## CHAPTER I <br> 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 may 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.


Figure 1: Functions of a Bank

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. And 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 $1^{\text {st }}$ 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 the Banks

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

Table 1.1
Capital Structure of EBL and NBBL

| Capital | Everest Bank Limited | Nepal Bangladesh Bank <br> 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 |
| Listed in Nepal stock <br> Exchange | $2052 / 12 / 25$ (B.S.) | $2052 / 09 / 09$ (B.S.) |

Source: Nepal Stock Exchange.

### 1.2.1 Everest Bank Limited (EBL)

Everest Bank Limited was registered under the company act 1964 in $19^{\text {th }}$ November, 1993 (2049/09/03). And started banking transaction in $16^{\text {th }}$ October 1994 (2051/07/01). This is the joint venture bank with Punjab national bank of India and Nepalese promoters. A term 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 14 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 objective 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 $6^{\text {th }}$ 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 15 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. Bangladesh50\%
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 baking 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 second 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 effects 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 finding. 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 gives 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 Objective of the Study

The main objective of the study is to analyze the loan management adopted by the sample bank with a view to provide workable suggestion which may be helpful to the formulation of lending policy. However, the specific objectives can be set as follows:
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 the proper loan system.

### 1.5 Significance and Focus 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 Limitation 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 2004/05 to 2008/09 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 tis study.

### 1.7 Chapter Scheme

This study has been organized into five chapters, each devoted to some aspects of loan management of joint venture commercial bank. The title 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 profit 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 leading 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 financial indicators, analysis of mean, correlation coefficient, regression analysis, trend analysis and financial analysis.

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 banks.

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

## CHAPTER II <br> REVIEW OF LITERATURE

### 2.1 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 2004, the following situation of the commercial banks have been identified.

- There are 27 commercial banks in the country as of mid-July 2005. The number of commercial banks branches as of mid-July 2005 is 423 of which 375 are branches of commercial banks and other 44 Agriculture Development Banks branches performing commercial banking activities.
- Capital funds of these banks have reduced to Rs. 10201.7 million (186.3\% decrease) in mid-July 2005 from Rs. 11814.6 million in mid-July 2004. The drastic decrease in total capital fund in mid July 2005 as compared to mid-July 2004 is due to Rastriya Banijya bank negative retained earnings. The retained comings figure of Rastriya Banijya bank was not included in mid-July 2004. The total capital funds consists of Rs. 8850 million paid-up capital, Rs. 3385 million statutory Reserves, Rs. 3119.4 million other reserves and Rs.25056.1 retained earning loss. Over the period, paid up capital, statutory reserves and other Reserves have increased by 8 percent, 20 percent and 161.5 percent respectively wile retained earning decreased by quite a large percentage.
- Deposited have reached 233811.2 million in mid-July 2005 from Rs.203879.3 million in mid-July 2004 with a growth of 14.7 percent of total deposit in mid-July 2005, current deposit constitutes Rs.33729.9 million (14.4\%) saving deposit constitutes Rs.114137.2
million (65130.90) million ( $27.9 \%$ ) and others (call demotists and other) constitute Rs. 20813.2 million (8.9\%) Deposit, on average, grew at as annual role of 14.71 percent during the period of 1998 to 2005 in which the highest growth rate ( $23.98 \%$ ) was recorded in the year 1999 and the lowest (1.85\%) in the year 2002.
- Total borrowing by commercial banks have shown a mixed trend over the period 1998 to 2004. The total amount of borrowing, which was Rs. 887.0 million in mid- July 1998, has increased to Rs. 3346.6 million in Mid-July 2000. It again decreased to Rs. 2308.7 million in mid-July 2001 and then showed an increasing trend up to mid-July 2003 and decreased to Rs. 3023.6 million in mid-July 2005 of the total borrowing in mid-July 2005, borrowing from foreign banks constitute $24.2 \%, 56.6 \%$ and $17.20 \%$ respectively.
- Liquid funds continuously increased from 1998 to 2001 and reached Rs.55583.3 million from Rs. 33184.1 million. It declined to Rs. 449372.2 million in mid July 2002 and further decline to Rs. 30762.8 million in mid-July 2003 and increased to Rs. 46252.8 million in mid-July 2005.
- Loans and advance as average, have registered annual growth rate of $12.62 \%$ for the period of mid-July 1998 to mid-July 2005. Compare to mid-July 2004, loans and advances went up by $12.45 \%$ and reached to Rs. 140031.4 million in mid-July 2005.

Out of the total loans and advances in mid July 2005, lending to private sector and claims on Government enterprise constitute Rs.136403.5 (97.4\%) and Rs. 2519.4 million (1.8\%) respectively-registering growth rate of 13.93 percent in private sector where as the claims on Government enterprises decreased by 12.15 percent in mid-July 2005 compare to mid July 2004.

Interest accrued on average has increased by $21.68 \%$ annually between mid-July 1998 to mid-July 2005, recording Rs.34485.5 million in mid-July 2005 from Rs. 10681.6 million in midJuly 1998, 2005.
(Source: NRB Samachar, 2063).

### 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 2003, 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, 2001 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 Samachar, 2063)

### 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 low to dial 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 J ournals

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)

NRB register me thousand five hundred and thirty eight borrowers, who have not repaid the loan they received fro the fifteen major commercial banks of the country, in 'Black list'.

The black listed number of borrowers and the amount of different commercial banks are reported as follows.

Table 2.1

## Bank wise Black listed Borrowers and the account due from them

| Banks | No. of Black listed <br> borrowers | Amount due from them (in <br> million) |
| :---: | :---: | :---: |
| RBB | 546 | 5526.66 |
| NBL | 673 | 3904.47 |
| HBL | 57 | 383.04 |
| NBBL | 45 | 317.23 |
| NABIL | 32 | 229.30 |
| BOK | 17 | 116.45 |
| NSBIBL | 26 | 102.96 |
| NIBL | 17 | 56.06 |
| EBL | 9 | 33.89 |
| NCCBL | 49 | 32.38 |
| SCBNL | 2 | 19.13 |
| NICBL | 2 | 7.19 |
| LBL |  | 0.64 |

Source: NRB Report.

The principal loan amount due from these one thousand five hundred and thirty eight borrowers in different banks is totaling Rs. 5731 million. 609 thousand. The interest due in total Rs.5,717 million 8 hundred thousand. (Bhatta, 2002)
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 noninstitutional 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 hot.

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 deposed 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 HBL but the coefficient of variation between the ratio of HBL but the EBL. It means that the variability of the ratios of HBL 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 in 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 SCNNL 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 in 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 bask 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 same 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" with 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 <br> 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. 1920)

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 three 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 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.

### 3.1.2 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 etc. has been collected
from the personal visit of concerned department of NRB at Baluwatar. The data on some aspect of these banks was obtained from the website www.nepalstock.com.np. of Nepal stock exchange.

### 3.2 Selection of the Banks as the Sample from the total Population

There are 27 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.

### 3.2.1 Population

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

| Name of the Commercial banks | Date of establishment |
| :--- | :---: |
| 1. Rastriya Banijya Bank Ltd. | 1937 |
| 2. Agriculture Development Bank Ltd | 1965 |
| 3. Nepal Bank Ltd. | 1966 |
| 4. Nabil Bank Ltd. | 1984 |
| 5. Nepal Investment Bank Ltd. | 1986 |
| 6. Standard Chartered Bank Ltd. | 1987 |
| 7. Himalayan Bank Ltd. | 1993 |
| 8. Nepal SBI Bank Ltd. | 1993 |
| 9. NB Bank Ltd. | 1994 |
| 10. Everest Bank Ltd. | 1994 |
| 11. Bank of Kathmandu Ltd. | 1995 |
| 12. NCC Bank Ltd. | 1996 |
| 13. Lumbini Bank Ltd. | 1998 |
| 14. Nepal Industrial and Commercial |  |
| Bank Limited | 1998 |


| 15. NIC Bank Ltd. | 1988 |
| :--- | :--- |
| 16. Development Credit Bank Limited | 2001 |
| 17. Machapuchhre Bank Ltd. | 2000 |
| 18. Kumari bank Ltd. | 2001 |
| 19. Laxmi Bank Ltd. | 2002 |
| 20. Siddhartha Bank Ltd. | 2002 |
| 21. Global Bank Limited | 2007 |
| 22. Citizens Bank International Limited | 2007 |
| 23. Prime Commericial Bank Limited | 2007 |
| 24. Bank of Asia Nepal Limited | 2007 |
| 25. Sunrise Bank Limited | 2007 |
| 26. Nepal Bank of Ceylon Limited | 1996 |
| 27. Nepal Green lays Bank Limited | 1995 |

The sample taken from the commercial banks are follows

| Total population | Sample taken |
| :--- | :--- |
| 27 commercial banks | Everest Bank Ltd |
|  | Nepal Bangladesh Bank Ltd. |

### 3.3 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.

### 3.3.1 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)

For the study period following ratios are analyzed.

1) Current Ratio
2) Liquid fund to Total Deposit Ratio
3) Liquid fund to Total Deposit Ratio
4) Total Assets to Total Liability Ratio
5) Loans and Advances to Total Assets Ratio
6) Loans and Advances and Investment to Total Deposit Ratio
7) Loans and Advances to Shareholders Equity
8) Interest Income to Total Income Ratio
9) Interest Expenses to Total Deposit Ratio
10) Interest Income to Interest Expenses Ratio
11) Growth Ratio of Total Deposit
12) Growth Ratio of Loans and Advances
13) Growth Ratio of Total Investment
14) Growth Ratio of Net Profit.

### 3.3.2 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.

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

### 3.3.3 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 Loans and Advances and Total deposit.
- Trend analysis of Investment and Total Deposit Ratio.


### 3.3.4 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.

## CHAPTERIV <br> 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 the 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 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.

## Table 4.1

Current Ratio

|  | Fiscal Year (Mid July) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Banks | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ | Mean |  |
| EBL | 1.0406 | 1.0359 | 1.0895 | 1.0850 | 1.0761 | 1.0654 |  |
| NBBL | 1.0128 | 1.0298 | 1.0275 | 1.0099 | 1.0126 | 1.1438 |  |

Source: Annual Report of EBL and NBBL.

The combined mean ratio is 1.1438 , 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 1.0654 and NBL is 1.2222 which is highest than EBL NBBL implies a high liquidity ratio.

Table measures the current ratio of two banks of five consecutives years. The ratio has been ranged from 359 to 1.0895 of EBL. Table explains that the current ratio of NRB 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

Table 4.2
Liquid fund to Current Liability Ratio Fiscal Year (mid July)

|  | Fiscal Year (Mid July) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Banks | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ | Mean |  |
| EBL | 0.00869 | 0.1713 | 0.0977 | 0.1536 | 0.0707 | 0.11604 |  |
| NBBL | 0.09297 | 0.1096 | 0.1685 | 0.079 | 0.01057 | 0.0111 |  |
| Combined mean |  |  | 0.2235 |  |  |  |  |

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 0.1713 of EBL in 2005/06 to 0.1685 of NBBL in FY 2006/07. The ratio of EBL of first two years have in increasing trend, then it is decreased in 2006/07 year and then again increase in 2007/08. The ratios of NBBL of first three years have in increasing trend but it has fallen in 2007/08 and then again it has increased in FY 2008/09. 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 (Mid July) |  |  |  |  | Mean |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ |  |
| EBL | 0.09112 | 0.1825 | 0.1267 | 0.1702 | 0.0783 | 0.1297 |
| NBBL | 0.0998 | 0.1193 | 0.1849 | 0.0841 | 0.1122 | 0.12006 |
| Combined Mean |  |  |  |  |  | 0.1248 |

Source: Annual Report of EBL and NBBL.

Table explains that the ratio has ranged from 0.7425 of EBL in FY 2006/07 to 0.1702 of NBBL in FY 2004/05. The trend of this ratio of EBL and NBBL seems similar in nature 2004/05 and increased in the first two years as compared to previous year and has started to decline from FY 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 0.1248 . The mean ratio of EBL is 0.1297 and NBBL is 0.12006 and this is lowest ratio then EBL.

### 4.2 Measuring the Lending Strength

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 Asset 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 (Mid July) |  |  |  |  | Mean |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ |  |
| EBL | 1.0632 | 1.0654 | 1.0628 | 1.0623 | 1.0595 | 1.0626 |
| NBBL | 1.0571 | 1.0635 | 1.05980 | 1.0607 | 1.0483 | 1.0578 |
| Combined Mean |  |  |  |  |  |  |

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 1.0654 of EBL in 2004/05 to 1.0635 of NBBL in 2004/05.

The combined mean ratio of these two banks over the period is 1.0602 . The mean ratio of EBL is 1.0626 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 have 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 0.7425 of EBL in FY 2004/05, 0.8555 of NBL in FY 2004/05. NBBL has the highest ratio for the whole period except in FY 2007/08 and 2008/09.

Table 4.5
Loans and Advances to Total Deposit Ratio

| Banks | Fiscal year (Mid July) |  |  |  |  | Mean |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ |  |
| EBL | 0.7425 | 0.6571 | 0.7223 | 0.7331 | 0.7297 | 0.7169 |
| NBBL | 0.7139 | 0.8556 | 0.8022 | 0.6850 | 0.6753 | 0.7464 |
| Combined Mean |  |  |  |  |  | 0.7316 |

Source: Annual Report of EBL and NBBL.

The combined mean ratio of these two banks is 0.7316 . The overall performance of NBBL seems the best with mean ratio 0.7464 . EBL has maintained the lowest ratio. From this analysis, NBBL 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 1.0038 of EBL in FY 2006/07 to 0.9342 of NBBL in FY 2005/06. EBL has the highest ratio for the whole period. NBBL has the lowest ratio throughout five years.

Table 4.6
Loans and Advances and Investment to Total Deposit Ratio

| Banks | Fiscal year (Mid July) |  |  |  |  | Mean |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ |  |
| EBL | 0.8267 | 0.8369 | 1.0038 | 0.9720 | 1.0355 | 0.9349 |
| NBBL | 0.7825 | 0.9342 | 0.9042 | 0.8864 | 0.8830 | 0.8780 |
| Combined Mean |  |  |  |  |  | 0.9064 |

Source: Annual Report of EBL and NBBL.

The combined mean ratio of these two banks is 0.9064 . The overall performance of EBL seems the best with mean ratio 0.9349 . NBBL has the mean ratio of 0.8780 . From this analysis EBL 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 (Mid July) |  |  |  |  | Mean |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ |  |
| EBL | 11.1914 | 9.4106 | 10.1007 | 10.3810 | 10.8898 | 10.3947 |
| NBBL | 11.6419 | 12.3653 | 12.1828 | 10.5977 | 13.1726 | 11.9920 |
| Combined Mean |  |  |  |  |  | 11.1933 |

Source: Annual Report of EBL and NBBL.

Table 4.7 explains that the overall ratio of these two banks has ranged from 11.1914 of EBL in FY 2000/01 to 13.1726 of NBBL in 2008/09. The ratio of EBL has continuously increasing trend from FY 2005/06.

The combined mean ratio of these two banks 11.1933 and mean ratio of EBL is 10.3947 and mean ratio of NBBL is 11.9920 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

| Ratio (in \%) |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Purposes | Fiscal year (Mid July) |  |  |  |  | Mean |
|  | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ |  |
| 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 2004/05 respectively.

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


Figure 2: Mean Ratios of EBL: Loans Disbursed for different purposes to Total loans and Advances over the study period
(Source: Annual Reports of Nepal Bangladesh Bank Limited)

Table 4.9
Purpose wise Loan Classification of NBBL: loans disbursed for different purpose to Total loans and Advances

| Purposes |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fiscal year (Mid July) |  |  |  |  | Mean |
|  | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ |  |
| 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's 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 2004/05 respectively.

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


Figure 3: Mean Ratios of NBBL: Loans Disbursed for different purposes to Total loans and Advances over the study period
(Source: Annual Reports of Everest 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 (Mid July) |  |  |  |  | Mean |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ |  |
| EBL | 6.48 | 5.52 | 5.20 | 5.53 | 4.58 | 5.46 |
| NBBL | 4.37 | 4.07 | 12.93 | 14.17 | 41.39 | 15.38 |
| Combined Mean |  |  |  |  |  | 10.42 |

Source: Annual Report of EBL and NBBL.

The above table shows that NBBL has the highest ratio than that of EBL. The ratio of these two Banks has ranged from 6.48 of EBL in FY 2004/05 to $41.39 \%$ of NBBL in FY 2008/09.

The combined mean ratio of these two banks is 10.42 . Mean ratio of EBL is 5.46 and mean ratio of NBBL is 15.38 . NBBL 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 Income Ratio (\%)

| Banks | Fiscal year (Mid July) |  |  |  |  | Mean |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2004/05 | 2005/06 | 2006/07 | 2007/08 | 2008/09 |  |


| EBL | 0.0582 | 0.05162 | 0.04702 | 0.0458 | 0.0389 | 0.0483 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| NBBL | 0.0642 | 0.0599 | 0.0578 | 0.0561 | 0.0484 | 0.0573 |
| Combined Mean | 0.1056 |  |  |  |  |  |

Source: Annual Report of EBL and NBBL.

In above table shows that the ratio of EBL and NBBL is decreasing trend. The ratio of EBL is in decreasing trend. The ratio ranges from minimum of 0.0389 in FY 2008/09 to maximum of 0.0582 in FY 2004/05 of EBL. And ratio ranges from minimum of 0.484 in FY 2008/09 to maximum of 0.0642 on FY 2004/05 of NBBL.

The combined mean ratio of these two banks is 0.1056 . The mean ratio of EBL is 0.0483 and mean ratio of NBBL is 0.0573 . 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 Rastra 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 interview 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 (Mid July) |  |  |  |  | Mean |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ |  |
| EBL | 0.6651 | 0.6133 | 0.5792 | 0.5890 | 0.4784 | 0.5850 |


| NBBL | 0.6811 | 0.6368 | 0.6467 | 0.5865 | 0.5668 | 0.6235 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Combined Mean |  | 0.6042 |  |  |  |  |

Source: Annual Report of EBL and NBBL.
From the above table we can analyzed that the ratio of NBBL is higher than the ratio of EBL over five years. The ratio ranged from 0.6651 of EBL in 2004/05 to 0.6811 of NBBL in 2004/05.

The combined mean of these two banks is 0.6042 . Mean ratio of EBL is 0.5850 and the mean ratio of NBBL is 0.6235 which is highest than that of EBL.

### 4.4 Analysis of Growth Rate

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 are the main source of capital for the commercial banks. Bank utilize 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 (Mid July) |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ |  |
| EBL | 4574.51 | 5466.60 | 6695.00 | 8063.90 | 10097.7 |  |
| NBBL | 6467.19 | 8600.81 | 9514.47 | 10580.65 | 12807.37 |  |

Source: Annual Report of EBL and NBBL.


Figure 4: Growth Trend of Deposit Over the Study Period

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. 12807.37 million and EBL has R. 10097.70 million which is lowest than that of NBBL. According to highest range of the total deposit, we can conclude that NBBL has good performance than EBL.

### 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 (Mid July) |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ |  |
| EBL | 2270.18 | 3005.76 | 3948.48 | 4908.46 | 5884.12 |  |
| NBBL | 4617.10 | 7358.84 | 7632.42 | 7247 | 8648.74 |  |

Source: Annual Report of EBL and NBBL.


Figure 5: Growth Trend of Loan and Advances Over the Study Period

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 (Mid July) |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ |  |
| EBL | 901.70 | 1693.00 | 1654.00 | 2535.70 | 2128.90 |  |
| NBBL | 1008.64 | 1008.64 | 2168.92 | 2699.16 | 2411.72 |  |

Source: Annual Report of EBL and NBBL.


Figure 6: Growth Trend of Total Investment of EBL and NBBL Over the Study Period

The above table shows that there is an increasing trend over 2007/08 and then it is decreasing trend in FY 2008/09 in investment of EBL and NBBL. During the study period total investment of NBBL is height than that of EBL.

### 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 (Mid July) |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2004 / 05$ | $2005 / 06$ | $2006 / 07$ | $2007 / 08$ | $2008 / 09$ |  |
| EBL | 69.70 | 85.30 | 94.20 | 143.60 | 170.80 |  |
| NBBL | 198.75 | 65.78 | 71.49 | 26.43 | - |  |

Source: Annual Report of EBL and NBBL.


Figure 7: Growth Trend of Investment of EBL and NBBL Over the Study Period

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.170.80 million in FY 2008/09 and NBBL has the highest profit of Rs.198/75 million in FY 2004/05. 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 are variable is accompanies by the charge 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 on negative relationship exists.
- The relationship is significant on 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 within 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 of EBL and NBBL

Table 4.17
Evaluation Criterion

| Banks | Correlation <br> Coefficient | $\mathrm{r}^{2}$ | P.Er. | $6 \times$ P.Er. |
| :--- | :---: | :---: | :---: | :---: |
| NBBL | 0.1027 | 0.0105 | 0.2985 | 1.7910 |
| EBL | 0.9538 | 0.9097 | 0.2744 | 1.6464 |

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 0.9538 and 0.1027 respectively. There is high degree of positive relationship between deposit and loans and advances of NBBL. 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 measures 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 negative relationship between these two variables of EBL has the value of $r$ is less 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 $6 \times$ P.Er. between Investment and Loans and Advances

| Banks | Correlation Coefficient | P.Er. | $6 \times$ P.Er. |
| :--- | :---: | :---: | :---: |
| NBBL | -0.6144 | 0.1163 | 0.6978 |
| EBL | 0.8394 | 0.0891 | 0.5346 |

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 $6 \times$ P.Er. between Total Income and Loans and Advances

| Banks | Correlation Coefficient | P.Er. | $6 \times$ P.Er. |
| :--- | :---: | :---: | :---: |
| NBBL | 0.3819 | 0.2926 | 1.7556 |
| EBL | 0.9810 | 0.1135 | 0.0681 |

Tale 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 grate than six time of probable error. This explains that a percentage charge 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 $6 \times$ P.Er. between Interest Income and Net Profit

| Banks | Correlation Coefficient | P.Er. | $6 \times$ P.Er. |
| :--- | :---: | :---: | :---: |
| NBBL | -0.7676 | 0.1385 | -0.1063 |
| EBL | 0.7318 | 0.1401 | -0.1063 |

The table explains that the value of $r$ of EBL high degree of correlation, as the value of $r$ of NBBL is negative correlation. There is a significant, as role of ' $r$ ' of EBL is more than 6 times of P.Er. But there is not significant, as the value ' $r$ ' is less than 6 times of P.Er.

### 4.6 Trend Analysis of Deposit Utilization

The main objective of this analysis is to analyze the trend of deposit utilization in terms of loans and adverse and investment 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 Loans and Advances and Total Deposit Ratio

The trend analysis of loans and advances to total deposit ratio 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 loans and advances to total deposit of the bank for 5 years.

Table 4.21
Trend Analysis of Loans and Total Deposit Ratio of EBL and NBBL

| Fiscal Year (Mid July) | EBL (Trend Value) | NBBL (Trend Value) |
| :---: | :---: | :---: |
| $2004 / 05$ | 4044.82 | 6848.95 |
| $2005 / 06$ | 4044.96 | 6847.10 |
| $2006 / 07$ | 4045.11 | 6847.26 |
| $2007 / 08$ | 4045.25 | 6847.42 |
| $2008 / 09$ | 4045.40 | 6847.57 |
| $2009 / 10$ | 4045.55 | 6847.73 |
| $2010 / 11$ | 4045.69 | 6847.89 |
| $2011 / 12$ | 4045.84 | 6847.85 |
| $2012 / 13$ | 4045.98 | 6848.20 |
| $2013 / 14$ | 4046.13 | 6848.35 |



Figure 8: Trend Analysis of Loans and Advances and Total Deposit

The above table shows that the total loans and advances and deposit of EBL and NBBL is in increasing trend. EBL has the highest trend value of 4046.13 in the year 20013/14 and NBBL has the highest trend value of 6848.35 in the year 2013/14. The increasing trend of loans and
advances and total deposit ratio of both books shows the good performance of the selected banks is providing loans and advances in deposit in profit earning sector.

### 4.6.2 Trend Analysis of Investment and Total Deposit Ratio

The trend analysis of investment and total deposit ratio 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 investment to total deposit ratio of the selected commercial banks.

Table 4.22
Trend Analysis of Investment and Total Deposit Ratio of EBL and NBBL

| Fiscal Year (Mid July) | EBL (Trend Value) | NBBL (Trend Value) |
| :---: | :---: | :---: |
| $2004 / 05$ | 4583.90 | 8212.09 |
| $2005 / 06$ | 4584.63 | 8213.09 |
| $2006 / 07$ | 4586.37 | 8214.09 |
| $2007 / 08$ | 4586.12 | 8215.10 |
| $2008 / 09$ | 4586.85 | 8216.16 |
| $2009 / 10$ | 4587.59 | 8217.11 |
| $2010 / 11$ | 4588.33 | 8218.11 |
| $2011 / 12$ | 4589.07 | 8219.12 |
| $2012 / 13$ | 4589.80 | 8220.12 |
| $2013 / 14$ | 4590.54 | 8221.13 |



Figure 9: Trend Analysis of Investment and Total Deposit of EBL and NBBL

The above table shows that the total investment and total deposit of EBL and NBBL is in increasing trend. EBL has the highest trend value of 4590.54 in the year 20013/14 and the NBBL has the highest trend value of 8221.13 in the year 2013/14. The increasing trend of investment and total deposit ratio of both banks shows the good performance of the selected bank on investing the deposit in profit earning sectors.

### 4.7 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 2004/05 to 2008/09.

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 EBL, which signifies that EBL is more capable of meeting immediate liabilities in contrast to NBBL. The ratio was found more consistent in EBL. Hypothesis test showed that the mean ratio of two banks did not differ significantly.
2. Liquid food 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 NBBL, which means that NBBL 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 EBL. The highest ratio of EBL and NBBL is 1.0632 and 1.0635 in year 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 NBBL is higher than that of EBL. The overall performance of NBBL seems the best with the higher mean ratio.
6. Loans and Advances and investment to total deposit ratio of appeared significantly higher in EBL. It indicates the better utilization of loans and advances and investment in EBL than NBBL. The ratio remained more uniform in EBL. As depicted by higher loans and advances and investment to total deposit in EBL. EBL 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 NBBL the highest than EBL. 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 NBBL is greater than EBL over the year 2006/07 to 2008/09 which reveals the NBBL invested the fund rose 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 EBL 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 NBBL is higher that of EBL by analysis over the study period, so it seems better performance of NBBL in total deposit.
12. Growth ratio of loans and advances of NBBL is higher than that of EBL over the study period. It has a significant growth of NBBL than EBL and explains its aggressiveness.
13. Growth ratio of total investment of NBBL is higher than that of EBL. The highest value increase in total investment of NBBL 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. NBBL 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. NBBL 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 negatively correlated in EBL. The high degree positively correlation coefficient of NBBL 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. But the negative correlation coefficient of EBL shows poor relationship between those two variables. If shows that the bank could not succeeded in contribution of significant proportion of total investment and loans and advances.
18. Correlation coefficient between interest income and net profit of EBL shows high degree of correlation. But NBBL has the negative correlation coefficient between these two variables. Due to high degree of positive correlation EBL shows signifies relationship between interest income and net profit.
19. Trend analysis of loans and advances and total deposit ratio of NBBL is highly increasing trend, then EBL shows increasing rend. The analysis concludes the good performance of NBBL in deposit utilization in relation to loans and advances.
20. Trend analysis of investment and total deposit of NBBL is highly increasing trend then EBL. The analysis concludes the good performance of NBBL in deposit utilization in relation to investment.

## CHAPTER V <br> SUMMARY, CONCLUSION AND RECOMMENDATION

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 2004/05 to 2008/09. The major findings of the study based on financial and statistical analysis listed in chapter-4, 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 book. 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 findout 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 (2004/05 to 2008/09) 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 bank over the five year Period is 1.0694 and 1.2222 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 0.11604 and 0.1111 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 0.1209 and 0.12006 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 1.0626 and 1.0483 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 0.7169 and 0.7464 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. But in the year 2007/08 the ratio of EBL is nearly equal to 1 , which refers that there is very less deposit which is remained idle in utilization of funds.

Means ratio of loans and advances and investment to total deposit ratio of EBL and NBBL is 0.9349 and 0.8780 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 10.3947 and 11.9920 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 NBBL in the year 2005/06, 2006/07 and 2008/09 shows that the book has been successful in generating proportionately higher volume of loans and advances this the year 2004/05 and 2007/08.

## Lending efficiency and its contribution in total profitability

Interest income to total income ratio of EBL over the study period in decreasing trend but the ratio of NBBL is in increasing trend. Lower ratio of EBL shows low contribution made by lending and investment and high contribution by other fee based activities in total income. But higher ratio of NBBL 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 EBL and total deposit of NBBL is in increasing trend. The growth ratio of loans and advances during the study period is found to be increasing trend in every year. 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.

## From the analysis of correlation

The correlation analysis shows that the correlation coefficient ' $r$ ' between deposit and loans and advances of NBBL is high degree of positive correlation but EBL has low degree of positive correlation. The correlation of NBBL 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 NBBL between investments and loans and advances. But EBL has negative correlation coefficient between investment and loans
and advances. The correlation coefficient between total income and loans and advances of NBBL is high degree of positive correlation shows good fund mobilization and the there is how degree of positive correlation of NBBL between income and loans and advances.

The correlation coefficient between total income and loans and advances of NBBL shows positive correlation. So, the value of ' $r$ ' is significant. But the correlation coefficient between total income and loans and advances of NBBL show negative correlation.

From trend analysis of deposit utilization and its projection for next 5 years.

EBL and NBBL have the increasing trend in loans and advances to total deposit and also increasing trend in total investment to total deposit.

### 5.2 Conclusion

The overall performance of Nepal Bangladesh Bank Limited is satisfactory then Everest Bank Limited. The liquidity position of NBBL is better than that of EBL. As loans and advances of NBBL is increasing trend deposit is also increasing trend during the study period. There is increasing trend in profit of NBBL 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. NBBL has higher lending portion in these sectors than EBL. From the selected bank NBBL has performed well in increasing growth ratio of deposit, loans and advances, investment and profit.

NBBL 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 NBL has better performance than that of EBL.

### 5.3 Recommendation

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 NBBL 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. EBL's contribution in loans and advances is the lowest and this has low degree of variation and low growth rate as compare to NBBL and NBBL 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 nonfunding 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 | NBL | EBL | NBL | EBL | NBL |
| $2004 / 05$ | 3334.59 | 7034.51 | 3204.27 | 6945.64 | 1.0406 | 1.0128 |
| $2005 / 06$ | 5049.85 | 9636.94 | 4874.79 | 9358.28 | 1.0359 | 1.0298 |
| $2006 / 07$ | 6607.18 | 10727.83 | 6063.87 | 10441.04 | 1.0895 | 1.0275 |
| $2007 / 08$ | 8052.20 | 11345.52 | 7420.73 | 1123.70 | 1.0761 | 1.0099 |
| $2008 / 09$ | 9608.56 | 13758.05 | 8928.24 | 13586.40 | 1.0654 | 1.1438 |

Annex 2
Analysis of Liquid Fund to Current Liability Ratio

| Year | Liquid Fund |  | Current Liabilities |  | Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EBL | NBL | EBL | NBL | EBL | NBL |
| $2004 / 05$ | 278.60 | 645.75 | 3204.27 | 6945.64 | 0.0869 | 0.0930 |
| $2005 / 06$ | 834.99 | 1025.82 | 4874.79 | 9358.28 | 0.1713 | 0.1096 |
| $2006 / 07$ | 692.76 | 759.31 | 6063.87 | 10441.04 | 0.1142 | 0.1685 |
| $2007 / 08$ | 1139.57 | 889.51 | 7420.73 | 11233.70 | 0.1536 | 0.0792 |
| $2008 / 09$ | 631.81 | 1436.48 | 8928.24 | 13586.40 | 0.0708 | 0.1057 |

Annex 3
Analysis of Liquid Fund to Total Deposit Ratio

| Year | Liquid Fund |  | Total Deposit |  | Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EBL | NBL | EBL | NBL | EBL | NBL |
| $2004 / 05$ | 278.60 | 645.75 | 3204.27 | 6467.19 | 0.0911 | 0.0998 |
| $2005 / 06$ | 35.79 | 1025.82 | 4874.79 | 8600.81 | 0.1825 | 0.1193 |
| $2006 / 07$ | 692.76 | 1759.31 | 6063.87 | 954.47 | 0.1267 | 0.1849 |
| $2007 / 08$ | 1139.59 | 889.51 | 7420.73 | 10580.65 | 0.1702 | 0.841 |
| $2008 / 09$ | 631.21 | 1436.48 | 8928.24 | 12807.37 | 0.0783 | 0.1122 |

Annex 4
Analysis of Total Assets to Total Liability Ratio

| Year | Total Assets |  | Total Liabilities |  | Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EBL | NBL | EBL | NBL | EBL | NBL |
| $2004 / 05$ | 3441.70 | 7347.23 | 3208.86 | 6950.62 | 1.0632 | 1.0571 |
| $2005 / 06$ | 5202.58 | 9962.69 | 4883.18 | 9367.57 | 1.0654 | 1.0635 |
| $2006 / 07$ | 6607.18 | 11102.24 | 6216.27 | 10475.74 | 1.0628 | 1.0598 |
| $2007 / 08$ | 8052.20 | 11932.60 | 7579.37 | 11248.69 | 1.0623 | 1.0607 |
| $2008 / 09$ | 9608.56 | 14257.97 | 9068.24 | 13601.39 | 1.0595 | 1.0483 |

## Annex 5

## Analysis of Loans and Advances to Total Deposit Ratio

| Year | Loan and Advances |  | Total Deposit |  | Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EBL | NBL | EBL | NBL | EBL | NBL |
| $2004 / 05$ | 2270.18 | 4617.10 | 3057.43 | 6467.19 | 0.7425 | 0.7139 |
| $2005 / 06$ | 3005.76 | 7358.84 | 4574.51 | 8600.81 | 0.6571 | 0.8556 |
| $2006 / 07$ | 3948.48 | 7632.42 | 5466.61 | 9514.47 | 0.7223 | 0.8022 |
| $2007 / 08$ | 4908.46 | 7247.98 | 6694.95 | 10580.65 | 0.7331 | 0.6850 |
| $2008 / 09$ | 5884.12 | 8648.74 | 8063.90 | 1287.37 | 0.7297 | 0.6753 |

Annex 6
Analysis of Loans and Advances and Investment to Total Deposit

| Year | Loans and Advances <br> and Investment |  | Total Deposit |  | Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EBL | NBL | EBL | NBL | EBL | NBL |
| $2004 / 05$ | 2527.79 | 5060.65 | 3057.43 | 6467.19 | 0.8267 | 0.7825 |
| $2005 / 06$ | 3828.76 | 8034.92 | 4574.51 | 8600.81 | 0.8369 | 0.9342 |
| $2006 / 07$ | 5487.38 | 8602.65 | 5466.61 | 9514.47 | 1.0038 | 0.9042 |
| $2007 / 08$ | 6507.81 | 9378.49 | 6694.95 | 10580.65 | 0.9720 | 0.8864 |
| $2008 / 09$ | 8350.55 | 11309.49 | 8063.90 | 12807.37 | 1.0355 | 0.8830 |

## Annex 7

Analysis of Loans and Advances to Share holders Equity

| Year | Loans and Advances |  | Shareholder Equity |  | Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EBL | NBL | EBL | NBL | EBL | NBL |
| $2004 / 05$ | 2270.18 | 4617.10 | 202.85 | 396.59 | 11.1914 | 11.6419 |
| $2005 / 06$ | 3005.76 | 7358.84 | 319.40 | 595.12 | 9.4106 | 12.3653 |
| $2006 / 07$ | 3948.48 | 7632.42 | 390.91 | 626.49 | 10.1007 | 12.1828 |
| $2007 / 08$ | 4908.46 | 7247.98 | 472.83 | 683.92 | 10.3810 | 10.5977 |
| $2008 / 09$ | 5884.12 | 8648.74 | 540.33 | 656.57 | 10.8898 | 13.1726 |

Annex 8
Analysis of Interest Income to Total Income Ratio

| Year | Interest Income |  | Total Income |  | Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EBL | NBL | EBL | NBL | EBL | NBL |
| $2004 / 05$ | 267.44 | 609.27 | 41.27 | 139.53 | 6.48 | 4.37 |
| $2005 / 06$ | 385.02 | 810.05 | 69.70 | 198.75 | 5.52 | 4.07 |
| $2006 / 07$ | 443.82 | 850.53 | 85.33 | 65.78 | 5.20 | 12.93 |
| $2007 / 08$ | 520.17 | 1013.71 | 74.17 | 71.51 | 5.52 | 14.17 |
| $2008 / 09$ | 657.25 | 1095.50 | 143.57 | 265.0 | 4.58 | 41.39 |

Annex 9
Analysis of Interest Expenses to Total Deposit Ratio

| Year | Liquid Fund |  | Current Liabilities |  | Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EBL | NBL | EBL | NBL | EBL | NBL |
| $2004 / 05$ | 177.89 | 414.99 | 3057.43 | 6467.19 | 0.0582 | 0.6811 |
| $2005 / 06$ | 236.14 | 515.84 | 4574.51 | 8600.81 | 0.0516 | 0.6368 |
| $2006 / 07$ | 257.05 | 550.06 | 5466.61 | 9514.47 | 0.04702 | 0.6467 |
| $2007 / 08$ | 306.41 | 594.58 | 6694.95 | 10580.65 | 0.0458 | 0.5865 |
| $2008 / 09$ | 314.44 | 620.94 | 8063.90 | 12807.37 | 0.0389 | 0.5668 |

## Annex 10

Analysis of Interest Income to Interest Expenses Ratio

| Year | Interest Income |  | Interest Expenses |  | Ratio |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EBL | NBL | EBL | NBL | EBL | NBL |
| $2004 / 05$ | 177.89 | 414.99 | 267.44 | 609.27 | 0.6651 | 0.6811 |
| $2005 / 06$ | 236.14 | 515.84 | 385.05 | 810.05 | 0.6193 | 0.6368 |
| $2006 / 07$ | 257.05 | 550.06 | 443.82 | 850.53 | 0.5792 | 0.6467 |
| $2007 / 08$ | 306.41 | 594.58 | 520.17 | 1013.71 | 0.5890 | 0.5865 |
| $2008 / 09$ | 314.44 | 620.94 | 657.25 | 1095.50 | 0.4784 | 0.5668 |

## 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 | $\mathrm{x}=\mathrm{X}-\overline{\mathrm{X}}$ | $\mathrm{y}=\mathrm{Y}-\overline{\mathrm{Y}}$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ | xy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 4574.5 | 2959.44 | -2405.03 | -2104.39 | 5784169.30 | 4428457.27 | 5061121.08 |
| $2005 / 06$ | 5466.61 | 3948.47 | -1512.92 | -1115.36 | 2288926.93 | 1244027.93 | 1687450.45 |
| $2006 / 07$ | 6694.96 | 4908.46 | -284.57 | -155.37 | 80980.08 | 24139.84 | 44213.64 |
| $2007 / 08$ | 8063.9 | 5884.12 | 1084.37 | 820.29 | 1175858.30 | 672875.68 | 889497.87 |
| $2008 / 09$ | 10097.69 | 7618.67 | 3118.16 | 2554.84 | 9722921.79 | 6527207.43 | 7966399.89 |
| $\mathrm{~N}=5$ | $\sum \mathrm{X}=$ | $\sum \mathrm{Y}=$ |  |  | $\sum \mathrm{x}^{2}=$ | $\sum \mathrm{y}^{2}=$ | $\sum \mathrm{xy}=$ |
|  | 34897.66 | 25319.16 |  |  | 19052856.37 | 12896698.13 | 1610247.36 |

$$
\begin{aligned}
\operatorname{Mean}(\overline{\mathrm{X}}) & =\frac{\sum \mathrm{X}}{\mathrm{~N}} & \text { Mean }(\overline{\mathrm{Y}}) & =\frac{\sum \mathrm{Y}}{\mathrm{~N}} \\
& =\frac{34897.66}{5} & & =\frac{25319.16}{5} \\
& =6979.53 & & =5063.83
\end{aligned}
$$

Correlation Coeff. (r) $=\frac{\sum \mathrm{xy}}{\sqrt{\sum \mathrm{x}^{2}} \sqrt{\sum \mathrm{y}^{2}}} \quad=\frac{1610247.36}{\sqrt{19052856.37} \sqrt{12896698.13}}$

$$
\begin{aligned}
& =\frac{1610247.36}{4364.95 \times 3591.19} \\
& =\frac{1610247.36}{15675364.79} \\
& =0.1027
\end{aligned}
$$

P.Er. $=0.6745 \frac{1-\mathrm{r}^{2}}{\sqrt{\mathrm{~N}}}$

$$
=0.6745 \times \frac{1-(0.1027)^{2}}{\sqrt{5}}
$$

$=0.6745 \times 0.4425$
$=0.2985$

## Correlation Coefficient between Total Investment and Loans and Advances

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

| Year | X | Y | $\mathrm{x}=\mathrm{X}-\overline{\mathrm{X}}$ | $\mathrm{y}=\mathrm{Y}-\overline{\mathrm{Y}}$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ | xy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 9017 | 2959.44 | 5611.28 | -2104.39 | 31486463.24 | 4428457.27 | -11808321.52 |
| $2005 / 06$ | 1693.06 | 3948.47 | -1712.66 | -1115.36 | 2933204.28 | 1244027.93 | 1910232.46 |
| $2006 / 07$ | 1653.97 | 4908.46 | -1751.75 | -155.37 | 3068628.06 | 24139.84 | 272169.40 |
| $2007 / 08$ | 2535.65 | 5884.12 | -870.07 | 820.29 | 757021.80 | 672875.68 | -713709.72 |
| $2008 / 09$ | 2128.93 | 7618.67 | -1276.79 | 2554.84 | 1630192.70 | 6527207.43 | -3261994.16 |
| $\mathrm{~N}=5$ | $\sum \mathrm{X}=$ | $\sum \mathrm{Y}=$ |  |  | $\sum \mathrm{x}^{2}=$ | $\sum \mathrm{y}^{2}=$ | $\sum \mathrm{xy}=$ |
|  | 17028.61 | 25319.16 |  |  | 39875510.07 | 1228153.49 | -13600984.84 |

$\operatorname{Mean}(\overline{\mathrm{X}})$

$$
\begin{array}{lll}
=\frac{\sum \mathrm{X}}{\mathrm{~N}} & \operatorname{Mean}(\overline{\mathrm{Y}}) & =\frac{\sum \mathrm{Y}}{\mathrm{~N}} \\
=\frac{17028.61}{5} & & =\frac{25319.16}{5} \\
=3405.72 & & =5063.83
\end{array}
$$

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

$$
\begin{aligned}
& =\frac{-13600984.84}{\sqrt{39875510.07} \sqrt{1228153.49}} \\
& =\frac{-13600984.84}{6314.705858 \times 3505.446261} \\
& =-0.6144
\end{aligned}
$$

P.Er. $=0.6745 \frac{1-\mathrm{r}^{2}}{\sqrt{\mathrm{~N}}}$

$$
\begin{aligned}
& =0.6745 \times \frac{1-(-0.6144)^{2}}{\sqrt{5}} \\
& =0.1163
\end{aligned}
$$

## Correlation Coefficient between Total Income and Loans and Advances

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

| Year | X | Y | $\mathrm{x}=\mathrm{X}-\overline{\mathrm{X}}$ | $\mathrm{y}=\mathrm{Y}-\overline{\mathrm{Y}}$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ | xy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 4655.1 | 2959.44 | -1916.32 | -2104.39 | 3672282.34 | 4428457.27 | 4032684.64 |
| $2005 / 06$ | 5409 | 3948.47 | -1162.42 | -1115.36 | 1351220.26 | 1244027.93 | 1296516.77 |
| $2006 / 07$ | 6353 | 4908.46 | -218.42 | -155.37 | 47707.30 | 24139.84 | 33935.92 |
| $2007 / 08$ | 7851 | 5884.12 | 1279.58 | 820.29 | 1637324.98 | 672875.68 | 1049626.68 |
| $2008 / 09$ | 8589 | 7618.67 | 2017.58 | 2554.84 | 4070629.06 | 6527207.43 | 5154594.09 |
| $\mathrm{~N}=5$ | $\sum \mathrm{X}=$ | $\sum \mathrm{Y}=$ |  |  | $\sum \mathrm{x}^{2}=$ | $\sum \mathrm{y}^{2}=$ | $\sum \mathrm{xy}=$ |
|  | 32857.1 | 25319.16 |  |  | 10779163.90 | 12896708.13 | 11567358.07 |

Mean ( $\overline{\mathrm{X}}$ )

$$
\begin{array}{lll}
=\frac{\sum \mathrm{X}}{\mathrm{~N}} & \text { Mean }(\overline{\mathrm{Y}}) & =\frac{\sum \mathrm{Y}}{\mathrm{~N}} \\
=\frac{32857.1}{5} & & =\frac{25319.16}{5} \\
=6571.42 & & =5063.83
\end{array}
$$

Correlation Coeff. (r) $=\frac{\sum \mathrm{xy}}{\sqrt{\sum \mathrm{x}^{2}} \sqrt{\sum \mathrm{y}^{2}}} \quad=\frac{11567358.07}{\sqrt{10779163.90} \sqrt{12896708.13}}$

$$
\begin{aligned}
& =\frac{11567358.07}{3283.16 \times 3591.19} \\
& =\frac{11567358.07}{11790479.94} \\
& =0.9810
\end{aligned}
$$

P.Er. $=0.6745 \frac{1-\mathrm{r}^{2}}{\sqrt{\mathrm{~N}}}$

$$
\begin{aligned}
& =0.6745 \times \frac{1-(0.9810)^{2}}{\sqrt{5}} \\
& =0.6745 \times 0.016832672 \\
& =0.01135
\end{aligned}
$$

## Correlation Coefficient between Interest Income and Net Profit

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

| Year | X | Y | $\mathrm{x}=\mathrm{X}-\overline{\mathrm{X}}$ | $\mathrm{y}=\mathrm{Y}-\overline{\mathrm{Y}}$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ | xy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 267.44 | 697.06 | -187.3 | -296.50 | 35081.29 | 87912.25 | 55534.45 |
| $2005 / 06$ | 385.02 | 853.47 | -69.72 | -140.09 | 4860.88 | 19625.21 | 9767.07 |
| $2006 / 07$ | 443.82 | 273.30 | -10.92 | -720.26 | 119.25 | 518774.47 | 7865.24 |
| $2007 / 08$ | 520.17 | 1436.00 | 65.43 | 442.44 | 4281.08 | 195753.15 | 28948.85 |
| $2008 / 09$ | 657.25 | 1708.00 | 202.51 | 714.44 | 41010.30 | 510424.51 | 144681.24 |
| $\mathrm{~N}=5$ | $\sum \mathrm{X}=$ | $\sum \mathrm{Y}=$ |  |  | $\sum \mathrm{x}^{2}=$ | $\sum \mathrm{y}^{2}=$ | $\sum \mathrm{xy}=$ |
|  | 2273.7 | 4967.83 |  |  | 85352.78 | 1332503.45 | 246796.18 |

$\operatorname{Mean}(\overline{\mathrm{X}})$

$$
\begin{array}{ll}
=\frac{\sum \mathrm{X}}{\mathrm{~N}} & \text { Mean }(\overline{\mathrm{Y}}) \\
=\frac{\sum \mathrm{Y}}{\mathrm{~N}} \\
5 & \\
=454.74 & \\
=\frac{4967.83}{5} \\
&
\end{array}
$$

$$
\begin{aligned}
\text { Correlation Coeff. }(\mathrm{r})=\frac{\sum \mathrm{xy}}{\sqrt{\sum \mathrm{x}^{2}} \sqrt{\sum \mathrm{y}^{2}}} & =\frac{246796.18}{\sqrt{85352.78} \sqrt{1332503.45}} \\
& =\frac{246796.18}{292.15 \times 1154.34} \\
& =\frac{246796.18}{337240.76} \\
& =0.7318
\end{aligned}
$$

P.Er. $=0.6745 \frac{1-\mathrm{r}^{2}}{\sqrt{\mathrm{~N}}}$

$$
\begin{aligned}
& =0.6745 \times \frac{1-(0.7318)^{2}}{\sqrt{5}} \\
& =0.1401
\end{aligned}
$$

## 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 | $\mathrm{x}=\mathrm{X}-\overline{\mathrm{X}}$ | $\mathrm{y}=\mathrm{Y}-\overline{\mathrm{Y}}$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ | xy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 8600.81 | 7358.84 | -2124.96 | -1176.34 | 4515455.00 | 1383775.80 | 2499675.45 |
| $2005 / 06$ | 9514.96 | 8083.97 | -1210.81 | -451.21 | 1466060.86 | 203590.46 | 546329.58 |
| $2006 / 07$ | 10580.65 | 7961.51 | -145.12 | -573.67 | 21059.81 | 329097.27 | 83250.99 |
| $2007 / 08$ | 12807.37 | 9644.69 | 2081.6 | 1109.51 | 4333058.56 | 1231012.44 | 2309556.02 |
| $2008 / 09$ | 12125.57 | 9626.91 | 1399.8 | 1091.73 | 1959440.04 | 1191874.39 | 1528203.65 |
| $\mathrm{~N}=5$ | $\sum \mathrm{X}=$ | $\sum \mathrm{Y}=$ |  |  | $\sum \mathrm{x}^{2}=$ | $\sum \mathrm{y}^{2}=$ | $\sum \mathrm{xy}=$ |
| 53368.86 | 42675.92 |  |  | 1229285.32 | 4339350.34 | 6967241.28 |  |

$$
\begin{aligned}
\operatorname{Mean}(\overline{\mathrm{X}}) & =\frac{\sum \mathrm{X}}{\mathrm{~N}} & \text { Mean }(\overline{\mathrm{Y}}) & =\frac{\sum \mathrm{Y}}{\mathrm{~N}} \\
& =\frac{53628.86}{5} & & =\frac{42675.92}{5} \\
& =10725.77 & & =8535.18
\end{aligned}
$$

Correlation Coeff. $(\mathrm{r})=\frac{\sum \mathrm{xy}}{\sqrt{\sum \mathrm{x}^{2}} \sqrt{\sum \mathrm{y}^{2}}} \quad=\frac{6967241.28}{\sqrt{12296285.32} \sqrt{4339350.34}}$

$$
\begin{aligned}
& =\frac{9697241.28}{3506.60 \times 2083.11} \\
& =\frac{6967241.28}{7304636.108} \\
& =0.9538
\end{aligned}
$$

P.Er. $=0.6745 \frac{1-\mathrm{r}^{2}}{\sqrt{\mathrm{~N}}}$

$$
=0.6745 \times \frac{1-(0.9538)^{2}}{\sqrt{5}}
$$

$$
\begin{aligned}
& =0.6745 \times 0.4068 \\
& =0.2744
\end{aligned}
$$

## Correlation Coefficient between Total Investment and Loans and Advances

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

| Year | X | Y | $\mathrm{x}=\mathrm{X}-\overline{\mathrm{X}}$ | $\mathrm{y}=\mathrm{Y}-\overline{\mathrm{Y}}$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ | xy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 691.08 | 7358.84 | -1104.82 | -1176.34 | 1220627.23 | 1383775.80 | 1299643.96 |
| $2005 / 06$ | 1008.64 | 8083.97 | -787.26 | -451.21 | 619778.31 | 203590.46 | 355219.58 |
| $2006 / 07$ | 2168.92 | 7961.51 | 373.02 | -573.67 | 139143.92 | 329097.27 | -213990.38 |
| $2007 / 08$ | 2699.16 | 9644.69 | 903.26 | 1109.51 | 815878.63 | 1231012.44 | 1002176.00 |
| $2008 / 09$ | 2411.72 | 9626.91 | 615.82 | 1091.73 | 379234.27 | 1191874.39 | 672309.17 |
| $\mathrm{~N}=5$ | $\sum \mathrm{X}=$ | $\sum \mathrm{Y}=$ |  |  | $\sum \mathrm{x}^{2}=$ <br> 8979.52 | 42675.92 |  |
| 3174662.34 | $\sum 339350.34$ | 2115358.31 |  |  |  |  |  |

$$
\begin{aligned}
\operatorname{Mean}(\bar{X}) & =\frac{\sum X}{N} & \operatorname{Mean}(\overline{\mathrm{Y}}) & =\frac{\sum \mathrm{Y}}{\mathrm{~N}} \\
& =\frac{8979.52}{5} & & =\frac{42675.92}{5} \\
& =1795.90 & & =8535.18
\end{aligned}
$$

Correlation Coeff. $(\mathrm{r})=\frac{\sum \mathrm{xy}}{\sqrt{\sum \mathrm{x}^{2}} \sqrt{\sum \mathrm{y}^{2}}} \quad=\frac{3115358.31}{\sqrt{3174662.34} \sqrt{4339350.34}}$

$$
=\frac{3115358.31}{1781.75 \times 2083.11}
$$

$$
=\frac{3115358.31}{3711582.55}
$$

$$
=0.8394
$$

P.Er. $=0.6745 \frac{1-\mathrm{r}^{2}}{\sqrt{\mathrm{~N}}}$

$$
=0.6745 \times \frac{1-(0.8394)^{2}}{\sqrt{5}}
$$

$=0.6745 \times 0.1321$
$=0.0891$

## Correlation Coefficient between Total Income and Loans and Advances

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

| Year | X | Y | $\mathrm{x}=\mathrm{X}-\overline{\mathrm{X}}$ | $\mathrm{y}=\mathrm{Y}-\overline{\mathrm{Y}}$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ | xy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 1080 | 7358.84 | -82.19 | -1176.34 | 6755.20 | 1383775.80 | 96683.38 |
| $2005 / 06$ | 1076.81 | 8083.97 | -85.38 | -451.21 | 7289.74 | 203590.46 | 38524.31 |
| $2006 / 07$ | 1243.83 | 7961.51 | 81.64 | -573.67 | 6665.09 | 329097.27 | -46834.42 |
| $2007 / 08$ | 1327.19 | 9644.69 | 165 | 1109.51 | 27225.00 | 1231012.44 | 183069.15 |
| $2008 / 09$ | 1083.16 | 9626.91 | -79.03 | 1091.73 | 6245.74 | 1191874.39 | -86279.42 |
| $\mathrm{~N}=5$ | $\sum \mathrm{X}=$ | $\sum \mathrm{Y}=$ |  |  | $\sum \mathrm{x}^{2}=$ | $\sum \mathrm{y}^{2}=$ | $\sum \mathrm{xy}=$ |
|  | 5810.99 | 42675.92 |  |  | 54180.76 | 4339350.34 | 185163 |

$\operatorname{Mean}(\overline{\mathrm{X}})$

$$
\begin{array}{lll}
=\frac{\sum X}{N} & \text { Mean }(\bar{Y}) & =\frac{\sum Y}{N} \\
=\frac{5810.99}{5} & & =\frac{42675.92}{5} \\
=1162.19 & & =8535.18
\end{array}
$$

$$
\begin{aligned}
\text { Correlation Coeff. }(\mathrm{r})=\frac{\sum \mathrm{xy}}{\sqrt{\sum \mathrm{x}^{2}} \sqrt{\sum \mathrm{y}^{2}}} & =\frac{185163}{\sqrt{54180.76} \sqrt{4339350.34}} \\
& =\frac{185163}{232.76 \times 2083.11} \\
& =\frac{185163}{484864.855} \\
& =0.3819
\end{aligned}
$$

P.Er. $=0.6745 \frac{1-\mathrm{r}^{2}}{\sqrt{\mathrm{~N}}}$

$$
\begin{aligned}
& =0.6745 \times \frac{1-(0.3819)^{2}}{\sqrt{5}} \\
& =0.6745 \times \\
& =0.2926
\end{aligned}
$$

## Correlation Coefficient between Interest Income and Net Profit

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

| Year | X | Y | $\mathrm{x}=\mathrm{X}-\overline{\mathrm{X}}$ | $\mathrm{y}=\mathrm{Y}-\overline{\mathrm{Y}}$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ | xy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 810.05 | 198.75 | -132.4 | 108.14 | 17529.76 | 11694.26 | -14317.74 |
| $2005 / 06$ | 850.53 | 65.78 | -91.92 | -24.83 | 8449.29 | 616.53 | 2282.37 |
| $2006 / 07$ | 1013.71 | 71.49 | 71.26 | -19.12 | 5077.99 | 365.57 | -1362.49 |
| $2007 / 08$ | 1095.5 | 26.43 | 153.05 | -64.18 | 23424.30 | 4119.07 | -9822.75 |
| $2008 / 09$ |  |  |  |  |  |  |  |
| $\mathrm{~N}=5$ | $\sum \mathrm{X}=$ | $\sum \mathrm{Y}=$ |  |  | $\sum \mathrm{x}^{2}=$ <br> 54481.32 | $\sum \mathrm{y}^{2}=$ <br> 16795.41 | $\sum \mathrm{xy}=$ <br> -23220.60 |

Mean ( $\overline{\mathrm{X}}$ )

$$
\begin{array}{ll}
=\frac{\sum X}{\mathrm{~N}} & \operatorname{Mean}(\overline{\mathrm{Y}}) \\
=\frac{3769.79}{4} & \\
=942.45 & \\
=\frac{362.45}{4} \\
=90.61
\end{array}
$$

Correlation Coeff. (r) $=\frac{\sum \mathrm{xy}}{\sqrt{\sum \mathrm{x}^{2}} \sqrt{\sum \mathrm{y}^{2}}} \quad=\frac{-23220.60}{\sqrt{54481.32} \sqrt{16795.41}}$
$=\frac{-23220.60}{30249.56374}$
$=-0.7676$
P.Er. $=0.6745 \frac{1-\mathrm{r}^{2}}{\sqrt{\mathrm{~N}}}$

$$
\begin{aligned}
& =0.6745 \times \frac{1-(-0.7676)^{2}}{\sqrt{4}} \\
& =0.6745 \times 0.20539512 \\
& =0.1385
\end{aligned}
$$

## Annex 13

## Trend Analysis of Total Investment and Loans and Advances

EBL

| Year | X | Y | $\mathrm{x}=\mathrm{X}-\overline{\mathrm{X}}$ | $\mathrm{y}=\mathrm{Y}-\overline{\mathrm{Y}}$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ | xy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 257.61 | 3057.43 | -1079.45 | -2514.05 | 1165212.30 | 6320447.40 | 2713791.27 |
| $2005 / 06$ | 823.00 | 4574.51 | -514.06 | -996.97 | 264257.68 | 993949.18 | 512502.39 |
| $2006 / 07$ | 1538.90 | 5466.61 | 201.84 | -104.87 | 40739.38 | 10997.72 | -21166.96 |
| $2007 / 08$ | 1599.35 | 6694.95 | 262.29 | 1123.47 | 68796.04 | 1262184.84 | 294674.94 |
| $2008 / 09$ | 2466.43 | 8063.90 | 1129.37 | 2492.42 | 1275476.59 | 6212157.46 | 2814864.37 |
| $\mathrm{~N}=5$ | $\sum \mathrm{X}=$ <br> 6685.29 | $\sum \mathrm{Y}=$ <br> 27857.40 |  |  | $\sum \mathrm{x}^{2}=$ <br> 2814481.99 | $\sum \mathrm{y}^{2}=$ <br> 14799736.60 | $\sum \mathrm{xy}=$ <br> 6314666.01 |

$\sum \mathrm{X}=6685.29$
$\Sigma \mathrm{Y}=27857.40$
$\overline{\mathrm{X}}=\frac{\sum \mathrm{X}}{\mathrm{N}}$
$=1337.06$
$y=a+b x$
$\Sigma \mathrm{y}=\mathrm{Na}+\mathrm{bx}$ $\qquad$ (ii)
$\sum \mathrm{xy}=\mathrm{a} \sum \mathrm{x}+\mathrm{b} \sum \mathrm{x}^{2}$
$\overline{\mathrm{Y}}=\frac{\sum \mathrm{Y}}{\mathrm{N}}$
$=5571.48$

Substituting the value of $x$ and $y$ in equation (ii) and equation (iii) we get,
$27857.40=5 \mathrm{a}+6685.29 \mathrm{~b}$ $\qquad$ (iv)
$6314666.10=6685.29 \mathrm{a}+2814481.99$
Multiplying equation (iv) by 1337.058 and then subtracting equation (v) from it, we get,
$37246959.53=6685.29 \mathrm{a}+44693102.38 \mathrm{~b}$
$6314666.01=6685.29 a+2814481.99 b$

$$
30932293.52=41878620.39 \mathrm{~b}
$$

or $\quad b=\frac{30932293.52}{41878620.39}$

$$
\therefore \quad b=0.7386
$$

Now, substituting the value of $b$ in equation (iv), we get

$$
27857.40=6685.29 b
$$

or, $\quad 27857.40=5 \mathrm{a}+6685.29 \mathrm{~b} \times 0.7386$
or $27857.40=5 \mathrm{a}+4937.87$
or, $\quad \mathrm{a}=\frac{22919.52}{5} \quad \therefore \mathrm{a}=4583.90, \mathrm{~b}=0.7386$

Year
2004/05
2005/06
2006/07
2007/08
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14

Trend Value

$$
y=a+b x=4583.52+0.7386 \times 0=4583.90
$$

4584.63
4586.37
4586.12
4586.85
4587.59
4588.33
4589.07
4589.80
4590.54

NBBL

| Year | X | Y | $\mathrm{x}=\mathrm{X}-\overline{\mathrm{X}}$ | $\mathrm{y}=\mathrm{Y}-\overline{\mathrm{Y}}$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ | xy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 443.55 | 6467.19 | -932.69 | -3126.90 | 869918.09 | 9777553.64 | 2916428.36 |
| $2005 / 06$ | 676.08 | 8600.81 | -700.16 | -993.28 | 490229.62 | 986621.05 | 695454.92 |
| $2006 / 07$ | 970.23 | 9514.47 | -406.01 | -79.262 | 164847.36 | 6340.61 | 32181.16 |
| $2007 / 08$ | 2130.51 | 10580.65 | 754.26 | 986.552 | 568917.19 | 973284.84 | 744116.71 |
| $2008 / 09$ | 2660.75 | 12807.37 | 1284.50 | 3213.72 | 1649955.66 | 10325116.95 | 4127447.88 |
| $\mathrm{~N}=5$ | $\sum \mathrm{X}=$ | $\sum \mathrm{Y}=$ |  |  | $\sum \mathrm{x}^{2}=$ <br> 3743867.92 | $\sum \mathrm{y}^{2}=$ <br> 22068917.09 | $\sum \mathrm{xy}=$ <br> 8515629.03 |

$\sum X=6881.12$
$\sum \mathrm{Y}=47970.49$
$\overline{\mathrm{X}}=\frac{\sum \mathrm{X}}{\mathrm{N}}$
$\overline{\mathrm{Y}}=\frac{\sum \mathrm{Y}}{\mathrm{N}}$
$=1376.224$
$=9594.098$
$y=a+b x$ $\qquad$ (i)
$\sum \mathrm{y}=\mathrm{Na}+\mathrm{bx}$ $\qquad$
$\sum \mathrm{xy}=\mathrm{a} \sum \mathrm{x}+\mathrm{b} \sum \mathrm{x}^{2}$

Substituting the value of $x$ and $y$ in equation (ii) and equation (iii) we get, $47970.49=5 \mathrm{a}+688112 \mathrm{~b}$ $\qquad$ (iii)
$8515629.03=6881.12+3743867.92$ (iv)

Multiplying equation (iii) by 1376.224 and then subtracting equation (iv) from it, we get, $66018139.63=688.12 \mathrm{a}+9469962.49 \mathrm{~b}$
$8515629.03=6881.12 \mathrm{a}+3743867.92 \mathrm{~b}$

$$
5750210.60=5726094.57
$$

or $\quad \mathrm{b}=\frac{5750210.60}{5726094.57}$
$\therefore \quad \mathrm{b}=1.0042$
Now, substituting the value of $b$ in equation (iii), we get

$$
47970.49=5 a+6881.12 b
$$

or, $\quad 47970.49=5 \mathrm{a}+6881.12 \times 1.0042$
or $47970.49=5 \mathrm{a}+6910.02$
or $\quad 4106046=5 \mathrm{a}$
or, $\quad \mathrm{a}=\frac{41060.46}{5} \quad \therefore \mathrm{a}=8212.09, \mathrm{~b}=1.0042$
Year

## Trend Value

| $2004 / 05$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}=$ | $8212.09+1.0042 \times 0=$ | 8212.09 |
| :--- | :--- | :--- | :--- |
| $2005 / 06$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{1}=$ | $8212.09+1.0042 \times 1=$ | 8213.09 |
| $2006 / 07$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{2}=$ | $8212.09+1.0042 \times 2=$ | 8214.09 |
| $2007 / 08$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{3}=$ | $8212.09+1.0042 \times 3=$ | 8215.10 |
| $2008 / 09$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{4}=8212.09+1.0042 \times 4=$ | 8216.16 |  |
| $2009 / 10$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{5}=8212.09+1.0042 \times 5=$ | 8217.11 |  |
| $2010 / 11$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{6}=8212.09+1.0042 \times 6=$ | 8218.11 |  |
| $2011 / 12$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{7}=8212.09+1.0042 \times 7=$ | 8219.12 |  |

2012/13
2013/14

$$
y=a+b x_{8}=8212.09+1.0042 \times 8=
$$

$$
y=a+b x_{9}=8212.09+1.0042 \times 9=
$$

## Annex 14

Trend Analysis of Loans and Advances and Total Deposit Ratio

## EBL

| Year | X | Y | $\mathrm{x}=\mathrm{X}-\overline{\mathrm{X}}$ | $\mathrm{y}=\mathrm{Y}-\overline{\mathrm{Y}}$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ | xy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 4574.5 | 2959.44 | -2405.03 | -2104.39 | 5784169.30 | 4428457.27 | 5061121.08 |
| $2005 / 06$ | 5466.61 | 3948.47 | -1512.92 | -1115.36 | 2288926.93 | 1244027.93 | 1687450.45 |
| $2006 / 07$ | 6694.96 | 4908.46 | -284.57 | -155.37 | 80980.08 | 24139.84 | 44213.64 |
| $2007 / 08$ | 8063.9 | 5884.12 | 1084.37 | 820.29 | 1175858.30 | 672875.68 | 889497.87 |
| $2008 / 09$ | 10097.69 | 7618.67 | 3118.16 | 2554.84 | 9722921.79 | 6527207.43 | 7966399.89 |
| $\mathrm{~N}=5$ | $\sum \mathrm{X}=$ | $\sum \mathrm{Y}=$ |  |  | $\sum \mathrm{x}^{2}=$ <br> 19052856.37 <br> 34897.66 | 25319.16 |  |
| 12896698.13 | $\sum y^{2}=$ <br> 1610247.36 |  |  |  |  |  |  |

$\sum \mathrm{X}=34897.66$
$\Sigma \mathrm{Y}=25319.16$
$\sum \mathrm{x}^{2}=12896698.13$
$\sum \mathrm{xy}=1610247.36$
$y=a+b x$
$\sum \mathrm{y}=\mathrm{Na}+\mathrm{bx}$
$\sum \mathrm{xy}=\mathrm{a} \sum \mathrm{x}+\mathrm{b} \sum \mathrm{x}^{2}$
Substituting the value of $x$ and $y$ in equation (ii) and equation (iii) we get,
$25319.16=5 \mathrm{a}+34897.66 \mathrm{~b}$
$1610247.36=34897.66 \mathrm{a}+19052866.37$
Multiplying equation (iv) by 1072.772 and then subtracting equation (v) from it, we get,
$176715887.40=34897.66 a+1217846673 b$
$1610247.36=34897.66 a+19052866.37 b$
$17510247.36=11987938.07 \mathrm{~b}$
or $\quad b=\frac{17510247.36}{11987938.07}$
$\therefore \quad \mathrm{b}=0.1460$
Now, substituting the value of $b$ in equation (iv), we get
$25319.16=5 \mathrm{a}+34897.66 \times 0.1460$
or,

$$
25319.16=5 \mathrm{a}+5095.05
$$

or $\quad 25319.16-5095.05=5 \mathrm{a}$
or, $\quad \mathrm{a}=\frac{20224.10}{5} \quad \therefore \mathrm{a}=4044.82, \mathrm{~b}=0.1460$
Year

| $2004 / 05$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}=$ | $4044.82+0.1460 \times 0=$ | 4044.82 |
| :--- | :--- | :--- | :--- |
| $2005 / 06$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{1}=$ | $4044.82+0.1460 \times 1=$ | 4044.96 |
| $2006 / 07$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{2}=$ | $4044.82+0.1460 \times 2=$ | 4045.11 |
| $2007 / 08$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{3}=$ | $4044.82+0.1460 \times 3=$ | 4045.25 |
| $2008 / 09$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{4}=$ | $4044.82+0.1460 \times 4=$ | 4045.40 |
| $2009 / 10$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{5}=$ | $4044.82+0.1460 \times 5=$ | 4045.55 |
| $2010 / 11$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{6}=4044.82+0.1460 \times 6=$ | 4045.69 |  |
| $2011 / 12$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{7}=4044.82+0.1460 \times 7=$ | 4045.84 |  |
| $2012 / 13$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{8}=4044.82+0.1460 \times 8=$ | 4045.98 |  |
| $2013 / 14$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{9}=4044.82+0.1460 \times 9=$ | 4046.13 |  |

## NBBL

| Year | X | Y | $\mathrm{x}=\mathrm{X}-\overline{\mathrm{X}}$ | $\mathrm{y}=\mathrm{Y}-\overline{\mathrm{Y}}$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ | xy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2004 / 05$ | 8600.81 | 7358.84 | -2124.96 | -1176.34 | 4515455.00 | 1383775.80 | 2499675.45 |
| $2005 / 06$ | 9514.96 | 8083.97 | -1210.81 | -451.21 | 1466060.86 | 203590.46 | 546329.58 |
| $2006 / 07$ | 10580.65 | 7961.51 | -145.12 | -573.67 | 21059.81 | 329097.27 | 83250.99 |
| $2007 / 08$ | 12807.37 | 9644.69 | 2081.6 | 1109.51 | 4333058.56 | 1231012.44 | 2309556.02 |
| $2008 / 09$ | 12125.57 | 9626.91 | 1399.8 | 1091.73 | 1959440.04 | 1191874.39 | 1528203.65 |
| $\mathrm{~N}=5$ | $\sum \mathrm{X}=$ | $\sum \mathrm{Y}=$ |  |  | $\sum \mathrm{x}^{2}=$ | $\sum \mathrm{y}^{2}=$ | $\sum \mathrm{xy}=$ |
|  | 53628.86 | 42675.92 |  |  | 1229285.32 | 4339350.34 | 6967241.28 |

$\sum \mathrm{X}=53628.86$
$\sum \mathrm{Y}=42675.92$
$\sum \mathrm{x}^{2}=12296285.32$
$\sum \mathrm{xy}=6967241.28$
$y=a+b x$
$\sum y=N a+b x$
$\sum \mathrm{xy}=\mathrm{a} \sum \mathrm{x}+\mathrm{b} \sum \mathrm{x}^{2}$.
Substituting the value of $x$ and $y$ in equation (i) and equation (ii) we get, $42675.92=5 \mathrm{a}+53628.86 \mathrm{~b}$ $\qquad$ (iii)
$6967241.28=5362886 \mathrm{a}+12296285.32 \mathrm{~b}$ (iv)
Multiplying equation (iii) by 1072.772 and then subtracting equation (iv) from it, we get, $457732187.80=5328.86 \mathrm{a}+28760546.765 \mathrm{~b}$
$6967241.28=5328.86 \mathrm{a}+12296285.32 \mathrm{~b}$
$\qquad$
$450764946.50=2863758340 \mathrm{~b}$
or $\quad b=\frac{450764946.50}{2863759340}$
$\therefore \quad b=0.1574$
Now, substituting the value of $b$ in equation (iii), we get

$$
42675.92=5 a+53628.86 \times 0.1574
$$

or, $\quad 42675.92-8441.18=5 \mathrm{a}$
or $\quad 34234.74=5 \mathrm{a}$
or, $\quad \mathrm{a}=\frac{34234.74}{5} \quad \therefore \mathrm{a}=6846.95, \mathrm{~b}=0.1574$
Year

## Trend Value

| $2004 / 05$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}=$ | $6846.95+0.1574 \times 0=$ | 6848.95 |
| :--- | :--- | :--- | :--- |
| $2005 / 06$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{1}=$ | $6846.95+0.1574 \times 1=$ | 6847.10 |
| $2006 / 07$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{2}=$ | $6846.95+0.1574 \times 2=$ | 6847.26 |
| $2007 / 08$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{3}=$ | $6846.95+0.1574 \times 3=$ | 6847.42 |
| $2008 / 09$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{4}=6846.95+0.1574 \times 4=$ | 6847.57 |  |
| $2009 / 10$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{5}=$ | $6846.95+0.1574 \times 5=$ | 6847.73 |
| $2010 / 11$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{6}=$ | $6846.95+0.1574 \times 6=$ | 6847.89 |
| $2011 / 12$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{7}=6846.95+0.1574 \times 7=$ | 6847.85 |  |
| $2012 / 13$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{8}=6846.95+0.1574 \times 8=$ | 6848.20 |  |
| $2013 / 14$ | $\mathrm{y}=\mathrm{a}+\mathrm{bx}_{9}=6846.95+0.1574 \times 9=$ | 6848.35 |  |

