situation of the commercial banks of Nepal.

## **1.8. Organization of the Study**

The whole study has been divided into five chapters.

- ❖ Introduction
- ❖ Review of Literature
- ❖ Research Methodology
- ❖ Presentation and Analysis of Data
- ❖ Summary and Conclusion

### **Introduction**

First chapter, Introduction, contains introductory matters which include background of the study, history of banking, brief profile of sample banks, statement of problem, objectives of the study, significance of the study, limitation of the study and organization of the study.

### **Review of Literature**

In this chapter review of existing literatures in relevant area are done. Generally, it contains review of theories, articles and previous research works.

### **Research Methodology**

Research methodology includes research design, sources of data, data collection techniques and methods of analysis of data.

### **Presentation and Analysis of Data**

This chapter includes presentation and analysis of collected data from various means. For this different financial and statistical tools are used.

### **Summary, Conclusion and Recommendation**

In this final chapter, the findings of the whole study are summarized. On the basis of summary and conclusion recommendations are suggested to the sample banks.

## **CHAPTER-II**

### **REVIEW OF LITERATURE**

This Chapter focuses on the review of available literature on the concerned subject. It will try to describe the concept of commercial bank and investment policy. Every effort has been made to collect the knowledge and information relevant to investment policy of commercial banks from books, documents, journals etc. This will help to take adequate feedback to broaden the information to related study. This chapter contains conceptual framework and review of various studies made in the past.

#### **2.1. Conceptual Framework**

##### **2.1.1. Concept of Commercial Bank**

"Commercial Bank is a corporation which accepts demand deposits subject to check and makes short-term loans to business enterprises, regardless of the scope of its other services." (American Institute of Banking, 1972; 325)

Commercial Bank Act 1975 A.D. (2031 B.S.) defines, "Commercial bank is the one which exchange money, deposits money, accepts deposits, grant loans and performs commercial banking functions and which is not a bank meant for co-operative, agriculture, industries or for such specific purpose."

"The business of banking is the collection of fund from the community and extension of credit to people for useful purpose. Banks have played a pivotal role in making money from lenders to borrowers. Banking is a profit seeking business, not a community to carry profit seeker, expected to pay dividend and otherwise, add to wealth of shareholders." (Grywinshki: 1993:87)

"Commercial bank is the business organization that receives and holds deposits of fund from others, makes loans or extends credits and transfer fund by written order of deposits." (Grolier Incorporated, 1984)

"Commercial banks bring into being the most important ingredient of the money supply, demand deposits through the creation of credit in the form of loan and investments." (H.D. Crosse, 1963)

"It is true that the commercial bank is a business institution. It has to mobilize its funds in economic inevitable sectors to increase income: otherwise of demanding loan, but the major subject is bank's safety investment, which helps to collect all of its investment with good return. Before distributing loan, bank must investigate its clients, project, experiences, economic position, markets, etc." Singh (1992)

From above definitions and concepts we can say commercial bank is a bank that deals with the financial transactions. This means all the work is related to the money. It accepts deposits, makes loan and advances, purchases and sells bills and notes, exchanges money, makes investments in different productive sectors etc. Commercial bank always deals with accepting deposits and satisfying financial needs of the customers. For this the bank should maintain proper liquidity state. Inadequate liquidity damages the banks current strength to satisfy customers' financial needs.

Following are the general function that the commercial banks carry on:

- a) Acceptance of Deposit
- b) provide Loan
- c) Provide Agency function
- d) Function of General Services
- e) Provide Banking Information

### **2.1.2. Investment**

Generally, investment means to pay out money to get more. But, in broad sense, it is the sacrifice of current rupee money and resources for the sake of future rupee and resources. It is the commitment of money and resources that are expected to generate additional money and resources in the future. Investment involves two

attributes, time and risk. The sacrifice takes place at present and is certain. The reward comes later and its magnitude is uncertain. The time and risk play dominant role in investment and return. Therefore, every investment entails a certain degree of risk.

It is common that investment is possible only when there is adequate saving. Hence, investment and saving are interrelated. Saving helps the formation of the capital for investment. The primary goal of the investor is the return that has been promised at a certain period. Investment in real assets like building, automobiles, factory and machinery is real investment and investment in financial assets like stock, bonds, and debenture is financial investment.

"Investment in actual sense refers to the sacrifice of current dollars for future dollars. Two different attributes are generally involved: time and risk. The sacrifice takes place at present and its magnitude is generally uncertain." (Sharpe, Alexander and Baily; 1986:9).

"Investment may be defined as the purchase by an individual or institutional investor of financial or real asset that produces a return proportional to the risk over some future investment period." (Amling 1994:147)

The World Book of Encyclopedia, "Investment buy individual, business and government securities that involve a present sacrifice of income to get an expected future benefit as a result investment raises a nation standard of living."

J.K. Francies, "An investment is a commitment of money that I expect to generate additional money. Every investment entails some degree of risk. It requires a present certain sacrifice for a future uncertain benefit."

So, the investment is allocation of required capital to the productive sector that is likely to produce favorable return that is known as profit. From the viewpoint of the investor there should be the compulsory return on the investment for sacrificing time and money and due to uncertainty and risk. Hence, the investment is the financial decision of making maximum profit from the maximum utilization of minimum capital.

### **2.1.3. Features of Sound Investment Policy**

Investment is a risky and uncertain job. So, every commercial bank should follow a sound investment and fund mobilizing policy to maximize the quality and quantity of investment and thus fulfill the objective of profit maximization and social welfare. The success of a bank is measured by its income and profit which depends upon its lending procedure, lending policy and investment of its fund in different securities. A sound lending and investment policy created by the bank ensures the higher profitability. A sound lending and investment policy is not only pre-requisite for bank's profitability but also utmost significance for the promotion of commercial saving of an economically backward nation like Nepal.

The good investment policy will guide the bank throughout the lifetime. Since, saving is the backbone of the investment; the investment policy should facilitate the deposit and saving. The wrong investment policy may cause loss to the investors and customers, which leads to the loss of credibility of the firm.

The factors that the bank should consider for sound lending and investment policy are explained as below:

#### **i) Safety and Security**

While selecting the sectors for investing fund the bank should be very conscious. It should not invest in the securities which are too much volatile (depreciation and fluctuation) because a little difference may cause to a great loss. It should not finance its fund in speculative business which may earn million in a minute and may become bankrupt a next minute. The bank should invest in securities which are commercially durable, marketable and have high market price. In this regard "MAST" (Marketability, Ascertain ability, Stability, Tangibility) should be followed while investing.

#### **ii) Liquidity**

Liquidity is the bank's capacity to pay cash against deposit. People deposit money because they believe that the bank will repay their money on demand. So, to retain good credit standing and confidence of customers the bank



should always maintain enough liquidity to meet short-term obligations when they become due to repayment.

**iii) Profitability**

Profitability is the term that motivates the bank to invest its money more and more. Commercial banks increase their volume of wealth by the maximization of return on their investment and lending. They must invest in viable sectors where they can earn maximum profit. Their return depends upon the interest rate, volume of loan, duration of the loan and nature of investment in different securities.

**iv) Purpose of Loan**

The banker should always know why the customer is in need of loan. If the borrower misuses the loan there is a risk of incurring bad debt. If the loan purpose conflicts the commercial policy, such loan should not be proceed. Hence, the banker should demand detail information about the purpose, plan and scheme of the project.

**v) Diversification**

"A bank should not put all eggs in the same basket." This means the bank should invest its entire fund in only one sector. It should diversify its investment to minimize risk. Diversification or investment portfolio helps to earn good return and minimize risk.

**vi) Tangibility**

The commercial bank should prefer tangible goods to intangible goods.

**vii) Legality**

Illegal securities and processes leads to many problems. So, while issuing securities and mobilizing funds, commercial banks should follow rules and regulations and statutory directives of NRB, Ministry of Finance.

## **2.1.4. Meaning of Some Important Terminologies**

### **i) Assets**

Assets are the valuable possessions owned by the bank which are capable of being measured in monetary terms. Assets are future benefits. They include i) stored purchasing power, ii) money claims (receivables) and iii) tangible and intangible assets that can be sold or used business to generate earnings. Tangible assets are physical assets such as lands and buildings, plant and machinery, stock of materials or finished goods that have physical values. Intangible assets include patents, goodwill, trade name and goodwill. These assets do not have physical existence but have value to the firm.

Assets can be current or long-term assets. Current assets are those which are expected to be converted into cash within accounting period of one year. Long term assets include fixed assets, long term investments and other non-current assets that are to be held for long period.

### **ii) Deposits**

Deposits are main sources of fund in commercial banks. Deposits are the total of money collected from customers in different accounts. Though they create a great deal liabilities to the bank, they are the main source of liquidity. Hence, the success of commercial bank depends upon the strength to collect more and more deposits.

### **iii) Loan and Advances**

Loan is the amount of money provided against securities. It is the vital source of income to the commercial banks. But there may be equal risk of being bad debt if the loan procedure is not properly studied. Hence, the bank should be very careful while providing loan. Generally, loan should be lent for short term that could be collected within short period.

Advances are the amount of money which is paid or lent before actual benefit is derived. It could be expense for future period paid in advance, advance for current supplies or advance against acquisition of capital assets.

#### **iv) Securities**

Securities are the main source of long term financing. They may be shares and debenture issued by different companies and different types of assets.

#### **v) Off-Balance Sheet Transaction**

Off-balance sheet transactions are future agreements concerning bills purchase, letter of credit, guarantees and forward contracts. They are treated as contingent liabilities. They are future contracts for purchase or sale of assets. They are not recognized as assets or liabilities in the balance sheet. These activities are good sources of profit though they are risky.

## **2.2. Study of Related Topics**

### **2.2.1. Review of Articles and Journals**

Under this topic review of articles published in different economic journals, bulletins of world bank, dissertation papers, magazines, newspapers and other related books has been done.

**Bhupendra Pandey (2067 B.S.)**, in his article '*Commercial Banks*' has expressed the current situation of commercial banking in Nepal. He writes: "Overall banking in Nepal is becoming more challenging in days to come. The liquidity position of the commercial banks is decreasing and costs of funds are increasing day by day due to unhealthy competitions among commercial banks in the country. At this point of time bankers need to be more cautious to sustain the banks in long run rather to focus to earn more profit at present banking market scenario."

**Radhe Shyam Pradhan (2006)** in his research article '*Role of Saving, Investment and Capital Formation in Economic Development: A case of Nepal*,' has stated that: "Mobilization of saving implies transfer of resources from surplus spending units to deficit units. In this connection, financial intermediaries play an important role in mobilization of voluntary saving." Further he has stressed: "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." His study on role and impact of saving, investment and capital formation on economic

development was accomplished by using various regression models. After such analysis the researcher has concluded that: "Saving, investment and capital formation have positive impact on economic development. The current values and past values of saving, investment and capital formation have positive impact on economic development but the current values have the largest impact."

**Bodhi R. Bajracharya** in his article '*Monetary Policy and Deposit Mobilization in Nepal*' (1991;93) writes, "Mobilization of domestic savings is one of the prime objectives of monetary policy in Nepal and for this purpose, commercial banks stood as active vital financial intermediary for generating resources in the form of deposit of the private sectors and providing credit to the investors in different aspects of economy."

**Mr. Shekhar Bdr. Pradhan**, in his article, '*Deposit mobilization, its problem and prospects*' has presented that: "deposit is the lifeblood of every financial institution, be it commercial bank, finance company, cooperative or non-government organization. Most of the banks and finance companies, the latest figure does produce a strong feeling that a serious review must be made of problems and prospects of deposit sectors." Mr. Pradhan further recommended that: "For the prosperity of deposit mobilization sufficient institutional services in the rural areas should be provided by cultivating the habit of using rural banking unit and adding service hour system to bank. Similarly, NRB could also organize training program to develop skilled manpower, spreading cooperatives in the rural areas to develop mini banking services. "

### **2.2.2. Review of Previous Studies**

Prior to this, several thesis work have been done regarding various aspects of commercial banks like investment policy, financial performance, resource mobilization, capital structure etc. Among them some relevant studies are put into the review as below:

**Rasala Tandukar (2008)** has done her study under "Investment Policy of Commercial Banks with reference to NABIL and NIBL."

Her objectives of study were:

- i) To analyze the financial position of NABIL and NIBL in terms of deposit collection and investment procedures.
- ii) To evaluate the liquidity efficiency, risk position and profitability of the selected banks.
- iii) To find out empirical relationship between total investment, deposit and loan and advances, net profit and outside assets and compare them.
- iv) To analyze the fund utilization and its projection of NABIL and NIBL for next five years.

Her major findings were:

- i) Deposit collection by NABIL bank is higher than that of NIBL. Similarly, investment to total deposit of NABIL is also higher than that of NIBL.
- ii) NABIL bank has given more priority on loan and advances and has maintained lower liquidity position. It has given more emphasis in profit. But, NIBL has given priority on both profit and liquidity.
- iii) There is positive relationship between deposit and loan and advances as well as deposit and investment. It has also found that there is negative relationship between outside assets and net profit of NABIL but there is positive relationship between outside assets and net profit of NIBL.

Her recommendations on study were:

- i) Both the banks are suggested to diversify their investment to maximize profit as they have invested more in government securities.
- ii) Customers' deposits should be utilized as loan and advances. NABIL has given minimum priority on loan and advances to the customers. So, it has to follow more liberal lending procedure to earn both profit and credibility of depositors.
- iii) NIBL is suggested to maintain reasonable liquidity position as its profitability is lower due to high liquidity ratio.

**Mahendra Sherpa (2009)** has conducted thesis work entitled as "A Study on Investment Policy of Commercial Banks of Nepal; A comparison between NABIL Bank Ltd. and Standard Chartered Bank Nepal Ltd."

Major objectives of the study were:

- i) To evaluate liquidity, asset management, profitability, risk position, liquidity and growth ratios of banks under study.
- ii) To assess the relationship between total deposit and investment, loan and advances, interest earned and net profit, net profit to outside assets and total working fund, loan and advances to interest paid and compare them.
- iii) To analyze the trend of deposits, investment, net profit, loan and advances for five years of NABIL and SCBNL.
- iv) To make appropriate recommendation on the basis of major findings.

Major finding of the study were:

- i) Both the banks show positive relationship between deposits and loan and advances, deposits and investment, deposits and net profit.
- ii) The trend value of deposit, loan and advances, investment and net profit of both banks are in increasing trend. However the trend value of deposit, investment and net profit of SCBNL are higher than that of NABIL bank. The trend value of loan and advances of NABIL is higher than that of SCBNL.
- iii) Investment on government securities to total working fund is very low for both the banks.

Recommendations made by the researcher were:

- i) NABIL bank should emphasize to increase deposit rate from customers. It should increase facilities and develop different schemes to attract deposit from customers.
- ii) SCBNL has invested largely in government securities. Though these are less risky but generate low profit. So, SCBNL should find out more productive sectors for investment.
- iii) Both banks should follow more liberal lending policy to increase loan and advances.
- iv) Both banks are suggested to increase branches in rural areas to facilitate small consumers and help in country's economic growth.

**Ajeeta Khand (2010)** has done thesis work on "A Study on Investment Policy of Commercial Banks of Nepal; A comparative study of Bank of Kathmandu and Everest Bank Limited."

The major objectives of the study were:

- i) To evaluate liquidity, asset management, efficiency, profitability and risk portion of EBL and BOK.
- ii) To analyze investment policy and fund mobilization of sample banks.
- iii) To examine relationship between investment, deposits, loan and advances, net profit and assets.

Major findings of the study were:

- i) The overall liquidity of EBL is higher to that of BOK.
- ii) EBL has invested its fund in more profit generating sectors but BOK has emphasized in secured sectors like government securities. Hence, risk portion of EBL is higher to that of BOK.
- iii) Asset management policy of EBL is good than that of BOK as it has Loan and Advances to Total Deposit ratio and Loan and Advances to Total Asset ratio.
- iv) Both the banks have positive correlation between Deposit and Loan and Advances, Deposit and Total Investment, Total Assets and Net Profit, Total Investment and Net Profit.

Major recommendations on the study were:

- i) Both the banks are recommended to maintain good liquid position.
- ii) EBL is suggested to increase its investment ratio in government securities instead of keeping them idle to diversify the investment portfolio.
- iii) BOK is recommended to increase utilize its fund loan and advances to generate more profit.
- iv) Both the banks should promote small depositors and entrepreneurs to collect and mobilize their funds.

**Nikesh Prasad Gautam (2010)** has done research work in his thesis entitled as "A Study on Investment Policy of Commercial Banks in Nepal; with reference to NBBL and EBL."

Major objectives of the study were:

- i) To compare and evaluate profitability and risk position, liquidity, asset management efficiency of NBBL and EBL.
- ii) To analyze deposit utilization and its projection for next five years of NBBL and EBL.
- iii) To evaluate empirical relationship between total investment, deposit and loan and advances.

Major finding of the study were:

- i) Both the banks are able to meet customers' daily cash requirement.
- ii) EBL has invested much of its assets in government securities.
- iii) Total investment to total deposit of both banks is not so good.
- iv) Overall profit earning for both banks is not good.

Recommendations made by the researcher were:

- i) Both banks are recommended to maintain their liquidity position carefully since, high liquidity may hamper profit earning and on the other hand low liquidity position may cause problem in meeting current obligations.
- ii) NBBL should increase its investment in government securities to minimize risk.
- iii) Profit earning of NBBL is very low. So, it should find more profit earning sectors for investment.

**Pratiksha Shrestha (2010)** has conducted thesis work entitled as "Investment Policy of Joint Venture Banks in Nepal; A comparative study of NABIL Bank Ltd. and Everest Bank Ltd."

Major objectives of the study were:



- i) To analyze liquidity, asset management, risk position and profitability of NABIL and EBL.
- ii) To assess fund mobilization and investment policy of NABIL and EBL.
- iii) To find relationship between deposit and total investment, deposit and loan and advances and net profit.
- iv) To analyze the trend of deposit utilization towards total investment and loan and advances for and its projection for next five years.

Major finding of the study were:

- i) Liquidity position of EBL is comparatively better than that of NABIL.
- ii) EBL has invested more in government securities whereas NABIL has invested more of its fund in more profit generating sectors.
- iii) Overall profitability ratio of NABIL is better than that of EBL.
- iv) Study of both banks shows positive relationship between deposits and loan and advances, deposits and investment, deposits and net profit.
- v) The trend value of deposit, loan and advances, investment and net profit of both banks are in increasing trend.

Recommendations made by the researcher were:

- i) Both EBL and NABIL bank are recommended to maintain sound liquidity position.
- ii) Both banks are suggested to increase investment in government securities.
- iii) EBL should increase investment in loan and advances
- iv) Both banks should follow sound investment policy to increase volume of overall investment to increase profitability and meet social responsibilities.

**Chandani Gyawali (2011)** has done thesis work on "Investment Policy of Commercial Banks; with reference to NABIL Bank Ltd. and NIBL."

Objectives of the study were:

- i) To determine performance of commercial banks in terms of deposits, investment and profitability.

- ii) To evaluate liquidity, asset management and risk position of NABIL and NIBL.
- iii) To recommend policies that may help in proper investment.

Major finding of the study were:

- i) Liquidity position of NIBL is better than that of NABIL Bank Ltd. NIBL has higher Cash and Bank Balance to Total Deposit ratio and higher Loan and Advances to Total Deposit ratio than NABIL.
- ii) NABIL Bank has better profitability position than NIBL. It has higher Return on Loan and Advances ratio, Total Interest Earned to Total Assets ratio and higher Return on Equity.
- iii) NABIL has lower growth rate on deposits, loan and advances, investment and net profit than NIBL. NIBL is more successful in collecting and utilizing fund from customers.

Major recommendations upon the study were:

- i) NABIL bank is suggested to develop a policy to increase deposit rate from customers. It is also recommended that the bank should increase loan and advances to maintain liquidity of the bank.
- ii) Both the banks are recommended to increase investment in government securities to minimize the risk level.

**Roshana Shrestha (2011)**, in her thesis work entitled "Investment Policy of Commercial Banks; a comparison between Nepal Investment Bank Ltd. NABIL Bank Ltd. and SBI Bank Ltd." tries to examine and interpret the investment policy adopted by commercial banks in Nepal.

The objectives of the study were:

- i) To examine the investment policy of NABIL, NIBL and NSBI Bank Ltd.
- ii) To examine the utilization of available fund of related banks.
- iii) To evaluate the liquidity, profitability and risk portion of concerned banks.
- iv) To analyze relationship between deposit, loan and advances, investment, net profit and compare them between NABIL, NIBL and NSBI Bank Ltd.

Major findings of the study were:

- i) Liquidity position of NIBL is comparatively higher than that of NABIL and NSBI Bank Ltd.
- ii) NABIL has more investment on government securities to current assets than other two banks.
- iii) NIBL has higher return on total working fund and return on loan and advances.
- iv) There is significant relationship between deposit and total investment of NSBI Bank Ltd.

Her major recommendations were:

- i) NIBL should increase its investment in government securities to minimize the risk portion. NABIL should increase cash and bank balance to maintain short-term liquidity position.
- ii) NSBI should follow the liberal lending policy to increase loan and advances to utilize deposits as its loan and advances to total deposit ratio is lower to its comparative banks.
- iii) Banks should not only emphasize on big clients for fund raising. They should give priority to the small investors and customers to raise deposits.

### **2.3. Research Gap**

Any of the thesis researches are time bound. Previous researches made may be appropriate for that period but they may not hold same validity today. With time, many things change. Within this period, political instability, deteriorating security has adversely affected the whole economy of the country. Some of investment sectors which were considered good in previous period are now considered risky. Some new areas of investment are also introduced to the commercial banks. On the other hand there has been rapid competition between banks. Trend of deposit, loan and advances, current ratios are not the same as in previous study periods. The interest paying on borrowing has been high in these recent periods. So, this study will try to give new dimension on investment opportunity and policy of commercial banks.

## **CHAPTER-III**

### **RESEARCH METHODOLOGY**

Research methodology means the methods, process, tools and techniques used in the research or investigation till the objective is met.

#### **3.1. Research Design**

Research design is the systematic planning, structure and strategy for conducting a particular research work.

The study is based upon the secondary data that has been analyzed using some statistical and financial tools. To achieve the objective the researcher has collected, evaluated, verified and synthesized past financial information and evidence systematically to reach some conclusion. In this study descriptive and analytical research design has been used.

#### **3.2. Sources of Data**

There two sources of data collection; primary sources and secondary sources. Primary data refers to first hand data that hasn't been used by others. Secondary data refers to data that has been already collected and used by others.

However, adequate data needed for this research have been collected from secondary sources. Major sources of secondary data are Balance Sheet, Profit and Loss A/C and Annual Report of concerned bank. Supplementary data and information are collected from regulating authorities like NRB directives, economic survey of Government of Nepal and Ministry of Finance, NEPSE reports, reports on magazines, journals, newspapers, articles, bulletins etc.

#### **3.3. Population and Sample**

Population is the universe about which the study has been aimed to enquire and sample is the representative of the population. There are altogether 32 commercial banks in Nepal. Samples are taken from this population as follows:

1. Nepal Bank Limited
2. Nepal Rastra Bank
3. Agricultural Development Bank Limited
4. NABIL Bank Limited
5. Standard Chartered Bank Limited
6. Nepal Investment Bank Limited
7. Bank of Kathmandu
8. Everest Bank Limited
9. Himalayan Bank Limited
10. Machhapuchhre Bank Limited
11. Nepal Bangladesh Bank Limited
12. Lumbini Bank Limited
13. Nepal Credit and Commerce Bank Limited
14. Kumari Bank Limited
15. Nepal Industrial and Commercial Bank Limited
16. Laxmi Bank Limited
17. Siddhartha Bank Limited
18. Global IME Bank Limited
19. Citizen Bank Limited
20. Sunrise Bank Limited
21. Bank of Asia
22. DCBL Bank Limited
23. NMB Bank Limited
24. KIST Bank Limited
25. Prime Bank Limited
26. Nepal SBI Bank Limited
27. Sanima Bank Limited
28. Janata Bank Limited
29. Mega Bank Limited
30. Commerz and Trust Bank Limited
31. Civil Bank Limited
32. Century Commercial Bank Limited

From above population of commercial banks, Nepal Investment Bank Limited (NIBL) and Everest Bank Limited (EBL) have been taken as sample banks for the study of their investment policy. They are two of best performing banks in Nepal.

### **3.4. Data Collection Techniques**

The study is based on the secondary data. Hence, the secondary data was collected from various sources. For this the researcher consulted related bulletins, journals, directives, reports etc. During data collection information gap was found which was fulfilled through the discussion with thesis advisor and financial experts.

### **3.5. Data Analysis Tools**

The analysis and presentation of the collected data is the core of the project study. The collected data is first presented in the tabular form and then put under the analysis. For the analysis of the data different financial and statistical tools are used. Beside financial and statistical tools some accounting tools, tables and charts are used to present the data in clear manner. After the analysis the results compared to interpret the study.

#### **3.5.1. Financial Tools**

Financial tools are used to analyze the strength and weakness of the firm. There are several financial tools. However, in this study only related ratios are used.

##### **A) Liquidity Ratio**

Liquidity ratio measures the strength of the commercial banks to meet the current obligations. Commercial banks specially deal with collection of the fund from the depositors with commitment of certain return. So, it should ensure adequate amount form withdrawal. It should not suffer from the lack of liquidity and also it should have access liquidity. For the analysis of the proper position of the bank's liquidity following ratios are used.

##### **i) Current Ratio**

Current Ratio shows the relation between current assets and current liabilities.

Current assets are those assets which can be converted into cash within short period, normally not exceeding one year. These assets include cash in hand, cash in bank, account receivables, prepaid expenses, marketable securities, etc.

Current liabilities are those obligations which are to be paid within short period, normally not exceeding one year. Current liabilities include bills payable, interest payables, accrued expenses, short term loans, dividends, etc.

Mathematically, current ratio is shown as,

$$\text{Current Ratio} = \frac{\text{Total Current Assests}}{\text{Total Currrent Liabilities}}$$

This ratio measures the short term solvency of the bank i.e. it shows the strength to meet the short term obligations. It indicates each rupee of current assets available for each rupee of current liability.

**ii) Cash and Bank Balance to Total Deposit Ratio (Cash Reserve Ratio)**

Cash and bank balance are most liquid current assets. This ratio measures the percentage of most liquid fund of the bank to make immediate payment to the depositors.

It is expressed as,

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

Cash and Bank Balance include cash in hand, foreign cash in hand, cheques and other cash items, balance with domestic and abroad banks.

Total deposit includes current deposits, saving deposits, fixed deposits, money at call and short term notice and other deposits.

**iii) Cash and Bank Balance to Current Assets Ratio**

This ratio shows the proportion of most liquid assets among total amount assets of the bank. Higher ratio shows the bank's ability to meets its demand for cash.

It is measured as,

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

**iv) Investment on Government Securities to Current Assets Ratio**

This ratio is measured to calculate the percentage of the current assets invested in government securities, i.e. treasury bills, development bonds etc. Government securities are risk free and easily marketable.

This ratio is shown as,

$$\begin{aligned} \text{Investment on govt. Securities to current Asset Ratio} \\ = (\text{Total investment on govt. securities})/(\text{Current Assets}) \end{aligned}$$

**v) Loan and Advance to Current Assets Ratio**

This ratio shows the percentage of loans and advances in total current assets. Loan and advances include loans, advances, cash credit, local and foreign bill purchased and discounted etc.

Mathematically,

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

**B) Assets Management Ratio (Activity Ratio)**

Activity ratios measure the efficiency with which the firm utilizes and manages its assets. These ratios are also called turnover ratios as they measure the speed at which the assets are converted turnover into sales. It shows how efficiently the bank manages its resources.

Following ratios are used under asset management ratios:

**i) Loan and Advances to Total Deposit Ratio**

This ratio calculates the capability of the bank on utilizing its total deposit on loan and advances for profit generating propose. It is measured mathematically as,

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



**ii) Total Investment to Total Deposit Ratio**

This ratio measures the utilization of total deposit on investment on government securities, debentures and bonds, shares in subsidiary companies, shares in other companies and other investments.

It can be stated as,

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

**iii) Loan and Advances to Working Fund Ratio**

This ratio measures the ability of the bank to utilize the deposits on loans and advances to generate maximum profit. Mathematically, it is computed as

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

Where, total working fund includes all asset items of balance sheet i.e. current assets, net fixed assets and other miscellaneous assets.

**iv) Investment on Government Securities to Total Working Fund Ratio**

This ratio shows the percentage of total working fund invested in government securities. It measures the extent to which the bank has been able to mobilize the working fund in different types of government securities. It shows the diversification of risk by the bank and assures the adequate liquidity.

It is measured as

Investment on Govt. Securities to Total Working Fund Ratio

$$= (\text{Investment on Govt. Securities}) / (\text{Total Working Fund})$$

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

This ratio shows the percentage of total working fund invested in shares and debentures of subsidiary and other companies to generate income. This ratio is measured as,

Investment on Shares and Debentures to Total Working Fund

$$= \frac{\text{Investment in Shares and Debentures}}{\text{Total Working Fund}}$$

### **C) Profitability Ratios**

Profitability ratios measure the overall efficiency of the firm in terms of profit earning and performance. Profit is one of the major objectives of the bank which is very crucial for the survival of the bank. Hence, it is one of the major indicators of efficient performance of the bank. Various objectives like maintaining good liquidity position, meet internal obligations, expansion of banking services, short-term finance, finance government for development etc. depends upon the profit earning of the bank.

Following ratios are calculated under profitability ratios:

#### **i) Return on Loan and Advances Ratio**

This ratio measures the efficiency of the bank to utilize its resources in the form of loan and advances to generate the profit. It shows the earning capacity of the bank. It is calculated as,

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

#### **ii) Return on Total Assets**

Return on total assets shows the overall profitability of the total assets or total working firm. It indicates the proper utilization of the financial resources of the bank. If the fund is well managed the return on total assets will be high and vice-versa. It is calculated as,

$$\text{Return on Total Assets} = \frac{\text{Net Profit/Loss}}{\text{Total Assets}}$$

#### **iii) Total Interest Earned to Total Working Fund Ratio**

This ratio calculates the percentage interest earned on total working fund. It shows the extent to which the bank has been successful in mobilizing its assets in generating income. Higher the ratio shows the efficient utilization of the fund. It is calculated as,

$$\begin{aligned} &\text{Total Interest Earned to Total Working Fund Ratio} \\ &= (\text{Total Interest Earned})/(\text{Total Working Fund}) \end{aligned}$$

#### iv) Total Interest Paid to Total Working Fund Ratio

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

$$\begin{aligned} \text{Total Interest Paid to Total Working Fund Ratio} \\ = (\text{Total Interest Paid})/(\text{Total Working Fund}) \end{aligned}$$

Total interest includes expenses on deposits, loan and advances, borrowings and other deposits whereas total working fund includes current assets, net fixed assets, loans and other miscellaneous assets.

#### D) Risk Ratios

Risk taking is the prime factor of the investment management. it increases the effectiveness and profitability of the bank. Risk ratios indicate the amount of risks associated with various banking operations, which ultimately influences the investment policy of the bank.

Following ratios are calculated to measure risks.

##### i) Liquidity Risk Ratio

Liquidity risk refers to the liquidity need for deposit. Cash and bank balance are the most liquid form of assets and are considered as the liquidity source for the bank. On the other hand deposit refers to the liquidity demand.

It measures the risk associated with the liquid assets i.e. cash and bank balance that are kept to satisfy the cash demand of customers. Higher the ratio shows the bank has sufficient cash to meet the current obligation i.e. lower liquidity risk. But it may have adverse impact in profit maximization. It is calculated as,

$$\text{Liquidity Risk Ratio} = \frac{\text{Total Cash and Bank Balance}}{\text{Total Deposits}}$$

##### ii) Credit Risk Ratio

Loan is risky asset and risk of non-repayment of loan is known as credit risk or default risk. Credit risk measures the possibility of loan going into

default. While sanctioning loan, bank measures credit risk involved in the project. It is calculated as,

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

### 3.5.2. Statistical Tools

Some statistical tools have been used to analyze and present the data for achieving the objective of the study. Statistical tools such as trend analysis of important variables, co-efficient of correlation between different variables as well as test of hypothesis have been used.

#### i) Co-efficient of Correlation Analysis

Karl Pearson's co-efficient of correlation is used to find the relation between following variables.

- a) Co-efficient of correlation between deposit and loan and advances.
- b) Co-efficient of correlation between deposit and investment.

Analysis of relationship between these tools helps the bank to make appropriate policy regarding deposit, loan and advances and investment for profit maximization.

Karl Pearson's co-efficient of correlation is obtained using following formula.

$$r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}} \text{ Where, } x = (X - \bar{x}) \text{ and } y = (Y - \bar{y})$$

Here, r=co-efficient of correlation

$\sum X$ =sum of observations in X series

$\sum Y$ =sum of observations in Y series

Co-efficient of correlation lies between -1 and +1. If r=+1, there lies a significant relationship between two variables and if r=-1, then there lies negative relationship between two variables

#### ii) Trend Analysis

Under this we analyze the trend of deposit, loan and advances, investment and net profit of NIBL and EBL and make forecast for next 5 years. Following trend value analysis has been used in this study.

- Trend analysis of total deposit

- Trend analysis of loan and advances
- Trend analysis of investment
- Trend analysis of net profit

### iii) Standard Deviation (S.D.)

Standard deviation measures the absolute dispersion. Lower the percentage of dispersion, lower is the standard deviation. Lower value of standard deviation projects high degree of uniformity of observations as well as homogeneity of the series, whereas higher value of standard deviation suggests exactly opposite. In this study, deviations of different ratios are calculated.

Mathematically,

$$S.D. = \sqrt{\frac{\sum(x - \bar{x})^2}{n}}$$

### iv) Co-efficient of Variance (C.V.)

C.V. is the proportion of standard deviation with mean multiplied by 100.

Mathematically,

$$C.V. = \frac{S.D. \times 100}{Mean}$$

## **Chapter-IV**

### **DATA PRESENTATION AND ANALYSIS**

In this chapter, collected are presented and analyzed using various financial and statistical tools. Only important ratios are used to analyze data taken from financial statements of concerned banks.

#### **4.1. Financial Analysis**

Major financial items related to investment, fund mobilization, profitability etc. are analyzed and evaluated using various financial ratios. Only some important ratios are used to analyze. Data are based on financial statements of concerned.

##### **4.1.1. Liquidity Ratios**

Liquidity ratios measure the firm's ability to meet current obligation of cash. Firm should maintain appropriate liquidity level. Lack of sufficient liquidity position may result in bad debt and loss of credit. The improved liquidity position is the indicator of better performance. Here, common ratios related to liquidity are measured and presented in tabular form and graph.

- **Current Ratio**

This ratio shows the strength of current assets available in the firm over its current liabilities. It indicates the short-term solvency of the firm. It is measured mathematically as,

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

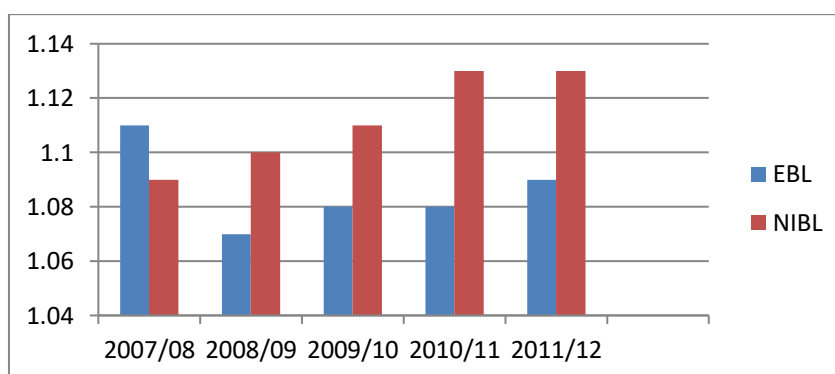
Higher ratio presents the better liquidity position. Generally, current ratio of 2:1 is taken satisfactory. But, in critical position firm should maintain at least current ratio of 1:1.

**Table 4.1**  
**Current Assets to Current Liabilities (Times)**

Fiscal Year	EBL	NIBL
2007/08	1.11	1.09
2008/09	1.07	1.10
2009/10	1.08	1.11
2010/11	1.08	1.13
2011/12	1.09	1.13
Mean	1.1	1.11
S.D.	0.019	0.016
C.V.	0.0177	0.0145

*Source: Appendix 1*

**Fig. 4.1**  
**Current Assets to Current Liabilities (Times)**



Above table shows that both EBL and NIBL have maintained current assets more than their current liabilities. This means both the banks are capable of meeting current obligations. EBL has highest ratio of 1.11 in F/Y 2007/08 and lowest ratio of 1.07 in F/Y 2008/09. Similarly, NIBL has highest current ratio in F/Y 2010/11 and F/Y 2011/12 i.e. 1.13 and lowest current ratio in 2007/08 i.e. 1.09.

Average mean ratio of NIBL is slightly greater than that of EBL, i.e.  $1.11 > 1.1$ . This shows NIBL has maintained better liquidity position than EBL. S.D. and C.V. of NIBL are lower than EBL, which means NIBL has maintained more consistent current ratio than EBL.

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

This ratio measures the proportion of total deposit held as cash and bank balance. Cash and bank balance is the most liquid asset to meet daily requirement of depositors. Higher ratio shows the bank's greater ability to meet current demand of customers. It is measured as,

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

**Table 4.2**

**Cash and Bank Balance to Total Deposit Ratio (%)**

Fiscal Year	EBL	NIBL
2007/08	11.13	10.9
2008/09	18.50	16.96
2009/10	21.17	13.61
2010/11	14.89	16.54
2011/12	20.72	20.70
Mean	17.28	15.74
S.D.	3.794	3.307
C.V.	0.22	0.210

Source: Appendix 2

**Fig. 4.2**

**Cash and Bank Balance to Total Deposit Ratio (%)**



From above table we see cash and bank balance to total deposit ratios of EBL and NIBL are in fluctuating trend. EBL has higher ratio of 21.17% in F/Y 2009/10 and lower ratio of 11.13% in F/Y 2007/08. Similarly, NIBL has



higher ratio of 20.70% in F/Y 2011/12 and lower ratio of 10.9% in F/Y 2007/08. Average mean ratio of EBL is greater than of NIBL (17.28% > 15.74%). This means EBL is more capable to meet current requirements of depositors.

The C.V. of NIBL is lower than that of EBL (0.21<0.22), which shows NIBL has more consistent ratios than EBL.

Above analysis shows EBL has better liquidity position than NIBL and is more able to serve customers demand. But maintaining more cash and bank balance may be undesirable which shows the banks inability to invest its fund in income generating sectors that may help to improve profitability.

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

This ratio shows the portion of cash and bank balance in total of current assets in the bank. It measures the bank's capacity to make immediate payment in cash. Higher ratio shows the greater strength to meet current obligation. But, too much higher ratio is not preferable because the firm should manage cash and bank balance such that the firm will not be liable to pay interest on deposit and may not have liquidity crisis.

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

**Table 4.3**

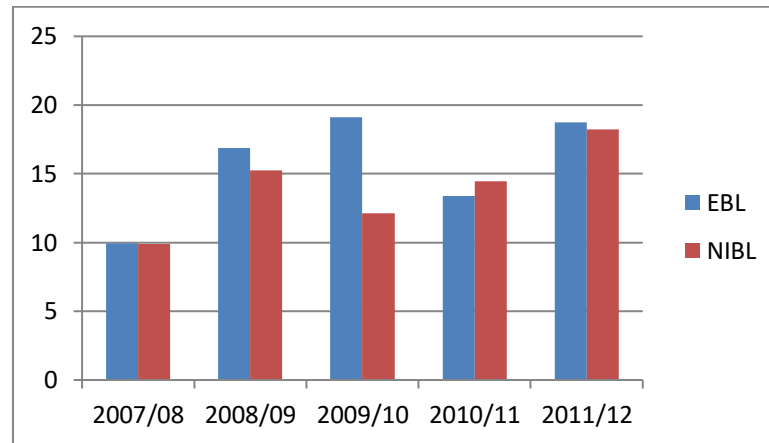
**Cash and Bank Balance to Current Asset Ratio (%)**

Fiscal Year	EBL	NIBL
2007/08	9.96	9.91
2008/09	16.9	15.24
2009/10	19.11	12.13
2010/11	13.38	14.48
2011/12	18.75	18.24
Mean	15.62	14.00
S.D.	3.483	2.827
C.V.	0.223	0.202

*Source: Appendix 3*

**Fig. 4.3**

**Cash and Bank Balance to Current Asset Ratio (%)**



Above table indicates cash and bank balance to current asset ratios are in fluctuating trend. However, NIBL has maintained more consistency than EBL which is illustrated by lower C.V. of NIBL than that of EBL (0.202<0.223).

EBL has maintained high ratio of 19.11% in F/Y 2009/10 and low ratio of 9.96% in F/Y 2007/08. Similarly NIBL has high ratio of 18.24% in F/Y 2011/12 and low ratio of 9.91 in F/Y 2007/08.

EBL is seemed to be more able to meet daily requirement of customers regarding cash than NIBL which is shown by higher mean ratio of EBL than that of NIBL i.e.15.62>14.00.

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

Government securities are most secured and risk free assets. Though they are not so liquid as cash and bank balance, they are easily sold in the market and converted into cash. So, every commercial bank invests certain portion of current assets in government assets. This ratio shows the portion of current assets invested in government securities.

*Investment on Gov. Securities to Current Asset Ratio*

$$= \frac{\text{Invest. on Gov. Securities}}{\text{Current Asset}}$$

**Table 4.4**

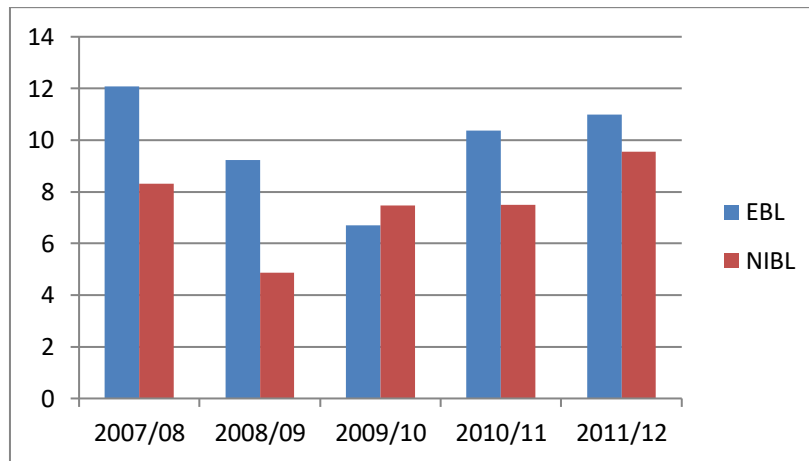
**Investment on Government Securities to Current Asset Ratio (%)**

Fiscal Year	EBL	NIBL
2007/08	12.09	8.32
2008/09	9.24	4.87
2009/10	6.71	7.48
2010/11	10.37	7.50
2011/12	10.98	9.54
Mean	9.88	7.54
S.D.	1.832	1.532
C.V.	0.185	0.203

*Source: Appendix 4*

**Fig. 4.4**

**Investment on Government Securities to Current Asset Ratio (%)**



From above table it is seen that investment on government securities to current asset ratio of both EBL and NIBL is in fluctuating trend. However, ratio of NIBL is in increasing trend from 2008/09 onwards. EBL has maintained more consistency upon investment than NIBL. C.V. of EBL is less than that of NIBL ( $0.185 < 0.203$ ).

Mean ratio of EBL is greater than that of NIBL, i.e.  $9.88\% > 7.54$  which means EBL has invested more of its current assets in government securities than NIBL. This shows EBL has better liquidity position than NIBL. But on

the other hand the fact may be that NIBL has invested more of its current assets in more profitable sectors than EBL.

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

Loan and advances are current assets of the commercial banks. The bank should invest certain amount as loan and advances. However, high amount of loan and advances may be risky.

$$\text{Loan and Advance to Current Asset Ratio} = \frac{\text{Loan and Advance}}{\text{Current Asset}}$$

**Table 4.5**

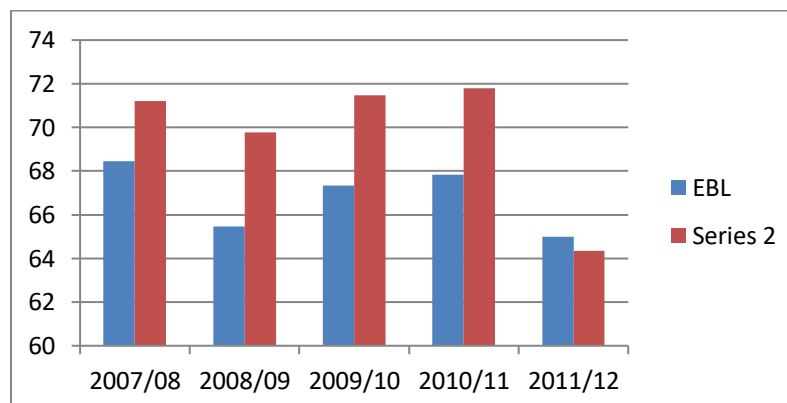
**Loan and Advances to Current Asset Ratio (%)**

Fiscal Year	EBL	NIBL
2007/08	68.46	71.21
2008/09	65.46	69.76
2009/10	67.34	71.46
2010/11	67.85	71.78
2011/12	64.98	64.35
Mean	66.82	69.71
S.D.	1.851	2.769
C.V.	0.020	0.039

*Source: Appendix 5*

**Fig. 4.5**

**Loan and Advances to Current Asset Ratio (%)**



Above table shows fluctuating trend of loan and advances to current asset ratios of EBL and NIBL. However, both banks have tried to maintain consistency in ratios. EBL has maintained better consistency than NIBL as shown by lower C.V. ( $0.020 < 0.039$ ).

Average ratio of NIBL is higher than that of EBL ( $69.71 > 66.82$ ) which indicates NIBL has invested more in loan and advances than EBL. NIBL is able to invest in more profitable sector than EBL. However, too much investment in loan and advances is not good from liquidity point of view.

#### 4.1.2. Asset Management Ratios (Activity Ratios)

Asset management ratios measure the efficiency of the bank to utilize and mobilize its fund and resources to generate profit and for its own existence. These ratios measure how efficiently the bank asset management are calculated to evaluate banks ability in asset management.

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

This ratio measures how successful the bank is in mobilizing its depositors' fund as loan and advances to earn profit. Higher ratio shows more efficiency in utilizing deposits. However, too high ratio may not be better from liquidity point of view. It is calculated as,

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

**Table 4.6**

**Loan and Advances to Total Deposit Ratio (%)**

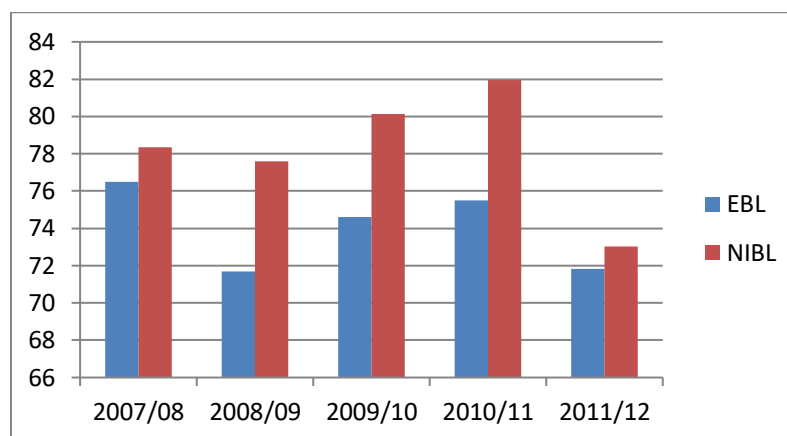
Fiscal Year	EBL	NIBL
2007/08	76.49	78.36
2008/09	71.68	77.61
2009/10	74.61	80.12
2010/11	75.51	81.96
2011/12	71.81	73.03
Mean	74.02	78.22

S.D.	1.95	2.99
C.V.	0.026	0.038

Source: Appendix 6

**Fig. 4.6**

**Loan and Advances to Total Deposit Ratio (%)**



Above table indicates the fluctuating trend of both EBL and NIBL regarding loan and advances to total deposit ratio. Both banks seem to be successful in mobilizing their fund as loan and advances for profit generation. EBL has higher ratio of 76.49% in F/Y 2007/08 and lower ratio of 71.68% in F/Y 2008/09, whereas, NIBL has higher ratio of 81.96 % in F/Y 2010 and lower ratio of 73.03% in F/Y 2011/12.

Mean ratio of EBL is 74.02% and that of NIBL is 78.228%. This shows that NIBL is more successful in utilizing its fund as loan and advances.

C.V. of EBL (0.026) is lower than C.V. of NIBL (0.038), which means EBL has maintained more consistency in the ratio.

Both the banks seem to be mobilizing most of their deposits as loan and advances. This is good from the profitability aspect but may not be preferable from liquidity point of view since loan and advances as not much liquid as cash and bank balances and government securities.

- **Total Investment to Total Deposit Ratio**

This ratio measures the ability of the commercial bank to mobilize its depositors' fund in different securities. The commercial bank should make a

portfolio of investment in different government and non-government securities to utilize its resources. This ratio is calculated as,

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

**Table 4.7**  
**Total Investment to Total Deposit Ratio (%)**

Fiscal Year	EBL	NIBL
2007/08	21.10	19.95
2008/09	17.85	15.85
2009/10	13.56	17.24
2010/11	18.83	14.81
2011/12	15.73	18.31
Mean	17.41	17.23
S.D.	2.587	1.81
C.V.	0.1486	0.105

Source: Appendix 7

**Fig. 4.7**  
**Total Investment to Total Deposit Ratio (%)**



The above table shows that EBL and NIBL have fluctuating trend of total investment to total deposit ratio. Both the banks seem to decrease their portion of total investment year after year. Both have maintained similar

average ratios, slightly higher than that of EBL than NIBL (17.41>17.23). So, EBL seems to mobilize its deposits slightly better than NIBL in the form of investment in different sectors.

C.V. of both banks is also similar. However, NIBL has slightly better consistency in ratios. We may conclude that EBL is successful in mobilizing its deposit as investment but there are other several factors that measure the ability of investment and profitability along with liquidity.

- **Loan and Advance to Working Fund Ratio**

This ratio indicates the extent to which the bank is able to mobilize its asset as loan and advance for the income generation purpose. Higher ratio shows the better utilization of fund as loan and advances and vice-versa. It is calculated as,

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

**Table 4.8**

**Loan and Advance to Working Fund Ratio (%)**

Fiscal Year	EBL	NIBL
2007/08	67.55	69.45
2008/09	64.70	68.37
2009/10	66.59	70.04
2010/11	67.17	70.42
2011/12	64.32	63.32
Mean	66.07	68.32
S.D.	1.312	2.594
C.V.	0.0199	0.038

*Source: Appendix 8*



**Fig. 4.8**

**Loan and Advance to Working Fund Ratio (%)**



Above table shows fluctuating trend of loan and advance to working fund ratio of EBL and NIBL. EBL has higher ratio of 67.55% in F/Y 2007/08 and lower ratio of 64.32% in F/Y 2011/12. Similarly, NIBL has higher ratio of 70.42% in F/Y 2010/11 and lower ratio of 63.32% in F/Y 2011/12. Average mean ratio of EBL is lower than NIBL (66.07<68.32), which means that NIBL is more efficient in mobilizing its assets as loan and advances.

Above table shows EBL has maintained more uniformity in these ratios throughout the study period than NIBL. C.V. of EBL i.e.0.0199 is less than C.V. of NIBL i.e. 0.038. Hence, NIBL should try to maintain more consistency in mobilizing its assets as loan and advances.

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

Commercial banks are interested in investing in government securities from the view point of security and liquidity. The entire fund should not be invested as loan and advances as it may be risky and there may be liquidity crisis. This ratio measures the proportion of total assets invested in the government securities.

*Invest. on Gov. Securities to Total Working Fund*

$$= \frac{\text{Invest. on Gov. Securities}}{\text{Total Working Fund}}$$

**Table 4.9**

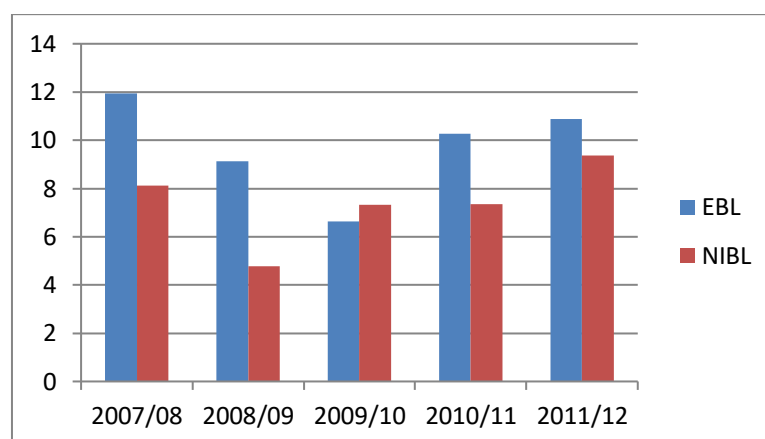
**Investment on Govt. Securities to Total Working Fund Ratio (%)**

Fiscal Year	EBL	NIBL
2007/08	11.93	8.12
2008/09	9.13	4.78
2009/10	6.63	7.33
2010/11	10.26	7.36
2011/12	10.87	9.38
Mean	9.76	7.39
S.D.	1.810	1.504
C.V.	0.185	0.204

*Source: Appendix 9*

**Fig. 4.9**

**Investment on Govt. Securities to Total Working Fund Ratio (%)**



Above table shows both EBL and NIBL have fluctuating trend in investment on government securities to total working fund ratio. However, EBL has tried to maintain uniformity in recent years. Mean ratio of EBL is 9.76% and mean ratio of NIBL is 7.39%. This states that EBL is more efficient in investing its assets in government securities than NIBL. C.V. of EBL is lower than that of NIBL ( $0.185 < 0.204$ ), which means EBL has maintained more uniformity in ratios.

We see EBL has invested more of its assets in government securities than NIBL. But both the banks seem to have no concrete policy about what portion of assets should be invested in government securities.

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

This ratio measures the proportion of total assets invested on purchasing shares and debentures of different companies to generate income and utilize extra fund.

*Invest. on Shares and Debentures to Total Working Fund Ratio*

$$= \frac{\text{Invest. on Shares and Debentures}}{\text{Total Working Fund}}$$

**Table 4.10**

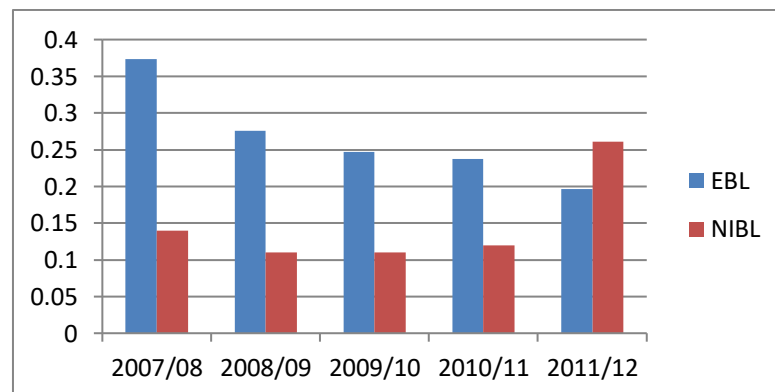
**Investment on Shares and Debentures to Total Working Fund Ratio (%)**

Fiscal Year	EBL	NIBL
2007/08	0.373	0.14
2008/09	0.276	0.11
2009/10	0.247	0.11
2010/11	0.237	0.12
2011/12	0.196	0.261
Mean	0.262	0.149
S.D.	0.059	0.057
C.V.	0.227	0.386

*Source: Appendix 10*

**Fig. 4.10**

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



Above table shows decreasing trend of EBL and fluctuating trend of NIBL of investment on shares and debentures to total working fund ratio. EBL has maintained more uniformity in ratios than NIBL that is stated by low degree of C.V. of EBL ( $0.227 < 0.386$ ).

Mean ratio of EBL (0.262%) is higher than that of NIBL (0.149). So, we can conclude EBL is more capable of investing more of its assets on shares and debentures of different companies.

#### 4.1.3. Profitability Ratios

Profitability ratios measure the overall efficiency of the firm in terms of profit earning and performance. Profit is one of the major objectives of the bank which is very crucial for the survival of the bank. Hence, it is one of the major indicators of efficient performance of the bank. Here, some ratios related to profit earning have been calculated by the researcher to compare the efficiency of related banks under study.

- **Return on Loan and Advance Ratio**

This ratio measures the efficiency of the bank to utilize its resources in the form of loan and advances to generate the profit. It shows the earning capacity of the bank. It is calculated as,

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

**Table 4.11**

**Return on Loan and Advance Ratio (%)**

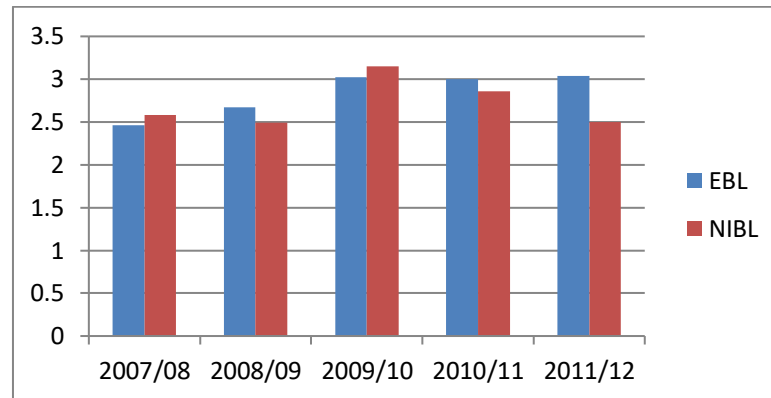
Fiscal Year	EBL	NIBL
2007/08	2.46	2.58
2008/09	2.67	2.49
2009/10	3.02	3.15
2010/11	3.00	2.86
2011/12	3.04	2.50
Mean	2.838	2.716

S.D.	0.233	0.255
C.V.	0.082	0.094

Source: Appendix 11

**Fig. 4.11**

**Return on Loan and Advance Ratio (%)**



Above table shows both EBL and NIBL have maintained somewhat similar trend return on loan and advances. However, EBL has slightly better average ratio than NIBL i.e. 2.838% > 2.716. Also, EBL has maintained more consistency in ratios than NIBL i.e. EBL has lower degree of C.V. than NIBL (0.082 < 0.094).

From above table, we can conclude that EBL is more successful in utilizing its fund as loan and advances and maintaining higher return than NIBL. It is also seen that EBL has more capable of maintaining uniformity in ratios than NIBL.

- **Return on Total Assets**

Return on total assets shows the overall profitability of the total assets or total working firm. It indicates the proper utilization of the financial resources of the bank. If the fund is well managed the return on total assets will be high and vice-versa. It is calculated as,

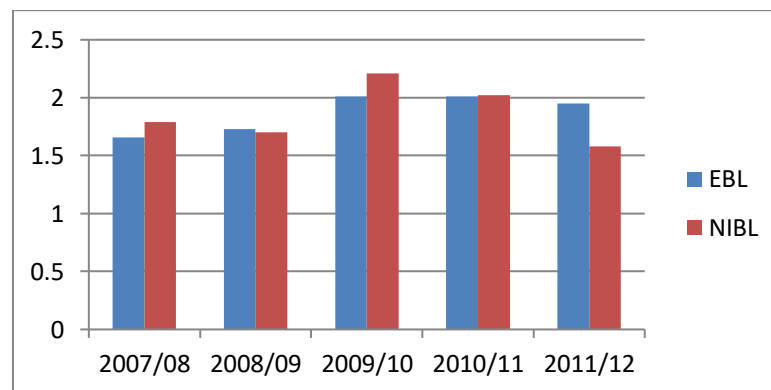
$$\text{Return on Total Assets} = \frac{\text{Net Profit/Loss}}{\text{Total Assets}}$$

**Table 4.12**  
**Return on Total Assets Ratio (%)**

Fiscal Year	EBL	NIBL
2007/08	1.66	1.79
2008/09	1.73	1.70
2009/10	2.01	2.21
2010/11	2.01	2.02
2011/12	1.95	1.58
Mean	1.872	1.86
S.D.	0.148	0.227
C.V.	0.079	0.122

*Source: Appendix 12*

**Fig. 4.12**  
**Return on Total Assets Ratio (%)**



From above table we see EBL has increasing trend and NIBL has fluctuating trend of return on total assets. EBL has average ratio of 1.872% and NIBL has average ratio of 1.86%. Higher mean ratio shows that EBL is more successful in earning more profit on total assets than NIBL. EBL has C.V. 0.079 that is lower than that of NIBL i.e. 0.122, which means EBL is more consistent in gaining profit.

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

This ratio calculates the percentage interest earned on total working fund. It shows the extent to which the bank has been successful in mobilizing its

assets in generating income. Higher the ratio shows the efficient utilization of the fund. It is calculated as,

$$\text{Total Interest Earned to Total Working Fund Ratio} \\ = (\text{Total Interest Earned})/(\text{Total Working Fund})$$

**Table 4.13**

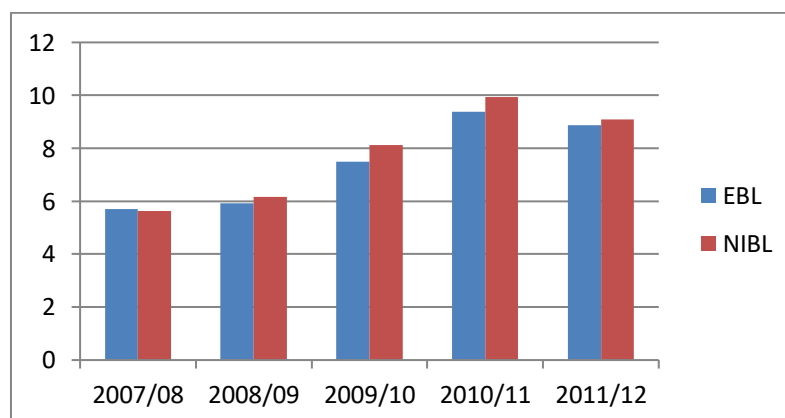
**Total Interest Earned to Total Working Fund Ratio (%)**

Fiscal Year	EBL	NIBL
2007/08	5.70	5.64
2008/09	5.92	6.16
2009/10	7.50	8.12
2010/11	9.37	9.94
2011/12	8.88	9.10
Mean	7.474	7.792
S.D.	1.492	1.657
C.V.	0.199	0.213

*Source: Appendix 13*

**Fig. 4.13**

**Total Interest Earned to Total Working Fund Ratio (%)**



Above table reflects the fluctuating trend of both EBL and NIBL on total interest earned to total working fund ratio. But Earning of NIBL with respect to working fund seems more efficient than that of EBL as shown by the

greater mean ratio i.e. 7.792% > 7.474%. NIBL seems stronger in mobilizing its resources to generate income.

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

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

$$\begin{aligned} \text{Total Interest Paid to Total Working Fund Ratio} \\ = (\text{Total Interest Paid}) / (\text{Total Working Fund}) \end{aligned}$$

**Table 4.14**

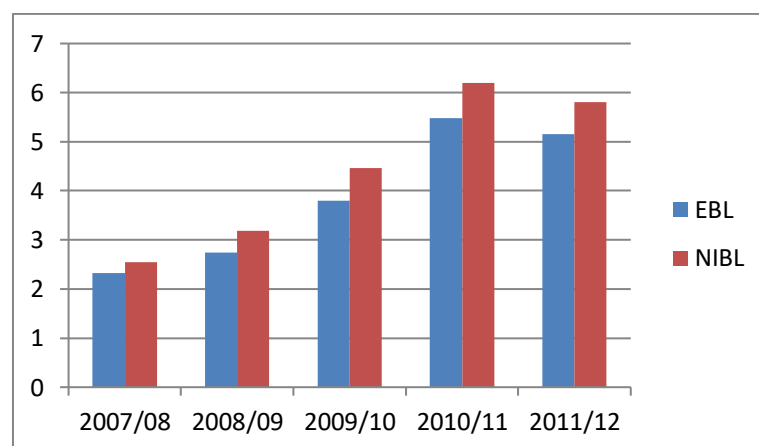
**Total Interest Paid to Total Working Fund Ratio (%)**

Fiscal Year	EBL	NIBL
2007/08	2.33	2.55
2008/09	2.74	3.18
2009/10	3.80	4.46
2010/11	5.48	6.20
2011/12	5.15	5.80
Mean	3.900	4.438
S.D.	1.255	1.422
C.V.	0.322	0.320

Source: Appendix 14

**Fig. 4.14**

**Total Interest Paid to Total Working Fund Ratio (%)**





Above table shows fluctuating trend of both banks EBL and NIBL in total interest paid to total working fund ratio. The table also shows that both the banks are paying high interest on deposits, borrowings etc. EBL has better position with respect to interest paying matter than NIBL as shown by the lower mean ratio (3.900% < 4.438%). NIBL has maintained better uniformity than NIBL in ratio of paying interest.

We can conclude EBL is more efficient in interest matter and has collected fund from cheaper sources. But the increasing trend in paying interest is the matter of concern to both the banks.

#### 4.1.4. Risk Ratios

Risk taking is the prime factor of the investment management. It increases the effectiveness and profitability of the bank. Risk ratios indicate the amount of risks associated with various banking operations, which ultimately influences the investment policy of the bank.

Here some ratios related to risk are calculated and presented in a tabular form and are further analyzed.

- **Liquidity Risk Ratio**

Liquidity risk calculates liquidity needs for deposit. It measures the risk associated with the liquid assets i.e. cash and bank balance that are kept to satisfy the cash demand of customers (depositors). Higher the ratio shows the bank has sufficient cash to meet the current obligation i.e. lower liquidity risk. But it may have adverse impact in profit maximization. It is calculated as,

$$\text{Liquidity Risk Ratio} = \frac{\text{Total Cash and Bank Balance}}{\text{Total Deposits}}$$

**Table 4.15**

**Liquidity Risk Ratio (%)**

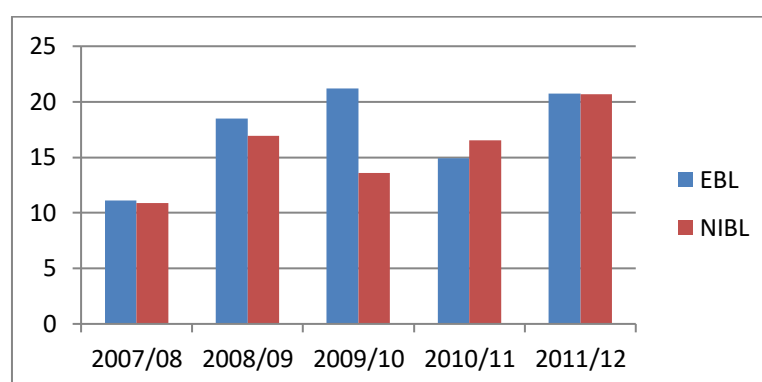
Fiscal Year	EBL	NIBL
2007/08	11.13	10.9
2008/09	18.50	16.96

2009/10	21.17	13.61
2010/11	14.89	16.54
2011/12	20.72	20.70
Mean	17.28	15.74
S.D.	3.794	3.307
C.V.	0.22	0.210

Source: Appendix 15

**Fig. 4.15**

**Liquidity Risk Ratio (%)**



Above table shows the fluctuating trend in total cash and bank balance to total deposit ratio of both EBL and NIBL. EBL has mean ratio of 17.28% and NIBL has mean ratio of 15.74% which means EBL has sound liquid fund to make immediate payment to the depositors on demand. However, too much idle cash may have adverse impact on profit earning.

Comparison of C.V. shows both banks have maintained similar trend of liquidity risk ratio.

- **Credit Risk Ratio**

Loan is risky asset and risk of non-repayment of loan is known as credit risk or default risk. Credit risk measures the possibility of loan going into default. So, low credit risk ratio is preferable. While sanctioning loan, bank measures credit risk involved in the project. It is calculated as,

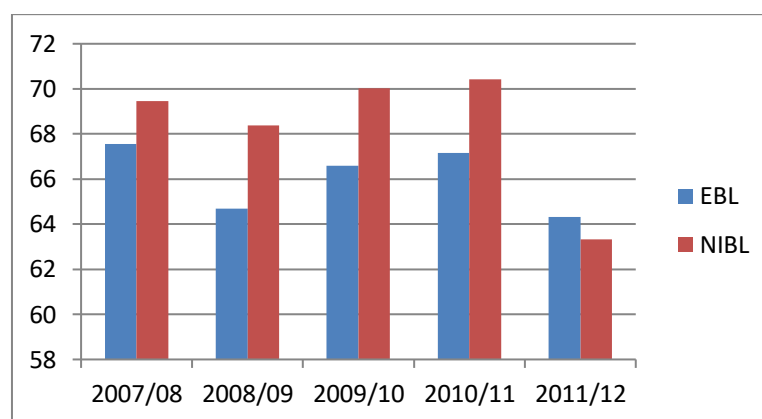
$$\text{Credit Risk Ratio} = \frac{\text{Total Loan and Advances}}{\text{Total Assets}}$$

**Table 4.16**  
**Credit Risk Ratio (%)**

Fiscal Year	EBL	NIBL
2007/08	67.55	69.45
2008/09	64.70	68.37
2009/10	66.59	70.04
2010/11	67.17	70.42
2011/12	64.32	63.32
Mean	66.07	67.32
S.D.	1.312	2.78
C.V.	0.02	0.041

*Source: Appendix 16*

**Fig. 4.16**  
**Credit Risk Ratio (%)**



Above table shows both EBL and NIBL have fluctuating trend in credit risk ratio. EBL has lower credit risk ratio to that of NIBL i.e.  $66.07\% < 67.32\%$ . This means NIBL has more exposure to credit risk than EBL. NIBL has more chance of its loan going into default risk. EBL has also maintained more consistency with C.V. 0.02 than NIBL with C.V. 0.041.

## 4.2. Statistical Analysis

Under this topic some statistical tools such as trend analysis of important variables, co-efficient of correlation between different variables as well as test of hypothesis have been used.

### 4.2.1. Co-efficient of Correlation Analysis

Under this, Karl Pearson's co-efficient of correlation is used to find the relation between following variables.

- c) Co-efficient of correlation between deposit and loan and advances.
- d) Co-efficient of correlation between deposit and investment.

Analysis of relationship between these tools helps the bank to make appropriate policy regarding deposit, loan and advances and investment for profit maximization.

- **Co-efficient of correlation between deposit and loan and advances**

Deposits play important role in the functioning of commercial bank, whereas, loan and advances are important to mobilize collected deposits. Co-efficient of correlation between deposit and loan and advances measure the degree of relationship between these two variables. Here, deposit is taken as independent variable (X) and loan and advances are taken as dependent variable (Y). The main objective of computing 'r' is to find whether the deposits are significantly used as loan and advances or not.

Following table shows the value of 'r', 'r<sup>2</sup>', 'P.Er' and '6P.Er' between deposit and loan and advances of EBL and NIBL during the study period.

**Table 4.17**  
**Correlation between deposit and loan and advances**

Banks	Evaluation Criteria			
	r	R <sup>2</sup>	P.Er	6P.Er
EBL	0.995	0.99	0.00302	0.01812
NIBL	0.960	0.9216	0.0106	0.0636

*Source: Appendix 17*

In the above table coefficient of correlation (r) between deposit and loan and advances of EBL is 0.995. This implies that there is strong positive relation between deposit and loan and advances. Value of co-efficient of determination (R<sup>2</sup>) is 0.99 which means 99% of variation of dependent variable loan and advances is defined by the independent variable deposit. Value of r (0.995) is greater than value of 6P.Er (0.01812). This means 'r' is

significant or there is significant relation between deposit and loan and advances.

Similarly, coefficient of correlation (r) between deposit and loan and advances of NIBL is 0.960. This implies that there is strong positive relation between deposit and loan and advances. Value of co-efficient of determination ( $R^2$ ) is 0.9216 which means 92.16% of variation of dependent variable loan and advances is explained by the independent variable deposit. Value of r (0.960) is greater than value of 6P.Er (0.0636). This also signifies there is significant relation between deposit and loan and advances.

From above statistic we can conclude that both the banks have positive relationship between deposit and loan and advances. Loan and advances have higher dependency upon deposit. Hence, it can be said that, both the banks have great capacity to utilize deposit as loan and advances.

- **Co-efficient of correlation between deposit and investment**

Co-efficient of correlation between deposit and investment is calculated to measure the degree of relationship between these two variables. Deposit is taken as independent variable (X) and investment is taken as dependent variable (Y). The value of 'r' is calculated to find whether the deposits are invested significantly or not.

**Table 4.18**  
**Correlation between deposit and investment**

Banks	Evaluation Criteria			
	r	$R^2$	P.Er	6P.Er
EBL	0.8135	0.6618	0.1020	0.612
NIBL	0.8082	0.6532	0.1046	0.6276

*Source: Appendix 18*

Above table shows that co-efficient of correlation (r) between deposit and investment of EBL is 0.8135 which means that there is positive correlation between deposit and investment. Value of  $R^2=0.6618$  states that 66.18% of variation of dependent variable, investment, is explained by independent

variable, deposit. Value of  $r$  i.e. 0.8135 is more than value of 6P.Er. i.e. 0.612. This states that there exists a positive relationship between deposit and investment.

Co-efficient of correlation ( $r$ ) between deposit and investment of NIBL is 0.8082 which means that there is positive correlation between deposit and investment. Value of  $R^2=0.6532$  states that 65.32% of variation of dependent variable, investment, is affected by independent variable, deposit. Value of  $r$  i.e. 0.8082 is more than value of 6P.Er. i.e. 0.6276. This states that there exists a positive relationship between deposit and investment.

From above statistic we can conclude that both the banks have positive relationship between deposit and investment. But NIBL has more significant correlation between deposit and investment. NIBL is more successful in mobilizing its fund in different investment sectors than EBL

#### **4.2.2. Trend Analysis**

This is known as time series. The objective of trend analysis is to analyze the trend of deposit collection, its utilization and net profit of banks under study. Under this we analyze the trend of deposit, loan and advances, investment and net profit of NIBL and EBL and make forecast for next 5 years on the basis of past performance and available records.

Projections are based on following assumptions:

- i) Banks will run in the present position. i.e. trend will repeat itself.
- ii) Other things will remain constant or unchanged.
- iii) Economy will remain in the present position.
- iv) Rastra Bank will not change its guidelines related to commercial banks.
- v) Forecast will be true only if the limitation of least square method is carried out.

- **Trend analysis of total deposit**

Under this topic, based on the trend values of deposit from 2007/08 to 2011/12, an attempt has been made to forecast the trend of deposit for next five years, i.e. 2012/13 to 2016/17.

**Table 4.19**  
**Trend values of total deposit of EBL and NIBL**

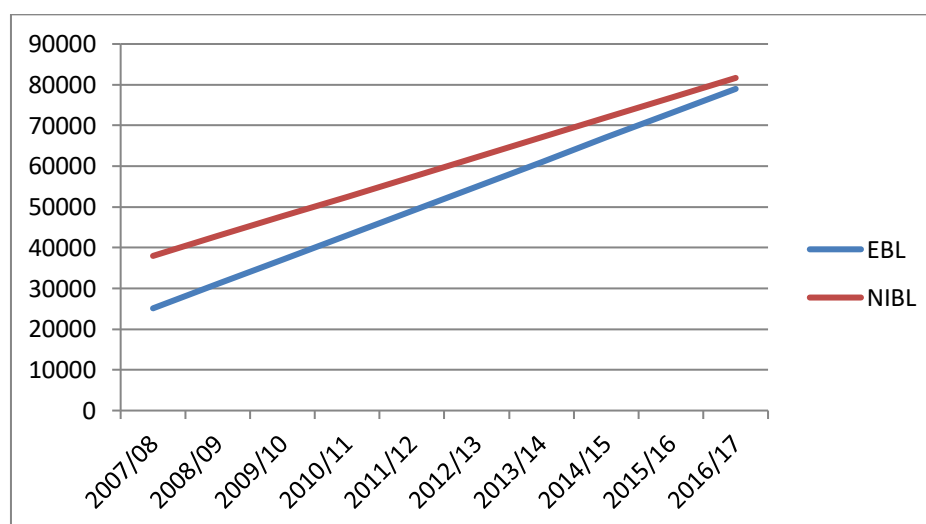
(Rs in millions)

<b>Fiscal Year</b>	<b>Trend Value of EBL</b>	<b>Trend Value of NIBL</b>
2007/08	25100.18	37967.08
2008/09	31086.64	42822.86
2009/10	37073.1	47678.64
2010/11	43059.56	52534.42
2011/12	49046.02	57390.2
2012/13	55032.48	62245.98
2013/14	61018.94	67101.76
2014/15	67005.4	71957.54
2015/16	72991.86	76813.32
2016/17	78978.32	81669.1

*Source: Appendix 19*

**Fig. 4.17**

**Trend values of total deposit of EBL and NIBL (Rs in millions)**



From above table, we see the trend values of deposit of both banks are in increasing trend. If other things remain constant, the deposit of EBL is predicated to be Rs. 78978.32 million and deposit of NIBL is predicated to be Rs. 81669.1 million by the end of fiscal year 2016/17.

From above trend analysis, the deposit collection of NIBL seems better than that of EBL. However, the trend shows that EBL is increasing its collection rapidly.

- **Trend analysis of loan and advances**

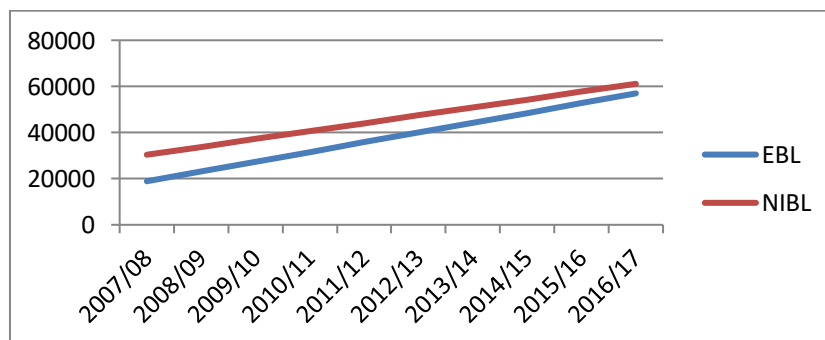
Here, based on the trend values of loan and advances from 2007/08 to 2011/12, an attempt has been made to forecast the trend of loan and advances for next five years, i.e. 2012/13 to 2016/17.

**Table 4.20**  
**Trend values of loan and advances of EBL and NIBL**  
**(Rs in millions)**

Fiscal Year	Trend Value of EBL	Trend Value of NIBL
2007/08	18886.44	30394.76
2008/09	23118.1	33808.25
2009/10	27349.76	37221.74
2010/11	31581.42	40635.23
2011/12	35813.08	44048.72
2012/13	40044.74	47462.21
2013/14	44276.4	50875.7
2014/15	48508.06	54289.19
2015/16	52739.72	57702.68
2016/17	56971.38	61116.17

*Source: Appendix 20*

**Fig. 4.18**  
**Trend values of loan and advances of EBL and NIBL (Rs in millions)**





From above table, we see the trend values of loan and advances of both banks are in increasing trend. If other things remain unchanged, the amount of loan and advances of EBL will be about Rs. 56971.38 million and loan and advances of NIBL will be about Rs. 61116.17 million by the end of fiscal year 2016/17.

Above analysis shows that NIBL has more capacity to grant loan and advances than EBL. So, NIBL is expected to earn more profit.

- **Trend analysis of investment**

Under this topic, trend values of investment from 2007/08 to 2011/12 have been calculated and the forecast has been made to for next five years, i.e. 2012/13 to 2016/17.

**Table 4.21**

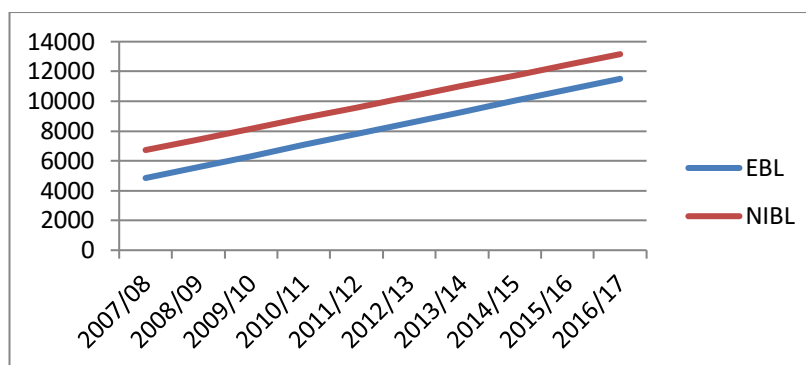
**Trend values of investment of EBL and NIBL (Rs in millions)**

<b>Fiscal Year</b>	<b>Trend Value of EBL</b>	<b>Trend Value of NIBL</b>
2007/08	4844.1	6723.72
2008/09	5584.44	7438.95
2009/10	6324.78	8154.18
2010/11	7065.12	8869.41
2011/12	7805.46	9584.64
2012/13	8545.8	10299.87
2013/14	9286.14	11015.1
2014/15	10026.48	11730.33
2015/16	10766.82	12445.56
2016/17	11507.16	13160.79

*Source: Appendix 21*

**Fig. 4.19**

**Trend values of investment of EBL and NIBL (Rs in millions)**



Above table shows that the trend values of investment of both banks are in increasing trend. If other things remain constant, the investment amount of EBL is predicated to be Rs. 11507.16 million and that of NIBL is predicated to be Rs. 13160.79 million by the end of fiscal year 2016/17.

- **Trend analysis of net profit**

Here, the trend values of net profit from 2007/08 to 2011/12 are calculated and based on those values, the trend values of net profit has been projected for next five years, i.e. 2012/13 to 2016/17.

**Table 4.22**

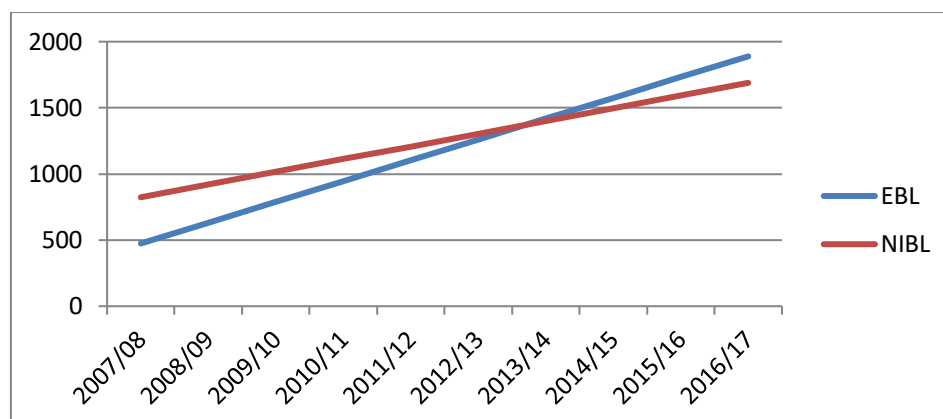
**Trend values of net profit of EBL and NIBL (Rs in millions)**

Fiscal Year	Trend Value of EBL	Trend Value of NIBL
2007/08	474.44	823.58
2008/09	631.58	919.7
2009/10	788.72	1015.82
2010/11	945.86	1111.94
2011/12	1103	1208.06
2012/13	1260.14	1304.18
2013/14	1417.28	1400.3
2014/15	1574.42	1496.42
2015/16	1731.56	1592.54
2016/17	1888.7	1688.66

*Source: Appendix 22*

**Fig. 4.20**

**Trend values of net profit of EBL and NIBL (Rs in millions)**



From above table, we see the trend values of net profit of both banks are in increasing trend. If other things remain unchanged, the amount of profit of EBL is expected to be Rs. 1888.7 million and net profit of NIBL is expected to be about Rs. 1688.66 million by the end of fiscal year 2016/17. EBL's performance from the profit point of view is expected to be good in next five years than that of NIBL.

### **4.3. Major Findings of the Study**

After the complete analysis of the study, the researcher has come to the conclusion that the commercial banks primary target is profit earning. They have limited sectors for investment of fund and most of their resources are invested as loan and advances. Some of the major findings of the study are pointed as follows:

#### **4.3.1. Findings from analysis of liquidity ratios:**

- The analysis of current ratios shows NIBL has slightly better liquidity position than EBL. Both EBL and NIBL have maintained current ratio more 1. This means both the banks are capable of meeting current obligations. Both banks have maintained uniformity in current ratio
- The Average mean ratio of cash and bank balance to total deposit of EBL is greater than of NIBL. This means EBL has better liquidity position than NIBL and is more capable to meet current requirements of depositors. But

maintaining more cash and bank balance may be undesirable which shows the banks inability to mobilize its fund.

NIBL has more consistent ratios than EBL.

- Average cash and bank balance to current asset ratios of EBL is higher than that of NIBL. So, EBL is seemed to be more able to meet daily requirement of customers regarding cash than NIBL.

NIBL has maintained more consistency in its ratios.

- Average ratio of investment on government securities to current asset of both EBL is greater than that of NIBL. This shows EBL has invested more of its current assets in government securities than NIBL has better liquidity position.

EBL has maintained more consistency upon investment than NIBL.

- Average ratio of loan and advances to current asset of NIBL is higher than that of EBL, which indicates NIBL has invested more of its current assets in loan and advances than EBL. But too much investment in loan and advances is not good from liquidity point of view.

EBL has maintained better consistency than NIBL.

From above analysis, we can conclude that EBL has better liquidity position than NIBL. It has higher cash and bank balance to total deposit, cash and bank balance to current assets. EBL is in better position to meet the current requirement of its customers. However, higher current ratio shows that NIBL is also able to meet the current obligations.

#### **4.3.2. Findings from analysis of asset management ratios:**

- From the analysis of loan and advances to total deposit ratio, both banks seem to be successful in mobilizing their fund as loan and advances for profit generation. Mean ratio of loan and advances to total deposit ratio of NIBL is slightly higher than that of EBL. This shows that NIBL is more successful in

utilizing its fund as loan and advances. EBL has maintained more consistency in the ratio.

- Average ratio of investment to total deposit if EBL is slightly higher than that of NIBL. So, EBL seems to mobilize its deposits slightly better than NIBL in the form of investment in different sectors.

NIBL has slightly better consistency in ratios.

- Average mean ratio of loan and advance to working fund of EBL is lower than that of NIBL which means that NIBL is more efficient in mobilizing its assets as loan and advances.

EBL has maintained more uniformity in its ratios throughout the study period than NIBL.

- Mean ratio of investment on government securities to total working fund of EBL is higher than mean ratio of NIBL. This states that EBL is more efficient in investing its assets in government securities than NIBL.

EBL has maintained more uniformity in ratios.

- Mean ratio of investment on shares and debentures to total working fund of EBL is higher than that of NIBL. So, we can conclude EBL is more capable of investing more of its assets on shares and debentures of different companies.

EBL has maintained more uniformity in ratios than NIBL.

From above analysis we can conclude that NIBL is more successful in mobilizing its fund in loan and advances than EBL. EBL seems strong in mobilization of its fund in risk free assets. Also EBL has more efficiently invested in share and debentures than NIBL. Overall investment ratio of EBL is better than that of NIBL. However, both banks are successful in managing their funds in different income generation sectors.

#### **4.3.3. Findings from analysis of Profitability ratios:**

- Average return on loan and advances of EBL is slightly better than that of NIBL. Also, EBL has maintained more consistency in ratios than NIBL.
- Mean ratio of return on total assets of EBL is slightly higher than that of NIBL. Higher mean ratio shows that EBL is more successful in earning more profit on total assets than NIBL. EBL is more consistent in gaining profit.
- Average ratio of total interest earned to total working fund ratio of NIBL is slightly better than that of EBL. NIBL seems stronger in mobilizing its resources to generate income.
- Mean ratio of total interest paid to total working fund of EBL is lower than that of NIBL. This means EBL has better position with respect to interest paying matter than NIBL. The analysis also shows that both the banks are paying high interest on deposits, borrowings etc. NIBL has maintained better uniformity than NIBL in ratio of paying interest.

From above analysis we can conclude that EBL is in better position of earning interest from loan and advances and total assets. NIBL has higher return on working fund than EBL. Both banks seem to be capable of mobilizing their resources in different income generating sectors. On the other hand EBL is paying lower interest rates than NIBL. This shows that EBL is collecting its fund from cheaper sources than NIBL.

#### **4.3.4. Findings from analysis of Risk ratios:**

- Mean liquidity risk ratio of EBL is higher than that of NIBL. This reveals that EBL has less exposure to the liquidity risk. Both the banks have inconsistent ratios.
- Average credit risk ratio of NIBL is higher than that of EBL. This means NIBL has more exposure to credit risk than EBL. NIBL has more chance of its loan going into default risk.

EBL has also maintained more consistency in ratios than NIBL.

Above analysis shows, NIBL has higher liquidity risk and credit risk than EBL.

#### **4.3.5. Findings from co-efficient of correlation analysis:**

- Coefficient of correlation (r) between deposit and loan and advances of both EBL and NIBL is very close to 1. The value of 'r' of NIBL is slightly higher than that of EBL. In case of both banks there is significant relationship between deposit and loan and advances.
- Co-efficient of correlation (r) between deposit and investment of EBL and NIBL shows there is significant relationship between deposit and investment. NIBL has greater value of 'r' than EBL.

From above findings, we can conclude that both banks have significant relationship between deposit and loan and advances. Also both banks have significant relation between deposit and investment. This means fluctuation in amount of deposit effects the amount of loan and advances as well as investment.

#### **4.3.6. Findings from trend analysis:**

- The trend values of deposit of both banks are in increasing trend. If other things remain constant, the deposit of EBL is predicated to be Rs. 78978.32 million and deposit of NIBL is predicated to be Rs. 81669.1 million by the end of fiscal year 2016/17. The deposit collection of NIBL seems better than that of EBL.
- The trend values of loan and advances of both banks are in increasing trend. The amount of loan and advances of EBL is expected to be about Rs. 56971.38 million and that of NIBL to be about Rs. 61116.17 million by the end of fiscal year 2016/17. The capacity to grant loan and advances of NIBL seems than that of EBL.
- Trend values of investment of both banks are in increasing trend. The investment amount of EBL is predicated to be Rs. 11507.16 million and that

of NIBL is predicated to be Rs. 13160.79 million by the end of fiscal year 2016/17. Overall trend of investment of NIBL is higher than that of EBL.

- Both banks have increasing trend of net profit. The amount of profit of EBL is expected to be Rs. 1888.7 million and net profit of NIBL is expected to be about Rs. 1688.66 million by the end of fiscal year 2016/17. EBL's performance from the profit point of view is expected to be good in next five years than that of NIBL.



## **CHAPTER-V**

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

#### **5.1. Summary**

The study has been made comparatively between EBL and NIBL regarding the investment policy of commercial banks. The researcher has identified the problems and set objectives to solve the problems about investment policy of sample banks. To make the study more effective several literatures have been reviewed, which provide the foundation of knowledge in order to take the research more precisely. It also helps to find the research gap and identify new problems regarding the subject.

In the fourth chapter analysis of data has been done using different techniques that have been stated in third chapter. Data are presented in tabular form. For this various financial and statistical tools have been used. In case of financial tools ratio analysis such as liquidity ratios, asset management ratios, profitability ratios and risk ratios have been used. Under statistical tools co-efficient of correlation and trend analysis has been applied. The data have been collected mainly through secondary sources for recent five fiscal years i.e.2007/08 to 2011/12. The major findings of the analysis are listed at the last of presentation and analysis chapter.

The main task of commercial banks is to collect deposits from depositors and mobilize their saving in different productive sectors to ensure attractive return to them. They follow the related rules and search for high yielding investment projects. The financial tasks of financial institutions give rise to the money and financial assets which therefore have central role in the economic development of the country. Banks provide an effective payment and credit system, which facilitates the channeling of fund from surplus unit (depositors) to the deficit unit (investors) in the economy.

Investment is very risky task of the commercial bank. So, the commercial banks should be careful while formulating investment policy. The healthy development of the commercial bank depends on sound investment policy. A good investment

policy attracts both depositors and borrowers, which helps to increase the volume of quality deposits and investments.

Investment for commercial banks in Nepal has been a serious task. Due to unstable political situation and political objections, it has been difficult to find secure sector for investment. However, there are plenty of opportunities for commercial banks. So, the good investment portfolio may help them to minimize the deviation from expected return. Mostly, the commercial banks are found to depend upon loan and advances as the main sources of income. But at some extent they are forwarding their funds towards large projects also. The recent changes in economic environment have exposed some of the commercial banks into the problem in long term lending. On the other hand banks are being important sources for the short term working capital needed for the businesses. They are providing term-loans for the establishment of plant and equipments. Public are increasingly taking the facilities from banks which shows their dependency upon banks for any financial services and information.

Investment is made with the expectation of certain return. Investors seek to minimize the risk and gain maximum return. So, to avoid adverse deviation from expected return diversification of investment is essential. For this a sound investment portfolio guided by the sound investment policy is needed.

## **5.2. Conclusion**

The study shows that both EBL and NIBL have maintained current ratio more than 1. This means both the banks are capable of meeting current obligations. The cash and bank balance to total deposit of EBL is greater than of NIBL. This means EBL has better liquidity position than NIBL and is more capable to meet current requirements of depositors. In contrast, more cash and bank balance may indicate bank's inability to mobilize its fund in profitable sectors. Average cash and bank balance to current asset ratios of EBL is higher than that of NIBL. So, EBL is seemed to be more able to meet daily requirement of customers regarding cash than NIBL. However, higher current ratio shows that NIBL is also able to meet the current obligations.

EBL seems to invest more of its current assets and total working fund in government securities where as NIBL has invested most of its fund in productive sectors like loan and advances. EBL has more investment in shares and debentures than NIBL. The analysis shows that NIBL has invested more in loan and advances which is more income generating source. But maintaining more loan and advances is not good from the liquidity point of view since loan and advances are not liquid as cash and bank balance. On the other hand, EBL has invested in more secured sectors than NIBL.

From the profitability point of view EBL seems more successful. Return on loan and advances and total assets of EBL is slightly better than that of NIBL. This shows EBL is more successful in utilizing its fund to generate more profit. NIBL has been more successful in interest earning power. It has invested its fund in more interest earning assets. EBL has better position with respect to interest paying matter than NIBL. EBL has collected its fund from cheaper sources and pays less interest than NIBL. Both banks have increasing trend in ratio which is sign of improvement for the future.

NIBL has higher liquidity risk and credit risk than EBL. NIBL has more chance of its loan going into default risk.

Both EBL and NIBL have positive and significant relationship between deposit and loan and advances. Also both banks have positive and significant relation between deposit and investment. This means fluctuation in amount of deposit affects the amount of loan and advances as well as investment.

### **5.3. Recommendations**

Based on the study and its findings, following recommendations are made. Since, the study has been made comparative; the suggestions are based on the comparative analysis of data of two banks. Banks can use these recommendations to overcome their weaknesses, improve their capabilities, increase funds and mobilize them effectively.

- Deposit is the main source of collection of fund for the commercial bank. Collection of deposit from the public is very important. Overall collection of deposit of NIBL throughout the study period is better than that of EBL. So, EBL is recommended to attract depositors through varieties of schemes and facilities.
- A commercial must maintain adequate liquidity position to meet short term requirements of the depositors. NIBL has lower liquidity position than EBL. So, NIBL is suggested to increase its liquidity position because the lower liquidity position may cause problem in meeting its customers' current obligations.
- The main task of the commercial banks is the profit earning and the most important source of income is loan and advances. If it is neglected, the bank will lose the opportunity of earning satisfactory income which may lead to liquidity crisis as any period. EBL has lower loan and advances to total deposit ratio and loan and advances to total working fund than NIBL. So, EBL is advised to increase its loan and advance ratio. For this it should follow liberal lending policy to invest more of its assets and working fund in loan and advances.
- Government assets are less risky to that of loan and advances. NIBL seems to invest more of its funds in loan and advances and less in government securities. So, NIBL should increase its investment in government securities to minimize the liquidity risk. On the other hand too much investment in government securities shows EBL's priority in risk minimization than profit maximization. Hence, EBL should forward its fund in other profitable sectors. Hence, both banks are recommended to diversify their investment portfolio.
- EBL has invested more of its fund in shares and debentures than NIBL. Investment in shares and debentures helps commercial banks in long run to survive. The dividend and bonus also help to increase assets. On the other hand, it encourages other large and small companies and projects which may have effective role in countries economic development. Hence, NIBL is

suggested to increase its investment in shares and debentures of different companies. However, both banks should consider the reliable factors of the companies before investing.

- Overall investment of the fund on average of EBL is better than that of NIBL. So, NIBL should try to find out different sectors and invest to mobilize its funds properly.
- Collection of fund needs interest to be paid in return. NIBL is paying more interest than EBL in average. Paying much interest is not good for the bank. So, along with earning the bank should try to pay less interest. So, NIBL is advised to find cheaper sources of collection of funds.
- The overall study shows that both banks have good performance throughout the period. But profitability should not be only major task of the commercial banks. Along with profit maximization, value maximization is also important for the survival. So, commercial banks should also focus in social welfare programs. They should not concentrate in urban areas only. Rural areas should also be taken into account to broaden their services. Social motivational programs should also be launched.

# BIBLIOGRAPHY

## Books

- American Institute of Banking (1972), *Principles of Bank Operations*, USA
- Crosse, H.D. (1963), *Management Policies for Commercial Banks*, 3rd Edition, Englewood Cliffs, New Jersey: Prentice Hall Inc.
- Francis, Jack Clarke (1991), *Investment; Analysis and Management*, Fifth Edition New York: MCGraw-Hill Publishing
- Grolier Incorporate (1984), *Encyclopedia: The World Book*, New York: Grolier Incorporate
- Kothari, C.R. (1990), *Research Methodology Methods, Techniques*, 3<sup>rd</sup> edition, New Delhi: Vikas Publishing House
- Levin, Richard I., Rubin, David S. (1999), *Statistics for Management*, New Delhi: Prentice Hall of India
- Ronald, Grywinski (1993), *The New Function Banking*, Howard: Business Review
- Sharpe, William F., Alexander, Gordon J., Baily, Jefery V. (1995) *Investment Analysis*, Fourth Edition, New Delhi: Prentice hall of India
- Singh, Preeti (1992), *Investment Management*, Bombay: Himalayan Publishing House

## Journals/Articles, Official Publications and Relevant Studies

- Annual Report of Everest Bank Limited from F/Y 2006/07 to F/Y 2010/11
- Annual Report of Nepal Investment Bank Limited from F/Y 2006/07 to F/Y 2010/11
- Bajracharya, B.R. (1991), *Monetary Policy and Deposit Mobilization in Nepal*, Rastriya Banijya Bank Rajat Jayanti Smarika, Kathmandu (P.:93-97)
- Pandey, Bhupendra (2067 B.S.), *Commercial Banks*, Souvenir 46<sup>th</sup> Anniversary, Rastriya Banijya Bank (P.:81-86)

Pradhan, Radhe Shyam (2006), *Role of Saving, Investment and Capital Formation in Economic Development: A Case of Nepal*, Research in Nepalese Finance, 2<sup>nd</sup> Edition, Buddha Publication (P.:194-204)

Pradhan, Shekhar B. (2053), *Deposit Mobilization, Its Problem and Prospects*, Baishakh Masanta

### **Unpublished Thesis**

Gautam, Nikesh Prasad, *Investment Policy of Commercial Banks in Nepal; with reference to NBBL and EBL*, an unpublished master's degree thesis, Shanker Dev Campus, 2010 A.D.

Gyawali, Chandani, *Investment Policy of Commercial Banks (References to NABIL Bank Ltd. and NIBL)*, an unpublished master's degree thesis, Shanker Dev Campus, 2011 A.D.

Katuwal, Suman Kumar, *Investment Policy of Commercial Banks (With reference of Everest Bank Ltd., Himalayan Bk Ltd and NABIL Bank Ltd.)*, an unpublished master's degree thesis, Shanker Dev Campus, 2012 A.D.

Khand, Ajeeta, *A Study on Investment Policy of Commercial Banks of Nepal (A Comparative Study of Bank of Kathmandu Ltd. and Everest Bank Ltd.)*, an unpublished master's degree thesis, Shanker Dev Campus, 2012 A.D.

Sherpa, Mahendra, *A Study on Investment Policy of Joint Venture Commercial Banks of Nepal (A comparison between NABIL Bank Limited and Standard Bank Nepal Limited)*, an unpublished master's degree thesis, Shanker Dev Campus, 2009 A.D.

Shrestha, Bal Bahadur, *Investment Policy and its Practice in Nepal (A case study on NABIL Bank Ltd. and Nepal SBI Bank Ltd.)*, an unpublished master's degree thesis, Shanker Dev Campus, 2012 A.D.

Shrestha, Pratiksha, *Investment Policy of Joint Venture Banks in Nepal; A comparative study of NABIL Bank Ltd. and Everest Bank Ltd.*, an unpublished master's degree thesis, Shanker Dev Campus, 2010 A.D.

Shrestha, Rojina, *Comparative Study on Investment Policy of NABIL Bank Ltd. and Himalayan Bank Ltd.*, an unpublished master's degree thesis, Shanker Dev Campus, 2012 A.D.

Shrestha, Roshana, *Investment Policy of Commercial Banks in Nepal (A comparison between NABIL Bank Ltd., Nepal Investment Bank Ltd. and Nepal SBI Bank Ltd.)*, an unpublished master's degree thesis, Shanker Dev Campus, 2011 A.D.

Tandukar, Rasala, *Investment Policy of Commercial Banks (With reference to NABIL Bank Ltd. and Investment Bank Ltd.)*, an unpublished master's degree thesis, Shanker Dev Campus, 2008 A.D.

### **Websites**

[www.nrb.com.org](http://www.nrb.com.org)

[www.rbb.com.np](http://www.rbb.com.np)

[www.ebl.com.np](http://www.ebl.com.np)

[www.nibl.com.np](http://www.nibl.com.np)

[www.encycolpedia.com](http://www.encycolpedia.com)

[www.wikiepedia.com](http://www.wikiepedia.com)



*Appendix--1*

**1. Current Ratio**

**EVEREST BANK LIMITED**

in million

Year	Current Assets	Current Liabilities	Current Ratio
2007/08	26788.8	24207.6	1.11
2008/09	36489.6	34034.6	1.07
2009/10	40919.7	37757.6	1.08
2010/11	45775.9	42263.4	1.08
2011/12	55265.2	50738.4	1.09
Mean			1.1

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Current Assets	Current Liabilities	Current Ratio
2007/08	37909.2	34648.1	1.09
2008/09	51950.1	47304.2	1.10
2009/10	56169.2	50772.3	1.11
2010/11	57248.4	50748.7	1.13
2011/12	64699.8	57164.1	1.13
Mean			1.11

*Appendix--2*

**2. Cash and Bank Balance to Total Deposit**

**EVEREST BANK LIMITED**

in million

Year	Cash and Bank Balance	Total Deposit	Cash and Bank Balance to Total Deposit Ratio (in %)
2007/08	2667.9	23976.3	11.13
2008/09	6164.4	33322.9	18.50
2009/10	7818.8	36932.3	21.17
2010/11	6122.8	41127.9	14.89
2011/12	10363.3	50006.1	20.72
Mean			17.28

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Cash and Bank Balance	Total Deposit	Cash and Bank Balance to Total Deposit Ratio (in %)
2007/08	3755	34451.7	10.9
2008/09	7918	46698.1	16.96
2009/10	6815.9	50094.7	13.61
2010/11	8290.4	50138.1	16.54
2011/12	11803.8	57010.6	20.70
Mean			15.74

***Appendix--3*****3. Cash and Bank Balance to Current Assets Ratio****EVEREST BANK LIMITED**

in million

Year	Cash and Bank Balance	Current Asset	Cash and Bank Balance to Current Assets Ratio (in %)
2007/08	2667.9	26788.8	9.96
2008/09	6164.4	36489.6	16.9
2009/10	7818.8	40919.7	19.11
2010/11	6122.8	45775.9	13.38
2011/12	10363.3	55265.2	18.75
Mean			15.62

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Cash and Bank Balance	Current Asset	Cash and Bank Balance to Current Assets Ratio (in %)
2007/08	3755	37909.2	9.91
2008/09	7918	51950.1	15.24
2009/10	6815.9	56169.2	12.13
2010/11	8290.4	57248.4	14.48
2011/12	11803.8	64699.8	18.24
Mean			14.00

*Appendix--4*

**4. Investment on Government Securities to Current Assets Ratio**

**EVEREST BANK LIMITED**

in million

Year	Investment on Government Securities	Current Assets	Invest. on Govt. Securities to Current Assets Ratio (in %)
2007/08	3237.9	26788.8	12.09
2008/09	3371.4	36489.6	9.24
2009/10	2745.3	40919.7	6.71
2010/11	4745.5	45775.9	10.37
2011/12	6068.9	55265.2	10.98
Mean			9.88

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Investment on Government Securities	Current Assets	Invest. on Govt. Securities to Current Assets Ratio (in %)
2007/08	3155.0	37909.2	8.32
2008/09	2531.3	51950.1	4.87
2009/10	4201.9	56169.2	7.48
2010/11	4294.6	57248.4	7.50
2011/12	6169.4	64699.8	9.54
Mean			7.54

*Appendix--5*

**5. Loan and Advances to Current Assets Ratio**

**EVEREST BANK LIMITED**

in million

Year	Loan and Advances	Current Assets	Loan and Advances to Current Assets Ratio (in %)
2007/08	18339.1	26788.8	68.46
2008/09	23884.7	36489.6	65.46
2009/10	27556.4	40919.7	67.34
2010/11	31057.7	45775.9	67.85
2011/12	35910.9	55265.2	64.98
Mean			66.82

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Loan and Advances	Current Assets	Loan and Advances to Current Assets Ratio (in %)
2007/08	26996.7	37909.2	71.21
2008/09	36241.2	51950.1	69.76
2009/10	40138.3	56169.2	71.46
2010/11	41095.5	57248.4	71.78
2011/12	41637.0	64699.8	64.35
Mean			69.71

*Appendix--6*

**6. Loan and Advances to Total Deposit Ratio**

**EVEREST BANK LIMITED**

in million

Year	Loan and Advances	Total Deposit	Loan and Advances to Total Deposit Ratio (in %)
2007/08	18339.1	23976.3	76.49
2008/09	23884.7	33322.9	71.68
2009/10	27556.4	36932.3	74.61
2010/11	31057.7	41127.9	75.51
2011/12	35910.9	50006.1	71.81
Mean			74.02

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Loan and Advances	Total Deposit	Loan and Advances to Total Deposit Ratio (in %)
2007/08	26996.7	34451.7	78.36
2008/09	36241.2	46698.1	77.61
2009/10	40138.3	50094.7	80.12
2010/11	41095.5	50138.1	81.96
2011/12	41637.0	57010.6	73.03
Mean			78.22

*Appendix--7*

**7. Total Investment to Total Deposit Ratio**

**EVEREST BANK LIMITED**

in million

Year	Total Investment	Total Deposit	Total Investment to Total Deposit Ratio (in %)
2007/08	5059.6	23976.3	21.10
2008/09	5948.5	33322.9	17.85
2009/10	5008.3	36932.3	13.56
2010/11	7743.9	41127.9	18.83
2011/12	7863.6	50006.1	15.73
Mean			17.41

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Total Investment	Total Deposit	Total Investment to Total Deposit Ratio (in %)
2007/08	6874	34451.7	19.95
2008/09	7399.8	46698.1	15.85
2009/10	8635.5	50094.7	17.24
2010/11	7423.1	50138.1	14.81
2011/12	10438.5	57010.6	18.31
Mean			17.23

*Appendix--8*

**8. Loan and Advances to Total Working Fund Ratio**

**EVEREST BANK LIMITED**

in million

Year	Loan and Advances	Total Working Fund	Loan and Advances to Total Working Fund Ratio (in %)
2007/08	18339.1	27149.3	67.55
2008/09	23884.7	36916.9	64.70
2009/10	27556.4	41382.8	66.59
2010/11	31057.7	46236.2	67.17
2011/12	35910.9	55831.1	64.32
Mean			66.07

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Loan and Advances	Total Working Fund	Loan and Advances to Total Working Fund Ratio (in %)
2007/08	26996.7	38873.3	69.45
2008/09	36241.2	53010.8	68.37
2009/10	40138.3	57305.4	70.04
2010/11	41095.5	58356.8	70.42
2011/12	41637.0	65756.2	63.32
Mean			68.32

*Appendix--9*

**9. Investment on Government Securities to Total Working Fund Ratio**

**EVEREST BANK LIMITED**

in million

Year	Investment on Government Securities	Total Working Fund	Investment on Government Securities to Total Working Fund Ratio (in %)
2007/08	3237.9	27149.3	11.93
2008/09	3371.4	36916.9	9.13
2009/10	2745.3	41382.8	6.63
2010/11	4745.5	46236.2	10.26
2011/12	6068.9	55831.1	10.87
Mean			9.76

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Investment on Government Securities	Total Working Fund	Investment on Government Securities to Total Working Fund Ratio (in %)
2007/08	3155	38873.3	8.12
2008/09	2531.3	53010.8	4.78
2009/10	4201.9	57305.4	7.33
2010/11	4294.6	58356.8	7.36
2011/12	6169.4	65756.2	9.38
Mean			7.39

*Appendix--10*

**10. Investment on Shares and Debentures to Total Working Fund Ratio**

**EVEREST BANK LIMITED**

in million

Year	Investment on Shares and Debentures	Total Working Fund	Invest. on Shares and Debentures to Total Working Fund Ratio (in %)
2007/08	99.6	27149.3	0.367
2008/09	100.4	36916.9	0.272
2009/10	100.4	41382.8	0.243
2010/11	107.9	46236.2	0.233
2011/12	109.2	55831.1	0.196
Mean			0.262

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Investment on Shares and Debentures	Total Working Fund	Invest. on Shares and Debentures to Total Working Fund Ratio (in %)
2007/08	54.5	38873.3	0.140
2008/09	60.9	53010.8	0.115
2009/10	63.3	57305.4	0.110
2010/11	70.9	58356.8	0.121
2011/12	171.9	65756.2	0.261
Mean			0.149



## *Appendix--11*

### **11. Return on Loan and Advance Ratio**

#### **EVEREST BANK LIMITED**

in million

Year	Net Profit	Loan and Advances	Return on Loan and Advances (in %)
2007/08	451.2	18339.1	2.46
2008/09	638.7	23884.7	2.67
2009/10	831.8	27556.4	3.02
2010/11	931.3	31057.7	3.00
2011/12	1090.6	35910.9	3.04
Mean			2.838

#### **NEPAL INVESTMENT BANK LIMITED**

in million

Year	Net Profit	Loan and Advances	Return on Loan and Advances (in %)
2007/08	696.7	26996.7	2.58
2008/09	900.6	36241.2	2.49
2009/10	1265.9	40138.3	3.15
2010/11	1176.6	41095.5	2.86
2011/12	1039.3	41637.0	2.50
Mean			2.716

## *Appendix--12*

### **12. Return on Total Assets**

#### **EVEREST BANK LIMITED**

in million

Year	Net Profit	Total Assets	Return on Total Assets (in %)
2007/08	451.2	27149.3	1.66
2008/09	638.7	36916.9	1.73
2009/10	831.8	41382.8	2.01
2010/11	931.3	46236.2	2.01
2011/12	1090.6	55831.1	1.95
Mean			1.872

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Net Profit	Total Assets	Return on Total Assets (in %)
2007/08	696.7	38873.3	1.79
2008/09	900.6	53010.8	1.70
2009/10	1265.9	57305.4	2.21
2010/11	1176.6	58356.8	2.02
2011/12	1039.3	65756.2	1.58
Mean			1.86

*Appendix--13*

**13. Total Interest Earned to Total Working Fund Ratio**

**EVEREST BANK LIMITED**

in million

Year	Total Interest Earned	Total Working Fund	Total Interest Earned to Total Working Fund (in %)
2007/08	1548.7	27149.3	5.70
2008/09	2186.8	36916.9	5.92
2009/10	3102.5	41382.8	7.50
2010/11	4331.0	46236.2	9.37
2011/12	4956.0	55831.1	8.88
Mean			7.474

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Total Interest Earned	Total Working Fund	Total Interest Earned to Total Working Fund (in %)
2007/08	2194.3	38873.3	5.64
2008/09	3267.9	53010.8	6.16
2009/10	4653.5	57305.4	8.12
2010/11	5803.4	58356.8	9.94
2011/12	5982.6	65756.2	9.10
Mean			7.792

*Appendix--14*

**14. Total Interest Paid to Total Working Fund Ratio**

**EVEREST BANK LIMITED**

in million

Year	Total Interest Paid	Total Working Fund	Total Interest Paid to Total Working Fund (in %)
2007/08	632.6	27149.3	2.33
2008/09	1012.9	36916.9	2.74
2009/10	1572.8	41382.8	3.80
2010/11	2535.9	46236.2	5.48
2011/12	2873.3	55831.1	5.15
Mean			3.900

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Total Interest Paid	Total Working Fund	Total Interest Paid to Total Working Fund (in %)
2007/08	992.2	38873.3	2.55
2008/09	1686.9	53010.8	3.18
2009/10	2553.9	57305.4	4.46
2010/11	3620.3	58356.8	6.20
2011/12	3814.4	65756.2	5.80
Mean			4.438

*Appendix—15*

**15. Liquidity Risk**

**EVEREST BANK LIMITED**

in million

Year	Cash and Bank Balance	Total Deposit	Liquidity Risk Ratio (in %)
2007/08	2667.9	23976.3	11.13
2008/09	6164.4	33322.9	18.50
2009/10	7818.8	36932.3	21.17
2010/11	6122.8	41127.9	14.89
2011/12	10363.3	50006.1	20.72
Mean			17.28

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Cash and Bank Balance	Total Deposit	Liquidity Risk Ratio (in %)
2007/08	3755	34451.7	10.9
2008/09	7918	46698.1	16.96
2009/10	6815.9	50094.7	13.61
2010/11	8290.4	50138.1	16.54
2011/12	11803.8	57010.6	20.70
Mean			15.74

*Appendix—16***16. Credit Risk****EVEREST BANK LIMITED**

in million

Year	Loan and Advances	Total Assets	Credit Risk Ratio (in %)
2007/08	18339.1	27149.3	67.55
2008/09	23884.7	36916.9	64.70
2009/10	27556.4	41382.8	66.59
2010/11	31057.7	46236.2	67.17
2011/12	35910.9	55831.1	64.32
Mean			66.07

**NEPAL INVESTMENT BANK LIMITED**

in million

Year	Loan and Advances	Total Assets	Credit Risk Ratio (in %)
2007/08	26996.7	38873.3	69.45
2008/09	36241.2	53010.8	68.37
2009/10	40138.3	57305.4	70.04
2010/11	41095.5	58356.8	70.42
2011/12	41637.0	65756.2	63.32
Mean			67.32

**Appendix—17**

**Correlation between deposit and loan and advances  
EVEREST BANK LIMITED**

Fiscal Year	Deposit (X)	Loan and Advances (Y)	x = (X - $\bar{x}$ ) (X - 37073.1)	x <sup>2</sup>	y = (Y - $\bar{y}$ ) (Y - 27349.76)	y <sup>2</sup>	xy
2007/08	23976.3	18339.1	-13096.8	171526170.2	-9010.66	81191993.64	118010811.9
2008/09	33322.9	23884.7	-3750.2	14064000.04	-3465.06	12006640.8	12994668.01
2009/10	36932.3	27556.4	-140.8	19824.64	206.64	42700.09	-29094.91
2010/11	41127.9	31057.7	4054.8	16441403.04	3707.94	13748819.04	15034955.11
2011/12	50006.1	35910.9	12933	167262489.0	8561.14	73293118.1	110721223.6
	$\Sigma x = 185365.5$	$\Sigma y = 136748.8$		$\Sigma x^2 = 369313886.9$		$\Sigma y^2 = 180283271.7$	$\Sigma xy = 256732563.7$

Here, N=5

$$\bar{x} = \frac{\Sigma x}{N}, \quad \bar{x} = \frac{185365.5}{5} = 37073.1$$

$$\bar{y} = \frac{\Sigma y}{N}, \quad \bar{y} = \frac{136748.8}{5} = 27349.76$$

$$\Sigma x^2 = 369313886.9$$

$$\Sigma y^2 = 180283271.7$$

$$\Sigma xy = 256732563.7$$

Calculation of Co-efficient of correlation (r) and co-efficient of determination (r<sup>2</sup>):

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

$$\text{or, } r = \frac{256732563.7}{\sqrt{369313886.9 \times 180283271.7}} = 0.995$$

$$\therefore r = 0.995, \quad r^2 = 0.99$$

Calculation of Probable Error (P.Er) and 6P.Er:

$$\begin{aligned} \text{We have, P.Er} &= 0.6745 \frac{1-r^2}{\sqrt{N}} \\ &= 0.6745 \frac{1-0.99}{\sqrt{5}} \end{aligned}$$

$$\therefore \text{P.Er} = 0.00302, \quad 6\text{P.Er} = 0.01812$$

**Correlation between deposit and loan and advances**  
**NEPAL INVESTMENT BANK LIMITED**

Fiscal Year	Deposit (X)	Loan and Advance (Y)	x = (X - $\bar{x}$ ) (X - 47678.64)	x <sup>2</sup>	y = (Y - $\bar{y}$ ) (Y - 37221.74)	y <sup>2</sup>	xy
2007/08	34451.7	26996.7	-13226.94	174951941.8	-10225.02	104551034	135245726
2008/09	46698.1	36241.2	-980.54	961458.69	-980.52	961419.47	961439.08
2009/10	50094.7	40138.3	2416.06	5837345.92	2916.58	8506438.90	7046632.28
2010/11	50138.1	41095.5	2459.46	6048943.49	3873.78	15006171.49	9527406.96
2011/12	57010.6	41637.0	9331.96	87085477.44	4415.28	19494697.48	41203216.35
	$\Sigma x = 238393.2$	$\Sigma y = 186108.7$		$\Sigma x^2 = 274885167.3$		$\Sigma y^2 = 148519761.3$	$\Sigma xy = 193984420.7$

Here, N=5

$$\bar{x} = \frac{\Sigma x}{N}, \quad \bar{x} = \frac{238393.2}{5} = 47678.64$$

$$\bar{y} = \frac{\Sigma y}{N}, \quad \bar{y} = \frac{186108.7}{5} = 37221.74$$

$$\Sigma x^2 = 274885167.3$$

$$\Sigma y^2 = 148519761.3$$

$$\Sigma xy = 193984420.7$$

Calculation of Co-efficient of correlation (r):

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

$$\text{or, } r = \frac{193984420.7}{\sqrt{274885167.3 \times 148519761.3}} = 0.960$$

$$\therefore r = 0.960, \quad r^2 = 0.9216$$

Calculation of Probable Error (P.Er) and 6P.Er:

$$\text{We have, P.Er} = 0.6745 \frac{1-r^2}{\sqrt{N}}$$

$$= 0.6745 \frac{1-0.9216}{\sqrt{5}}$$

$$\therefore \text{P.Er} = 0.0106, \quad 6\text{P.Er} = 0.0636$$

**Appendix—18**

**Correlation between Deposit and Total Investment  
EVEREST BANK LIMITED**

Fiscal Year	Deposit (X)	Total Investment (Y)	x = (X - $\bar{x}$ ) (X - 37073.1)	x <sup>2</sup>	y = (Y - $\bar{y}$ ) (Y - 6324.78)	y <sup>2</sup>	xy
2007/08	23976.3	5059.6	-13096.8	171526170.2	-1265.18	1600680.43	16569809.42
2008/09	33322.9	5948.5	-3750.2	14064000.04	-376.28	141586.64	1411125.26
2009/10	36932.3	5008.3	-140.8	19824.64	-1316.48	1733119.59	185360.38
2010/11	41127.9	7743.9	4054.8	16441403.04	1419.12	2013901.57	5754247.78
2011/12	50006.1	7863.6	12933	167262489	1538.82	2367966.99	19901559.06
	$\Sigma x = 185365.5$	$\Sigma y = 31623.9$		$\Sigma x^2 = 369313886.9$		$\Sigma y^2 = 7857255.22$	$\Sigma xy = 43822101.9$

Here, N=5

$$\bar{x} = \frac{\Sigma x}{N}, \quad \bar{x} = \frac{185365.5}{5} = 37073.1$$

$$\bar{y} = \frac{\Sigma y}{N}, \quad \bar{y} = \frac{31623.9}{5} = 6324.78$$

$$\Sigma x^2 = 369313886.9$$

$$\Sigma y^2 = 7857255.22$$

$$\Sigma xy = 43822101.9$$

Calculation of Co-efficient of correlation (r):

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

$$\text{or, } r = \frac{43822101.9}{\sqrt{369313886.9 \times 7857255.22}} = 0.8135$$

$$\therefore r = 0.8135, \quad r^2 = 0.6618$$

Calculation of Probable Error (P.Er) and 6P.Er:

$$\text{We have, P.Er} = 0.6745 \frac{1-r^2}{\sqrt{N}}$$

$$= 0.6745 \frac{1-0.6618}{\sqrt{5}}$$

$$\therefore \text{P.Er} = 0.1020, \quad 6\text{P.Er} = 0.612$$

**Correlation between Deposit and Total Investment**  
**NEPAL INVESTMENT BANK LIMITED**

Fiscal Year	Deposit (X)	Total Investment (Y)	x = (X - $\bar{x}$ ) (X - 47678.64)	x <sup>2</sup>	y = (Y - $\bar{y}$ ) (Y - 8154.18)	y <sup>2</sup>	xy
2007/08	34451.7	6874	-13226.94	174951941.8	-1280.18	1638860.83	16932864.05
2008/09	46698.1	7399.8	-980.54	961458.69	-754.38	569089.18	739699.77
2009/10	50094.7	8635.5	2416.06	5837345.92	481.32	231668.94	1162897.99
2010/11	50138.1	7423.1	2459.46	6048943.49	-731.08	534477.96	-1798062.02
2011/12	57010.6	10438.5	9331.96	87085477.44	2284.32	5218117.86	21317182.87
	$\Sigma x = 238393.2$	$\Sigma y = 40770.9$		$\Sigma x^2 = 274885167.3$		$\Sigma y^2 = 8192214.77$	$\Sigma xy = 38354582.66$

Here, N=5

$$\bar{x} = \frac{\Sigma x}{N}, \quad \bar{x} = \frac{238393.2}{5} = 47678.64$$

$$\bar{y} = \frac{\Sigma y}{N}, \quad \bar{y} = \frac{40770.9}{5} = 8154.18$$

$$\Sigma x^2 = 274885167.3$$

$$\Sigma y^2 = 8192214.77$$

$$\Sigma xy = 38354582.66$$

Calculation of Co-efficient of correlation (r):

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

$$\text{or, } r = \frac{38354582.66}{\sqrt{274885167.3 \times 8192214.77}} = 0.8082$$

$$\therefore r = 0.8082, \quad r^2 = 0.6532$$

Calculation of Probable Error (P.Er) and 6P.Er:

$$\text{We have, P.Er} = 0.6745 \frac{1-r^2}{\sqrt{N}}$$

$$= 0.6745 \frac{1-0.6532}{\sqrt{5}}$$

$$\therefore \text{P.Er} = 0.1046, \quad 6\text{P.Er} = 0.6276$$

***Appendix—19***

**1. Trend analysis of Total Deposit**  
**EVEREST BANK LIMITED**



Year (x)	Total Deposit (Y)	X=x - 2009/10	X <sup>2</sup>	XY	YC=a + Bx
2007/08	23976.3	-2	4	-47952.6	25100.18
2008/09	33322.9	-1	1	-33322.9	31086.64
2009/10	36932.3	0	0	0	37073.1
2010/11	41127.9	1	1	41127.9	43059.56
2011/12	50006.1	2	4	100012.2	49046.02
N = 5	ΣY = 185365.5	ΣX = 0	ΣX <sup>2</sup> = 10	ΣXY = 59864.6	

Year (x)	X=x - 2008/09	YC=a + bX
2012/13	3	55032.48
2013/14	4	61018.94
2014/15	5	67005.4
2015/16	6	72991.86
2016/17	7	78978.32

Let trend line be,

$$y=a + bx \dots\dots\dots (i)$$

where, x = X – middle year

$$a = \frac{\Sigma Y}{N},$$

$$\text{or, } a = \frac{185365.5}{5} = 37073.1$$

$$b = \frac{\Sigma XY}{\Sigma X^2},$$

$$\text{or, } b = \frac{59864.6}{10} = 5986.46$$

Hence,

$$Y_c = 37073.1 + 5986.46X \text{ of EBL}$$

## 2. Trend analysis of Total Deposit

**NEPAL INVESTMENT BANK LIMITED**

Year (x)	Total Deposit (Y)	X=x - 2009/10	X <sup>2</sup>	XY	YC=a + bX
2007/08	34451.7	-2	4	-68903.4	37967.08
2008/09	46698.1	-1	1	-46698.1	42822.86
2009/10	50094.7	0	0	0	47678.64
2010/11	50138.1	1	1	50138.1	52534.42
2011/12	57010.6	2	4	114021.2	57390.2
N = 5	ΣY = 238393.2	ΣX = 0	ΣX <sup>2</sup> = 10	ΣXY = 48557.8	

Year (x)	X=x - 2008/09	YC=a + bX
2012/13	3	62245.98
2013/14	4	67101.76
2014/15	5	71957.54
2015/16	6	76813.32
2016/17	7	81669.1

Let trend line be,

$$y=a + bx \dots\dots\dots (i)$$

where, x = X – middle year

$$a = \frac{\Sigma Y}{N},$$

$$\text{or, } a = \frac{238393.2}{5} = 47678.64$$

$$b = \frac{\Sigma XY}{\Sigma X^2},$$

$$\text{or, } b = \frac{48557.8}{10} = 4855.78$$

Hence,

$$YC = 47678.64 + 4855.78X \text{ of NIBL}$$

*Appendix—20*

**1. Trend analysis of Loan and Advances  
EVEREST BANK LIMITED**

Year (x)	Loan and Advances (Y)	X=x - 2009/10	X <sup>2</sup>	XY	YC=a + bX
2007/08	18339.1	-2	4	-36678.2	18886.44
2008/09	23884.7	-1	1	-23884.7	23118.1
2009/10	27556.4	0	0	0	27349.76
2010/11	31057.7	1	1	31057.7	31581.42
2011/12	35910.9	2	4	71821.8	35813.08
N = 5	Σy = 136748.8	ΣX =0	ΣX <sup>2</sup> =10	ΣXY =42316.6	

Year (x)	X=x - 2008/09	YC=a + Bx
2012/13	3	40044.74
2013/14	4	44276.4
2014/15	5	48508.06
2015/16	6	52739.72
2016/17	7	56971.38

Let trend line be,

$$y=a + bx \dots\dots\dots (i)$$

where, x = X – middle year

$$a = \frac{\Sigma Y}{N},$$

$$\text{or, } a = \frac{136748.8}{5} = 27349.76$$

$$b = \frac{\Sigma XY}{\Sigma X^2},$$

$$\text{or, } b = \frac{42316.6}{10} = 4231.66$$

Hence,

$$Y_c = 27349.76 + 4231.66X \text{ of EBL}$$

## 2. Trend analysis of Loan and Advances

### NEPAL INVESTMENT BANK LIMITED

Year (x)	Loan and Advances (Y)	X=x - 2009/10	X <sup>2</sup>	XY	YC=a + bX
2007/08	26996.7	-2	4	-53993.4	30394.76
2008/09	36241.2	-1	1	-36241.2	33808.25
2009/10	40138.3	0	0	0	37221.74
2010/11	41095.5	1	1	41095.5	40635.23
2011/12	41637.0	2	4	83274	44048.72
N = 5	Σy = 186108.7	ΣX = 0	ΣX <sup>2</sup> = 10	ΣXY = 34134.9	

Year (x)	X=x - 2008/09	YC=a + bX
2012/13	3	47462.21
2013/14	4	50875.7
2014/15	5	54289.19
2015/16	6	57702.68
2016/17	7	61116.17

Let trend line be,

$$y = a + bx \dots\dots\dots (i)$$

where, x = X – middle year

$$a = \frac{\Sigma Y}{N},$$

$$\text{or, } a = \frac{186108.7}{5} = 37221.74$$

$$b = \frac{\Sigma XY}{\Sigma X^2},$$

$$\text{or, } b = \frac{34134.9}{10} = 3413.49$$

Hence,  
 $YC = 37221.74 + 3413.49X$  of NIBL

*Appendix—21*

**1. Trend analysis of Investment  
EVEREST BANK LIMITED**

Year (x)	Investment (Y)	X=x - 2009/10	X <sup>2</sup>	XY	YC=a + bX
2007/08	5059.6	-2	4	-10119.2	4844.1
2008/09	5948.5	-1	1	-5948.5	5584.44
2009/10	5008.3	0	0	0	6324.78
2010/11	7743.9	1	1	7743.9	7065.12
2011/12	7863.6	2	4	15727.2	7805.46
N = 5	$\Sigma y = 31623.9$	$\Sigma X = 0$	$\Sigma X^2 = 10$	$\Sigma XY = 7403.4$	

Year (x)	X=x - 2008/09	YC=a + bX
2012/13	3	8545.8
2013/14	4	9286.14
2014/15	5	10026.48
2015/16	6	10766.82
2016/17	7	11507.16

Let trend line be,  
 $y = a + bx$  ..... (i)

where,  $x = X - \text{middle year}$

$$a = \frac{\Sigma Y}{N},$$

$$\text{or, } a = \frac{31623.9}{5} = 6324.78$$

$$b = \frac{\Sigma XY}{\Sigma X^2},$$

$$\text{or, } b = \frac{7403.4}{10} = 740.34$$

Hence,

$$Y_c = 6324.78 + 740.34X \text{ of EBL}$$

## **2. Trend analysis of Investment NEPAL INVESTMENT BANK LIMITED**

Year (x)	Investment (Y)	X=x - 2009/10	X <sup>2</sup>	XY	YC=a + bX
2007/08	6874	-2	4	-13748	6723.72
2008/09	7399.8	-1	1	-7399.8	7438.95
2009/10	8635.5	0	0	0	8154.18
2010/11	7423.1	1	1	7423.1	8869.41
2011/12	10438.5	2	4	20877	9584.64
N = 5	Σy = 40770.9	ΣX =0	ΣX <sup>2</sup> =10	ΣXY =7152.3	

Year (x)	X=x - 2008/09	YC=a + bX
2012/13	3	10299.87
2013/14	4	11015.1
2014/15	5	11730.33
2015/16	6	12445.56
2016/17	7	13160.79

Let trend line be,

$$y = a + bx \dots\dots\dots (i)$$

where, x = X – middle year

$$a = \frac{\Sigma Y}{N},$$

$$\text{or, } a = \frac{40770.9}{5} = 8154.18$$

$$b = \frac{\Sigma XY}{\Sigma X^2},$$

$$\text{or, } b = \frac{7152.3}{10} = 715.23$$

Hence,

YC = 8154.18 + 715.23X of NIBL

### *Appendix—22*

#### **1. Trend analysis of Net Profit EVEREST BANK LIMITED**

Year (x)	Net Profit (Y)	X=x - 2009/10	X <sup>2</sup>	XY	YC=a + bX
2007/08	451.2	-2	4	-902.4	474.44
2008/09	638.7	-1	1	-638.7	631.58
2009/10	831.8	0	0	0	788.72
2010/11	931.3	1	1	931.3	945.86
2011/12	1090.6	2	4	2181.2	1103
N = 5	Σy = 3943.6	ΣX = 0	ΣX <sup>2</sup> = 10	ΣXY = 1571.4	

Year (x)	X=x - 2008/09	YC=a + bX
2012/13	3	1260.14
2013/14	4	1417.28
2014/15	5	1574.42
2015/16	6	1731.56
2016/17	7	1888.7

Let trend line be,

$$y = a + bx \dots\dots\dots (i)$$

where, x = X – middle year

$$a = \frac{\Sigma Y}{N},$$

$$\text{or, } a = \frac{3943.6}{5} = 788.72$$

$$b = \frac{\Sigma XY}{\Sigma X^2},$$

$$\text{or, } b = \frac{1571.4}{10} = 157.14$$

Hence,

$Y_c = 788.72 + 157.14X$  of EBL

## **2. Trend analysis of Net Profit NEPAL INVESTMENT BANK LIMITED**

Year (x)	Net Profit (Y)	X=x - 2009/10	X <sup>2</sup>	XY	YC=a + bX
2007/08	696.7	-2	4	-1393.4	823.58
2008/09	900.6	-1	1	-900.6	919.7
2009/10	1265.9	0	0	0	1015.82
2010/11	1176.6	1	1	1176.6	1111.94
2011/12	1039.3	2	4	2078.6	1208.06
N = 5	$\Sigma y = 5079.1$	$\Sigma X = 0$	$\Sigma X^2 =$ 10	$\Sigma XY =$ 961.2	

Year (x)	X=x - 2008/09	YC=a + bX
2012/13	3	1304.18
2013/14	4	1400.3
2014/15	5	1496.42
2015/16	6	1592.54
2016/17	7	1688.66

Let trend line be,

$$y = a + bx \dots\dots\dots (i)$$

where,  $x = X - \text{middle year}$



$$a = \frac{\Sigma Y}{N},$$

$$\text{or, } a = \frac{5079.1}{5} = 1015.82$$

$$b = \frac{\Sigma XY}{\Sigma X^2},$$

$$\text{or, } b = \frac{961.2}{10} = 96.12$$

Hence,

$$YC = 1015.82 + 96.12X \text{ of NIBL}$$