

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Bank is considered as the backbone in the development of the national economy. It is a financial institution, which act as a transaction of money by accepting various types of deposit, disbursing loans and rendering other financial services. So, among the various function to provide loan to the investors is the major function. Through the loan, there will be increase in the environment of the investment and the bank has the major role in creating such an environment. Bank plays a vital role in the economic development of a country. In fact, in the modern industrialized and service oriented era, the availability of banks with competitive services is the measure of economic development of a country. While many people believe that banks play only a narrow role in the economy taking deposit and making loans the modern banking has had to adopt new roles in order to responsive to public needs. The principal role that a bank today play are:

The Intermediation role: Transferring the saving received primarily from the households into credit (loans) for business firms and other in order to make investments in the new buildings, equipment and other capital goods.

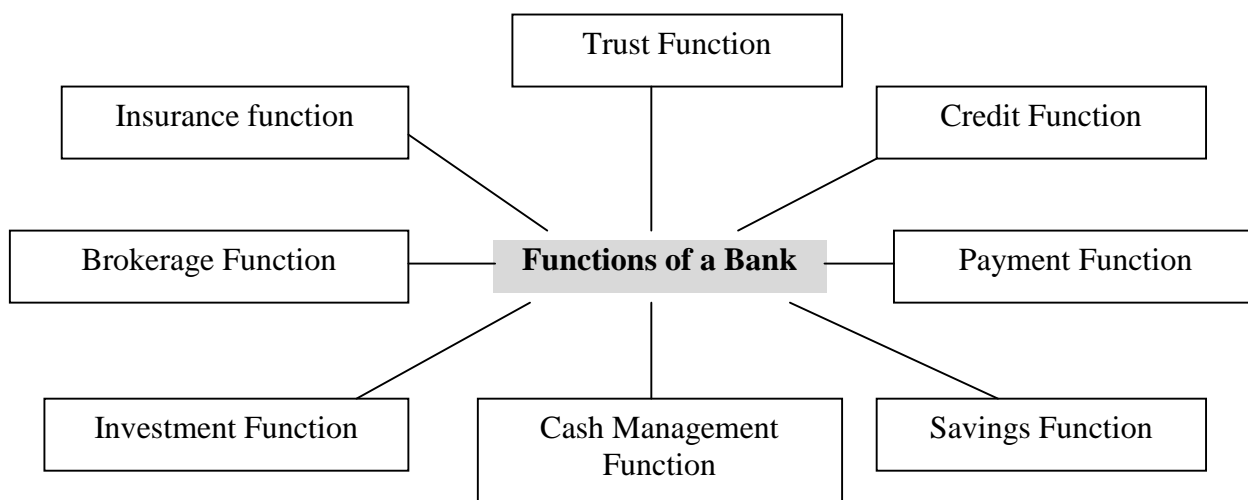
The payment role: Carrying out payment for goods and services on behalf of their customer (such as by issuing and clearing cheque and dispersing currency and coins.)

The Guarantor role: Starting behind the customers to pay off the customers debt when those customers are unable to pay (such as by issuing letters of credit). Some of guarantees are big bond, performance bond etc.

The Agency role: Acting on behalf of the customers to manage and protect their property or issue and redeem their securities.

The Policy Role: Serving as a conduct for government policy in attempting to regulate the growth of the economy and pursue social goal. Some of the vital functions performed by a full banking service institution today are summarized in the figure below.

Figure1: Functions of Commercial Banks



When studying to the origin of modern banking, we come to know that bank of Venice was established as the first commercial bank of the world in 1157 A.D. In Nepal, Nepal Bank Limited was established, as the first commercial bank in B.S. 1994. Nepal Rastra Bank, the central bank of Nepal was established in 1996 (B.S. 2014). In 1965 (B.S. 2024) Rastriya Banijya Bank was established as commercial bank of Nepal. Before 1974 (B.S. 2031), there was no any existence of joint venture banks in the country, then were no provisions made in the old commercial Bank Act, which facilitated to the establishment of joint venture banks in Nepal. The new commercial bank act 1974 has, however made provisions to permit foreign banks to operate in the country by obtaining the approval of Nepal Rastra Bank.

The inception of Nepal Arab Bank Limited (renamed as NABIL bank Limited since 1st January 2002) in 1984 is a first joint venture bank proved to be a milestone in the history of banking. After this Nepal investment Bank limited in B.S. 2042/10/16 and standard chartered Bank Limited in B.S. 2043/10/16 were established. After democratically elected government adopted the liberal and market oriented economic policy the number of joint venture bank has increased dramatically. Joint venture bank are established by joining different forces and ability to active a common goal with each of the partners. They are efficient and effective monetary financial institutions in modern banking bank provide the excess amount of funds to fulfill the demand of the investors and better allocation of financial resource and to encourage economic growth in the economy. For this loan should be efficiently managed and controlled. If loan is not efficiently managed, it can cause inflation or deflation recession and unemployment in the economy. Misleading of loan management can lead to

misallocation of the investible resources and the economic poor concentrated the certain persons and against the social objective.

The banks take almost care in analyzing the creditworthiness of the borrowing customer to ensure that the interest and the principal amount on loans are timely recovered without much trouble and legal process for the recovery. A sound lending policy is essential for the good performances of the bank are further to attain economic objectives directed towards acceleration of the development. Lending policy should be carefully analyzed and the banks should be careful while performing its credit creation effectively and to minimize the risk factor.

Due loan management is not satisfactory and its being a national issue and to contribute towards the topic through the study among the lot of topics, the loan management topic is selected.

Thus study aims to focus on the comparative loan management of the joint venture banks namely, Everest Bank Limited and Nepal Bangladesh Bank Limited.

1.2 A Brief Profile of Selected Banks

In the initial period capital of the both banks are shown in the table.

Table1.1
Capital Structure of EBL and NBBL

Capital	Everest Bank Limited	Nepal Bangladesh Bank Limited
Authorized capital	Rs.240,000,000.00	Rs.240,000,000.00
Issued capital	Rs.120,000,000.00	Rs.120,000,000.00
Paid-up-capital	Rs.117,564,500.00	Rs.60,000,000.00
No. of share holders	2422.00	24598.00
Par value	Rs.100.00	Rs.100.00
Paid-up-value	Rs.50.00	Rs.50.00

Source: Nepal Stock Exchange.

1.2.1 Everest Bank Limited (EBL)

Everest Bank Limited was registered under the company act 1964 in 19th November, 1993 (2049/09/03). And started banking transaction in 16th October 1994

(2051/07/01). This is the joint venture bank with Punjab national bank of India and Nepalese promoters. A team of professionals deputed by Punjab National Bank of India and Nepal promoters. A team of professional departed by Punjab National Bank under the Technical Service Agreement manages it, and managing director is the executive director depute by PNB under this arrangement. Now the bank has 29 branches including main branch (i.e. head office) in Nepal.

An authorized capital of the bank had been Rs.240 million issued capital of Rs.120 million and paid up capital of Rs.117.5645 million in the beginning of the year 2051/52.

It has the following share holding patterns.

I.	Punjab National Bank (India)	20%
II.	Nepalese promoters	50%
III.	General public	30%

Similarly, the present composition of Board of Directors (BOD) of the Bank comprise as gives below.

1	Chairman	-	Promoter	nominee
1	Executive director	-	PNB	nominee
4	Director	-	Promoter	nominee
1	Director	-	PNB	nominee
2	Director	-	Elected by public shareholders	

The objectives of Everest Bank Limited are as follows:

-) To play an important role in facilitating Indo-Nepal trade. This is growing with the support of large network of branches of Punjab National Bank in India.
-) To provide a whole range of International Banking services o facilitate Nepal's trade and tourism.
-) To participate in the emerging industrial scenario in Nepal Punjab's age- old exposure, banking experience and expertise would come in hand.
-) To provide the full range of quality banking service to both the business community and common man.

(Source: Brochure of EBL)

1.2.2 Nepal Bangladesh Bank Limited (NBBL)

Nepal Bangladesh Bank Limited is a joint venture bank with International Financial Investment and Commerce Bank (IFIC) limited of Bangladesh, and was established in 6th June 1994 (2051-2-23) under the company act 1964. It is managed in accordance with the Technical and management. Agreement signed with IFIC Bank Ltd. Bangladesh. Now, the bank has 18 branches including main branch (i.e. head office) in Nepal. In the initial period it has an authorized capital of Rs.240 million, issued capital of Rs.120 million and paid up capital of Rs.60 million.

The ownership composition or the holding pattern of share capital of the bank is as follows:

I. IFIC Bank Ltd. Bangladesh	50%
II. Nepali Promoters	20%
III. Public shareholders	30 %

Similarly, the present composition of Board of Director (BOD) of the bank comprise is as given below:

1	Chairman	Representation from Nepalese promoter (Group B)
1	Director (member)	Representation from Nepalese promoter (Group B)
3	Directors (member)	Representative from IFIC Bank
2	Directors (members)	Representative from HMG/N
1	Managing Director	

The goals and objectives of Nepal Bangladesh Bank limited are as follows:

-) To facilitate the reliable, prompt and high standard of banking service adopting the latest version of banking technologies in compliance with the need and demand of the market.
-) To develop life-long relationship with clients and achieve profitability through customer oriented service and customer satisfaction.
-) To widespread its branch-net-work in different part of the countries covering at least one branch on all development regions facilitating large number of clients as far as possible.
-) To support possible co-operation for the enlistment in the economic development of the country.

(Source: Brochure of NBBL)

1.3 Statement of the Problem

Loan management is the essence of commercial banking, consequently the formulation and implementation of sound lending policies are among the most important responsibilities of directors and management. Well conceived lending policies and careful lending practices are essential if a bank is to perform its credit. Loan management affects on the company's profitability and liquidity so it is one of the crucial decisions for the commercial banks.

The need of financial resources in a developing country like Nepal is essential for the economic development of country. All the sectors from industrial and commercial to agriculture and infrastructure are in need of funding. Although the growth of industrial loans has not been encouraging in the recent years, there is sizable growth in the commercial and other short-term credits. Commercial banks are focusing loans on consumer loans like housing, vehicle, education loan etc. It is encouraging to explore new sector for loan management but it should also be considered that industrial loan should be given prime importance as the economy largely depends on this sector.

Lending policies are not systematic and no clear cut vision of policy is available on lending aspect. In Nepal it has been found that on approval and lending decisions are made flexible to favour to personnel networks also. A new customer finds that loan providing process being very complicated and sometimes the documents submitted for loan sanctioning being fraudulent and for formality purpose only. In this perspective following are some notes problematic aspect of the study.

- i. How effectively is the lending policy of selected sample bank is being followed?
- ii. Whether the trend of the deposit and loans of the commercial banks are satisfactory.
- iii. How the sample bank measures the liquidity position and impact of deposit on liquidity?
- iv. What is the portion of lending between consumer and industrial loan?
- v. How the bank measures the lending performance in quality, efficiency, and contribution of profitability.

1.4 Objectives of the Study

The main objective of the study is to analyze the loan management policies adopted by the selected bank with a view to provide workable suggestion which may be helpful to the formulation of lending policy. The specific objectives of the study are as below:

- i. To analyze the effectiveness of lending policy of the selected sample banks.
- ii. To measure the performance in quality, efficiency and contribution of profitability.
- iii. To examine the trend of deposit and loans of commercial bank.
- iv. To study the liquidity position, the impact of deposit on liquidity and its effect on lending performance.
- v. To provides suggestion and recommendation for managing loan more effectively.

1.5 Focus and Significance of the Study

There are few research done in loan management of commercial banks. Loan management is one of most important aspect of a bank. The study on analysis of loan management of the chosen selected banks would be beneficial to the shareholders, banking professional, investors, teachers and students of banking management.

This study focuses in the qualitative measurement of the selected bank. Similarly, the finding of the study will equally important to other who are interest in knowing about this particular bank. Last but not least, it will provide relevant and pertinent literature for future research on the area of loan management of banks.

1.6 Limitations of the Study

Since, the study is focusing to fulfill the partial requirement course of M.B.S. of T.U. It will have some limitation. We have limited resources and it may be difficult to explore researcher to find out new aspect. Reliability of statistical tools used and lack of research experience are the major limitation and some other limitations can be enlisted as follows:

- i. This research is limited to the lending aspect mainly with the loan and advances only.
- ii. The secondary data are used to analyze for result interpretations, so the accuracy of the finding depends on the reliability of available information.
- iii. In some extent, the data published on the website of related banks will be taken.
- iv. Due to time and resource factor only two commercial banks are taken for the study.
- v. The study covers the time period of 2003/04 to 2007/08 years of data will be taken into account due to time and cost constraint.

There could be many factors affecting loan management decision. However only those factors related with lending policy will be considered in this study.

1.7 Organization of the Study

This study has been organized into five chapters, each devoted to some aspects of loan management of joint venture commercial bank. The titles of each of these chapters are summarized and the contents of each of these chapters of this study are briefly mentioned here:

Chapter-I: Introduction

Chapter-II: Review of Literature

Chapter-III: Research Methodology

Chapter-IV: Data Presentation and Analysis

Chapter-V: Summary, Conclusion and Recommendations.

This first chapter deals with the subject matter consisting introduction, a brief profile of the banks, focus of the study, statement of the problem, objective of the study, significance of study, limitations of the study and chapter scheme of the study.

The second chapter is mainly focused with literature review that includes a discussion on the conceptual framework on loan management and review of major-studies relating with lending decision.

The third chapter describes the research methodology used to conduct the present research. It deals with research design, sources of data, data processing procedures, population and sample, period of the study, method of analysis and financial and statistical tools.

The fourth chapter is concerned with analytical framework. It includes the analysis of financial indicators, analysis of mean, correlation coefficient, regression analysis, trend analysis, financial analysis and hypothesis test.

The fifth chapter includes the major findings and conclusion of the study which deals about the main theme of study and comparison of lending policy of the banks with recommended for improvement of loan management of the selected commercial banks.

The bibliography and annexes are also incorporated at the end of the study.

CHAPTER II

REVIEW OF LITERATURE

2.1 Review of Conceptual Framework

Many researchers have conducted their research on the field of commercial banks especially on their financial performance, and fund mobilization policy, compliance with NRB directive etc. Besides this, there are some books articles dissertation and other relevant study concerned with the loan Management. Some of the relevant studies, their objectives, findings and conclusions and other literature relating to the topic have review below.

2.2 Financial Performance of Commercial Banks

According to the statistical data of NRB 2008, the following situation of the commercial banks has been identified.

-) There are 25 commercial banks in the country as of mid-June 2008.
-) Capital funds of EBL has Rs.16015.3 million in mid-June 2008 from Rs.16015.3 million in mid-Nov. 2007, it was equal to two years. Also capital fund of NBBL has Rs.-9653.2 million in mid-June 2008 from Rs.-27956.7 million in mid-Nov. 2007 , The drastic decrease in total capital fund in mid June 2008 as compared to mid-Nov. 2007 is due to Rastriya Baniija bank negative retained earnings. The retained comings figure of Rastriya Baniija bank was not included in mid-Nov 2007.
-) Deposited have reached 233221.8 million in mid-June 2008 from Rs.200353.3 million in mid-Nov. 2007 with a growth of 32868.5 million of total deposit in mid-June 2007 of EBL and NBBL have reached 102315.5 million in mid-June 2008 from Rs. 102096.2 million in mid-Nov 2007 with a growth of 219.3 million in mid- Nov. 2007.
-) Total borrowing of EBL have equal upto 2007 to 2008 which amount is Rs. 3000 million and the total borrowing of NBBL have Rs. 0 in 2007 from Rs.300 million of 2008.
-) Liquid funds continuously increased from 2007 to 2008 of these two commercial banks.EBL reach Rs. 22424.6 million to Rs.44230.1 million and

NBBL has reach Rs. 16893.1 to Rs.15844.5 million mid-Nov. 2007 to mid-June 2008. All the liquid fund is increasing rate for two year .

) Loans and advance of EBL Rs. 156743.7 millon to Rs. 183898.4 and other bank NBBL has Rs. 86982.6 million to Rs. 93516.6 , it is different between mid-Nov. 2007 upto mid-June 2008. Loan and advance distributed in private sector, financial institution sector and non-financial government organization sector.

) Interest accrued of EBL is Rs. 2347.86 million to Rs.3696.19 and NBBL is Rs. 13665.9 million to Rs 18451.2 million for these two years.

(Source: NRB Website).

2.3 NPLS in the Nepal and the Other Countries

Non- performing loan was the serious problem not only in national banking but also in the international banking. Non-performing differs in the various countries such as in 2005, the non-performing loans was 2.3% in U.K., 8.8% in India, 22% in China, 15.5% in Thailand and 2% in Japan.

In September 30, 2003 of the Latin American countries, among the 8 crore dollar share capital 7.51 crore dollar was non-performing loans and it was 8 percent of the total loan.

The non-performing loan was very high because the two public banks (Nepal Bank limited and Rastriya Banijya Bank) have very huge amount of non-performing loans. Few years ago, the published showed that the Nepal bank Limited has 62% of the non-performing and Rastriya Banijya bank has 52 percent of non performing was and these two banks have around 35 Arab rupee non performing loans and responsibility of non performing loans per Nepali has one thousand six hundred and fifteen rupees and it occupies 8% more than the per capital income of the year.

(Source: NRB Website).

2.4 Sources of Major Problem in Credit Risk Management

Effective credit risk management allows a bank to reduce risks and potential NPLs. It also offers other benefit. Once banks understand their risk and their costs, they will be able to determine their most profitable business and thus, credit-risk strategy

supported by organizational changes, risk measurement technique and fresh credit process and systems. In the context of Nepal, the sources of major problems in credit risk management are as follows:

(i) Financial statement (including audited) do not reflected a “true and fair view” of the business entity due to creative accounting. The audited financial statement as submitted by the customers do not reflect details relating to

-) Encumbrances changes on the company’s current/fixed assets plus to whom they are changed.
 -) Details of group company lending/ borrowings
 -) Status of income assessment etc.
 -) Contingent liabilities.
 -) Accounting policies.
 -) Delegation of finding authority is based on seriously and not an complexes of the concerned officials
 -) No exchange of credit information/ lack of transparency among the competition banks giving rise to multiple banking (some customers having facilities with different base) complicating to excessive financing, double financing, division of funds, flight of capital coverage shortfall etc.
 -) Absence of:
 - Risk based pricing methodologies
 - customer risk rating methods
 - Facility risk rating models
 -) Pronounced name lending.
 -) Collateral based lending instead o need based/ cash flow base lending.
 -) Over banked center contributing for severe competition and price-cutting.
 -) Lack of corporate governance
 -) Permissive banking practice including names, lending, multiple banking etc.
 -) Macro level scenario of political in ability slow growing economy, small domestic market.
 -) Ineffective judiciary
 -) Cross border risk disappearance of promoters
 -) Inadequacy of law to deal with crime like cheating, misfeasance.
- (Ramamurthy, 2004: p. 3-5)

2.5 Reviewing the Books

A bank is a government regulated, profit making business that operates in competition with other banks and financial institutions to serve the saving and credit needs of its customers. The primary business of banks is accepting deposit and leading money. Banks accepts deposit for customers who wants the safety and convenience of deposit service and the opportunity to earn interest on their excess funds. (Sapkota, 2001)

Hrrishikes Bhattacharya in his book “banking strategy, credit appraisal and lending. Decision has put the recommendation of Tandon committee from the report submitted this committee. Has prepared this report in 1975, however these recommendation stills deserve great significance in the sector of credit appraisal, the system proposed by the committee enjoyed upon the system proposed by the committee enjoying upon the banker.

- a) To assess the need based credit of the borrower on a rational basis.
- b) To ensure proper and use of bank credit by keeping a closer watch on the borrower business and thus ensure safety of the banks funds.
- c) To improve the financial discipline of the borrower and
- d) To develop healthy banker borrower relationship

The committee examined the existing system of lending and recommended the following broad changes in lending system.

- a) The credit needs of borrowers be assessed on the basis of their business plans.
- b) Bank credit only be supplementary to the borrowers resources and not in replacement of them, i.e. banks not to finance one hundred percent of borrowers, requirement,
- c) Borrowers be required to old inventory and receivables according to norms prescribed by the reserve bank of India from time to time.
- d) Credit be made available in different components only, depending upon the nature of holding of various current’s assets.
- e) In order to facilitate a close watch on the operations of borrowers, they are required to summit, at regular intervals, data regarding their business and financial operations, both for the past and future period.

The committee including stores and other items uses in the manufacturing process.

- a) Raw material including stores and other items uses in the manufacturing process.
- b) Stock in process
- c) Finished goods
- d) Receivable
- e) Spares (Bhattacharya, 1998: 309)

“Bank growth and profitability are the result of carefully forecasting funding needs, competitively attracting funds, efficiently borrowing funds and effectively investing, funds in safe but profitable earning assets. Depending on a bank’s size and location and on local and national economic conditions, a bank may have adequate, relatively stable sources of low cost funds, or it may have to compete regularly and aggressively for funds at high market prices for an increasing number of banks, the second situation is becoming the norm as more, the second situation is becoming the norm as more and more banks face increasing pressure to attract adequate funds at reasonable costs.

In the word of S.P. Singh and S. Singh, “credit policies of banks are condition to great extent by the national policy framework, every banker has to apply his own judgment for arriving at a credit decision, keeping of course, bankers and credit policy also in mind” (Singh and Singh, 1983).

H.D. Gross stated, Lending is the essence of commercial banking; consequently the formulation and implementation of sound lending policies are among the most important responsibilities of bank directors and management. Dell conceived lending policies are essential in a bank to perform its credit creating function effectively and minimize the risk interest in any intention of credit.” (Gross, 1963)

Sunity Shrestha said that the commercial banks should not concentrated on the specific sector but should fulfill the credit need of various sector of the economy including agriculture, industry, commercial and social sector of the economy service sector. The commercial banks should very effective while providing loans. While providing loans, the banks should think on the maximizing the economic growth of the country as well as the profit from providing the loan for the operation of the country. (Shrestha, 1995)

2.6 Review of Journals

Among the various review of journals pertaining to the study, the major mostly contributing to the study has been outlined below.

“The banking sector is severally affected by the Non-performing loans problem. It is estimated that the NPL of the Nepalese Baking system is around 16 percent. Therefore, there is not doubt that it has a serious implication on economic performance of the country.” (Dhungana, 2058: 127)

F. Morris in the discussion paper has concluded that “most of the banks concentrated an compliance with central bank rules on reserve requirements, credit allocation and interest rate. While analyzing loan portfolio quality operating efficiency and soundness of bank investment management has largely been overlooked. The huge loosed now found in the banks portfolio in many developing countries are testimony to the poor quality of this oversight investment function.

He further adds that mismanagement in financial institutions has involved inadequate and over optimistic loan appraisal, tax loan recovery, high risk diversification of landing and investment high risk concentration, concocted and insider landing, loans mismatching. This has led many banks of developing countries the failure of 1980s" (Morris, 1990: 81).

Dr. Sunity Shrestha has presented with the objective to make analysis of commercial banks lending to the Gross Domestic product (GDP) of Nepal. She has set hypothesis that there has been positive impact of landing of the commercial banks to the GDP. In research methodology she has considered GDP as the dependent variable and various sectors of lending dependent variable and various sectors of lending viz. agriculture, industrial, commercial service and social sectors as independent variables. A multiple regression techniques have been applied to analyze the contribution.

The multiple analyzes have shown that all the variables except service sector lending has positive impact on GDP. Thus in conclusion, she has accepted the hypothesis i.e. there has been positive impact by the lending of commercial in various sectors of economy, expect service sector investment. (Shrestha, 1995)

“A study on deposit and credit of commercial banks in Nepal concluded that the credit deposit ratio would to 51.30%, other things remaining the same. In Nepal that was the lowest under the period of review. Therefore, he had strongly recommended that the

joint venture banks should to give more credit entering new fields as far as possible, otherwise, they might not be able to absorb even the total expenses. (Shrestha, 1998: 15)

In the same way, Mr. Dev Lal Kishi, in his article states. “The changing face of the banking sector and the HMG/N recent budgetary policy “concludes the following an introduction of the reform in the banking sector as an integrate part of the liberal economic policy, more banks and fiancé companies have come up as a welcome measure of completion.

However because of poor investment policies and lack of internal control the two government controlled banks, Nepal Bank Ltd and Rastriya Banijya Bank’s non-performing assets have increased substantially. Now, Nepal Rastra Bank has awarded the management contact to foreign companies to improve the condition of non performing assets. The policy of giving management is professional consultant is a part of the financial sector reform policy of NRB. (Kishi, 1996: 27-32)

Rewat Bahadur Karki has summarizes some of the challenge through his article

“The financial sector is facing major challenges of high NPL of the banking sector, which comes around 18% of the total loan but it the loan classification is made according to least international practice, it is assumed to exceed 30% credit demand is being met largely by non-institutional source i.e. private money lender, merchant trade, individual and land lord at very high rate of interest, which is 2-3 times higher then of institutional source, this shows that the unorganized financial sector is playing a major role in Nepalese economy. The liquidity a major role in Nepalese economy. The liquidity position of the banking sector is rated as high as 24%, but the productive sector of the economy is starved by credit crunch. This has created a paradoxical situation in banking sector.

He has given some suggestions to improve the Nepalese financial sector:

The financial institutions especially CBs have to identity new area of investment to increase loans and advances in reducing the liquidity position. With the rapid growth in the number of banks and financial institution, deposit insurance scheme is a must. The principle reasons for introducing such deposit insurance should be one of the social justice rather than economic justification in order to protect the interest of the small depositors. In this condition, this scheme should be expedited to implement. (Karki, 2000: 26-30)

2.7 Review of Thesis

A study conducted by Mr. Upendra Shrestha (2000) regarding the investment practices of joint venture banks in Nepal with special reference to Nabil Bank Limited, Standard Chartered Bank Nepal limited and Nepal SBI Bank limited has figured out the problem conclusion and recommendation as follows.

“Commercial Banks are more emphasized to be making loans on short term basis against movable merchandise. Commercial Banks have a lots of deposit but very little investment opportunity. They are even discouraging people by offering very low interest rate and minimum threshold balances”.

Commercial Banks invests their funds in limited areas to achieve higher amount of profit. This regarded as a very risky step, which may lead to lose in profit as well as principle. The credit extends by commercial Bank to agriculture and industrial sector is not satisfactory to meet the growing need of the present situation.

He has concluded that the liquidity position of Nabil and SCBNL have not found satisfactory, it is therefore, suggested them to improve cash and bank balance to meet current obligations. SCBNL's loan and advance to total deposit ratio is lower at all, it is recommended to follow liberal lending policy for enhancement of fund mobilization. It is recommended to NSBIBL that is has to invest its fund in share and debentures of other companies. It is suggested to enhance off balance sheet transactions, diversifying their investments, own new branches, play merchant banking role and invest their risky assets and shareholders fund to gain higher risky assets and shareholder fund to gain higher profit margin. Nabil and SCBIL are recommend to increase cash and balance to meet current obligations and loan demand.

This above study shows that Mr. Shrestha has concluded some conflicting statement which are obviously not matching with his statement of problem. His recommendation ignores the industry average and also failed to figure out what is right in the industry like banking along the excess of investment or loans and advances. And he thinks liberal lending policies solve the problem to increase the level of loans and Advances.

But some where in his recommendation, he has warned commercial Banks to increase the level of loans and Advances and suggested them to increase the level of investment in government securities or in other safe instrument just to avoid the risk arising from lending. Form this, it can be concluded that Mr. Shrestha has made his

entire conclusion absolutely and has not made any relative analysis of the pros and cons of the entire factor affecting his study.

Mr. Raja Ram Khadka in his thesis paper in “A study in the investment policy of Nepal Arab Bank Ltd. in comparison to other joint venture banks of Nepal has recommended, “The bank should utilize its deposit account as loans and advances to get success in competitive banking environment. Loans and advances are the profitable asset for the banks but ineffective management of the loans and advance’s creates the serious. Problems to the banks and the major reason behind the bank liquidation and failure could be the weakness of the loan management. (Khadka, 1998)

Mr. Dirgha Narayan Kafle has concluded his study entitled “Non-performing loans of Nepalese commercial banks.” The researchers mean objective of the study was to know the problems of the non-performing loans and its effect in the ROA and ROE of the Nepalese commercial banks and to find out whether the Nepalese commercial banks are following the NRB directives regarding loan loss provision for non-performing loan or not.

Through the research Mr. Kafle has found that the no banks has been following NRB’s directives regarding the loan loss provision. He also conclude that the return on assets (ROA) and return on equity (ROE) of the bank deposited upon the NPLs. The high degree of negative correlation between NPL and ROA and the NPL and ROE clearly indicates that there is inverse relation between them. He has recommended that for the smooth operation of the commercial banks, the NPLs should be controlled for this banks should provide necessary training regarding loan management to the manpower’s. In order to remove, the NPLs, banks should take enough collateral so that banks can recover its loan amount. For the loan loss provision as per the NRB directive and to reduce the NPL, the bank management should be effective and the NRB’s monitoring and regulation is necessary. (Kafle, 2005)

A thesis conducted by Mr. Narayan Prasad Subedi on “A Comparative Study of Financial Performance between Himalayan Bank limited and Everest Bank Limited and Everest bank limited” of the period from 1996 to 2000 has outlined his major finding and conclusion as follow:

“The mean and total loans and Advances to total saving deposit ratio of EBL is greater than that of HBL and the coefficient of variation between the ratios of HBL is

less than EBL. It means that the ratios of HBL is less than EBL is more uniform than EBL. According to analysis, it found that EBL is more employing its saving deposit in term of loans and advances than that of HBL. So, loans and advances to total saving deposit ratio appear better in EBL than HBL. .

The mean total investment to total deposit ratio of EBL is significantly greater than that of NBBL but the coefficient of variation between the ratio of NBBL but the EBL. It means that the variability of the ratios of NBBL is more consistent than that of EBL. According to analysis, it if found that EBL is more successful in utilizing its resources an investment.

However, he failed to give his overall conclusion regarding the superiority of the financial performance of these two banks during the period of the study (1996-2000). He has also put several recommendations out of which few important recommendation are outlined here.

The liquidity of a bank many of affected by external as well as internal factors such as the interest ratio, supply and demand position of loans, saving to investment situation, central bank requirements and the growth or slackening tending policies management capability. HBL has maintained the ratio of cash and bank balance to total deposit considerably lower than that of EBL. So, EBL is recommended to increase cash and balance to meet loan demand. (Subedi, 1998)

Mr. Subedi recommendation that HBL should increase its cash and bank balance to meet loan demand does not sound logical since no where in his study he has concluded that HBL has failed to meet its demand loans. Being the low level of cash and bank balance as compare to another specific bank dies not necessary conclude the necessity of increasing this asset.

A thesis study conducted by Lila Prasad Ojha on “lending practices: A study on Nabil Bank Limited, standard chartered bank limited and Himalayan Bank Limited” has find found out that the measurement of lending strength in relative term has revealed that the total assets to total liability of SCBNL has the highest ratio. However the performance of other two banks has not deviated for from the mean ratio of SCBNL and the combined average. SCBNL tendency to invest in government securities have resulted with the lowest ratio of loans and advances to total assets ratio. The steady and high volume of loans and advances throughout the years has resulted Nabil ratio to be the highest. The ratio of loans and advances and investment to deposit ratio has

measured the portion of total deposit that is used to increase the income of the banks irrespective of the profiles of its application. Nabil has deployed the highest proportion of its total deposit in earning activities and this ratio is significantly above the ratio of other two banks. The combined ratio is highly deviated from the mean ratio of Nabil and SCBNL. This is the indicative of that in fund mobilizing activities Nabil is significantly better than SCBNL.

Similarly the absolute measures of lending strength have revealed that the mean volume of net assets and deposit is highest in SCBNL with moderate variation. The volume of net assets of HBL is the least due to the low share capital, reserve and surplus in its capital mix. But the volume contributed by Nabil is the greatest in the study period. Nabil has the best contribution in productive as well as industrial sector in economy.

He has further concluded that the overall liquidity strength of SCBNL can be considered the best among the banks. However the liquidity risk arising from interest rate in SCBNL is the most likely. Since the market is highly sensitive towards the interest rate an SCBNL has generally been offering low interest rate as compare to other banks. The analysis of lending strength of HBL in loans and advances is the best however loans and advances, investments to deposit ratio have upgraded the performance of Nabil. If HBL strength succeeded in collecting the less chapter source of strength fund of HBL would push the performance of Nabil and SCBNL for behind in the coming future. Also the contribution made by HBL in the productive sector of economy is highly appreciable and the best among these the commercial banks. The highest growth rate, proportionately high volume of loans and advances and the best contribution in agriculture and priority sector and the high level of deposit mobilization of HBL has put his level of deposit mobilization of HBL has put this bank in the top positive in the lending function as demand by national priority, national development. However the better activity ratio of SCBNL has proved this bank then best in managing the lending portfolio according to the demand of profit-oriented business. The high volume of lending activities and high volume of productive sector loan of NABIL has put this bank then but in ratio of SCBNL has pored this bank then best in managing the lending portfolio according to the demand of profit-oriented business. The high volume of lending activities and high volume of productive sector loan of Nabil has put this bank in the top position in absolute term.

On basis of the findings and conclusion he has recommended for the banks as the liquidity position of all these three banks is found to be high he has recommended the

banks to look upon new area of lending and investment. The rural economy has always been realizing the credit needs and the dominance of non-organized moneylender in this area has been prevailing. To compromise between the liquidity and credit need of rural economy these banks are highly recommended to expand their credit in this area. SCBNL's contribution in loans and advances is the lowest and this has low degree of variation and low growth rate as compare to Nabil and HBL, SCBNL is recommended to give extra priority on productive and priority sector loan. The increasing provision as loan loss and high volume of non-performing assets in Nabil and HBL certainly attract the high attraction of any person interested with these banks. The high volume of NL non-performing assets may have caused due to the failure of industrial and agricultural sector. Nabil's increased non-performing, asset may have caused due to the accumulated bad debts that is kept behind the certain to show the efficiency of management.

He has used different statistical tools like standard deviation, correlation, trend analysis and financial tools for the data analysis and presentation. In his study he has also taken sector wise loan- priority sector, productive sector etc. the different sector wise loan classification are presented and analyzed only secondary data has been used for the study, the overview of theoretical aspect of the lending practices of the banks has not been analyzed. He has taken five years data from 1997 to 2001 for study of lending practices of NABIL, SCBNL and HBL. (Ojha, 2002)

Sabitri Shrestha in her thesis paper "Impact and implementation of NRB Guidelines (Directive of commercial Banks- A study of Nabil Bank limited and Nepal SBI Bank have been fully implantation the NRB's directives. Capital adequacy Ratio of Nabil and Nepal SBI are 13.40% and 12.86% respectively, which are more than 9%. Banks are following the directives but in some cases such like supplementary capital and balance at NRB there is shortfall. The excurses amount of total deposit in balance of NRB there is shortfalls. The banks have categorized the loan amount into four diffident categories as per NRBs directives. The increasing loan loss- providing amount decreased the profit of the banks. The charge in the single borrower limit has brought down the limits of the fund based and non-fund based loans which have resulted to reduced loan exposure to banks.

In her thesis she has recommended that both Nabil and SBI banks to increase it supplementary capital as it has shortfall in comparison wit NRB guidelines and to meet the supplementary capital adequacy ratio even though it can be compensated by the excess amount of core capital. The supplementary capital needs to be increased by

Rs.122.74 million in Nabil Bank and Rs.125.57 million in Nepal SBI Bank. She says liquidity and profitability are like two wheels of one cart so banks cannot run in the absence of any one of them. One can be activated only at the cost of the other. Only liquid banks can attract loan core deposit, which helps in reducing interest expenses and give loan to good customer at lower rate, which results in requirement of less provision and high net profit. So banks should increase their primary reserve now to maintain the liquidity risk due to scrap out the secondary reserve. On the basis of findings, Nabil Bank has a shortfall of Rs.140.74 million thus Nabil has to increase its balance at NRB by such amount for better performance even after adding 1% excess amount of ash of total deposit.

Primary data has been used in order to get the view of banks on the directives issued by NRB. Question related to NRB directives 1.5 are used to collect for the study and implementation of directive by commercial bank. Secondary data are also used for the analysis an this study the general directives issued in 2001 and 2002 are considered for the study. In issued directives of 2001 and 2002 there are 10 directives but only five directives i.e. (1-5) are highlighted and taken in the study.

2.8 Research Gap

The review of above relevant literature has contributed to enhance the fundamental understanding and knowledge, which is required to make study meaningful and purposive. There has been lots of article published related to investment policy loans and advances of commercial banks. There are various researches conducted on investment analysis and policy of commercial banks, impact and implementation of NRB guideline in commercial banks but there few research conducted on lending aspect of commercial banks. However, no one has done a study on Loan Management of Commercial Bank (A Comparative Study of Everest Bank Limited and Nepal Bangladesh Bank Limited). Therefore the research attempts to study in this area. To know the loan management of these two bank will probably be the first study of these bank in the subject matter.

So, this study will be fruitful to those interested person parties scholars, professor, students, businessman and government for academically as well as policy perspective.

CHAPTER III

RESEARCH METHODOLOGY

Research methodology depends on the various aspects of the research project. The size of the project, the objective of the project, impact, importance of the project, time frame of the project, impact of the project in various aspects of the human life etc. are the project in various that determine the research methodology of the particular project. However, the following steps provide a useful procedural guidance so far as research methodology is concerned:

1. Tentative selection of the problem (i.e. topic of the research)
2. Initial survey of literature.
3. Defining or electing the research problem
4. Extensive literature survey
5. Specification of the information required: formulating the hypothesis.
6. Design of the research project
7. Sample design
8. Collection of data/ construction of questionnaire
9. Execution of the project
10. Analysis of data
11. Testing hypothesis
12. Arriving at generalization and
13. Preparation of the report (i.e. stating or writing down the results) (Kothari, 1994: pp. 19-20)

This chapter includes the research design, total population and selected sample, source of the data and the data gathering procedures and research variables and the statistical procedures.

3.1 Research Design

Research design is planned structure and strategy of investigation conceived to obtain answer to research objective through analysis of data. The first step of the study is to collect necessary information and data concerning the study. Therefore, research design means the definite procedure and technique, which guides the study and propounds ways or doing research. In this way a description and analytical survey will be done. The justification for the choice of these methods is preferred because it

includes reliable data and information covering a long time and avoids means complex variables.

The research covers the two major joint venture commercial banks in Nepal particular in their loan management practice. The research has its basic objective to figure out the problem therein and provide them with some recommendation. The literature has been reviewed specially from the post thesis conducted and the same aspects of the commercial Banks. The data for the research are of secondary types. The research is designed to conduct approximately within 60 working days.

3.1.1 Population and Sample of the Study

All the commercial banks in Nepal are the population of the study. The commercial banks are as follows.

Table 3.1
Lists of Commercial Banks in Nepal

S.No.	Names	Operation Date (A.D.)	Head Office	Paid up Capital (Rs. In Million)
1	Nepal Bank Limited	1937/11/15	Kathmandu	380.4
2	Rastriya Banijya Bank	1966/01/23	Kathmandu	1172.30
3	Agriculture Development Bank Ltd.	1968/01/02	Kathmandu	10777.50
4	NABIL Bank Limited	1984/07/16	Kathmandu	965.75
5	Nepal Investment Bank Limited	1986/02/27	Kathmandu	1606.07
6	Standard Chartered Bank Nepal Limited.	1987/01/30	Kathmandu	932.00
7	Himalayan Bank Limited	1993/01/18	Kathmandu	1216.20
8	Nepal SBI Bank Limited	1993/07/07	Kathmandu	874.50
9	Nepal Bangladesh Bank Limited	5/6/1994	Kathmandu	744.10
10	Everest Bank Limited	1994/10/18	Kathmandu	691.40
11	Bank of Kathmandu Limited	1995/03/12	Kathmandu	603.10
12	Nepal Credit and Commerce Bank Limited	1996/10/14	SiddharthanagaRupendehi	1399.50
13	Lumbini Bank Limited	1998/07/17	Narayangadh,Chitawan	996.31
14	Nepal Industrial & Comm. Bank Ltd.	1998/07/21	Biaratnagar,Morang	1140.50

15	Machhapuchhre Bank Limited	2000/10/03	Pokhara, Kaski	1314.64
16	Kumari Bank Limited	2001/04/03	Kathmandu	1078.27
17	Laxmi Bank Limited	2002/04/03	Birgunj, Parsa	1098.10
18	Siddhartha Bank Limited	2002/12/24	Kathmandu	952.20
19	Global Bank Ltd.	2007/01/02	Birgunj, Parsa	1000.00
20	Citizens Bank International Ltd.	2007/6/21	Kathmandu	700.00
21	Prime Commercial Bank Ltd	2007/9/24	Kathmandu	700.00
22	Sunrise Bank Ltd.	2007/10/12	Kathmandu	700.00
23	Bank of Asia Nepal Ltd.	2007/10/12	Kathmandu	700.00
24	Development Credit Bank Ltd.	2001/01/23	Kamaladi, Kathmandu	1107.5
25	NMB Bank Ltd.	1996/11/26	Babarmahal, Kathmandu	1000.00

The sample taken from the commercial banks are follows

Total population	Sample taken
25 commercial banks	Everest Bank Ltd Nepal Bangladesh Bank Ltd.

There are 25 commercial banks operating in the country. Due to the time limitation, to study all the banks will take a long time. In our study 2 banks each from the public and joint venture are taken as sample.

3.1.2 Sources of Data

The data presented in the study are secondary type. The annual reports of the concerned banks are the major sources of the data for the study. However, besides the annual reports of the subjected banks the following source of data shall also be used in the respective corner of the study.

1. NRB reports
2. Various publications dealing in the subject matter of the study
3. Various articles published in the News papers

Besides the above, any kind of other sources such as assertions, interviews, remarked by the specialist of those are capable improvising valuable data and conclusion, shall be considered in the study.

3.1.3 Data Collection Procedures

The Annual Report of concern bank was obtained fro field visiting of these banks especially from their corporate office. NRB publication, such as Quarterly, Economic Bulletin, Banking and financial statistics, Economic Report, annual Report of NRB , EBL and NBBL etc. The data on some aspect of these banks was obtained from the website www.nepalstock.com.np, www.Everestbankltd.com, www.nrb.org.np, www.nbbl.com.np and www.google.com

3.2 Method of Data Analysis

For the analysis of the data the financial and statistical tools relevant to the topic are used. They are as follows.

3.2.1 Financial Tools

Ratio Analysis

A ratio analysis is simply one number expressed in terms of another and as such it express the quantitative relationship between any two numbers. Ratio can be expressed in terms of percentage, proportion and as coefficient. The technique of ratio analysis is a part of the whole process of analysis of financial statements of any business of industrial concern especially to take output and credit decision. Through this technique, a comparative study can be made between different statistics concerning varied facts of a business different statistics concerning varied facts of business units. Just as the blood pressure, pulse and temperatures are the measures of the health of an individual, so does ratio analysis measure the economic financial health of a business concern. Thus, the technique of ratio analysis is of a considerable significance in studying the financial stability, liquidity profitability and the quality of the business and industrial concerns. (Kothari, 1994: 169)

“Ratio analysis is such a powerful tool of financial performance and status to that of other firms or its overtime.”(Lawrence, J. Gitman, “Principle of managerial finance,” 5th edition, 1998)

Hence, ratio analysis is a part of financial analysis that evaluates the performance of an organization by creating the ratios from the figure of different accounts consisting in balance sheet, income statement. It is the process of determining and interpreting numerical relationship between the items of financial statements. Although there are

various types of ratio to analyze and interpret the financial statement, among those some are relevant for the study, which are as follows:

A) Liquidity Ratios

Liquidity ratio is a tool of financial analysis which helps to find the liquidity of an organization. In other words, difference between current assets and current liabilities is known as working capital, which provides the liquidity in business organization. It measures the liquidity position of the firm. Liquidity ratio measures the speed with which banks assets can be converted into cash to meet the deposit withdrawal and other current obligation, it reflected the short term financial strength and weakness of the firm. The firm should maintain proper liquidity over the immediate future. Liquidity should be neither too low nor too high. A high degree of liquidity shows inability of proper utilization and low degree of liquidity shows the poor credit worthiness and less creditor's confidence. Hence, the firm should maintain adequate balance between in adequate liquidity and unnecessary liquidity for the survival and to avoid the risk of insolvency. To measure the liquidity position of banks, the following ratios have been used in the study.

i) Current Ratio :

Difference between current assets and current liabilities is known as current ratio. It shows the banks short term solvency. It is also called liquidity solvency ratio and working ratio. The main objective of the current ratio is to measure the payment capacity of the firm.

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

Where, current assets includes cash and near cash assets i.e. marketable accounts receivable, inventories, balance with banks, accrued account, prepaid expenses, short term investments. Current liabilities includes sundry creditors, bills payable, notes payable, bank overdraft, outstanding expenses, income received in advance, provision for taxation, proposed dividend, unclaimed dividend, loan maturing in a year. The proportion of current ratio is 2:1. The natural rule is based on the assumption that even if half decrease in current assets, the firm can meet its current obligations.

ii) Quick Assets Ratio :

The total deposit constitutes the major part of the banks liquidity. Flow of this liquidity is always uncertain in the banks fund management. Hence, the ratio of liquid fund to current liabilities indicates the bank's strength to meet uncertain outflow or deposits.

$$\text{Quick Ratio} \times \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

Liquid fund consists of cash in hand in hand, balance with NRB, balance with other banks and money at call.

iii) Cash and Bank Balance to Current Asset Ratio :

Cash and bank balance to current ratio refers the portion of cash and bank balance in total of current assets of the bank. It measures the proportion of liquidity assets. Highly liquidity assets show the higher banks ability to meet its payment capacity of cash. It represent total of local currency, foreign currency, cheque in hand and various banks balances in local as well as foreign banks. This ratio can be calculated by using following formulas.

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

Hence, the ratio shows the percentage of current available fund with in the bank.

iv) Cash and Bank Balance to Total Deposit Ratio :

cash and bank balance to total deposit ratio measures the percentage of liquid fund with the bank to meet immediately payment to the depositors. Higher ratio shows liquidity position and ability to cover the deposits and vice-versa. It is liquid current assets. This ratio computed by dividing the amount of cash and bank balance by the total deposit. This ratio can be calculated by using the following formula.

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

When cash and bank balance includes cash in hand, cheque and other cash items, balance with domestic and foreign banks. Total deposit includes current deposits, saving deposits and fixed deposits, call deposits and other deposits.

v) Loan and Advances to Current Assets Ratio :

Loan and advances to current assets ratio shows the banks liquid capacity of discounting and purchasing the bills and loan, cash credit and overdraft facilities to the customers. This ratio can be computed by dividing loan and advances by total current assets.

$$\text{Loan and Advance to Current Assets Ratio} \times \frac{\text{Loan and Advance}}{\text{Current Assets}}$$

Hence, it shows the percentage of loan and advances in the total current assets. It includes local and foreign bills purchased and discounted and loans, cash credit and overdraft in local currency as well as inconvertible foreign currencies

B) Assets Management Ratio

Assets management ratio is also known as activity ratio. It shows the efficiency with of any firm. It is employed to evaluate the efficiency with which the firm manages and utilizes its assets. It measures the proportion of various assets and liabilities in balance sheet. This ratio is used to measure how effectively a firm is managing its assets and the firm's ability to utilize its available resources. The ratio is expressed on percentage. Greater the rate of turnover, the more efficient is the utilization of assets.

Assets management ratio measures its efficiency by multiplying various liabilities into performing assets. These ratios are concerned with measuring the efficiency in assets management. If available assets are not utilized efficiently, the investment upon them will be idle and profitability decreases and also if the investment is not sufficient, then adequate production and revenue can not be made and profitability decreases. So, proper balance between revenue and assets is desired for the reflection of optimum utilization of assets. Here, some of those ratios are computed to assess the bank's efficiency in utilization of available assets.

i) Total Assets to Total Liabilities Ratio :

Total assets to total liabilities ratio measures the volume of total liabilities in total assets of the bank. This ratio measures the bank's ability to multiply its liabilities into assets. It is always recommended to have higher ratio since it signifies overall increases of credit. The higher ratio indicates the higher productivity.

$$\text{Total Assets to Total Liabilities Ratio} \times \frac{\text{Total Assets}}{\text{Total Liabilities}}$$

ii) Loan and Advances to Total Deposit Ratio :

This ratio is used to calculate to find out how successfully the banks utilizing their total deposits on loan and advances for profit generating purpose. Higher the ratio, the better is the utilization of total deposits. This ratio is computed by dividing the amount of loans and advances by total deposit. This ratio can be calculated by applying formula.

$$\text{Loan and Advance to Deposit Ratio} \times \frac{\text{Loan and Advance}}{\text{Total Deposit}}$$

Here, loan and advances includes loan, advances and overdraft and total deposit includes current deposits, saving deposit and fixed deposits, call deposits and other deposits.

iii) Total Investment to Total Deposit Ratio :

Investment is one of the major forms of credit created by the bank to earn income. It is the use of money for future profit. A firm can earn more profit by investing its fund on government securities, shares and debentures or bonds of other companies. Thus, investment is the utilization of firm's deposit on different securities. This ration is calculated by applying following formula.

$$\text{Total Investmentst to Deposit Ratio} \times \frac{\text{Total Investment}}{\text{Total Deposit}}$$

Here, total investment includes investment on government securities, debenture and bonds, share in subsidiary companies, share in other companies and other investments.

iv) Loan and Advances to Working Fund Ratio :

Loan and advances is an important part of total working fund. This ratio measures the volumes of loans and advances in the structure of total assets. It indicates the ability of banks to channel its deposits in the form of loan and advances to earn more profit. A higher ratio indicates better mobilization of funds as loans and advances and vice-versa. This ratio is calculated by applying the formula.

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

Where, total working fund includes total amount of assets given in balance sheet like, current assets, net fixed assets, total loans for development banks and other sundry assets excepts off balance sheet i.e. letter of credit, letter of guarantee etc.

v) Investment to Loan and Advances and Investment Ratio :

This ratio measures the contribution made by investment in total amount of loan and advances and investment. The ratio indicates the mobilization of funds in safe area and vice versa.

$$\text{Investment to Loan and Advance and Investment} \times \frac{\text{Investment}}{\text{Loan and Investment}}$$

C) Activity or Performing Ratios

Activity ratio measures the performance efficiency of an organization from various angles of its operation. It indicates the efficiency of activity of an enterprise to utilize available funds, particularly short term funds. These ratios are used to determine the efficiency, quality and contribution of loans and advances in total profitability. Activity ratios are used to measure the performance and efficiency of the bank.

i) Loan Loss Provision to Total Loans and Advances :

the ratio of loan loss provision to total loans and advances describes the quality of assets that a bank is holding. Nepal Rastra Bank has given directives to commercial banks to classify its loans and advances into the category of pass, sub-standard, doubtful and loss on the basis of maturity of principal, to make provision of 1,25, 50, and 100 respectively. The provision for loan loss reflects the increasing probability of

non-performing loan in the volume of total loan and advances. The ratio is calculated by dividing loan loss provision by total loans and advances.

$$\text{Loan Loss Provision to Total Loan and Advances} \times \frac{\text{Loan Loss Provision}}{\text{Total Loans and Advance}}$$

ii) Non-Performing Loans to Total Loans and Advances Ratio :

It measures the proportion of non-performing loans on the total volume of loans and advances. Thus, it reflects the quantity of quality assets that the banks possess. Higher ratio reflects the bad performance of the bank in mobilizing loans and advances and bad recovery rate and vice-versa. It is calculated by dividing the non-performing loans by total loans and advances.

$$\text{Non Performing Loans to Total Loan and Advances} \times \frac{\text{Non Performing Loan}}{\text{Total Loans and Advance}}$$

iii) Interest Expenses to Total Deposit Ratio :

this ratio measures the % of total interest paid against total deposit. A high ratio indicates higher interest expenses on total deposit.

$$\text{Interest Expenses to Total Deposit Ratio} \times \frac{\text{Interest Expenses}}{\text{Total Deposit}}$$

iv) Interest Expenses to Total Expenses Ratio :

It measures the portion of total interest expenses in the volume of total expenses. The high ratio indicates the low operational expenses and vice-versa. It is calculated by dividing interest expenses by total expenses.

$$\text{Interest Expenses to Total Expenses Ratio} \times \frac{\text{Interest Expenses}}{\text{Total Expenses}}$$

v) Total Interest Expenses to Total Working Fund Ratio :

It is calculated to find out the percentage of interest paid on liabilities with respect to total working fund. It is calculated by dividing total interest paid by total working fund.

$$\text{Total Interest Expenses to Total Working Fund Ratio} \times \frac{\text{Total Interest Expenses}}{\text{Total Working Funds}}$$

vi) Deposit Mobilization per Branch :

this ratio shows the average mobilization of deposit. This ratio is calculated dividing total deposit by no. of branches. Higher ratio shows the higher collection of deposit per branch.

$$\text{Deposit Mobilization per Branch} \times \frac{\text{Total Deposit}}{\text{No. of Branches}}$$

vii) Credit Mobilization per Branch :

This ratio measures the average mobilization of credit. This ratio is calculated by dividing total loan and advances by no. of branches. Higher ratio indicates the higher lending per branch.

$$\text{Credit Mobilization per Branch} \times \frac{\text{Total Loan and Advances}}{\text{No. of Branches}}$$

D) Profitability ratio

The main objectives of the commercial banks are to earn more profit. It measures the overall efficiency of a firm in term of profit and financial performance. It shows the effect of liquidity, assets management and debt management on operating results. It is used to indicate public acceptance of the service of bank and run competitively. Higher the profitability ratio better is the performance of the bank. In this study, the various types of profitability ratios are used to compute the profit of banks to their investment Interest.

i) Income to Total Income Ratio :

This ratio measures the volume of interest income in total income of the bank. Higher the ratio higher is the contribution made by the lending and investment activities and vice-versa. It is calculated by dividing interest income by total income.

$$\text{Interest Income to Total Income Ratio} \times \frac{\text{Interest Income}}{\text{Total Income}}$$

ii) Interest Income to Interest Expenses Ratio :

this ratio measures the gap between interest rate offered and interest rate charged. The credit creation power of commercial banks has high impact on this ratio.

$$\text{Interest Income to Total Expenses Ratio} \times \frac{\text{Interest Income}}{\text{Total Expenses}}$$

iii) Operating Profit to Loan and Advances Ratio :

Operating profit to loan and advances ratio measures the earning capacity of commercial banks. This ratio is calculated by dividing operating profit by loan and advances.

$$\text{Operating Profit to Loan and Advances} \times \frac{\text{Operating Profit}}{\text{Loan and Advances}}$$

iv) Return on Total Working Fund Ratio :

Return on total assets ratio is measures the profitability with respect to the total assets. It provides an idea of the overall return on investment earned by the firm. The return on total assets ratio is a measure of the overall profitability of total assets. A higher ratio usually indicates efficiency in utilizing its overall resources and vice-versa. It is calculated by dividing net profit by total assets.

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

v) Return on Loans and Advances Ratio :

Return on loan and advances ratio shows how efficiently the banks and other financial institutions have utilized their resources to earn good return for providing loan and advances. It is computed by dividing net profit/loss by the total amount of loan and advances. This ratio is calculated by applying the following formula.

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

vi) Total Interest Earned to Total Working Fund Ratio :

It is calculated to find out the percentage of interest earned to total assets. Higher the ratio, the performance of the bank is better in terms of interest earning on its total working fund. It is calculated by dividing total interest by total working fund.

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

vii) Return on Equity Ratio :

Equity capital is an owned capital of any bank. If bank can mobilize its equity capital properly, they can earn high profit. The return on equity capital measures the extent to which a bank is successful to mobilize its equity.

$$\text{Return on Equity} \times \frac{\text{Net Profit}}{\text{Total Capital}}$$

E) Growth Ratio

Growth ratio represents how well the banks are maintaining their economic and financial condition. It is related to the fund mobilization and investment management of the bank. The higher ratio represents the superior performance. Thus, in order to examine and analyze the expansion and growth of the banking business, following growth ratios are calculated.

- i) Growth Ratio of Total Deposits
- ii) Growth Ratio of Loans and Advances
- iii) Growth Ratio of Total Investment
- iv) Growth Ratio of Net Profit

3.2.2 Statistical tools

Statistical tools help to analyze the financial position of the bank. Statistical tools are the mathematical techniques used to facilitate the analysis and interpretation of numerical data. It also helps to analyze the relationship between variables and helps bank to make appropriate investment policy regarding to profit maximization and deposit collection. Statistical tools are used to analyze the objectives of the study. With the use of statistical tools, it becomes easy to convert abstract problems into figures and complex data in the form of tables. Some of the statistical tools used in this study are as follows:

i) Arithmetic Mean

An arithmetic mean is also called as “the mean”, average or the arithmetic average. A mean is the average value of the sum of all observations divided by the number of observations. An arithmetic mean is used in a situation of studying practical problems relating to production, price, income, expenditure, temperatures etc. but it is not useful for qualitative characteristics open-ended classes etc. it is denoted and given by the formula:

$$\text{Mean } \bar{X} = \frac{X_1 + X_2 + X_3 + \dots + X_n}{N}$$

Where,

X = Variable

\bar{X} = Arithmetic mean

N = Number of observation

ii) Standard Deviation

Standard deviation measures the absolute dispersion and gives uniform correct and stable results. It is the positive square root of the average sum of square of deviation of given observation from the arithmetic mean of the distribution. Higher the value of standard deviation higher will be the variability and vice-versa. A standard deviation is always a positive number and is superior to mean deviation, quartile deviation and

the ranges as it is used for the measurement. It is denoted by a small Greek letter (σ) (sigma). Standard deviation is calculated by using following formula:

$$\sigma = \sqrt{\frac{\sum fX^2}{N} - \left(\frac{\sum fX}{N}\right)^2}$$

iii) Coefficient of Variation

Coefficient of variation (C.V.) measures the percentage of coefficient of standard deviation. It is used in such problems where the researcher should to compare the variability of more than two years. It is the most commonly used measure of relative variation. It is used for comparing homogeneity, uniformity, and variability of two or more distributions. The coefficient of variation (C.V.) is given by the following formula.

$$\text{Coefficient of variation} = \frac{\sigma}{\bar{X}} \times 100$$

iv) Coefficient of Correlation

Coefficient of correlation is the mathematical method of measuring the degree of association between the two variables i.e. one dependent and another is independent. This analysis identifies the relationship between two or more variables. The effect of none variable may have on other correlated variable in the case of highly correlated variables. This topic deals with the study to find out relationship between the mentioned variables:

- i) Coefficient of correlation between deposits and loan advances
- ii) Coefficient of correlation between Total Investment and Loan and Advance.
- iii) Coefficient of correlation between Total Income and Loan and Advance.
- iv) Coefficient of correlation between Interest Income and net profit.

v) Coefficient of Determination

Coefficient of determination provides the variation in the dependent variable that is explained by the independent variables. According to the value that is computed from the coefficient of determination, we can conclude that the percentage variation in the dependent variable is due to the variation in the independent variable and the remaining portion of the variation is due to the other factors. It is the square of coefficient of correlation. It is denoted by r^2 .

vi) Probable Error

Probable error of the correlation by PE is the measure of testing the reliability of the calculated value of correlation. If r be the calculated value of correlation of a sample of n pair of observations, then PE is defined by

$$PE = r \times \frac{1}{\sqrt{N}}$$

If correlation (r) > PE, it is significant

If correlation (r) < PE, it is insignificant

vii) Trend Analysis

The least square is mostly used for determining the trend of time series and it is commonly used for the estimation of the future trend values of different variables. Hence, for the estimation of linear trend line, the following formula is used:

$$Y_c = a + bx$$

Where,

Y_c = Dependent variable

X = Independent variable

A = y intercept

b = Slope of the trend line

Hence, using this method, trend analysis of following variable is conducted

- a) Trend Analysis of Investment
- b) Trend Analysis of Loan and Advances
- c) Trend Analysis of Total Deposit.
- d) Trend Analysis of Net Profit

viii) Hypothesis T-test Analysis

Student's t-test values are computed in order to test whether the difference between the financial ratios of the two groups is statistically significant or not. When a sample is less than 30, we use t-test. The basic fundamental assumption of this test is as follows:

In order to fulfill the objectives of this research study, following hypothesis is formulated for testing:

Null hypothesis ($H_0: \mu_1 = \mu_2$ “ There is no significant difference between the mean ratios of two banks”.

Null hypothesis ($H_1: \mu_1 \neq \mu_2$ “ There is significant difference between the mean ratios of two banks”.

The t- value is calculated as:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{S^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

Where,

\bar{X}_1 = the mean of the first bank

\bar{X}_2 = the mean of second bank

n_1 = number of observation in the first bank

n_2 = number of observation in the second bank

S^2 = combined variance

The value of variance is calculated as follows:

$$S^2 = \frac{\sum_{i=1}^n (X_i - \bar{X})^2}{n-1}$$

The degree of freedom is calculated as $n_1 + n_2 - 2$, if the calculated value of 't' is greater, the table values of the ratios of the two groups is statistically significant.

ix) Hypothesis F-test analysis

F-test value at 5% level of significance is computed to test whether the financial ratios of three banks differ significantly or not. In order to fulfill the objectives of research study, null hypothesis and alternative hypothesis are formulated as follows:

Null hypothesis, $H_0: \mu_1 = \mu_2$ “the ratios of three banks are not significantly different”

Alternative hypothesis, $H_1: \mu_1 \neq \mu_2$ “ The ratios of three banks are significantly different”

F values can be calculated as follows:

Table No. 3.2

Hypothesis F-test

Sources of variation	Sum of squares	Degree of freedom	Mean sum of squares	F-ratio
Between banks	SSC	k-1	MSC	$F = \frac{MSC}{MSE}$
Within banks	SSE	N-k	MSE	
	SST	N-1		

$$SSC = \sum_{i=1}^n \frac{X_i^2}{n_i} - \frac{T^2}{N}$$

$$SST = \sum_{i=1}^n X_i^2 - \frac{T^2}{N}$$

$$SSR = SST - SSE$$

$$MSC \times \frac{SSC}{K Z1}$$

$$MSE \times \frac{SSR}{N Z K}$$

Where,

SSC = Sum of squares between banks

SST = Total sum of squares

MSC = Mean sum of squares of columns

MSE = Mean sum of square of error

3.2.2.1 Respondent Profile for Primary Data Analysis

Primary data is collected in order to fulfill the objective of this study and data is collected through questionnaire method. Objective questions were raised for this purpose.

Simple 6 questions are raised to know about the awareness of credit management. Survey carried among 60 people.

3.2.2.2 Correlation Coefficient Analysis

The analysis identifies and interprets the relationship between the two or more variables. Karl-Pearson's Correlation Coefficient has been used to find out relationship between the variables in order to know the effect in one variable may have effect on other correlated variable. In our study co-efficient of correlation has been used to find out the relationship between the following variables.

-) Correlation Analysis between Deposit and Loans and Advances
-) Correlation Analysis between Investment and Loans and Advances
-) Correlation Analysis between Total Income and Loans and Advances.
-) Correlation Analysis between Interest Income and Net Profit.

$$\text{Probable Error or P.E. (r)} = 0.6745 \frac{1 Z r^2}{\sqrt{N}}$$

3.2.3 Trend Analysis

Trend Analysis is an analysis of a firm's financial ratio over time used to estimate the likelihood of improvement or deterioration in its financial condition.

It is important to analyze trend in ratios as well as their absolute level, for trends give clues as to whether a firm's financial conduction is likely to improve or to deteriorate. In our study the trend of following are studied.

-) Trend analysis of Total Investment.
-) Trend analysis of Loan and Advance
-) Trend analysis of Total Deposit.
-) Trend analysis of Net Profit.

3.2.4 Analysis of Primary Data

A structured interview will be taken with the banks credit department official of Everest Bank Limited and Nepal Bangladesh Limited to get information about the loan management i.e. lending policy, practices of the bank. The information obtained from the interview will be analyzed and presented.

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

In this chapter, all the efforts have been made to analyze and present the collected data from the various sources. This chapter determines the quality of the study because how for the collected data are present and analyze with the help of various financial and statistical tools, tables, graphs etc as of meaningfully and clearly. This chapter his performed to know the clear picture of the loan management of the commercial banks.

4.1 Measuring the Liquidity Position of Selected Bank

To determine the liquidity position of the two banks under the following measures of liquidity ratio have been calculated and a brief analysis of the same has been conducted below.

4.1.1 Analysis of Current Ratio

This is a crude measurement of liquidity ratio. It measures the ratio between total current assets and total current liabilities.

The current asset include cash and bank balance with cheque in hand, balance with NRB, money at call and short notices, investment in government securities, bills purchased and discovered loans, and advances and other current assts, similarly, current liability includes borrowing from other banks, deposit, bills payable, and other current assets. The current ratio of the selected banks has been presented in table 4.1

Table 4.1
Current Ratio of Selected Banks

Banks	Fiscal Year					Mean
	2003/04	2004/05	2005/06	2006/07	2007/08	
EBL	0.9498	1.133	1.1023	1.079	1.23	1.0988
NBBL	1.0128	1.0298	1.0275	1.0099	1.0126	1.1438
Combined mean						1.1213

Source: Annual Report of EBL and NBBL.

The combined mean ratio is 1.1213, if we measure the performance of these banks based in this mean, the performance of EBL is weak and the NBBL has maintained

good liquid assets. The mean current ratio of EBL is 1.0988 and NBBL is 1.1438 which is highest than EBL. NBBL implies a high liquidity ratio.

Table 4.1 measures the current ratio of two banks of five consecutive years. The ratio has been ranged from 0.9498 to 1.23 of EBL. Table explains that the current ratio of NBBL is 1.0099 to 1.0298. The overall trend of current of the two based ratio is slightly changed.

4.1.2 Liquid Fund to Current Liability Ratio

The liquid fund to current liability ration has been presented in table 4.2

Table 4.2
Liquid fund to Current Liability Ratio Fiscal Year

Banks	Fiscal Year					Mean
	2003/04	2004/05	2005/06	2006/07	2007/08	
EBL	0.1078	0.1608	0.1489	0.2006	0.2963	0.1829
NBBL	0.0998	0.1193	0.1849	0.0841	0.1122	0.6003
Combined mean						0.3916

Source: Annual Report of EBL and NBBL.

Since the current ratio gives only the short and crude idea of liquidity position of a firm, measuring its liquidity ratio depending on liquid fund is more significant. Liquid fund comprises of those assets, which can be converted into cash within a short period without decline in their value cash in hand balance with NRB balance with other banks and money at cell included in calculating the liquid fund. The ratio measures a bank ability to discharge its current liability in an adverse condition without undergoing its liquidity risk.

Table 4.2 explains that the ratio has been ranged from 0.2963 of EBL in 2007/08 to 0.1849 of NBBL in FY 2005/06. The ratio of EBL of first two years have in increasing trend, then it is decreased in 2005/06 year and then again increase in Two years. The ratios of NBBL of first three years have in increasing trend but it has fallen in 2006/07 and then again it has increased in FY 2007/08. Unlike current ratio, the liquid fund to current liability ratio has been declined, this declined in two banks has caused due to high degree of increase in investment and decreased or lower level of increase in placement.

4.1.3 Liquid Fund to Total Deposit Ratio

The deposit constitutes the major part of the banks' liability. Flow of this liability is always uncertain in the bank's fund management. Hence, the ratio of liquid fund to total deposit indicates the banks' strength to meet uncertain flow of deposit.

Table 4.3
Liquid Fund to Total Deposit Ratio

Banks	Fiscal year					Mean
	2003/04	2004/05	2005/06	2006/07	2007/08	
EBL	0.0428	0.0811	0.0654	0.0819	0.1103	0.7630
NBBL	0.0541	0.0918	0.1483	0.1007	0.1555	0.1101
Combined Mean						0.4366

Source: Annual Report of EBL and NBBL.

Table explains that the ratio has ranged from 0.1103 of EBL in FY 2007/08 to 0.1555 of NBBL in FY 2007/08. The trend of this ratio of EBL increased in the first two years as compared to previous year and has started to decline from FY 2005/06. Also NBBL ratio increased in next three year and started to decline from 2006/07. The trend of this ratio has not deviated from liquid fund to current liability ratio and the up and down in this ratio has caused by the some reason.

The combined mean ratio of these two banks is 0.4366. The mean ratio of EBL is 0.7630 and NBBL is 0.1101 and this is lowest ratio then EBL.

4.2 Measuring the Lending Strength of the Banks

The lending strength of these two banks is measured in relative measures in this section. The relationship between various assets and liabilities of the balance sheet has been established to show the active strength of lending of each bank comparatively. An attempt is made to determine the lending strength in absolute figure of each bank, since these two banks are comparable in volume of deposit loans and advances and other variables also.

4.2.1 Total Assets to Total Liabilities Ratio

The ratio of Total Assets to total liabilities measures the volume of total liability in total assets of the firm. Then banking organization creates credit by way of lending

activities and multiplies their assets many items, than their liability permits. Thus, this ratio measures the banks ability to multiply its liability into assets. It is always recommended to have higher ratio of total assets to total liabilities ratio. Since it signifies overall increase of credit and overall development of the organization. The higher the ratio, higher the productivity and higher the assets conversion and vice versa.

Table 4.4
Total Assets to Total Liabilities Ratio

Banks	Fiscal year					Mean
	2003/04	2004/05	2005/06	2006/07	2007/08	
EBL	1.0595	1.1233	1.0687	1.0582	1.0785	1.0776
NBBL	1.0483	1.0180	1.3344	0.6410	0.7298	0.9543
Combined Mean						1.0160

Source: Annual Report of EBL and NBBL.

Table 4.4 explains that one unit of liabilities of concerned bank has tabulated value of assets in respective years. All these banks have high degree of similarity in maintaining this ratio. The overall trend of this ratio is decreasing of EBL. The ratio has been ranging from 1.1233 of EBL in 2004/05 to 1.3344 of NBBL in 2005/06.

The combined mean ratio of these two banks over the period is 1.0160. The mean ratio of EBL is 1.0776 and this is the highest than that of NBBL. Taking the standard of Mean ratio the performance of EBL is the best and the ratio of NBBL is below the mean. However, the ratio of these two banks represents a poor performance. The ratio should not be below 2 times in the developing country like Nepal. This represents that these two banks have not successfully converted their liability into asset. Table explains that the ratio of two banks is decreasing in some extend. Looking this fact, it can be concluded that these banks are not utilizing their fund efficiently and effectively to extent, their liability permits them. As comparing among the banks the performance of EBL can be regarded the best.

4.2.2 Loans and Advances to Total Deposit Ratio

Loans and advances are the major area of fund mobilization of commercial Banks. Loans and Advances is the first type of application of funds, which has more risk. Loans and Advances and total deposit ratio indicates the firm's fund mobilization power in gross. The main sources of bank's lending are its deposit. Thus, this ratio

measures how well deposit has been mobilized. This ratio measures the ability of a bank generating income from bank's deposit liability.

Table 4.5 explains the relation between a unit of deposit with the tabulated value of loans and Advances of concerning banks in given years. The ratios have been ranged from 0.7856 of EBL in FY 2007/08, 0.6753 of NBBL in FY 2003/04. NBBL has the highest ratio for the whole period except in FY 2005/06 and 2006/07.

Table 4.5
Loans and Advances to Total Deposit Ratio

Banks	Fiscal year					Mean
	2003/04	2004/05	2005/06	2006/07	2007/08	
EBL	0.7296	0.7837	0.7357	0.7744	0.7856	0.7618
NBBL	0.6753	0.6423	0.4964	0.4697	0.6509	0.5869
Combined Mean						0.6744

Source: Annual Report of EBL and NBBL.

The combined mean ratio of these two banks is 0.6744. The overall performance of EBL seems the best with mean ratio 0.7618. NBBL has maintained the lowest ratio. From this analysis, EBL can be concluded as the best performer in utilizing its deposit irrespective the area of its utilization.

4.2.3 Loans and Advances and Investment to Total Deposit Ratio

Loans and Advances and Investment are the major area of fund mobilization of commercial banks. Loans and Advances is the first type of application of funds, which has more risk as compare to Investment and gives more returns. Investment is cushion against the liquidity risk and at the same time it gives return. Loans and advances and investment to total deposit ratio indicates the firm's fund mobilizing power in gross. The main sources of bank's lending and investment is its deposit. Thus, this ratio measures how well the deposit have been mobilized. This ratio measures the ability of a bank in generating income from bank's deposit liability.

Table 4.6 explains the relation between a unit of deposit with the tabulated value in loans and advances and investment of concerning banks in given years. The ratios have been ranged from 0.301 of EBL in FY 2003/04 to 0.8860 of NBBL in FY 2003/04. NBBL has the highest ratio for the whole period. EBL has the lowest ratio throughout five years.

Table 4.6
Loans and Advances and Investment to Total Deposit Ratio

Banks	Fiscal year					Mean
	2003/04	2004/05	2005/06	2006/07	2007/08	
EBL	0.301	0.2112	0.2926	0.2614	0.2072	0.2547
NBBL	0.8860	0.8411	0.7032	0.5853	0.7354	0.7502
Combined Mean						0.5024

Source: Annual Report of EBL and NBBL.

The combined mean ratio of these two banks is 0.5024. The overall performance of NBBL seems the best with mean ratio 0.7502. EBL has the mean ratio of 0.2547. From this analysis NBBL can be concluded as the best performs in utilizing its deposit irrespective of the area of its utilization.

4.2.4 Loans and Advances to Shareholders Equity

Shareholders' equity is consisted of share capital, share premium, reserves and retained earnings. The ratio between loans and advances to shareholders' equity provides the measures regarding how far the shareholders equity has been able to generate assets to multiply its wealth. The shareholders equity refers to the net shareholders in take in the business. Thus, the ratio measures size of the business and their success in covering liabilities into assets.

Table 4.7
Loans and Advances to Shareholders Equity

Banks	Fiscal year					Mean
	2003/04	2004/05	2005/06	2006/07	2007/08	
EBL	8.6489	10.2652	9.6447	11.7209	8.8638	9.8287
NBBL	13.1726	33.1984	-4.1344	-1.6802	-2.7041	7.5705
Combined Mean						8.6996

Source: Annual Report of EBL and NBBL.

Table 4.7 explains that the overall ratio of these two banks has ranged from 11.7209 of EBL in FY 2006/07 to 33.1984 of NBBL in 2004/05. The ratio of EBL has continuously increasing trend from FY 2003/04 decreases in 2005/06 and thereafter 2007/08.

The combined mean ratio of these two banks 8.6996 and mean ratio of EBL is 9.8287 and mean ratio of NBBL is 7.5705 respectively. This indicates that NBBL having small volume of capital in business has been succeeded in generating proportionately higher volume of loan due to the entire business.

4.3 Analyzing the Lending Efficiency and its Contribution in Total Profitability

Table 4.8
Purpose-Wise Loan Classification of EBL: Loans Disbursed for Different Purposes to Total Loans and Advances

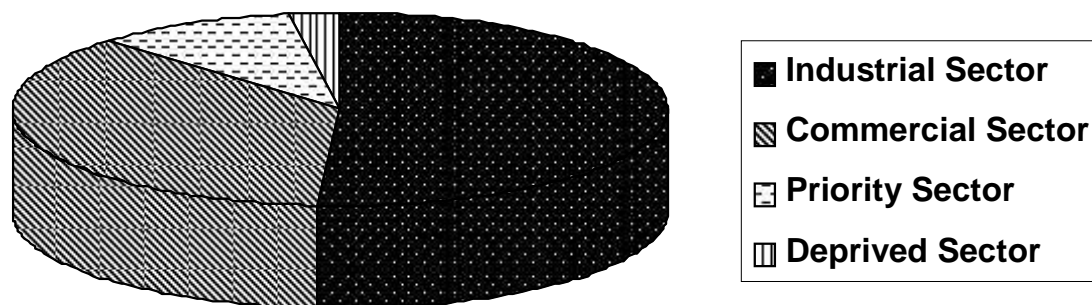
Purposes	Fiscal year					Mean
	2003/04	2004/05	2005/06	2006/07	2007/08	
Industrial Sector	15.2026	11.2508	6.5053	4.0462	2.5326	7.8875
Commercial Sector	8.4636	7.3851	7.4330	2.3681	2.3259	5.5951
Priority Sector	2.1585	1.6578	1.3945	1.2636	1.2212	1.5390
Deprived Sector	0.4419	0.3780	0.3318	0.3521	0.3826	0.3772

Source: Annual Report of EBL.

The above table explains EBL trend of lending for different purposes as percentage of total loans and advances. EBL has mostly used its funds in industry and commercial sector. In average, lending in industrial, commercial, priority and deprived sectors take the first, second, third and fourth place with mean ratios of 7.8875, 5.5951, 1.5390 and 0.3772 respectively in the lending portfolio of the bank. The highest portion of lending in industrial sector, commercial sector, priority sectors and deprived sector is 15.2026, 8.4636, 2.1585 and 0.4419 in the year 2003/04 respectively.

Mean Ratios of Loans disbursed for different purposes to total loans an advances over the study period.

**Figure2: Mean Ratio of Loan Disbursed for
Different Purpose to Total Loan and
Advance of EBL**



(Source: Annual Reports of Everest Bank Limited)

**Table 4.9
Purpose Wise Loan Classification of NBBL: Loans Disbursed for Different
Purpose to Total loans and Advances**

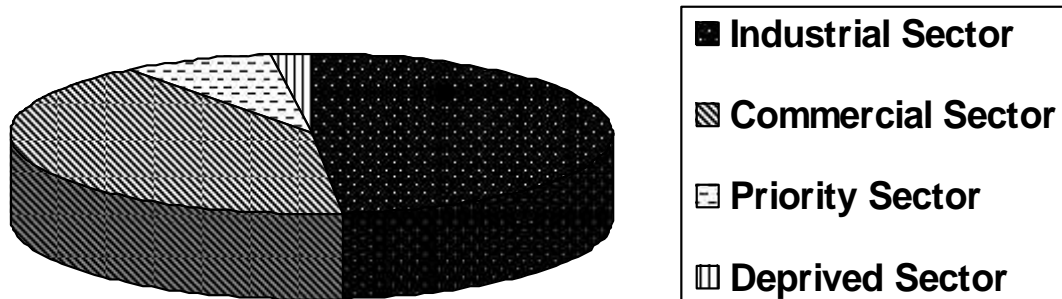
Purposes	Fiscal year					Mean
	2003/04	2004/05	2005/06	2006/07	2007/08	
Industrial Sector	10.8269	5.8575	5.77999	5.4424	5.7196	6.7252
Commercial Sector	9.1981	4.0627	4.0884	3.0709	3.1023	4.7045
Priority Sector	1.8320	0.9515	0.9202	1.1225	0.9435	1.1540
Deprived Sector	0.4827	0.3242	0.3678	0.4245	0.3784	0.3955

Source: Annual Report of NBBL.

The above table explains NBBL trend of lending for different purposes as percentage of total loans and advances. NBBL has mostly used its funds in industrial and commercial sector. In average, lending in industrial, commercial, priority and deprived sectors take the first, second, third and fourth place with mean ratios of 6.7252, 4.7045, 1.1540 and 0.3955 respectively in the lending portfolio of the bank. The highest portion of lending in industrial sector, commercial priority and deprived sector is 10.8269, 9.181, 18320 and 0.4827 in year 2003/04 respectively.

Mean Ratios of Loans disbursed for different purposes to total loans and advances over the study period.

Figure 3: Mean Ratio of Loan Disbursed for Different Purpose to Total Loan and Advance of NBBL



(Source: Annual Reports of Nepal Bangladesh Bank Limited)

In this section lending efficiency is measured in terms of quality and its turnover. A relationship between different variables related to lending efficiency is taken from balance sheet and profit and loss account.

4.3.1 Interest Income to Total Income Ratio

Income is one of the most important parts of any business organization. Interest income occupies a greater portion of the total income in a banking business. This ratio measures the volume of interest income in total income. It helps to measure the banks performance on other fee-based activities also. The high ratio indicates the high contribution made by lending and investment whereas low ratio indicates the low contribution made by lending and investment and high contribution by other fee based activities in total income. The ratio measures the volume of interest income in total income of the bank. This ratio helps to measures the banks performance on how well they are mobilizing their fund for the purpose of income generation. This ratio also helps to measure the banks performance on other fee-based activities, since after investing functions fee based activities are the major source of banks income to total income.

Table 4.10
Interest Income to Total Income Ratio

Banks	Fiscal year					Mean
	2003/04	2004/05	2005/06	2006/07	2007/08	
EBL	0.8392	0.8512	0.8472	0.8424	0.8380	0.8436
NBBL	0.8254	0.8092	0.6179	0.7646	0.4570	0.6948
Combined Mean						0.7692

Source: Annual Report of EBL and NBBL.

The above table shows that EBL has the highest ratio than that of NBBL. The ratio of these two Banks has ranged from 0.8512 of EBL in FY 2004/05 to 0.8254 of NBBL in FY 2003/04.

The combined mean ratio of these two banks is 0.7692. Mean ratio of EBL is 0.8436 and mean ratio of NBBL is 0.6948. EBL has higher ratio which indicates that it is largely dependent on lending activities and low ratio indicates it has low dependency on lending activity and high dependent on lending activities and low ratio indicates it has low dependency on lending activity and high dependency on other fee based activities.

4.3.2 Interest Expenses to Total Deposit Ratio

This ratio measures the cost of total deposit in relative term. The commercial banks performance depends upon its ability to generate cheaper funds. More the cheaper fund more will be the profitability in generating loans and advances and vice-versa. The high ratio indicates of costly fund and this adversely affects its lending performance.

Table 4.11
Interest Expenses to Total Deposit Ratio

Banks	Fiscal year					Mean
	2003/04	2004/05	2005/06	2006/07	2007/08	
EBL	0.0389	0.0296	0.0291	0.0284	0.0264	0.1524
NBBL	0.4712	0.5059	0.4223	0.3365	0.2541	0.398
Combined Mean						0.2752

Source: Annual Report of EBL and NBBL.

In above table shows that the ratio of EBL and after FY2005/06 of NBBL is decreasing trend. The ratio of EBL is in decreasing trend. The ratio ranges from minimum of 0.0264 in FY 2007/08 to maximum of 0.0389 in FY 2003/04 of EBL. And ratio ranges from minimum of 0.2541 in FY 2007/08 to maximum of 0.5059 on FY 2004/05 of NBBL.

The combined mean ratio of these two banks is 0.2752. The mean ratio of EBL is 0.1524 and mean ratio of NBBL is 0.398. The mean ratio of NBBL is higher than that of EBL. Due to lack of lending opportunities, the supply of the fund is exceeding the demand of the fund.

4.3.3 Interest Income to Interest Expenses Ratio

The ratio of interest income to interest expenses ratio measures the difference between interest rates offered and interest rate charged. The spread between the interest income and interest expenses is the main foundation for the profit of the bank. NRB had restrictions on the interest rate spread of the commercial banks. The interest offered and the interest charged should not be more than 5 percent. The commercial banks are free to fix interest rate on deposit and loans. Interest rate on all types of deposit and loans should be published in the local newspapers and communicated to Nepal Rasta Bank quarterly and immediately when revised. Deviation of 0.50 percent from the published rate is allowed on all types of loans and deposit. However with the new financial ordinance 2061 it has again empowered NRB to intervene in rate fixation but it does not specify the conditions that would oblige NRB to do so.

Table 4.12
Interest Income to Interest Expenses Ratio

Banks	Fiscal year					Mean
	2003/04	2004/05	2005/06	2006/07	2007/08	
EBL	2.0900	2.4060	2.2502	2.2128	2.4468	2.2812
NBBL	1.7518	1.5996	1.4633	2.2725	1.7988	1.7772
Combined Mean						2.0292

Source: Annual Report of EBL and NBBL.

From the above table we can analyzed that the ratio of EBL is higher than the ratio of NBBL over five years. The ratio ranged from 2.4468 of EBL in 2007/08 to 2.2725 of NBBL in 2006/07.

The combined mean of these two banks is 2.0292. Mean ratio of EBL is 2.2812 and the mean ratio of NBBL is 1.7772 which is highest than that of NBBL.

4.4 Analysis of Growth Pattern

Growth analysis of the banks involves of growth in deposit, loans, investments and net profit. Growth analysis ascertains has much growth in deposit liability is supported by growth in assets. The analysis also concerns which asset portfolio has significant increment corresponding to the increment in deposit liability.

To examine and analyze the expansion and growth of the banking business, following growth ratios are calculated in this part of the study. The higher ratios represent the better performance of the bank. Growth ratios are directly related to the fund mobilization and investments decision of the bank. This ratio represents how well the commercial banks are maintaining their economic and financial position. These ratios can be calculated by dividing the last period figure by the first period figure then by referring to the compound interest tables. Under these topic four types of ratios namely growth ratios of total deposit, loans and Advances, Total Investment, and net profit of EBL and NBBL for the study period have been analyzed.

4.4.1 Growth Ratio of Total Deposit

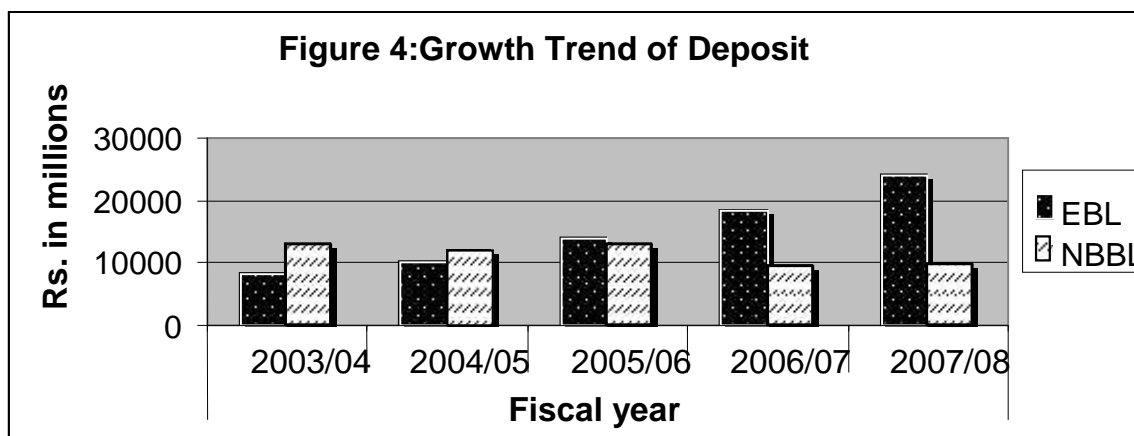
Deposit is the main source of capital for the commercial banks. Bank utilizes these funds in loans and advances and as investments.

Table 4.13
Growth Ratio of Total Deposit of EBL and NBBL

(Rs. in Million)

Banks	Fiscal year				
	2003/04	2004/05	2005/06	2006/07	2007/08
EBL	8063.9	10097.8	13802.4	18186.3	23976.3
NBBL	12807.38	12125.58	13015.14	9385.95	9801.44

Source: Annual Report of EBL and NBBL.



The above table shows the growth of total deposit by analysis of five years period of EBL and NBBL. NBBL has the highest deposit of Rs.13015.14 million and EBL has R. 18186.3 million which is lowest than that of NBBL. According to highest range of the total deposit, we can conclude that EBL has good performance than NBBL.

4.4.2 Growth Ratio of Loans and Advances

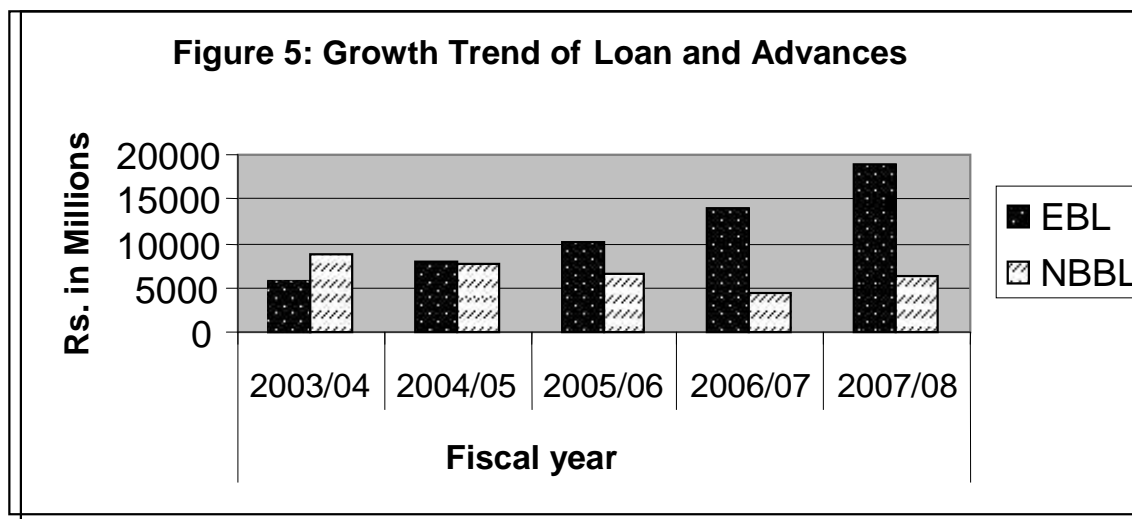
Loans and Advances is the major function of the commercial banking of those loans and advances determines the book performance.

Table 4.14
Growth Ratio of Loans and Advances of EBL and NBBL

(Rs. in Million)

Banks	Fiscal year				
	2003/04	2004/05	2005/06	2006/07	2007/08
EBL	5884.12	7900.00	10154.9	14082.7	18836.4
NBBL	8648.74	7787.69	6460.26	4409.01	6379.40

Source: Annual Report of EBL and NBBL.



The above table shows the growth of loans and advances of EBL and NBBL. There is increasing trend on loans and advances of EBL. Loans and Advances of NBBL is highest than that of EBL in five year during the study period. During the study period it has a significant growth of these two banks and explains its aggressiveness.

4.4.3 Growth Ratio of Total Investment

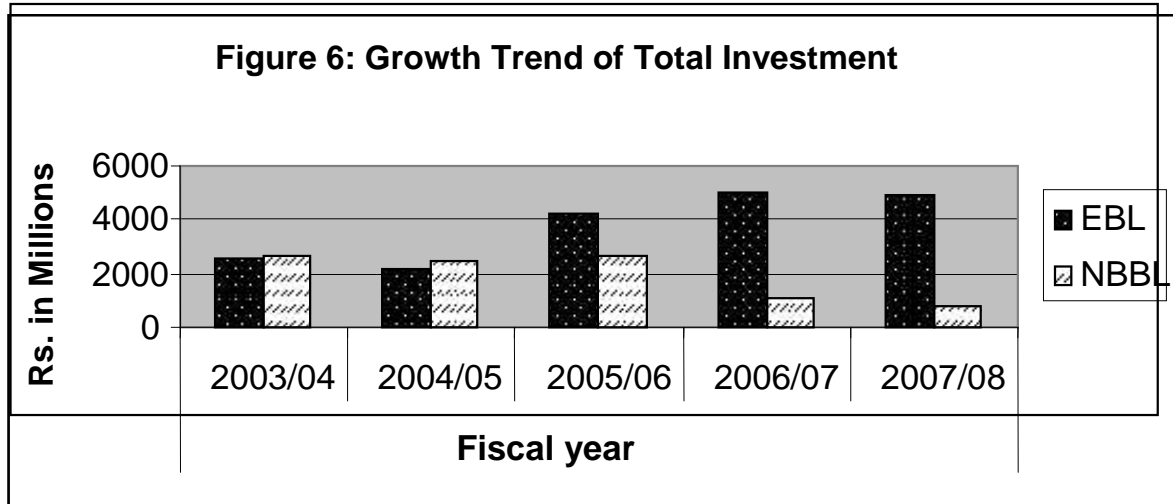
Investment is another important function of banking besides loans and advances. Investment determines the proper utilization of funds.

Table 4.15
Growth Ratio of Total Investment of EBL and NBBL

(Rs. in Million)

Banks	Fiscal year				
	2003/04	2004/05	2005/06	2006/07	2007/08
EBL	2535.65	2128.90	4201.30	4984.30	4922.80
NBBL	2699.16	2411.72	2691.86	1084.56	829.01

Source: Annual Report of EBL and NBBL.



The above table shows that there is an increasing trend over 2003/04 and then it is decreasing trend in FY 2004/05 in investment of EBL and NBBL. During the study period total investment of EBL is highest than that of NBBL.

4.4.4 Growth Ratio of Net Profit

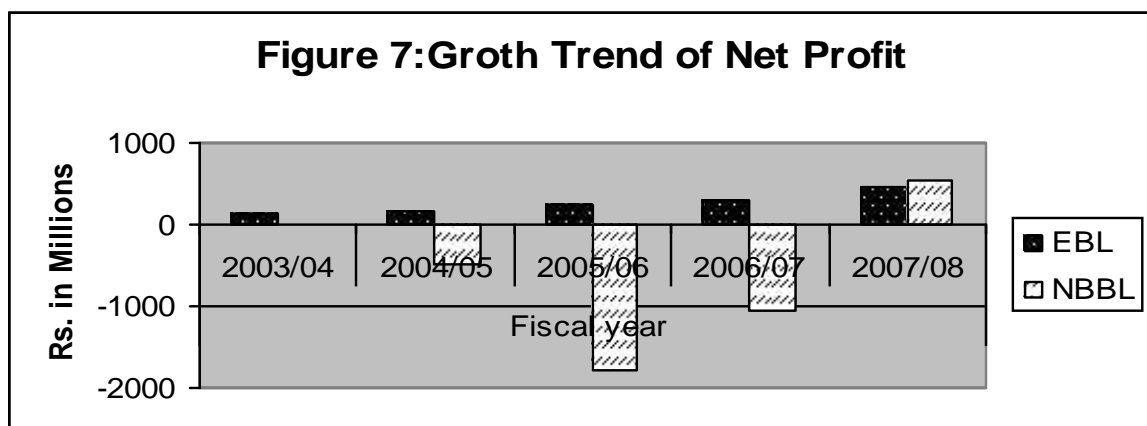
A commercial banks performance measuring criteria is its net profit. The growth of net profit reveals the overall performance of the banks.

Table 4.16
Growth Ratio of Net Profit of EBL and NBBL

(Rs. in Million)

Banks	Fiscal year				
	2003/04	2004/05	2005/06	2006/07	2007/08
EBL	143.57	170.81	232.93	296.41	450.13
NBBL	2.65	-479.52	-1797.15	-1061.59	541.96

Source: Annual Report of EBL and NBBL.



The above table describes the growth rate of net profit of EBL and NBBL of five years the study period. EBL has the highest profit of Rs.450.13million in FY 2007/08 and NBBL has the highest profit of Rs.541.96million in FY 2007/08. It has increasing trend of profit of EBL. But profit of NBBL has fluctuation over the study period.

4.5 Correlation Coefficient Analysis

Correlation coefficient is the measure of correlation between two variables that summarizes correlation in one figure. If the change in the value of one variable is accompanied by the change in the value of the other, the variables are said to be correlated. Analysis of correlation coefficient explains to what extent two variables are correlated. In this analysis Karl Pearson's Correlation Coefficient has been used to find out the relationship between variables. Correlation analysis describes the relationship between variables i.e. positive or negative. It helps to determine the following.

-) A positive or negative relationship exists.
-) The relationship is significant or insignificant.
-) Establish cause and effect relation if any.

The statistical tool-correlation analysis is used in the study to measure the relationship between variables in determining whether the relationship is significant or not. For the purpose decision making interpretation are based on the following terms.

1. When, $r = 1$, then is perfect positive correlation.
2. When, $r = -1$, then is perfect negative correlation.
3. When, $r = 0$, then is no correlation.
4. When, 'r' lies between 0.7 to 0.999 (-0.7 to 0.999), then is high degree of positive (or negative) correlation.
5. When, 'r' lies between 0.5 to 0.6999 there is moderate degree of correlation.
6. When, 'r' is less than 0.5, there is low degree of correlation.

4.5.1 Correlation Coefficient between Deposit and Loans & Advance of EBL and NBBL

Table 4.17
Evaluation Criterion

Banks	Correlation Coefficient	R2	P.Er.	6×P.Er.
NBBL	0.7492	0.5613	0.1323	0.7938
EBL	0.9712	0.9432	0.0171	0.1026

Source: Annual Report of EBL and NBBL.

The above table shows the Correlation Coefficient between deposit and loans and advances of EBL and NBBL is 0.9712 and 0.7492 respectively. There is high degree of positive relationship between deposit and loans and advances of EBL. The deposit and loans and advances of NBBL has lower degree of relationship. The value of (r) above explains that a percentage increase in deposit likely generate. The same percentage of change in the value of loans and advances EBL through there is highest probability of being so in NBBL.

4.5.2 Correlation Coefficient between Total Investment and Loans and Advance

This correlation measures the degree of relationship between investment and loans and advances. This measure of correlation explain where the banks have a rigid policy to maintain a consistent relationship between two assets or other factor such as seasonal opportunity, economic demand, NRB directives etc. has impact on the volume of these two variables. Since the volume of investment does not impact on loans and advance as every bank has first priority an loans and advance directly reduce or increases the level of ideal fund and this idleness of fund increases the investments.

Table 4.18 reveals the poor relationship between investment and loans and advance. There is high degree of Positive relationship between these two variables of EBL has the value of r is greater than the value of P.Er. However NBBL has greater than 6 times P.Er. This implies that NBBL has maintained a steady ratio between investment and loans and advances as compared to NBBL. The value of r is NBBL suggests that it does not have rigid policy to maintain and fixed and consistent ratio between these

assets and the volume of these assets in NBBL is highly of seasonal character than that is explained by the value of r is NBBL.

Table 4.18

P.Er. and 6×P.Er. between Investment and Loans and Advances

Banks	Correlation Coefficient	R2	P.Er.	6×P.Er.
NBBL	0.7020	0.4928	0.1530	0.918
EBL	0.8599	0.7394	0.0786	0.4716

Source: Annual Report of EBL and NBBL.

Through the above table, we can conclude that EBL has the good opportunity of lending and investment than NBBL due to highest degree of positive correlation.

4.5.3 Correlation Coefficient between Total Income and Loans and Advances

The correlation between total income and loans and advances measures the degree of relationship between these two variables. The value of r explains whether a percentage change in loans and advances it is independent variable and total income is dependent variable.

Table 4.19

P.Er. and 6×P.Er. between Total Income and Loans and Advances

Banks	Correlation Coefficient	R2	P.Er.	6×P.Er.
NBBL	0.1595	0.0254	0.2940	1.764
EBL	0.9937	0.9874	0.0038	0.0228

Table 4.19 presented above has shown the tight degree of positive correlation of EBL. The value of r in EBL is significant as it is grater than six times of probable error. This explains that a percentage change in loans and advances is most likely to change the same percentage of income. The lower degree of correlation of NBBL.

4.5.4 Correlation Coefficient between Interest Income and Net Profit

The correlation between Interest Income and Net profit measures the degree of relationship between these two variables. The interest income contributes a major

portion of total volume of commercial banks income. In this analysis, interest income is independent variable and net profit is dependent variable.

Table 4.20
P.Er. and 6×P.Er. between Interest Income and Net Profit

Banks	Correlation Coefficient	R ²	P.Er.	6×P.Er.
NBBL	0.0670	0.0045	0.3003	1.8018
EBL	0.9980	0.9960	0.0012	0.0072

The table explains that the value of r of EBL high degree of correlation. There is a significant, as role of 'r' of NBBL is more than 6 times of P.Er than EBL.

4.6 Trend Analysis of Deposit Utilization

The main objective of this analysis is to analyze the trend of total investment, loan and advance, total investment and net profit of EBL and NBBL under five years of study period. A commercial bank may grant loans advances and invest some of the funds in government securities and share and debenture of other companies to utilize its deposit.

4.6.1 Trend Analysis of Total Investment

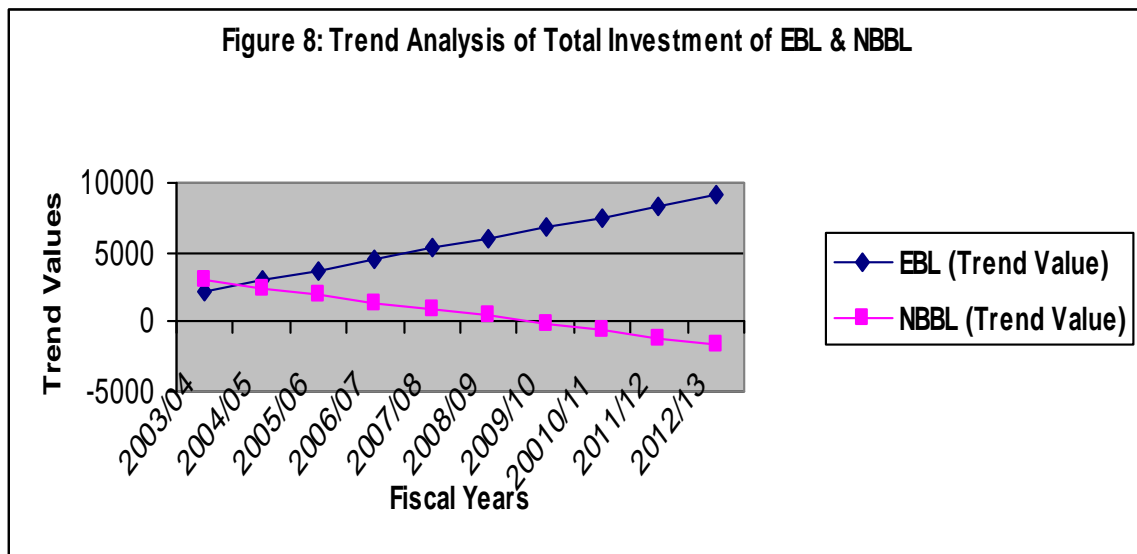
The trend analysis of total investment of EBL and NBBL under five years study period and projection of trend for the next five years is calculated.

The following table describes the trend value of total investment of the bank for 5 years.

Table 4.21
Trend Analysis of Total Investment of EBL and NBBL

Fiscal	EBL (Trend Value)	NBBL (Trend Value)
2003/04	2228.43	2956.76
2004/05	2991.45	2450.01
2005/06	3754.47	1943.26
2006/07	4517.49	1436.51

2007/08	5280.51	929.76
2008/09	6043.53	423.01
2009/10	6806.55	-83.74
2010/11	7569.57	-590.49
2011/12	8332.59	-1097.24
2012/13	9095.61	-1603.99



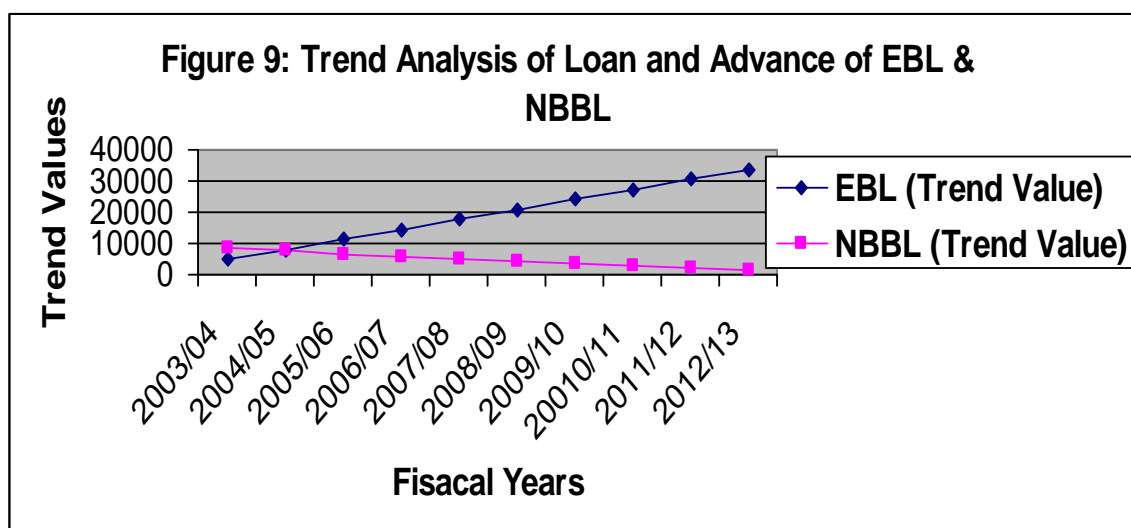
The above table shows that the total investment of EBL is increasing and NBBL is in decreasing trend. EBL has the highest trend value of 9095.61 in the year 2012/13 and NBBL has the highest trend value of 2956.76 in the year 2003/04. The increasing trend of total investment of EBL and NBBL is decreasing trends. EBL shows the good performance of the selected banks is providing total investment in profit earning sector.

4.6.2 Trend Analysis of Loan and Advance

The trend analysis of loan and advance of EBL and NBBL shows the trend values of five years. Over the study period the analysis makes projection for the next five years. The following table describes the trend values of loan and advance of the selected commercial banks.

Table 4.22
Trend Analysis of Loan and Advance of EBL and NBBL

Fiscal Year	EBL (Trend Value)	NBBL (Trend Value)
2003/04	4954.2	8320.5
2004/05	8162.92	7528.76
2005/06	11371.64	6737.02
2006/07	14580.36	5945.28
2007/08	17789.08	5153.54
2008/09	20997.8	4361.8
2009/10	24206.52	3570.06
20010/11	27415.24	2778.32
2011/12	30623.96	1986.58
2012/13	33832.68	1194.84



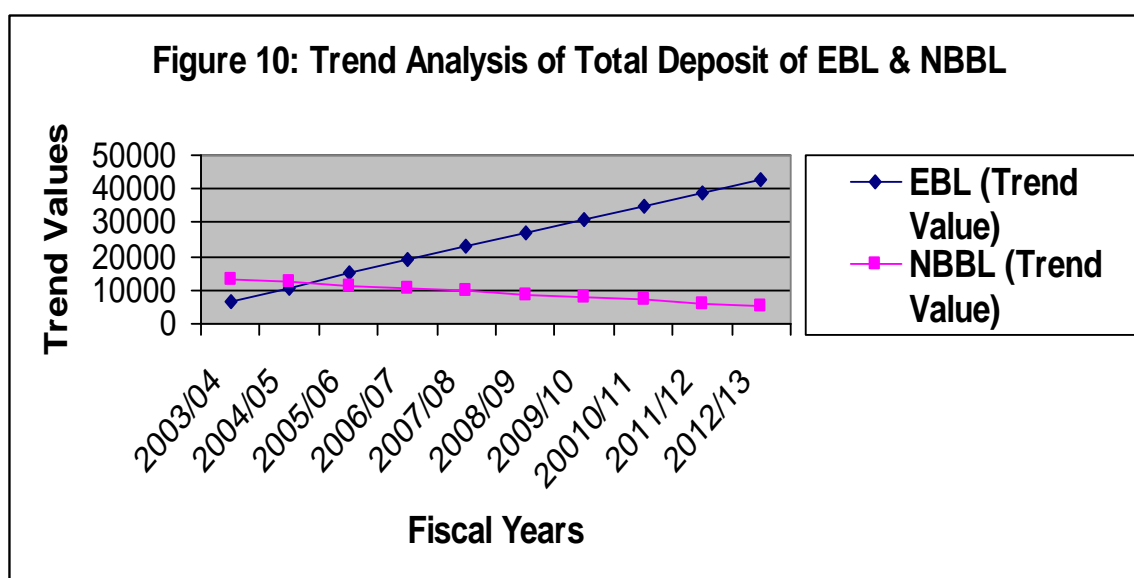
The above table shows that the Loan and advance of EBL is increasing trends but NBBL is in decreasing trend. EBL has the highest trend value of 33832.68 in the year 2012/13 and the NBBL has the highest trend value of 8320.5 in the year 2003/04. The increasing trend of loan and advance of EBL shows the good performance of the selected bank on investing the deposit in profit earning sectors.

4.6.3 Trend Analysis of Total Deposit

The trend analysis of Total deposit of EBL and NBBL shows the trend values of five years. Over the study period the analysis makes projection for the next five years. The following table describes the trend values of total deposit of the selected commercial banks.

Table 4.23
Trend Analysis of Total Deposit of EBL and NBBL

Fiscal Year	EBL (Trend Value)	NBBL (Trend Value)
2003/04	6842.64	13177.4
2004/05	10833.97	12302.25
2005/06	14825.34	11427.10
2006/07	18816.63	10551.95
2007/08	22807.96	9676.8
2008/09	26799.29	8801.65
2009/10	30790.62	7926.5
2010/11	34781.95	7051.35
2011/12	38773.28	6176.2
2012/13	42764.61	5301.05



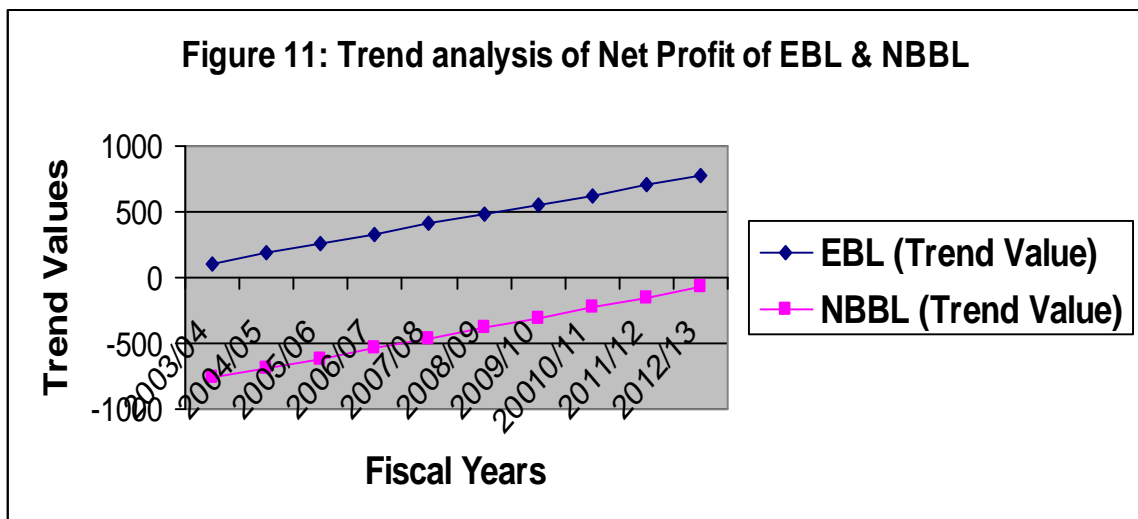
The above table shows that the Total deposit of EBL is increasing trends but NBBL is in decreasing trend. EBL has the highest trend value of 42764.61 in the year 2012/13 and the NBBL has the highest trend value of 13177.4 in the year 2003/04. The increasing trend of Total deposit of EBL shows the good performance of the selected bank on investing the deposit in profit earning sectors.

4.6.4 Trend Analysis of Net Profit

The trend analysis of net profit of EBL and NBBL shows the trend values of five years. Over the study period the analysis makes projection for the next five years. The following table describes the trend values of net profit of the selected commercial banks.

Table 4.24
Trend Analysis of Net Profit of EBL and NBBL

Fiscal Year	EBL (Trend Value)	NBBL (Trend Value)
2003/04	111.03	-766.04
2004/05	184.9	-689.385
2005/06	258.77	-612.73
2006/07	332.64	- 536.075
2007/08	406.51	- 459.42
2008/09	480.38	-382.765
2009/10	554.25	-306.11
2010/11	628.12	-229.455
2011/12	701.99	-152.8
2012/13	775.86	-76.145



The above table shows that the Net Profit of EBL is increasing trends but NBBL is in negative decreasing trend. EBL has the highest trend value of 775.86 in the year 2012/13 and the NBBL has the highest trend value of -76.145 in the year 2012/13. The increasing trend of Net Profit of EBL shows the good performance of the selected bank on investing the deposit in profit earning sectors but NBBL has not sufficient investing sector in this situation.

4.7 Hypothesis T- Test

4.7.1 T-test of Hypothesis in Loan and Advances to Total Deposit

Student's t-test value at 5% level of significance computed for the mean values of loan and advances to total deposit of two banks comparing each other are as follows:

Table 4.25
T-test of Hypothesis in Loan and Advances to Total Deposit

Banks	t-values	DF	Table value	Result
EBL & NBBL	3.9128	8	2.306	Significant

Source: Annex 14

Since t- values is greater than tabulated values $t_{0.05}$, the mean values of loan and advances to total deposit of EBL & NBBL are significantly different. Therefore, it is found that h_0 is rejected at 5% level of significance.

4.7.2 T-test of Hypothesis in Loan and Advances to Shareholder's Equity

Student's t- values at 5% level of significance computed for the mean values of loan and advances to Shareholder's Equity of tow banks comparing each other are as follows:

Table 4.26
T-test of Hypothesis in Loan and Advances to Shareholder's equity

Banks	t-values	DF	Table value	Result
EBL & NBBL	0.3158	8	2.306	Not Significant

Source: Annex 14

Since, t-values is less than tabulated values $t_{0.05}$ the mean values of loan and advances to Shareholder's Equity of EBL & NBBL are significantly different. Therefore, it is found that h_0 is accepted at 5% level of significance.

4.7.3 T-test of Hypothesis in Total Assets and Total Liabilities

Student's t-values at 5% level of significance computed for the mean value of total assets and total liabilities of two banks comparing each other are as follows:

Table 4.27
T-test of Hypothesis in Total Assets and Total Liabilities

Banks	t-values	DF	Table value	Result
EBL & NBBL	0.9920	8	2.306	Not Significant

Source: Annex 14

Since t-values is less than $t_{0.05}$, the mean values of total assets and total liabilities of EBL and NBBL are significantly different. Therefore, it is found that h_0 is accepted at 5% level of significance.

4.8 Hypothesis F- Test

4.8.1 F-test of Hypothesis in Loan and Advances to Total Deposit

F-test value at 5% level of significance computed for the loan and advances to total deposit of two banks, comparing between and within the banks are as follows:

Table 4.28
F-test of Hypothesis in Loan and Advances to Total Deposit

ANOVA Table

Sources of variation	Sum of squares	Degrees of freedom	Mean sum of squares	F ratio
Between banks	0.0765	2-1=1	0.0765	
Within banks	0.0398	25-2=23	0.0017	45
Total	0.1163	25-1=24		

Source: Annex 14

Calculated $F(1, 23) = 45$

Tabulated $F_{0.05}(1, 23) = 4.28$

Decision: Since the calculated F is greater than tabulated F , it is significance and h_0 is rejected i.e. loan and advances to total deposit of two banks differ significantly.

4.8.2 F-test of Hypothesis in Loan and Advances to Shareholder's Equity

F-test value at 5% level of significance computed for the loan and advances to shareholder's equity of two banks, comparing between and within the banks are as follows:

Table 4.29
F-test of Hypothesis in Loan and Advances to Shareholder's equity

ANOVA Table				
Sources of variation	Sum of squares	Degrees of freedom	Mean sum of squares	F ratio
Between banks	12.7491	2-1=1	12.7491	
Within banks	1022.4478	25-2 =23	44.4543	0.2868
	1035.1969	25-1 = 24		

Source: Annex 14

Calculated $F(1, 23) = 0.2868$

Tabulated $F_{0.05}(1, 23) = 4.28$

Decision: Since the calculated F is less than tabulated F , it is not significance and h_0 is accepted i.e. loan and advances to shareholder's equity of two banks differ significantly.

4.8.3 F-test of Hypothesis in Total Assets and Total Liabilities

F- Test value at 5% level of significance computed for the total assets and total liabilities of two banks, comparing between and within the banks areas follows:

Table 4.30
F-test of Hypothesis in Total Assets and Total Liabilities

ANOVA Table

Sources of variation	Sum of squares	Degrees of freedom	Mean sum of squares	F ratio
Between banks	0.0380	2-1=1	0.0380	
Within banks	0.3088	25-2=23	0.0134	2.8358
	0.3468	25-1=24		

Source: Annex 14

Calculated $F(1, 23) = 2.8358$

Tabulated $F_{0.05}(1, 23) = 4.28$

Decision: Since the calculated F is less than tabulated F, it is not significance and h_0 is accepted i.e. total assets and total liabilities of two banks differ significantly.

4.9 Major Findings of the Study

In the research data mainly secondary data are used and the analysis is computed with the help of different financial and statistical tools. In financial tools ratio analysis has been used and on statistical tools correlation coefficient, and trend analysis has been used. A primary data analysis is done from the information collected from structured interview with the concerned banks officials. This chapter focuses on the major findings from analysis of Everest Bank Limited and Nepal Bangladesh Bank Limited from the year 2003/04 to 2007/08.

The major findings of the financial and statistical analysis are presented below serially.

Measuring the liquidity position of the Bank

Total Assets to total liability ratio of EBL and NBBL has the highest ratio.

1. Current ratio of both banks showed slightly fluctuating trend. Both of the banks could not maintain the conventional standard of 2:1. However, the average of the ratios appeared higher in NBBL, which signifies that NBBL is

- more capable of meeting immediate liabilities in contrast to EBL. The ratio was found more consistent in EBL. Hypothesis test showed that the mean ratio of two banks did not differ significantly.
2. Liquid fund to current liability ratio of EBL and NBBL in fluctuating trend. After analyzing the ratio we can conclude that both the sample banks do not differ significant with respect to this ratio.
 3. Liquid fund to total deposit ratio of banks. EBL and NBBL are in fluctuated trend. Mean ratio appeared marginally greater in EBL, which means that EBL has maintained greater portion of fixed deposit as liquid asset. The ratio has maintained loss consistency in NBBL Hypothesis test showed that the mean ratio of two banks does not differ significantly.
 4. Total assets to total liability ratio of EBL is highest than that of NBBL. The highest ratio of EBL and NBBL is 1.1233 and 1.3344 in year 2004/05 & 2005/06 respectively. The mean ratio of EBL is greater than NBBL. The ratio remained more consistency in EBL. Hypothesis test showed that the man ratio of the sample banks does not differ significantly.
 5. Loans and advances to total deposit ratio of EBL and NBBL is in fluctuating trend. The mean ratio of EBL is higher than that of NBBL. The overall performance of EBL seems the best with the higher mean ratio.
 6. Loans and Advances and investment to total deposit ratio of appeared significantly higher in NBBL. It indicates the better utilization of loans and advances and investment in NBBL than EBL. The ratio remained more uniform in NBBL. As depicted by higher loans and advances and investment to total deposit in NBBL. NBBL seems more successful to utilize the despite fund in investment.
 7. The ratio of loans and advances to shareholders equity has gained the significant importance in measuring the capital fund and contribution in loans and advances. The analysis explain that the ratio of EBL the highest than NBBL. This indicates that the NBBL having small volume of capital in business have been succeeded in generating proportionately higher volume of loans and advances due to the entire business in future.
 8. Interest income to total income ratio of EBL is greater than NBBL over the year 2004/05 to 2005/06 which reveals the EBL invested the fund rise from more successfully to earn the interest.
 9. Interest expenses to total deposit ratio, or an average lower in EBL than NBBL which reveals that EBL invested the fund from more successfully to earn the interest from total deposit.

10. Interest income to interest expenses ratio of EBL is lower than that of NBBL which signifies that NBBL invested the fund remove from more successfully to earn to interest rather than paying the interest for debt.
11. Growth ratio of total deposit of EBL is higher that of NBBL by analysis over the study period, so it seems better performance of EBL in total deposit.
12. Growth ratio of loans and advances of EBL is higher than that of NBBL over the study period. It has a significant growth of EBL than NBBL and explains its aggressiveness.
13. Growth ratio of total investment of EBL is higher than that of NBBL. The highest value increase in total investment of EBL explains it aggressiveness.
14. The growth ratio of net profit of EBL is in increasing trend. But the growth ratio of net profit of NBBL is in decreasing trend. So the increasing trend of net profit of EBL explains its aggressiveness.
15. Correlation coefficient between total deposit loans and advances were found positively correlated of EBL and NBBL. EBL has high degree of positive correlation shows the significant relation between net deposit and loans and advances.
16. Correlation coefficient between investment and loans advances were found positively correlated of EBL and NBBL. EBL has high degree of positive correlation shows the significant relation between net deposit and loans and advances.
17. Correlation coefficient between investment and loans and advances were found positively correlated in NBBL and EBL. The high degree positively correlation coefficient of EBL shows significant relationship between investment and loans and advance. This shows that the bank has succeeded in contribution of significant proportion both investment and loans and advances.
18. Correlation coefficient between interest income and net profit of EBL shows high degree of correlation. Due to high degree of positive correlation EBL shows signifies relationship between interest income and net profit.
19. Trend analysis of loans and advances of EBL is highly increasing trend, then NBBL shows increasing rend. The analysis concludes the good performance of EBL in deposit utilization in relation to loans and advances.
20. Trend analysis of total investment of EBL is highly increasing trend then NBBL. The analysis concludes the good performance of EBL in deposit utilization in relation to investment.
21. Trend analysis of total deposit of EBL is highly increasing trend then NBBL.
22. Trend analysis of Net profit of EBL is highly increasing trend then NBBL.

23. Hypothesis of t-test, it is found that the mean values of loan and advances to total deposit of EBL and NBBL are significant.
24. It is found that hypothesis of t-test the mean values of loan and advances to shareholder's equity of EBL and NBBL are not significant.
25. It is also found that hypothesis of t-test the mean value of total assets and total liabilities are not significant.
26. Hypothesis of F-test, the loan and advances to total deposit of two banks are significant, so h_0 is rejected. Similarly, loan & advances to shareholder's equity and total assets & total liabilities of two banks are not significant, so h_0 is accepted.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter highlights some selected actionable conclusions and recommendation on the basis of the major findings of the study derived from the comparative analysis of EBL and NBBL. The study has covered 5 years data from the year 2003/04 to 2007/08. The major findings of the study based on financial and statistical analysis listed in chapter IV, of this report in order to carry out this study mainly secondary data are used. The analysis of the data is carried out with the help of various financial and statistical tools. The findings of the study are summarized and conclusion and some recommendation drawn as below:

5.1 Summary

Lending is one of the most important functions of a commercial bank and the composition of loans and advances directly affects the performance and profitability of the bank. There is intense competition in banking business with limited market and less investment opportunities available. A study on the liquidity position, loans and advances, profitability, deposit position of EBL and NBBL is analyzed and the banks lending strength lending efficiency and its contribution in total profitability has been measured.

In this study, the financial tools-ratio analysis viz. asset management ratios and profitability ratios are calculated to find out the lending strength of this commercial bank. Also growth ratios, statistical tools like mean Correlation Coefficient and trend analysis conducted for analysis and interpretation of the data. The data used in this research is mainly secondary nature and extracted from the annual reports of the concerned bank and website of Nepal stock exchange. The financial statements of five years (2003/04 to 2007/08) were selected for the study purpose. And Analysis of primary data structured interview done with the concerned bank official has also presented.

The mean of current ratio of those two banks over the five year Period is 1.0988 and 1.1438 respectively and it is consistent over the years. Although the current ratio of 2:1 is considered as standard, acceptability of the value depends 1:1 or above would

be considered acceptable. Therefore the liquidity position of EBL and NBBL is normal.

Mean of liquid fund to current liability ratio of these two banks over the five years period is 0.1829 and 0.6003 respectively and it is less consistent analyzing this ratio we can conclude that both the sample banks do not differ significant with this ratio.

Mean of liquid fund to total deposit ratio of EBL and NBBL is 0.7630 and 0.1101 respectively and it is less consistent. The ratio measure how well the deposit are being mobilized. The ratios of these two banks are in fluctuating trend. Here, none of the ratios is above 1, which refers that some deposit is idle and there is not maximum utilization of the funds.

The Analysis of Lending Strength

The mean ratio of EBL and NBBL is 1.0776 and 0.9543 respectively and it is consistent over the years. After analyzing the assets to total liabilities it can be concluded that these two banks are not utilizing their fund efficiently and effectively to extent their liability permits them.

Mean ratio of loans and advances to total deposit EBL and NBBL is 0.7168 and 0.5869 respectively and it is less consistent. The ratio measures how well the deposit are being mobilized and in the income generating sector. The ratios are in fluctuating trend. Here own of the ratios is above 1, which refers that some deposit is idle and then it is not maximum utilization of the funds. which refers that there is very less deposit which is remained idle in utilization of funds.

Mean ratio of loans and advances and investment to total deposit ratio of EBL and NBBL is 0.2547 and 0.7502 respectively and is less consistent. This ratio measures how well the deposit are being mobilized and in the income generating sector. There is fluctuating trend of ratio. Here the ratio of EBL has above 1 in year 2007/08 which refers that deposit is not idle and there is maximum utilization of the funds in this year.

Loans and advances to shareholders equity ratio of EBL and NBBL over the five year period has mean ratio of 49.1435 and 7.5705 respectively and is less consistent. The ratio shows how well the investment made by the investor. It also measures the success of converting liability into assets and measures size of the business. The higher ratio of EBL in the year 2004/05, 2005/06 and 2006/07 shows that the book has

been successful in generating proportionately higher volume of loans and advances this the year 2004/05 and 2006/07.

Lending efficiency and its contribution in total profitability

Interest income to total income ratio of EBL & NBBL over the study period in decreasing trend. Lower ratio of NBBL shows low contribution made by lending and investment and high contribution by other fee based activities in total income. But higher ratio of EBL shows high contribution made by lending and investment and low contribution by other fee based activities in total income.

Interest expenses to total deposit ratio of the banks over the study period are in decreasing trend with consistent values. This indicates the decrease in cost of fund. Interest income to interest expenses ratio of EBL and NBBL over the study period are in decreasing trend. This indicates the decrease in profit of the banks.

From the analysis of growth ratio

The growth ratio of total deposit of EBL is increasing trend and NBBL is in decreasing trend. The growth ratio of loans and advances during the study period is found to be increasing in EBL and decreasing trend in NBBL. The growth ratio of total investment of during the study period is found to be fluctuating. The growth ratio of Net profit of EBL is increasing trend but the ratio of NBBL is in fluctuating trend in negatively.

From the analysis of correlation

The correlation analysis shows that the correlation coefficient 'r' between deposit and loans and advances of EBL is high degree of positive correlation but NBBL has low degree of positive correlation. The correlation of EBL has significant relationship between deposit and loans and advances and the bank is mobilizing the deposit as loans and advance successfully. Similarly the analysis shows high degree positive correlation of EBL between investments and loans and advances. The correlation coefficient between total income and loans and advances of EBL is high degree of positive correlation shows good fund mobilization and the there is low degree of positive correlation of NBBL between income and loans and advances.

The correlation coefficient between total income and loans and advances of EBL shows high correlation. So, the value of 'r' is significant. But the correlation

coefficient between total income and loans and advances of NBBL show low correlation.

From trend analysis of projection for next 5 years

Total investment, loan & advance, total deposit and net profit of EBL is increasing trends but NBBL is decreasing trends in all projection in trend analysis for next five years .

From the analysis of test of hypothesis

Hypothesis of t-test, the loan and advances to total deposit of EBL and NBBL are significance, loan and advances to shareholder's equity of EBL and NBBL are not significance and also total assets and total liabilities are not significance

Hypothesis of F-test, the loan and advances to total deposit of two banks are significant, so h_0 is rejected. Similarly, loan & advances to shareholder's equity and total assets & total liabilities of two banks are not significant, so h_0 is accepted.

5.2 Conclusion

The overall performance of Everest Bank Limited is satisfactory then Nepal Bangladesh Bank Limited. The liquidity position of EBL is better than that of NBBL. As loans and advances of EBL is increasing trend deposit is also increasing trend during the study period. There is increasing trend in profit of EBL shows that improvement in performance and success of the firm. Purpose wise loan classification show that the NBBL and EBL bank have given priority to industrial and commercial sector lending as well as priority and deprived sector lending. EBL has higher lending portion in these sectors than NBBL. From the selected bank EBL has performed well in increasing growth ratio of deposit, loans and advances, investment and profit.

EBL has good lending procedure, preliminary screening is done of all the loan application, credit appraisal and financial position of the business and cash flows of the proposal is given high importance, which is essential criterion for loan approval. There is proper control mechanism like delegation of authority, follow up visits and books of accounts inspection of the client, which results in good performance of the bank. The banks follow NRB guidelines of loans classification and provisioning which makes strong financial position of the bank instead of holding high volume of

non-performing assets. After comparatively study of NBL and EBL banking performance. It can be concluded that EBL has better performance than that of NBBL

5.3 Recommendations

Based on above findings and conclusion the following recommendations have been forwarded

1. As the liquidity position of these two banks is found to be high, they are recommended to look upon the new area of lending and investment. The rural economy has always been realizing the credit needs; the dominancy of non-organized moneylender in this area has been prevailing. To compromise between the liquidity and credit need of rural economy, these banks are highly fund in business and at the same time contribute to the national economy also.
2. The ratio of loans and advances and Investment to total deposit of EBL is the lowest and this has result in the highest ratio of interest expenses to total deposit. At the same time total deposit to total fund utilized is below the average and there is high propensity of growth in deposit as compare to loans and advances. Hence this bank is suggested to reduce the interest rate. Consequently the volume of interest bearing deposit in its deposit mix reduces, increase the gap between consequent assets the liquidity arising from high prosperity of deposit.
3. NBBL contribution in loans and advances is the lowest and this has low degree of variation and low growth rate as compare to EBL and EBL since the entire economy is largely dependent on the proper execution of lending performance of all the banks in long run due to its paradox how level of lending constitutes the low level of investment, resulting in low level of productive and employment generation and this causes slack in economy. This slackness in economy adversely effects the funding as well as non-funding activities of banking business. Thus, especially EBL is recommended to give more priority on productive and priority sector loan.
4. As examined by interest income to interest expenses ratio, the interest gap in NBBL and EBL is highly unfavourable for the national development since this gap is not existed due to credit creation power of these banks, as the total loans

and advances to total deposit ratio is not even 1:1, this gap has its reason with high interest charged and low interest offering. This ratio has clearly indicating that the bank has not followed that the NRB directives to maintain overall 5% gap in interest charged and interest offered. Thus bank is recommended to lower this gap by charging low interest in lending lowering this gap results in high volume of loans and advances and helps in increasing the sustainable lending practice.

5. The high volume of liquidity shows that the high degree of lending strength has been prevailing in all of these banks. The lack of reliable lending opportunities and fear of losing the principle in rural sector has been keeping these banks to less orient toward the lending function. Hence, the government should take appropriate action to initiate these directives does not create long term healthy lending practices unless the commercial banks are not self motivated to flow credit in this sector. “But in view of the risk element in lending, the banker still prefers to have a negative outlook in handling proposals. This attitude requires to be changed among the bankers and any proposal coming to them should be processed to conform to banking norms so that it can be sanctioned for alignment for production or approved social objectives.

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ANNEXES

Annex 1

Analysis of Current Ratio

Year	Current Assets		Current Liabilities		Ratio	
	EBL	NBBL	EBL	NBBL	EBL	NBBL
2003/04	3043.42	7034.51	3204.27	6945.64	0.9498	1.0128
2004/05	5523.14	9636.94	4874.79	9358.28	1.1330	1.0298
2005/06	6684.20	10727.83	6063.87	10441.04	1.1023	1.0275
2006/07	8006.97	11345.52	7420.73	11234.30	1.0790	1.0099
2007/08	10981.74	13758.05	8928.24	13586.40	1.2300	1.0126

Annex 2

Analysis of Liquid Fund to Current Liability Ratio

Year	Liquid Fund		Current Liabilities		Ratio	
	EBL	NBBL	EBL	NBBL	EBL	NBBL
2003/04	345.42	693.17	3204.27	6945.64	0.1078	0.0998
2004/05	818.96	1113.64	4874.79	9358.28	0.1680	0.119
2005/06	902.91	1930.55	6063.87	10441.04	0.1489	0.1849
2006/07	1488.60	944.80	7420.73	11234.30	0.2006	0.0841
2007/08	2645.44	1524.39	8928.24	13586.40	0.2963	0.1122

Annex 3

Analysis of Liquid Fund to Total Deposit Ratio

Year	Liquid Fund		Total Deposit		Ratio	
	EBL	NBBL	EBL	NBBL	EBL	NBBL
2003/04	345.42	693.17	8063.9	12807.38	0.0428	0.0541
2004/05	818.96	1113.64	10097.8	12125.58	0.0811	0.0918
2005/06	902.91	1930.55	13802.4	13015.14	0.0654	0.1483
2006/07	1488.60	944.80	18186.3	9385.95	0.0819	0.1007
2007/08	2645.44	1524.39	23976.3	9801.44	0.1103	0.1555

Annex 4

Analysis of Total Assets to Total Liability Ratio

Year	Total Assets		Total Liabilities		Ratio	
	EBL	NBBL	EBL	NBBL	EBL	NBBL
2003/04	9683.8300	14258.3476	9140.00	13601.40	1.0595	1.0483
2004/05	12697.7000	13277.3363	11303.9270	13042.57	1.1233	1.0180
2005/06	16373.1840	17709.9833	15320.6550	13271.87	1.0687	1.3344
2006/07	21851.4755	6332.2531	20649.6650	9878.71	1.0582	0.6410
2007/08	27804.2013	9304.3662	25780.4370	12749.20	1.0785	0.7298

Annex 5

Analysis of Loans and Advances to Total Deposit Ratio

Year	Loan and Advances		Total Deposit		Ratio	
	EBL	NBBL	EBL	NBBL	EBL	NBBL
2003/04	5884.12	8648.74	8063.9	12807.38	0.7296	0.6753
2004/05	7900.1	7787.69	10097.8	12125.58	0.7837	0.6423
2005/06	10154.87	6460.26	13802.4	13015.14	0.7357	0.4964
2006/07	14082.69	4409.01	18186.3	9385.95	0.7744	0.4697
2007/08	18836.43	6379.40	23976.3	9801.44	0.7856	0.6509

Annex 6

Analysis of Loans and Advances and Investment to Total Deposit

Year	Loans and Advances and Investment		Total Deposit		Ratio	
	EBL	NBBL	EBL	NBBL	EBL	NBBL
2003/04	8628.5000	11347.91	8063.9	12807.38	0.301	0.8860
2004/05	10029.0220	10199.41	10097.8	12125.58	0.2112	0.8411
2005/06	14356.1890	9152.12	13802.4	13015.14	0.2926	0.7032
2006/07	19067.0000	5493.57	18186.3	9385.95	0.2614	0.5853
2007/08	23759.1890	7208.41	23976.3	9801.44	0.2072	0.7354

Annex 7

Analysis of Loans and Advances to Share holders Equity

Year	Loans and Advances		Shareholder Equity		Ratio	
	EBL	NBBL	EBL	NBBL	EBL	NBBL
2003/04	5884.12	8648.74	680.33	656.57	8.6489	13.1726
2004/05	7900.1	7787.69	769.6	234.58	10.2652	33.1984
2005/06	10154.87	6460.26	1052.9	-1562.58	9.6447	-4.1344
2006/07	14082.69	4409.01	1201.5	-2624.16	11.7209	-1.6802
2007/08	18836.43	6379.40	2125.1	-2359.13	8.8638	-2.7041

Annex 8

Analysis of Interest Income to Total Income Ratio

Year	Interest Income		Total Income		Ratio	
	EBL	NBBL	EBL	NBBL	EBL	NBBL
2003/04	657.25	1095.5	785.1	1327.19	0.8392	0.8254
2004/05	720.7	876.51	858.96	1083.18	0.8512	0.8092
2005/06	903.24	758.13	1066.19	1226.81	0.8472	0.6179
2006/07	1144.41	982.2	1358.50	1284.51	0.8424	0.7646
2007/08	1547.91	530.51	1847.04	1160.83	0.8380	0.4570

Annex 9

Analysis of Interest Expenses to Total Deposit Ratio

Year	Interest expenses		Total deposit		Ratio	
	EBL	NBBL	EBL	NBBL	EBL	NBBL
2003/04	313.6857	625.36	8063.9	12807.38	0.0389	0.4712
2004/05	299.5650	547.94	10097.8	12125.58	0.0296	0.5059
2005/06	401.3970	518.09	13802.4	13015.14	0.0291	0.4223
2006/07	517.1660	432.22	18186.3	9385.95	0.0284	0.3365
2007/08	632.6260	24.93	23976.3	9801.44	0.0264	0.2541

Annex 10

Analysis of Interest Income to Interest Expenses Ratio

Year	Interest Income		Interest Expenses		Ratio	
	EBL	NBBL	EBL	NBBL	EBL	NBBL
2003/04	657.25	1095.5	313.6857	625.36	2.0900	1.7518
2004/05	720.7	876.51	299.5650	547.94	2.4060	1.5996
2005/06	903.24	758.13	401.3970	518.09	2.2502	1.4633
2006/07	1144.41	982.2	517.1660	432.22	2.2128	2.2725
2007/08	1547.91	530.51	632.6260	24.93	2.4468	1.7988

Annex 11

Everest Bank Limited

Correlation Coefficient between Deposit and Loans and Advances

Let, X be Deposit and Y be loans and advances respectively.

Year	X	Y	x = X - \bar{X}	y = Y - \bar{Y}	x ²	y ²	xy
2003/04	8063.9	5884.12	-6761.46	-5487.52	45717341	30112875	37103646.98
2004/05	10097.8	7900.1	-4727.56	-3471.54	22349823	12051589	16411913.64
2005/06	13802.4	10154.87	-1022.96	-1216.77	10464471	1480529.2	1244707.04
2006/07	18186.3	14082.69	3360.94	2711.05	11295917	7349792.1	9111676.39
2007/08	23976.3	18836.43	9150.94	7464.79	83739702	55723089	68309845.40
N = 5	X = 74126.8	Y = 56858.21			x ² = 17356725 4	y ² = 106717874.3	xy = 132181789.45

Mean (\bar{X})

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

$$\frac{74126.8}{5}$$

$$= 14825.36$$

Mean (\bar{Y})

$$\frac{\sum Y}{N}$$

$$\frac{56858.21}{5}$$

$$= 11371.64$$

$$\begin{aligned} \text{Correlation Coeff. (r)} &= \frac{\sum \phi xy}{\sqrt{\sum \phi x^2} \sqrt{\sum \phi y^2}} \\ &= \frac{132181789.45}{\sqrt{173567254} \sqrt{106717874.3}} \\ &= \frac{132181789.45}{13174.4926 \times 10300.4344} \\ &= 0.9712 \end{aligned}$$

$$\begin{aligned} \text{P.Er.} &= \frac{1 - r^2}{\sqrt{N}} \\ &= \frac{1 - (0.9712)^2}{\sqrt{5}} \\ &= \frac{0.0568}{2.2360} \\ &= 0.0171 \end{aligned}$$

Correlation Coefficient between Total Investment and Loans and Advances

Let, X be Total Investment and Y be Loans and Advances respectively.

Year	X	Y	x = X - \bar{X}	y = Y - \bar{Y}	x ²	y ²	xy
2003/04	2535.65	5884.12	-1218.94	-5487.52	1485814.7	30112875	6688957.6
2004/05	2128.93	7900.1	-1625.66	-3471.54	2642770.4	12051589	5643543.7
2005/06	4201.32	10154.87	446.73	-1216.77	199567.69	1480529.2	-543567.66
2006/07	4984.31	14082.69	1229.72	2711.05	1512211.2	7349792.1	3333832.4
2007/08	4922.76	18836.43	1168.17	7464.79	1364621.1	55723089	8720143.7
N = 5	X = 18772.97	Y = 56858.21			x ² = 7204985.09	y ² = 106717874.3	xy = 23842909.74

$$\begin{aligned} \text{Mean } (\bar{X}) &= \frac{\sum X}{N} = \frac{18772.97}{5} = 3754.59 \\ \text{Mean } (\bar{Y}) &= \frac{\sum Y}{N} = \frac{56858.21}{5} = 11371.64 \end{aligned}$$

$$\begin{aligned} \text{Correlation Coeff. (r)} &= \frac{\sum \phi xy}{\sqrt{\sum \phi x^2} \sqrt{\sum \phi y^2}} \\ &= \frac{23842909.74}{\sqrt{7204985.09} \sqrt{106717874.3}} \\ &= \frac{23842909.74}{27729055.24} \\ &= 0.8599 \end{aligned}$$

$$\begin{aligned} \text{P.Er.} &= 0.6745 \frac{1 Z r^2}{\sqrt{N}} \\ &= 0.6745 \left| \frac{1 Z 0.8599^2}{\sqrt{5}} \right| \\ &= 0.0786 \end{aligned}$$

Correlation Coefficient between Total Income and Loans and Advances

Let, X be Total Income and Y be Loans and Advances respectively.

Year	X	Y	x = X - \bar{X}	y = Y - \bar{Y}	x ²	y ²	xy
2003/04	785.1	5884.12	-398.06	-5487.52	158451.76	30112875	2184362.2
2004/05	858.96	7900.1	-324.2	-3471.54	105105.64	12051589	1125473.2
2005/06	1066.19	10154.87	-116.97	-1216.77	13681.98	1480529.2	142325.58
2006/07	1358.50	14082.69	175.34	2711.05	30744.12	7349792.1	475355.5
2007/08	1847.04	18836.43	663.88	7464.79	440736.65	55723089	4955724.7
N = 5	X = 5915.79	Y = 56858.21			x ² = 748720.15	y ² = 106717874.3	xy = 8883241.18

Mean (\bar{X})

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

$$\frac{5915.79}{5}$$

$$= 1183.16$$

Mean (\bar{Y})

$$\frac{\sum Y}{N}$$

$$\frac{56858.21}{5}$$

$$= 11371.64$$

Correlation Coeff. (r) $\frac{\sum \phi xy}{\sqrt{\sum \phi x^2} \sqrt{\sum \phi y^2}}$

$$\frac{8883241.18}{\sqrt{748720.15} \sqrt{106717874.3}}$$

$$= 0.9937$$

P.Er. $\frac{1 - r^2}{\sqrt{N}}$

$$\frac{1 - 0.9937^2}{\sqrt{5}}$$

$$= 0.0038$$

Correlation Coefficient between Interest Income and Net Profit

Let, X be Interest Income and Y be Net Profit respectively.

Year	X	Y	$x = X - \bar{X}$	$y = Y - \bar{Y}$	x^2	y^2	xy
2003/04	657.25	143.57	-337.45	-115.2	113872.5	13271.04	38874.24
2004/05	720.7	170.81	-274	-87.96	75076	7736.96	24101.04
2005/06	903.24	232.93	91.46	25.84	8364.93	667.71	2363.33
2006/07	1144.41	296.41	149.71	37.64	22413.08	1416.77	5635.08
2007/08	1547.91	450.12	553.21	191.35	306041.3	36614.82	105856.73
N = 5	X = 4973.51	Y = 1293.84			$x^2 =$ 525767.81	$y^2 =$ 59707.3	xy = 176830.42

$$\begin{aligned} \text{Mean } (\bar{X}) &= \frac{\sum X}{N} = \frac{4973.51}{5} = 994.70 \\ \text{Mean } (\bar{Y}) &= \frac{\sum Y}{N} = \frac{1293.84}{5} = 258.77 \end{aligned}$$

$$\begin{aligned} \text{Correlation Coeff. (r)} &= \frac{\sum \phi xy}{\sqrt{\sum \phi x^2} \sqrt{\sum \phi y^2}} \\ &= \frac{16830.42}{\sqrt{525767.81} \sqrt{59707.3}} \\ &= 0.9980 \end{aligned}$$

$$\begin{aligned} \text{P.Er.} &= \frac{1}{\sqrt{N}} \sum Z r^2 \\ &= \frac{1}{\sqrt{5}} \sum Z (0.9980)^2 \\ &= 0.0012 \end{aligned}$$

Annex 12
Nepal Bangladesh Bank Limited

Correlation Coefficient between Deposit and Loans and Advances

Let, X be Deposit and Y be Loans and Advances respectively.

Year	X	Y	x = X - \bar{X}	y = Y - \bar{Y}	x ²	y ²	xy
2003/04	12807.38	8648.74	1380.28	1911.72	1905172.8	3654673.3	2638708.80
2004/05	12125.58	7787.69	698.48	1050.67	487874.3	1103907.4	733871.98
2005/06	13015.14	6460.26	1588.04	-276.76	2521871	76596.09	-439505.95
2006/07	9385.95	4409.01	-	-	-	-	-
			2041.15	2328.01	4166293.3	5419630.5	4751817.60
2007/08	9801.44	6379.40	-	-	-	-	-
			1625.66	-357.62	2642770.4	127892.06	581368.52
N = 5	X=57135.49	Y=33685.10			x ² = 11723981	y ² = 10382699	xy= 8266260.90

Mean (\bar{X})

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

$$\frac{57135.49}{5}$$

$$= 11427.10$$

Mean (\bar{Y})

$$\frac{\sum Y}{N}$$

$$\frac{33685.10}{5}$$

$$= 6737.02$$

Correlation Coeff. (r) $\frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$

$$\frac{8266260.90}{\sqrt{11723981} \sqrt{10382699}}$$

$$= 0.7492$$

P.Er. $\frac{1 - r^2}{\sqrt{N}}$

$$\frac{1 - 0.7492^2}{\sqrt{5}}$$

$$= 0.1323$$

Correlation Coefficient between Total Investment and Loans and Advances

Let, X be Total Investment and Y be Loans and Advances respectively.

Year	X	Y	x = X - \bar{X}	y = Y - \bar{Y}	x ²	y ²	xy
2003/04	2699.17	8648.74	755.91	1911.72	571399.92	3654673.3	1445088.2
2004/05	2411.72	7787.69	468.46	1050.67	219454.77	1103907.4	492196.86
2005/06	2691.86	6460.26	748.6	-276.76	560401.96	76596.09	-207182.53
2006/07	1084.56	4409.01	-858.7	2328.01	737365.69	5419630.5	1999062.1
2007/08	829.01	6379.40	1114.25	-357.62	1241553	127892.06	398478.08
N = 5	X = 9716.32	Y = 33685.10			x ² = 3330175.2	y ² = 10382699	xy = 4127642.6

$$\begin{aligned} \text{Mean } (\bar{X}) &= \frac{\sum X}{N} = \frac{9716.32}{5} = 1943.26 \\ \text{Mean } (\bar{Y}) &= \frac{\sum Y}{N} = \frac{33685.10}{5} = 6737.02 \end{aligned}$$

$$\begin{aligned} \text{Correlation Coeff. (r)} &= \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} \\ &= \frac{4127642.6}{\sqrt{3330175.2} \sqrt{10382699}} \\ &= 0.7020 \end{aligned}$$

$$\begin{aligned} \text{P.Er.} &= \frac{1}{\sqrt{N}} \sum Zr^2 \\ &= \frac{1}{\sqrt{5}} \sum Z(0.7020)^2 \\ &= 0.1530 \end{aligned}$$

Correlation Coefficient between Total Income and Loans and Advances

Let, X be Total Income and Y be Loans and Advances respectively.

Year	X	Y	x = X - \bar{X}	y = Y - \bar{Y}	x ²	y ²	xy
2003/04	1327.19	8648.74	110.69	1911.72	12252.276	3654673.3	211608.28
2004/05	1083.18	7787.69	133.32	1050.67	17774.222	1103907.4	140075.32
2005/06	1226.81	6460.26	10.31	-276.76	106.2961	76596.09	-2853.3956
2006/07	1284.51	4409.01	68.01	-2328.01	4625.3601	5419630.5	-158327.96
2007/08	1160.83	6379.40	55.67	-357.62	3099.1489	127892.06	-90500.492
N = 5	X = 6082.52	Y = 33685.10			x ² = 37857.302	y ² = 10382699	xy = 100001.76

Mean (\bar{X})

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

$$\frac{6082.52}{5}$$

$$= 1216.50$$

Mean (\bar{Y})

$$\frac{\sum Y}{N}$$

$$\frac{33685.10}{5}$$

$$= 6737.02$$

Correlation Coeff. (r) $\frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$

$$\frac{100001.76}{\sqrt{37857.302} \sqrt{10382699}}$$

$$= 0.1595$$

P.Er. $\frac{1}{\sqrt{N}}$

$$0.6745 \left| \frac{0.1595}{\sqrt{5}} \right|$$

$$= 0.2940$$

Correlation Coefficient between Interest Income and Net Profit

Let, X be Interest Income and Y be Net Profit respectively.

Year	X	Y	x = X - \bar{X}	Y = Y - \bar{Y}	x ²	y ²	xy
2003/04	1095.5	2.65	246.93	-610.08	60974.42	372197.6	150647.05
2004/05	876.51	-749.52	27.94	1362.25	780.64	1855725	38061.265
2005/06	758.13	-	-90.44	-2409.88	8179.39	5807521.6	217949.54
2006/07	982.2	-	133.63	-1674.32	17856.98	2803347.4	223739.38
2007/08	530.51	541.96	-318.06	-70.77	101162.16	5008.39	22509.11
N = 5	X = 4242.85	Y = - 3063.65			x ² = 188953.59	y ² = 10843799	xy = 95866.53

Mean (\bar{X})

$$\begin{aligned} & \sum \frac{\phi X}{N} \\ & \sum \frac{4242.85}{5} \\ & = 848.57 \end{aligned}$$

Mean (\bar{Y})

$$\begin{aligned} & \sum \frac{\phi Y}{N} \\ & \sum \frac{3063.65}{5} \\ & = -612.73 \end{aligned}$$

Correlation Coeff. (r) $\sum \frac{\phi xy}{\sqrt{\phi x^2} \sqrt{\phi y^2}}$

$$\begin{aligned} & \sum \frac{95866.53}{\sqrt{188953.59} \sqrt{10843799}} \\ & = 0.0670 \end{aligned}$$

P.Er. $\sum 0.6745 \frac{1 Z r^2}{\sqrt{N}}$

$$\sum 0.6745 \left| \frac{1 Z f 0.0670 A}{\sqrt{5}} \right|$$

=0.3003

Annex 13
Trend Values

Trend Value of Total Investment of EBL

(Rs. In million)

Year	Total Investment(y)	x = X-2005	X ²	xy	y= a+bx
2003/04	2535.65	-2	4	-5071.3	2228.43
2004/05	2128.32	-1	1	-2128.32	2991.45
2005/06	4201.32	0	0	0	3754.47
2006/07	4984.31	1	1	4984.31	4517.49
2007/08	4922.76	2	4	9845.52	5280.51
	Y =18772.36		x ² =10	xy= 7630.21	

$$a = \frac{\sum Xy}{N}$$

$$= \frac{18772.36}{5}$$

$$= 3754.47$$

$$b = \frac{\sum X^2y}{\sum X^2}$$

$$= \frac{7630.21}{10}$$

$$= 763.02$$

Trend value of total Investment after 2008

Year	X	y = a + bx
2008/09	3	6043.53
2009/10	4	6806.55
2010/11	5	7569.57
2011/12	6	8332.59
2012/13	7	9095.61

Trend Value of Total Investment of NBBL

(Rs. In million)

Year	Total Investment(y)	x = X-2005	X ²	xy	y= a+bx
2003/04	2699.17	-2	4	-5398.34	2956.76
2004/05	2411.72	-1	1	-2411.72	2450.01
2005/06	2691.86	0	0	0	1943.26
2006/07	1084.56	1	1	1084.56	1436.51
2007/08	829.01	2	4	1658.02	929.76
	Y=9716.32		x ² =10	xy=-5067.48	

$$a = \frac{\sum \phi y}{N}$$

$$= \frac{9716.32}{5}$$

$$= 1943.26$$

$$b = \frac{\sum \phi xy}{\sum \phi x^2}$$

$$= \frac{-5067.48}{10}$$

$$= -506.75$$

Trend value of total Investment after 2008

Year	X	y = a + bx
2008/09	3	423.01
2009/10	4	-83.74
2010/11	5	-590.49
2011/12	6	-1097.24
2012/13	7	-1603.99

Trend Value of Loan and Advance of EBL

(Rs. In million)

Year	Loan & Advance(y)	x = X- 2005	X ²	xy	y= a+bx
2003/04	5844.12	-2	4	-11768.24	4954.2
2004/05	7900.1	-1	1	-7900.1	8162.92
2005/06	10154.87	0	0	0	11371.64
2006/07	14082.69	1	1	14082.69	14580.36
2007/08	18836.43	2	4	37672.86	17789.08
	Y=56858.21		x ² =10	xy=32087.21	

$$a = \frac{\sum X \phi \Psi}{N}$$

$$b = \frac{\sum X \phi xy}{\sum X \phi x^2}$$

$$= \frac{56858.21}{5}$$

$$= 11371.64$$

$$= \frac{32087.21}{10}$$

$$= 3208.72$$

Trend Value of Loan and Advance after 2008

Year	X	y = a + bx
2008/09	3	20997.8
2009/10	4	24206.52
2010/11	5	27415.24
2011/12	6	30623.96
2012/13	7	33832.68

Trend Value of Loan and Advance of NBBL

(Rs. In million)

Year	Loan & Advance(y)	x = X-2005	X ²	xy	y= a+bx
2003/04	8648.74	-2	4	-17297.48	8320.5
2004/05	7787.69	-1	1	-7787.69	7528.76
2005/06	6460.26	0	0	0	6737.02
2006/07	4409.01	1	1	4409.01	5945.28
2007/08	6379.40	2	4	12758.8	5153.54
	Y=33685.1		x ² =10	xy=-7917.36	

$$a \quad X \frac{\phi \Psi}{N}$$

$$b \quad X \frac{\phi xy}{\phi x^2}$$

$$X \frac{33685.1}{5}$$

$$X \frac{Z7917.36}{10}$$

$$= 6737.02$$

$$= -791.74$$

Trend Value of Loan and Advance after 2008

Year	X	y = a + bx
2008/09	3	4361.8
2009/10	4	3570.06
2010/11	5	2778.32
2011/12	6	1986.58
2012/13	7	1194.84

Trend Value of Total Deposit of EBL

(Rs. In million)

Year	Total Deposit (y)	x = X-2005	X ²	xy	y = a+bx
2003/04	8063.9	-2	4	-16127.8	6842.64
2004/05	10097.8	-1	1	-10097.8	10833.97
2005/06	13802.4	0	0	0	14825.34
2006/07	18186.3	1	1	18186.3	18816.63
2007/08	23976.3	2	4	47952.6	22807.96
	Y=74126.7		x ² =10	xy=39913.3	

$$a = \frac{\sum y}{N}$$

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

$$= \frac{74126.7}{5}$$

$$= 14825.34$$

$$= \frac{39913.3}{10}$$

$$= 3991.33$$

Trend Value of Total Deposit after 2008

Year	X	y = a + bx
2008/09	3	26799.29
2009/10	4	30790.62
2010/11	5	34781.95
2011/12	6	38773.28
2012/13	7	42764.61

Trend Value of Total Deposit of NBBL

(Rs. In million)

Year	Total Deposit (y)	x = X-2005	X ²	xy	y= a+bx
2003/04	12807.38	-2	4	-25614.76	13177.4
2004/05	12125.58	-1	1	-12125.58	12302.25
2005/06	13015.14	0	0	0	11427.10
2006/07	9385.95	1	1	9385.95	10551.95
2007/08	9801.44	2	4	19602.88	9676.8
	Y=57135.49		x ² =10	xy=- 8751.51	

$$a = \frac{\sum X \phi \Psi}{N}$$

$$b = \frac{\sum X \phi xy}{\sum X \phi x^2}$$

$$X \frac{57135.49}{5}$$

$$X \frac{8751.51}{10}$$

$$= 11427.10$$

$$= -875.15$$

Trend Value of Total Deposit after 2008

Year	X	y = a + bx
2008/09	3	8801.65
2009/10	4	7926.5
2010/11	5	7051.35
2011/12	6	6176.2
2012/13	7	5301.05

Trend Value of Net Profit of EBL

(Rs. In million)

Year	Net Profit (y)	x = X-2005	X ²	xy	y= a+bx
2003/04	143.57	-2	4	-287.14	111.03
2004/05	170.81	-1	1	-170.81	184.9
2005/06	232.93	0	0	0	258.77
2006/07	296.41	1	1	296.41	332.64
2007/08	450.12	2	4	900.24	406.51
	Y=1293.84		x ² =10	xy=738.7	

$$a = X \frac{\sum y}{N}$$

$$b = X \frac{\sum xy}{\sum x^2}$$

$$X \frac{1293.84}{5}$$

$$= 258.77$$

$$X \frac{738.7}{10}$$

$$= 73.87$$

Trend Value of Net Profit after 2008

Year	X	y = a + bx
2008/09	3	480.38
2009/10	4	554.25
2010/11	5	628.12
2011/12	6	701.99
2012/13	7	775.86

Trend Value of Net Profit of NBBL

(Rs. In million)

Year	Net Profit (y)	x = X-2005	X ²	xy	y= a+bx
2003/04	2.65	-2	4	-5.3	-766.04
2004/05	-749.52	-1	1	749.52	-689.385
2005/06	-1797.15	0	0	0	-612.73
2006/07	-1061.59	1	1	-1061.59	- 536.075
2007/08	541.96	2	4	1083.92	- 459.42
	Y=-3063.65		x ² =10	xy= 766.55	

$$a = \frac{\sum X\psi}{N}$$

$$b = \frac{\sum X\phi xy}{\sum X\phi x^2}$$

$$= \frac{\sum X\psi}{5}$$

$$= \frac{\sum X\phi xy}{10}$$

$$= -612.73$$

$$= 76.655$$

Trend Value of Net Profit after 2008

Year	X	y = a + bx
2008/09	3	-382.765
2009/10	4	-306.11
2010/11	5	-229.455
2011/12	6	-152.8
2012/13	7	-76.145

Annex 14
Test of Hypothesis

T – Test

T-test of Hypothesis in Loan and Advances to Total Deposit Ratio between EBL & NBBL

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

$$S^2 = \frac{\phi f_{x_1} Z \bar{x}_1 \hat{A} \Gamma \phi f_{x_2} Z \bar{x}_2 \hat{A}}{n_1 \Gamma n_2 Z 2}$$

$$= \frac{0.7618 - 0.5869}{\sqrt{0.0050 \left(\frac{1}{5} + \frac{1}{5} \right)}}$$

$$= \frac{0.1749}{0.0447}$$

$$= 3.9128$$

$$= \frac{0.0029 \Gamma 0.0369}{5 \Gamma 5 Z 2}$$

$$= \frac{0.0369}{8}$$

$$= 0.0050$$

T-test of Hypothesis in Loan and Advances to Shareholder's Equity between EBL & NBBL

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

$$S^2 = \frac{\phi f_{x_1} Z \bar{x}_1 \hat{A} \Gamma \phi f_{x_2} Z \bar{x}_2 \hat{A}}{n_1 \Gamma n_2 Z 2}$$

$$= \frac{9.8287 - 7.5705}{\sqrt{127.8060 \left(\frac{1}{5} + \frac{1}{5} \right)}}$$

$$= \frac{2.2582}{7.1499}$$

$$= 0.3158$$

$$= \frac{6.1278 \Gamma 1016.3203}{5 \Gamma 5 Z 2}$$

$$= 127.8060$$

T-test of Hypothesis in Total Assets to Total Liabilities Ratio between EBL & NBBL

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

$$= \frac{1.0776 - 0.9543}{\sqrt{0.0386 \left(\frac{1}{5} + \frac{1}{5} \right)}}$$

$$= \frac{0.1233}{0.1243}$$

$$= 0.9920$$

$$S^2 = \frac{\sum (x_1 - \bar{x}_1)^2 + \sum (x_2 - \bar{x}_2)^2}{n_1 + n_2 - 2}$$

$$= \frac{0.0029 + 0.3060}{5 + 5 - 2}$$

$$= 0.0386$$

F - Test

F-test of Hypothesis in Loan and Advances to Total Deposit Ratio between EBL & NBBL

X ₁	X ₂	X ₁ ²	X ₂ ²
0.7296	0.6753	0.5323	0.4560
0.7837	0.6423	0.6142	0.4125
0.7357	0.4964	0.5413	0.2464
0.7744	0.4697	0.5997	0.2206
0.7856	0.6509	0.6172	0.4237
=3.809	=2.9346	=2.9046	=1.7593

$$\text{Total (T)} = x_1 + x_2$$

$$= 3.809 + 2.9346$$

$$= 6.7436$$

$$\text{Correction factor (c.f.)} = \frac{T^2}{N}$$

$$= \frac{45.4761}{10}$$

$$= 4.5476$$

Sum of squares between banks (SSC)

$$SSC = \sum_{j=1}^k \frac{f_{j.}^2}{n_j} - \frac{T^2}{N}$$

$$= \frac{3.809^2}{5} + \frac{2.9346^2}{5} - \frac{45.4761}{10}$$

$$= 2.9017 + 1.7224 - 4.5476$$

$$= 0.0765$$

Total sum of squares (SST)

$$SST = \sum_{j=1}^k \phi_{x_j}^2 - \frac{T^2}{N}$$

$$= 2.9046 + 1.7593 - \frac{45.4761}{10}$$

$$= 2.9046 + 1.7593 - 4.5476$$

$$= 0.1163$$

Sum of squares of ratios within banks (SSR)

$$SSR = SST - SSC$$

$$= 0.1163 - 0.0765$$

$$= 0.0398$$

**F-test of Hypothesis in Loan and Advances to Shareholder's Equity between
EBL & NBBL**

X ₁	X ₂	X ₁ ²	X ₂ ²
8.6489	13.1726	74.8035	173.5174
10.2652	33.1984	105.3743	1102.1337
9.6447	-4.1344	93.0202	17.0933
11.7209	-1.6802	137.3795	2.8231
8.8638	-2.7041	78.5670	7.3122
= 49.1435	= 37.8523	= 489.1445	= 1302.8793

$$\text{Total (T)} = x_1 + x_2$$

$$= 49.1435 + 37.8523$$

$$= 86.9958$$

$$\text{Correction factor (c.f.)} = \frac{T^2}{N}$$

$$= \frac{7568.2692}{10}$$

$$= 756.8269$$

Sum of squares between banks (SSC)

$$SSC = X \frac{\sum x_1^2}{n_1} + Y \frac{\sum x_2^2}{n_2} - Z \frac{T^2}{N}$$

$$= X \frac{49.1435^2}{5} + Y \frac{37.8523^2}{5} - Z 756.8269$$

$$= 483.0167 + 286.5593 + 756.8269$$

$$= 12.7491$$

Total sum of squares (SST)

$$SST = \sum x_1^2 + \sum x_2^2 - \frac{T^2}{N}$$

$$= 489.1445 + 1302.8793 - 756.8269$$

$$= 1035.1969$$

Sum of squares of ratios within banks(SSR)

SSR= SST-SSC

$$= 1035.1969 - 12.7491$$

$$= 1022.4478$$

F-test of Hypothesis in Total Assets to Total Liabilities Ratio between EBL & NBBL

X ₁	X ₂	X ₁ ²	X ₂ ²
1.0595	1.0483	1.1225	1.0989
1.1233	1.0180	1.2618	1.0363
1.0687	1.3344	1.1421	1.7806
1.0582	0.6410	1.1198	0.4109
1.0785	0.7298	1.1632	0.5326
= 5.3882	= 4.7715	= 5.8094	= 4.8594

Total (T) = x₁ + x₂

$$= 5.3882 + 4.7715$$

$$= 10.1597$$

$$\text{Correction factor (c.f.)} = \frac{T^2}{N}$$

$$= \frac{103.2195}{10}$$

$$= 10.3220$$

Sum of squares between banks (SSC)

$$SSC = X \frac{\sum \phi_{x_1}^2}{n_1} + \Gamma \frac{\sum \phi_{x_2}^2}{n_2} - Z \frac{T^2}{N}$$

$$= X \frac{5.3882}{5} + \Gamma \frac{4.7715}{5} - Z \frac{10.3220}{1}$$

$$= 5.8065 + 4.5534 - 10.3220$$

$$= 0.0380$$

Total sum of squares (SST)

$$SST = X \sum \phi_{x_1}^2 + \Gamma \sum \phi_{x_2}^2 - Z \frac{T^2}{N}$$

$$= 5.8094 + 4.8594 - 10.3220$$

$$= 0.3468$$

Sum of squares of ratios within banks (SSR)

$$SSR = SST - SSC$$

$$= 0.3468 - 0.0380$$

$$= 0.3088$$

