CHAPTER I

INTRODUCTION

1.1 Background of the Study

The word “banking” has been derived from French word “Benque” and Italian word “Banca” which means accumulation of money. In Italian business house, banking was called benchi and the word was received from the German word banch which means bank in English. Thus the first meaning of bank is derived from Italian and then from German.

A bank is an establishment of the custody of money, which it pays out on customers’ orders. In other words, bank is an organization that collects the various types of deposit from people. Bank is a mediator between people because it takes deposits in one side and provides the loan to them in other side.

Nowadays, the term bank is generally understood as an institution that holds a banking license. Banking license are granted by bank regulatory authorities and provide rights to conduct the most fundamental banking services such as accepting deposits and providing loans. There are also financial institutions that provide certain banking services without meeting the legal definition of a bank, called non-banking financial company. Banks have a long history, and have influenced economics and politics for centuries. The word bank is derived form the Italian banca, which is derived from German language and means bench. The terms bankrupt and “broke” are similarly derived from banca rotta, which refers to an out of business bank, having its bench physically broken. Money lenders in Northern Italy originally did business in open areas, or big open rooms, with each lender working form his bench or table.

Financial development is one of the key indicators of economic growth for any country and financial institution grant regular energy for investments, which is needed for economic development. Capital formation is one of the important factors for economic development. The capital formation leads to increase in the size of national output, income and employment, solving the problem of inflation, balance of payment and making the economy free from the burden of foreign debts. Domestic capital formation helps in making a country self-sustainable. According to classical economists, one of the main factors which helped capital formation was the accumulation of capital, profit made by the business community constituted the major part of savings of the community and that saved was assumed to be invested. They thought capital formation indeed plays a decisive role in determining the level and growth of national income and economic development. It seems unquestionable that the insufficient capital accumulation is the most serious limiting factor in underdeveloped countries. In the views of many economists, capital occupies the central and strategies position in the process of economics development in an underdeveloped economy lies in a rapid expansion of the rate of its capital investment so that it attains a rate of growth of output which exceeds the rate of growth of population by the significant margin. Only with such a rate of capital investment, the living standard in a developing country begins to improve. In developing countries, the rate of saving is quite low and existing institutions are half successful in mobilizing such saving as most people have incomes so low that vertically all current income must be spent in maintaining a subsistence level of consumptions. (Higgins; 1968:804)

Deposit mobilization is one of the essential tools for the economic development of an underdeveloped and developing countries rather than the developed countries. It is because the developed countries deposit collection for capital formation due to developed capital market in every sector. Low national income, low per capital income, lack of technical knowledge, vicious cycle of poverty, lack of irrigation and fertilizer, pressure of population increase, geographical conditions etc. are the main problems of developing

countries like Nepal. Banking thus increases the supply of funds by collecting lodgments from public an then combining them with its capital and reserve fund. Their lodgments are accepted as current, saving and fixed accounts. Overall, however they fall into demand and time deposits. The former payable as and when demand is made and later after the expiry of stated period. (Nigam; 1987:25)

Enough capital is required for the development of any country. It is the backbone for the development of the nation. Nepal lacks the adequate capital for its development planning. Due to this reason many development planning are pending. If there is enough capital available, it can be invested into profitable projects and contribute to the National GDP. Investment promotes economic growth and contributes to a nation's wealth. When people deposit money in a saving account in a bank for example, the bank must invest by lending the funds for various business companies. These firms in return, may invest the money in new factories and equipments to increase their production. In addition to this borrowing from the banks, it must issue stocks and bonds that they sell to investors to raise capital needed for business expansion. Government also issue bonds to obtain funds to invest in capital incentive project, as the construction of dams, roads and schools. All such investments by individuals, business and government involve a presto sacrifice of income to get and expected future benefits. As a result, investment raises a nation's standard of living. (The World Bank; 1966:232)

Banks today have gained paramount trust of the public. They hold the deposit of millions of persons, government and business units. They make funds available through their lending and investing activities to borrowers, individuals, business firms and government. Thus, their task is to provide a collecting point for saving of relatively small average amount from a large number of individual sources and invest them into a productive and needed sector of the country, so as to develop the nation. The importance of commercial banks may be measured in a number of ways. Banks are still the principal means of making payments, through the checking accounts, credit cards and electronic transfer

services they offer. In the same way commercial banks are important because of their ability to create money from excess reserves made available from the public's deposits.

There are currently 23 commercial banks, 70 development banks, 79 finance companies, 47 micro finance non-governmental organizations, 19 saving and credit co-operatives, and 11 insurance companies, employees provident and one citizen investment trust in Nepal. The stock market is in infancy stage in terms of number of the companies listed and the ratios of market capitalization and turnover to GDP.

1.2 Development of Banking System in Nepal

History of Finance industry in Nepal is not that matured. Comparison can not be made between ancient and modern banks, yet it is necessary to know how the banking system gradually developed to the present state. In comparison to other developing or developed countries, the institutional development of banking system in Nepal is lagging far behind. Nepal had to wait for a long time to come to this present banking system.

As the specific date of the beginning of money and banking deal in Nepal is not obvious, it is speculated that during the region of the King Mandev, the coin 'Manank' was in use. Historical example as to the pre-modern banking system was found in 723 A.D. when Gun Kam Dev, the king of Kathmandu had brought money to rebuild and rule Kathmandu (NRB- Nepal Bank Patrika; 2037:37). During the reign of Gun Kam Dev, the coin 'Gunank' was in use. Historically, we find the evidence of minted coin of Amshuverma in 7^{th} Century. At the end of 8^{th} century, Shankhadhar, a merchant of Nepal, paid all the outstanding loans of the Nepali people and started a new era (Nepal Sambat). Sadashiva Dev in 12^{th} century introduced silver coins. Jayasthiti Malla, ruler of Kathmandu classified people into 64 different casts on the basis of their occupation towards the end of the 14^{th} century. At that time, king Malla had given the responsibility to a caste of society called 'Tankadhari' whose occupation is to collect and lend money.

So, they can be called as traditional bankers. In the same century, copper coins were used by King Ratna Malla of Kathmandu, silver coins by Mahendra Malla and the gold coins by the last Malla King of Kathmandu Jaya Prakash Malla.

Coin Mohar had been used by the great king Prithivi Narayan shah in his name, after the unification of Nepal. During the reign of Ranodip Singh, an office named 'Tejarath' was established in Kathmandu in 1933 B.S. It is used to provide loans to the government officials and the people against deposit of gold and silver. It was the first institutional financial intermediaries at the time. Although it played a vital role in the banking system, it provided credit facility to only the government officials.

Though all the banking activities were not performed by Tejarath Adda, during the tenure of the Prime Minister Ranodip Singh, modern banking practices began with the establishment of the first banking institution, Nepal Bank Limited. The Nepal Bank Limited was established in 30th Kartik 1994 B.S. as a joint venture of the government and private individuals. Before the inception of this bank, the traditional ways of banking seem to be in existence even today.

The central bank helps the government to control, direct and formulate other monetary policies. Nepal Rastra Bank was set up in 2013 B.S. as central bank and since then it has contributed to the growth of financial sector. Speedy development of the country is possible only when comparative banking service reaches each and every corners of the country. Government has set up Rastriya Banijya Bank in 2022 B.S. as a fully government owned commercial bank and agriculture development bank was established in 2024 B.S.

Table - 1

List of Licensed Commercial Banks

Commercial Banks	Established Date (B.S.)	Operation Date (B.S.)	Head Office
1. Nepal Bank Limited	1994/07/30	1994/07/30	Kathmandu
2. Rastriya Banijya Bank	2022/10/10	2022/10/10	Kathmandu
3. NABIL Bank Ltd.	2041/03/29	2041/03/29	Kathmandu
4. Nepal Investment Bank Ltd.	2042/11/16	2042/11/16	Kathmandu
5. Standard Chartered Bank Ltd.	2043/10/16	2043/10/16	Kathmandu
6. Himalayan Bank Ltd.	2049/10/05	2049/10/05	Kathmandu
7. Nepal SBI Bank Ltd.	2050/03/23	2050/03/23	Kathmandu
8. Nepal Bangladesh Bank Ltd.	2050/02/23	2050/02/23	Kathmandu
9. Everest Bank Ltd.	2051/07/01	2051/07/01	Kathmandu
10. Bank Of Kathmandu Ltd.	2051/11/28	2051/11/28	Kathmandu
11. Nepal Credit & Comm. Bank Ltd.	2053/06/28	2053/06/28	Siddharthanagar
12. Lumbini Bank Ltd.	2055/04/01	2055/04/01	Narayangadh
13. Nepal Ind. & Commerce Bank Ltd.	2055/04/05	2055/04/05	Biratnagar
14. Machhapuchre Bank Ltd.	2057/06/17	2057/06/17	Pokhara
15. Kumari Bank Ltd.	2056/08/24	2057/12/21	Kathmandu
16. Laxmi Bank Ltd.	2058/06/11	2058/12/21	Birgunj
17. Siddhartha Bank Ltd.	2058/06/12	2059/09/09	Kathmandu
18. Agricultural Dev. Bank Limited	2024/11/7	2024/11/7	Kathmandu
19. Global Bank Ltd.	2063/09/12	2063/09/12	Birgunj
20. Bank of Asia Nepal	2064/06/25	2064/06/25	Kathmandu
21. Citizens Bank Limited	2064/01/7	2064/01/7	Kathmandu
22. Prime Bank Limited	2064/06/7	2064/06/7	Kathmandu
23. Sunrise Bank Limited	2064/06/25	2064/06/25	Kathmandu

Source: - Mirmire – 2007, NRB

1.3 Profile of the selected banks

1.3.1 Himalayan Bank Limited (HBL)

Himalayan Bank Limited was incorporated in 1992 A.D. by distinguished business personalities of Nepal in partnership with employee provident fund and Habib Bank Limited, one of the largest commercial bank of Pakistan. Banking operation was commenced from January 1993 A.D. It is the first joint venture bank managed by Nepali chief executive. Besides, commercial activities, bank also offers industrial and merchant banking facilities.

At present, the bank has five branches in Kathmandu valley namely Thamel, Newroad, Maharajgung, Pulchowk and Suryabinayak. Besides these, it has nine branches outside the Kathmandu valley namely Banepa, Tandi, Bharatpur, Birgunj, Hetauda, Bhairahawa, Pokhara, Biratnagar and Dharan. The bank is also operating a counter in the Royal Palace. The bank has a very aggressive plan of establishing more branches in different parts of the country in near future.

Table - 2

Share Capital

(Rs. In million)

Particulars	**F.Y. 2005/6**
1. Share Capital	
1.1 Authorized Capital	**1000.00**
a. 10,000,000 ordinary shares of Rs. 100 each	1000.00
1.2 Issued Capital	**810.81**
b. 8,108,100 ordinary shares of Rs. 100 each paid up	810.81
1.3 Paid Up Capital	**810.81**
c. 8,108,100 ordinary shares of Rs. 100 each paid up	810.81

Himalayan Bank has always been committed to provide a quality service to its valued customers, with a personal touch. All customers are treated with utmost courtesy as valued clients. The Bank, wherever possible, offers tailor made facilities to its clients, based on the unique needs and requirements of different clients. To further extend the reliable and efficient services to its valued customers. HBL has adopted the latest banking technology. This has not only helped the bank to constantly improve its service level but has also prepared the bank for future adaptations to new technology. The bank already offers unique services such as short message sent (SMS) banking and internet banking to customers and will be introducing more services in the near future. (www.himalayanbank.com)

1.3.2 Everest Bank Limited (EBL)

This bank was established on 17th November 1992 A.D. and started its operations from 18th October 1994 A.D. under the company act 2021 B.S. with an objective of carrying out commercial activities under the commercial bank act 2031, from the very beginning of its establishment till November 1996 A.D. It was managed by United Bank of India Limited (UBIL). Later on, UBIL handed over the management to the Punjab National Bank (PNB) India. PNB has been providing top management services and banking expertise to EBL. The bank is currently running its operation with 18 branches in various parts of the kingdom with the objective of providing services to both the business community and the common people.

EBL is playing a pivotal role in facilitating remittance to and from across global areas. Being the first Nepalese bank to open a representative office in Delhi (India), the Nepalese in India can open account in Nepal from the designated branches of Panjab National Bank and remit their savings economically through banking channels to Nepal.

At present, the bank has seven branches in Kathmandu valley namely Lazimpat, Newroad, Teku, Chabahil, Satungal, New Baneshwore and Pulchowk. Besides, it has eleven branches out-side the Kathmandu valley namely Biratnagar, Duhabi, Ithari, Janakpur, Birgunj, Simara, Persa, Pokhara, Butwal, Bhairahawa and Dhangadi.

Table - 3

Share Capital

(Rs. In million)

Particulars	**F.Y 2005/6**
1. Share Capital	
1.1 Authorized Capital	**1000.00**
a. 4,500,000 ordinary shares of Rs. 100 each	4500.00
b. 1,500,000 9% cumulative irredeemable preference share of Rs. 100 each.	150000
(redeemable when the capital of the bank reaches at Rs. 50 crore)	
1.2 Issued Capital	**729..80**
c. 3,168,000 ordinary shares of Rs. 100 each paid up	316.80
d. 1,500,000 9% cumulative irredeemable preference share of Rs. 100 each.	150.00
(redeemable when the capital of the bank reaches at Rs. 50 crore)	
1.3 Paid up capital	**518.00**
e. 3150000 ordinary shares of Rs. 100 each paid up	315.00
(including 752,357 Bonus shares of Rs. 100 each issued as fully paid)	
f. 1,400,000 9% cumulative irredeemable preference share of Rs 100 each.	140.00
(redeemable when the capital of the banks reaches at Rs. 50 crore)	

The bank in association with smart choice technology (SCT) has been providing automatic teller machine (ATM) services for its customers. EBL debit card services can be accessed at more than 50 ATMs and over 250 point of sales across the nation. The bank is also managing the ATM at Tribhuvan International Airport for the convenience of the customers and the travelers, the first and the only bank in Nepal to place ATM outlet at the Airport (www.everestbankltd.com)

1.4 Focus of the Study

The development of a nation depends upon its domestic resources. Banking sector plays vital role in allocation and utilization of such resources. Integrated and speedy development of a country is possible when competitive banking services reaches every corners of the country. It provides capital for the development of industries trade and business. Without banking sectors the development of the country is not possible.

The commercial banks can play a vital role in mobilizing the resources in developing as well as developed countries. These institutions can induce the public to save their valuable fund. They can help to monetize the society. In this way the savings can enter into the banking channel from the informal sector. Banks are the financial intermediaries; they collect the surplus money in the form of deposit and provide loans to deficit sectors. In between, they follow credit creation process. In this way they bridge gap between surplus sector and deficit sector.

Thus this study deals with the liquidity, efficiency, profitability and risk position of commercial banks as an aid to economic development of the country by making survey of deposits and credits of commercial banks and their utilizations to fulfill the financial needs of the different sectors of the economy.

1.5 Statement of Problem

Nepal is underdeveloped country and rapid economic development is the basic need of the country. Development by its means is not problems within a short period and it takes a long time. For the proper development of a country, it has to build up infrastructure. In Nepal, the process of development started only after 2013 B.S. when the first five year plan came into practice.

Capital plays an important role in the banking sector. It is a requisite from the promotional stage up to the end of a banking sector. No banking transactions can be operated without capital. So, capital is labeled as 'life blood' of banking sector. The capital can be collected from the various sources such as shares, debentures, public deposits, bank loan etc. Generally, there are various sources of accumulating capital internal and external. Aid, grants and loans are the main external sources whereas taxes, public enterprises, and public debts are the popular internal sources in our country. But due to under-development, poverty, lack of banking knowledge etc. the desired capital for the development of the country can't be accumulated form those internal sources.

The negligence and corruption made by management level, over-staffing, lack of social obligation, lack of proper control and directions are the reasons that are facing by the Nepalese commercial banks. New entry of banks and financial companies has made the tough competitions between them. Most of the people of Nepal are illiterate and people are unaware about the banking system. These commercial banks are active only in urban sector because they can grab great opportunity for the maximization of profit. Rural areas are being neglected. There are only five rural development banks active in Nepal and the banking transactions are also minimal in comparison to the operating expenses of the bank. The problems specially related to deposit mobilization of commercial banks in Nepal have been presented below: -

(i) Development works need short, medium and long term credit. But commercial banks provide only short term credit except in case of priority sector.

(ii) About 87% people of the total population live in the rural area due to imbalance in the growth of banking in the country and are deprived of the banking facilities.

(iii) Commercial banks of Nepal are considered as an efficient bank but how far are they efficient?

(iv) More than 38% of people of our country are lying under the marginal poverty line. Therefore, it provides the effect to collect the deposit.

1.6 Objective of the Study

The main objectives of this thesis are to analysis the trend of deposit mobilization of Himalayan Bank and Everest Bank Limited. Some other objectives of this research are as follows: -

(i) To find out the relationship between deposits collection and distribution.

(ii) To analyze the financial position of the sampled banks i.e. Himalayan Bank Limited and Everest Bank Limited.

(iii) To analyze the trends of deposit mobilization towards investment, loan and advances and investment of its projection for current 5 Years.

(iv) To give the better suggestions and recommendations based on analysis.

1.7 Significance of the Study

Development of banking system plays an important role in the growth of any economy. Banking industry is an important institution for accelerating the process of development through deposit mobilization. In Nepal, banking industry is also playing vital role for the development of the nation. According to the NRB research report banking and financial institution are contributing around 10% to its national GDP. Due to the lack of proper infrastructure, commercial banks are handicapped to reach rural areas. Banking services

are provided only on the urban areas. Thus, NRB need to amend its certain rules to motivate commercial banking to incorporate their branches even in the rural areas.

Mainly, this study covers the deposits and credit portion of HBL and EBL. So it helps to reveal the financial position of the bank and study occupies an important role in the series of the studies on HBL and EBL. The Significances of the study are: -

(i) This study is important to banks to make policies based on recommendations and suggestions in this thesis.
(ii) This study may encourage the researchers to research further.
(iii) It is important for investors, customers and personnel of bank to take various decisions regarding deposits and loan and advances.
(iv) This study is important to know how well the bank is utilizing its deposit.

1.8 Limitation of the Study

Every research has its own limitations. The main focus of this study is to point out the financial position and its analysis of banking sectors. Preparations of multiple financial statements are common practices in private sector. So, the conclusion is based on the available financial statement which might not be perfectly correct in reality. However, following are the limitations of the study: -

(i) This research design and analysis followed for this study are based on secondary data which covers the period of last five fiscal years.
(ii) Time and resources constraints may limit the area covered by the study.
(iii) Due to limited time and resources, out of 23 commercial banks, only two of them are included in this study.
(iv) The period covered by the study is from 2003 to 2007 A.D.

(v) The accuracy of the research work will be dependent on the data provided by concerned banks.

(vi) The major sources of the secondary data are the financial statements of concerned banks which are extracted from the progress report of related banks, Nepal Stock Exchange, Central Bureau of Statistics and other published and unpublished articles.

1.9 Organization of the Study

For the systematic presentation of the report the research is divided into five chapters as follows:

Chapter 1 : Introduction

Chapter 2 : Review of Literature

Chapter 3 : Research Methodology

Chapter 4 : Presentation and Analysis of Data

Chapter 5 : Summary, Conclusions and Recommendation

1. **Introduction:** It includes general background of the study, historical perspective of banking industry, overview of sample banks, statements of the problem, objectives of the study, significance of the study and limitation of the study.
2. **Review of literature**: Review of Literature contains the review of related books, journals, and past research works.
3. **Research Methodology**: This chapter expresses the way and the technique of the studying applied in the research process. It includes research design, population and sample, data collection procedure and processing, tools and methods of analysis.

4. **Presentation and Analysis of Data**: In this chapter collected and processed data are presented, analyzed and interpreted with using financial tools as well as statistical tools.

5. **Summary, Conclusions and Recommendations:** - In this chapter, summary of whole study, conclusions and recommendations are made.

CHAPTER II

REVIEW OF LITERATURE

In this chapter, a relevant study has been made to know the opinion of other researchers and authors related to deposit mobilization of commercial banks in Nepal. Only the relevant literatures have been reviewed. Every possible effort has been made to grasp knowledge and information that is available from the concerned commercial banks. This chapter helps to take adequate feedback to broaden the information base and inputs to my study. In this chapter inputs are reviewed as follows.

2.1 Conceptual Review

Under this heading the concept of the bank and banking transactions are described after reading thoroughly the available books.

2.1.1 Modern Banking in Nepal

Nepal Bank Ltd. is the first modern bank of Nepal. It is taken as the milestone of modern banking of the country and was established in 1994 B.S. From the beginning, it has rendered the following services to the customers: -

a) Accept deposit.
b) Extend loan.
c) Render customer-related service i.e. issue of bill of exchange, hundies.
d) Invest in government bonds and securities.
e) Perform agency function.
f) Act as banker to the government.

Until mid 1940s, only metallic coins were used as medium of exchange. So the Government of Nepal felt the need of separate institution or body to issue national currencies and promote financial organization in the country. Hence, the NRB Act 1955 was formulated. Accordingly, Nepal Rastra Bank was established in 2013 B.S. as a central bank of Nepal.

A sound banking system is important for smooth development of banking system. It can play a key role in the economy. It gathers saving from all over the country and provides liquidity for industry and trade (Singh 2062:13). In 2014 B.S., Industrial Development Bank was established to promote the industrialization in Nepal, which was later converted into Nepal Industrial Development Corporation (NIDC) in 2016 B.S.

Rastriya Banijya Bank was established in 2022 B.S., as the second commercial bank of Nepal. The financial shapes of these two commercial banks have a tremendous impact on the economy. That is the reason why these banks still exist in spite of their bad position.

As the agriculture is the basic occupation of major Nepalese, the development of this sector plays the prime role in the economy. So, separate Agricultural Development Bank was established in 2024 B.S. This is the first institution in agricultural financing.

After that for more than two decades, no more banks have been established in the country. Only after declaring free economy and privatization policy, Government of Nepal encouraged the foreign banks for joint venture in Nepal. As a result, Nepal Arab Bank Ltd. (NABIL) was established in 2041 B.S. This is the first modern bank with latest banking technology.

Then lots of commercial banks have been opened in the country. Nepal Indosuez Bank was established in 2042 B.S. as a private joint venture Bank. Nepal Grindlays Bank was

established as a joint venture between ANZ Grindlays and Nepal Bank Ltd. This bank is now known as Standard Chartered Bank since July 2001. The growth of modern banking has started only after the opening of Nepal Indosuez Bank and Nepal Grindlays Bank. In 2049 B.S., Himalayan Bank Ltd. was established with a joint venture with Habib Bank of Pakistan. It started its operation with paid-up capital of Rs. 60 millions. Nepal SBI Bank Ltd. is a joint venture between Employees Provident Fund and State Bank of India which was established in 2050B.S. The State Bank of India holds 50% of the equity. Nepal Bangladesh Bank was established in 2051 B.S. in technical collaboration with IFIC Bank Ltd. of Bangladesh. After that Everest Bank Ltd. started its operation in 2051 B.S. It entered into joint venture with Punjab National Bank of India (PNB). PNB holds 20% equity stakes in the banks. Bank of Kathmandu was established with a joint venture with Siam Commercial Bank of Thailand. Nepal Bank of Ceylon is a Joint venture with a leading bank of Sri Lanka. Lumbini Bank was established in the year 2055 B.S. in Narayangadh. This is the first regional Bank of Nepal. Nepal Industrial and Commercial Bank was established in 2055 B.S. It does not have any joint venture yet. But it has employed senior managers from India to handle its operation. Machhapuchre Bank started its operation from 2056 B.S. with its head office in Kathmandu. This bank has introduced internet banking which is a Hi-Tech Banking system of the world. Lately, Laxmi Bank was established in 2058 B.S. Its head office is situated in Kathmandu.

Now there are 23 commercial banks in Nepal. Among them, some banks have been opened by private sector in joint venture with foreign banks. Other commercial banks later established in the country. These commercial banks have played a very significant role in creating banking habit among the people, widening area and serving business communities and the government in various ways.

2.1.2 Concepts of Commercial Bank

A bank is a business organization that receives and holds deposits of funds from others make loan or extents credits and transfer funds by written order of deposits (The Encyclopedia America; 1984:302)

A commercial banker is a dealer in money and substitutes for money and substitutions for money, such as cheque or bill of exchange. It also provides a variety of financial service (The New Encyclopedia Britannica; 1985:14.60)

In the Nepalese context, commercial bank act, 1974 A.D. defines "A commercial bank is one which exchanges money, deposits money, accepts deposits, grants loans and performs commercial banking functions (Commercial Bank Act; 1974 A.D.)

Commercial banks are those banks which perform all kinds of banking functions such as accepting deposits, advancing loans, credit creation and agency functions. They provide short term loan, medium-term loans and long-term loans to different business house and trading companies. NRB act 2031 has defined the meaning of commercial bank as the bank which performs the commercial functions.

Commercial banks are those banks that pool together the savings of the community and arrange for their productive use. They supply the financial needs of modern business by various means. They accept deposits from the public on the condition that they are repayable on demand of short notice. Commercial banks are restricted to invest their funds in corporate securities. Their business is confined to financing the short term needs of trade and industry such as working capital financing. They can not finance in fixed assets. They grant loans in the form of cash credits and overdrafts. Apart from financing they also render services like collection of bills and cheque, safe keeping of valuables, financial advertising etc. to their customers (Vaidya, S.; 2001:38)

A commercial bank can be defined as an institution which deals in money in the words of the Crowther “Banks collect money from those who have it to spar or who are saving it out of their income and lend this money out against goods security to those who requires it” (Crowther, S.R.; 1985:58)

Hence, we can conclude from the above that the commercial banks are established under the rules and legislation of the central bank of the country. It has to move as per the directives given by the central banks. Though banks are established for the mobilization of the saved fund, central bank makes certain rules so that the public or the customer of the bank may not undergo on loss of their hard earned money by the disinvestment procedure of the bank.

2.1.3 Types of Banks

There are several different types of banks which are formed due to their nature and objectives, which are as follows: -

2.1.3.1 Central Bank

It is the guardian of the entire banking system. All other banks are required to comply with instructions of the central bank. It is the regulating and controlling authority. Usually, central bank control monetary policy and may be the lender of the last resort in the event of the crisis. They are often charged with controlling the money supply, including printing paper money. Bank of England (1964 A.D.) is the first central bank. Now, almost all the countries have their own central banks. The central bank of the Nepal is Nepal Rastra Bank. (2013-1-14 B.S.)

2.1.3.2 Commercial Bank

Commercial bank collects deposits, issue short-term credit, provides necessary facilities for trade, payments and renders various kinds of common commercial services. Nepal Bank Limited was established on 30th Kartik 1994 B.S. and is the first commercial bank in Nepal.

2.1.3.3 Agriculture Bank

Agriculture banks are specialized banks that are specialized in providing financial facilities for agriculture sector. Farmers need short term loans for input procurement, medium term loans for major agricultural equipment and long term loans for land improvement and major facilities. It is also called cooperative banks.

2.1.3.4 Industrial Bank/ Development Bank

Development Banks are established for development of certain sector. They normally give long-term loan and provide technical and other advice as well as Origin of development banks dates back to industrial revolution in U.K.

2.1.3.5 Savings Bank

Small savings of numerous households are collected by savings banks and are made available for useful investments. Households deposit their small savings in boxes given to them. Their objective is to encourage thrift and make small savings available for useful investment.

2.1.3.6 Merchant Bank

Merchant banks were traditional banks which engaged in trade financing. The modern definitions, however, refers to banks which provides capital to firms in the form of shares

rather than loans. Unlike venture capital firms, they tend not to invest in new companies. In Nepal, finance companies involve in merchant banking activities.

2.1.3.7 Postal Savings Bank

Postal savings banks are savings associated with national postal systems. Japan and Germany are examples of countries with prominent postal savings banks.

2.1.3.8 Retail Bank

In the retail banks, primary customers are individuals. An example of a retail bank is Washington mutual fund of the U.S.A.

2.1.3.9 Land Development Bank

Land development banks were known as land mortgage banks in the earlier time. They provide long term loans against security and mortgage of land and property.

2.1.3.10 Universal Bank

Universal bank is a joint bank. It serves purposes of commercial banking and investment banking. It collects deposits and provides loans as commercial banks. Almost all large financial institutions are diversified and engaged in multiple activities. For example, Citigroup, a very large American bank, is involved in commercial and retail lending. It owns a merchant bank (Citicorp Merchant Bank Limited) and an investment bank (Salomon Smith Barney). It operates a private bank (Citigroup private bank). Finally, its subsidiaries in tax have offer offshore banking services to customers in other countries.

2.1.4 Functions of the Commercial Banks

Banks collect unused money from public by providing attractive sound interest and can earn profit by lending it on mainly in business organization, industrial and agriculture

sectors and investing in government bonds. So, the main function of commercial banks is to mobilize idle resources in productive areas by collecting it from scattered sources and generating profit. There are many functions performed by commercial banks which may be summarized as follows: -

a) Accepting Deposit: - The main objective of the commercial banks is to collect the deposit. Commercial banks accept the deposit from the public who has surplus funds under three main headings namely current, savings and fixed deposits.

(i) Current Deposit: - Current deposits are also known as demand deposits. The demand deposit in which an amount is paid immediately at the time of any account holder's demand is called demand deposit. Through the bank can't gain profit by investing it in new sector after taking from the customer, this facility is given to the customer. Therefore, the bank does not give interest on this account.

(ii) Saving Deposit: - In saving deposits, there is restriction on the maximum amount that can be deposited and also withdrawals from the account. This deposit is suitable and appropriate for the people of middle class who have low income and small saving. The bank usually pays small interest to the depositors against their deposit.

(iii) Fixed Deposit: - Fixed deposit is the one, which a customer is required to keep fixed amount with the bank of specific periods, generally by those who do not need money for the stipulated period. She/he is not allowed to withdraw the amount before expiry of the period. The rate of interest is higher than other deposit. The bank pays a higher interest as such on deposit.

b) Advancing loans: - Commercial bank collects funds by taking all kinds of deposits and then, mobilizes by providing loans and advances. Direct loans and advances are given to all types of person against the personal security of the borrowers or against the security of movable and immovable properties. There is various method of advancing loans e.g.

- Overdraft
- Cash credit
- Direct loans
- Discounting bill of exchange, etc.

c) Agency Services: - A commercial bank provides a range of investment services. It undertakes to buy and sell securities on behalf of its clients. The banks undertake the payment of subscriptions, premium rents etc. It collects cheques, bills, promissory notes, dividends, interest etc on behalf of the customers. The bank charges a small amount of commission for those services. It also acts as correspondent or representative of its customers, other banks and financial institutions.

d) Credit Creations: - Commercial banks create credit on the basis of deposits. They hold a certain amount of cash reserve to meet obligations. The rest of the deposit amount is invested in loan finance that yields higher rates of interest as compared to those payable on deposits. When the bank advances loans, it opens an account to draw the money by cheque according to borrower's needs.

e) Other functions: - Other functions of the commercial banks are as follows :-

- Assist foreign trade
- Offers security brokerage services
- Financial advising
- Security brokerage service.

2.1.5 Concept of Deposit and Deposit Mobilization

The excess of income over consumption requirement is saved. Such savings are deposited in commercial banks, even amounts to be spent for consumption purposes are deposited in commercial banks. Payment for goods and services is made in cheques drawn on banks. Banking habit is growing faster. People deposit their earnings in commercial banks because banks vaults are safer than home coffers and they pay interest according to the kind of deposits.

It is important that the commercial bank's deposit policy is the most essential policy for its existence. The growth of banks depends primarily upon the growth of its deposits. The volume of funds that management will use for creating income through loans and investment is determined largely by the bank's policy governing deposits. In other words, when the policy is restrictive, the growth of bank is restated or accelerated with the liberalization in the deposit policy. In banking business, the volume of credit extension much depends upon the deposit base of a bank. The deposit creating powers of commercial banks forces to raise the assets along with the liabilities side of the balance sheet. In other words, assets give rise to liabilities. Traditionally, the deposit structure of a commercial bank was thought to be determined by the depositors and not by bank management. There are regular changes in this view in the modern banking industry. Thus banks have evolved from relatively passive acceptors of depositors to achieve bidders for funds. Depositors are one of the aspects of the bank liabilities that management has been influencing through deliberate action. (Vaidya, S.; 1999:68)

Thus, bank deposit is subject to various form of classification. The deposits are generally classified based on ownership, security and the availability of funds. There are two types of deposit which are as follows.

a) Interest Bearing Deposit: - Deposit in which banks are required to pay interest is known as interests bearing deposit. Saving, Term (Fixed), Call and Recurring deposit are interest bearing deposit.

(i) Saving Deposit: - A saving deposit is one in which middle class people and general server open a limited amount of money that can be withdrawn and low level of interest will be provided by bank. This is a very common and general deposit account, which is suitable for those classes of people who want to save some portion of their earnings or the money left after the consumption. Initial deposit as decided by the bank must be made to open the Saving Accounts. There are some restrictions in withdrawing money at the same time the limitation depends as per nature of the economy and from one country to the other country or every one bank to the other.

(ii) Fixed Deposit of Time Deposit: - This is a kind of deposit in which banks offers fixed interest rate on the deposit and repays principal together with interest at fixed maturity or pays interest on regular interval. So the money deposited in this account can be utilized by banks for medium or long term credit freely being confident that the depositors will not come to claim until the time lapses. Normally higher interest rate is offered for long term deposit and lower interest rate for short term deposit. The time deposit is the main source of commercial banks for their credit operation. Investment in medium term and long purposes is possible only through this type of deposit. However, the depositor can take loan under security. In this context of Nepal, fixed deposit has been classified according to the following durations: -

- Quarterly
- Semi-annually
- Annually
- Annually and above

(iii) Call Deposit: - Call deposit incorporates the characteristics of current and saving deposit in the sense deposit is withdrawn able at 'call' and savings in as dense the deposit earns 'interest'. The companies not entitled to open savings account can open the call accounts. Interest rate on call deposit is negotiable between the bank and the depositors and hence, is normally not published in public.

Interest rate is applied on daily average balance. Withdrawal restriction is not imposed on call deposit but the balance should not go below an agreed level (Dahal, Sarita and Dahal, Bhuban; 1990:30)

(iv) Recurring Deposit: - Concept of recurring deposit was developed to encourage the thrift among people of fixed regular earning. In recurring deposit scheme, the depositor is required to deposit the fixed amount in each installment and is repaid fixed amount at maturity.

b) Non-Interest Bearing Deposit: - It is the deposit in which the banks need to pay interest for the customer of their savings. It is because in this types of deposit customers can withdraw the money at any time or can withdraw daily and the bank could not employ the amount in profitable projects that's why it does not pay any interest in this type of account. Current and margin deposit are non interest bearing deposit.

(i) Current Deposit: - The current deposit account generally opened by the business persons. They are allowed to withdraw and deposit the money according to their needs. There is no limitation of withdrawing the money. Therefore, these types of deposits are for those people who may need money at uncertain times.

(ii) Margin Deposit: - Banks issue letter of credit, guarantee and indemnity etc. on behalf of the customer for a specified sum of money. These amounts have to be paid to the beneficiaries of aforesaid instruments provided they claim as per the terms and conditions agreed upon. Thus, banks are exposed to contingent liability. To reduce the liability banks ask customer to deposit a certain amount as the margin deposit.

Banks open the fictitious margin account in the name of the borrower to put such amount and interest is not paid in such deposit. Margin deposit is required to the customer if the claim is not lodged by the beneficiary. In the case of claim, the amount is utilized to honor the claim. The customer is asked to cover the shortfall if any (Dahal, Sarita and Dahal Bhuban; 1999:32)

Mobilization of resources also could be understood as the task of transferring the saving from those who save to those who are prepared to invest. (Demond; 1957:14)

Therefore, the main objective of deposit mobilization is to convert idle savings into active saving. When discussing about resource mobilization we are mainly concerned with increasing the income of low-income group and to make them able to save more and to invest against the collected amount in the development activities.

It is quiet understandable that comprehensive and highly objective credit polices are to be prepared and implemented effectively by the commercial banks. However, when the banks are to lend more and more credit as necessity, the sources of such loans and advances become a matter of serious consideration. Primarily, the deposit of the banking system would increase, if the structural change in one banking habits and practices and other institutional improvements are in progress. Secondly, increase in bank deposits should emanate from increase in advances. It is known fact that every loan creates deposits through of course in different proportion. The range of propensity to deposit out

of loans received is between zero and one. Greater the degree of propensity to deposit out of new loans larger will be the deposits with banks. High propensity to deposit out of loans reflects low desire of people to hold cash with themselves in relation to bank deposits. In other words, this indicates increased banking habit and practices among the public at least of those who benefit through bank loans (Joshi, V.R.; 1990:57)

Thus it is cleared that commercial banks are set up with a view to mobilize national resources. The first condition for national economic development is to be able to collect more and more deposits. In this context, the yearly increasing rate of commercial bank's deposits clearly shows the satisfactory progress of deposit mobilization.

Therefore, there is need of a huge amount of capital and the objective of deposit mobilization is to collect the scattered capital in different forms within the country. It is much more important to analyze the collected deposit in the priority sector of country. In the context of developing country like Nepal we have to promote our business and other sectors by investing the accumulated capital towards productive sectors. The need of deposit mobilization is felt to control unnecessary expenditure. If there is no saving, the extra amount that the people have, can flow towards buying unnecessary and luxury goods. Thus, the commercial banks are playing vital role for national development. Deposit mobilization is necessary to increase their activities. To increase saving is to mobilize deposit, it is because if the product of agriculture and industrial product increase it gives additional income which help to save more and ultimately it plays a good role in deposit mobilization.

2.1.6 Deposit Mobilization

Collecting small scattered amount of capital through different media and investing the deposited fund in productive sector with a view to increase the income of the depositors is meant deposit mobilization. In other words, investing the collecting fund in the

productive sectors and increasing the income of the depositors, also supports increase in the saving through the investment of increased extra amount (NRB, Bankers rakashan; 1984:24.12)

When we discuss about deposit mobilization, we are concerned with increasing the income of the low income group of people and to make them able to save more and invest the collected amount in the development activities (NRB, Bankers rakashan; 1984:24.10)

Saving refers to that part of the total income which is more than the expenditure of the individual. In other words, saving = total income – total expenditure. Basically, saving can be divided into two parts voluntary saving and compulsory savings. Among deposited in different accounts of commercial bank, investment in government securities are some examples of voluntary saving. A commercial bank collects deposit through different accounts like fixed, saving and current.

In developing countries there is always a shortage of the capital for developmental activities. There is need of development in all sectors. It is not possible to handle and develop all the sectors by the government alone at a time, private people also can not under take large business because the per capita income of the people is very low while their propensity to consume is very high. Due to the low income, their saving is very low and capital formation is also very low. So their saving is not sufficient for carrying on developmental works.

To achieve the higher rate of growth and per capita income, economic development should be accelerated. “Economic development may be defined in a broad sense as a process of rising income per head through the accumulation of capital” (Johnson; 1965:11). But how capital can be accumulated in the developing countries, there are two ways of capital accumulation in the developing country, one from external sources and

other from the internal sources. In the first group foreign aid, loans and grants are the main. While in the later financial institutions operating within the country play a dominant role. In the context of Nepal, commercial banks are the main financial institutions which can play very important role in the resource mobilization for the economic development in the country. Trade, industry, agriculture and commerce should be developed for the economic development.

Capital formation is possible through collecting scattered unproductive and small savings from the people. This collected fund can be utilized in productive sector to increase employment and national productivity. Deposit mobilization is the most dependable and important source of capital formation (RBB, Upahar; 2055:4.14)

Deposits, such as current, saving and fixed deposits are the main part of the working capital. It is due to this reason that banks keep their deposit mobilization campaign always in full swing taking resort to every possible means lying at their deposit (NRB, Nepal Bank Partika; 2040:13.2)

Commercial banks are set up with a view to mobilize national resources. The first condition of National Economic Development is to be able to collect more and more deposit. In these contexts, the yearly increasing rate of commercial banks deposit clearly shows the satisfactory progress of deposit mobilization. (RBB, Upahar; 2054:3.20)

Huge inflow of remittance has been one of the major factors in the high growth of deposit mobilization during last couple of years. According to the NRB statistics, the total formal remittance volume during last fiscal year was almost Rs. 60 billion, which was almost 13 percent of GDP.

As a result of this growing remittance inflow last year, the deposits of commercial bank has grown by almost 14% and had touched almost Rs. 60 billion from Rs. 54 billion

recorded a year earlier. Similarly, the deposit mobilization of the finance companies had also witnessed a growth of over 17 percent during the same period.

Commencing over the slow growth of deposits, Kishor Maharjan, deputy general manager of Himalayan Bank Limited said that the low growth in deposit mobilization could largely be attributed to the decline in remittance collection."The major reason for the modest growth in deposit mobilization, is largely due to high decline in remittance income," said Maharjan, "however, I believe, it is a temporary phenomenon and the remittance collection will bounce back in coming days" (www.kantipuronline.com)

2.1.7 Requirement for Deposit Mobilization

The following are some reasons why deposit mobilization is needed in the developing country like Nepal: -

- Capital is needed for the development of any sector of the country. The objective of deposit mobilization is to collect the scattered capital in different forms within the country.
- The need of deposit mobilization is felt to control unnecessary expenditure, if there is no saving, the extra money that the people have, can flow forwards buying unnecessary and luxury goods. So, the government also should help to collect more deposit, steeping legal procedures to control unnecessary expenditures.
- Commercial banks are playing a vital role for National Development. They are granting loan not only in productive sectors but also in other sectors like food grains, gold, silver etc.
- It is much more important to analyze the collected deposit in one priority sectors of a country. In our developing country's we have to promote our business and other sectors by investing the accumulated capital towards productive sectors.

2.1.8 Advantage of Deposit Mobilization

The advantage of deposit mobilizations are as follows: -

(i) Circulation of Idle Money: - Deposit mobilization helps to circulate idle money. The meaning of deposit mobilization is to convert idle saving into active saving. Deposit mobilization helps the depositor's habit of saving and it also help to circulate the idle saving in productive sector. This helps to create incentives to the depositors.

(ii) To support Fiscal and Monetary Policy: - Fiscal policy of the government and monetary policy of the central bank for economic development of a country can be supported by deposit mobilization. Deposit mobilization helps to canalize idle money in productive sector. Again, it helps in money supply, which saves the country from deflation and helps central banks objective in monetary policy.

(iii) Capital Formation: - Capital plays a vital role for the development of industries. But in an under developed country, there is always lack of capital to support such industries. Capital formation and industrialization is possible through deposit mobilization.

(iv) Development of Banking Habit: - One important side of economic development of a country is to increase banking habit in the people. Deposit mobilization helps in these aspects. If there is proper deposit mobilization, people believe on the bank and banking habit will develop among the people.

(v) To support Government Development Projects: - Every underdeveloped country's government needs a huge amount of money for development projects.

The deposit collected by the commercial banks can fulfill to some extent the need of money to the government.

(vi) To promote Cottage Industries: - Deposit mobilization is needed to facilitate cottage industries located in rural and urban areas. If the bank utilizes the collected deposit in the same rural or urban sector for the development of cottage industries, it is helpful not only to promote cottage industries in the area, but also support in the development of the locality as a whole increasing employment and income of the local people.

(vii) To Check up Misuse of Money: - Mostly our customs and habits are supported by social and religious believe. There is also tendency of copying others and to show their superiority buying unnecessary and luxury items in our society. In such society, deposit mobilization proves a tool to check up the misuse of money.

(viii) Others: -Deposit mobilization supports small savers by earning interest. It also helps for the development of rural economy, protests villagers form being exploitation of indigenous bankers, increase investment incentives, provides facilities to the small farmers to purchase tools and fertilizers etc. So commercial banks play an important role for the economic development not only in a development country but also in a developing country.

2.1.9 Loans and Advances

The core function of commercial bank is the granting of credit. Although banks offer wide range of financial services, lending has traditionally been their main function. Banks profess experience, expertise and flexibility in lending which gave them clear competitive advantage over all other financial institution. Bank credit has been responsible for the

development and growth of many small and moderate size business that otherwise would have withered and died by providing credit, banks have contributed to the growth of their respective communities and advances of local well being. (Vaidya, S; 1999:74)

Commercial bank provides loan to the public through which it creates the credit for the community. Commercial banks mobilize their funds mainly in loan and advances. Loan and advances is the risky assets. There is high ratio of risk on granting loan. Since, loan and advances is risky there is the possibility of high rate of return. Banks loans and advances contribute high ratio in the profit of the banks. It is the instrumental in creating and maintaining good deposit relationship which are essential for the furthering of bank's lending. Making loan is the principle economic functions of banks. Therefore, how well a bank performs its lending function has a great deal to do with the economic health of the country because bank loans support the growth of the new business and jobs within the bank's trade territory and promote its economic activity.

Through banks loan and advances are the important factor for getting profit to the bank it should not grant loan haphazardly. It should analyze the creditor before the approval of the loan. A manager must consider character, capacity and capital of the borrower. Another thing in lending is always influenced by the safety, recovery and return. The four conditional principles determine the spread of loans and advances. They are: -

- How to be safe?
- How to meet demand?
- How to meet the cost?
- How to bring about the development in terms of achieving social objectives?

Generally a bank grants two types of loan i.e. short-term loan and long-term loan against the security. Security is necessary in case of the default of the payment. Banks can sell the property if due balance are not repaid in time with the interest.

2.1.10 Investment and Investment Policy

2.1.10.1 Investment

Investment is simply defined to be the sacrifice of current consumption for future consumption whose objective is to increase future wealth. The sacrifice of current consumption takes place at present with certainly and the investors expect desired level of wealth at the end of his investment horizon. The general principle is that the investment can be retired when cash is needed. The decision of investment is now the most crucial decision as the future level of wealth is not concern. Time and risk are the two conflicting attributes involved in the investment decision. Broadly, investment alternative fall into two categories: real assets and financial assets. Real assets are tangible while financial assets involve contracts written on pieces of papers such as common stocks, bonds and debentures. Financial assets are brought and sold in organized security markets.

2.1.10.2 Investment Policy

The initial step, setting investment policy, involves determining the investment objective and the amount of his or her investable wealth because there is a position relationship between risk and return for sensible investment strategies. It is not appropriate for an investor to say that his or her objective is to 'make a lot of money'. What is appropriate for an investor in this situation is to state that the objective is attempt to make a lot of money while regarding that there is same chance that large loss may be incurred. Investment objective should be stated in terms of both risk and return (Jack Clark Francis; sixth edition)

2.1.10.3 Characteristics of Sound Investment Policy

Some of the main characteristics of sound lending and investment policies are given below:-

(i) Liquidity: - People deposit money at bank in different account with confidence that the bank repay there money when they are in need. To maintain such confidence of the deposits the bank must keep this point in mind while investing its excess fund in different securities or at the same time of lending so that it can meet current or short term obligation when they become due for payment.

(ii) Safety and Security: -The bank should invest its funds in those securities, which are subject to too much depreciation and fluctuation because little difference may cause a great loss. It must not invest its funds into speculative businessman who may be bankrupt at once and who may earn million in a minute also. The bank should accept the type of securities which are commercial, durable and marketability and have high market price.

(iii) Profitability: - Commercial banks can maximize its volume of wealth through maximization of return on their investment and lending. So, they must invest their fund where they gain maximum profit. The profit of commercial banks mainly depends on the interest rate, volume of loan, its time period and nature of investment in different securities.

(iv) Legality: -Illegal securities will bring many problems for the investors. Commercial banks must follow a rules and regulations as well as different direction issued by NRB, ministry of finance and others while mobilizing its deposits.

(v) Purpose of Loan: - The loan should be utilized in purposed plan. Every thing related with the customer should be examined before lending. If borrower misuses the loan granted by the bank they can never repay and bank

will posses heavy bad debts. Detailed information about the scheme of the project activities should be examined before lending.

2.1.11 Deposit Mobilization Institution in Nepal

There are mainly seven types of deposit mobilization institutions in Nepal.

a) **Commercial Banks: -** There are 23 Commercial banks in the country as July 2007 A.D. The number of commercial banks branches as December 2006 A.D. is 398.

b) **Finance Companies: -** At July 2007 A.D. there are 79 finance companies in operations throughout the country. Out of these 64 finance companies are operating in central development region and other 15 are rendering their services outside central development region.

c) **Development Banks:** - There are altogether 70 development banks including Agriculture Development Bank as July 2007 A.D. Out of these, 45 banks are operating in central development region.

d) **Rural Development Banks: -** There are 5 rural development banks, one in each five development region as December 2007 A.D.

2.2 Review of Related Studies

In this segment it has tried to write the major findings of the various related articles issued by various magazines on different time period and the major findings and analysis of the various thesis that are found to be related to the study.

2.2.1 Review of Articles/Journals

In this section effort has been made to examine and review of some related articles in different economic journals. World Bank discussion papers, magazines, newspapers and other related books.

Pradhan Shekhar Bahadur (1999) has presented a glimpse on investment in different sector through his article *"Deposit Mobilization, its problem and prospects"*. He has expressed that "Deposit is the life blood of any financial institution, commercial bank, finance company, co- operative or non government organization." He has also added "In consideration, nearly three dozen of finance companies latest figures does produce a strong feeling that a serious review must be made of problem and prospects of deposit sector."

Bajracharya Bodi B. (1999) has mentioned in his article *"Monetary policy and deposit mobilization in Nepal"* The mobilization of domestic savings is one of the prime objectives of the monetary policy in Nepal. For this purpose CBs stood as the active and vital financial intermediary for generating resource in form of deposit of the private sector. So far providing credit to the investors is a different aspect of the money.

Kafle Ramesh (1990) in the topic, *"Monetary and Financial reports in Nepal"* states that consideration and liberalization of interest rate reform measure are initiated with a view to provide more option to commercial banks in the mobilization of savings and portfolio management through market determined interest and lending rates.

Shrestha Sunity (1997) in her article has presented the objective to make an analysis of contribution of CBs leading to the gross domestic product of Nepal. She has set hypothesis that there has been positive impact of lending of CBs to the GDP. In research methodology, she has considered GDP as the dependent variable and various sectors of

lending viz. agriculture, industrial, commercial, service and general and social sectors as independent variables. A multiple regression techniques have been applied to analyze the contribution.

The multiple analyses show that the entire variable except service sector lending has positive impact on GDP. Thus in conclusion she has accepted the hypothesis i.e. there has been positive impact on GDP by the lending of CBs in various sectors of economy, except service sector investment

Pyakural Bishowambhar (1987) in his article writes, "The present changing context calls for a substantial revitalization of the resource. How much they have gained over the years depends chiefly on how far they have been able to utilize their resources in an efficient manner. Therefore, the task of utilization of resources is as much crucial as the mobilization. The under utilization of resources not only results in loss of income but also goes further to discourage the collection of deposit," Thus in his paper he has emphasized on proper utilization of mobilized resources and profitability increment

Sharma Bhasker (2004) in his article *"Banking the further of competition"* has said, due to the lack of investment avenues, banks are tempted to invest without proper credit appraisal and one personal guarantee, whose negative side effects would show colors only after 4 or 5 years. Again he said that "Private CBs have mushroomed only in urban areas where banking transactions in large volume is possible. The rural and sub urban areas mostly remain unattended.

F. Morris in his discussion paper *"Latin America's banking system in 1980's A.D."* has concluded that most of the banks concentrated on compliance with central bank rules on resources requirement, credit collection and interest rates. While analyzing loan portfolio quality, operating efficiency and soundless of bank investment management has largely

been overlooked. The huge losses now find in the bank's portfolio in many developing countries and testimony to the poor quality of this ever sight investment function.

The writer adds that mismanagement in financial institution has involved inadequate and over optimistic loan appraisal, tax recovery, high risk diversification of lending and investments, high risk concentration, connected and insider lending, loan mismatching. This has led many banks of developing countries to the failure of 1980s A.D. (Morris; 1990:81)

2.2.2 Review of Related Unpublished Thesis

Under this segment, it has tried to find out the major conclusion and recommendations of the previous study made by the T.U. student. The unpublished thesis which is found relevant to the study is as follows: -

KarmacharyaMajendra Nath (1978) in his thesis work *"A study on deposit mobilization by the NBL"* has concluded that commercial banks play a crucial role in accelerating growth of a country. The bank mobilizes the savings of the people and diverts them into productive channels. The expansion of branches as more as possible to encourage the savings i.e. to increase the savings habits of people and thereby to mobilize the available financial resources efficiently and effectively in a productive way and concluded that the branch expansion helps to collect more deposits and utilize the available resources. The conclusion is derived form the analysis of seven days data from 1970 A.D. to 1977 A.D. using Karl's Pearson's formula, percentage and ratio to meet the objective; he has analyzed how far the bank is able to utilize the collected deposits.

Joshi K.R. (1989) in his thesis work, *"A study of financial performance of CBs"* concluded that liquidity position of CBs is satisfactory, local CBs have higher deposit equity ratio than joint venture banks. Loan and advances has been the main form of the

investment. Assets utilization for earning purpose is two third of total assets. The main sources of these banks are interest from loan and advances, the fund that the profitability position of NABIL is stronger than that of other CBs.

He compares all CBs i.e. local CBs with joint venture banks. Local CBs are operating under government regulation and limitation, so they cannot operate freely and are not able to provide different facilities and services like other joint venture banks which are operating independently with help of foreign investors who provide them good management as well as technical and business support.

Paudyal Damber Bahadur (2004) *"Funds mobilization of commercial banks in Nepal"* researched by Paudyal has tried to examined the funds mobilizations of the commercial banks and he had concluded that the efficient mobilization of fund is more important than collection of one deposit. Also he said lower is the investment lower will be the capital formation. If there is high ratio of investment of the available fund this will create huge capital formation which is important to the economic growth of the nation and development of nation. At last he recommended that the commercial banks should concern their behavior in the efficient mobilization of the resources to get the profit.

Rajamajhi Kishor Kumar (2004) has conducted on his thesis work. *"A study on deposit mobilization of six commercial banks"* has concluded that commercial banks play a crucial accelerating the growth in the country. The bank mobilizes the savings of the people and diverts them into productive channels. The expansion of branches as more as possible to encourage the savings i.e. to increase the savings habits of people and thereby to mobilize the available financial resources efficiently and effectively in a productive way and concluded that the branch expansion helps to collect more deposits and utilize the available resources. The conclusion is derived from this analysis.

The review of above relevant thesis has no doubt enhanced the fundamental understanding and foundation knowledge base which is prerequisite to make this study meaningful and positive. Although numbers of article have not been published and various research work have not been conducted in commercial bank deposit mobilization so far, so here effort is made to do.

CHAPTER III

RESEARCH METHODOLOGY

In the previous chapter, the role of commercial banks and its functions for the economic development of a nation has been discussed and the review of literature with possible review of relevant books, articles and thesis, and research findings has been done along with the function of commercial banks and types of deposits. This has equipped the researcher to make choice of research methodology to support the study in realistic terms with sound empirical analysis. “Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view”. In other word research methodology describes the method and process applied in the entire subject of the study. This topic deals with the research design, nature of data collection, processing of data and statistical tools used.

3.1 Research Design

Research design is the plan, structure and strategy of investigation conceived so as to obtain answer to research question and control variance. To achieve the objectives of the study, descriptive as well as analytical research design have been used. This study is based on secondary data. Some samples such as statistical tools such as Mean, C.V., P.E., Trend line and Correlation analysis has been applied to examine the facts of data. Not only data but also recommendations and suggestions are also derived from the study by taking the EBL and HBL, as a sample. So that all concerned can be achieved something from the study.

3.2 Research Hypothesis

Research will mostly be based on secondary data. The research will be analytical as well as descriptive in nature. Appropriate financial and statistical tools will be used. All the commercial banks are taken as the population whereas two banks will be the samples which are listed as follows:-

(i) Himalayan Bank Limited
(ii) Everest Bank Limited

The various financial and statistical tools will be used in the research. The financial tools are liquidity ratio, activity ratio, capital adequacy ratio, risk ratio; profitability ratio, growth ratio etc. and the various statistical tools used are mean, standard deviation, coefficient of variation, correlation coefficient, trend analysis etc.

3.3 Source and Nature of Data

The study is conducted on the basis of secondary data. The data relating to the investment, deposit, loan and advances, assets and profits are directly obtained from the Balance Sheet and Profit and Loss account of the concerned bank's annual reports.

Supplementary data and information are collected from number of institution and authoritative sources like NRB, NEPSE, SEBO, web sites etc. For the additional information, informal-formal talks to the concerned head of the department of the bank were also done.

3.4 Population and Sample

There are nine joint venture banks out of 23 commercial banks all over Nepal. In this study the deposit mobilization procedures of Himalayan Bank Limited and Everest Bank

Limited are studied. 23 commercial banks are taken as the population and EBL and HBL banks are chosen as the sample to find out the condition of deposit mobilization.

3.5 Method of Data Analysis

To achieve the objectives of the study various financial and statistical tools have been used. The analysis of the study will be done according to the pattern of data available and to make the analysis more effective, convenience, reliable and authentic.

The different calculated results obtained through financial, accounting and statistical tools are tabulated under different headings. Then they are compared with each other to interpret the results.

3.5.1 Financial Tools

Analysis and interpretation of various ratio should give experienced, skilled and analysis of a better understanding of the financial condition and performance of the form than they would obtain from analysis of the financial data alone. The type of analysis varies according to the specific interest of the party involved.

1. **Liquidity Ratio: -** The ability of a bank to meet its short term obligation is known as liquidity. It reflects the short term financial strength of the bank. These ratios are used to know the capacity of the concern to repay its short term liability. Under this the following ratios are computed.

   (i) NRB balance to total deposit.
   (ii) NRB balance to current and saving deposit
   (iii) NRB balance to fixed deposit
   (iv) NRB liquid fund to total deposit

2. **Activity Ratio: -** Activity ratio reflects the firm's efficiency in utilizing its assets. Activity ratios measure the effectiveness of the employment of the resources in a business concern. Under this ratio, the following ratios are computed.

   (i) Credit to total deposit
   (ii) Investment to total deposit
   (iii) Credit and investment to total deposit
   (iv) Time deposit to total deposit
   (v) Loans and advances to saving deposits ratios
   (vi) Credit to government enterprises to total credit.
   (vii) Credit to private sector to total credit.

3. **Capital Adequacy Ratio: -** This ratio has been one of the most controversial issues. Excess capital than required capital reduce the profitability where as less than capital is a symbol of a weak capital structure. So banks have to maintain the adequate capital as well as per the directives given by NRB.
   (i) Capital to total deposit
   (ii) Capital to total credit
   (iii) Capital to total asset

4. **Risk Ratio: -** Risk Ratio is an important ratio. It measures the risk associated with the banking variable. A bank raise capital accepts deposit and finally grant loan. A bank must consider the risk associated with it. Higher the ratio higher will be the profit and vice versa. Following ratios are considered under these ratios: -

   (i) Capital risk ratio
   (ii) Interest risk ratio
   (iii) Credit risk ratio

5. **Profitability Ratio:** - Maximization of profit is the main objective of each and every bank. It is very necessary to earn maximum profit for the successful running of a bank concern. According to Lord Keynes, profit is the engine that drives the business enterprises. The profit is also important to preserve the existence of bank as well as strengthen and expand it.

   (i) Net profit to total working fund ratio
   (ii) Net profit to loan and advances
   (iii) Net profit to total equity capital

6. **Percentage Change Ratio:** - Percentage is used to measure the changing position of different amount. The following formula is used to find out the annual change.

$$\text{Annual percentage change} = \frac{\text{Amount of this year} - \text{Amount of last year}}{\text{Amount of last year}}$$

7. **Growth Ratio:** - Growth ratio is directly related to the fund mobilization and investment management of a commercial bank. It represents how well the commercial bank maintaining the economic and financial position. Following ratios are considered under this ratio: -

   (i) Growth ratio of total deposit
   (ii) Growth ratio of total loan and advances
   (iii) Growth ratio of total investment
   (iv) Growth ratio of net profit

3.5.2 Statistical Tools

Statistical methods are the mathematical techniques used to facilitate the analysis and interpretation of numerical data secured from groups of individuals or groups of

observation from a single individual. The figures provide detail descriptions and tabulate as well as analyze data without subjectivity but only objectivity (Joshi; 2002:159)

a) Arithmetic Mean

Arithmetic Mean is the ratio of the sum of all the observations to the number of the observations.

It is denoted by $\overline{X}$.

We have,

Mean $(\overline{X})$ = $\frac{\sum X}{n}$

Where,

$\sum X$ = Sum of all values of the observations

n = Number of observation

X = Values of variables

The arithmetic mean is a single value of selected series which represents them in average. Out of the various central tendencies, a mean is a one of the useful tools to find out the average value of the given data (Gupta. S.C.; 2004:414)

b) Standard Deviation (S.D.)

The measurement of the scatterness of the mass of figure in a series about an average is known as dispersion. The standard deviation measures the absolute dispersion. The greater the amount of dispersion, greater will be the standard deviation. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series. In this study, standard deviation of different ratio is calculated. It is denoted by‘s’.

$$\sqrt{\frac{(X - \overline{X})^2}{n - 1}}$$

Standard deviation (s) =

Where,

X = Expected return of the historical data.

N = Number of observations.

c) Coefficient of Variation (C.V.)

The coefficient of variance measures the ratio of the standard deviation to the mean expressed in percent. It is calculated as under: -

$$C.V. = \frac{\sigma}{\bar{X}} \times 100$$

Where,

$\pm$ = Standard deviation

$\bar{X}$ = Mean value of variances

Coefficient of variance is also useful in comparing the amount of variation in data groups with different mean. It is the relative measure of dispersion. A distribution with smaller coefficient is said to be more homogeneous than the other. On other hand, a series with greater coefficient of variance is said to be more variable of heterogeneous than the other (Gupta, S.C.; 2000:416)

d) Correlation of Coefficient

The coefficient of correlation measure the degree of relationship between two sets of sigma. There is various method of finding out coefficient of correlation but Karl Pearson's method is applied in the study. The result of correlation coefficient is always between -1 and +1. It is indicated by r. When r is +1, it means there is perfect relationship between two variables and vice-versa. When r = 0, it means

there is no relationship between two variables. The compute formula is mentioned below: -

$$r = \frac{\mathbf{N} \sum XY - \sum X . \sum Y}{\sqrt{[N \sum X^2 - (\sum X)^2]} . \sqrt{[N \sum Y^2 - (\sum Y)^2]}}$$

Where,

N = No. of observation

$\sum X$ = Sum of observation in series X

$\sum Y$ = Sum of observation in series Y

e) Probable Error

Probable error of the correlation coefficient is denoted by P.E. It is used for the testing the reliability of the calculated value of r. P.E. is defined by: -

$$\text{P.E. (r)} = 0.6745 \frac{1 - r^2}{\sqrt{n}}$$

Where,

P.E. (r) = Probable error of correlation coefficient

r = Correlation coefficient

n = Number of observation.

f) Trend Analysis

Trend analysis has been a very useful and commonly applied statistical tool to forecast the future events in quantitative terms. On the basis of tendencies in the dependent variables in the past periods, the future trend is predicted. This analysis takes the historical data as the basis of forecasting. This method of forecasting the future trend is based on the assumptions that the past tendencies of the variables are repeated in the future or the past events affect the future events significantly. The future trend is forecasted by using the following formula: -

$$Y = a + b\,x$$

Where,

Y = The dependent variable

a = The region i.e. arithmetic mean

b = The slope coefficient i.e. ratio of change

X = The independent variable

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

This chapter deals with the presentation, analysis and interpretation of statistics, evidence and facts to clarify the research works. Hence the study presents the collected data for various purposes of analysis. The data are analyzed using financial and statistical tools to get values of different variables. The analyzed data and results are presented clearly and simultaneously using tables and graphs. Lastly, each of the results is interpreted in each topics and sub topics.

4.1 Deposit Collection and Mobilization

The main objectives of a commercial bank are to safe guard the money of depositors and deposit mobilizations. The following table shows the situations of commercial banks with relation to deposit collection

Table – 4.1

Change based Index of deposit collection of EBL and HBL (Rs. in million)

Years	Deposit			
	EBL	Percentage Change	HBL	Percentage Change
2003	6694.95	100	21007.38	100
2004	8063.90	120.45	22010.33	104.77
2005	10097.70	125.22	24813.99	112.74
2006	13802.44	136.69	26490.85	106.33
2007	18186.25	131.76	30048.42	113.43

Source: - Annual Report 2003 – 2007

From the above table 4.1, the change based index of deposit collection of EBL is increasing every year as compared to the preceding years. The minimum increasing is 20.45% where as the maximum increase percentage of EBL is 36.69%. But the deposit collection of HBL is not consistently increasing during the study period. The minimum increasing percentage is 4.77% where as the maximum increase percentage is 13.43%. The increase percentage on deposit collection of EBL is better than HBL. Comparatively, HBL is ahead in collecting high amount of deposit in every successive year. The trend value of deposit collection is shown by the following table and graph of EBL and HBL.

Table-4A1

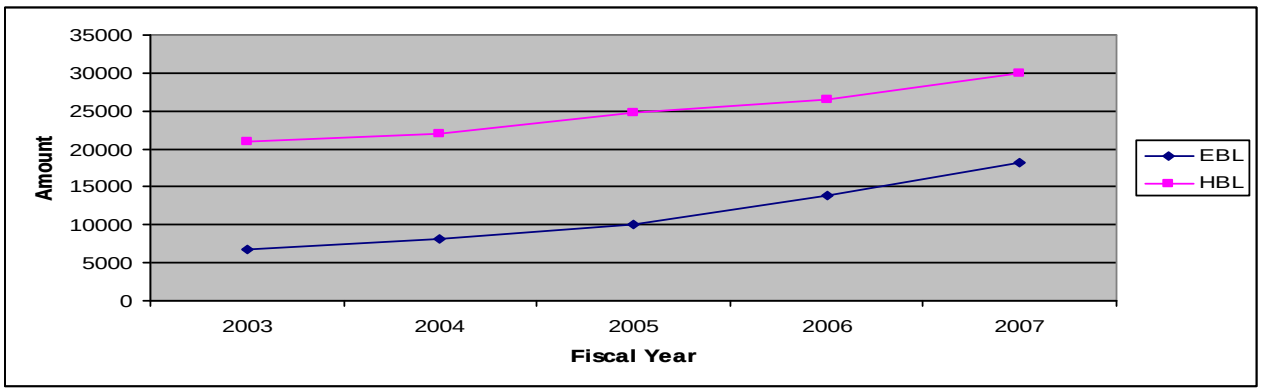
Estimate of trend value of deposit collection of EBL & HBL by fixed index based

Years	Trend Value (In Million)	
	EBL	HBL
2003	84.01	96.93
2004	126.91	107.67
2005	169.81	118.41
2006	212.71	129.15
2007	255.61	139.89
b	42.90	10.74

Source: - Annex A1

Graph -4.1

Graph of Deposit Collection of EBL and HBL



The above table 4A1 and graph 4.1 shows the estimated trend values of deposit collection of EBL and HBL. The calculated values compare the growth ratio of EBL and HBL. Since the calculated value of 'b' is positive, it is found that banks' deposit is in increasing trend. EBL Value of 'b' is greater than HBL. Therefore, growth ratio of EBL is greater than HBL.

Table -4.2

Change based index of investment of EBL and HBL (Rs. in Million)

Years	Deposit			
	EBL	Percentage Change	HBL	Percentage Change
2003	1616.46	100	4033.14	100
2004	2483.54	103.88	4366.00	108.25
2005	2119.68	85.35	5509.64	126.19
2006	4200.52	198.16	5744.97	104.27
2007	4984.31	118.66	6759.83	117.66

Source: - Annual Report 2003 – 2007

The change based index of investment of EBL in table 4.2 is increasing every year as compared to the preceding years but in the year 2005, the change based index has been decreased. The minimum decreasing percentage of EBL is 14.65% where as the maximum is 98.16%. The minimum increasing percentage of HBL is 4.71% where as the maximum increase percentage is 26.19%. The table shows that the increase percentage on investment of EBL is better than HBL. The investment is also measured by the trend values as following table and graph of EBL and HBL.

Table-4A2

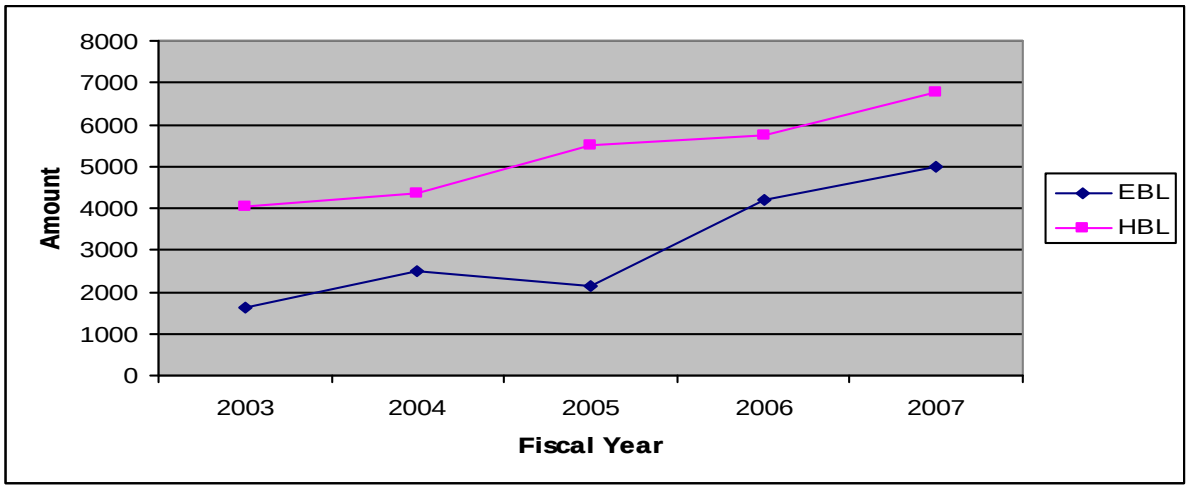
Estimate of trend value of investment of EBL and HBL by fixed index based

Years	Trend Value (In Million)	
	EBL	HBL
2003	66.10	97.10
2004	123.37	114.04
2005	180.64	130.98
2006	237.91	147.92
2007	295.18	164.86
b	57.27	16.94

Source: - Annex A2

Graph-4.2

Graph of Investment of EBL and HBL



The above table 4A2 and graph 4.2 shows the estimated trend values of investment of EBL and HBL. The trend values on investment of both banks are in increasing trend since the calculated value of 'b' is positive. EBL Value of 'b' is grater than HBL. Therefore, the growth ratio of EBL is greater than HBL.

Table-4.3

Change based index of loan and advance of EBL and HBL (Rs. in Million)

Years	Deposit			
	EBL	Percentage Change	HBL	Percentage Change
2003	5049.60	100	11074.20	100
2004	6131.10	121.42	13081.70	118.13
2005	7914.40	129.09	13245.10	101.25
2006	9801.31	123.84	14642.56	110.55
2007	13664.08	139.41	16997.99	116.08

Source: - Annual Report 2003 – 2007

The above table 4.3 shows that the change based index of loan and advance of EBL, which is in increasing trend. The minimum increasing percentage of EBL is 21.42% where as the maximum increase percentage is 39.41%. But the loan and advance of HBL is not consistently increased during the study period. The minimum increasing percentage of HBL is 1.25% where as the maximum increase percentage is 18.13%. Since loan and advances is the major source of income to the banks, both the banks are increasing their loans but the increase percentage on loan and advance of EBL is better than HBL. The loan and advance is also measured by the trend values as following table and graph of EBL and HBL.

Table-4A3

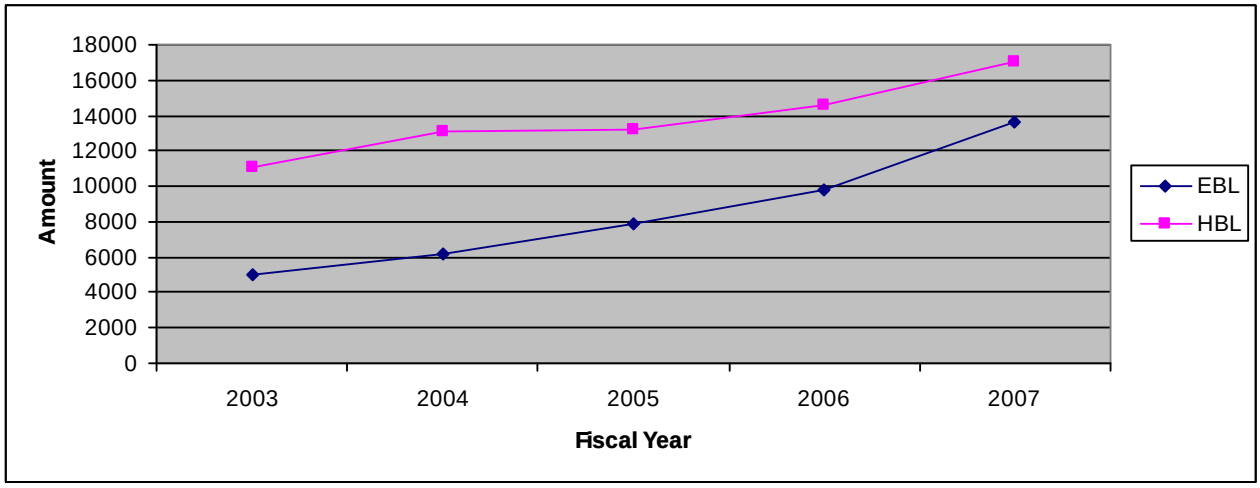
Estimate of trend value of loan and advance of EBL and HBL by fixed index based

Years	Trend Value (In Million)	
	EBL	HBL
2003	85.79	80.47
2004	127.18	92.58
2005	168.57	104.69
2006	209.96	116.80
2007	251.35	128.91
b	41.39	12.11

Source: - Annex A3

Graph-4.3

Graph of loan and advance of EBL and HBL



The above table 4A3 and graph 4.3 shows the estimated trend values of loan and advances of EBL and HBL. The trend values on loan and advances of both banks are in increasing trend. The positive value of 'b' shows the increasing trend of loan and advances. EBL Value of 'b' is greater than HBL. Therefore, growth ratio of EBL is greater than HBL.

4.2 Financial Ratio Analysis

Ratio analysis is the process of knowing the financial strengths and weaknesses of the banks by establishing relationship between various variables of Balance Sheet, Profit and Loss account and other financial statements. It is a technique and interpretation of financial statement through mathematical expression. It may be defined as the mathematical expression of the relationship between two accounting figures. To evaluate the different performances of figures of different accounts is termed as ratio analysis. In short, ratio analysis can be defined as analysis of financial statements with the help of ratios.

Ratio analysis is an important technique of financial analysis. The data given in financial statements are meaningless and they are unable to communicate anything from the analytic viewpoint. One has to work very hard in digging out the required information. (Dangol, R.M.: Accounting for financial analysis and planning).

“In Financial analysis, a ratio is used as index or yardstick for evaluating the financial position of a firm” (Pandey, 1993)

“Ratio analysis is such a powerful tool of financial analysis that through it economic and financial position of a business unit can be fully x-rayed” (Kothari, 1989)

4.2.1 Liquidity Ratio Analysis

Liquidity ratios measure the ability to meet short term and maturing obligations. This is also called solvency ratio or working capital ratio. It is the relative proportion of current assets to current liabilities. Under liquidity ratios, the following ratios are examined.

4.2.1.1 NRB Balance to Total Deposit

NRB has the commercial banks to deposit certain fund of the commercial bank in the central bank which change time to time as the demand of the time. The ratio is calculated as under: -

$$\text{NRB balance to total deposit} = \frac{\text{NRB Balance}}{\text{Total Deposit}}$$

$$\text{Total Deposit} = \text{Current} + \text{Saving} + \text{Fixed} + \text{Others}$$

Table – 4.4

Calculation of Mean, S.D. and C.V. of NRB balance to total deposit ratio

(In Percentage)

Years	EBL	HBL
2003	10.83	5.49
2004	5.48	7.39
2005	7.72	6.46
2006	8.25	4.14
2007	6.48	4.23
Mean ($\overline{X}$)	7.752	5.542
S.D. (s)	1.81	1.37
C.V.	23.27	25.27

Source: - Annex 1

The ratio of NRB to total deposit is obtained from Annex 1. The above table 4.4 helps us to analyze the short term obligation capacity of the firm. It reveals that the average ratio of the balance with NRB to total deposit of EBL and HBL are 7.752% and 5.542% respectively. The maximum NRB balance of EBL is 10.83% in the year 2003 and the minimum NRB balance of EBL is 5.48% in the year 2004. The maximum NRB balance

of HBL is 7.39% in the year 2004 and the minimum NRB balance of HBL is 4.23% in the year 2007. The average ratio of EBL is greater than the average ratio of HBL. The CV of EBL is less than the CV of HBL i.e. 23.27 %< 25.27%. It indicates that the ratio with NRB to total deposits of EBL had higher fluctuation in comparison to HBL.

Table – 4A4

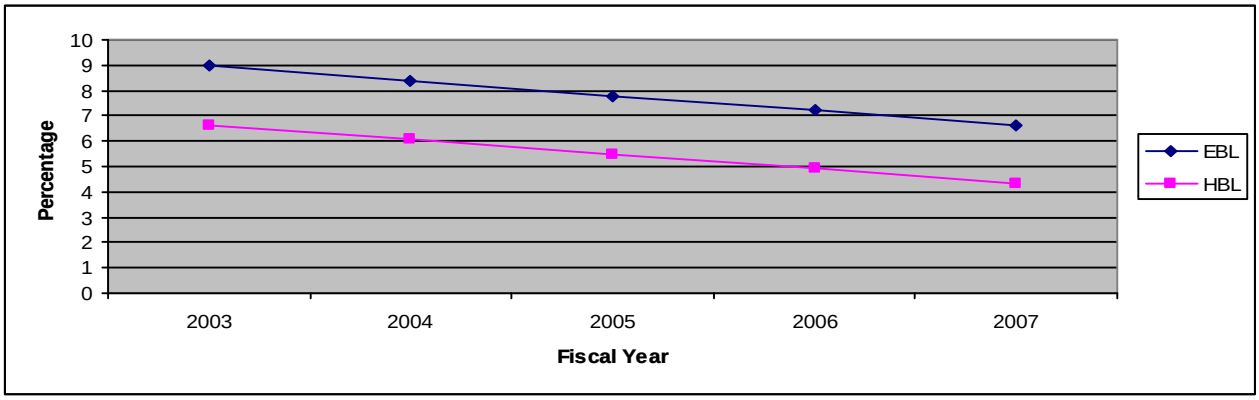
Estimate value of NRB balance to total deposit ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	8.986	6.654
2004	8.393	6.077
2005	7.800	5.500
2006	7.207	4.923
2007	6.614	4.346

Source: - Annex A4

Graph-4.4

Graph of NRB balance to total deposit ratio



The above table 4A4 and graph 4.4 shows the NRB balance to total deposit ratio of EBL and HBL. The ratios of NRB balance of both banks are in decreasing trend. But the increase percentage of HBL is greater than the increase percentage of EBL.

4.2.1.2 NRB Balance to Current and Saving Deposit Ratio

The NRB of Nepal has directed to the commercial bank to keep minimum 8% of the total saving and current deposit amount in NRB balance. It is for the purpose of the liquidity to meet the demand of the customer.

$$\text{NRB balance to current and saving deposit ratio} = \frac{\text{NRB balance}}{\text{Current and saving deposit}}$$

Table – 4.5

Calculation of Means, S.D. and C.V. of NRB balance to current and saving ratio

Years	EBL	HBL
2003	21.83	8.29
2004	9.93	12.27
2005	13.37	12.28
2006	14.11	5.59
2007	11.00	5.95
Mean ($\overline{X}$)	14.05	8.88
S.D. (s)	3.891	3.01
C.V.	25.82	32.82

Source: - Annex 2

The above table 4.5 shows the ratio of EBL and HBL which are obtained from Annex 2. The short term obligation capacity of the firm is analyzed through this table. It reveals that the average ratio of the balance with NRB to current and saving deposits of EBL and HBL are 14.05% and 8.88% respectively. EBL has the highest ratio of 21.83% in the year 2003 and the minimum NRB balance of EBL is 9.93% in the year 2004. The maximum NRB balance of HBL is 12.28% in the year 2005 and the minimum NRB balance of HBL is 5.59% in the year 2006. The average ratio of EBL is greater than the average ratio of

HBL. The CV of EBL is less than the CV of HBL i.e. 25.82 %< 32.82%. It indicates that EBL had higher fluctuation in NRB balance with comparison to HBL. The above data shows each bank is good enough in maintaining minimum of 8% of total saving and current deposit as directed by NRB.

Table-4A5

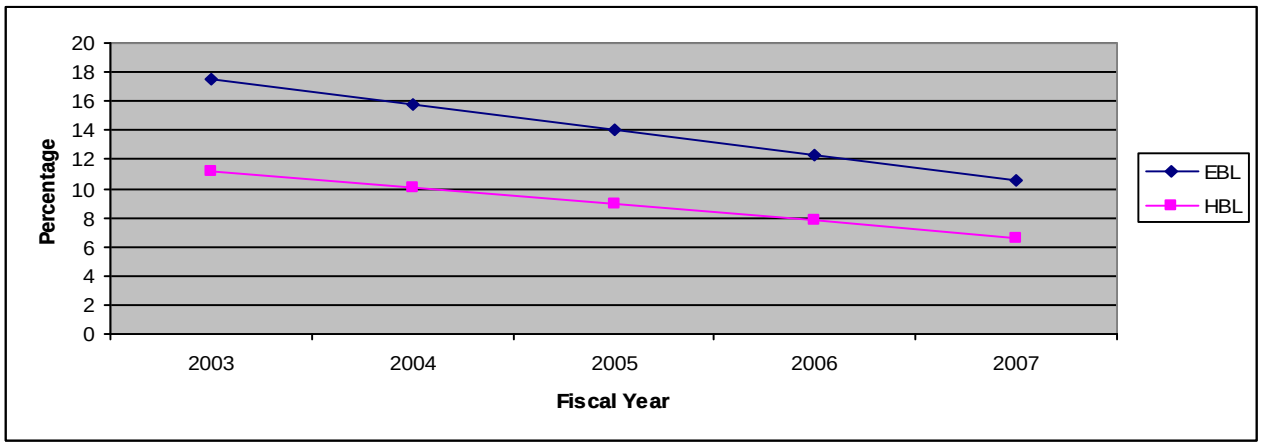
Estimate value of NRB balance to saving and current deposit ratio

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	17.546	11.172
2004	15.798	10.036
2005	14.050	8.900
2006	12.302	7.764
2007	10.554	6.628

Source: - Annex A5

Graph-4.5

Graph of NRB balance to saving and current deposit ratio



The above table 4A5 shows the trend percentage values of NRB balance to current and saving deposit ratio of EBL and HBL. The percentage of NRB balance to current and saving deposit ratio of EBL and HBL are both in decreasing trend. But both banks have maintained the minimum NRB balance of 6%.

4.2.1.3 NRB Balance to Fixed Deposit Ratio

Fixed deposit refers to the deposit of fixed amount, earning fixed interest rate and for fixed term. It is an account of amounts deposited in a bank for certain period of time. The customers can renew the fixed deposit period after the expiry of the fixed time. The rate of interest in the fixed deposit is higher than that of other deposit. For this deposit NRB has directed to the commercial banks to keep 6% of fixed deposit in the NRB balance for the purpose of the liquidity

$$\text{NRB balance to fixed deposit} = \frac{\text{NRB balance}}{\text{Total Fixed Deposit}}$$

Table – 4.6

Calculation of mean, S.D. and C.V. of NRB balance to fixed deposit ratio

Years	EBL	HBL
2003	25.93	50.00
2004	15.25	34.52
2005	22.91	26.26
2006	26.86	17.26
2007	20.94	15.52
Mean ($\overline{X}$)	26.54	28.71
S.D. (s)	5.59	9.20
C.V.	26.83	36.32

Source: - Annex 3

The above table 4.6 shows the ratio of NRB balance to fixed deposits are in fluctuating trend in both banks. Even if they had fluctuating trend, they are able to maintain 6% of their fixed deposit as directed by NRB. This shows that both banks had tied up their fund in excess deposit in NRB which ultimately affects the probability of negativity. The average ratio of EBL and HBL are 26.54% and 28.71% respectively, which indicates the stronger liquidity position of HBL than EBL. The maximum NRB balance of EBL is

26.86% in the year 2006 and the minimum balance is 15.25% in the year 2004 whereas the maximum NRB balance of HBL is 50.00% in the year 2003 and the minimum NRB balance of HBL is 15.52% in the year 2007. The CV of HBL is greater than CV of EBL.

Table-4A6

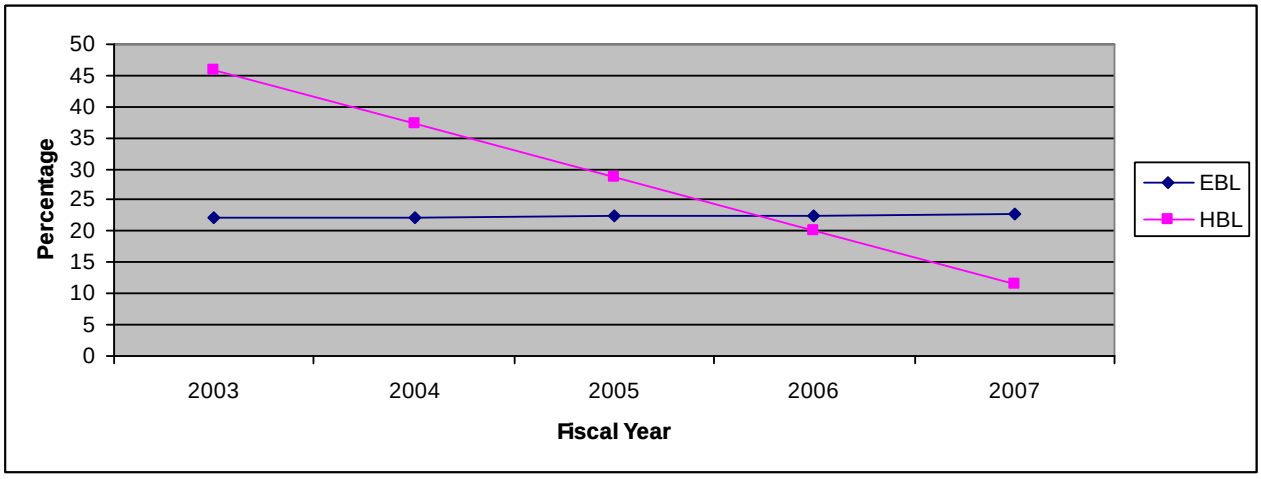
Estimate of NRB to fixed deposit ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	22.074	45.954
2004	22.237	37.332
2005	22.40	28.719
2006	22.563	20.088
2007	22.726	11.466

Source: - Annex A6

Graph-4.6

Graph of NRB balance to fixed deposit ratio



The above table 4A6 and graph 4.6, shows the NRB balance to fixed deposit ratio of EBL and HBL. The percentage of NRB balance to fixed deposit ratio of EBL is in increasing trend but the NRB balance to fixed deposit ratio of HBL is in decreasing trend. It indicates that the percentage of NRB balance to fixed deposit ratio of both the banks is greater than minimum balance.

4.2.1.4 Total Liquid Fund to Total Deposit Ratio

Total liquid fund to total deposit ratio indicates the short term obligation capacity of the demand of the depositor money. Higher ratio shows the higher capacity of payment on demand of the money and vice-versa.

$$\text{Liquid fund to total deposit} = \frac{\text{Total Liquid fund}}{\text{Total deposit}}$$

Total Liquid fund = Cash in hand + cash at bank + balance with NRB + Balance with their financial institution + call money + balance held abroad – balance with domestic bank

Table-4.7

Calculation of mean, S.D. and C.V. of total liquidity fund to total deposit ratio

(In Percentage)

Years	EBL	HBL
2003	17.27	39.42
2004	10.79	39.13
2005	16.08	32.94
2006	14.02	32.33
2007	11.10	31.10
Mean ($\overline{X}$)	13.85	34.98
S.D. (s)	2.22	3.62
C.V.	15.20	9.81

Source: - Annex 4

The above table 4.7 shows the ratios of liquid assets to total deposits are fluctuating during the study period. A high ratio of loan and advances indicates better mobilization of collected deposits and vice-versa. But it should be noted that too high ratio might not be better from the liquidity point of view. The above comparative table shows that these two banks have mobilized their collected deposits in variable trend. Average ratios of both the banks are 13.85% and 34.99% respectively. The maximum liquidity fund ratio of

EBL is 17.27% in the year 2003 and the minimum liquidity fund ratio of EBL is 11.10% in the year 2006. The maximum liquidity fund ratio of HBL is 39.42% in the year 2003 and the minimum is in the year 2007 of 31.10%. The CV of HBL is significant lower than other bank EBL i.e. 9.81 < 15.20 which implies that average ratios of liquid assets to total deposits of HBL was more consistent to EBL.

Table-4A7

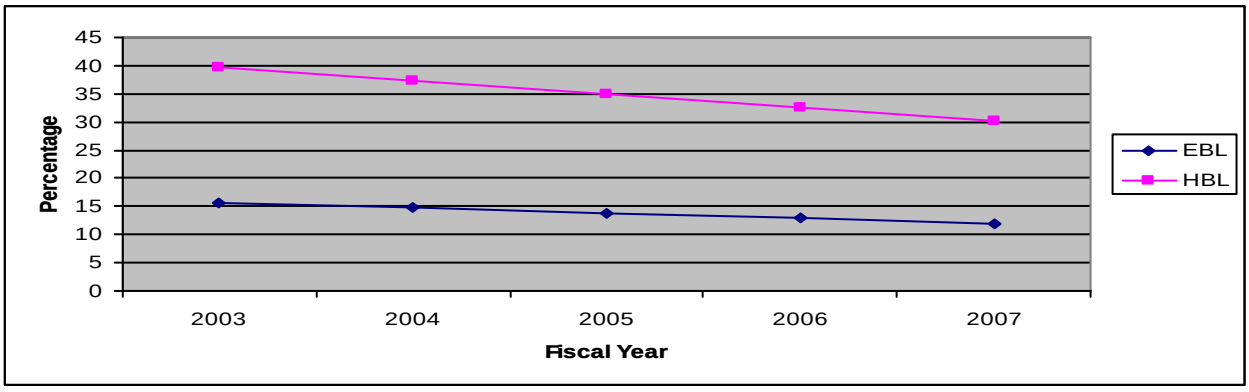
Estimate of total liquidity fund to total deposit ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	15.672	39.668
2004	14.761	37.324
2005	13.85	34.98
2006	12.939	32.636
2007	12.028	30.292

Source: Annex A7

Graph-4.7

Graph of total liquidity fund to total deposit ratio



The above table 4A7 and graph 4.7 shows the trend values of total liquidity fund to fixed deposit ratio of EBL and HBL. The trend values of both the banks are in decreasing trend. It indicates that there is better mobilization of collected fixed deposit.

4.2.2 Activity Ratio

Activity ratio is also called assets management ratio. It measures the efficiency of the bank to manage its assets in profitable and satisfactory manner. A commercial bank must manage its assets in proper way to earn high profit. Under this chapter following ratio has been studied.

4.2.2.1 Credit to Total Deposit

This ratio reflects extend to which the commercial banks are success in mobilizing their assets on loan and advances for the purpose of income generation. A high ratio indicates better mobilization of deposit on loan and advances and vice-versa.

$$\text{Credit to total deposit} = \frac{\text{Loan and advances}}{\text{Total Deposit}}$$

Table-4.8

Calculation of Mean, S.D. and C.V. of credit to total deposit

(In percentage)

Years	EBL	HBL
2003	75.42	52.72
2004	76.03	59.43
2005	71.19	53.38
2006	71.01	55.27
2007	75.13	56.57
Mean ($\overline{X}$)	73.76	55.47
S.D. (s)	2.56	2.68
C.V.	3.43	4.91

Source: - Annex 5

The above table 4.8 shows the fluctuation in the ratios of credit to total deposits of EBL and HBL. The average ratio of credit to total deposit ratio of EBL and HBL are 73.76% and 55.47% respectively. EBL has the highest credit ratio of 76.03% in the year 2004 whereas the minimum in the year 2006 of 71.01%. Similarly, the highest credit ratio of HBL is 59.43% in the year 2004 and the lowest of 52.72% in the year 2003. The average ratio of EBL is greater than the average ratio of HBL which indicates that EBL has mobilized quite a lot during the study periods i.e. 73.76%. HBL has mobilized only 55.47% on the average. It is clear that HBL is unable to mobilize the entire available deposit on this period. The CV of both banks is near about equal.

Table-4A8

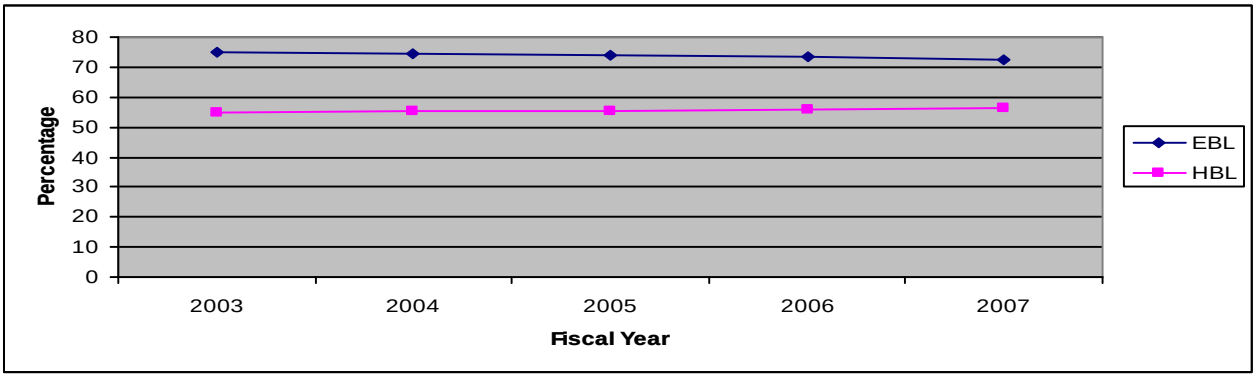
Estimate value of credit to total deposit ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	74.88	54.762
2004	74.32	55.116
2005	73.76	55.470
2006	73.32	55.824
2007	72.64	56.178

Source: Annex A8

Graph-4.8

Graph of credit to total deposit ratio



The above table 4A8 and graph 4.8 shows the trend value of credit to total deposit ratio of EBL and HBL. HBL percentage of trend values of credit to total deposit ratio is in increasing trend whereas EBL is in decreasing trend. EBL is riskier that HBL because it has more ratio of credit to total deposit ratio.

4.2.2.2 Investment to Total Deposit

This ratio measures whether the banks are able to mobilize their deposit on investment in various securities. A high ratio indicates the success in mobilizing deposit in securities and vice-versa.

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

Table-4.9

Calculation of Mean, S.D. and C.V. of Investment to total deposit ratio

Years	EBL	HBL
2003	75.42	52.72
2004	76.03	59.43
2005	71.19	53.38
2006	71.01	55.27
2007	75.13	56.57
Mean ($\overline{X}$)	73.76	55.47
S.D. (s)	3.81	2.65
C.V.	14.12	13.89

Source: - Annex 6

The above table 4.9 concludes that EBL has mobilized its collected deposits on investment better than HBL. The average percentage of Total Investment of EBL is 73.76 whereas HBL has 55.47. EBL has the lowest ratio of 71.01% and highest ratio of 76.03%

in the year 2004 where as HBL has lowest ratio of 52.72 in the year 2003 and highest ratio of 59.43% in the year 2004. The coefficients of both banks are near about equal.

Table-4A9

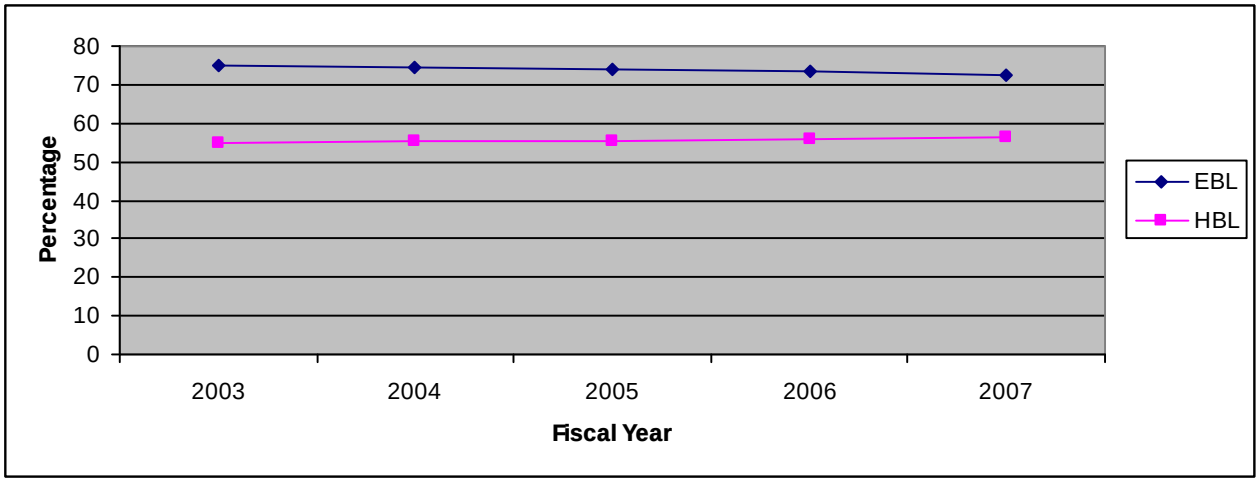
Estimate value of investment to total deposit ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	74.88	54.762
2004	74.32	55.116
2005	73.76	55.470
2006	73.32	55.824
2007	72.64	56.178

Source: Annex A9

Graph-4.9

Graph of investment to total deposit ratio



The above table 4A8 and graph 4.8 shows the trend value of credit to total deposit ratio of EBL and HBL. HBL percentage of trend values of credit to total deposit ratio is in increasing trend whereas EBL is in decreasing trend. EBL is riskier that HBL because it has more ratio of credit to total deposit ratio.

4.2.2.3 Credit and Investment to Total Deposit

This ratio shows the relationship between credit and investment to total deposit. This ratio is calculated to know how the banks are mobilizing their deposit in the credit and investment sector.

$$\text{Credit investment to total deposit ratio} = \frac{\text{Total credit and investment}}{\text{Total deposit}}$$

Table – 4.10

Calculation of mean, S.D. and C.V. of credit and investment to total deposit ratio

(In Percentage)

Years	EBL	HBL
2003	99.57	71.91
2004	106.83	75.18
2005	92.19	75.58
2006	91.03	90.44
2007	80.08	91.07
Mean ($\overline{X}$)	93.94	80.84
S.D. (s)	5.89	7.55
C.V.	5.99	9.89

Source: - Annex 7

The above table-4.10 shows EBL has the greater volume of credit and investment than that of HBL. The average ratio of EBL is greater than the average ratio of HBL i.e. 93.94% > 80.84%. EBL has more fluctuation than HBL. The maximum credit and investment ratio of EBL is 106.83% in the year 2004 and the minimum in the year 2007 of 80.08%. Similarly, the maximum credit and investment ratio of HBL is 91.07% in the year 2007 and lowest in the year 2003 of 71.91%. The credit and investment volume of EBL fluctuates during the study period whereas HBL credit investment volume fluctuates

at only increasing trend. The CV of HBL is more than the CV of EBL i.e. 9.89% > 5.99%.

Table-4A10

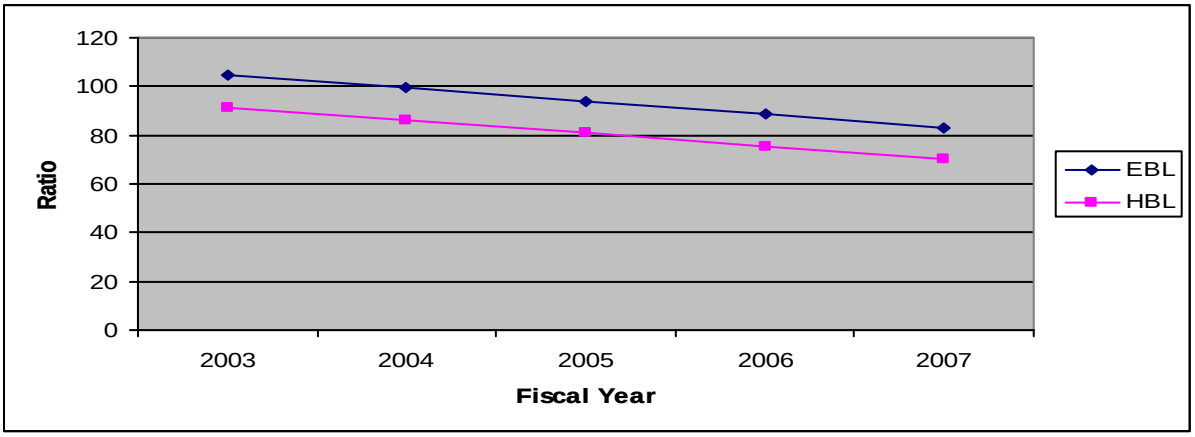
Estimate value of credit and investment to total deposit ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	104.896	91.552
2004	99.418	86.194
2005	93.94	80.836
2006	88.462	75.478
2007	82.984	70.120

Source: Annex A10

Graph-4.10

Graph of credit and investment to total deposit ratio



The above table 4A10 and graph 4.10 shows the trend values of credit and investment to total deposit ratio of EBL and HBL. The trend value of EBL and HBL both are in decreasing trend. The percentage of credit and investment to total deposit ratio of HBL is greater than EBL.

4.2.2.4 Loan and Advance to Saving Deposit Ratio

Loan and advance to saving deposit ratio shows the relationship between the loan and advance or creditors and total saving account. It is calculated as under: -

$$\text{Loan and advance to saving deposit} = \frac{\text{Loan and advance}}{\text{Total Saving deposit}}$$

Table – 4.11

Calculation of mean, S.D. and C.V. of loan and advance to saving deposit (In times)

Years	EBL	HBL
2003	1.83	1.02
2004	1.63	1.11
2005	1.64	1.03
2006	1.41	1.00
2007	1.51	1.08
Mean ($\overline{X}$)	1.60	1.05
S.D. (s)	0.71	0.45
C.V.	40.17	43.00

Source: - Annex 8

The above table 4.11 shows that the ratio of loan and advance to saving deposits are in fluctuating trend in both banks. The fluctuating ratio of EBL is greater than HBL. The average ratio of loans and advances to saving deposits ratios of EBL and HBL are 1.60% and 1.05% respectively which shows that HBL has lower loan and advance to saving deposit ratio than that of EBL. EBL has the highest loan and advance ratio 1.83% in the year 2003 and lowest 1.41 in 2006 where HBL has the highest loan and advance ratio 1.11% in 2004 and lowest 1.00 in 2006. The ratio of EBL indicates that saving deposits were better utilized in loan and advances.

Table-4A11

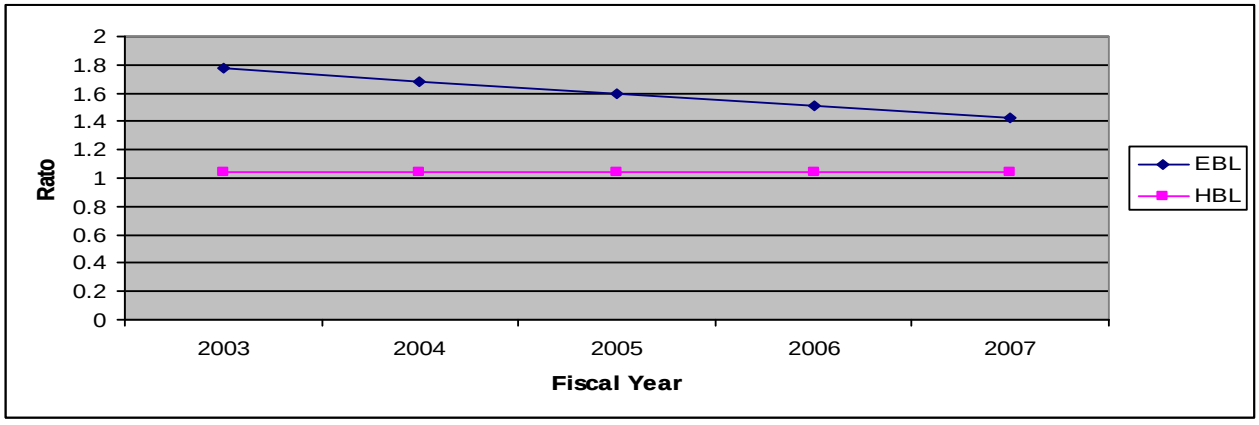
Estimate value of loan and advances to saving deposit ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	1.772	1.038
2004	1.686	1.039
2005	1.600	1.040
2006	1.514	1.041
2007	1.428	1.042

Source: Annex A11

Graph-4.11

Graph of loan and advance to saving deposit ratio



The above table 4A11 and graph 4.11 shows the loan and advance to saving deposit ratio of EBL and HBL. The trend percentage of loan and advance to saving deposit of EBL is in decreasing trend whereas HBL is of in increasing trend and the decreasing trend of HBL is lower than the EBL. It indicates that trend percentage of loan and advance to saving deposit ratio of HBL is better utilized than EBL.

4.2.2.5 Credit to Private Lending to Total Credit Ratio

Credit to private sector lending to total credit ratio shows the relationship between private sector lending and total credit. Commercial banks earn profit by mobilization of the deposit through outside asset and credit is one of the important tools to increase profit. There is high risk of lending but Private sector lending is very much profitable if the loanee is trust worthy. Higher the percentage higher will be the profit and hence the higher will be the risk too.

$$\text{Credit to private sector lending to total} = \frac{\text{Loan granted to the private sector}}{\text{Total credit}}$$

Table -4.12

Calculation of mean, S.D. and CV of credit to private sector lending to total credit ratio

(In Percentage)

Years	EBL	HBL
2003	98.44	91.67
2004	98.63	94.14
2005	93.52	100.00
2006	80.61	97.94
2007	60.27	96.60
Mean ($\overline{X}$)	86.29	96.07
S.D. (s)	7.10	2.90
C.V.	7.54	3.02

Source: - Annex 9

The above table-4.12 shows that the ratio of credit extended by HBL and EBL to the private sector. Out of its credit outstanding, the average credit extended to private sector average of EBL and HBL are 86.29% and 96.07% respectively. The maximum credit to private sector lending ratio of EBL is 98.63% in the year 2004 and the lowest ratio is 60.27 in the year 2007. Similarly, the maximum credit to private sector lending ratio of

HBL is 100% in the year 2005 and lowest ratio of 91.67% in the year 2003. HBL has extended its total credit to private sector in the year 2005 and didn't mobilize its deposit in the government enterprises. The study shows that HBL is more consistent to private sector lending than EBL.

Table-4A12

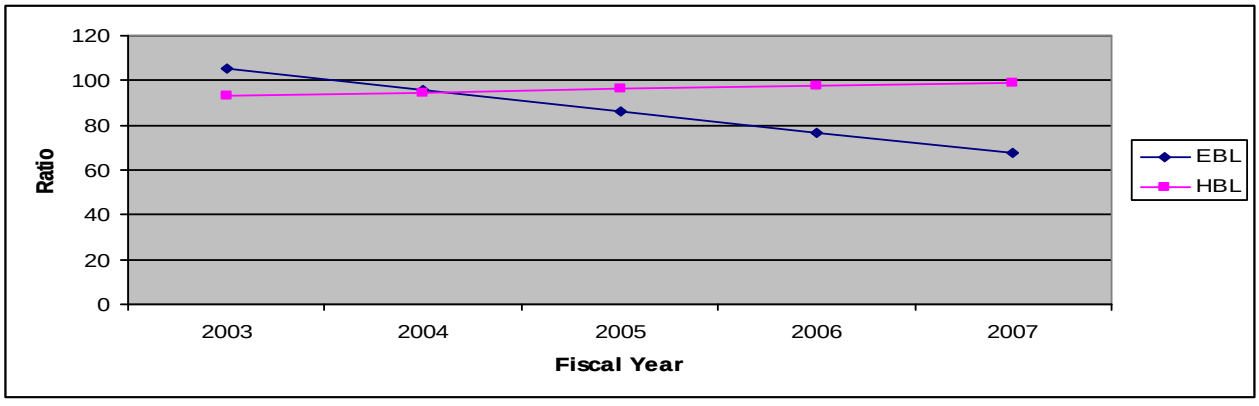
Estimate Value of credit to private sector lending to total credit ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	105.162	93.338
2004	95.726	94.704
2005	86.29	96.070
2006	76.854	97.436
2007	67.418	98.802

Source: Annex A12

Graph-4.12

Graph of credit to private sector lending to total credit ratio of EBL and HBL



The above table 4A12 and graph 4.12 shows the trend values of credit to private sector lending to total credit ratio of EBL and HBL. The trend value of EBL is in decreasing trend whereas the trend value of HBL is in increasing trend. The study shows that HBL is significantly increasing its credit to private sector.

4.2.2.6 Credit to Government Enterprises to Total Credit Ratio

Commercial banks have various options to mobilize their funds in the government sector. Commercial banks could not earn more profit by lending to Government Enterprises so they should avoid extending loan on this area. However it has to investment certain portion of their total credit outstanding to the government enterprise.

$$\text{Credit to government enterprises to total credit} = \frac{\text{Total credit to govt. enterprises}}{\text{Total Credit}}$$

Table – 4.13

Calculation of mean, S.D. and C.V. of credit to government enterprises to total credit ratio (In Percentage)

Years	EBL	HBL
2003	1.19	6.71
2004	1.13	5.86
2005	7.00	0.00
2006	5.61	0.00
2007	4.47	0.00
Mean ($\overline{X}$)	3.88	2.51
S.D. (s)	2.60	2.83
C.V.	9.09	8.73

Source: - Annex 10

The above table 4.13 analyzes the credit extended by EBL and HBL in regards to the government enterprises. Credit extended to the government sector on average of EBL and HBL are 3.88% and 2.83% respectively of its credit outstanding. EBL has extended higher than HBL and it reveals the contribution of the nation development but it can reduce its profit. EBL has the highest credit to government enterprises ratio 7.00% in the year 2005 and lowest credit to government in the year 2004 of 1.13 percent. Similarly, HBL has the highest credit to government enterprises ratio 6.71% in the year 2003 and lowest in the year 2005, 2006 and 2007 of zero percent. The CV of EBL was lower than

HBL i.e. 9.09% < 87.36% which reveals that the investment on government enterprises was made more consistent.

Table-4A13

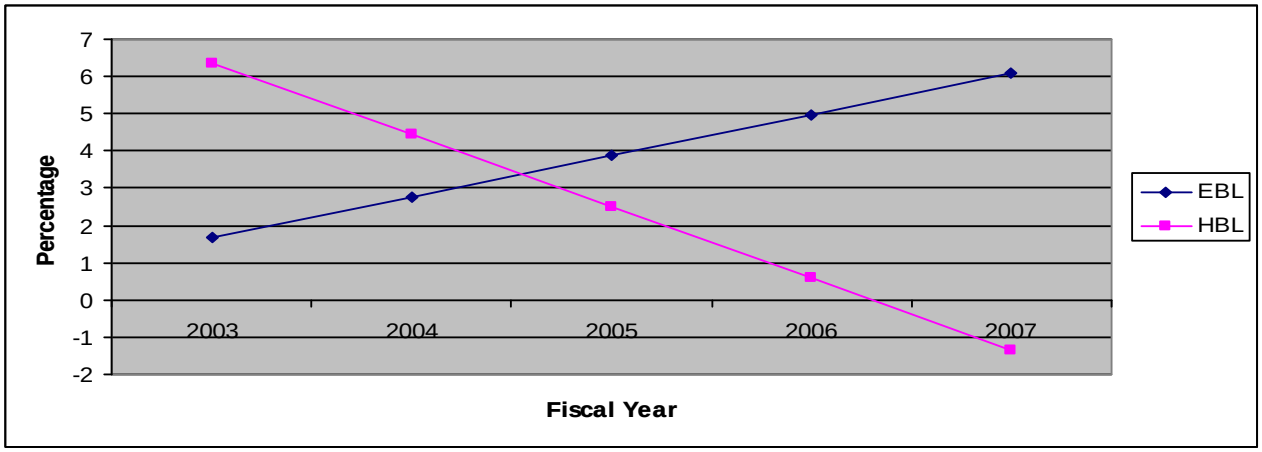
Estimate value of credit to government enterprise to total credit ratio of EBL & HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	1.672	6.370
2004	2.776	4.442
2005	3.880	2.514
2006	4.984	0.586
2007	6.088	-1.342

Source: Annex A13

Graph-4.13

Graph of credit to government enterprises to total credit ratio



The above table 4A13 and graph 4.13 shows the trend values of credit to government enterprises to total credit ratio of EBL and HBL. Credit to government enterprises to total credit ratio of HBL is in decreasing trend whereas incase of EBL it is in increasing trend. The study shows that EBL is more concerned investing in Government Enterprises after the period of 2004.

4.2.2.7 Time Deposit to Total Deposit Ratio

The ratio shows the relationship between time deposit and total deposit. Time deposit is also called fixed deposit. As time deposit is for fixed term, bank can invest these funds without any anxiety of liquidity. The higher the ratio higher will be the change of mobilizing the fund with certainly.

$$\text{Time deposit to total deposit} = \frac{\text{Fixed deposit}}{\text{Total deposit}}$$

Table-4.14

Calculation of mean, S.D. and C.V. of time deposit to total deposit

Years	EBL	HBL
2003	41.74	10.97
2004	35.94	21.40
2005	33.71	24.61
2006	30.74	23.97
2007	30.94	27.29
Mean ($\overline{X}$)	34.61	21.65
S.D. (s)	6.68	4.64
C.V.	17.43	20.21

Source: - Annex 11

The table 4.14 shows the capacity of mobilizing the funds collected as deposit in the bank. The average ratio of EBL is 34.61% and the average ratio of HBL is 21.65%. The maximum time deposit ratio of EBL is 41.74% in the year 2003 and the minimum time deposit in the year 2006 of 30.74%. Similarly, the maximum time deposit ratio of HBL is 27.29% in the year 2002 and the lowest ratio of 10.97% in the year 2003. The average ratio of EBL is greater than HBL i.e. 38.35% > 22.94%. The CV of EBL is less than HBL.

Table-4.14

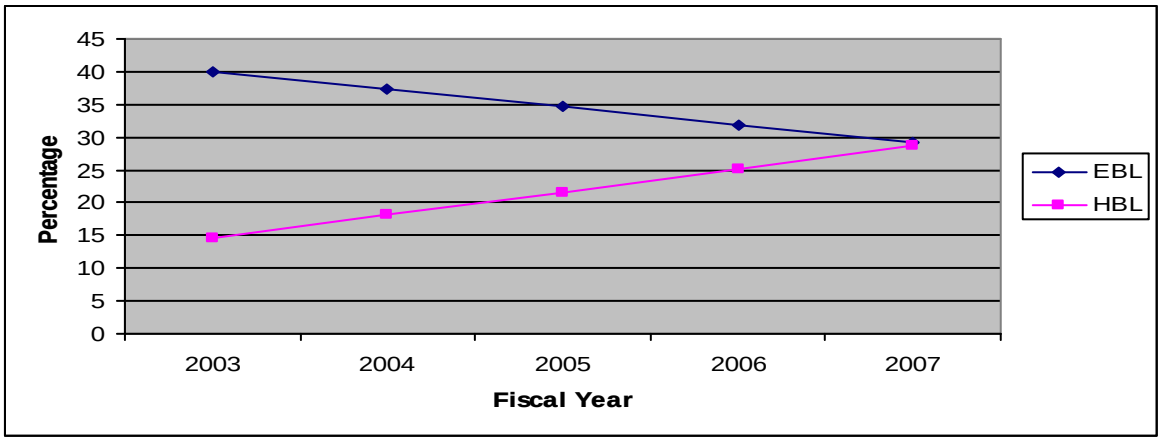
Estimate value of time deposit to total deposit ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	39.974	14.606
2004	37.294	18.127
2005	34.614	21.648
2006	31.934	25.169
2007	29.254	28.690

Source: Annex A14

Graph-4.14

Graph of time deposit to total deposit ratio



The above table 4A14 and graph 4.14 shows the trend values of time deposit to total deposit ratio of EBL and HBL. The time deposit of EBL is in decreasing trend but the time deposit of HBL is in increasing trend. It indicates that time deposit of EBL has fluctuate more than that of HBL.

4.2.3 Capital Adequacy Ratio

It is used to protect depositors and promote the stability and efficiency of financial systems. Excess capital decreases the profitable where as the less capital is the symbol of

a weak capital structure. So banks have to maintain the adequate capital as per the directives given by NRB. Following ratios are calculated as under: -

4.2.3.1 Total Capital to Total Deposit Ratio

Capital to total deposit ratio shows the relationship between capital and total deposit. This ratio measures how much capital has been rowed by the bank in respect to the deposit.

$$\text{Capital to Total deposit ratio} = \frac{\text{Total Capital}}{\text{Total deposit}}$$

Table -4.15

Calculation of mean, S.D. and C.V. of total deposit ratio

Years	EBL	HBL
2003	6.80	2.04
2004	5.64	2.44
2005	4.51	2.16
2006	3.75	2.88
2007	2.85	2.70
Mean ($\overline{X}$)	4.71	2.44
S.D. (s)	1.31	0.18
C.V.	23.39	8.15

Source: - Annex 12

The above table 4.15 shows the fluctuation in the ratios of total capital to total deposits of EBL and HBL during the study period. The average ratio of total capital to total deposit ratio of EBL and HBL are 4.71 and 2.44% respectively which shows that EBL had higher the ratio and it had highly fluctuating in total capital but HBL had low fluctuating in total capital. EBL has the highest total capital ratio of 6.80% in the year 2003 and lowest ratio of 2.85 in the year 2007 whereas HBL had highest total capital ratio of 2.88% in the year 2006 and lowest in the year 2003 of 2.04%. On the other hand, the CV of the HBL is

quite lower than the EBL i.e. 8.15% < 23.19% which shows that the capital maintained by HBL is more consistent in comparison to EBL.

Table-4A15

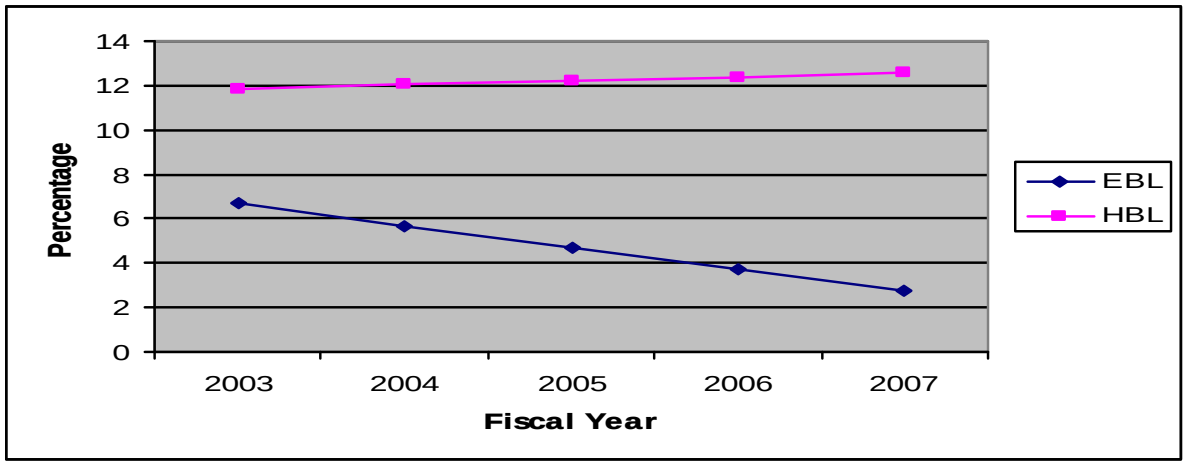
Estimate value of total capital to total deposit ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	6.668	11.868
2004	5.689	12.044
2005	4.710	12.220
2006	3.731	12.396
2007	2.752	12.572

Source: Annex A15

Graph-4.15

Graph of total capital to total deposit ratio of EBL and HBL



The above table 4A15 and graph 4.15 shows the trend value of capital to total deposit ratio of EBL and HBL. The trend value of capital to total deposit ratio of HBL is in increasing trend whereas the trend value of capital to total deposit ratio of EBL is in decreasing trend. It indicates that the HBL is more consistent than the EBL.

4.2.3.2 Total Capital to Total Credit Ratio

Capital to total credit ratio shows the relationship between total capital and total credit. It indicates how much capital is raised by the banks in respect to the credit

$$\text{Capital to total credit ratio} = \frac{\text{Total capital fund}}{\text{Total credit}}$$

Table – 4.16

Calculation of mean, S.D. and C.V. of total capital to total credit ratio

Years	EBL	HBL
2003	9.01	3.87
2004	7.42	4.10
2005	6.33	4.05
2006	5.28	5.27
2007	3.79	4.77
Mean ($\overline{X}$)	6.37	4.41
S.D. (s)	3.82	0.20
C.V.	50.77	4.92

Source: - Annex 13

The above table 4.16 shows the fluctuation in the ratios of total capital to total credit of EBL and HBL. The average ratio of total capital to total credit ratio of EBL and HBL were 6.37% and 4.41% respectively. It shows that EBL had higher ratio and it had highly fluctuating in total capital to total ratios. EBL had raised lower capital in respect to the credit. HBL had low raised capital in respect of total credit. The maximum total capital ratio of EBL is 9.01% in the year 2003 and lowest ratio of 3.79% in the year 2007 whereas the highest total capital ratio of HBL is 5.27 in the year 2006 and the lowest 3.87% in the year 2003. The CV of the HBL was lower than EBL i.e. 4.92% < 7.52%

which shows that the capital maintained by HBL was more consistent in comparison to EBL.

Table-4A16

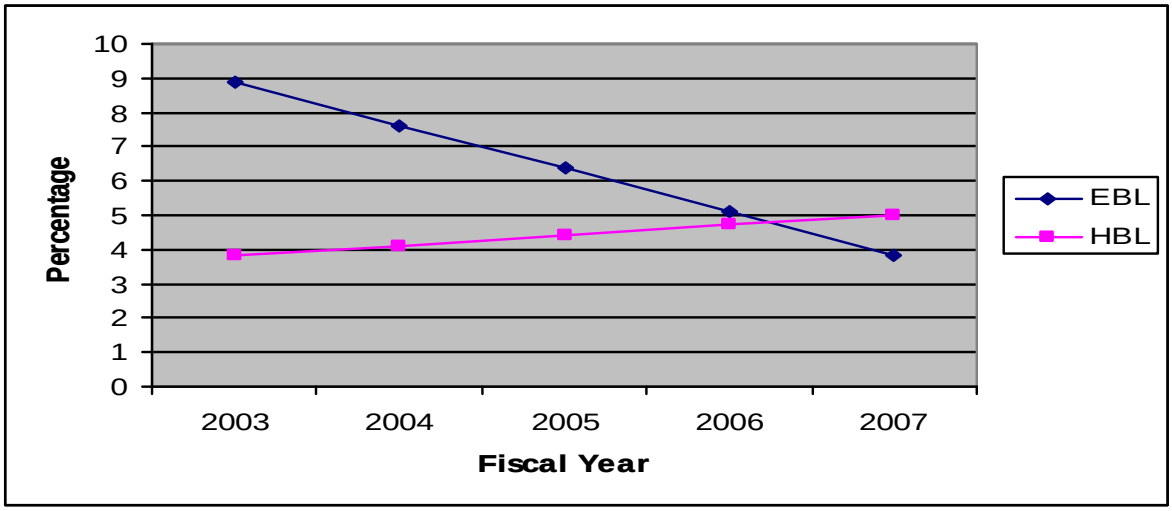
Estimate value of total capital to total credit ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	8.882	3.818
2004	7.624	4.115
2005	6.366	4.412
2006	5.102	4.709
2007	3.844	5.006

Source: Annex A16

Graph-4.16

Graph of total capital to total credit ratio



From the above table 4A16 and graph 4.16 shows the trend value of total capital to total credit ratio of EBL and HBL. The trend value of total capital to total credit ratio of HBL is in increasing trend where as the trend value of capital to total capital ratio of EBL is in decreasing trend. The increasing percent of HBL is lower than the decreasing percentage of EBL on total capital to total credit ratio.

4.2.3.3 Capital to Total Assets Ratio

Capital to total assets ratio measure the relationship between capital and assets. It is calculated as follows: -

$$\text{Capital to total assets ratio} = \frac{\text{Total capital}}{\text{Total Assets}}$$

Table-4.17

Calculation of mean, S.D. and C.V. of capital to total assets ratio

Years	EBL	HBL
2003	5.65	1.84
2004	4.74	2.16
2005	3.86	1.93
2006	3.24	2.62
2007	2.42	2.42
Mean ($\overline{X}$)	3.98	2.19
S.D. (s)	1.03	0.16
C.V.	21.89	7.85

Source: - Annex 14

The above table 4.17 shows the fluctuation in the ratios of total capital to total assets of EBL and HBL. The average ratio of total capital to total assets ratio of EBL and HBL were 3.98% and 2.19% respectively which shows that EBL had higher the capital to total assets ratio. There is moderately fluctuating trend in respect to the total assets and that of HBL. EBL has the highest capital ratio of 5.65% in the year 2003 and lowest of 2.42% in the year 2007. Similarly, the HBL has the highest capital ratio of 2.62% in the year 2006 and lowest of 1.83% in the year 2003. The CV of the HBL is lower than EBL i.e. 7.85%

<21.89%. It shows that the capital maintained by HBL was more consistent compare to EBL.

Table-4A17

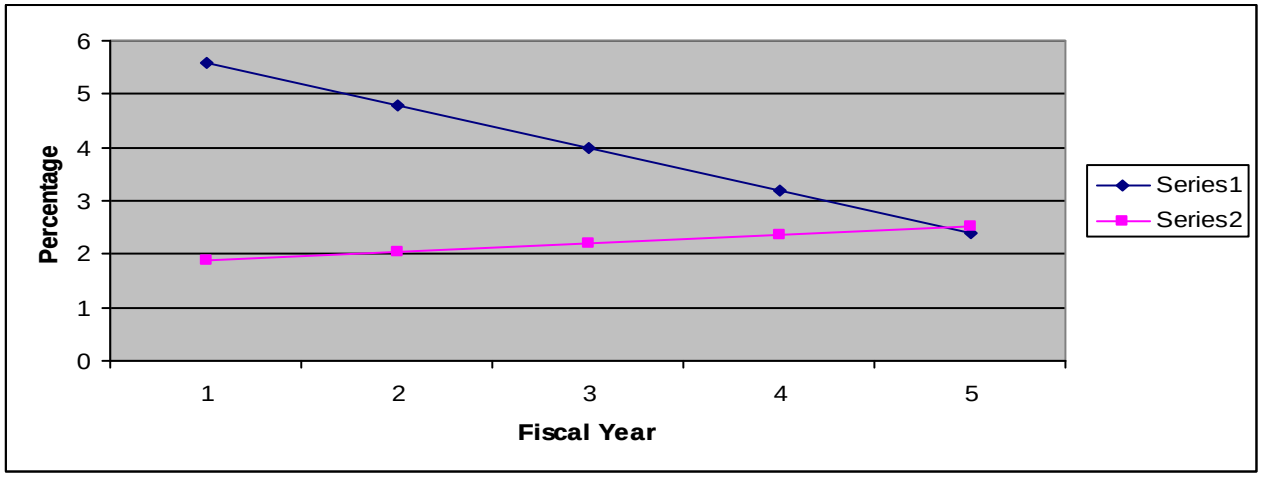
Estimate value of capital to total assets ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	5.574	1.870
2004	4.778	2.032
2005	3.982	2.194
2006	3.186	2.356
2007	2.390	2.518

Source: Annex A17

Graph-4.17

Graph of capital to total assets ratio



The above table 4A17 and graph 4.17 shows the trend values of capital to total assets ratio of EBL and HBL. The percentage of capital to total assets ratio of HBL increases whereas the percentage of capital to total assets ratio of EBL decreases. It indicates that HBL is more consistent than EBL.

4.2.4 Profitability Ratio

Profitability ratio is related into profit. It measures the overall banking operations of the company in regards to the profit. Profitability ratio is determined by the financial institution to find out their profit earning capacity on various kinds of deposits. Profit indicates the efficiency of the bank. A bank can make the profit through sound lending policy and the quality of services it provides. If the profit ratio is high, the efficiency of bank will be high. Following profitability ratios are calculated: -

4.2.4.1 Return on Total Working Fund Ratio

Return on total working fund measures the relationship between the working fund and profit of the bank. Hence working fund includes those entire funds which are used for mobilizing to earn profit.

$$\text{Return on total working capital} = \frac{\text{Net profit}}{\text{Total working fund}}$$

Total working fund = Total deposit + borrowings.

Table- 4.18

Calculation of mean, S.D. and C.V. of return to total working fund

Years	EBL	HBL
2003	1.41	1.01
2004	1.78	1.20
2005	1.69	1.24
2006	1.72	1.73
2007	1.63	1.64
Mean ($\overline{X}$)	1.65	1.36
S.D. (s)	0.14	0.24
C.V.	8.42	18.46

Source: - Annex 15

The above table 4.18 shows the ratios of return to working fund ratio of EBL and HBL. The average ratio of return of working fund ratio of EBL and HBL were 1.65% and 1.36% respectively which shows that EBL had higher ratio. The maximum return of EBL is 1.78% and the lowest is 1.41% in the year 2003 whereas the maximum return of HBL is 1.73% in the year 2006 and lowest in the year 2003 which is of 1.01%. EBL is able to earn more profit than HBL. The CV of the EBL was lower than HBL i.e. 8.42% < 18.46% which shows that the earning net profit levels of EBL is more consistent compare to the HBL.

Table-4A18

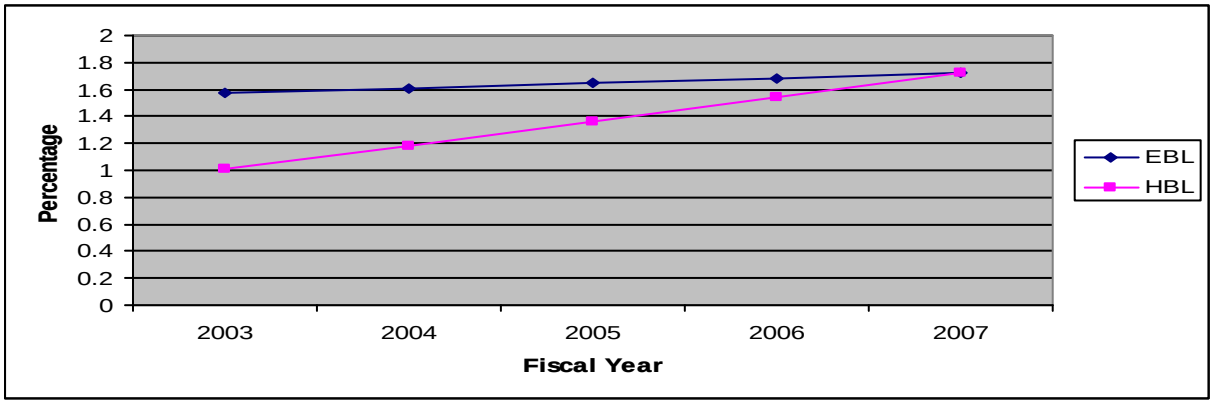
Estimate value of return to total working fund ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	1.570	1.006
2004	1.608	1.185
2005	1.646	1.364
2006	1.684	1.543
2007	1.722	1.722

Source: Annex A18

Graph-4.18

Graph of return to total working fund ratio



The above table 4A18 and graph 4.18 shows the trend values of return to total working fund ratio of EBL and HBL. The return to total working fund ratio of EBL as well as HBL is in increasing trend but the increasing trend of HBL is greater than EBL. It indicates that the HBL is more consistent than EBL.

4.2.4.2 Net Profit to Loan and Advance Ratio

Net profit to loan and advances ratio measures the earning capacity of commercial bank as its deposit mobilized on loan and advances higher the ratio greater will be the return and vice-versa.

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

Table- 4.19

Calculation of mean, S.D. and C.V. of return on loan and advance

(In Percentage)

Years	EBL	HBL
2003	1.87	1.92
2004	2.34	2.01
2005	2.16	2.33
2006	2.42	3.12
2007	2.17	2.89
Mean ($\overline{X}$)	2.19	2.45
S.D. (s)	0.19	0.65
C.V.	8.69	22.69

Source: - Annex 16

The table 4.19 shows the ratio of return on loan and advances ratio of EBL and HBL. EBL has the highest ratio 2.42% in 2006 and lowest 1.87% in the year 2003 whereas HBL has the highest ratio of 3.12% in the year 2006 and lowest ratio 1.92% in the year

2003. The average ratio of EBL and HBL were 2.19% and 2.45% respectively. The CV of the EBL was lower than HBL i.e. 8.69% < 22.69% which shows that the earning net profit level of EBL is more consistent compare to the HBL.

Table-4A19

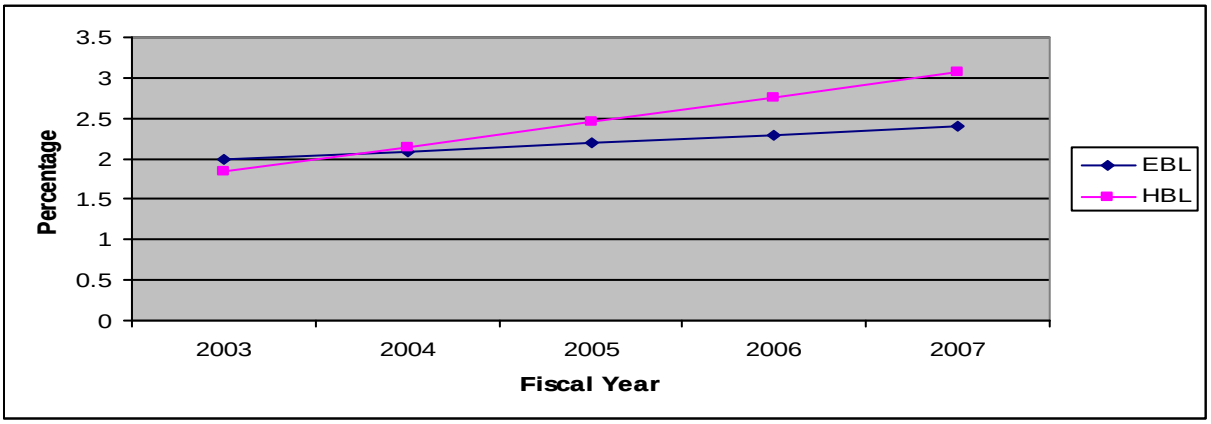
Estimate value of return on loan and advances ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	1.984	1.844
2004	2.088	2.149
2005	2.192	2.454
2006	2.296	2.759
2007	2.400	3.064

Source: Annex A19

Graph-4.19

Graph of return on loan and advance ratio



The above table 4A19 and graph 4.19 shows the trend values of net profit to loan and advance ratio of EBL and HBL. The increase percentage of HBL is greater than EBL. It indicates that the net profit level of HBL is more consistent in comparison to the other bank EBL.

4.2.4.3 Net Profit to Total Equity Capital Ratio

Return to total equity capital ratio shows the relationship between net profit and equity capital. Shareholders are the member of the banks. Equity capital comes from the equity shareholders side. If the bank can mobilize its equity capital properly, they earn high profit and faith of the shareholders too. Equity capital is the ownership capital of the banks. The returns on equity measures the extent to which a bank is successful to mobilize its capital.

$$\text{Return on Equity} = \frac{\text{Net Profit}}{\text{Total equity capital}}$$

Table-4.20

Calculation of Mean, S.D. and C.V. of return on equity

Years	EBL	HBL
2003	16.04	28.64
2004	21.56	18.32
2005	17.42	17.38
2006	21.03	18.71
2007	22.36	19.17
Mean ($\overline{X}$)	19.68	20.44
S.D. (s)	2.23	7.47
C.V.	11.95	31.55

Source: - Annex 17

The above table 4.20 shows that the ratios of return to equity capital ratio of EBL and HBL. The average ratio of return on equity ratio of EBL and HBL were 19.68% and 20.44% respectively which shows that HBL had higher ratio and it is able to earn more profit on equity capital than other bank EBL. EBL has the highest net profit ratio 22.36% in 2007 and the lowest ratio 16.04% in 2003 whereas HBL has the highest net profit ratio

28.64% in the year 2003 and lowest ratio 17.38% in the year 2005. The CV of the EBL is lower than other bank HBL i.e. 11.95% < 31.55% which shows that the earning net profit level of HBL is more consistent comparing to the other bank EBL.

Table-4.A20

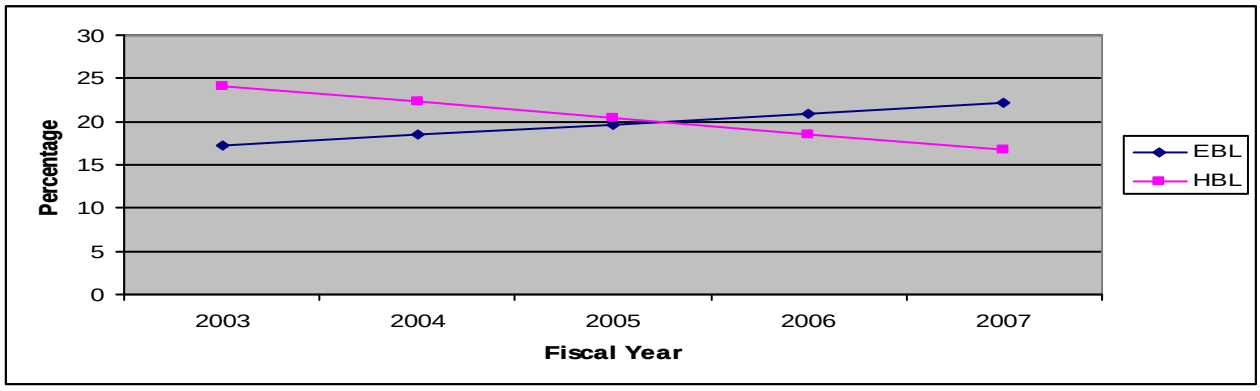
Estimate value of net profit to total equity capital ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	17.258	24.154
2004	18.469	22.299
2005	19.680	20.444
2006	20.891	18.589
2007	22.102	16.734

Source: Annex A20

Graph-4.20

Graph of net profit to total equity capital ratio



The above table 4A20 and graph 4.20 shows the trend value of net profit to total equity capital ratio of EBL and HBL. The trend value of net profit to total equity capital ratio of EBL is in increasing trend but the trend value of HBL is in decreasing trend. It indicates that HBL goes towards negative direction. In other words it could not get net profit in the future if it goes same direction.

4.2.5 Risk Ratio

Risk ratio is very essential element. Risk ratio measures the risk associated with the banking variables. A bank raises capital by accepting deposit and finally grant loan. These entire things come along with the risk. A bank must consider the risk associated with it. Higher the ratio higher will be the profit and vice-versa. Under this ratio following ratios are analyzed.

4.2.5.1 Capital Risk Ratio

Capital risk ratios are related between share capital and loan and advances or total credit is called capital risk ratio. Therefore, a bank must maintain adequate capital in relation to the nature and condition of its assets, its deposit liabilities and other corporate responsibilities.

$$\text{Capital Risk ratio} = \frac{\text{Share Capital}}{\text{Risk Weightage assets}}$$

Table-4.21

Calculation of mean, S.D. and C.V. of Capital risk ratio

Years	EBL	HBL
2003	9.01	3.87
2004	7.42	4.10
2005	5.75	4.05
2006	5.28	5.27
2007	3.79	4.76
Mean ($\overline{X}$)	6.25	4.41
S.D. (s)	1.80	0.20
C.V.	23.92	4.92

Source: - Annex 18

The above table 4.21 shows the fluctuation ratios of capital risk ratio of EBL and HBL throughout the review period. The average ratio of capital risk ratio of EBL and HBL were 6.25% and 4.41% respectively which shows the EBL had higher the ratio and it is able to attract deposit and inter bank funds. It makes the higher profit than HBL. EBL has the highest risk ratio of 9.01% in 2003 and lowest risk ratio 3.79% in 2007 whereas HBL has the highest risk ratio 5.27% in 2006 and lowest risk ratio 3.87% in 2003. The CV of the HBL is lower than EBL i.e. 4.92% < 23.92% which shows that the profit earning levels of HBL is more consistent compare to the other bank EBL.

Table-4A21

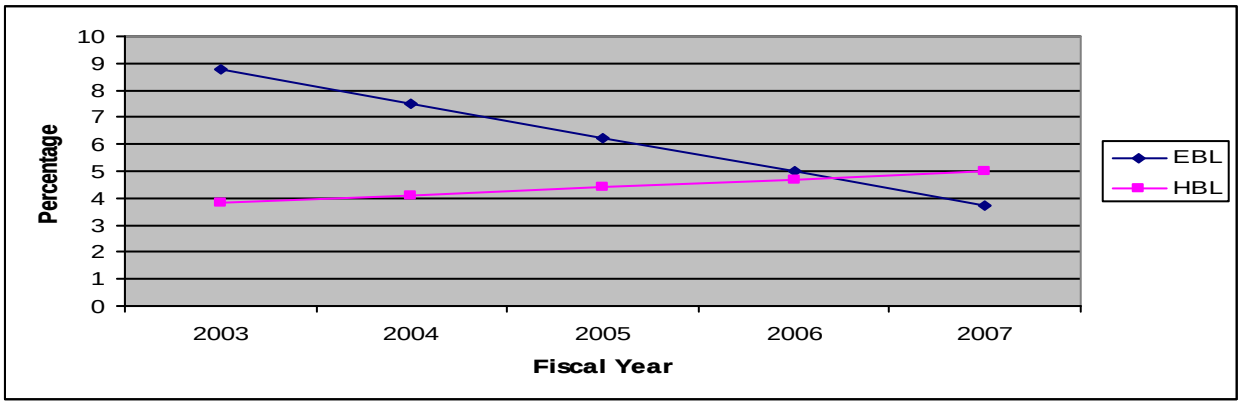
Estimate value of capital risk ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	8.766	3.820
2004	7.508	4.115
2005	6.250	4.410
2006	4.992	4.705
2007	3.734	5.000

Source: Annex A21

Graph-4.21

Estimate value of capital risk ratio of EBL and HBL



The above table 4A21 and graph 4.21 shows the trend values of capital risk ratio of EBL and HBL. The trend percentage value of capital risk ratio of EBL is in decreasing trend whereas the trend percentage value of capital risk ratio of HBL is in increasing trend. In other words, HBL is more consistent than EBL.

4.2.5.2 Interest Risk Ratio

The bank pays the interest to the depositor and takes it from the loanee. It is major source of income and expenditure depending upon the interest rate; the banks can make investment to maximize their income interest rate structure. There is higher degree of risk related with interest rate and the possibility of loss due to change interest rate is known as interest rate risk.

$$\text{Interest rate risk ratio} = \frac{\text{Interest in sensitive assets}}{\text{Interest in sensitive liabilities}}$$

Interest in sensitive assets = Loan and advances & bond and debenture

Interest in sensitive liabilities = Saving + Fixed + Other deposit + borrowing

Table-4.22

Calculation of mean, S.D. and C.V. of interest risk ratio

Years	EBL	HBL
2003	82.62	61.64
2004	83.71	62.17
2005	79.45	53.86
2006	58.87	52.64
2007	58.97	49.61
Mean ($\overline{X}$)	72.72	55.98
S.D. (s)	3.93	3.63
C.V.	4.93	6.32

Source: - Annex 19

The above table 4.22 shows the fluctuation in the ratios of interest risk ratio of EBL and HBL. The average ratio of interest rate risk ratio of EBL and HBL were 72.72% and 55.98% respectively which shows that EBL had higher the average ratio and it is able to earn more interest income than HBL. EBL has the highest risk ratio of 83.72% in 2004 and lowest 58.87% in 2006 whereas HBL has the highest risk ratio of 62.17% in 2004 and lowest of 49.61% in 2007. The CV of EBL is lower than HBL i.e. 4.93% < 6.32% which shows that the interest income levels of EBL is more consistent compare to HBL.

Table-4A22

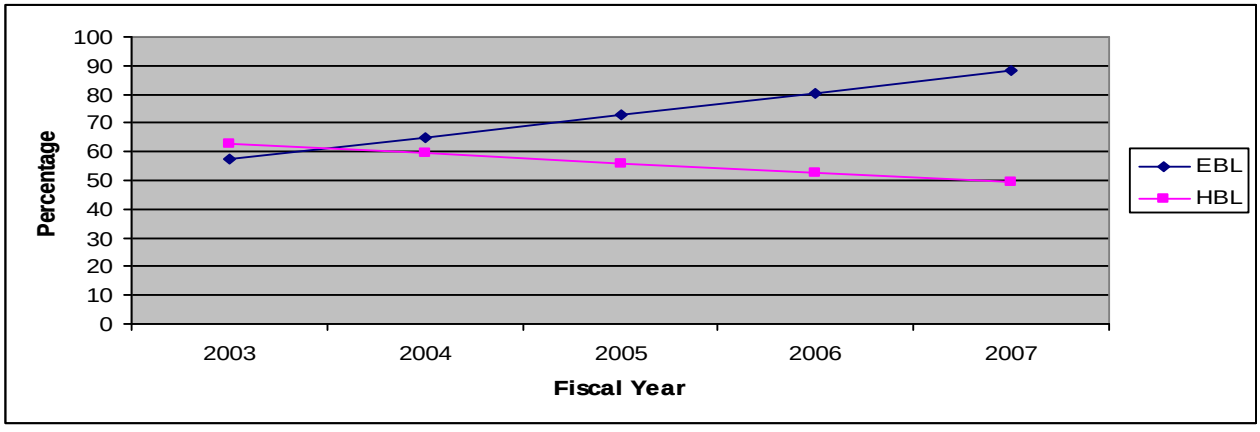
Estimate value of interest risk ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	57.408	62.702
2004	65.066	59.343
2005	72.724	55.984
2006	80.382	52.625
2007	88.040	49.266

Source: Annex A22

Graph-4.22

Estimate value of interest risk ratio of EBL and HBL



The above table 4A22 and graph 4.22 shows the trend percentage values of interest risk ratio of HBL and EBL. The percentage of EBL is in increasing trend whereas HBL is in decreasing trend. It indicates that the interest income level of HBL is more consistent in comparison to EBL.

4.2.5.3 Credit Risk Ratio

Credit risk ratio is related into total loan and advances and total assets. It is very essential for a bank to inspect the project i.e. the risk involves in it to avoid default of non payment of loan before making investment on them. The main factor while the bank makes the decision on investment to utilize its collected fund is the risk.

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

Table- 4.23

Calculation of mean, S.D. and C.V. of credit risk ratio

Years	EBL	HBL
2003	62.71	47.42
2004	63.81	52.71
2005	67.12	47.57
2006	61.41	49.70
2007	63.75	50.71
Mean ($\overline{X}$)	63.76	49.62
S.D. (s)	2.47	2.16
C.V.	3.92	4.43

Source: - Annex 20

The above table 4.23 shows the fluctuation in the ratios of credit risk ratio of EBL and HBL. The average ratio of credit risk ratio of EBL and HBL were 63.76% and 49.62%

respectively which shows that EBL had higher ratio and it is able to avoid default of non-payment of loan. EBL has the highest credit risk ratio 67.12% in 2005 and lowest 61.41% in 2003 whereas HBL has the highest credit risk ratio of 52.71% in the year 2004 and lowest of 47.42% in the year 2003. The CV of EBL is lower than the HBL i.e. 3.92% < 4.43% which shows that the non performing assets in total loan and advance levels of HBL is more consistent compare to the EBL bank.

Table-4A23

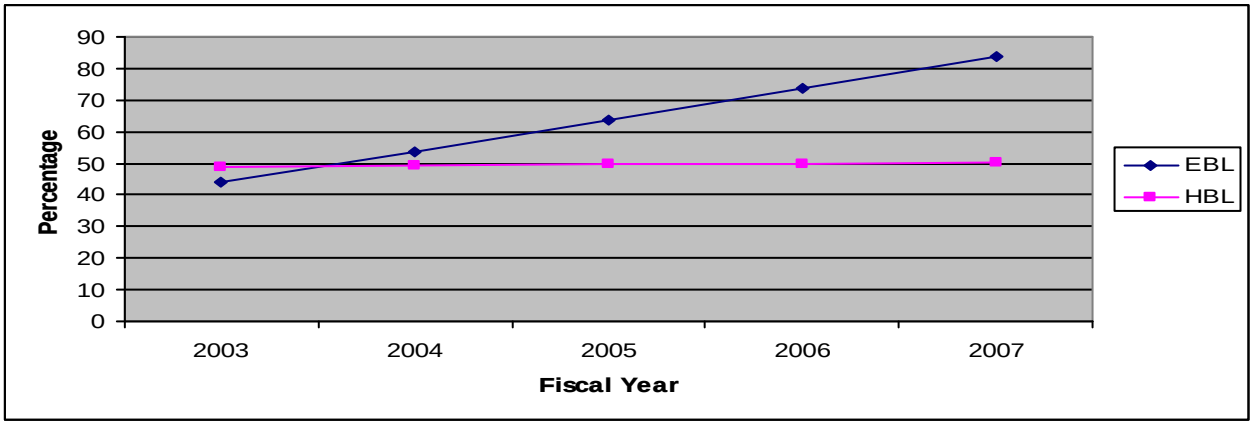
Trend analysis of credit risk ratio of EBL and HBL

Years	Trend Value (In Percentage)	
	EBL	HBL
2003	43.820	48.908
2004	53.788	49.265
2005	63.756	49.622
2006	73.724	49.979
2007	83.692	50.336

Source: Annex A23

Graph-4.23

Graph of credit risk ratio of EBL and HBL



The above table 4A23 and graph 4.23 shows the trend value of credit risk ratio of EBL and HBL. The trend value of both banks EBL and HBL are in increasing trend but the

increasing percentage of HBL is less than the EBL. It indicates that the non-performing asset in total loan and advance levels of HBL is more consistent in comparison to EBL.

4.2.6 Growth Ratio

Growth ratio is directly related to the deposit mobilization of commercial bank. It denotes that how well the banks are preserving their economic or financial position Growth ratio is calculated as follows: -

$$D_n = D_0 (1 + g)^{n-1}$$

Where,

D_n = Deposit amount for n periods.

D_0 = Current deposit amount

n = Number of years observed

g = growth rate during the period

4.2.6.1 Growth Ratio of Total Deposit

Table-4.24

Growth ratio of total deposit

Banks	**Fiscal Year**					**Growth**
	2003	2004	2005	2006	2007	**%**
EBL	6694.95	8063.90	10097.70	13802.44	18186.25	28.38
HBL	21007.38	22010.33	24813.99	26490.85	30048.42	9.36

Source: -Annex 21

From the above table 4.24 shows that the growth ratio of total deposit of EBL and HBL were 28.38% and 9.36% respectively which shows that EBL had higher the growth ratio than HBL i.e. 28.38% > 9.36%. EBL shows that the performance of collecting deposit is

better in comparison to other bank HBL. The trends of deposits collection of EBL and HBL are in increasing trend.

4.2.6.2 Growth Ratio of Loan and Advances

Table-4.25

Growth ratio of loan and advances

Banks	Fiscal Year					Growth %
	2003	2004	2005	2006	2007	
EBL	5049.60	6131.10	7914.40	9801.31	13664.08	28.25
HBL	11074.20	13081.70	13245.10	14642.56	16997.99	11.31

Source: - Annex 22

The above table 4.25 shows that the growth ratio of loan and advances of EBL and HBL were 28.25% and 11.31% respectively which shows that EBL had higher the growth ratio than HBL i.e. 28.25% > 11.31%. The loan and advances growth ratio of EBL is approximately 2 more than HBL. It shows that the performance of EBL in advancing loans is better in comparison to HBL. The trends of advancing loans of EBL and HBL are in increasing trend.

4.2.6.3 Growth Ratio of Total Investment

Table -4.26

Growth ratio of total investment

Banks	Fiscal Year					Growth %
	2003	2004	2005	2006	2007	
EBL	1616.46	2483.54	2119.68	4200.52	4984.31	32.51
HBL	4033.14	3466.00	5509.64	5744.97	6759.83	13.78

Source: - Annex 23

The above table 4.26 shows that the growth ratio of total investment of EBL and HBL were 32.51% and 13.78% respectively which shows that EBL had higher growth ratio than HBL. Both banks do not have very distinct growth ratio. The trends of investment of EBL and HBL are in increasing trend.

4.2.6.4 Growth Ratio of Net Profit

Table-4.27

Growth Ratio of net profit

Banks	Fiscal Year					Growth
	2003	2004	2005	2006	2007	%
EBL	94.18	143.57	170.81	237.29	296.41	33.19
HBL	212.13	263.05	308.28	457.46	491.82	23.39

Source: - Annex 24

The above table 4.27 shows that the growth ratio of net profit of EBL and HBL were 33.19% and 23.39% respectively which shows that EBL had higher the growth ratio than other bank HBL. It shows that the performance of EBL is better in comparison to other bank HBL. The trends of net profit of the bank are in increasing trend.

4.3 Statistical Analysis

Under this topic some statistical tools are used to achieve the objectives of the study which are as follows: -

- Correlation coefficient (r)
- Coefficient of determination (r^2)
- Probable Error
- Trend Analysis

4.3.1 Coefficient of Correlation

Under this chapter, Karl Pearson's coefficient of correlation is used to find out the relationship between total deposit and loan and advances and total deposit and investment.

4.3.1.1 Coefficient of Correlation between Total Deposit and Loan and Advance

Total deposit and loan and advances are very important liabilities and assets of the bank. Deposits are mobilized as the loan and advances. Proper mobilizations of deposits are very crucial function of the commercial banks. The relationship between deposit and loan and advance must be optimum to gain profit. In this analysis, total deposit is independent variable (X) and loan and advance is dependent variable (Y).

Table-4.28

Correlation coefficient between total deposits and loan and advance

Name	r	r^2	PE	6 X PE	Sig. / Insig.
EBL	0.9959	0.9918	0.00247	0.01482	Sig.
HBL	0.9618	0.9250	0.0226	0.1356	Sig.

Source: -Annex 25

The above table 4.28 we can find that the correlation coefficient between deposits and loan and advances of EBL and HBL are 0.9959 and 0.9618 respectively. This shows the positive relationship between these tow variables i.e. deposits and loan and advances of both banks.

By considering coefficient of determination (r^2), the value of r^2 is 0.9918 in case of EBL and 0.9250 incase of HBL. The value of r^2 of EBL is 0.9918, which means 99.18% of loan and advances decision is determined by deposit and 0.82% of loan and advances depend upon other variables. The value of r^2 of HBL is 0.9250, which means that 92.50%

of loan and advances is determined by deposit and only 7.50% loan and advances depend upon other variables. Above figure indicate that there are significant relationship between deposit and loan and advance.

4.3.1.2 Correlation Coefficient between Total Deposit and Investment

Correlation coefficient between deposit and investment measures the degree of relationship between these two variables. Total deposit is independent variable (Y). The objective behind the calculation of this correlation is to find out whether deposit is significantly mobilized as the investment.

Table-4.29

Correlation coefficient between total deposit and investment

Name	r	r^2	PE	6 X PE	Sig. / Insig.
EBL	0.9590	0.9196	0.02425	0.1455	Sig.
HBL	0.9920	0.9841	0.00479	0.02874	Sig.

Source: -Annex 26

From the above table shows that correlation coefficient between deposit and investment of EBL is 0.9590. It shows the positive correlation coefficient between these two variables. The value of coefficient of determination (r^2) is also 0.9196 of EBL which means 91.96% of investment decision depend upon deposit and 8.04% investment decision depend upon other variables. Similarly, probable error is 0.0645 and 6 X PE is 0.1455 which shows that the relationship between deposits and investment is significant.

In the case of HBL, correlation coefficient between investment and deposit is 0.9920 that means there is a positive correlation between two variables. The value of coefficient of determination (r^2) is also 0.9920 which means 99.20% of the investment decision depends upon deposit and only 0.80% investment decision depends upon other variables. Similarly, probable error is 0.00479 and 6 x PE is 0.02874 which shows that 'r' is greater

than 6 x PE. Therefore, it reveals that relationship between deposit and investment is significant.

4.3.2. Trend Analysis

Trend Analysis has been a very useful and commonly applied statistical tool to forecast the future events in quantitative terms. On the basis of tendencies in the dependent variables in the past periods, the future trend is forecasted. This analysis takes the historical data as the basis of forecasting. This method of forecasting the future trend is based on the assumptions that the past tendencies of the variables are repeated in the future of the past events affects the future events significantly.

The future trend is forecasted by using the following formula: -

$$Y = a + bx$$

Where,

Y = The dependent variable

a = The origin i.e. arithmetic mean.

b = The slope coefficient i.e. rate of change

X = The independent variable

4.3.2.1 Trend Analysis of Deposit

Deposit includes current, saving, fixed and other deposit (call deposit + others)
Under this topic an effort has been made to calculate the trend values to total deposits of EBL and HBL for 5 years and forecast for next 5 years till 2012.

Table-4.30

Trend analysis of total deposit

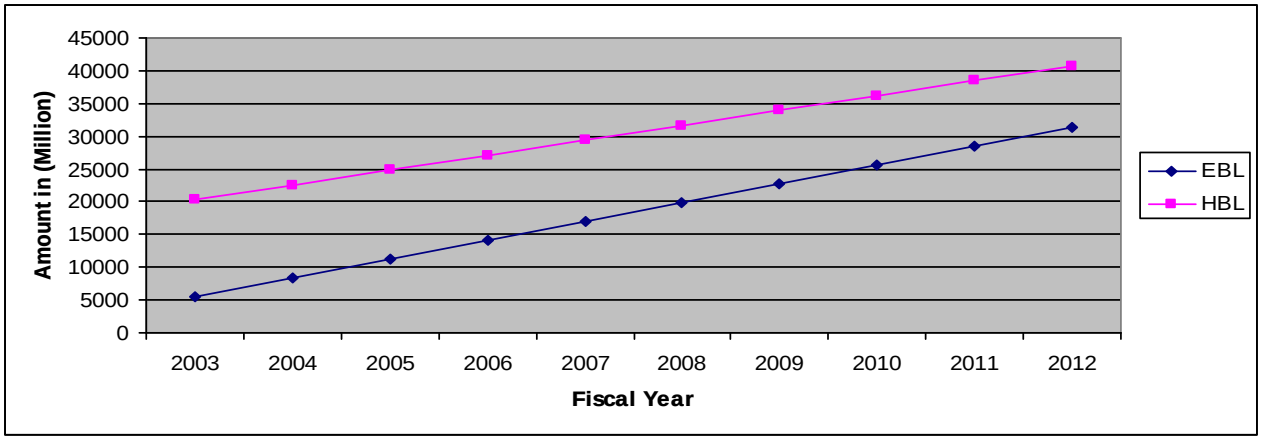
Name	2003	2004	2005	2006	2007
EBL	5624.83	8496.94	11369.05	14241.16	17113.27
HBL	20367.67	22617.93	24874.19	27130.45	29386.71

Name	2008	2009	2010	2011	2012
EBL	19985.38	22857.49	25729.60	28601.71	31473.82
HBL	31642.97	33899.23	36155.49	38441.75	40668.01

Source: - Annex A24

Graph-4.24

Graph of total deposit



The above table has given the trend values of EBL and HBL. The trends of deposit of both banks are in increasing trend. The total deposit of HBL is greater than EBL. The other things remaining the same, both banks will be accumulating a total deposit amount of Rs. 31473.82 and 40668.01 million in 2012 respectively of EBL and HBL.

4.3.2.2 Trend Analysis of Loan and Advances

Loan and advances includes, loan and advance disburse to government enterprises and private sector. Under this topic, an effort has been made to calculate the trend values of loan and advances of EBL and HBL for 5 Years and forecast for next 5 years till 2012.

Table-4.31

Trend analysis of loan and advance

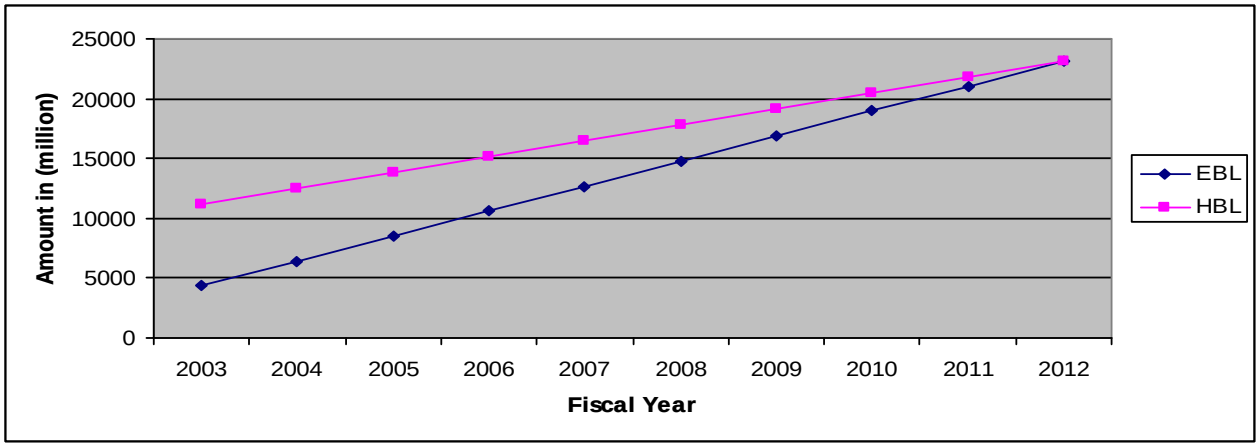
Name	2003	2004	2005	2006	2007
EBL	4332.25	6422.17	8512.09	10602.01	12691.93
HBL	11126.63	12467.47	13808.31	15149.15	16489.99

Name	2008	2009	2010	2011	2012
EBL	14781.85	16871.77	18961.69	21051.61	23141.53
HBL	17830.83	19171.67	20512.51	21853.35	23194.91

Source: -Annex A25

Graph-4.25

Graph of loan and advance



The above comparative graph clear that the loan and advances of both banks are increasing regularly. The loan and advances amount of HBL is greater than EBL. Other things remain constant, both banks will extent total loans worth Rs. 23141.53 and Rs. 23194.91 million in 2012 of EBL and HBL respectively which is the highest amount during period of the study.

4.3.2.3 Trend Analysis of Investment

Investment includes investment in government securities, share, debentures and bonds. Under this topic, an effort has been made to calculate the trend values of investment of EBL and HBL for 5 years till 2012.

Table-4.32

Trend analysis of investment

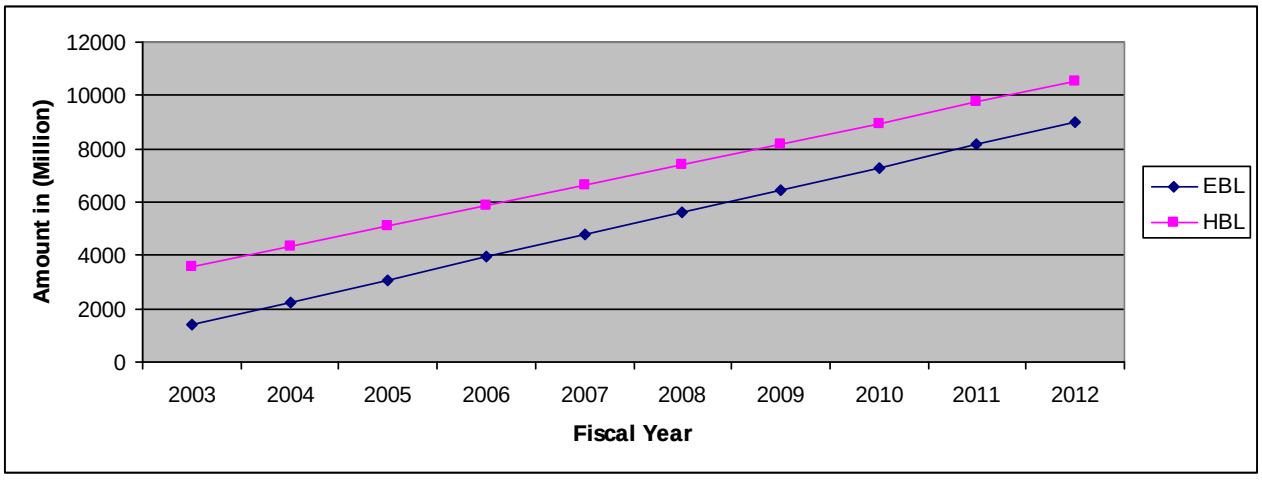
Name	2003	2004	2005	2006	2007
EBL	1390.36	2235.63	3080.90	3926.16	4771.43
HBL	3556.24	4329.48	5102.71	5875.95	6649.18

Name	2008	2009	2010	2011	2012
EBL	5616.70	6461.97	7307.24	8152.50	8997.77
HBL	7422.42	8195.65	8968.89	9742.12	10515.36

Source: -Annex A26

Graph-4.26

Graph of Investment



The above chart, give the trend values of EBL and HBL. It is clear that total investment of EBL and HBL are in increasing trend. The total investment of HBL is greater than

EBL in each year. Both banks will be accumulated total investment of Rs. 8997.77 and 10515.36 million of EBL and HBL respectively at the end of the year 2012. The increasing trend of HBL is greater than the increasing trend of EBL at the end of the study period.

4.4 Major Findings

4.4.1 Deposit Mobilization

Even though the deposit collection amount is increasing every year, the amount of deposit collection of HBL is greater than EBL. From the deposit collecting, loan and advances and investment of the banks, it is clear that the deposit collections of EBL and HBL are not satisfactory. Percentage change of deposit of HBL is more fluctuate than the percentage change of deposit of EBL. The HBL and EBL are more attracted to utilizing its resources on investment and also, it can be said that HBL and EBL are taking more interest towards less risky investment.

4.4.2 Financial Ratio Analysis

1. **Liquidity Ratio**
   - From the study of NRB balance with total deposit ratio, it is found that the average ratio (mean ratio) of EBL was higher than HBL bank. It indicates the strong liquidity position of EBL than HBL bank.
   - Balance with NRB to current and saving deposits of EBL and HBL banks were satisfactory. The average return of EBL is higher than HBL. Both banks have maintained the ratio prescribed by NRB.
   - NRB balance to total fixed deposit of EBL is lower than HBL. Even, NRB balance to total fixed deposit of EBL and HBL found that it exceed the minimum requirement laid down by the NRB rules.

- The average ratio of liquid fund to total deposit ratio of HBL is greater than and EBL which shows that HBL has much liquid fund than EBL.
- Overall analysis of this ratio has found that EBL and HBL are following the directions given by NRB in respect to the liquidity position. They are strong enough from the liquidity element.

2. Activity Ratio

- Credit to total deposit ratios of EBL and HBL are in fluctuating trend. During the study EBL has been successful in mobilizing funds than HBL.
- Investment to total deposit ratio EBL is higher than HBL which has more consistent investment.
- Credit and investment to total deposit ratio of EBL is higher than HBL. EBL has invested more than HBL.
- Loan and advances to saving deposit ratio of EBL is higher than HBL which indicates that saving deposit of EBL are better utilized in loan and advances.
- Credit to private sector to total credit ratio reveals that HBL had extended higher than EBL.
- Credit to government enterprises to total credit ratio reveals that HBL had extended higher than EBL and it reveals the contribution of the nation development.
- Time deposit to total deposit ratio of EBL is greater than HBL while the CV of EBL was lower than HBL. The study shows that EBL has higher ratio of mobilizing the fund.

3. Capital Adequacy Ratio

- Capital to total deposit ratio reveals that EBL had higher the ratio than HBL and it had slightly fluctuating in total capital. According to CV of the HBL was lower than EBL i.e. 8.15% < 23.19% which shows that the capital maintains by HBL is more consistent compare to EBL.

- Total capital to total credit ratio reveals that EBL had higher the ratio and it had slightly decreasing trend in total capital to total credits. On the other hand, the CV of the HBL is lower than EBL i.e. 4.12% < 7.52% which shows that the capital maintained by EBL was more consistent compare to the HBL.
- Capital to total assets ratio reveals that EBL had higher the ratio. The CV of HBL is lower than EBL i.e. 7.85% < 21.89% which shows that the capital maintains by HBL is more consistent compare to the EBL.
- In overall study of the ratio shows that EBL is in better position in this regards.

4. Probability Ratio

- Return on working fund reveals that the average ratio of EBL had higher ratio than HBL and it was able to earn more profit than HBL. The CV of EBL was lower than HBL i.e. 8.42% < 18.46% which shows that the earning net profit levels of HBL is more than EBL.
- Return (Net Profit) on loan and advance reveals that HBL had higher the average ratio and it was able to earn more profit on loan and advance than EBL. The CV of EBL was lower than HBL i.e. 8.69% < 22.69% which shows that the earning net profits levels by EBL is more consistent compare to the HBL.
- Return on equity reveals that HBL had higher the average ratio and it was able to earn more profit on equity capital than EBL. The CV of the EBL was lower than HBL i.e. 11.95% < 31.55%.

5. Growth Ratio

- Growth ratio of total deposit of EBL is higher than HBL. EBL in collecting deposit is better in comparison to HBL. The trend of deposit collections of both banks are in increasing trend.

- Growth ratio to total investment of EBL is more than HBL i.e. 28.18% > 17.17%. It shows that the performance of EBL is better than HBL.
- Growth ratio of loan and advances EBL had higher than HBL bank. The loan and advances growth ratio of EBL is approximately 2 and half times more than HBL.
- Growth ratio of net profit of EBL is greater than the ratio of HBL i.e. 29.88% > 15.96%. It shows the performance of EBL is better in comparison to HBL bank.

6. Risk Ratio

- Capital risk ratio of EBL had higher the average ratio. HBL has lower CV i.e. 4.92% < 23.92% which shows that the profit earning levels by HBL is more consistent compare to the EBL.
- Interest rate risk ratio reveals that EBL had higher the average ratio and it was able to earn more interest income than HBL bank. The CV of EBL was less than HBL, so that it was more consistent compare to the HBL.
- Credit risk ratio reveals that EBL had higher the average ratio and it was able to avoid default of non payment of loan. The CV of EBL was lower than HBL bank i.e. 3.92% < 4.43% which shows that the non-performing assets in total loan and advance levels by EBL was more consistent compare to the HBL bank.
- Overall study of the risk ratios shows that capital risk ratio of EBL is higher that mean it is giving due considerations in increasing of profit through the increment of deposit.

7. Correlation Coefficient

- Correlation coefficient between total deposit and loan and advances found that there is highly positive correlation of EBL and HBL banks which indicate that increase in deposit will increase in loan and advances. This

study also suggests that independent variable that is loan and advances is highly dependent to the deposit. The value of correlation is greater than the six times to PE of both banks. Therefore there are significant relationship between total deposits and loan and advances of both banks.

- Correlation Coefficient between deposit and investment of both banks are also found that it is positive and it is directly related to the deposit. The correlation coefficients of both banks are greater than the value of six times of PE. It indicates that there is significant relationship between total deposit and investment.

8. Trend Analysis

- The deposits of both banks are in increasing trend. The total deposit collection of HBL is greater that the EBL. The HBL bank will be accumulated a total deposit amount of Rs. 40668.01 million in 2012 while the EBL will deposit amount that will be Rs. 31473.82 million only in 2012.
- Loan and advance of both banks are also increasing trend. HBL remained the higher volume of credit outflow; the banks will extent total loans worth Rs. 23194.19 million in 2012. EBL remained the lower position in term of loan and advances outflow that will be 23141.53 million in 2012.
- Both banks total investment is in increasing trend. HBL remain the market leader in total investment, the bank will be accumulated a total investment amount of Rs. 10515.36 in 2012, which is highest under the study period. EBL remained the lower position in terms of total investments will be Rs. 8997.77 million in 2012.
- The overall trend analysis of both banks shows that deposit, loan and advances and investment of HBL will be higher than EBL bank. The growth rate of EBL is higher than the growth rate of HBL.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter summarizes the whole study, draws the major conclusions and forwards the recommendations on the basis of major findings.

5.1 Summary

There are five chapters included in this research. The first chapter includes the background of the study, statement of the problems, objectives of the study and limitations of the study. There are four objectives of the study. The main objective of the study is to see the financial position of EBL and HBL. To analyze the trends of deposits mobilization of every topic and forecast the trend values of deposit, loan and advance and investment and its projection for next five years. There are many limitations of the study as the study is based on secondary data.

The second chapter focuses on the conceptual review, review of related studies, review of articles and review of thesis.

The third chapter discussed about the research design. The study is mainly based on secondary sources. All data are taken form concerned banks annual report , literature publication, balance sheet, profit and loss account, previous thesis report, different website, related booklets, journals and articles. After collecting the data from the different sources, it is analyzed by using financial tools and statistical tools.

In the fourth chapter, presentation and analysis of data are represented clearly and simultaneously using tables and trend lines. Following results are summarizes which is obtained by the analysis of data.

Deposit of the commercial bank is very important variable. According to the study, the contribution of the deposit to the net profit is higher in the banks. The collection of the deposit is must taken by the commercial bank so that adequate funds are available to mobilize it.

Just only increment of deposit does not give any return to the bank. A bank must have sound investment policy for the mobilization of the available funds. A deposit is that liabilities of the commercial banks which is returnable in demand at any time. So, sound investment policy has appeared to be very necessary to the commercial bank. A commercial bank mainly focuses on its two functions i.e. collection of deposit through various schemes and granting those amounts as loan to the clients by providing various facilities.

In the year 2007, EBL has collected deposit of Rs. 18186.25 million deposits extended as loan and advance as Rs. 13664.08 million and made net profit of Rs. 296.41 million. Similarly, HBL was able to collect Rs. 30048.42 million deposits and extended as loan and advance of Rs. 16997.99 million and was able to made net profit of Rs. 491.82 million in the year 2007.

According to liquidity ratio, the overall liquidity ratio of EBL is stronger than other bank HBL. It can conclude that EBL could discharge its depositor's obligation more comfortably. These ratios are used to know the capacity of the concern to repay its short term liability.

According to activity ratio, EBL has mobilized its collected deposits on investment better than HBL. These ratios reflect how efficiently the bank is managing its resources.

According to capital adequacy ratio, EBL is good enough to row its capital than HBL.

The earning capacity of bank is measured by profitability ratio. HBL is more consistencies at earning net profit than EBL but the ratio of profit to total equity capital of HBL is decreasing every year.

In the case of risk ratio, the study reveals that HBL has less risk ratio than EBL. So the HBL is less risky than EBL.

In the case of growth ratio, the growth ratio of EBL is higher than HBL. Karl Pearson's correlation analysis helped to conclude the fact that EBL is capable of exploiting its resources by utilizing them in more effectively and efficiently in productive sectors.

Trend analysis of all ratios and trend value forecast of total deposits, loan and advance and investment shows the percentage change in several successive years.

5.2 Conclusions

As deposits are the major organ of commercial bank to sustain in the industry, CBs should have optimum policy to collect the deposit in various accounts. Higher the deposit higher will be chance of the mobilization of working fund and profit. Banks should not invest their fund haphazardly. It should be careful while advancing loan because loan is the blood of the CBs for survival. If commercial bank doesn't apply sound investment policy it will be in great trouble in future to collect it in time. Hence the possibility of bankruptcy may arise there. Banks should invest their fund in various portfolios after the deep study of the project to be safe from being bankruptcy. If banks concentrate the investment in few organizations there is a high chance of default risk.

Banks are important for economic development of the country. Diversification is indeed need to all the business houses but it has seen immense important to commercial banks than other business house because banks use the money of other people for the benefit of

its own. It helps in the capital formation to the country which is the most important element for the economic growth of the country. In overall, it can be concluded that CBs life is totally dependent upon the deposit collection policy and the optimum deposit mobilization procedure.

5.3 Recommendations

5.3.1 Recommendation to Everest Bank Ltd.

- Deposit collection of EBL is too low as comparison to HBL. It is concluded in the study how important the deposit is for the commercial bank. EBL is recommended to collect the deposit by initiating various new programs to attract the customer
- EBL is increasing loan and advance in every successive year but it is suggested that it should increase the percentage of investment on loan and advance which helps to earn more profit.
- EBL has invested a lot of money in Government enterprises. Banks can not earn profit by mobilizing its maximum funds to Government enterprises. So, it will be beneficial for EBL to mobilize the fund in high profitable projects rather than giving importance to the government sector.
- To be a successful banker a bank must utilize depositor's money as loan and advance. Loan and advances is the largest item of the bank in the assets side. EBL is recommended to utilize its depositor's money as loan and advances.

5.3.2 Recommendation to Himalayan Bank

- The basis of credit to total deposit ratio shows that the bank can not mobilize their total deposit properly. The HBL should increase the ratio of credit to total deposit by increasing investment on loan and advances.

- HBL is interested only in investing private sector. It is better for the bank to increase its profit by lending in highly profitable projects but there is high risk too. So HBL should diversify its investment in various securities.
- Growth ratio of total deposit and loan and advance of HBL is lower than EBL. Hence, it is recommended to HBL. The bank should increase the ratio of deposit and loan and advances.
- NRB balance to current and saving deposit of HBL is quite low. It should increase NRB balance so that it would have more liquid funds whenever needed.

5.3.3 General Statement Recommendations

- Commercial banks must be providing their services in the remote area and deprived people. It should not only concentrate its activities in urban areas.
- Most of the resources are in the hand of CBs that some positions of it should be provided to micro finance sector.
- Through NRB liberal policy it has left the banking institutions with a limited scope of options for the rescheduling of the bad loans. Considering this, the banks have to formulate the future strategies by identifying these problems.
- The portfolio conditions of bank should be regularly revised from time to time. The banks should be able to maintain the optimum condition of it.
- CBs are closely rural branches. Therefore it is essential to provide resources to rural people and same form of linkage needs to be set-up.
- CB's are not willing to deal in small loans so that there is gap, which needs to be fulfilled.
- "Fund from urban areas and credit to rural poor's". Could be the motto of CBs if they foresee the market potential.
- Lastly, sample banks are suggested to support the social welfare event to promote the business.

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Annex 1

NRB balance to total deposit ratio of EBL ***(In Percentage)***

Year	NRB Deposit	Total Deposit	Ratio
2003	724.80	6694.95	10.83
2004	441.90	8063.90	5.48
2005	779.70	10097.70	7.72
2006	1139.51	13802.44	8.25
2007	1178.19	18186.25	6.48

NRB balance to total deposit ratio of HBL ***(In Percentage)***

Year	NRB Deposit	Total Deposit	Ratio
2003	1153.10	21007.38	5.49
2004	1626.00	22010.33	7.39
2005	1604.10	24813.99	6.46
2006	1096.25	26490.85	4.14
2007	1272.54	30048.42	4.23

Annex 2

NRB balance to current and saving deposit of EBL **(*In Percentage)***

Year	NRB Deposit	Current+ Saving Deposit	Ratio
2003	724.80	3320.34	21.83
2004	441.90	4450.37	9.93
2005	779.70	5831.86	13.37
2006	1139.51	8075.01	14.11
2007	1178.19	10703.23	11.00

NRB balance to current and saving deposit of HBL ***(In Percentage)***

Year	NRB Deposit	Current + Saving Deposit	Ratio
2003	1153.10	13912.03	8.29
2004	1626.00	12729.69	12.27
2005	1604.10	13057.37	12.28
2006	1096.25	19604.37	5.59

2007	1272.54	21374.34	5.95

Annex – 3

NRB balance to Fixed deposit of EBL ***(In Percentage)***

Year	NRB Deposit	Fixed Deposit	Ratio
2003	724.80	2794.74	25.93
2004	441.90	2897.96	15.25
2005	779.70	3403.96	22.91
2006	1139.51	4242.35	26.86
2007	1178.19	5626.66	20.94

NRB balance to fixed deposit of HBL ***(In Percentage)***

Year	NRB Deposit	Fixed Deposit	Ratio
2003	1153.10	2305.37	50.00
2004	1626.00	4701.18	34.52
2005	1604.10	6107.43	26.26
2006	1096.25	6350.20	17.26
2007	1272.54	8201.13	15.52

Annex -4

Total liquid fund to total deposit ratio of EBL ***(In Percentage)***

Year	Total Liquid Fund	Total Deposit	Ratio
2003	1156.10	6694.95	17.27
2004	869.70	8063.90	10.79
2005	1624.10	10097.70	16.08
2006	1936.25	13802.44	14.02
2007	2018.76	18186.25	11.10

Total liquid fund to total deposit ratio of HBL ***(In Percentage)***

Year	Total Liquid Fund	Total Deposit	Ratio
2003	8281.70	21007.38	39.42
2004	8613.50	22010.33	39.13

2005	8173.20	24813.99	32.94
2006	8563.56	26490.85	32.33
2007	9346.24	30048.42	31.10

Annex – 5

Total credit to total deposit ratio of EBL ***(In Percentage)***

Year	Total Credit	Total Deposit	Ratio
2003	5049.60	6694.95	75.42
2004	6131.10	8063.90	76.03
2005	7914.40	10097.70	71.19
2006	9801.31	13802.44	71.01
2007	13664.08	18186.25	75.13

Total credit to total deposit ratio of HBL ***(In Percentage)***

Year	Total Credit	Total Deposit	Ratio
2003	11074.20	21007.38	52.72
2004	13081.70	22010.33	59.43
2005	13245.10	24813.99	53.38
2006	14642.56	26490.85	55.27
2007	16997.99	30048.42	56.57

Annex -6

Investment to total deposit ratio of EBL ***(In Percentage)***

Year	Investment Amount	Total Deposit	Ratio
2003	5049.60	6694.95	75.42
2004	6131.10	8063.90	76.03
2005	7914.40	10097.70	71.19
2006	9801.31	13802.44	71.01
2007	13664.08	18186.25	75.13

Investment to total deposit ratio of HBL ***(In Percentage)***

Year	Investment Amount	Total Deposit	Ratio

2003	11074.20	21007.38	52.72
2004	13081.70	22010.33	59.43
2005	13245.10	24813.99	53.38
2006	14642.56	26490.85	55.27
2007	16997.99	30048.42	56.57

Annex – 7

Total credit and investment to total deposit ratio of EBL ***(In Percentage)***

Year	Credit and Investment	Total Deposit	Ratio
2003	6666.06	6694.95	99.57
2004	8614.64	8063.90	106.83
2005	9308.68	10097.70	92.19
2006	12564.32	13802.44	91.03
2007	14563.42	18186.25	80.08

Total credit and investment to total deposit ratio of HBL ***(In Percentage)***

Year	Credit and Investment	Total Deposit	Ratio
2003	15107.34	21007.38	71.91
2004	16547.70	22010.33	75.18
2005	18754.74	24813.99	75.58
2006	23958.57	26490.85	90.44
2007	27365.82	30048.42	91.07

Annex -8

Loan and advance to saving deposit ratio of EBL ***(In Percentage)***

Year	Loan and Advance	Saving Deposit	Ratio
2003	5049.60	2757.95	1.83
2004	6131.10	3730.61	1.63
2005	7914.40	4806.83	1.64
2006	9801.31	6929.22	1.41
2007	13664.08	9029.25	1.51

Loan and advance to saving deposit ratio of HBL ***(In Percentage)***

Year	Loan and Advance	Saving Deposit	Ratio
2003	11074.20	10870.584	1.02
2004	13081.70	11759.60	1.11
2005	13245.10	12852.41	1.03
2006	14642.56	14586.29	1.00
2007	16997.99	15784.76	1.08

Annex – 9

Credit to private sector lending to total credit ratio of EBL ***(In Percentage)***

Year	Credit to Private Sector	Total Credit	Ratio
2003	4970.90	5049.60	98.44
2004	6047.40	6131.10	98.63
2005	7410.80	7914.40	93.52
2006	7901.63	9801.31	80.61
2007	8235.69	13664.08	60.27

Credit to private sector lending to total credit ratio of HBL ***(In Percentage)***

Year	Credit to Private Sector	Total Credit	Ratio
2003	10151.50	11074.20	91.67
2004	12315.50	13081.70	94.14
2005	13245.10	13245.10	100.00
2006	14341.98	14642.56	97.94
2007	16421.36	16997.99	96.60

Annex -10

Credit to government enterprises to total credit ratio of EBL ***(In Percentage)***

Year	Credit to Govt. Enterprises	Total Credit	Ratio
2003	60.00	5049.60	1.19
2004	69.20	6131.10	1.13
2005	503.50	7914.40	7.00
2006	550.26	9801.31	5.61
2007	610.45	13664.08	4.47

Credit to government enterprises to total credit ratio of HBL ***(In Percentage)***

Year	Credit to Govt. Enterprises	Total Credit	Ratio
2003	742.70	11074.20	6.71
2004	766.20	13081.70	5.86
2005	0	13245.10	0.00
2006	0	14642.56	0.00
2007	0	16997.99	0.00

Annex – 11

Time deposit to Total deposit ratio of EBL ***(In Percentage)***

Year	Fixed Deposit	Total Deposit	Ratio
2003	2794.74	6694.95	41.74
2004	2897.96	8063.90	35.94
2005	3403.96	10097.70	33.71
2006	4242.35	13802.44	30.74
2007	5626.66	18186.25	30.94

Time deposit to Total deposit ratio of HBL ***(In Percentage)***

Year	Fixed Deposit	Total Deposit	Ratio
2003	2305.37	21007.38	10.97
2004	4701.18	22010.33	21.40
2005	6107.43	24813.99	24.61
2006	6350.20	26490.85	23.97
2007	8201.13	30048.42	27.29

Annex -12

Total capital to total deposit ratio of EBL ***(In Percentage)***

Year	Total Capital	Total Deposit	Ratio
2003	455.00	6694.95	6.80
2004	455.00	8063.90	5.64
2005	455.00	10097.70	4.51
2006	518.00	13802.44	3.75

2007	518.00	18186.25	2.85

Total capital to total deposit ratio of HBL ***(In Percentage)***

Year	Total Capital	Total Deposit	Ratio
2003	429.00	21007.38	2.04
2004	536.30	22010.33	2.44
2005	536.30	24813.99	2.16
2006	772.20	26490.85	2.88
2007	810.00	30048.42	2.70

Annex – 13

Total capital to total credit ratio of EBL ***(In Percentage)***

Year	Total Capital	Total Credit	Ratio
2003	455.00	5049.60	9.01
2004	455.00	6131.10	7.42
2005	455.00	7914.40	6.33
2006	518.00	9801.31	5.28
2007	518.00	13664.08	3.79

Total capital to total credit ratio of HBL ***(In Percentage)***

Year	Total Capital	Total Credit	Ratio
2003	429.00	11074.20	3.87
2004	536.30	13081.70	4.10
2005	536.30	13245.10	4.05
2006	772.20	14642.56	5.27
2007	810.00	16997.99	4.77

Annex -14

Total capital to total assets ratio of EBL ***(In Percentage)***

Year	Total Capital	Total Assets	Ratio
2003	455.00	8052.21	5.65
2004	455.00	9608.57	4.74

2005	455.00	11729.13	3.86
2006	518.00	15959.28	3.24
2007	518.00	21432.57	2.42

Total capital to total assets ratio of HBL ***(In Percentage)***

Year	Total Capital	Total Assets	Ratio
2003	429.00	23355.22	1.84
2004	536.30	24817.37	2.16
2005	536.30	27844.69	1.93
2006	772.20	29460.39	2.62
2007	810.00	33519.14	2.42

Annex – 15

Net profit to total working fund ratio of EBL ***(In Percentage)***

Year	Net Profit	Total Working Fund	Ratio
2003	94.18	6694.95	1.41
2004	143.57	8063.90	1.78
2005	170.81	10097.70	1.69
2006	237.29	13802.44	1.72
2007	296.41	18186.25	1.63

Net profit to total working fund ratio of HBL ***(In Percentage)***

Year	Net Profit	Total Working Fund	Ratio
2003	212.13	21007.38	1.01
2004	263.05	22010.33	1.20
2005	308.28	24813.99	1.24
2006	457.46	26490.85	1.73
2007	491.82	30048.42	1.64

Annex -16

Net profit to loan and advance ratio of EBL ***(In Percentage)***

Year	Net Profit	Loan and Advances	Ratio

2003	94.18	5049.60	1.87
2004	143.57	6131.10	2.34
2005	170.81	7914.40	2.16
2006	237.29	9801.31	2.42
2007	296.41	13664.08	2.17

Net profit to loan and advance ratio of HBL ***(In Percentage)***

Year	Net Profit	Loan and Advances	Ratio
2003	212.13	11074.20	1.92
2004	263.05	13081.70	2.01
2005	308.28	13245.10	2.33
2006	457.46	14642.56	3.12
2007	491.82	16997.99	2.89

Annex – 17

Return on total equity capital ratio of EBL ***(In Percentage)***

Year	Net Profit	Total Equity Capital	Ratio
2003	94.18	587.10	16.04
2004	143.57	665.80	21.56
2005	170.81	980.30	17.42
2006	237.29	1128.12	21.03
2007	296.41	1325.54	22.36

Return on total equity capital ratio of HBL ***(In Percentage)***

Year	Net Profit	Total Equity Capital	Ratio
2003	212.13	740.60	28.64
2004	263.05	1435.90	18.32
2005	308.28	1773.70	17.38
2006	457.46	2444.40	18.71
2007	491.82	256478	19.17

Annex -18

Capital Risk ratio of EBL ***(In Percentage)***

Year	Share Capital	Loan and Advance	Ratio
2003	455.00	5049.60	9.01
2004	455.00	6131.10	7.42
2005	455.00	7914.40	5.75
2006	518.00	9801.31	5.28
2007	518.00	13664.08	3.79

Capital Risk ratio of HBL ***(In Percentage)***

Year	Share Capital	Loan and Advance	Ratio
2003	429.00	11074.20	3.87
2004	536.30	13081.70	4.10
2005	536.30	13245.10	4.05
2006	772.20	14642.56	5.27
2007	810.00	16997.99	4.76

Annex – 19

Interest Risk ratio of EBL ***(In Percentage)***

Year	Interest in Sensitive Assets	Interest in Sensitive Liabilities	Ratio
2003	5062.85	6132.56	82.62
2004	6148.21	7344.14	83.71
2005	7208.30	9072.67	79.45
2006	8126.25	13802.44	58.87
2007	9122.45	15468.35	58.97

Interest Risk ratio of HBL ***(In Percentage)***

Year	Interest in Sensitive Assets	Interest in Sensitive Liabilities	Ratio
2003	11074.20	17965.89	61.64
2004	13081.70	21040.24	62.17
2005	13245.10	24591.03	53.86
2006	13946.25	26490.85	52.64
2007	14123.89	28469.21	49.61

Annex -20

Credit Risk ratio of EBL ***(In Percentage)***

Year	Loan and Advance	Total Assets	Ratio
2003	5049.60	8052.21	62.71
2004	6131.10	9608.57	63.81
2005	7914.40	11729.13	67.12
2006	9801.31	15959.28	61.41
2007	13664.08	21432.57	63.75

Credit Risk ratio of HBL ***(In Percentage)***

Year	Loan and Advance	Total Assets	Ratio
2003	11074.20	23355.22	47.42
2004	13081.70	24817.37	52.71
2005	13245.10	27844.69	47.57
2006	14642.56	29460.39	49.70
2007	16997.99	33519.14	50.71

Annex- 21

Calculation of growth ratio of Total deposit

For EBL

$$Dn = D_O (1 + g)^{n-1}$$

or $18186.25 = 6694.95 (1 + g)^{5-1}$

or $$\frac{18186.25}{6694.95} = (1 + g)^4$$

or $(1 + g)^4 = 2.7164$

or $(1 + g) = (2.7164)^{1/4}$

$1+g = 1.2838$

or $g = 28.38\%$

Similarly, for HBL

$$\text{Or} \quad 30048.42 = 21007.38(1+g)^{5-1}$$

$$\text{or} \quad \frac{30048.42}{21007.38} = (1+g)^4$$

$$\text{or} \quad (1+g)^4 = 1.4304$$

$$\text{or} \quad (1+g) = (1.4304)^{1/4}$$

$$1+g = 1.0936$$

$$\text{or} \quad g = 9.36\%$$

Annex- 22

Calculation of growth ratio of loan and advances

For EBL

$$Dn = D_O(1+g)^{n-1}$$

$$\text{or} \quad 13664.08 = 5049.60\,(1+g)^{5-1}$$

$$\text{or} \quad \frac{13664.08}{5049.60} = (1+g)^4$$

$$\text{or} \quad (1+g)^4 = 2.7059$$

$$\text{or} \quad (1+g) = (2.7059)^{1/4}$$

$$1+g = 1.2825$$

$$\text{or} \quad g = 28.25\%$$

Similarly, for HBL

$$\text{Or} \quad 16997.99 = 11074.20(1+g)^{5-1}$$

$$\text{or} \quad \frac{16997.99}{11074.20} = (1+g)^4$$

$$\text{or} \quad (1+g)^4 = 1.5349$$

$$\text{or} \quad (1+g) = (1.5349)^{1/4}$$

$$1+g = 1.1131$$

$$\text{or} \quad g = 11.31\%$$

Annex- 23

Calculation of growth ratio of total investment

For EBL

$$Dn = D_O(1+g)^{n-1}$$

$$\text{or} \quad 4984.31 = 1616.46(1+g)^{5-1}$$

$$\text{or} \quad \frac{4984.31}{1616.46} = (1+g)^4$$

$$\text{or} \quad (1+g)^4 = 3.0835$$

$$\text{or} \quad (1+g) = (3.0835)^{1/4}$$

$$1+g = 1.3251$$

or $g = 32.51\%$

Similarly, for HBL

Or $6759.83 = 4033.14(1 + g)^{5-1}$

or $\frac{6759.83}{4033.14} = (1+g)^4$

or $(1 + g)^4 = 1.6761$

or $(1 + g) = (1.6761)^{1/4}$

$1+g = 1.1378$

or $g = 13.78\%$

Annex- 24

Calculation of growth ratio of net profit

For EBL

$Dn = D_O (1 + g)^{n-1}$

or $296.410 = 94.18 (1 + g)^{5-1}$

or $\frac{296.41}{94.18} = (1 + g)^4$

or $(1 + g)^4 = 3.1472$

or $(1 + g) = (3.1472)^{1/4}$

$$1+g = 1.3319$$

$$\text{or} \quad g = 33.19\%$$

Similarly, for HBL

$$\text{Or} \quad 491.82 = 212.13(1 + g)^{5-1}$$

$$\text{or} \quad \frac{491.82}{212.13} = (1+g)^4$$

$$\text{or} \quad (1 + g)^4 = 2.3185$$

$$\text{or} \quad (1 + g) = (2.3185)^{1/4}$$

$$1+g = 1.2339$$

$$\text{or} \quad g = 23.39\%$$

Annex- 25

Calculation of correlation coefficient and coefficient of determination (r^2) of total deposit to loan and advances of EBL

Total Deposit (X)	Loan and Advance (Y)	X^2	Y^2	XY
66.95	50.50	4482.30	2550.25	3380.98
80.64	61.31	6502.81	3758.92	4944.04
100.98	79.14	10196.96	6263.14	7991.56
138.02	98.01	19049.52	9605.96	13527.34
181.86	136.64	33073.06	18670.48	24849.35
568.45	**425.60**	**73304.65**	**40848.75**	**54693.27**

Here,

$$r = \frac{\mathbf{N} \sum XY - \sum X. \sum Y}{\sqrt{[N \sum X^2 - (\sum X)^2]} . \sqrt{[N \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{\mathbf{5} \times 54693.27 - 568.45 \times 425.60}{\sqrt{[5 \times 73304.65 - (568.45)^2]} . \sqrt{[5 \times 40848.75 - (425.60)^2]}}$$

$$= \frac{31534.03}{\sqrt{43387.85}\ \sqrt{23108.39}}$$

$$= \frac{31534.03}{31663.30} = 0.9959$$

Coefficient of Determination

$$r^2 = (r)^2$$

$$= (0.9959)^2 = 0.9918$$

$$PE(r) = 0.6745 \times \frac{(1-r^2)}{\sqrt{n}}$$

$$= 0.6745 \times \frac{1 - 0.9918}{\sqrt{5}}$$

$$= \frac{0.00553}{2.2361} = 0.00247$$

Calculation of correlation coefficient and coefficient of determination (r^2) of total deposit to loan and advances of HBL

Total Deposit (X)	**Loan and Advance (Y)**	**X^2**	**Y^2**	**XY**
210.07	110.74	44129.40	12263.35	23263.15
220.10	130.82	48444.01	17113.87	28793.48
248.14	132.45	61573.46	17543.00	32866.14
264.91	146.42	70177.30	21438.81	38788.12
300.48	169.98	90288.23	28893.20	51075.59

1243.70	**690.41**	**314612.40**	**97252.23**	**174786.48**

Here,

$$r = \frac{\mathbf{N} \sum XY - \sum X. \sum Y}{\sqrt{[N \sum X^2 - (\sum X)^2]} . \sqrt{[N \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{\mathbf{5} \times 174786.48 - 1243.70 \times 690.41}{\sqrt{[5 \times 314612.40 - (1243.70)^2]} . \sqrt{[5 \times 97252.23 - (690.41)^2]}}$$

$$= \frac{15269.48}{\sqrt{26272.31} \ \sqrt{9595.18}}$$

$$= \frac{15269.48}{15876.46} = 0.9618$$

Coefficient of Determination

$r^2 = (r)^2$

$= (0.9618)^2$

$= 0.9250$

$$PE(r) = 0.6745 \times \frac{(1-r^2)}{\sqrt{n}}$$

$$= 0.6745 \times \frac{1 - 0.9250}{\sqrt{5}}$$

$$= \frac{0.05056}{2.2361} = 0.0226$$

Annex- 26

Calculation of correlation coefficient and coefficient of determination (r^2) between total deposit and investment of EBL

Total Deposit (X)	Investment (Y)	X^2	Y^2	XY
66.95	16.16	4482.30	261.15	1081.91
80.64	24.84	6502.81	617.03	2003.10
100.98	21.20	10196.96	449.44	2140.78

138.02	42.00	19049.52	1764.00	5796.84
181.86	49.84	33073.05	2484.02	9063.90
568.45	**154.04**	**73304.64**	**5575.64**	**20086.53**

Here,

$$r = \frac{\mathbf{N} \sum XY - \sum X. \sum Y}{\sqrt{[N \sum X^2 - (\sum X)^2]} . \sqrt{[N \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{\mathbf{5} \times 20086.53 - 568.45 \times 154.04}{\sqrt{[5 \times 73304.64 - (568.45)^2]} . \sqrt{[5 \times 5575.64 - (154.04)^2]}}$$

$$= \frac{12868.61}{\sqrt{43387.80} \ \sqrt{4149.88}}$$

$$= \frac{12868.61}{13418.68} = 0.9590$$

Coefficient of Determination

$$r^2 = (r)^2$$

$$= (0.9590)^2$$

$$= 0.9196$$

$$PE(r) = 0.6745 \times \frac{(1-r^2)}{\sqrt{n}}$$

$$= 0.6745 \times \frac{1 - 0.9196}{\sqrt{5}}$$

$$= \frac{0.05422}{2.2361} = 0.02425$$

Calculation of correlation coefficient and coefficient of determination (r^2) of total deposit and investment of HBL

Total Deposit (X)	**Investment (Y)**	**X^2**	**Y^2**	**XY**
210.07	40.33	44129.40	1626.51	8472.12
220.10	43.66	48444.01	1906.19	9609.56

248.14	55.10	61573.46	3036.01	13672.51
264.91	57.45	70177.31	3300.50	15219.07
300.48	67.60	90288.23	4569.76	20312.45
1243.70	**264.14**	**314612.41**	**14438.97**	**67285.71**

Here,

$$r = \frac{\mathbf{N} \sum XY - \sum X. \sum Y}{\sqrt{[N \sum X^2 - (\sum X)^2]} . \sqrt{[N \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{\mathbf{5} \text{ x } 67285.71 - 1243.70 \text{ x } 264.14}{\sqrt{[5 \text{ x } 314612.41 - (1243.70)^2]} . \sqrt{[5 \text{ x } 14438.97 - (264.14)^2]}}$$

$$= \frac{7917.63}{\sqrt{26272.36} \ \sqrt{2424.91}}$$

$$= \frac{7917.63}{7981.19}$$

$$= 0.9920$$

Coefficient of Determination

$$r^2 = (r)^2$$

$$= (0.9920)^2$$

$$= 0.9841$$

$$PE(r) = 0.6745 \text{ x } \frac{(1-r^2)}{\sqrt{n}}$$

$$= 0.6745 \text{ x } \frac{1 - 0.9841}{\sqrt{5}}$$

$$= \frac{0.01072}{2.2361} = 0.00479$$

Annex A 1

Estimate of trend value of deposit collection of EBL by fixed index based

Year	Index (Y)	X	X^2	XY	Y = a + bX

2003	100	-2	4	-200	84.01
2004	120.45	-1	1	-120.45	126.91
2005	150.82	0	0	0	169.81
2006	206.16	1	1	206.16	212.71
2007	271.64	2	4	543.28	255.61
	849.07		**10**	**428.99**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{849.07}{5} = 169.81$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{428.99}{10} = 42.90$

Hence, trend line equation

$Y = a + bX$

$Y = 169.81 + 42.90\ X$

For 2003, $Y = 169.81 + 42.90 \times -2 = 84.01$

Similarly, it is calculated for other years.

Estimate of trend value of deposit collection of HBL by fixed index based

Year	**Index (Y)**	**X**	**X^2**	**XY**	**Y = a + bX**
2003	100	-2	4	-200	96.93
2004	104.77	-1	1	-104.77	107.67
2005	118.12	0	0	0	118.41
2006	126.10	1	1	126.10	129.15
2007	143.04	2	4	286.08	139.89
	592.03		**10**	**107.41**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{592.03}{5} = 118.41$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{107.41}{10} = 10.74$

Hence, trend line equation

$Y = a + bX$

$Y = 118.41 + 10.74\ X$

For 2003, $Y = 118.41 + 10.74 \times -2 = 96.93$

Similarly, it is calculated for other years.

Annex A 2

Estimate of trend value of investment of EBL by fixed index based

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	100	-2	4	-200	66.10
2004	103.88	-1	1	-103.88	123.37
2005	131.13	0	0	0	180.64
2006	259.86	1	1	259.86	237.91
2007	308.35	2	4	616.70	295.18
	903.22		**10**	**572.68**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{903.22}{5} = 180.64$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{572.68}{10} = 57.27$

Hence, trend line equation

$Y = a + bX$

$Y = 180.64 + 57.27\ X$

For 2003, $Y = 180.64 + 57.27 \times -2 = 66.10$

Similarly, it is calculated for other years.

Estimate of trend value of investment of HBL by fixed index based

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	100	-2	4	-200	97.10
2004	108.25	-1	1	-108.25	114.04
2005	136.61	0	0	0	130.98
2006	142.44	1	1	142.44	147.92
2007	167.61	2	4	335.22	164.86
	654.91		**10**	**169.41**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{654.91}{5} = 130.98$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{169.41}{10} = 16.94$

Hence, trend line equation

$Y = a + bX$

$Y = 130.98 + 16.94\ X$

For 2003, $Y = 130.98 + 16.94 \times -2 = 97.10$

Similarly, it is calculated for other years.

Annex A 3

Estimate of trend value of loan and advances of EBL by fixed index based

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	100	-2	4	-200	85.79
2004	121.42	-1	1	-121.42	127.18
2005	156.73	0	0	0	168.57
2006	194.10	1	1	194.10	209.96
2007	270.60	2	4	541.20	251.35
	842.85		**10**	**413.88**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{842.85}{5} = 168.57$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{413.88}{10} = 41.39$

Hence, trend line equation

$Y = a + bX$

$Y = 168.57 + 41.39\ X$

For 2003, $Y = 168.57 + 41.39 \times -2 = 85.79$

Similarly, it is calculated for other years.

Estimate of trend value of loan and advances of HBL by fixed index based

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	100	-2	4	-200	80.47
2004	118.13	-1	1	-118.13	92.58
2005	119.60	0	0	0	104.69
2006	132.22	1	1	132.22	116.80
2007	153.49	2	4	306.98	128.91
	523.44		**10**	**121.07**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{523.44}{5} = 104.69$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{121.07}{10} = 12.11$

Hence, trend line equation

$Y = a + bX$

Y = 104.69 + 12.11 X

For 2003, Y = 104.69 + 12.11 x -2 = 80.47

Similarly, it is calculated for other years.

Annex A 4

Trend analysis of NRB balance to total deposit ratio of EBL

Year	NRB Balance (Y)	X	X^2	XY	Y = a + bX
2003	10.83	-2	4	-21.66	8.986
2004	5.48	-1	1	-5.48	8.393
2005	7.72	0	0	0	7.800
2006	8.25	1	1	8.25	7.207
2007	6.48	2	4	12.96	6.614
	38.76		**10**	**-5.93**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{38.76}{5} = 7.8$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-5.93}{10} = -0.593$

Hence, trend line equation

Y = a + bX

Y = 7.8 + -0.593 X

For 2003, Y = 7.8 + -0.593 x -2 = 8.986

Similarly, it is calculated for other years.

Trend analysis of NRB balance to total deposit ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	5.49	-2	4	-10.98	6.654
2004	7.39	-1	1	-7.39	6.077
2005	6.46	0	0	0	5.500
2006	4.14	1	1	4.14	4.923
2007	4.23	2	4	8.46	4.346
	27.71		**10**	**-5.77**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{27.71}{5} = 5.5$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-5.77}{10} = -0.577$

Hence, trend line equation

$Y = a + bX$

$Y = 5.5 + -0.577X$

For 2003, $Y = 5.5 + -0.577 \times -2 = 6.654$

Similarly, it is calculated for other years.

Annex A 5

Trend analysis of NRB balance to current and saving ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	21.83	-2	4	-43.66	17.546
2004	9.93	-1	1	-9.93	15.798
2005	13.37	0	0	0	14.050
2006	14.11	1	1	14.11	12.302
2007	11.00	2	4	22.00	10.554
	70.24		**10**	**-17.48**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{70.24}{5} = 14.05$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-17.48}{10} = -1.748$

Hence, trend line equation

$Y = a + bX$

$Y = 14.05 + -1.748X$

For 2003, $Y = 14.05 + -1.748 \times -2 = 17.546$

Similarly, it is calculated for other years.

Trend analysis of NRB balance to current and saving ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	8.29	-2	4	-16.58	11.172
2004	12.27	-1	1	-12.27	10.036
2005	12.28	0	0	0	8.900
2006	5.59	1	1	5.59	7.764
2007	5.95	2	4	11.90	6.628
	44.38		**10**	**-11.36**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{44.38}{5} = 8.9$ $b = \frac{\sum XY}{\sum X^2} = \frac{-11.36}{10} = -1.136$

Hence, trend line equation

$Y = a + bX$

$Y = 8.90 + -1.136X$

For 2003, $Y = 8.90 + -1.136 \times -2 = 11.172$

Similarly, it is calculated for other years.

Annex A 6

Trend analysis of NRB balance to fixed deposit ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	25.93	-2	4	-51.86	22.074
2004	15.25	-1	1	-15.25	22.237
2005	22.91	0	0	0	22.40
2006	26.86	1	1	26.86	22.563
2007	20.94	2	4	41.88	22.726
	111.89		**10**	**1.63**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{111.89}{5} = 22.40$ $b = \frac{\sum XY}{\sum X^2} = \frac{163}{10} = 0.163$

Hence, trend line equation

$Y = a + bX$

$Y = 22.40 + 0.163 X$

For 2003, $Y = 22.40 + 0.163 \times -2 = 22.074$

Similarly, it is calculated for other years.

Trend analysis of NRB balance to fixed deposit ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	50.00	-2	4	-100	45.954
2004	34.52	-1	1	-34.52	37.332
2005	26.26	0	0	0	28.719
2006	17.26	1	1	17.26	20.088
2007	15.52	2	4	31.04	11.466

	143.56		**10**	**-86.22**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{143.56}{5} = 28.71$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-86.22}{10} = -8.622$

Hence, trend line equation

$Y = a + bX$

$Y = 28.71 + -8.622\ X$

For 2003, $Y = 28.71 + -8.622 \times -2 = 45.954$

Similarly, it is calculated for other years.

Annex A7

Trend analysis of total liquidity fund to fixed deposit ratio of EBL

Year	**Index (Y)**	**X**	**X^2**	**XY**	**Y = a + bX**
2003	17.27	-2	4	-34.54	15.672
2004	10.79	-1	1	-10.79	14.761
2005	16.08	0	0	0	13.85
2006	14.02	1	1	14.02	12.939
2007	11.10	2	4	22.20	12.028
	69.26		**10**	**-9.11**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{69.26}{5} = 13.85$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-9.11}{10} = -0.911$

Hence, trend line equation

$Y = a + bX$

$Y = 13.85 + -0.911\ X$

For 2003, $Y = 13.85 + -0.911 \times -2 = 15.672$

Similarly, it is calculated for other years.

Trend analysis of total liquidity fund to fixed deposit ratio of HBL

Year	**Index (Y)**	**X**	**X^2**	**XY**	**Y = a + bX**
2003	39.42	-2	4	-78.84	39.668
2004	39.13	-1	1	-39.13	37.324
2005	32.94	0	0	0	34.98

2006	32.33	1	1	32.33	32.636
2007	31.10	2	4	62.20	30.292
	174.92		**10**	**-23.44**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{174.92}{5} = 34.98$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-23.44}{10} = -2.344$

Hence, trend line equation

$Y = a + bX$

$Y = 34.98 + -2.344\ X$

For 2003, $Y = 34.98 + -2.344 \times -2 = 39.668$

Similarly, it is calculated for other years.

Annex A 8

Trend analysis of credit to total deposit ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	75.42	-2	4	-150.84	74.88
2004	76.03	-1	1	-76.03	74.32
2005	71.19	0	0	0	73.76
2006	71.01	1	1	71.01	7.32
2007	75.13	2	4	150.26	72.64
	368.78		**10**	**-5.60**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{368.78}{5} = 73.76$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-5.60}{10} = -0.56$

Hence, trend line equation

$Y = a + bX$

$Y = 73.76 + -0.56\ X$

For 2003, $Y = 73.76 + -0.56 \times -2 = 74.88$

Similarly, it is calculated for other years.

Trend analysis of credit to total deposit ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	52.72	-2	4	-105.44	54.762

2004	59.43	-1	1	-59.43	55.116
2005	53.38	0	0	0	55.470
2006	55.27	1	1	55.27	55.824
2007	56.57	2	4	113.14	56.178
	277.37		**10**	**3.54**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{277.37}{5} = 55.47$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{3.54}{10} = 0.354$

Hence, trend line equation

$Y = a + bX$

$Y = 55.47 + 0.354\ X$

For 2003, $Y = 55.47 + 0.354 \times -2 = 54.762$

Similarly, it is calculated for other years.

Annex A 9

Trend analysis of investment to total deposit ratio of EBL

Year	**Index (Y)**	**X**	**X^2**	**XY**	**Y = a + bX**
2003	75.42	-2	4	-150.84	74.88
2004	76.03	-1	1	-76.03	74.32
2005	71.19	0	0	0	73.76
2006	71.01	1	1	71.01	73.32
2007	75.13	2	4	150.26	72.64
	368.78		**10**	**-5.60**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{368.78}{5} = 73.76$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-5.60}{10} = -0.56$

Hence, trend line equation

$Y = a + bX$

$Y = 73.76 + -0.56\ X$

For 2003, $Y = 73.76 + -0.56 \times -2 = 74.88$

Similarly, it is calculated for other years.

Trend analysis of credit to total deposit ratio of HBL

Year	**Index (Y)**	**X**	**X^2**	**XY**	**Y = a + bX**

2003	52.72	-2	4	-105.44	54.762
2004	59.43	-1	1	-59.43	55.116
2005	53.38	0	0	0	55.470
2006	55.27	1	1	55.27	55.824
2007	56.57	2	4	113.14	56.178
	277.37		**10**	**3.54**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{277.37}{5} = 55.47$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{3.54}{10} = 0.354$

Hence, trend line equation

$Y = a + bX$

$Y = 55.47 + 0.354\ X$

For 2003, $Y = 55.47 + 0.354 \times -2 = 54.762$

Similarly, it is calculated for other years.

Annex A 10

Trend analysis of credit and investment to total deposit ratio of EBL

Year	**Index (Y)**	**X**	**X^2**	**XY**	**Y = a + bX**
2003	99.57	-2	4	-199.14	104.896
2004	106.83	-1	1	-106.83	99.418
2005	92.19	0	0	0	93.94
2006	91.03	1	1	91.03	88.462
2007	80.08	2	4	160.16	82.984
	469.70		**10**	**-54.78**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{469.70}{5} = 93.94$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-54.78}{10} = -5.478$

Hence, trend line equation

$Y = a + bX$

$Y = 93.94 + -5.478X$

For 2003, $Y = 93.94 + -5.478 \times -2 = 104.896$

Similarly, it is calculated for other years.

Trend analysis of credit and investment to total deposit ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	71.91	-2	4	-143.82	91.552
2004	75.18	-1	1	-75.18	86.194
2005	75.58	0	0	0	80.836
2006	90.44	1	1	90.44	75.478
2007	91.07	2	4	182.14	70.120
	404.18		**10**	**53.58**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{404.18}{5} = 80.836$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{53.58}{10} = 5.358$

Hence, trend line equation

$Y = a + bX$

$Y = 80.836 + 5.358X$

For 2003, $Y = 80.836 + 5.358 \times -2 = 91.552$

Similarly, it is calculated for other years.

Annex A 11

Trend analysis of loan and advances to saving deposit ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	1.83	-2	4	-3.66	1.772
2004	1.63	-1	1	-1.63	1.686
2005	1.64	0	0	0	1.600
2006	1.41	1	1	1.41	1.514
2007	1.51	2	4	3.02	1.428
	8.02		**10**	**-0.86**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{8.02}{5} = 1.60$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-0.86}{10} = -0.086$

Hence, trend line equation

$Y = a + bX$

$Y = 1.60 + -0.086 X$

For 2003, $Y = 1.60 + 0.086 \times -2 = 1.772$

Similarly, it is calculated for other years.

Trend analysis of loan and advances to saving deposit ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	1.02	-2	4	-2.04	1.038
2004	1.11	-1	1	-1.11	1.039
2005	1.03	0	0	0	1.040
2006	1.00	1	1	1.00	1.041
2007	1.08	2	4	2.16	1.042
	5.24		**10**	**0.01**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{5.24}{5} = 1.04$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{0.01}{10} = 0.001$

Hence, trend line equation

$Y = a + bX$

$Y = 1.04 + 0.001\ X$

For 2003, $Y = 1.04 + 0.001 \times -2 = 1.038$

Similarly, it is calculated for other years.

Annex A 12

Trend analysis of private sector lending to total credit ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	98.44	-2	4	-196.88	105.162
2004	98.63	-1	1	-98.63	95.726
2005	93.52	0	0	0	86.29
2006	80.61	1	1	80.61	76.854
2007	60.27	2	4	120.54	67.418
	431.47		**10**	**-94.36**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{431.47}{5} = 86.29$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-94.36}{10} = -9.436$

Hence, trend line equation

$Y = a + bX$

Y = 86.29 + -9.436X

For 2003, Y = 86.29 + -9.436 x -2 = 105.162

Similarly, it is calculated for other years.

Trend analysis of private sector lending to total credit ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	91.67	-2	4	-183.34	93.338
2004	94.14	-1	1	-94.14	94.704
2005	100.00	0	0	0	96.070
2006	97.94	1	1	97.94	97.436
2007	96.60	2	4	193.20	98.802
	480.35		**10**	**13.66**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{480.35}{5} = 96.07$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{13.66}{10} = 1.366$

Hence, trend line equation

Y = a + bX

Y = 96.07 + 1.366 X

For 2003, Y = 96.07 + 1.366 x -2 = 93.338

Similarly, it is calculated for other years.

Annex A 13

Trend analysis of credit to government enterprises to total credit ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	1.19	-2	4	-2.38	1.672
2004	1.13	-1	1	-1.13	2.776
2005	7.00	0	0	0	3.880
2006	5.61	1	1	5.61	4.984
2007	4.47	2	4	8.94	6.088
	19.40		**10**	**11.04**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{19.40}{5} = 3.88$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{11.04}{10} = 1.104$

Hence, trend line equation

Y = a + bX

Y = 3.88 +1.104 X

For 2003, Y = 3.88 + 1.104 x -2 = 1.672

Similarly, it is calculated for other years.

Trend analysis of credit to government enterprises to total credit ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	6.71	-2	4	-13.42	6.370
2004	5.86	-1	1	-5.86	4.442
2005	0.00	0	0	0	2.514
2006	0.00	1	1	0.00	0.586
2007	0.00	2	4	0.00	-1.342
	12.57		**10**	**-19.28**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{12.57}{5} = 2.514$ $b = \frac{\sum XY}{\sum X^2} = \frac{-19.28}{10} = -1.928$

Hence, trend line equation

Y = a + bX

Y = 2.514 + -1.928X

For 2003, Y = 2.514 + -1.928x -2 = 6.37

Similarly, it is calculated for other years.

Annex A 14

Trend analysis of time deposit to total deposit ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	41.74	-2	4	-83.48	39.974
2004	35.94	-1	1	-35.94	37.294
2005	33.71	0	0	0	34.614
2006	30.74	1	1	30.74	31.934
2007	30.94	2	4	61.88	29.254
	173.07		**10**	**-26.80**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{173.07}{5} = 34.614$ $b = \frac{\sum XY}{\sum X^2} = \frac{-26.80}{10} = -2.680$

Hence, trend line equation

$Y = a + bX$

$Y = 34.614 + -2.68\ X$

For 2003, $Y = 34.614 + -2.68 \times -2 = 39.974$

Similarly, it is calculated for other years.

Trend analysis of time deposit to total deposit ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	10.97	-2	4	-21.94	14.606
2004	21.40	-1	1	-21.40	18.127
2005	24.61	0	0	0	21.648
2006	23.97	1	1	23.97	25.169
2007	27.29	2	4	54.58	28.690
	108.24		**10**	**35.21**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{108.24}{5} = 21.648$ $b = \frac{\sum XY}{\sum X^2} = \frac{35.21}{10} = 3.521$

Hence, trend line equation

$Y = a + bX$

$Y = 21.648 + 3.521\ X$

For 2003, $Y = 21.648 + 3.521 \times -2 = 14.606$

Similarly, it is calculated for other years.

Annex A 15

Trend analysis of total capital to total deposit ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	6.80	-2	4	-13.60	6.668
2004	5.64	-1	1	-5.64	5.689
2005	4.51	0	0	0	4.710
2006	3.75	1	1	3.75	3.731
2007	2.85	2	4	5.70	2.752

	23.55		**10**	**-9.79**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{23.55}{5} = 4.71$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-9.79}{10} = -0.979$

Hence, trend line equation

$Y = a + bX$

$Y = 4.71 + -0.979X$

For 2003, $Y = 4.71 + -.979 \times -2 = 6.668$

Similarly, it is calculated for other years.

Trend analysis of total capital to total deposit ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	2.04	-2	4	-4.08	11.868
2004	2.44	-1	1	-2.44	12.044
2005	2.16	0	0	0	12.220
2006	2.88	1	1	2.88	12.396
2007	2.70	2	4	5.40	12.572
	12.22		**10**	**1.76**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{12.22}{5} = 2.444$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{1.76}{10} = 0.176$

Hence, trend line equation

$Y = a + bX$

$Y = 12.22 + 0.176\ X$

For 2003, $Y = 12.22 + 0.176 \times -2 = 11.868$

Similarly, it is calculated for other years.

Annex A 16

Trend analysis of total capital to total credit ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	9.01	-2	4	-18.02	8.882
2004	7.42	-1	1	-7.42	7.624
2005	6.33	0	0	0	6.366

2006	5.28	1	1	5.28	5.102
2007	3.79	2	4	7.58	3.844
	31.83		**10**	**-12.58**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{31.83}{5} = 6.366$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-12.58}{10} = -1.258$

Hence, trend line equation

$Y = a + bX$

$Y = 6.366 + -1.258X$

For 2003, $Y = 6.366 + -1.258x -2 = 8.882$

Similarly, it is calculated for other years.

Trend analysis of total capital to total credit ratio of HBL

Year	**Index (Y)**	**X**	**X^2**	**XY**	**Y = a + bX**
2003	3.87	-2	4	-7.74	3.818
2004	4.10	-1	1	-4.10	4.115
2005	4.05	0	0	0	4.412
2006	5.27	1	1	5.27	4.709
2007	4.77	2	4	9.54	5.006
	22.06		**10**	**2.97**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{22.06}{5} = 4.412$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{2.97}{10} = 0.297$

Hence, trend line equation

$Y = a + bX$

$Y = 4.412 + 0.297 X$

For 2003, $Y = 4.412 + 0.297 x -2 = 3.818$

Similarly, it is calculated for other years.

Annex A 17

Trend analysis of total capital to total assets ratio of EBL

Year	**Index (Y)**	**X**	**X^2**	**XY**	**Y = a + bX**
2003	5.65	-2	4	-11.30	5.574

2004	4.74	-1	1	-4.74	4.778
2005	3.86	0	0	0	3.982
2006	3.24	1	1	3.24	3.186
2007	2.42	2	4	4.84	2.390
	19.91		**10**	**-7.96**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{19.91}{5} = 3.982$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-7.96}{10} = -0.796$

Hence, trend line equation

$Y = a + bX$

$Y = 3.982 + -0.796\ X$

For 2003, $Y = 3.982 + -0.796 \times -2 = 5.574$

Similarly, it is calculated for other years.

Trend analysis of total capital to total assets ratio of HBL

Year	**Index (Y)**	**X**	**X^2**	**XY**	**Y = a + bX**
2003	1.84	-2	4	-3.68	1.870
2004	2.16	-1	1	-2.16	2.032
2005	1.93	0	0	0	2.194
2006	2.62	1	1	2.62	2.356
2007	2.42	2	4	4.84	2.518
	10.97		**10**	**1.62**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{10.97}{5} = 2.194$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{1.62}{10} = 0.162$

Hence, trend line equation

$Y = a + bX$

$Y = 2.194 + 0.162\ X$

For 2003, $Y = 2.194 + 0.162 \times -2 = 1.87$

Similarly, it is calculated for other years.

Annex A 18

Trend analysis of return to total working fund ratio of EBL

Year	**Index (Y)**	**X**	**X^2**	**XY**	**Y = a + bX**

2003	1.41	-2	4	-2.82	1.570
2004	1.78	-1	1	-1.78	1.608
2005	1.69	0	0	0	1.646
2006	1.72	1	1	1.72	1.684
2007	1.63	2	4	3.26	1.722
	8.23		**10**	**0.38**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{8.23}{5} = 1.646$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{0.38}{10} = 0.038$

Hence, trend line equation

$Y = a + bX$

$Y = 1.646 + 0.038\ X$

For 2003, $Y = 1.646 + 0.038 \times -2 = 1.57$

Similarly, it is calculated for other years.

Trend analysis of return to total working fund ratio of HBL

Year	**Index (Y)**	**X**	**X^2**	**XY**	**Y = a + bX**
2003	1.01	-2	4	-2.02	1.006
2004	1.20	-1	1	-1.20	1.185
2005	1.24	0	0	0	1.364
2006	1.73	1	1	1.73	1.543
2007	1.64	2	4	3.28	1.722
	6.82		**10**	**1.79**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{6.82}{5} = 1.364$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{1.79}{10} = 0.179$

Hence, trend line equation

$Y = a + bX$

$Y = 1.364 + 0.179\ X$

For 2003, $Y = 1.364 + 0.179 \times -2 = 1.006$

Similarly, it is calculated for other years.

Annex A 19

Trend analysis of net profit to loan and advance ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	1.87	-2	4	-3.74	1.984
2004	2.34	-1	1	-2.34	2.088
2005	2.16	0	0	0	2.192
2006	2.42	1	1	2.42	2.296
2007	2.17	2	4	4.708	2.400
	10.96		**10**	**1.048**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{10.96}{5} = 2.192$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{1.048}{10} = 0.104$

Hence, trend line equation

$Y = a + bX$

$Y = 2.192 + 0.104\ X$

For 2003, $Y = 2.192 + 0.104 \times -2 = 1.984$

Similarly, it is calculated for other years.

Trend analysis of net profit to loan and advance ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	1.92	-2	4	-3.84	1.844
2004	2.01	-1	1	-2.01	2.149
2005	2.33	0	0	0	2.454
2006	3.12	1	1	3.12	2.759
2007	2.89	2	4	5.78	3.064
	12.27		**10**	**3.05**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{12.27}{5} = 2.454$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{3.05}{10} = 0.305$

Hence, trend line equation

$Y = a + bX$

$Y = 2.454 + 0.305\ X$

For 2003, $Y = 2.454 + 0.305 \times -2 = 1.844$

Similarly, it is calculated for other years.

Annex A 20

Trend analysis of net profit to total equity capital ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	16.04	-2	4	-32.08	17.258
2004	21.56	-1	1	-21.56	18.469
2005	17.42	0	0	0	19.68
2006	21.03	1	1	21.03	20.891
2007	22.36	2	4	44.72	22.102
	98.41		**10**	**12.11**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{98.41}{5} = 19.68$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{12.11}{10} = 1.211$

Hence, trend line equation

$Y = a + bX$

$Y = 19.68 + 1.211\ X$

For 2003, $Y = 19.68 + 1.211 \times -2 = 17.258$

Similarly, it is calculated for other years.

Trend analysis of net profit to total equity capital ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	28.64	-2	4	-57.28	24.154
2004	18.32	-1	1	-18.32	22.299
2005	17.38	0	0	0	20.444
2006	18.71	1	1	18.71	18.589
2007	19.17	2	4	38.34	16.734
	102.22		**10**	**-18.55**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{102.22}{5} = 20.444$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-18.55}{10} = -1.855$

Hence, trend line equation

$Y = a + bX$

Y = 20.444 + -1.855 X

For 2003, Y = 20.444 + -1.855 x -2 = 24.154

Similarly, it is calculated for other years.

Annex A 21

Trend analysis of capital risk ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	9.01	-2	4	-18.02	8.766
2004	7.42	-1	1	-7.42	7.508
2005	5.75	0	0	0	6.250
2006	5.28	1	1	5.28	4.992
2007	3.79	2	4	7.58	3.734
	31.25		**10**	**-12.58**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{31.25}{5} = 6.25$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{-12.58}{10} = -1.258$

Hence, trend line equation

Y = a + bX

Y = 6.25 + 1.258 X

For 2003, Y = 6.25 + 1.258 x -2 = 8.766

Similarly, it is calculated for other years.

Trend analysis of capital risk of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	3.87	-2	4	-7.74	3.820
2004	4.10	-1	1	-4.10	4.115
2005	4.05	0	0	0	4.410
2006	5.27	1	1	5.27	4.705
2007	4.76	2	4	9.52	5.000
	22.05		**10**	**2.95**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{22.05}{5} = 4.41$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{2.95}{10} = 0.295$

Hence, trend line equation

$Y = a + bX$

$Y = 4.41 + 0.295\ X$

For 2003, $Y = 4.41 + 0.295 \times -2 = 3.82$

Similarly, it is calculated for other years.

Annex A 22

Trend analysis of interest risk ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	82.62	-2	4	-16.524	57.408
2004	83.71	-1	1	-83.71	65.066
2005	79.45	0	0	0	72.724
2006	58.87	1	1	58.87	80.382
2007	58.97	2	4	117.94	88.040
	363.62		**10**	**76.576**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{363.62}{5} = 72.724$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{76.576}{10} = 7.658$

Hence, trend line equation

$Y = a + bX$

$Y = 72.724 + 7.658\ X$

For 2003, $Y = 72.724 + 7.658 \times -2 = 57.408$

Similarly, it is calculated for other years.

Trend analysis of interest risk ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	61.64	-2	4	-123.28	62.702
2004	62.17	-1	1	-62.17	59.343
2005	53.86	0	0	0	55.984
2006	52.64	1	1	52.64	52.625
2007	49.61	2	4	99.22	49.266
	279.92		**10**	**-33.59**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{279.92}{5} = 55.984$ $b = \frac{\sum XY}{\sum X^2} = \frac{-33.59}{10} = -3.359$

Hence, trend line equation

$Y = a + bX$

$Y = 55.984 + -3.359\ X$

For 2003, $Y = 55.984 + -3.359 \times -2 = 62.702$

Similarly, it is calculated for other years.

Annex A 23

Trend analysis of credit risk ratio of EBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	62.71	-2	4	-125.42	43.820
2004	63.81	-1	1	-63.81	53.788
2005	67.12	0	0	0	63.756
2006	61.41	1	1	61.41	73.724
2007	63.75	2	4	127.50	83.692
	318.80		**10**	**99.68**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{318.80}{5} = 63.76$ $b = \frac{\sum XY}{\sum X^2} = \frac{99.68}{10} = 9.968$

Hence, trend line equation

$Y = a + bX$

$Y = 63.76 + 9.968\ X$

For 2003, $Y = 63.76 + 9.968 \times -2 = 43.82$

Similarly, it is calculated for other years.

Trend analysis of credit risk ratio of HBL

Year	Index (Y)	X	X^2	XY	Y = a + bX
2003	47.42	-2	4	-94.84	48.908
2004	52.71	-1	1	-52.71	49.265
2005	47.57	0	0	0	49.622
2006	49.70	1	1	49.70	49.979
2007	50.71	2	4	101.42	50.336
	248.11		**10**	**3.57**	

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{248.11}{5} = 49.622$ $\quad b = \frac{\sum XY}{\sum X^2} = \frac{3.57}{10} = 0.357$

Hence, trend line equation

$Y = a + bX$

$Y = 49.622 + 0.357\ X$

For 2003, $Y = 49.622 + 0.357 \times -2 = 48.908$

Similarly, it is calculated for other years.

Annex A 24

Trend analysis of total deposit of EBL

Year	Deposit (Y)	X	X^2	XY
2003	6694.95	-2	4	-13389.90
2004	8063.90	-1	1	-8063.90
2005	10097.70	0	0	0
2006	13802.44	1	1	13802.44
2007	18186.25	2	4	36372.50
	56845.24		**10**	28721.14

Here, $\sum X = 0$

$a = \frac{\sum Y}{n} = \frac{56845.24}{5} = 11369.05$

$b = \frac{\sum XY}{\sum X^2} = \frac{28721.14}{10} = 2872.11$

Hence, trend line equation

$Y = a + bX$

$Y = 11369.05 + 2872.11\ X$

For 2003, $Y = 11369.05 + 2872.11 \times -2 = 5624.83$

For 2004, $Y = 11369.05 + 2872.11 \times -1 = 8496.94$

For 2005, Y = 11369.05 + 2872.11 x 0 = 11369.05

For 2006, Y = 11369.05 + 2872.11 x 1 = 14241.16

For 2007, Y = 11369.05 + 2872.11 x 2 = 17113.27

For 2008, Y = 11369.05 + 2872.11 x 3 = 19985.38

For 2009, Y = 11369.05 + 2872.11 x 4 = 22857.49

For 2010 Y = 11369.05 + 2872.11 x 5 = 25729.60

For 2011, Y = 11369.05 + 2872.11 x 6 = 28601.71

For 2012, Y = 11369.05 + 2872.11 x 7 = 31473.82

Trend analysis of total deposit of HBL

Year	Deposit (Y)	X	X^2	XY
2002	21007.38	-2	4	-42014.76
2003	22010.33	-1	1	-22010.33
2004	24813.99	0	0	0
2005	26490.85	1	1	26490.85
2006	30048.42	2	4	60096.84
	124370.97		**10**	22562.60

Here, $\sum X = 0$

$$a = \frac{\sum Y}{n} = \frac{124370.97}{5} = 24874.19$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{22562.60}{10} = 2256.26$$

Hence, trend line equation

$Y = a + bX$

$Y = 24874.19 + 2256.26\ X$

For 2003, Y = 24874.19 + 2256.25 x -2 = 20361.67

For 2004, Y = 24874.19 + 2256.25 x -1 = 22617.93

For 2005, Y = 24874.19 + 2256.25 x 0 = 24874.19

For 2006, Y = 24874.19 + 2256.25 x 1 = 27130.45

For 2007, Y = 24874.19 + 2256.25 x 2 = 29386.71

For 2008, Y = 24874.19 + 2256.25 x 3 = 31642.97

For 2009, Y = 24874.19 + 2256.25 x 4 = 33899.23

For 2010, Y = 24874.19 + 2256.25 x 5 = 36155.49

For 2011, Y = 24874.19 + 2256.25 x 6 = 38411.75

For 2012, Y = 24874.19 + 2256.25 x 7 = 40668.01

Annex A 25

Trend analysis of loan and advances of EBL for 5 years

Year	Deposit (Y)	X	X^2	XY
2002	5049.60	-2	4	-10099.20
2003	6131.10	-1	1	-6131.10
2004	7914.40	0	0	0
2005	9801.31	1	1	9801.31
2006	13664.08	2	4	27328.16
	42560.49		**10**	20899.17

Here, $\sum X = 0$

$$a = \frac{\sum Y}{n} = \frac{42560.49}{5} = 8512.09$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{20899.17}{10} = 2089.92$$

Hence, trend line equation

$Y = a + bX$

$Y = 8512.09 + 2089.92\ X$

For 2003, Y = 8512.09 + 2089.92 x -2 = 4332.25

For 2004, Y = 8512.09 + 2089.92 x -1 = 6422.17

For 2005, Y = 8512.09 + 2089.92 x 0 = 8512.09

For 2006, Y = 8512.09 + 2089.92 x 1 = 10602.01

For 2007, Y = 8512.09 + 2089.92 x 2 = 12691.93

For 2008, Y = 8512.09 + 2089.92 x 3 = 14781.85

For 2009, Y = 8512.09 + 2089.92 x 4 = 16871.77

For 2010, Y = 8512.09 + 2089.92 x 5 = 18961.69

For 2011, Y = 8512.09 + 2089.92 x 6 = 21051.61

For 2012, Y = 8512.09 + 2089.92 x 7 = 23141.53

Trend analysis of loan and advances of HBL for 5 year

Year	Deposit (Y)	X	X^2	XY
2002	11074.20	-2	4	-22148.40
2003	13081.70	-1	1	-13081.70
2004	13245.10	0	0	0
2005	14642.56	1	1	14642.56
2006	16997.99	2	4	33995.98
	69041.55		**10**	13408.44

Here, $\sum X = 0$

$$a = \frac{\sum Y}{n} = \frac{69041.55}{5} = 13808.31$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{13408.44}{10} = 1340.84$$

Hence, trend line equation

$Y = a + bX$

$Y = 13808.31 + 1340.84\ X$

For 2003, Y = 13808.31 + 1340.84 x -2 = 11126.63

For 2004, Y = 11369.05 + 2872.11 x -1 = 12467.47

For 2005, Y = 11369.05 + 2872.11 x 0 = 13808.31

For 2006, Y = 11369.05 + 2872.11 x 1 = 15149.15

For 2007, Y = 11369.05 + 2872.11 x 2 = 16489.99

For 2008, Y = 11369.05 + 2872.11 x 3 = 17830.83

For 2009, Y = 11369.05 + 2872.11 x 4 = 19171.67

For 2010 Y = 11369.05 + 2872.11 x 5 = 20512.51

For 2011, Y = 11369.05 + 2872.11 x 6 = 21853.35

For 2012, Y = 11369.05 + 2872.11 x 7 = 23194.19

Annex A 26

Trend analysis of investment of EBL for 5 Year

Year	Deposit (Y)	X	X^2	XY
2002	1616.46	-2	4	-3232.92
2003	2483.54	-1	1	-2483.54
2004	2119.68	0	0	0
2005	4200.52	1	1	4200.52
2006	4984.31	2	4	9968.62
	15404.51		**10**	8452.68

Here, $\sum X = 0$

$$a = \frac{\sum Y}{n} = \frac{15404.51}{5} = 3080.90$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{8452.68}{10} = 845.268$$

Hence, trend line equation

$Y = a + bX$

$Y = 3080.90 + 845.268\ X$

For 2003, $Y = 3080.90 + 845.268 \times -2 = 1390.36$

For 2004, $Y = 3080.90 + 845.268 \times -1 = 2235.63$

For 2005, $Y = 3080.90 + 845.268 \times 0 = 3080.90$

For 2006, $Y = 3080.90 + 845.268 \times 1 = 3926.16$

For 2007, $Y = 3080.90 + 845.268 \times 2 = 4771.43$

For 2008, $Y = 3080.90 + 845.268 \times 3 = 5616.70$

For 2009, $Y = 3080.90 + 845.268 \times 4 = 6461.97$

For 2010 $Y = 3080.90 + 845.268 \times 5 = 7307.24$

For 2011, $Y = 3080.90 + 845.268 \times 6 = 8152.50$

For 2012, $Y = 3080.90 + 845.268 \times 7 = 8997.77$

Trend analysis of investment of HBL for 5 years

Year	Deposit (Y)	X	X^2	XY
2002	4033.14	-2	4	-8066.28
2003	3466.00	-1	1	-3466.00
2004	5509.64	0	0	0
2005	5744.97	1	1	5744.97
2006	6759.83	2	4	13519.66
	25513.58		**10**	7732.35

Here, $\sum X = 0$

$$a = \frac{\sum Y}{n} = \frac{25513.58}{5} = 5102.716$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{7732.35}{10} = 773.235$$

Hence, trend line equation

$Y = a + bX$

$Y = 5102.716 + 773.235\ X$

For 2003, $Y = 5120.716 + 773.235 \times -2 = 3556.24$

For 2004, $Y = 5120.716 + 773.235 \times -1 = 4329.48$

For 2005, $Y = 5120.716 + 773.235 \times 0 = 5102.71$

For 2006, $Y = 5120.716 + 773.235 \times 1 = 5875.95$

For 2007, $Y = 5120.716 + 773.235 \times 2 = 6649.18$

For 2008, $Y = 5120.716 + 773.235 \times 3 = 7422.42$

For 2009, $Y = 5120.716 + 773.235 \times 4 = 8195.65$

For 2010, $Y = 5120.716 + 773.235 \times 5 = 8968.89$

For 2011, $Y = 5120.716 + 773.235 \times 6 = 9742.12$

For 2012, $Y = 5120.716 + 773.235 \times 7 = 10515.36$