

CHAPTER-I

INTRODUCTION

1.1 Background of the Study

It is obvious that economic development is impossible without the development of different sectors like industries, trade so on. So development of these sectors needs a regular supply of financial resources. In development countries there is always shortage of the capital for the development activities. It is not possible to handle and development all the sectors by the Government alone at a time. Private people also cannot undertake large business because per capital income of the people is very low while their propensity to consume is very high. Due to low income their saving is very low and capital formation is very low. Their saving is not sufficient for carrying on development works.

Capital formation is one of the important factors in economic development. The capital formation leads to increase in the size of the national output, income, and employment. Solving the problem of inflation and balance of payment and making the economy free from the burden of foreign debt. Domestic capital formation helps in making a country self-sustainable profit made by business community constituted the major part of the saving of the community and what was assumed to be invests.

The issue of development always rests upon the mobilization of resources. Banks function of lending ensures required volumes of capital to resources mobilization. Thus, the foundation of resources mobilization is pillared on the bank function of lending. The primary issue of economic development, production, income, government revenue, international trade etc. what role a bank can play to assist the economic development is the main issue that the banking sector facing in Nepal

and worldwide today. The liberalization of economy has posed more responsibility and challenges on Commercial banks. The existence of bank has its root in economic development and the banks have a big role to play in fund mobilization to increase the pace of development. The liberalization of financial sector in Nepal has opened a new horizon of expectancy in banking industry. But the liberalization is not easy game to play, it demands for expert to drive it. The liberalization, without the competence driver gives rise to a chaos and exploitation in economy.

Lending is the most fundamental function of commercial bank as well as other finance institutions. It is not only the most important function; it also determines the futures of financial institutions. The quality of loan, the quality of borrower and the quality of securities determines the health of any financial institution. It is very sensitive subjective that what sort of credit policy a bank should have. So it should pay more attention to the loans and advances that it provides.

Banking sector plays an important role in the economic development of the country. Commercial banks are one to the vital aspects of this sector, which deals in the process of channeling the available resources in the needed sector. It is the intermediary between the deficit and surplus of financial resources. Financial institutions like banks are a necessity to collect scattered saving and put them into productive channels. In the absence of such institutions it is possible that the saving will not be safely and profitably utilized within the economy. It will be diverted aboard or channeled into unproductive conspicuous consumption including real estate speculation.

Loan is essential aspect of commercial bank. “First, income from loan contributes substantially to the revenues and profit of the bank. Second, lending money to people in the community strengthens the community-bank relationship. Third, lending money spurs business development and supports a growing economy”

credit being the most important function of commercial banks, affects overall development of the country. So far as pace of economic development is considered, it is directly related to the quality and quantity of the credit, which is derived from various financial institutions, especially commercial banks in Nepal. Lending operation of commercial banks is very risky one. For this commercial banks have to pay due consideration while formulating Lending Policy. A healthy development of any commercial bank depends upon its Lending Policy. A good Lending Policy attracts of borrowers and lenders, which help to increase the volume and quality of deposits, loans and investment.

1.2 Statement of the Problems

Lending is one of the major terms of investment Policy. So every financial institution should concentrate on lending as a major means of investment. But the sufficient return cannot have been found to be earned as well stable and appropriate lending policy hasn't been followed by these commercial banks.

None of the commercial banks can survive without implementing its lending functions efficiently. For better sustain of any business entity, its market availability is a must. In present situation liquidity with public is quite high and banks are not getting promising lending opportunities properly. They are collecting adequate amount from the mass, however they couldn't find new lending sectors to mobilize funds on the changing context of Nepal. Increasing rate of liquidity has caused a downward trend in investment sectors. It has ensued bad impact on interest rate to the depositors, lower dividend to the shareholders, lower market values of shares, lower contribution to national revenue etc.

Lending portfolio position of the banks is not satisfactory. They are not following a sound diversification principle. At one time commercial banks lending had invested a large proportion of their loan to garment, hotel, carpet industries but

these sectors became sick and banks are in trouble of their loan repayment. Commercial banks in Nepal has been facing several challenges, some of them arising from lack of smooth functioning of economy, some of them arising due to confused policies and many of them arising due to default of the borrowers. Thus, in this scenario of Nepalese commercial banking sector, this study has been mainly concentrated on the following specific problems.

-) Lack of sustainable lending environment.
-) How aggressively is this commercial bank lending.
-) Over liquidity caused by lack of good lending opportunities.
-) Increasing deposits without increasing in the lending sectors.
-) What steps should be taken to improve the lending policy of these commercial banks.

1.3 Objectives of the Study

The main objective of the study is to analyze the lending policy of the EBL, NABIL and LBL. The specific objectives of the study are as follows:

-) To analyze status of non-performing loans of EBL, NABIL and LBL.
-) To analyze the portfolio behavior of lending of EBL, NABIL and LBL.
-) To measure these commercial bank's lending strength.
-) To measure the lending performance quality and efficiency.
-) To identify major weakness of lending policy of these commercial banks.

1.4 Significance of the Study

Lending is one of the essential and main functions where the whole banking business is rested upon. In the context of Nepal there are less availability of research work, journals and articles in the lending policy of commercial bank. There are only few researches in Commercial bank especially on their lending

practices. Few books dealing with these aspects can be found but they are not sufficient. Lending is one of the essential and main functions where the whole financial business is rested upon

This study covers three commercial banks namely EBL, NABIL and LBL. As it is being well known fact that the financial institutions can affect the economic conditions of the whole country the effort is made to highlight the lending practices of the commercial banks expecting that the study can fill the research gap on the lending practices of finance companies. As well it is believed that this study would carry a great significance to the shareholders of the commercial banks, to the professionals related to finance, to the students and teachers of banking and commerce.

Since this study has purposed to measure the efficiency of EBL, NABIL and LBL of their lending and investing behaviors putting them in the same footing, it deserves the great importance to all the people interested. The study is the first in its quality in comparing commercial bank to other banks. So that it adds new ideas and findings related to these commercial banks and adds substantial knowledge in management literature.

The main importance of the study is to highlight the lending policies of these three commercial banks expecting that the study can bridge the gap between deposits and lending policies. On the other hand, the study would provide information to management of the bank that would help them to take collective action. Further from the study, the shareholders would get information to make decisions while making investment on shares of various banks. This study will provide a useful feedback for academic institutions, bank employees, trainees and investors, financial persons, policy maker bodies and other persons concerned with

commercial bank. This study will serve to be a guide to the management of banks, financial institution, related parties, shareholders, and general public.

1.5 Limitation of the Study

This study attempts to evaluate the lending policies and its practices of commercial banks. In fast changing world it is difficult to cope with the pace of changes. Due to the arrival of unforeseen difficulties, every study or research is always accompanied by some limitations. Some commonly attributed limitations of this study are as follows:

-) Limited variables have been selected for analysis.
-) Being a student time and resources are constraints.
-) Time and cost factors have also constrained the study.
-) This study concentrates only related factors with lending.
-) The study mainly based on secondary data collection from bank. In some aspect of the study primary data also collected.
-) The study is done only on the basis of the published financial documents like Balance sheets, Profit and Loss Account so on.
-) Some of the statistical and financial tools are used in the study. Hence the drawback and weaknesses of these tools may affect the result of the study
-) The study covers five fiscal years from 2003 to 2007 mid July.

1.6 Organization of the Study

The study have been divided into following five chapter

Chapter -I: Introduction

Chapter -II: Review of literature.

Chapter -III: Research Methodology

Chapter -IV: Presentation and Analysis of Data

Chapter -V: Summary, Conclusions and Recommendations

The first chapter of the study is introduction, which highlighted the basis information of the research area, various problems, Objectives, importance, limitations and organization of the study.

The second chapter of the study assures readers that they are familiar with important research that has been carried out in similar areas by earlier scholars in related areas. It also establishes that the study as link in a chain of research that is developing and emerging knowledge about concerned field.

The third chapter refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. It describes the various research methods, source of data, data collection techniques, method and period of study.

The developed information has finished in required from in fourth chapter. Information is presented and analyzed by using various financial and statistical tools in specified form to meet the stated objective of study.

On the basis of the results from data analysis, the researcher concluded about the research work. Besides, it also gives important suggestion to the concerned organization for better improvement.

CHAPTER-II

REVIEW OF LITERATURE

2.1 Conceptual Framework

2.1.1 Concept of Commercial Bank

Commercial bank is a business organization which deals in money, it borrows and lends money. In the borrowing and lending of money, it makes profit. The distinction between moneylender and a commercial bank may note. Whereas moneylender only lends to other and that too from his owned sources, a commercial bank does both the lending and borrowing businesses. A commercial bank raises its resources through borrowing from public in the form of deposits and lends them to the businessmen. Its lending rate of interest is greater than that it pays to its depositors. It is because of this difference in lending and borrowing rates of interest that it is able to make profit. Commercial bank is a business organization that receives and holds deposits from others, makes loans or extends credit and transfer funds by written order of depositors. Actually modern banks perform all the required financial function and provide its service to every needy.

The commercial banks are established under the rules and legislation of the central bank of the country. Though bank are established for mobilization of the saved funds central banks makes certain rules so that the public or the customer of the bank may not under gone on loss of their hard earned money by the disinvestments procedures of the bank. Thus, commercial banks have to consider government and NRB's instructions and national and their own interest as well. Good lending policy ensures maximum amount of investment to all sector with proper utilization. Commercial bank Act 2031 B.S. of Nepal has defined that "A commercial bank is one which exchanges money, deposits money, accept deposits,

grant loans and performs commercial banking function and which is not an bank meant for cooperative, agriculture, industries or for such specific purpose.”

2.1.2 Origin and Development of Commercial Bank

According to the Alfred Marshal, in Greece, the temple of Delphi and other sacred acted as storehouse for the precious metals before the days of coinage and private purpose at interest, through they paid none themselves. Private money changers began with the task of reducing many metallic currencies, more or less exactly, to a common unit of value and went on to accept money on deposit rate interest and to lend it out at higher interest.

The ancient Rome of the 15th century we can find some history about the practice of various banking function like money changing, transfer of funds, issue of loans etc which are similar as to those of modern banking system. In the 7th century the use of commercial instruments was recorded. The revival of banking practices took place only towards the beginning of the 12th century A.D. In case of eastern countries it started very late in comparison to western countries. In England, banking had its origin with London goldsmith who, in the 17th century, began to accept deposits from merchant and other for safe keeping of money and other valuables, crude money lending and money changing were present during the reign of Elizabeth-I(1533 to 1603A.D) and the Tower of London, which served as the British mint. “The bank of Venice” was the first public banking institution established in 1157 A.D. The famous bank “Bank of Amsterdam” opened in 1609. it had occupied a very important place in the 17th century enjoying for a long time position of international commerce as prominent as the “Bank of England” in 1694 with capital of 1.2million pound by a group of wealth London merchants and financiers. Napoleon founded the “Bank of French” in 1800 A.D. in France.

The 19th century comes with the vast scope for development of commercial banking. Accordingly to M.C Vanish the 19th century witnessed not only the phenomenal development of modern is banking but also witnessed the solution of many stubborn monetary problems enabling banks to turn their attention away from old money changing business to many new important jobs that comes in the wake of industrial process. The 20th century observed development of various banking institutions highly specialized, sophisticated particularly in advance countries like the U.S.A, U.K and other. Today various international organizations like I.B.R.D, A.D.B etc have been developed. In England the commercial bank used to be referred to as the joint stock bank. In London, it has been called as clearing bank. In Western Europe commercial banks used to be called credit bank and investment bank.

The commercial banks in India established by the British in colonial age were called “Exchange Banks”. So, the term banking system is different in various countries. According to Sayers the general acceptable term The typical commercial bank in most countries is very large institution having a number of branches scattered all over the countries i.e. England, Canada and Australia.

2.1.3 Development of Commercial Bank in Nepal

In ancient time, there was also a lending business in Nepal. During those days people used to borrow money from moneylenders paying some interest. There was no accurate interest rate. Moneylenders determined interest rate. So there was monopoly in interest rate. Moneylenders are like Shaumahajans, Jamindars, Relatives, Friends and few informal organizations limited to ethnic group such as guthi. The borrowing from the other people and the informal organization was limited and based on personal understanding. At that time people deposit their gold, silver and valuable goods for the sake of security, thus, the private moneylender can be taken as forerunner of the concept of financial institution.

In this regarding Prof. J.C. Ojha said “but it is impossible to give correct chronological history in view of the fact that no authentic historical records are available in respect to banking. It can be inferred from the history of Nepal regarding the rebuilding of Kathmandu in 723 A.D by Gunakam Dev, the king of the Kathmandu and that of Shankhadharl’s (a merchant) action of introduction Nepal Sambat’ some fifty seven years thereafter to make lending has been prevalent long before that.” Thus the above statement shows that lending system was introduced very long before 723 A.D. But there is o recorded document about lending. Then in 14th century during the rule of Malla King Jayasthiti Malla working occupation was divided in 64 categories. Among them “Tanka Dhari” was one. The main occupation of “Tanka Dhari” was lending money. It also shows that lending process was prevailing during the Malla Rule in Nepal.

During the period of Rana Prime minister, Ranodip Singh a government institution called “Tejarath” was established. In this regarding Ojha States “Ranodip Singh, a Rana Prime Minister for 8 years (1877 to 1885) got interested in this problem an took concrete stops by establishing a government financial institution known as “ Tejarath”. The Tejarath helped the public by supplying easy and cheap credit at 5 percent interest on the security of gold and silver ornaments. The function of Tejarath was it supplies credit at 5 percent interest rate per annum. It had benefited to government officials. There was no business of collecting deposit in Tejarath. So, it was not actually a banking institution. From 1901 to 1929 A.D. Tejarath opened some limited branches to extend the credit facilities. Tejarath did not granted to general people; it was limited only for government officials. Tejarath was regarded as the new area in history of banking development in Nepal.

Tejarath could not fulfill the credit needs of the whole society. It was a government institution that benefited government officials only. So the general people had to depend on moneylenders. The moneylenders exploited the rural

people in different ways. On the other hand there was need of trade and industries development programmes. To make free the rural people from the grips of lenders and to develop trade and industry in the country the need for a commercial bank was realized in the country. So, the Nepal Bank Limited was established in 1937 A.D (1994 B.S), which is first commercial bank in Nepal. It was established under the Nepal Bank Act of 1963 A.D. at the beginning 49% of the ownership belong to the promoters as well as general public and 51% belongs to government. It also acted as Central Bank for more than three decades. “Nepal Rastra Bank” established in Baisakh 14, 2013 B.S (1956) under Nepal Rastra Bank Act 2012 B.S as the Central Bank of Nepal. The main objective of the central bank is to maintain internal and external stability. Besides the commercial banking functions, NRB is heavily assisting for the development of whole economy. It is giving timely directives to all financial institutions operated and conducted in all over the country.

After a long period, the second commercial bank named ‘Rastriya Banijya Bank’ has been established in 2022 B.S with cent percent government ownership. This bank has been established under the Rastriya Banijya Bank Act 2021 B.S. Both Nepal Bank Ltd and Rastriya Banijya bank have made a remarkable contribution by providing reliable banking service to the Nepalese people.

The government introduced commercial bank Act in Nepal in 2033 B.S to cover the vast field of financial sector. According to the act, this act has helped to emerge number of commercial bank with to maintain the economic interest in comfort of the public in general facilitated to provided loan for agriculture, industries and trade and make a available banking service to the country and people. Along vacuum in the banking in the banking sector got some rays of hope only when the government forwarded the economic liberalization policy in 2039 B.S and decided to allow foreign banks to operate their activities in Nepal. After democracy was

restored in 2046 B.S flow of institutional financial activities began to grow and many commercial banks are established in Nepal.

2.1.4 Role of Commercial Bank in Economy Development

According to the Former Prime minister of India Morarji Desai said “The role of commercial bank play in economy development of a country needs no emphasis banking, when properly organized, aids and facilities the growth of trade”. The objective of bank is to ideal resources for productive use after collecting those scattered resources. Its role in economic development is so immense; it brings about greater mobility of resources to meet the emerging necessity of the economy. The essence of commercial bank is the financial intermediate between the ultimate savers and borrowers. A bank’s main function is to act as middle-man between the surplus and deficit units in the economy and as a bank like any other firm is in business to make profit for its shareholders.

The major problem in almost all under development countries like Nepal is lack of capital formation and their proper mobilization. In such countries the commercial banks have to take more responsibilities and should act as development bank due to the lack of other specialized institutions. The importance of bank in economic life is greater. Nepal has sufficient natural resources. The commercial banks can help in economic development which can uplift the life style of the general people directly as the tax contribution from its operation profit and collecting the tax from interest from its account holders and generating the employment opportunity itself. Economic stability can be maintained as better by the commercial banks as that of than direct way. The commercial banks accumulate scattered saving in term of deposit grant long term as well as short-term loan in the several sectors. Because of this industries can be run better way and reduces import of foreign goods and increase exports. This helps the increase of foreign currency reserve. Due to development of industrial activity on the one hand people can enjoy employment

opportunity and so far natural resources are exploited. Naturally, industrialization enhances to develop for agricultural sector. This “bank” can be rightly interpreted as the king of business world and promoter of economic development.

Commercial banks play vital role in economic development of the country. In brief the economy development so define is necessary and sufficient to generate high rates of saving and investment. The generation of high rates of saving and there by investment is possible only through banks. Banks occupies greater role in economic development by generating the saving towards the desired sectors from one place to another, communicating with its branches and agencies in different parts of the country and the world and advising to the commercial people.

2.1.5 Function of Commercial Bank

The function of commercial bank is governed by the Commercial Bank Act 2031 and directives issued by Nepal Rastra Bank from time to time. The function of Commercial Banks can be classified into three broad categories:

Primary Function

-) Acceptance of Deposits:
-) Advancing of Loans:

Secondary Function

-) Bid Bond
-) Work at trustee
-) Agency Services
-) Performance Bond
-) Remittances of money
-) Financial Bank Guarantee

-) Safe Custody of Valuables
-) Advance Payment Guarantee
-) Underwriting of Capital Issue
-) Issuance of Guarantee on behalf of customers
-) Collection of Cheque, Bills and Other Instruments
-) Sell and purchase of Foreign Currency (including Travel Cheque)

General Utility Services

-) Underwriting of securities
-) Providing trade information to customers
-) Transfer of funds from one branch to another
-) Accepting and discounting bills of exchange of export
-) Providing reports on the credit worthiness of customers
-) Issuing letter of credit and standing as surety for customers
-) Accepting valuables, jewelry and securities for safe custody
-) Providing foreign exchange to persons going abroad and to imports
-) Advising customers with regard to investments and other financial matters

2.2 Conceptual Review of Lending/Loan

2.2.1 Meaning of Lending/loan

Loan is defined as a thing that is lent, especially a sum of money. Like wise debt means a sum of money owned to somebody. However in financial terms loan or debt means principal or interest availed to the borrowers against the security. Debt means money that bank owes or will lend to individual or person. Likewise the term loan is defined as lending. Delivery by one party and receipt by another party, a sum of money upon agreement expressed or implied, to repay it with or without interest. Any thing furnished for temporary use to a person at his request,

on that condition it shall be returned or it's equivalent in kind, with or without compensation for its use. Loan includes:

1. The forbearance of debt arising from a loan.
2. The creation of debt pursuant to a lender credit card or similar arrangement.
3. The creation of debt by credit to an account with the lender upon which the debtor is entitled to draw immediately.
4. The certain of debt by the lender's payment of or agreement to pay money to the debtor or to a third party for him of the debtor.

Further debt means "Principal and Interest" provided to debtor by financial institutions, with the pledge of immovable or movable property, securities, guarantee, without guarantee and the word also means over dues of the transaction beyond balance or fees, commission and interest incurred in that relation. The supreme court of India has defined the debt during the decision of the case "In the case in hand, there cannot be any dispute that the expression 'debt' has to be given the widest amplitude to mean any liability which is alleged as dues from any person by a bank during the course of any business activities undertaken by the bank either in cash or otherwise, whether secured or unsecured, whether payable under a decree of order of any court or otherwise and legally recoverable on the date of the application.

2.2.2 Types of Loan

Banks make a wide variety of loans to wide variety of customers for many different purposes. For customers, the cause of loan purchasing may be investment in business, purchasing automobiles, take dream vacations, pursuing college educations, constructing home and office building so on. On the basis of loan purpose, bank loans can be divided into following categories

1. Term loan

Term Loan is money lent to the borrowers in a lump sum. Generally, subsequent debt in the loan account is not allowed except by way of interest, incidental charges, insurance premiums, expenses incurred for the protection of the security. Term loans are generally granted for long period to finance fixed assets and are repayable on installments over the period of loan.

2. Project Loan

Project loan is granted to customers on the basis of the viability of the project. The financial institution asks the borrower to invest certain proportion to the project from their equity and the rest will be financed as project loan. The debt equity ratio in case of project loan is generally 60:40. The project loan includes the term loan and working capital loan required by the project.

3. Working Capital Loan

Working Capital is the difference between current assets and current liabilities. This type of loan is granted to the customer to meet their working capital gap. Working capital can be divided into fixed working capital and variable working capital. Fixed working capital is financed by way of short-term loan while variable working capital is financed by overdraft.

4. Loan Against Fixed Deposit Receipt

The depositor keeps fixed deposits for a specified period. If a depositor needs money before its maturity date, he can obtain loan against the security of such fixed deposits. Generally commercial banks allow up to 90% of the fixed deposits as loans.

5. Priority/Deprived Sector Loan

Commercial banks are required to extend advances to the priority sector and deprived sector. Out of the total credit facility of the commercial 12% must be extended towards priority sector loan including deprived.

6. Overdraft

Overdraft facility is a kind of working capital loan. This facility is allowed in current accounts. Overdraft is an agreement by which the banker allows the customers to draw over and above the current account balance. The borrower cannot exceed the limit sanctioned to him. In this account, the balance will be fluctuating because of withdrawal and repayment of money by the borrower. Interest on overdraft is charged on debit balance on daily basis. Overdraft is generally granted to the businessmen for the fulfillment of their short-term needs.

7. Cash Credit

Cash Credit is similar to the overdraft account by which the customer is allowed to overdraw his account. The borrower may operate the account within stipulated limited and when required. Cash credit is provided against the pledge or hypothecation of stock in trade, goods, Plants and machinery, land and buildings so on.

8. Hire-Purchase Financing

Hire purchase is a type of installment credit under which the hire purchaser, called the hirer, agrees to take the goods on hire at a stated rental, which is inclusive of repayment of principal as well as interest, with an optional to purchase. Goods for the purchase of hire purchase may be bus, truck, car, jeep, and machinery so on. Hire purchase facility can be granted to the person having fixed source of income. The facility can also be granted to the institutions.

9. Bill Purchase and Discount

Purchasing of bill of exchange of customers in whose favors limit is sanctioned is called purchasing of bills. Bills may be either documentary bills or clean bill. If a bill is accompanied documents of title to the goods (Railway Receipt, Truck receipt, Airway Bill) it is called documentary bill. In the absence of such document, it is called clean bill.

10. Bridge-Gap Loan

If a term loan is approved to some customers and the approving institution cannot disburse the facility because of incompleteness of legal and other formalities. In this situation customer may ask as bridge gap loan.

11. Consortium Loan

While a single financial institution cannot grant credit to a project because of single borrower limit or other reasons, two or more such institutions may agree to grant credit facility to the project. Such kind of loan is called consortium loan. Financial institutions may also go on consortium financing to share the risk of project between them.

12. Real Estate Loan

It is the credit extended to purchase or improves real property, such as land and buildings. Real property-land buildings and other structure secure such loans. Real estate loans include longer-term loan to finance the purchase of farmland, house, apartments, commercial structure and foreign properties.

13. Commercial and Industrial Loan

Commercial and industrial loans are extended to business firms to support the production and distribution of their products and services. It is granted business to cover such expenses as purchasing inventories, paying tax, meeting payrolls too.

14. Housing Loan

Financial institutions also extend housing loan to their customers. Housing loans may be of different nature e.g., residential building, commercial complex, construction of warehouse etc, housing loans are granted to the customer if they have regular source of income or if they earn revenue from the housing project itself.

15. Off -Balance Sheet Transaction

The bank provides the facilities to the client being the guarantor in some transaction. This facility provided to the client mainly in two ways. First bank guarantee and second is Letters of credit. This transaction is also called off balance sheet transaction.

Bank Guarantee

No loan is disbursed in the transaction of Bank Guarantee. Hence I would like to introduce it in a single sentence. Bank guarantee expresses a commitment of the bank to make good any financial loss and beneficiary of the guarantee may sustain when the party named in Guarantee on whose behalf the guarantee is issued fails to perform the contract and or discharge his/her obligation.

Letter of Credit

Letter of Credit is a commitment by a bank on behalf of its customer to pay the counter value of goods/services within a given date of its supplier according to agreed stipulated and against presentation of specified documents. Letter of Credit is used an instrument for settlement of payment arising out of the commercial transaction like sales/purchases so on. In such credit payment obligation arises only upon fulfillment of specified conditions.

2.2.3 Features of Sound Lending Policy

The income and profit of the commercial banks depend upon its lending procedure. The greater the credit created by bank, the higher will be the profitability. A sound lending policy is not only a pre-requisite for commercial banks profitability, but also crucially significant for the promotion of commercial saving in backward countries like Nepal. Some features of Sound lending policy are considered as under:

1. Safety

Safety is the most important principle of good lending. If a borrower invests the money in an unproductive or speculative venture, or if the borrower himself is dishonest, the advance would be in jeopardy. Similarly, if the borrower suffers losses in his business due to his incompetence, the recovery of the money may become difficult. The banker ensures that the money advanced by him goes to the right type of borrower and is utilized in such a way that it will not only be safe at the time of lending but will remain so throughout, and after serving a useful purpose in the trade or industries where it is employed, is repaid with interest.

2. Liquidity

The borrower must be in a position to repay within a reasonable time after a demand for repayment is made. This can be possible only if the money is employed by the borrower for short-term requirements and not locked up in acquiring fixed assets, or in schemes, which take a long time to pay their way. The source of repayment must also be definite. The reason why bankers attach as much importance to “liquidity” as to “safety” of their funds is that a bulk of their deposits is repayable on demand or at short notice.

3. Purpose

The purpose should be productive so that the money not only remains safe but also provide a definite source of repayment. The banker must closely scrutinize the purpose for which the money is required, and ensure, as far as he can, that the borrower applies the money borrowed for a particular purpose accordingly.

4. Profitability

Like other commercial institutions, banks must make profit. They have to pay interest on deposits received by them. They have to incur expenses on establishment, rent, stationery, salary etc. they have to make provision for depreciation of their fixed assets, and also for possible bad or doubtful debts. After meeting all these items of expenditure which enter the running cost of banks, a reasonable profit must be made; otherwise, it will not be possible to carry anything to the reserve of pay dividend to the shareholders. It is after considering all these factors that a bank decides upon its lending rate.

5. Collateral/Security

It has been the practice of banks not to lend as far as possible except against security. Security can be considered as insurance. Security may be generally classified as personal and tangible, as well as primary and collateral. The banker carefully scrutinizes all the different aspects of an advance before granting it. At the same time, he provides for an unexpected change in circumstance which affected the safety and liquidity of advance.

6. Spread

Another important principle of good lending is the diversification of advances. An element of risk is always present in every advance, however secure it might appear to be. In fact, the entire banking business is one of taking calculated risks and successful banker is an expert in assessing such risks. He is keen on spreading the

risks involved in lending, over a large number of borrowers, industries and over different type of securities.

7. Legality

Illegal securities will bring out many problems for the investor. Commercial banks must follow the rules and regulation as well as different directions issued by Nepal Rastra Bank, Ministry of Finance and other while mobilizing its funds.

8. National Interest

Even when an advance satisfies all the aforesaid principles, it may still not be suitable. The advance may run counter to national interest. It is in the changing concept of banking factors such as purpose of the advance, viability of the proposal and national interest are assuming a greater importance than security and export-oriented industries.

2.2.4 Basis Elements for the Effective Lending Policy

A lending policy should contain an outline of the scope and allocation of bank's credit facilities and manner in which a credit portfolio is managed, i.e. how loans are originated, serviced, supervised and collected. A good lending policy is not overly restrictive but allows for the presentation of loans to the board that officers believe are worthy of consideration but which do not fall within the parameters of written guidelines. Flexibility must exist to allow for fast reaction and early adaptation to changing conditions in a bank's earning asset mix and market environment. Consideration that from the basic elements for the effective lending policies including the following:

1. Geographic Limits

These limits are usually a dilemma. If a bank lacks understanding of its diverse market and does not have quality managements, geographic diversification may

become a reason for bad loan problems. The imposition of strict geographical limits can also create problems, particularly in the case of regions with narrow economies. In any case, a bank's business market should be clearly delineated and commensurate with its market knowledge, managerial and staff experience. Bank's officers should be fully aware of specific geographical limitations for lending purposes.

2. Limit on Total Outstanding Loans

A limit on the total loan portfolio is usually expressed relative to deposits, capital or total assets. In setting such a limit, factors such as credit demand, the volatility of deposits and credit risks should be considered.

3. Credit Concentrations

A lending policy should stimulate portfolio diversification and strike a balance between maximum yield and minimum risk. Concentration limits usually refer to the maximum permitted exposure to a single client, connected group and sector of economic activities. This is especially important for small, regionally oriented or specialized banks. A lending policy should require that all concentration be reviewed and reported on frequent basis.

4. Distribution by Category

Limitations based on aggregated percentage of total loans in commercial, real estate, consumer or other credit categories are common. Policies related to such limitations should allow for deviations that are approved by the board.

5. Maturities

A lending policy should establish the maximum maturity for each type of credit and loans should be granted with a realistic repayment schedule. Maturity

scheduling should be determined in relation to the anticipated sources of repayment, the purpose of the loan and the useful life of the collateral.

6. Types of Loans

A lending policy should specify the types of loans and other credit instruments that the bank intends to offer to clients and should provide guidelines for specific loans. Decisions about types of credit instruments should be based on the expertise of lending officers, the deposit structure of the bank and anticipated credit demand. Types of credit that have resulted in an abnormal loss should be controlled by senior management.

7. Loan Pricing

Rates of various loan types must be sufficient to cover the costs of funds, loan supervision, administration and probable losses. At the same time, they should provide the reasonable margin of profit. Rates should be periodically reviewed and adjusted to reflect changes in costs or competitive factors. Rate differentials may be deliberately maintained either to encourage some types of borrowers to seek credit elsewhere or to attract a specific type of borrower. Guidelines for other relevant procedures, such as the determination of fees or penalty interest rates are also an element of pricing policy.

8. Lending Authority

Lending authority is often determined by size of the bank. In smaller banks, it is typically centralized. In order to avoid delays in the lending process, larger banks tend to decentralize according to geographical area, lending products and types of customers. A lending policy should establish limits for all lending officers. If policies are clearly established and enforced, individual limitations may be somewhat higher than would normally be expected, depending on the officer's experience and tenure with the bank. Lending limits could also be based on group

authority, which would allow a committee to approved larger loans. Reporting procedures and the frequency of committee meetings should be specified.

9. Appraisal Process

A lending policy should outline where the responsibility for appraisal lies and should define formal, standard appraisal procedures, including reference to reappraisals of renewals or extensions. Acceptable types and limits on the amount of appraisal should be outlined for each type of credit facility. Circumstances requiring appraisals by qualified independent appraisers should also be described. The ratio of the amount to the loan to the appraised value of both the project and collateral, as well as the method of valuation and differences among various types of lending instruments should be detailed. The lending policy should also contain a schedule of down payment requirements, where applicable.

10. Maximum Ratio of Loan Amount to the Market Value of Pledged Securities

A lending policy should set forth margin requirements for all types of securities that are accepted as collateral. Margin requirements should be related to the marketability of securities. A lending policy should also assign responsibility and establish a timetable for periodic pricing of collateral.

11. Recognition

A bank should recognize a loan, whether original or purchased, in its balance sheet. This should occur as soon as the bank becomes the party to the contractual provisions that apply to the loan. A bank should initially carry the loan at cost.

12. Impairment

A bank should identify and recognized the impairment of a loan or a collectively assessed group of loans. This should be done whenever it is neither probable nor

assured that a bank will be able to collect the amounts due according to the contractual terms of a loan agreement. Impairment can be recognized by reducing the carrying amount of the loan to its estimated realizable value through an allowance or charge-off, or by attributing charges to an income statement during the period in which the impairment occurs.

13. Collections

A lending Policy should define delinquent obligations of all types and specify the appropriate report to be submitted to the board. These reports should included sufficient detail to allow for the determination of the risk factor, loss potential and alternative courses of action. The policy should require a follow-up collection procedure that is systematic and progressively stronger. Guidelines should be established to ensure that all accounts are presented to and reviewed by board.

14. Financial Information

A lending policy should define the financial statement requirements for business and individual at various borrowing levels and should included appropriate guidelines for audited, non-audited, interim, cash flow and other statements. If the loan maturity is longer than one year, the policy should require that the bank's officers prepare financial projections with horizon equivalent that the bank's loan maturity, to ensure that the loan can be repaid from cash flow. All requirements should be defined is such a manner that any negative credit data would clearly violate the bank's lending policy.

2.2.5 Criteria for Providing Loan

A bank has to set some criteria for providing loan. Persons who come to a bank for the purpose of demanding loan, the bank should not provide loan random choice, not by examining and investigating. If a loan is provided without proper

investigations it will lose the principal and interest. Therefore the bank always has to follow some criteria for providing loan. These are as follows:

1. Personal Character

Before providing loan, a bank should make an inquiry and examination of a person who comes to the bank with proposal of loan. Though it is very difficult to find out true character of person, it must be checked out. The bank should study whether the person has good character with intention to pay the loan or not, whether he is person of criminal nature or not, whether a creditor has filed a petition against him in the court for recovery of debt or not. If the person is doubtful in nature, character and the bank has uneasiness to trust him, if so, it should not accept the proposal of loan. If he possess good character and other criteria are satisfactory to the bank, it should accept the proposal.

2. Capacity or Competency

First of all it should be checked out whether the person is a person capable under law to make a contract with bank or not, i.e. according to the contract Act 2056 (1999), if he is (capable) a competent person, there after the bank should know what kin of qualifications the proposal makers does have and in which subject or business he is related with, whether he has competency or skill in that business or not. Under this heading the bank should carefully examine all things, which are relating to capacity of borrower.

3. Capital

If any person or businessman comes to make a proposal for a loan in a bank, economic condition should be examined. His demand for money should be matched with the status of his household condition, how much the sum of money he wants to invest in his business. If the economic condition of the proponent is poor or less, or inferior to the amount for loan, the bank should reject his proposal.

In brief, the quantity of amount of proponent financial condition should be stronger than the quantity of amount demanded.

4. Security/Collaterals

A bank is a legal person. It doesn't provide the loan without securities or collaterals. It always studies and analyses whether the securities or collaterals recovers the banks principal and interest of the loan. Inspired by the same concept, it classifies the security. A security means property, which is pledgeable under the existing law while giving loan or document relating there to or any other security acceptable to the bank. But the Nepalese banking law has not defined collateral. But the collateral falls under the security, itself. If a bank is satisfied on primary security, it does not require collateral, if the bank is not satisfied with the primary security, the bank may ask collateral, if the borrower can't give collateral, the bank does not provide loan to him.

5. Tangible and Intangible Security

Securities, like raw materials, finished goods, agricultural produce, machinery's land and buildings shares and debentures, fixed deposit receipts life insurance polices are those that have physical form and are, therefore, called tangible securities. In addition to tangible securities, or when tangible security is not available, a banker can also take intangible securities, like guarantees of reputed persons to cover an advance. In case of need, the bank calls upon the borrowers in their personal capacity to repay the advance.

6. Secured and Unsecured Advances

When sufficient tangible security is available to cover the amount of advance, it is called a secured advance. When tangible security is not available to back the advance or is not sufficient to cover the advance in case of need, it is called an unsecured advance.

7. Primary and Collateral Security

Primary security is the security, which the borrower himself offers to a banker as the main security for an advance. Collateral security is the additional security, which the banker may insist upon as it helps him to realize his dues in case the primary security defaults. Section 47.b (1) of the commercial bank act 2031 reads as follows: -

“Notwithstanding anything mentioned in prevailing law the bank may provide loans with security of moveable property in the following circumstances, and the bank shall provide the loans only after stipulating conditions acceptable to it: -

- Moveable property acceptable to the bank as a security under its possession
- Entrusting the security to the possession of the borrower on the condition that the bank may take possession of the property whenever its so wants.
- If the movable property of the borrower is not in its possession, by obtaining a document providing for its ownership on such property.

8. Credit Information

The bank should find out the credit information of the person or businessman who comes to request for a loan. Credit information such as the loan proponent's character, the securities given to the bank, the detail of the property and their reality, a bank can get all information about loan proponent and the businessmen. It can be a great help to the bank. It is difficult for a bank to find out the real condition of the loan proponent.

9. External Environment

Before providing loan, a bank always should evaluate the external condition or environment of the industry, business shown by the loan proponent, whether the business shown by the proponent is saleable or useable in the market or not, the proposal of loan proponent should not be approved, though the above mentioned

five grounds are received satisfactory by the bank. Because, a businessman can't gain profit from the financial position whose may deteriorate. Therefore, while providing loan, it should study the external environment too.

2.2.6 Step of Lending Process

From the viewpoint of both principle and practice, lending process has the following steps:

1. Evaluation of Loan Proposal

After a person and institution submit a proposal, project bank makes a deep study and analyses from different angles on the proposal. Before approving the loan proposal the bank evaluates all necessary documents for providing loan. In the case of person or businessmen the study of such documents are different. It will be accepted or rejected depending on the will of the bank. If the bank feels the loan proposal satisfactory, it can approve the loan accordingly.

2. Types of Loan

After accepting the proposal of a borrower, the bank discusses on these subjects, what types of loan the projector or the person wants. Surely, the nature of the loan differentiates from loan proposal of the proponent. In this way, it becomes the division of the loan. Generally, there are many types of loan like industrial loan, hire purchase and the employees' loan so on. The loan can be classified in another way too like secured loan and unsecured loan. The bank wants to keep its safe. So, the banks can classify loan in this way. The loan can be classified in the process of approving the loan.

3. Loan Interview

Once a customer decides to request a loan, an interview with a loan officer usually follows right away, giving the customer the opportunity to explain he or her credit

needs. That interview is particularly important because it provides an opportunity for the bank's loan officer to assess the customer's character and sincerity of purpose. If the customer appears to lack sincerity in acknowledging the need to follow to the terms of a loan, this must be recorded as a strong factor evaluating against approval of the loan request.

4. Site Visit

If a business or mortgage loan is applied for, an officer of the bank usually makes a site visit to assess the customer's location and the condition of the property. Site visit helps to verify the accuracy of the information provided by the applicant. It also reveals the degree of customer's sincerity and character.

5. Reference Check

The loan officer may contact other creditors, who have previously loaned money to this customer to see what their experience has been. Did the customer fully adhere to previous loan agreements and keep satisfactory deposit balance? This payment record often reveals much about the customer's character, sincerity of purpose, and sense of responsibility in making use of bank's loan.

6. Preparation of Necessary Documentation

If every thing up to this point is favorable, the customer is, then, asked to submit several crucial documents in order to fully evaluate the loan request, including complete financial statements. In case of a corporation, the applicant is also asked for board of director's resolution authorizing the negotiation of loan with the bank.

Such documents are:

- The statement of income and expenditure
- Citizenship certificate.
- The certificate or income tax registration
- The certificate of renewal.

- Scheme of the institution or the business
- Any contract or agreement.
- The memorandum of understanding
- Documents relating to security
- Documents relating to insurance
- Other necessary documents.

7. Credit Analysis

Once all documents are on file, the credit analysis division of the bank conducts a thorough financial analysis of them aimed at determining whether the customer has sufficient cash flow and backup assets to repay the loan. The credit analysis division then prepares a brief summary and recommendation, which goes to the loan committee for approval. In case of larger loans, member of the credit analysis division gives an oral presentation, and discussion will ensue between staff analysis and the loan committee over the strong and weak points of loan proposal.

8. Loan Amount

The bank may or may not give the amount, which proponent he has demanded. It is the matter depended on the will of the bank. Yet in determination of loan quantity is made by paying attention to the need of the customer, evaluation of the securities and the state and position of the business.

9. Perfecting Collateral

When the loan committee approves the customer's loan request, the loan officer or the credit committee will usually check on the property to be pledged as collateral or can acquire title to the property involved in case the loan agreement is defaulted. This often referred to as perfecting the bank's claim to collateral. Once the loan officer and the bank's loan committee are satisfied that both the loan and collateral are sound, the note and other documents are made up for a loan agreement.

10. Loan Acceptance Charge

After completing all processes, the bank decides to provide loan to the loan proponent. According to this decision, the proposed loan is in it. According to the provision of the loan document, borrower can withdraw the money from the bank. But sometimes, such a situation may be created that the borrower doesn't take the loan after the bank accepts the loan. In such condition, the bank can recover the charge from the proponent if he does not take the loan. Because, the bank can't withdraw that amount until the period is not ended. The cash remains in unproductive form in the bank. Therefore the bank takes that charge for accepting that loan.

11 Monitoring

After advancing loan to the customer, it seems to be the end of lending process. But actually it is the beginning of lending process. Can the loan officer put the signed loan agreement on the shelf and forget about it? Hardly!! The new agreement must be monitored continuously to ensure that the terms and conditions are being followed and that all required payments of principal and interest are being made as promised. For larger commercial credits, the loan officer will visit the customer's business periodically to check on the firm's progress and to see what other services the customers may need.

2.2.7 Loan Review

Loan review is the examinations of outstanding loans to make sure borrowers are adhering to their credit agreement and the bank is following its own loan policies. After the borrower and the bank have endorsed loan, what should the bank do with the loan files? Should the bank keep the loan file in the shelf and forgotten, until the loan falls due? Obviously not. After advance of loan, bank should maintain continuous relationship with the borrower until principal and interest are fully recovered. For this purpose, bank should conduct loan review of all borrowers.

The changing condition affects the borrower's financial condition and his or her ability to repay a loan. Fluctuations in the economy weaken some business and increase the credit needs. In case of individual loan, people may lose their jobs and serious health problems imperiling their ability to repay any outstanding loans. The bank's loan department must be sensitive to these developments. So the bank should periodically review all loans until they are fully recovered. There are some certain general principles that should be followed by bank while conducting the loan review. The most common principles are:

1. Regular

There must be regular loan review especially for all types of loans. It is important especially for large and criticized loan. Loan review should be carried out on periodic basis such as monthly, quarterly, half yearly or yearly.

2. Large loans

In the case of the large loans, the more frequently loan review is essential, because default on these loan agreements can seriously affect the bank's own financial condition.

3. Troubled Loans

Even adequate carefulness and precautions the bank has taken, some may fall into trouble due to uncontrolled environmental circumstances. Such troubled loans should be reviewed more frequently.

4. Deflation

If the economy shows down or if the industries are which the bank has made a substantial portion of its loans develop significant problem, the frequency of loan review should be increased to safeguard the bank from unexpected risks.

5. Structuring

To make the loan review perfect, it should be structured carefully to ensure all-important aspects of loans and borrowers are checked properly. The loan review should be able to check the following aspects of loan

- The completeness of loan documentation, to make sure the bank has access to any collateral pledge and possesses the full legal authority to take action against the borrower in the courts if needed.
- An assessment for whether the loan conforms to the bank's lending policies and to the standard applied to its loan portfolio by examiners from the regulatory agencies.
- The record of borrower payments, to ensure that the customer is not falling behind the planned repayment schedule
- The quality and condition of any collateral pledge behind the loan

2.2.8 Warning Signs of Weak Loan and Poor Bank Lending Policy

The manual given to bank examiners by the Federal Deposit Insurance Corporations of united stated discusses several indicators of problem loans and poor bank lending policies:

Table 2.1

Warning Signs of Weak Loan and Poor Bank Lending Policy

Indicators of a weak or Troubled Loan	Indicators of inadequate or poor bank lending policy
Irregular or delinquent loan payment	Poor selection of risks amount borrowing customers
Frequent alteration in loan terms	Lending money contingent or possible future
Poor loan renewal record (with little reduction of principal each time the loan is renewed)	Lending money because a customer promises a large deposit
Unusually high loan rate (Perhaps an attempt to compensate the bank for a high risk loan)	Failure to specify a plan for the liquidation of each loan
Unusually or unexpected buildup of the borrowing customer's accounts receivable and/ or inventories	High proportion of loans made to borrowers outside the bank's trade territory
Rising debt-to-net-worth ratio	Incomplete credit files
Missing documentation (especially missing customer financial statements)	Substantial self-dealing credits (loans to insiders-employees, directors or stockholders)
Poor quality collateral	Tendency to overreact to competition (making poor loans to keep customers from going to other banks)
Reliance or reappraisals of assets to increase the borrowing customer's net worth	Lending money to support speculative purchases
Absence of cash flow statements or projections	Lack of sensitivity to changing economic conditions
Customer reliance on nonrecurring sources of funds to meet loan payment (e.g. selling buildings or equipment)	

2.2.9 Non-Performance Loan

Non-Performing assets are those not generating income. Loans are normally considered to be non-performing when principle or interest on them is due and left unpaid 90 days or more. It is an international standard. The delinquency period for

NPA is therefore typically introduced at 180 days and then tightened to 90 days after a period of time. Commercial bank are suffering from problems in credit management and also some obstacles beyond the area of credit management those are contribution to raise the level of NPL. For the purpose of this analysis the factors contribution to have a high level NPL have been classified into two groups.

Internal Factors

The first is the internal factor which mainly comprise of weaknesses of the particular bank or financial institution in the credit management and oversight deficiencies in this regarded. If preventive measure is applied at the institutional level, the problem of NPL can resolve by bank them to some extend. Causes of NPL from internal factors are:

- Poor accounting and auditing capabilities
- Insider abuse and fraud in lending and recovery.
- Poor recovery efforts even the loan is categorized under bad
- Significant NPL in the system due to poorly managed few banks
- Lack of Lending policy guidelines and loan write off policies in the past
- Limited supervision by the bank itself and weak internal controls in the banks

External Factors

Another aspect related with the external factors, which are beyond the control of the banks and financial institution. While analyzing the causes of the astounding level of NPL, we can point out some of the components as follow:

- Lack of financial discipline within borrowers
- Security problems and conflicts in the economy
- Lack of judicial support to the banks in recovery
- Poor regulative and supervisory capacity of the central bank in the past

- Deterioration in economic growth rates and activities since last few years
- Lack of supportive institutions helping to reduce the NPL of commercial banks.
- Poor legislative regime in the system specially governing financial system and poor implementation issues. Fragmented legal environment and lack of bankruptcy law

2.2.10 Review of NRB Directives

NRB is the apex institution in the money and capital market. Being the nation central bank, it directs, supervises and controls the functions of the commercial Banks and other financial institutions. NRB has issued directives to all commercial banks and financial institution ensuring transparency during loan disbursement. As per provision, all commercial banks as well as financial institutions are now required to disclose the name of loan defaulters in every six months. The new directives have also barred the financial institutions from lending any amount to the blacklisted defaulter and his family members. The credit information Bureau (CIB) can blacklist the firm, company or clear the debt within the stipulated period. As per the set criteria for blacklisting, the CIB would monitor those individuals and companies that have the principle loans of above one million. If the creditor fails to clear the amount within time or is found mission the loans among others, the creditor can be blacklisted.

NRB has issued various directives in order to develop a healthy, competitive and secured banking and economic system to ensure national development. The new, updated and comprehensive set of directive has been issued on 2062-03-29 and is effective from 2062-04-01. While some of them are collections of existing directives, some other is new additions. It can be safely assumed that with the updated and comprehensive set of directive, the functioning of commercial banks

would be more transparent and systematic. The new and updated directive which is related with lending are briefly discussed below:

Capital Structure of Banks

The current regulation of NRB prescribes that all the new commercial banks are to be established in Kathmandu at national level should have minimum paid up capital Rs.2000 million; the existing banks in operation are required to enhance the capital level to Rs.2000 million by the end of FY 2065/66 BS. For this purpose and objective all the commercial banks have furnished their plans to enhance the level of capital accordingly. With effect from fiscal year 2062/63, the commercial banks need to have minimum of capital adequacy as below:

Table 2.2
Maintenance Minimum Capital Fund

Time Table	Required Capital on the basis of Risk weighted assets	
	Core Capital	Capital Fund
For FY 2061/62	5.5 %	11 %
For FY 2062/63	6.00%	12%
For FY 2063/64	5%	11%

It is to be noted that capital fund comprises of both primary capital and supplementary capital. Similarly the risk-weighted assets will include both on-balance sheet items and off-balance sheet items. Standard format and weighted percentage is given in the directive itself and commercial bank need just to fill the columns to see whether required percentage is maintained or not.

General Loan Loss Provision

Under this head provision made only against the pass loan should be included. The amount should be limited up to 1.25 % of the total risk weighted assets. However,

loan loss provision on sub standard and doubtful loans should be available for inclusion under the supplementary capital during the period as follows.

Table 2.3
General Loan Loss Provision

Time Period	Loan Loss Provision available for Supplementary Capital
For FY 2058/59	Pass, Sub-Standard and Doubtful
For FY 2059/60	Pass, Sub-Standard
For FY 2060/61	Pass (Up to 1.25% of total risk weighted assets)
For FY 2061/62	Pass (Up to 1.25% of total risk weighted assets)
For FY 2062/63	Pass (Up to 1.25% of total risk weighted assets)

Classification of outstanding loan and advances on the basis of aging

From the effective Fiscal year 2058/59, banks should classify outstanding amount of Loans and Advances on the basis of aging. Loan and advantages should be classified into the following four categories:

1. Pass Loans

Loans and advance whose principle amount not due and past due for a period up to 3 month shall be included in this category. These are classified as Performing Loans.

2. Sub-Standard Loans

All loans and advances that are past due for a period of 3 month to 6 month shall be included in this category.

3. Doubtful Loans

All loans and advances, which are past due for a period of 6 month to one year, shall be included in this category.

4. Loss Loans

All loans and advances which are past due for a period of more than one year as well as advances which have least possibility of recovery or considered unrecoverable and those having thin possibility of even partial recovery in future shall be include in this category.

Provision for Good Loan

Loan and advances fully secured by gold, silver, fixed deposits receipts and Nepal Government securities should be included under “pass” category. Where collateral of fixed deposit receipt or Nepal Government securities or NRB bonds is placed as securities against loan for other purposes, such loan is classified on the basis of aging.

Additional Arrangement for “Loss” Loan Provision

Even if the loan is not due, loans having any or all of the following discrepancies shall be classified as “Loss”

-) The borrower has been declared bankrupt
-) The borrower is absconding or cannot be found
-) The credit has not been used for the purpose originally intend.
-) Purchased or discounted bills are not realized within 90 days from the due date
-) Loans provided to the borrowers included in the blacklist and where the credit information bureau blacklists the borrower
-) Owing to non-recovery, initiation as to auctioning of the collateral has passed six months and if the recovery process is under litigation.

Additional Arrangement in Respect of Term Loan

In respect of term loans, the classification shall be made against the entire outstanding loan on the basis of the past due period of overdue installment.

Loan Loss Provision Policy

NRB has issued the directives which commercial banks should make provision against the loan disbursed them. The loan loss provision on the basis of the outstanding loans and advances classified as per NRB Directives should be provides as follows:

Table 2.4
Loan Loss Provision Policy

S.N	Classification of Loans	Define as	Age	Loans Loss Provision
01	Pass or Good	Performing Loan	Principle not overdue up to 3 months	1%
02	Sub-Standard	NPL	Principle overdue by more than 3 to 6 month	25%
03	Doubtful	NPL	Principle overdue by more than 6 to 12 month	50%
04	Loss or Bad	NPL	Principle overdue by more than 12 month	100%

Additional Provisioning for Personal Guarantee Loans

Where the loan is extended only against personal guarantee, a statement of the assets, equivalent to the personal guarantee amount not claimable by any other shall be obtained. Such loans shall be classified as per above and where the loans fall under the category of Pass, Substandard and Doubtful in addition to the normal loan loss provision applicable for the category, an additional provision by 20 % point shall be provided. Classification of such loans and advances shall be prepared separately. Hence the loan loss provision required against the personal guarantee loan will be 21%, 45% and 70% for Pass, Standard and Doubtful category respectively.

Rescheduling and Restructuring of Loan

In respect of loans and advances falling under the category of Substandard, Doubtful or Loss, banks may reschedule or restructure such loans only receipt of a written plan of action from the borrower citing the following reasons:

- Evidence of existing of adequate loan documentation
- The internal and external cause contribution to deterioration of the quality of loan.
- An evaluation of the borrower/enterprise's management with particular emphasis on efficiency, commitment and high standards of business ethics
- The reduced or risk inherent to borrower/enterprise determined by analyzing its balance sheet and profit and loss account in order to estimate recent cash flows and to project future ones, in addition to assessing market conditions.

Loan Loss Provision in respect of rescheduled, restructured or swapped loan

- Except for priority sector, in respect of all types of rescheduling or restructured or swapped loan, if such credit falls under Pass category according to Nepal Rastra Bank directives, loan loss provision shall be provided at minimum 12.50%
- In case of rescheduling or restructuring or swapping or insured of insured or guaranteed priority sector credit, the loan loss provisioning shall be provided at one fourth of the percentage.
- In respect of swapped loans, the bank accepting the loans in swapping has to provide loan loss provision classifying the loan is swapping shall obtain certification from the concerned bank of financial institution as to the existing classification.

Loss Loan Provision for Priority Sector Lending

Full provision as per normal loan loss provisioning shall be made against the uninsured priority and deprived sector loans. However in respect of insured loans the requisite provisioning shall be twenty five percentage of the percentage normal loan loss provisioning. The required provisioning in the case of insured priority / deprived sector credit is as follows:

Table 2.5

Loss Loan Provision for Priority Sector Lending

Classification of Loans	Loans Loss Provision for Priority/ Deprived Sector Lending
Pass or Good	0.25%
Sub-Standard	5.00%
Doubtful	12.50%
Loss or Bad	25.00%

2.3 Review of Previous Studies

2.3.1 Review of Books

Cross(1963) has mentioned in his book “Management Policy for Commercial Banks”, that lending is the essence of commercial banking, consequently the formulation an implementation of sound lending policies are among the most import responsibilities of bank directors and management. Well-conceived lending policies and careful lending practices are essential if a bank is to perform its credit creating function effectively and minimize the risk inherent in any extension of credit. Before formulation a lending policy, many factors have to be taken into consideration because banks are not the real owners of deposits but rather the custodians of money. Crosse has further pointed out the various factors to be considered before planning for sound lending policy. The factors include community’s need of money, determining the size of the loan portfolio and the

character of loan payment, purpose and protection. Other factors for consideration for sound lending policy include credit worthiness, assets pledged to secure borrowing, interest rate policy etc. Cross strictly point out that the lending policy must be will spread. It should be of short-term character, repayable on demand, profitable and it should be with adequate securities.

Bhattacharya (1975) in his book “Banking Strategy, Credit Appraisal and Lending Decisions” has put the recommendation of Tondon Committee from the report submitted this committee. The committee has prepared this report in 1975, however these recommendation stills deserve great significance in the sector of credit appraisal and lending. Breaking away from the traditional methods of credit appraisal, the system proposed by the Committee enjoined upon the banker:

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

The committee examined the examined the existing system if lending and recommended the following broad change in the lending system:

- The credit needs of borrowers assessed on the basis of their business plans.
- Credit be made available in different components only, depending upon the nature of holding of various current assets.
- Borrowers are required to hold inventory and receivables according to norms prescribed by the Reserve bank of India from time to time.
- Bank credit only supplementary to the borrower’s resources and not in replacement of them. Banks not to finance 100 percent of borrower’s requirement.

Singh (1983) the credit policies of bank are condition to great extent by national policy frame work, every banker has to apply his own judgment for arriving at a credit decision, keeping or course, his banker's credit policy also in mind. The further state, the field of credit is more challenging as it offers relatively greater scope to banker for judgment and discretion in selection their loan portfolio. But this higher degree of freedom in the field of credit management is also accompanies greater risk. Particularly during recent years, the credit function has become more complex.

Cheney and Edward (1988) said that the lending objectives are to increase systematically the individual wealth, defined as asset, minus liabilities. The higher the level of desired wealth the higher must be received. An investor seeking higher return must be willing to face higher level of risk.

Baidhya (1996) has given his view on sound credit policy. He has said that, a sound credit policy of a bank is such that its funds are distributed on different types of assets with good profitability on the one hand and provides maximum safety and security to depositors and bank on the other hand, moreover risk in banking sector trends to be concentrated in the loan portfolio. When a bank gets into serious financial trouble its problem usually spring from significant amounts of loan that have become uncollectible due to mismanagement, illegal manipulation of loan misguided lending policy or unexpected economic downturn.

Frank (1999) defines, an credit may be define as current commitment of funds for a period of time to derive future flows that will compensate the investing unit for the time the funds are committed, for the expected rate of inflection and also for the uncertainty involved in the future flow of the funds. Loan management of a bank is guided by the credit policy adopted by the bank. The credit policy of the

bank helps the lending operation of the bank to be efficient and profitable by minimizing the inherent risk.

2.3.2 Review of Articles

In this section, effort been made to examine and review of some related articles and journals published in different economic journals, which. Among the various reviews of various journals pertaining to the study, the major and mostly contributing to the study has been outlined below.

Moris (1990) in his article entitled "Latin America's banking system" in the 1980's has concluded with most of the banks concentrated on compliance with bank rules on reserve requirement, credit allocation and interest rates, while analyzing loan portfolio quality, sound investment policy, operating efficiency has largely been overlooked. In developing countries, there are huge losses found in the bank's portfolio due to poor quality of their oversight investment function. He further adds that poor management of financial institution has involved inadequate and over optimistic loan appraisal, tax, loan recovery, high risk diversification of lending and investments, high risk concentration connected and insider lending, loan mismatching".

Dr. Shrestha (1998) in her article "Lending operation of commercial banks of Nepal and its impacts on gross domestic product" has presented with the objectives to make an analysis of contribution of commercial banks lending to the gross domestic product of Nepal. She has set hypothesis that there is a positive impact of lending of commercial banks to the gross domestic product. In research methodology, she has considered gross domestic product as the dependent variable and various sectors of lending viz. agriculture individual, commercial services, general and social sector as independent variable. The multiple regression analysis

has shown that all the variables expect service sector lending have a positive on the gross domestic product.

Shrestha (1998) in his articles, “A study on deposit and credits of commercial banks in Nepal” concluded that the credit deposit ratio would be 51.30% other things remaining the same in 2004 AD, which was the lowest under period review. So he had strongly recommended that the commercial bank should try to give mote credit entering new field as far as possible. Other wise they might not be able to absorb even its total expenses.

Charles and Chirstopher (2002) in his articles “Do Banks provide financial slack?” in their main hypothesis is that the banks have the ability to accurately price financial claims thus including a preference for undervalued firms to choose bank debts as their marginal financial sources. They refer to this expect that this information benefit will be weighted against a varity of contracting costs in an firm’s ultimate financing choice. In particular, they find that firms who exhibit small pronouncement stock price urn-ups and those with high stock return volatility are relatively more likely to announce new bank loans. Since they expect that these firms are the most likely to be undervalued, these findings are consist dent with the presence of an information benefit to bank debt finance. For identify the firms weighted these information benefits of bank finance against other contracting costs, they examine the variation. They find that firms with public debt outstanding tend to exhibit a relatively low sensitivity of bank loan likelihoods to these variables. Since they expect that the contracting costs of bank debt finance are relatively that firm weights the information benefits of bank debt against the contracting costs. The results suggest for firms with public securities market for the firms to cross the threshold where the information benefits of bank debt finance out weight the relatives contracting costs.

Chetri (2002) in his article “Non-Performing Assets: A need for Rationalization”, the writer has attempted to provide connotation of the term non performing loan and its potential sources, implication of non performing loan in financial sector in the South East Asian region. He had also given possible measures to contain non performing loan. “Loans and advances of financial institutions are meant to be serviced either part of principal of the interest of the amount borrowed in stipulated time as agreed by the parties at the time of Loan settlement. Since the date becomes past dues, the loan becomes non-performing assets. The book of the account with lending institution should be effectively operative by means of real transaction effected on the part of the debtor in order to remain loan performing.” As stated by the writer, the definition of non performing loan differs from country to country. In some of the developing countries of Asia Pacific Economic Cooperation forum, a loan is classified as non-performing only after it has been area for at least 6 months. Similarly, it is after three months, in India. Loans thus defaulted are classified into different categories having their differing implication on the asset management of financial institution. He also stated that NPA are classified according to international practice into three categories namely substandard, doubtful and loss depending upon the temporal position of loan default. “Thus the degree of non performing assets depends solely on the length of time the assets has been in the form on none obliged by the loanee. The more time it has elapsed the worse condition of assets is being perceived and such assets are treated according. As per Mr Chhetri’s view, failure of business which loan was used, defective and below standard credit appraisal system, credit program sponsored by government, slowdown in economy/recession, diversion of fund is some of the factors leading to accumulation of NPA.

Shrestha (2002) in his article title “Modus Operandi of Risk Appraisal in Bank Lending” has tried to highlight different aspects of credit risk management. As per his view, as the effective risk management is central to good banking, the tradeoff

between risk and return is one of the prime concerns of any investment decision whether long-term or short-term. He concludes, “Effective credit risk management allows a bank to reduce risks and potential non performing assets. It also offers other benefits. Once banks understand their risks and their costs, they will be able to determine their most profitable business, thus, price products according the risk. Therefore, the banks must have an explicit credit risk strategy and supported by organizational changes, risk measurement techniques and fresh credit process and systems. Approach to collateral, Concentration on correlated risk factors, Credit sanctioning and monitoring process, Credit risk arises from new business opportunities and Credit exposures relative to capital or total advances are the five crucial areas that management should focus.

Ghimire (2003) in his article titled “Credit sector reform and NRB” has tried to highlight the effects of change or amendment in NRB directives regarding loan classification and loan loss provisioning. “Although the circumstances leading to financial problem or crisis in many Nepali banks differ in many respects, what are common across of most of the banks for increased size of non-performing assets? To resolve the problem of the losses or likely losses of this nature facing the industries NRB as the central bank, amended several old directives and issued many new circulars in the recent years.” As opined by him, since majority of the loans of most of the commercial banks of the country at present falls under substandard, doubtful and even loss categories, loan loss provisions now compared to previous arrangement would be dramatically higher. In the conclusions he has mentioned that in the recent years, NRB has worked for management and reforms of credit of the financial institution more seriously and NRB has adopted reforms aimed not just at dealing with problem banks but also at strengthening banking supervision to reduce the likelihood of future crisis. “All prudential directives of NRB in connection of credit sector reform have been made revised on after April 2001. To adapt such changes there can be some difficulties and for a better and

harmonized reform NRB should continue to supportive proactive and also participative to take opinion of banker for change in regulation policy taking place in future.

Pradhan (2004) in his article “The Importance of Loan Information Center and its Activities” published in NRB Annual Publication says that the loan information center was established to fulfill the necessity of a company working in relation to information related to loan. He further adds that the negative trends like delaying the payment of principal and interest, deficient loan approval procedures, lack of constant inspection of projects, lack of coordination between bank have aided in the increase of NPL ultimately affecting the national economy negatively. He recommend the banks help the loan information center by following the directives of NRB and utilizing the information obtained from the center so that positive changes can be witnessed.

2.3.3 Review of Previous Dissertations

Many researchers have published their article about the lending policy in Nepal. There are many theses that have been conducted by students regarding the several of commercial banks in order to achieve their goal effectively. Some of these as supposed to relevant for the study are presented below.

Bhattarai (1994) in her thesis paper outlined, “Lending Policy of Commercial Banks in Nepal” has tried to examine the lending policy of the commercial banks. She has concluded that efficient utilization of resources is more important than collection of the same Lower investment means lower capital formation that hampers economic development of the people and the country. Therefore, she recommended that bank should give emphasis on efficient utilization of resources.

Ojha (1997) has drawn her conclusion in her thesis “A study on priority sector investment in commercial bank with special reference to Rastriya Banijya Bank” that the bank was unable to meet the requirement of 12 % lending in the priority sector set under NRB directives. During study period, she further found low interest rate in priority sector but increasing trend of overdue and its miss utilization. She recommended improving evaluating borrower’s paying capacity and reducing the over due through integrated program of priority sector loan.

Karmacharya (1980) in his thesis paper, “A study on the deposit mobilization by the Nepal Bank Ltd.” Has concluded that the utilization side of NBL. Is weak as compares to the collection resources. Karmacharya has mentioned that the bank has successfully maintained its liquid asset position but could not mobilize its resources efficiently. Karmacharya has suggestion to set up more banking branches to increase the deposit collection and long-term as well as short-term credit.

Joshi (1982) in his thesis paper outlined “Lending policy of commercial banks in Nepal” concluded that commercial banks have collected many resources from people but they are far behind in their utilization. Commercial banks in Nepal are still lazy to play an active role to utilize their resources collected from different sector in accordance with the need of the economy.

Laudari (2001) has conduct his study entitled “A study on investment policy of Nepal Indosuez Bank Ltd, In comparison to Nepal State Bank of India Bank Limited” The researchers’ main objective of the study was to examine the liquidity assets management and profitability position and investment policy of NIBL in comparison to NSBI to study the growth ratios of loan and advances and investment to total deposits and net profit of NIBL in comparison to NSBI. Through his research Mr. Shib Raj Laudari has found that the NSBI and NIBL

banks current assets have exceeded the current liabilities therefore the ratio is consider satisfactory. But there cash reserve ratios have flucted in high degree. However NIBL has maintained both current ratio and cash reserve ratio better then of NSBI. He stated that NIBL has invested lesser amount on government securities and share and debenture than that of NIBI.

Dhungana (2002) in his thesis the “Investment policy of Nepal Bangladesh Bank Ltd. And Other Joint Venture Banks” summarizes that the mushrooming of joint venture banks is present situation of Nepalese financial system. There is a high flow of money in the market but less viable and invest able project. Few commercial banks are continuously making profit and satisfying their shareholders and returning them adequate profit. This has attracted the potential customer to pour their money into banks, as there very few sectors to make a profitable investment and investors are always reluctant to risk. But lack of sound investment policy is one the reasons for commercial banks not to utilize properly its deposits in profitable projects. He recommends Nepal Bangladesh Bank Ltd. to implement a sound collection Policy. The policy should ensure rapid identification of delinquent loans, immediate contact with borrower and continual follow-up until a loan is recovered.

Gautam (2002) conduct a study “Lending Practices and procurers of NBBL” has outlined his major findings as follows: not concentrating only in big cities and large groups, he has suggested NBBL to expand branches in rural areas. Banks should invest in productive sector, develop the concept of micro of micro financing and group financing should maintain the balance in its loan portfolio and current requirement of the customers. Banks should give preferences to the short term lending. Banks should provide the consortium loan for those for those projects under government guarantee and security thereby uplifting the economic condition of the country.

Khadka (2002) has carried out research on “A Comparative Study on Investment Policy of Commercial Banks” with objective to find out the relationship between deposits, investment, loans and advances and net profit. She has made the following conclusion while comparing the performance of NBL with NABIL, SCBNL and NBL. She concludes, “NBL is comparatively less successful in on balance sheet as well as off-balance sheet operations than that of other CBs. It predicts that in the coming days if it could not mobilize and utilize its resources as efficiently as other CBs to maximize the returns, it would lag behind in the competitive market of banking. Profitability positions of NBL are comparatively worse than that of other CBs. It predicts that NBL may not maintain the confidence of shareholders, depositors and its all customers if it cannot increase its volume even in future”. As the bank experience many difficulties in recovering the loans and advances and their large amount is being blocked as NPA. She suggested that there is an urgent needs to workout a suitable mechanism through which the overdue loan can be realized.

Sharma (2002) in his study about “Priority Sector Investment of Commercial Banks in Nepal”, with the objective of highlighting the priority sector investment and repayment state of commercial banks in Nepal through intensive banking programmed and to show the repayment position of the sector has concluded, “All the three commercial bank covered in this study have contributed to the credit to priority sector. But the efforts made by different banks are not in the same proportion. NABIL has contributed highest amount of credit to agriculture and cottage industry. NBBL has contributed highest amount to services sectors. So for the loan repayment from priority sector is concerned NABIL has very satisfactory performance where as NBBL has very low performance or loss repayment overdue loan have been observed more in agriculture”. He has further suggested that, commercial banks should improve the repayment loan by generation the income of rural farmers. Reinvestment and right utilization of bank loan are the

cost of the commercial banks since there is a need to increase assets by better arrangement of institution and organization, the manager and loan staff of the branches should be provided with adequate training so that they could identify right borrowers, right project and ensure correct project appraisal.

Shrestha (2002) study regarding the “Investment Practices of Joint Venture Banks in Nepal” has figured out that the bank are more emphasized to be making loan on short-term basis against moveable merchandise. Commercial banks have a lot of deposits but very little investment opportunity. They are even discouraging people by offering very low interest rates and minimum threshold balances. Commercial banks invest their funds in limited areas to achieve higher amount of profit. This is regarded as a very risk step, which may lead to the loss of profit as well as the principal. The credit extended by commercial banks to agricultural and industrial sector is not satisfactory to meet the growing need of the present.

Ghimire (2005) explored in his research “NPA of Commercial Banks: Cause and Effect” and found that Nepalese banking sectors in recent days are facing several problems with increasing number of problems. With the level of increasing NPA profitability performances of the bank has been badly affected. To find out the causes of non performing assets increment with commercial banks basis of loan floating procedure follow up practice carried out by the bank for the recovery of overdue loan outstanding, internal responsible factor causing NPA growth have been tried to sort out. Analysis shows that relationships of borrowers with top management as the most adopted basis for floating loan in Nepalese commercial banks. Similarly respondent identified portfolio management consideration the second basis for floating loan in the certain sectors. Monitoring and control, security offered and financial strength were given average emphasis.

In regarding to the internal responsible factor that contributes turning good loan into bad loan. It was found that bad intension, week monitoring and miss management are the most responsible factor for NPA. Similarly weak legal provision and credit concentration are found as the least preferred factor in turning good loan into bad. Some factors such as lack of portfolio analysis not having effective credit policy and shortfall on security were identified as having average effect on non performing assets growth. In connection to the external factors, it has been found that recession political and legal issues more relevant factors in turning good loan into bad, likewise, legal provision for recovery as a reason for increment in non performing loan in Nepalese banks was found the factor having least impact. Supervision and monitoring system have been identified as average factor. It is therefore can be generalized that economic and industrial recession and not having strong legal provision for loan recovery are the major external factors that have major contribution for the increasing level of NPA.

Tamang (2005) conduct a thesis “A Comparative Study on Credit Management in Himalayan Bank Ltd. and NABIL Bank Ltd.” has found out that the credit practices of NABIL in terms of loans and advances to deposit ratio was found relatively low mean score than HBL. It indicates that NABIL has been strong to mobilize its total deposit as loan and advances in comparison to HBL. Efficiently in terms of loan and advances to current asset ratio was found higher in NABIL (i.e.3.2251>2.1426) in which indicates that short term lending practices of NABIL was found relatively good position. HBL has best performance to generate interest income from loan and advances in comparison to NABIL (i.e.839.42>781.66). Lending policy of NABIL in terms of loan loss provision to total loan and advances was found relatively better than of HBL because the mean score of the result was relatively low (i.e.0451<0.0777). Lending policy of NABIL with regard to NPL to total loan and advances was found relatively better in comparison to HBL.

The finding also showed meaningful that the quality of management in both banks was found to be good because the means score of the component management quality scored above the average (i.e.4.6527). Because all the items designed for study scored above the average and that resulted relatively high level of management quality. But in comparison, the means score of NABIL Bank was higher than the mean score of HBL (i.e. 4.7143>4.5979). It means that the employees of NBL perceived relatively higher-level management quality than HBL. The finding was not significant at 0.01 levels.

2.4 Research Gap

Lending is the increasing challenges faced by commercial banks. Some researches have been done on this subject. Previous researcher analysis the lending policy by using secondary data in term of investment policy and lending practices. In this study lending policy is measuring by lending practices, trend analysis and various statistical tools used in analyzing questionnaire. The previous study could not submit the present facts. Hence the researcher had attempted to fill this research gap by taking reference to commercial banks. This research will be able to deliver some of the present issues, latest information and lending policy of commercial bank.

CHAPTER-III

RESEARCH METHODOLOGY

The research methodology is the systematic way of solving research problems. Research methodology refers to the overall research processes, which a researcher conducts during his/her study. It includes all the procedures from theoretical foundation to the collection and analysis of data. The chapter includes research design, population and sample, sources of data so on.

3.1 Research Design

Research design is the plan, structure and strategy of investigations conceived so as to obtain answer to research questions and to control variances. Research design is the arrangement of conditions for collection and analysis of data. To achieve the objective of this study, descriptive and analytical research design has been used. Some financial and statistical tools have been applied to examine facts and descriptive techniques have been adopted to evaluate lending of commercial banks.

3.2 Population and Samples

In statistics, population means whole. The populations refer to the industries of the same nature and its service and product in general. The total commercial banks constitute the population of the data and the bank under study constitutes the sample for the study.

3.3 Natures and Source of Data

Secondary sources of data have been collected in order to achieve the real and fact data as far as available. The secondary data, on the other hand, are those which have already been collected by someone else and which have already been

passed through the statistical process. The major sources of secondary data are as follows:

- Books related to loan portfolio
- Annual General Reports of the Bank
- Economic survey, HMG, Ministry of Finance
- NRB Directives and Reports, NRB Samachar
- National Newspaper, Journals, Websites and Magazines

This study is mainly based on secondary data, obtained from various sources mentioned above. Nepal Rastra Bank publications such as quarterly economic bulletins, banking and financial statistics, economy report so on have been collected by the personal visit of concerned departments of Nepal Rastra Bank at Baluwatar. The data on some aspects of bank has also been obtained from the publications and websites. Most of data are taken from each and every commercial banks website. Some supplementary data and information and literature review have been collected from the Shanker Dev Campus Library, NRB Library, different journal and magazines.

3.4 Analysis of Data

To achieve the objective of the study, various financial, statistical and accounting tools have used in this study. The analysis of data will be done according to pattern of data available. The various calculated results obtained through financial, accounting and statistic tool are tabulated under different heading. Then they are compared with each other to interpret the results. Various tools applied in this study are presented as follows:

Financial Ratio

Financial analysis is the process of identifying the financial strength and weakness of the firm by properly establishing relationship between the items of the balance

sheet and profit and loss account. A ratio is simply one number expressed in term of another and such it expresses the quantitative relationship between any tow numbers. Ratio can express in terms of percentage and proportion. Different kinds of char are the graphic forms of expressing a ratio. Financial ratio is the mathematical relationship between two accounting figures. Ratio analysis is a part of the whole process of analysis of financial statements of any business or individual concern especially to take output and credit decision. Ratio analysis is used to compare a firm's financial performance and status to that of the other firms or to it overtime. Even though there are ratios to analyze and interpret the financial statement, only those ratios that are related to lending operation to the have been covered in this study.

Statistical Tools

Some important statistical tools are used to achieve the objectives of the study. In this study statistical tools such Trend analysis, Correlation of coefficient and regression analysis have been used.

a) Trend Analysis

When a series of data pertaining to a series of continuing periods should be studied it characteristics and its future direction is the best estimated by the time series. Time series analysis a series of data keeping in minds the various short term and long term fluctuations.

b) Mean (Average)

Mean is the sum of all the observation divided by the number of observations. The arithmetic mean can be computed as:

$$\text{Mean (average)} = \frac{X}{n}$$

c) Standard Deviation

The standard deviation measures the absolute dispersion. The greater amount of dispersion, greater the standard deviation. A small standard deviation means a high degree of uniformity of the observations as well as homogeneity of a series, a large Standard Deviation mean just the opposite.

d) Correlation Coefficient

Correlation is the statistical tool that we can use to describe the degree to which one variable are linearly related to another. The coefficient of correlation measures the degree of relationship between tow sets of figures. Among the various methods of finding out coefficient of correlation, Karl Person's method is applied in the study. The result coefficient of correlation is always between +1 and -1. When $r = +1$, is means there is perfect relationship between two variables and vice versa. When $r = 0$, it means there is no relationship between two variables.

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}}$$

e) Coefficient of Determination

Coefficient of determination is the square of correlation coefficient. It denotes the extend of changes in dependent variable that can be explained by independent variable.

$$\text{Coefficient of determination } (r^2) = r \times r$$

f) Probable error (P.Er)

With correlation coefficient, probable error is calculated to measures the extent of dependent variable that can be explained by the independent variable.

$$\text{Probable error (P.Er)} = 0.6745 \left| \frac{\sum Zr^2}{\sqrt{n}} \right|$$

g) Regression Analysis

Regression analysis is used to estimate the likely value of one variable from the known value of the other variable i.e. in regression analysis we established a kind of average irreversible functional relationship between the two variables. The cause and effect relationship is clearly indicated through regression analysis than by correlation. Regression analysis has been developed to study and measures the statistical relationship between two variables only then the process is known as the simple regression analysis. Regression lines express in term of mathematical relations are known as regression equations. It is the line which gives the best estimates for the values of Y for any specified value of X.

Regression equation of Y on X is given by

$$Y = a + bX$$

Where,

Y = Dependent variable a = Intercept of the line

X = Independent variable b = Slope of the line

The values of the constants 'a' and 'b' can be determined by solving two normal equations (applying principle of method of least squares)

CHAPTER-IV

DATA PRESENTATION AND ANALYSIS

This chapter is concerned with the presentation and analysis of data collected. In this chapter, the data collected from various sources have been presented and analyzed to measure the various dimensions of the problems of the study. In this process numerical data, tables charts are used to visualize and get the solution of the problem. The chapter implies two parts. The first part of the study deals with presentation and analysis of data while second part includes major finding of the study.

4.1 Measurement of Lending Strength

The relationship between various assets and liabilities of the balance sheet has been established to show the lending strength of lending of commercial banks comparatively. An attempt is made to determine the lending strength in absolute figure of each commercial bank.

a) Loan and Advances to Total Deposit Ratio

Commercial banks can collect deposit only ten times more than their authorized capital. Commercial bank cannot provide all deposit for loan and advance, Investment so on. According to NRB directives, commercial bank can provide only up to 88% of loan from fixed deposit, 50% from saving deposit and call deposit. However, they can not provide loan from current deposit. Commercial bank must deposit two or five percentage of their total deposit in Nepal Rastrya Bank account. This percentage is fixed by their type of deposit.

The main sources of bank's lending are its deposit. Thus, Loans and Advances to total deposits ratio actually measures how successfully the commercial banks are able to mobilize their total deposits on loans and advances for the purpose profit

generation and fund mobilization power. Higher the ratio indicates the better mobilization of total deposits, but too high ratio is not being better from its liquidity point of view. Lower ratio indicates the idle amount of deposit. So that higher ratio is favorable. Total loan and advances to total deposit ratio is calculated by total loan and advances divided by total deposit.

Table 4.1 show the average loan and advances to total deposit ratio of EBL, LBL and NABIL banks.

Table 4.1
Loan and Advance to Total Deposit Ratio

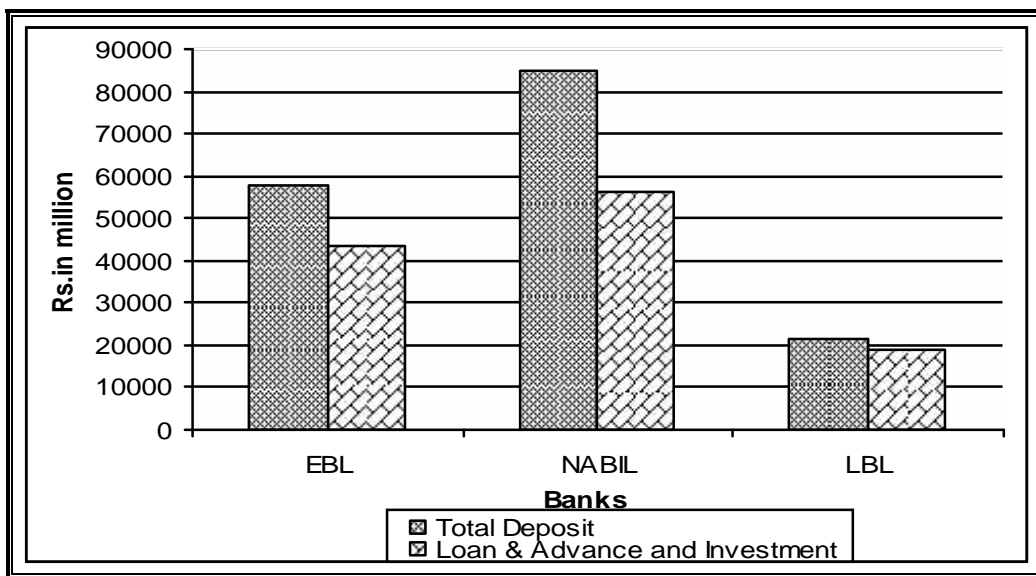
Banks	Fiscal Years					Mean	S.D	C.V
	2003	2004	2005	2006	2007			
NABIL	59.51%	61.25%	75.95%	67.30%	67.08%	66.22	5.77	8.71%
EBL	75.15%	75.85%	78.38%	73.35%	73.62%	75.27	1.81	2.41%
LBL	88.75%	84.90%	94.72%	90.15%	81.97%	88.10	4.39	4.98%

Sources: Appendix:-1

The loan and advances to total deposit ratio of NABIL bank was in increasing trend per year where as EBL and LBL ratio was in decreasing trend in last five years. Among these three banks EBL and LBL are able to mobilize their deposit in right way. EBL and LBL ratio was higher then NABIL bank. Their mean ratio is 95.57% and 87.68% respectively. These two banks are able to get more profit form their loan and advances. NABIL bank is unable to utilize their deposit for the profit generating purpose in effective way. NABIL bank means ratio is only 52%. It means, NABIL have so many idle amount of deposit which increases it deposit expenses. Deposit expenses will decrease the NABIL bank profit.

EBL have higher risk then NABIL and LBL. Standard Deviation of EBL is 16.92. The coefficient of variation of LBL is lower than that of EBL and NABIL banks which indicate that loan and advances of it is stable and consistent. The Figure:- 4.1 show the five year average total loan and advances and total deposit of EBL, LBL and NABIL banks.

Figure 4.1
Loan and Advances and Total Deposit



Lastly, it can be concluded that the EBL ratio was strongest then LBL and NABIL. EBL and LBL is in strong and better position regarding mobilization of total deposit on loan and advance and acquiring higher profit. Higher ratio is not good from the view point of liquidity as the loans and advance are not liquid as cash and bank balance.

b) Non Interest Bearing Deposit to Total Deposit Ratio

The cost of deposits is the major expenses of commercial banks. Banks cannot avoid costly deposits at all but they can maintain the certain proportion between interest bearing deposits and non-interest bearing deposits by administering the

interest rate structure. Current deposit is known as non interest bearing deposit. This ratio measures the volume of non-interest bearing deposits in total deposits. In practices interest-bearing deposits has always been playing a significant role in the mix of deposit liability. Non interest bearing deposit to total deposit ratio is calculated by non interest bearing deposit divided by total deposit. Higher ratio is favorable because in this type deposit banks did not pay any kinds of interest.

Table 4.2 explain the ratio of five year average non interest bearing deposit to total deposit ratio of NABIL, EBL and LBL.

Table 4.2
NIBD to Total Deposit Ratio

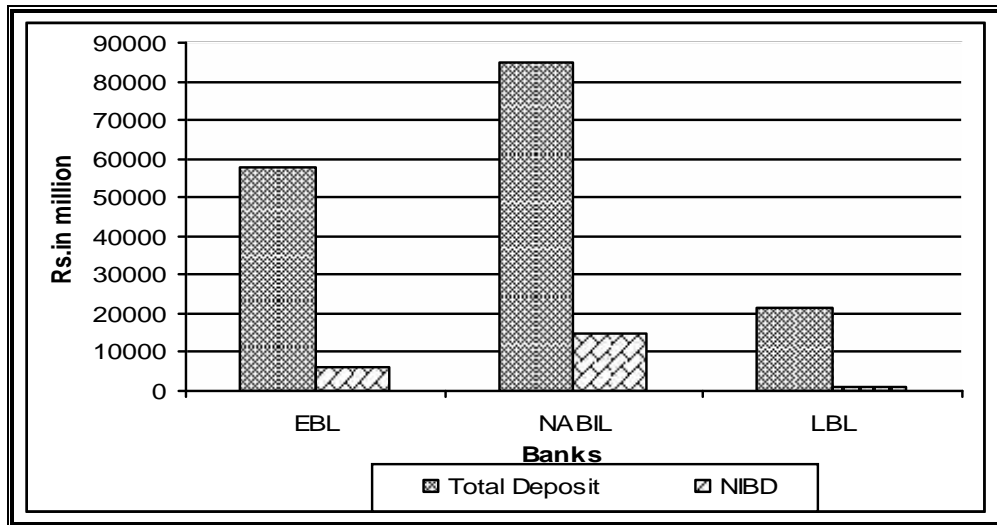
Banks	Fiscal Years					Mean	S.D	C.V
	2003	2004	2005	2006	2007			
NABIL	22.51%	19.06%	19.49%	15.26%	14.76%	18.22	2.88	15.80%
EBL	8.40%	8.93%	10.05%	8.37%	13.72%	9.91	2.01	20.27%
LBL	5.36%	5.29%	3.72%	3.34%	5.78%	4.70	0.98	20.77%

Source: Appendix:-2

In the last five year NABIL bank's NIBD to total deposit ratio was higher then EBL and LBL. This indicates that NABIL bank was successful in collecting cheapest fund. Higher ratio decrease NABIL bank interest expenses and it will increase its profit. EBL and LBL banks have lowest ratio. EBL and LBL banks mean ratio is 9.91% and 4.70%. EBL and LBL banks are unable to collected NIBD. That means they have mostly interest bearing deposit which increase their deposit expenses. Their interest expenses will high which affect their interest income in negatively i.e. lower ratio decrease their profit.

LBL have lowest risk then other bank because its standard deviation is 0.98 which is lowest then other banks. But its CV is higher. NABIL bank has lower CV between these three banks. Figure 4.2 show the five year average NIBD and total deposit of EBL, LBL and NABIL.

Figure 4.2
NIBD and Total Deposit



c) Loan and Advances to Total Assets

Loan and advances is the major components of the total assets, which indicate the ability of banks to utilize its deposits in the form of loans and advances to earn high return. It is an appropriate level to generate profit. The high degree of this ratio indicates the good performance of the commercial banks in mobilizing its funds by way of lending function. However, its reverse side, the high degree of this ratio is representative of low liquidity ratio either.

Granting the loan and advances always carries a certain degree of risk. Thus, this asset of banking business is regarding as risk assets. This ratio also measures the management attitudes towards risk assets. The low ratio is indicative of low productivity and high degree of safety in liquidity and vice versa. The interaction

between risk and return determines this ratio. This ratio is calculated by dividing loan and advances by assets.

Table 4.3 show the five years average loan and advances to total asset ratio of NABIL, LBL and EBL banks.

Table 4.3
Loan and Advance to Total Assets Ratio

Banks	Fiscal Years					Mean	S.D	C.V
	2003	2004	2005	2006	2007			
NABIL	43.76%	47.36%	59.07%	53.95%	52.28%	51.88	5.33	10.17
EBL	60.91%	61.37%	52.34%	60.57%	60.25%	59.09	3.39	5.74
LBL	71.93%	67.02%	70.87%	64.07%	69.21%	68.62	2.82	4.10

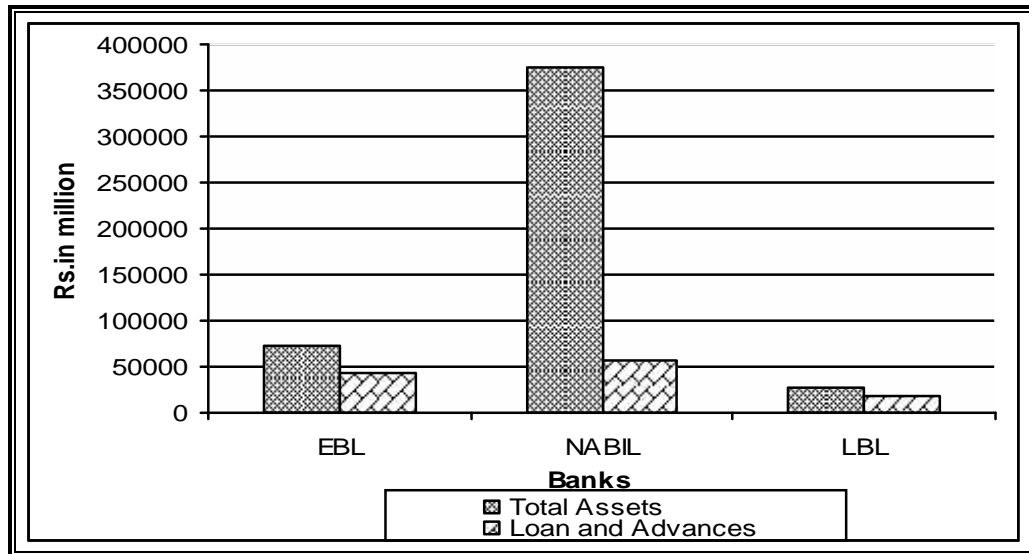
Sources: Appendix:-3

The mean loan and advances to total asset ratio of LBL is higher than NABIL and EBL banks. So that LBL have maximum risk in loan and advance but in other side LBL was success to mobilize its total assets and get more profit. EBL and NABIL banks have lowest credit risk. Lowest ratio indicates the bad performing of these two banks. They are unable to utilize their total assets as loan and advances. This regarding that LBL has higher ratio than other two banks which indicate the LBL is in better position among these three banks.

Standard Deviation of LBL is lower than NABIL and EBL banks. So that LBL have lower risk in its assets. The Coefficient of variation of LBL is lower than NABIL and EBL banks. This is clear that the LBL loan and advances to total assets ratio is less variable than other banks. Figure:-4.3 show per year loan and advances and total assets of EBL, NABIL and LBL from 2003 to 2007.

Figure 4.3

Total Loan and Advances to Total Assets



d. Loan and Advances and Investment to Total Deposit Ratio

Loans and advances and investment are the major area of fund mobilization of commercial banks. Loan and advances is the first type of application of funds, which has more risk as compare to investment and gives more return. Investment is cushion against the liquidity risk and at the same time, it gives return. The investing activity of commercial banks has low level of risk and low level of return. Loans and advances and investment to total deposit ratio indicates the firm’s fund mobilization power. The main sources of bank’s lending and investment is its deposits.

Loan and advances, investment to total deposit ratio measures the ability of bank in generating income from bank’s deposit liability. This ratio is calculating by loan and advances, investment dividing by total deposit. Loan and advances, investment to total deposit ratio is favorable when it is 85% or higher. Table:-4.4 show the five year average loan and advances, investment to total deposit ratio of NABIL, EBL and LBL banks.

Table 4.4

Loan and Advances, Investment to Total Deposit Ratio

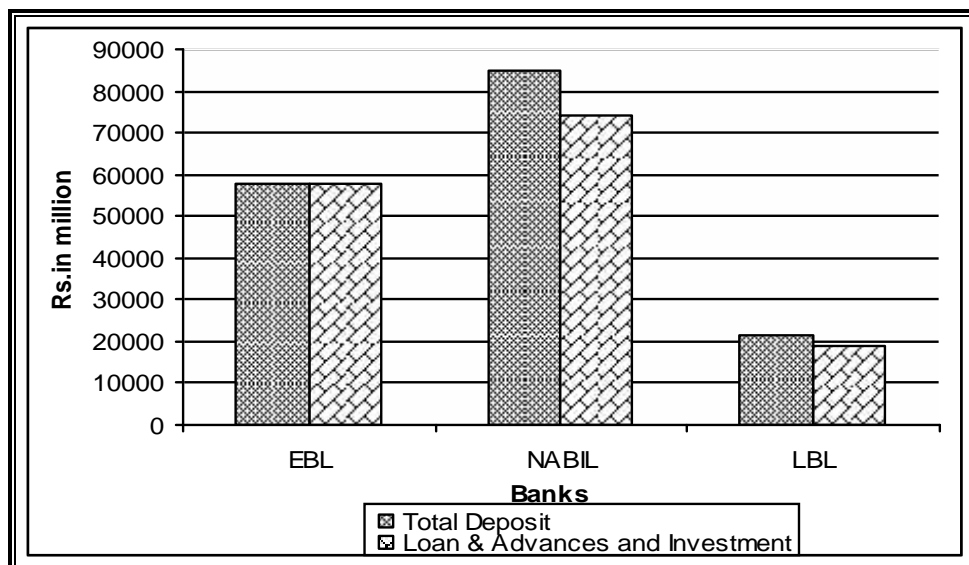
Banks	Fiscal Years					Mean	S.D	C.V
	2003	2004	2005	2006	2007			
NABIL	86.77	87.30	95.32	79.56	90.03	87.80	5.12	5.83
EBL	99.04	106.44	99.18	99.06	98.25	100.39	3.04	3.03
LBL	88.75	84.90	94.72	90.15	81.97	88.10	4.39	4.98

Sources: Appendix:-5

The mean ratio of loan and advances, investment to total deposit of whole EBL, NABIL and LBL bank is higher than 85%. That means loan and advances, investment to total deposit ratio of these commercial bank above the standard. They are able to mobilize their deposit in the form of loan and advances and investment. Show that they are able to generate higher profits. They have lowest deposit expenses. EBL is the best performer in utilization its deposit in the form of loan and advances and investment.

Figure 4.4

Loan and Advances, Investment and Total Deposit



Standard deviation and coefficient of variable of EBL is lower than NABIL and LBL banks. It's clear that EBL loan and advances, investment to total deposit is less variable than and LBL banks. Figure 4.4 show the EBL, NABIL and LBL banks five year average loan and advances, investment and total deposit and their ratio.

e) Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance are assets that constitute the commercial banks first live of defense and consist of cash in hand, foreign cash on hand, cheques and other cash items balance with domestic commercial banks, financial institution and balance held in abroad. Cash and bank balance to total deposit ratio measures the proportion of most liquidity assets i.e. cash and bank balance among the total current assets of bank.

This ratio is calculated cash and bank balance divided by total deposit. Higher ratio shows the banks ability to meet demand for cash another way higher ratio also show idle of cash in bank. However, high ratio is unfit as capital will be tied up and opportunity cost will be higher. Minimum 12% of this ratio was to be maintained by every commercial bank. Table 4.5 shows the five year average Cash and bank balance to total deposit ratio of EBL, NABIL and LBL banks.

Table 4.5
Cash and Bank Balance to Total Deposit Ratio

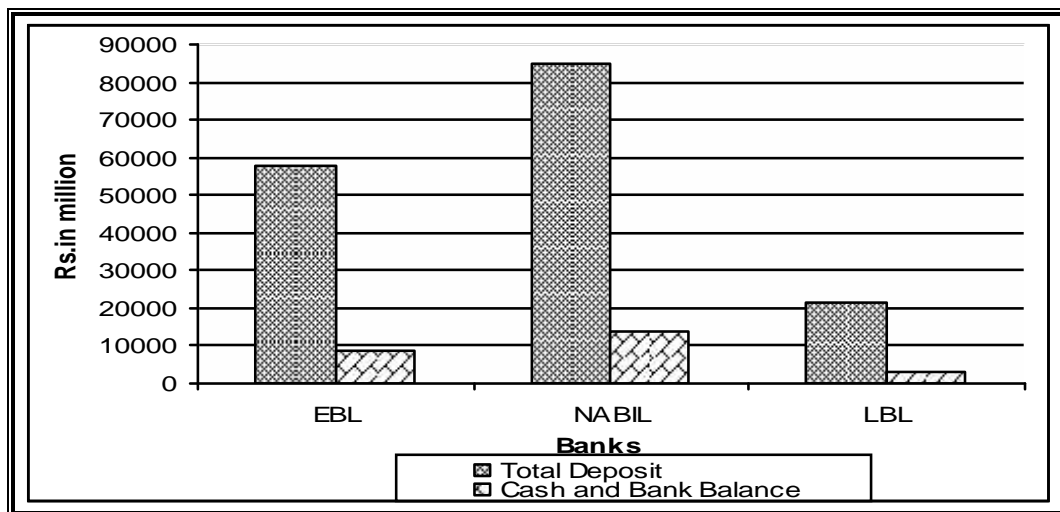
Banks	Fiscal Years					Mean	S.D	C.V
	2003	2004	2005	2006	2007			
NABIL	14.61	16.78	9.22	20.24	17.83	15.74	3.73	23.69
EBL	17.27	10.78	16.08	11.73	17.44	14.66	2.83	19.32
LBL	15.75	18.03	11.65	9.45	13.79	13.73	3.01	21.90

Sources: Appendix:-6

Mean ratio of Cash and bank balance to total deposit ratio of these three commercial banks is above 12%. EBL, NABIL and LBL are able to maintain their ratio above the average. They are able to meet their customer daily requirement for cash. But in other side, they are unable to utilize their fund successfully. LBL have lower ratio then other banks. This is cause by they are utilized their funds in productivity way.

Standard deviation and coefficient of variable of EBL is lower then other banks. It's clear that EBL cash and bank balance to total deposit are less variable then other banks. Figure 4.5 show per year cash and bank balance to total deposit of EBL, NABIL and LBL.

Figure 4.5
Cash and Bank Balance and Total Deposit



4.2 Measuring the Lending Performance in Quality, Efficiency and its Contributed in Total Profitability

In this section, the lending efficiency in term of its quality and turnover is measured. For this purpose the relationship of different variable of balance sheet and profit and loss account are established.

a) Loan Loss Provision to Total Loan and Advances Ratio

It is occurred when the debtors fail to pay their loan. Loss of loan is not only the default of debtors but it is because of the failure of recovery of loan by the commercial bank. Negligence in its part makes a negative impact on the earning and capital of a bank very badly. Greater loan loss provision is made in income statement if high loss is expected. However, this will lead to low profit and possible losses and product low increase or decrease capital.

The loan loss provision to total loan and advances ratio shows how efficiently the commercial bank manages their loan and advances and makes effort for timely recovery of loan and advances. Lower ratio signifies the good quality of assets in the total volume of loan and advances. This ratio is calculated dividing loan loss provision by total loan and advances. Table 4.6 show the five year average total loan loss provision to total loan and advances ratio of EBL, NABIL and LBL banks.

Table 4.6
Loan Loss Provision to Loan and Advances Ratio

Banks	Fiscal Years					Mean	S.D	C.V
	2003	2004	2005	2006	2007			
NABIL	0.25	1.34	0.23	0.06	0.15	0.38	0.29	28.39
EBL	0.34	0.83	1.07	0.69	0.60	0.70	0.49	34.36
LBL	2.27	4.08	6.80	17.95	0.00	5.31	7.06	45.90

Sources: Appendix:-7

The mean ratio of loan loss provision to loan and advances ratio is 0.499%, 0.24, and 7.06% of NABIL, EBL and LBL respectively. LBL have higher ratio then other banks. So that LBL is unable to manage its loan and advances and makes effort for timely recover loan. LBL loan loss provision to loan and advances ratio is highest. Highest ratio increase expenses and it also decrease the profit.

NABIL and EBL banks are able to manage their loan loss provision i.e. their ratio was less than 1.0%. They are able to utilize their loan and advance and get return from their loan. Among all of them NABIL is successful to manage his loan and LBL has the worst ratio among all of the banks. Standard deviation and coefficient of variation of NABIL is lower than other banks. NABIL loan loss provision is less variable than other banks.

b) Interest Expenses of Deposit to Total Deposit

Commercial banks should give priority to collect the cheaper deposit from various sources. The commercial banks' performance depends upon its ability to generate cheaper funds. More the cheaper fund will be the profitability in generating loan and advances and vice versa. The high ratio indicates costly deposit collection and this adversely affects its running cost and lending performance of banks. This ratio is calculated as interest expenses of deposit divided by total deposit.

Table 4.7
Interest Expenses of Deposit to Total Deposit

Banks	Fiscal Years					Mean	S.D	C.V
	2003	2004	2005	2006	2007			
NABIL	3.98	2.01	1.67	1.79	2.07	2.30	0.85	35.96
EBL	7.21	3.89	2.97	2.78	2.61	3.89	1.72	44.15
LBL	1.91	5.22	4.74	4.47	4.38	4.15	1.15	27.85

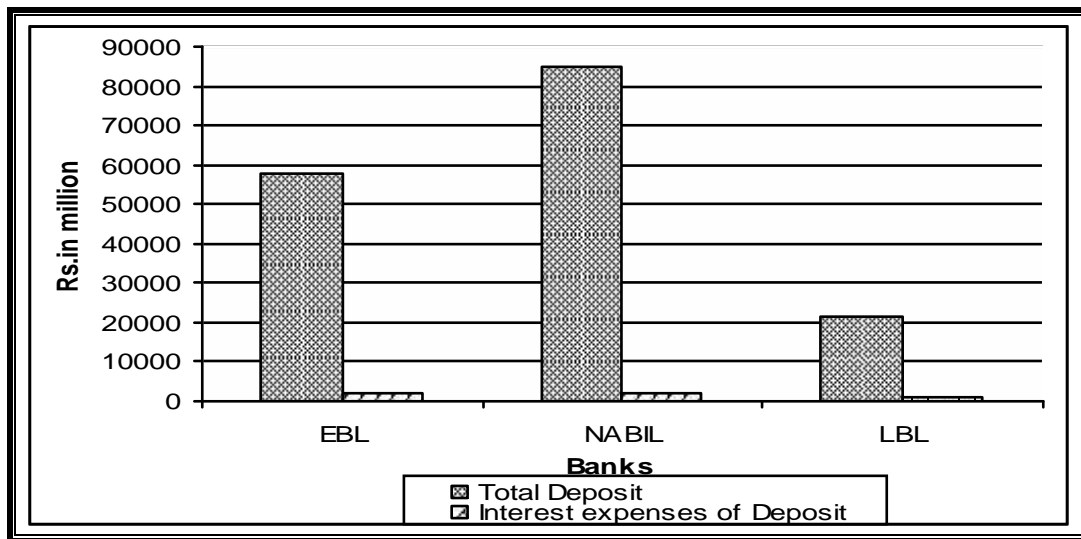
Sources: Appendix:-8

The above table 4.7 shows the five year average total interest expenses of deposit to total deposit ratio of NABIL, EBL and LBL banks. Five year mean Interest expenses of deposit to total deposit ratio of NABIL, EBL and LBL is 2.30%, 3.89% and 4.15% respectively. NABIL bank was able to manage its deposit in lower cost. So that NABIL can use its deposit in efficiency way and get more

profit. EBL have the average ratio. LBL bank has higher cost of deposit. Higher ratio increases their running cost. It decreases their lending performance, efficiency and profit. LBL have costly deposit fund. So that LBL have higher running cost. NABIL bank was only able to manage their cost of deposit in lower rate. NABIL was able to manage its deposit for lowest cost among these three commercial banks and LBL have the highest costly deposit expenses.

Figure 4.6

Interest Expenses of Deposit to Total Deposit



Standard deviation of NABIL is lower than other banks. So that NABIL bank has lower risk in its deposit than other banks. Coefficient of variable of LBL is lower. It's clear that LBL interest expenses of deposit to total deposit are less variable than other banks.

c) Total Interest Expenses to Total Asset

Total interest expenses to total assets ratio measures the percentage of total interest expenses against total assets. This ratio was calculated by dividing total interest expenses by total assets. Higher ratio indicated the higher interest expenses on

total assets and vice versa. Table 4.8 show the five year mean ratio of total interest expenses of deposit to total deposit ratio of NABIL, EBL and LBL banks.

Table 4.8
Total Interest Expenses to Total Asset Ratio

Banks	Fiscal Years					Mean	S.D	C.V
	2003	2004	2005	2006	2007			
NABIL	2.93	1.55	1.30	1.48	0.17	1.49	0.88	59.06
EBL	5.85	3.15	1.98	2.40	2.22	3.12	1.42	45.50
LBL	1.55	4.12	3.59	3.20	3.71	3.23	0.89	27.59

Sources: Appendix:-9

Five year mean ratio of total interest expenses to total assets ratio of NABIL, EBL and LBL bank is 1.49%, 3.12% and 3.23% respectively. NABIL bank was able to mobilize its assets with lower expenses. Therefore, NABIL bank was success to generate more profit. LBL and EBL banks have higher ratio. They have to minimize their expenses. It can be concluded that NABIL banks was in better position from payment of interest point of view. It seems to be that NABIL bank successful to collect its assets from less expensive sources in comparisons to EBL and LBL. Day by day commercial banks expenses volume is increasing trend.

Standard deviation of NABIL is lower then other banks. So that NABIL bank has lower risk in its expenses then other banks. Coefficient of variable of LBL is lower. It's clear that LBL Total interest expenses to total asset ratio are less variable then other banks.

d) Total Interest Income from Loan and Advances to Total Interest Income

Loan and advances plays a big role in interest income. This ratio measures the contribution made by interest from loan and advances to total interest income.

Commercial bank main sources of income was generate from loan and advances. This ratio measures how efficiently the banks have employed their fund in lending. It is calculated by dividing interest income from loan and advances by total interest income. Higher ratios indicate higher profit from loan and advances. Table 4.9 show the five year average total interest income form loan and advance to total interest income ratio of EBL, NABIL and LBL banks.

Table 4.9

Total Interest Income from Loan and Advance to Total Interest Income Ratio

Banks	Fiscal Years					Mean	S.D	C.V
	2003	2004	2005	2006	2007			
NABIL	75.30	74.43	76.95	75.03	74.03	75.15	1.00	1.33
EBL	70.83	85.72	88.04	85.64	84.96	83.04	6.19	7.46
LBL	94.18	94.57	95.32	90.95	93.29	93.66	1.51	1.61

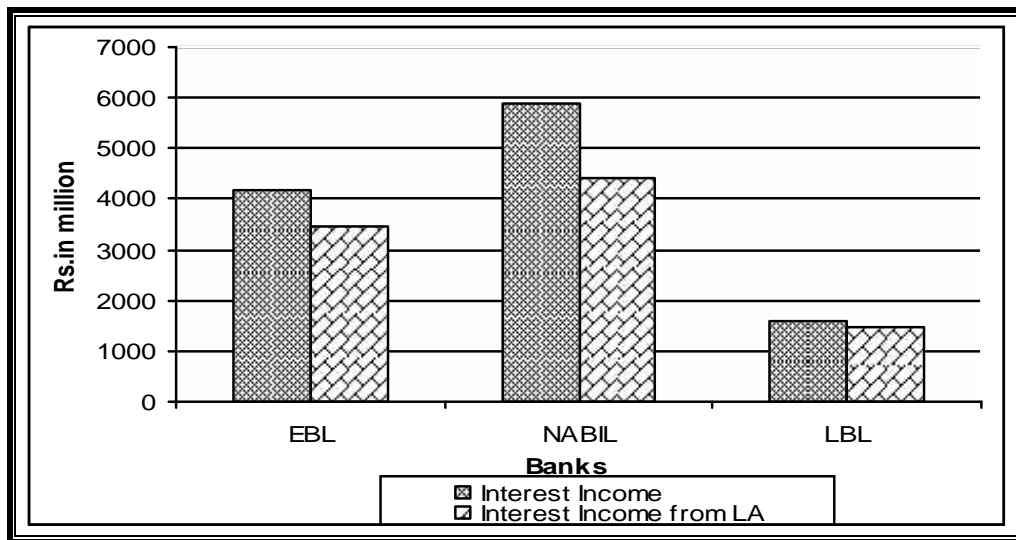
Sources: Appendix:-10

Loan and advances is the main sources for commercial bank's profit. The five year average mean ratio of loan and advances to total interest income ratio of NABIL, EBL and LBL was 75.15%, 83.04% and 93.66% respectively. NABIL have the lowest ratio among these three banks. NABIL bank was unable to get more income from their lending. EBL and LBL were earned more then 83% interest from loan and advances. EBL and LBL are success to utilize their lending for generating profit. Remaining commercial banks have satisfaction ratio. However, in average interest income from loan and advances is satisfaction situation of commercial banks.

Standard deviation and coefficient of variable of NABIL is lower. It's clear that NABIL total interest income from loan and advances and total interest income is less variable then other banks. Figure:-4.7 show the total interest income from loan and advances and total interest income and their ratio of NABIL, EBL and LBL.

Figure 4.7

Total Interest Income from Loan and Advance and Total Interest Income



e) Capital Risk Ratio

The capital risk ratio indicates how much assets value may decline by bank before the position deposition and other creditors. Therefore, a bank needs to maintain sufficient capital in relation to be nature and condition of its assets, its deposits liability and other corporate responsibilities. Capital risk ratio measures ability of bank to attract deposits and inter bank funds. It also determines the level of profit.

A bank can earn if a bank chose to take high capital risk. Capital fund include the reserve, share premium, paid up capital, retain earning so on. Capital risk ratio is calculated capital fund dividing by risky weighted assets. Table:-4.10 show the Four year average capital risk ratio of each and every commercial bank.

Table 4.10

Four Year Average Capital Risk Ratio

Banks	Fiscal Years					Mean	S.D	C.V
	2003	2004	2005	2006	2007			
NABIL	13.05	13.56	12.44	15.08	12.61	13.35	0.95	7.11
EBL	12.33	11.07	13.57	12.86	11.31	12.23	0.94	7.67
LBL	11.37	8.71	6.35	(13.29)	(7.04)	1.22	9.64	789.79

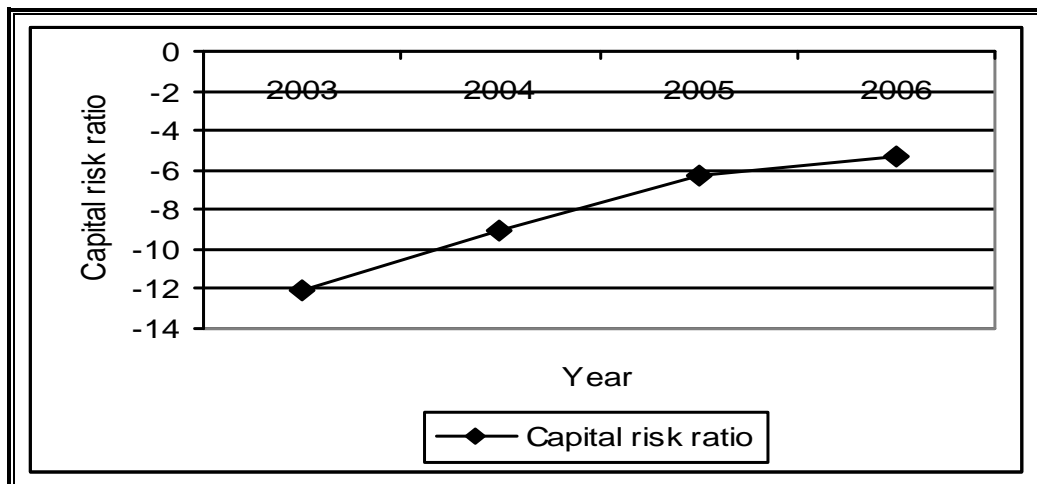
Sources: Appendix:-13

The five year average mean ratio of capital risk ratio of NABIL, EBL and LBL was 75.15%, 83.04% and 93.66% respectively. EBL and NABIL bank have higher ratio. That means they are success to mobilize their capital fund and they have higher capital ratio risk. So that, they have lower capital risk. So that they are able to get high return from their capital fund. That means they have higher capital risk.

LBL has lowest capital risk ratios. This indicates that LBL was unable to utilize their capital fund so that LBL was unable to get profit. Figure:-8 show the NABIL, EBL and LBL banks capital risk ratio from year 2003 to 2007.

Figure 4.8

Per Year Capital Risk Ratio of NABIL, EBL and LBL Banks



f) Return on Loan and Advances Ratio

Return on loan and advances ratio measure the earning capacity of banks on its deposit mobilized on loan and advances. Mostly loan and advances included loan cash credit, overdraft bills purchased and discounted. In other words, this ratio indicates how efficiently the banks have employed its resources in the firm of loan and advances. Return on loan and advances ratio calculated by dividing interest income from loan and advance by loan and advances. High ratio indicates a high success to mobilize fund as loan and advances and vice versa.

Table 4.11 show the five year average return on loan and advances ratio of NABIL, EBL and LBL bank.

Table 4.11
Return on Loan and Advance Ratio

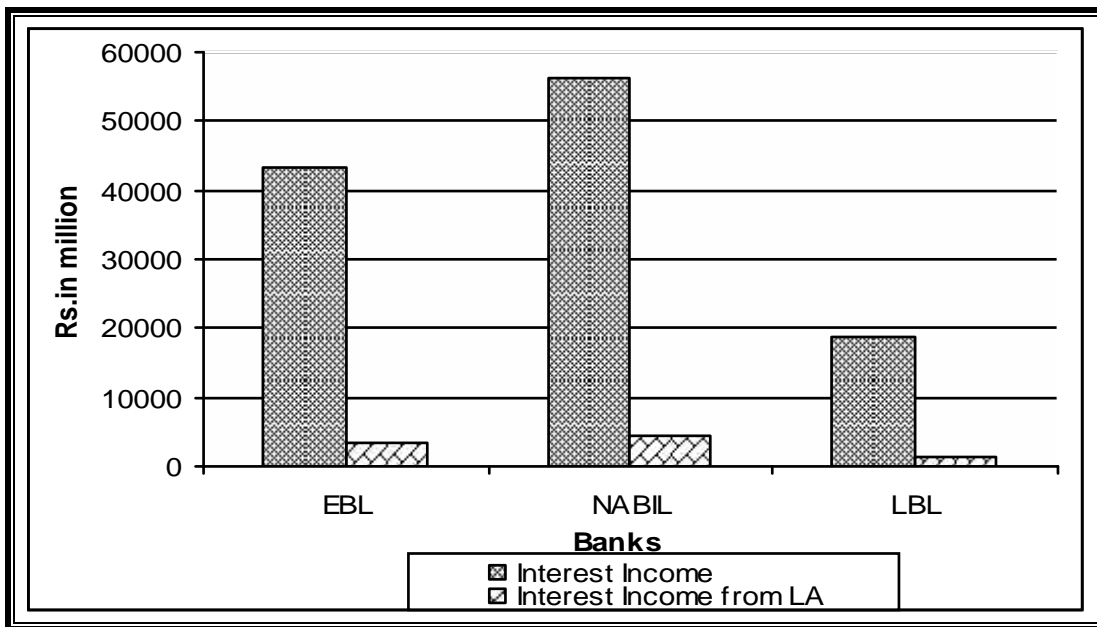
Banks	Fiscal Years					Mean	S.D	C.V
	2003	2004	2005	2006	2007			
NABIL	10.81	8.15	7.18	7.47	6.93	8.11	1.41	17.40
EBL	10.03	9.25	8.02	7.67	7.67	8.39	1.10	13.08
LBL	2.77	9.45	9.12	7.36	8.71	7.48	2.46	32.89

Sources: Appendix:-11

The average mean return on loan and advances of NABIL, EBL and LBL is 8.11%, 8.39% and 7.48% respectively. LBL banks have the lower return from its loan. NABIL and EBL banks get more return from their loan. Standard deviation of EBL is lower then other banks. So that EBL bank has lower risk in its return then other banks. Coefficient of variable of EBL is lower. It's clear that EBL return on loan and advances is less variable then other banks. Figure:-4.9 show the NABIL, EBL and LBL banks average return on loan and advances from year 2003 to 2007.

Figure 4.9

Return on Loan and Advances Ratio



g) Return on Total Assets Ratio

The commercial bank has to earn a satisfactory return on total assets. Commercial banks have to well manage their assets, efficiently utilize of their assets to get higher return from their assets. Return on total assets ratio measures the profit earning capacity by mobilizing their available total assets.

Return on total assets ratio was calculated net profit divided by total assets. Higher ratio is preferable because higher ratio indicates the higher return from the total assets and lower ratio indicates the bad performance of total assets. Table:-4.12 show the five year average return on total assets of NABIL, EBL and LBL bank.

Table 4.12
Return on Total Assets Ratio

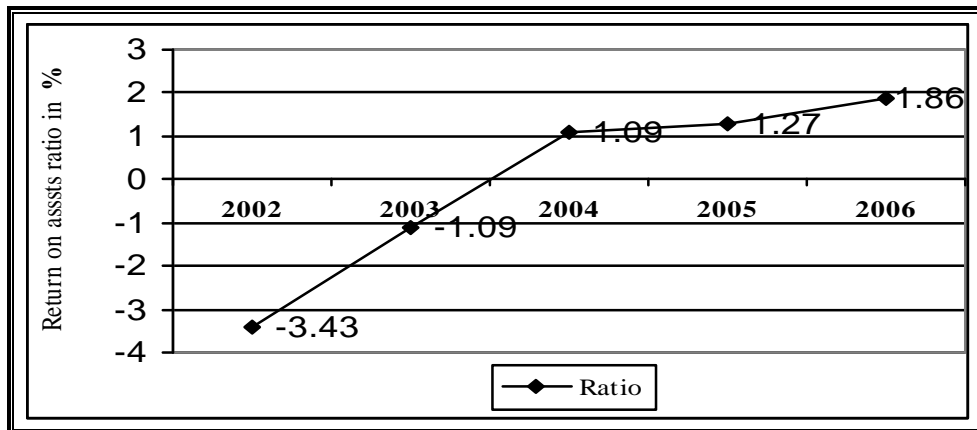
Banks	Fiscal Years					Mean	S.D	C.V
	2003	2004	2005	2006	2007			
NABIL	416.23	455.31	520.11	635.26	654.7	2.08	0.94	45.38
EBL	1.14	0.14	1.13	1.42	1.29	1.02	0.45	44.21
LBL	2.44	0.39	-3.67	-11.97	3.17	-1.93	5.55	-288.09

Sources: Appendix:-12

The mean return on total assets of NABIL, EBL and LBL bank is 2.08%, 1.02% and (1.93) respectively. LBL was unable to mobilize its assets in effective way. So that it returns on total assets is negative. LBL have the negative return from its assets. NABIL and EBL bank was able to mobilize their assets effectively and they are able to get profit. NABIL return on assets higher then other bank.

Standard deviation of EBL is lower then other banks. So that EBL bank has lower risk in its return then other banks. Coefficient of variable of LBL is negative. Coefficient of variable of EBL is lower. It's clear that EBL return on loan and advances is less variable then other banks. Figure:-4.10 show the NABIL, EBL and LBL banks average return on total assets from year 2003 to 2007

Figure 4.10
Return on Assets



h) Net Profit of Commercial Banks

Profit is the main elements that make commercial bank to survive in long run. Net profit after all types of deduction such as bonus to employees, taxes and provision has been used in this analysis. The volume of Net profit measures the success of a firm in every aspect of its efficiency. Table:-4.13 show the five year average net profit of NABIL, EBL and LBL bank.

Table 4.13
Net Profit of Commercial Banks

(Rs. In million)

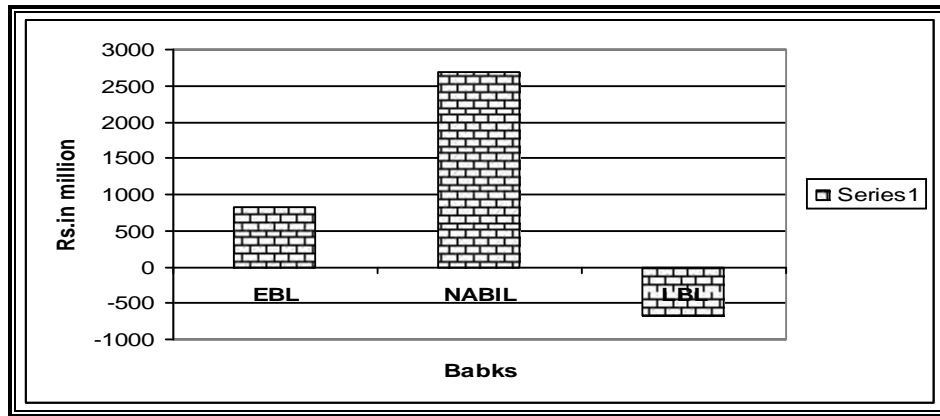
Banks	Fiscal Years					Average
	2003	2004	2005	2006	2007	
NABIL	416.23	455.31	520.11	635.26	654.7	536.32
EBL	94.2	14.36	170.81	237.38	300.60	163.47
LBL	89.139	18.64	(197.58)	(806.06)	225.09	-134.2

Sources: Appendix:-12

The average mean net profit of NABIL, EBL and LBL is Rs.536.32, Rs.163.47 and Rs (134.20) million respectively. LBL was suffering for huge loss. LBL net profit is negative. LBL was bearing loss in the year 2005 and 2006. It makes his man net profit is negative. LBL was unable to generate profit from their lending and other activity. NABIL and EBL are able to get highest profit in the study period. Figure 4.11 show the per year profit of these commercial banks.

Figure 4.11

Net Profit of Whole Commercial Banks (graph)



4.3 Non Performing Loan Status of Commercial Banks

The loans falling under category of substandard, doubtful and loss loan are regarded as non performing loan. The bank should try to decrease NPL so that profitability of the banks can be strength. The effective loan management decreases the percentage of NPL.

As per international standard only 5% or below NPL allowed but the context of Nepal maximum 10% or below NPL may be acceptable. The higher ratio of NPL is the system is an indicator of financial crisis and it should be resolved as soon as possible. Hence, the lower ratio of NPL to total gross loan is preferred. Table:- 4.14 shows the last four year average non-performing loan in Percentage of EBL, NABIL and LBL.

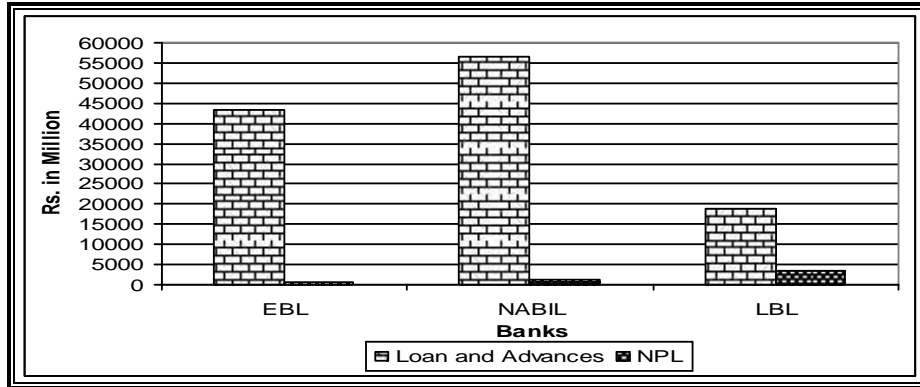
Table 4.14**Four Years Average NPL of Commercial Banks**

Year	EBL		NABIL		LBL	
	NPL (Rs.)	NPL (%)	NPL (Rs.)	NPL (%)	NPL (Rs.)	NPL (%)
2003	111.19	2.20	449.63	5.54	302.96	11.57
2004	104.76	1.72	286.68	3.35	237.30	7.36
2005	128.81	1.63	144.51	1.32	561.13	15.23
2006	121.85	1.20	165.98	1.25	1401.58	31.97
2007	107.00	0.76	178.30	1.12	981.40	19.85

Sources: Appendix:-15

EBL and NABIL bank was able to maintenance its NPL among the three commercial banks. Their NPL is in decreasing trend. This decreasing trend of non performing loan was indicating that NABIL and EBL are successful to manage their loan This decreasing trend of non performing loan was also indicate the increase trend of their profit and performance. LBL was badly suffering from NPL from the last five year. NPL of LBL was above the international standard which is 5%. Around the 25% of total loan was suffering from NPL and it effect their loan recover and its profit. NPL keeps importance in determination of profitability of the bank. The bank should always try to decrease NPL so that profitability of the bank can be strengthened.

Figure 4.12
Gross Loan to NPL of Commercial Banks



4.4 Portfolio behaviors of Lending

There are various types of borrowers and economy sector. It invests fund in various types' borrowers. Therefore, commercial bank provides loan and advances in different sector to minimize their risk and maximize profit. The loan and advances granted to various sector of economy and for various purposes to total volume of loans and advances is measured.

a) Priority Sector Lending

Commercial bank gives lending in some priority sector. Priority sector lending was Classify into five sectors. They are agriculture, machine and import domestic industries, services and power sectors. The Table 4.13 show the loan and advances provide by EBL, LBL, and NABIL banks in priority sector

Table 4.13
Priority Sector Lending of Commercial Banks

Priority Sector	EBL	NABIL	LBL
Agriculture	105.53	214.50	212.15
Domestic Industries	1159.03	498.70	154.31
Services	1627.11	1455.50	293.60
Power Sector	0.00	332.20	339.80
Machine and Import	3.10	15.20	218.50

Sources: Appendix:-58

NABIL and EBL give main priority to lending in service sector. Their more than 50% loan was occupied by services sectors. After that Domestic industries sector occupied 2nd position for lending. Agriculture sector occupied least amount for lending. EBL is not interest in power sector whereas NABIL and LBL bank provide loan in this sector.

b) Sector wise Loan and Advance

There are 6 sector wise loan and advances which are Production, Construction, Services industries, wholesaler and retailer, finance and insurance and consumable loan is main sectors wise lending area. From the Table:-22 show the sector wise loan and advances.

Table 4.14
Sector Wise Lending of Commercial Banks

Sector	EBL	NABIL	LBL
Production	11463.90	23268.40	5925.80
Construction	5930.20	4420.70	572.40
Services Industries	2497.60	5621.80	2608.70
Wholesaler and Retailer	11678.10	9686.10	4045.60
Finance and Insurance	1355.80	2176.40	549.20
Consumable Loan	923.30	393.40	1.00

Sources: Appendix:-56

Major portion of the loan portfolio of the NABIL, EBL and LBL was distributed to production sector and wholesale and retail sector. Lending to production sector alone stood higher portion lending of total loan and advances. Lending to wholesale and retailer was second choice of these banks in last five year. Services industries were able to tap some position of total loan and advances. Other major loan and advances distributed sectors included consumable loan, Finance and insurances, construction sector.

c) Securities Wise Loan and Advances

Commercial banks are also classified their loan and advances according to securities. Such as gold, silver, government and non government securities, fixed assets receipts, guarantee, credit card and others.

Table 4.15
Securities Wise Lending of Commercial Banks

Securities	EBL	NABIL	LBL
Government Securities	121.40	246.80	8.40
Non-Government Securities	9.10	0.00	20.00
Fixed assets Receipt	215.40	204.80	58.20
Guarantee	7475.10	9324.20	09.1
Others	515.20	4692.60	1135.90

Sources: Appendix:-57

The Table 4.15 show the commercial bank lending in different kinds of securities. Main portion of the loan portfolio of the NABIL and EBL was distributed to guarantee to securities. Guarantee included different types of guarantee. Such as assets guarantee, bills guarantee and guarantee in other securities. These guarantees are in increasing trend per year because commercial banks are lending maximum of their amount in land and building, agricultural and non agricultural product, vehicles so on. In these sectors LBL was uninterested to lending in guarantee sector. Fixed account receipt was covering some portion of total loan. Government securities and non government securities were able to tap only few portions of total loan and advances.

4.5 Trend Analysis and Projection for Next Five Years

In this chapter we shall examines the trend analysis of topic total deposit, loan and advances, net profit, non-performing loan and interest income from loan and

advances and forecasted for next five years. The measures of trend analysis exhibits the behaviors of given variables in series of time. The performance of any commercial banks does not carry consistency overall, the period and several factors cause the increase or decrease in the volume of various items of commercial bank lending and its operation. The projections are based on following assumptions:

- The bank will run in the present position
- The economy will be remain in the present stage
- NRB will not change its guidelines to commercial banks.
- The main assumption it that other things will remain unchanged.
- The forecast will be true only when the limitation of least square method is carried out

a) Trend Analysis of Total Deposit

Deposit is one very sensitive liability of commercial banks. Its trend and behaviors are determined by various seasonal and cyclical factors. Here the trend values of total deposit of commercial banks have calculated for five year from 200 to 2007. Then forecast for next five year up to 2012 have done. The table 4.16 shows the trend value of ten years of all three banks

Table 4.16**Trend Analysis of Total Deposit of EBL, NABIL and LBL**

(Rs. in million)

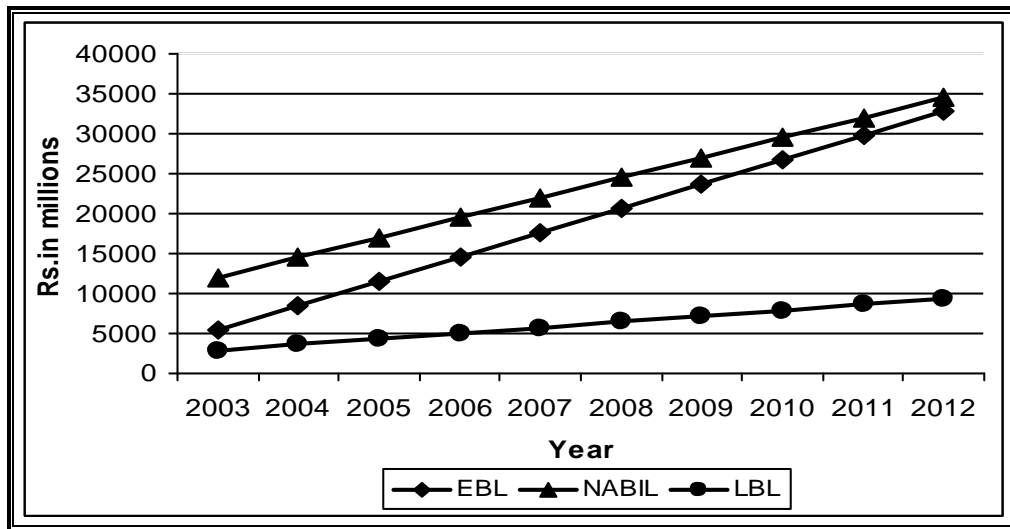
Fiscal Year	EBL		NABIL		LBL	
	Amounts	% Change	Amounts	% Change	Amounts	% Change
2003	5442.56		11950.7		2887.9	
2004	8496.97	56.12	14456.68	20.97	3601.75	24.72
2005	11551.38	35.95	16962.66	17.33	4315.6	19.82
2006	14605.79	26.44	19468.64	14.77	5029.45	16.54
2007	17660.2	20.91	21974.62	12.87	5743.3	14.19
2008	20714.61	17.30	24480.6	11.40	6457.15	12.43
2009	23769.02	14.75	26986.58	10.24	7171	11.06
2010	26823.43	12.85	29492.56	9.29	7884.85	9.95
2011	29877.84	11.39	31998.54	8.50	8598.7	9.05
2012	32932.25	10.22	34504.52	7.83	9312.55	8.30

Sources: Appendix:-16

The volume amount of deposit of all three commercial banks is in increasing trend. With the comparison today, if other things remain same, the total deposit of NABIL bank will be increase by Rs.22553.82 million and reach to Rs. 34505.00 million in years 2012 which is highest among the study period. Similarly the total deposit of EBL bank will be increase by Rs.27489.69 million and reach to Rs. 32932 million in years 2012. Likewise the total deposit of LBL bank will be increase by Rs.6424.65 million and reach to Rs. 9312.60 million in years 2012. In other side, growth rate of total deposit of all these three commercial bank is going to decrease each and every year.

From the above analysis it is found the total deposit position of EBL is comparatively lower than NABIL and is better in comparison to LBL i.e. 34504.52 > 32932.25 > 9312.55 million respectively. Figure 4.13 show the trend line of trend value of total deposit of these three banks.

Figure 4.13
Trend Values of Total Deposit of NABIL, EBL and LBL



b) Trend Analysis of Loan and Advances

Here the trend value of loan and advances of commercial banks have calculated from 2003 to 2007. Then forecast for next five year upto 2012 have done. The trend lines represent the lending behaviors of commercial banks. The volume amount of loan and advances of all three commercial banks is in increasing trend. Increasing trend of loan and advances indicates that in the future commercial banks are able to generate more profit from their lending activity. However, the growth rate is decreasing per year. With the comparison today, if other things remain same, the total loan and advances of NABIL bank will be increase by Rs.17735.6 million and reach to Rs. 25072 million in years 2012 which is highest among the study period. Similarly the total loan and advances of EBL bank will be increase by Rs.17651.36 million and reach to Rs. 24094 million in years 2012. .

Likewise the total loan and advances of LBL bank will be increase by Rs.5157.00 million and reach to Rs. 7792 million in years 2012. In other side, growth rate of total deposit of three commercial bank is going to decrease each and every year.

Table 4.17

Trend Analysis of Total Loan and Advances of EBL, NABIL and LBL

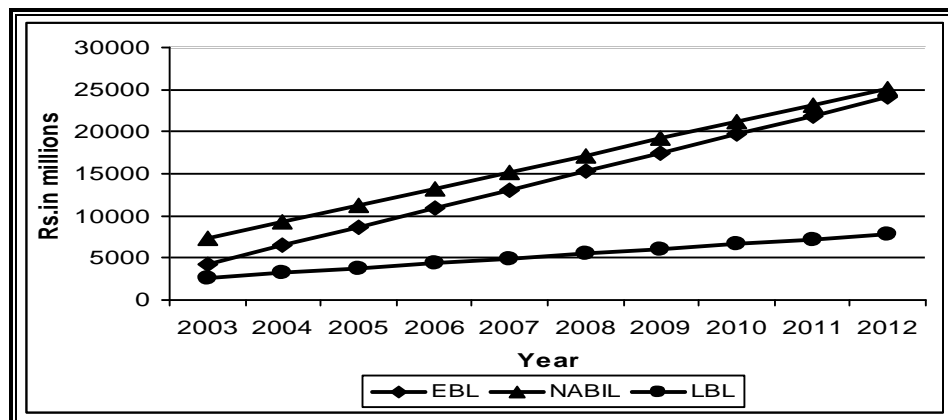
(Rs.in million)

Fiscal Year	EBL		NABIL		LBL	
	Amounts	% Change	Amounts	% Change	Amounts	% Change
2003	4236.22		7336.4	0	2635	0
2004	6442.64	52.08	9307	26.86	3208	21.75
2005	8649.06	34.25	11278	21.17	3781	17.87
2006	10855.48	25.51	13248	17.47	4354	15.16
2007	13061.9	20.33	15219	14.87	4927	13.16
2008	15268.32	16.89	17190	12.95	5500	11.63
2009	17474.74	14.45	19160	11.46	6073	10.42
2010	19681.16	12.63	21131	10.29	6646	9.44
2011	21887.58	11.21	23101	9.33	7219	8.62
2012	24094	10.08	25072	8.53	7792	7.94

Sources: Appendix:-17

Figure 4.14

Trend Value of Loan and Advances of EBL, NABIL and LBL



From the above analysis it is found the total loan and advances position of NABIL bank is better position then other reaming banks. Figure 4.14 show the trend line of trend value of total loan and advances of these three banks.

c) Trend Analysis of Non-Performing Loan

Trend value Non Performing Loan of commercial banks has calculated of from 2003 to 2007. Then forecast for next five year up to 2012 have done. The trend line represents the Non Performing Loan behaviors of commercial banks. The decreasing trend line is favorable for commercial banks. Decreasing trend show the managing of loan and advances. The Table: 4.18 show the trend value and growth rate of non performing loan of commercial banks.

Table 4.18
Trend analysis of NPL of NABIL, EBL and LBL

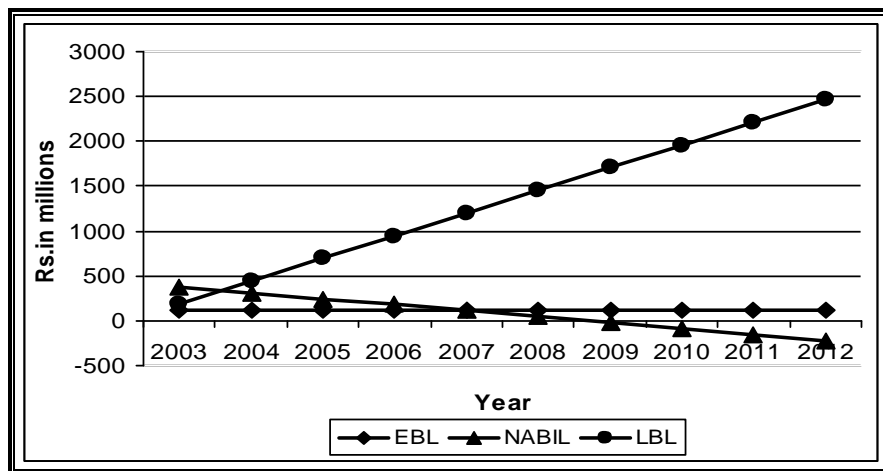
(Rs. in million)

Fiscal Year	EBL		NABIL		LBL	
	Amounts	% Change	Amounts	% Change	Amounts	% Change
2003	112.98	0	377.69	0	192.6	0
2004	113.851	0.77	311.36	17.56	444.8	130.87
2005	114.722	0.77	245.02	21.31	696.9	56.69
2006	115.593	0.76	178.68	27.07	949	36.18
2007	116.464	0.75	112.35	37.12	1201	26.57
2008	117.335	0.75	46.012	59.05	1453	20.99
2009	118.206	0.74	20.32	144.17	1705	17.35
2010	119.077	0.74	-86.66	326.39	1957	14.78
2011	119.948	0.73	-153	76.55	2210	12.88
2012	120.819	0.73	-219.3	43.36	2462	11.41

Sources: Appendix:-17

The value of NPL is in increasing trend. This is the cause of increasing of loan and advances each year. In other side, the growth rate of NPL is in decreasing trend. This decreasing trend of growth rate of NPL is very well significant for the commercial banks. This will increase their profit and mobilization their assets efficiently. With the comparison today, if other things remain same, the total NPL of NABIL bank will be decrease by Rs(596.00). million and reach to Rs. (219.3) million in years 2012 . Similarly the total NPL of EBL bank will be increase by Rs.7.839 million and reach to Rs.120.819 million in years 2012. Likewise the total NPL of LBL bank will be increase by Rs.2269.40 million and reach to Rs. 2462.00 million in years 2012. From the above analysis it is found the NPL position of NABIL bank is better position then other reaming banks. Figure:-4.15 show the trend line of trend value of NPL of these three banks.

Figure 4.15
Trend analysis of NPL of NABIL, EBL and LBL



d) Trend Analysis of Net Profit

Trend values of net profit of commercial banks have calculated from 2003 to 2007. Then it was forecasted for next five year upto 2012 have been done. The trend line represents the net profit behaviors of EBL, NABIL and LBL commercial banks.

Table 4.19
Trend Analysis of EBL, NABIL and LBL

(Rs.in million)

Fiscal Year	EBL		NABIL		LBL	
	Amounts	% Change	Amounts	% Change	Amounts	% Change
2003	36.306	0	404.94	0	-23.76	0
2004	99.888	175.13	470.63	16.22	-78.87	232.01
2005	163.47	63.65	536.32	13.96	-134	69.88
2006	227.052	38.90	602.01	12.25	-189.1	41.14
2007	290.634	28.00	667.7	10.91	-244.2	29.15
2008	354.216	21.88	733.39	9.84	-299.3	22.57
2009	417.798	17.95	799.08	8.96	-354.5	18.41
2010	481.38	15.22	864.77	8.22	-409.6	15.55
2011	544.962	13.21	930.46	7.60	-464.7	13.46
2012	608.544	11.67	996.15	7.06	-519.8	11.86

Sources: Appendix:-18

The Table 4.19 show the trend value of net profit of EBL, NABIL and LBL banks. The trend of LBL net profit is negative. NABIL and EBL net profit is in positive trend in each and every year. Each and every year growth rate of net profit is decreasing trend. NABIL bank is in better position among the three banks. LBL is in worst position.

Figure 4.16

Trend Line of Net Profit EBL, NABIL and LBL

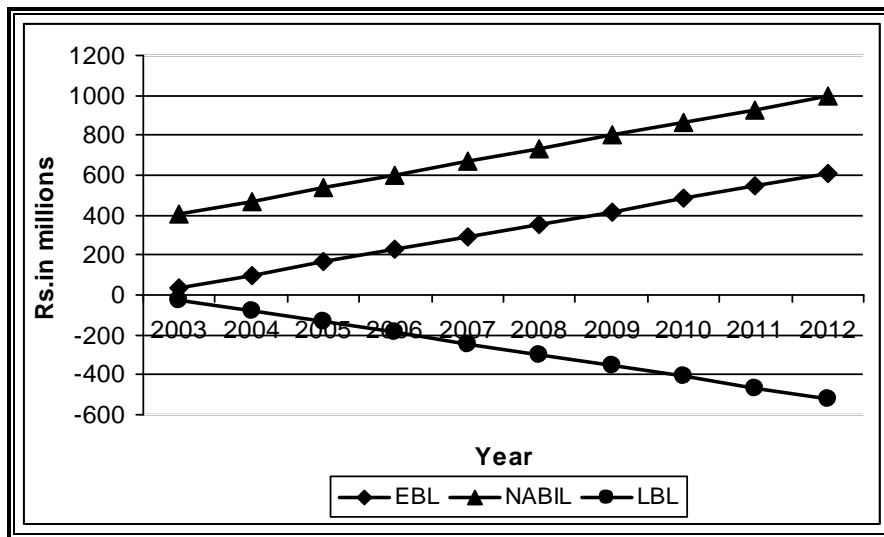


Figure 4.16 show the decreasing trend line of growth rate and increasing trend line of total volume of net profit.

e) Trend Analysis of Interest Income from Loan and Advances

The trend value of interest income from loan and advances of commercial banks have calculated from 2003 to 2007. Then forecast for next five year upto 2012 have done. The trend line represents the interest income from loan and advances behaviors of banks.

The Table 4.2 show the trend value of interest income from loan and advances of NABIL, EBL and LBL. The volume of interest income from loan and advances is increasing each year. In other side, the growth rate of interest income from loan and advances is decreasing per year. With the comparison today, if other things remain same, the total interest income from loan and advances of NABIL bank will be increase by Rs.638 million and reach to Rs. 1380.90 million in years 2012. Similarly the total interest income from loan and advances of EBL bank will be

increase by Rs.1052.37 million and reach to Rs. 1511.7 million in years 2012 which is highest among the study period Likewise the total interest income from loan and advances of LBL bank will be increase by Rs.655.70 million and reach to Rs. 804.30 million in years 2012.

Table 4.20

Trend Analysis of Interest Income form Loan & Advances of NABIL, EBL & LBL
(Rs. in million)

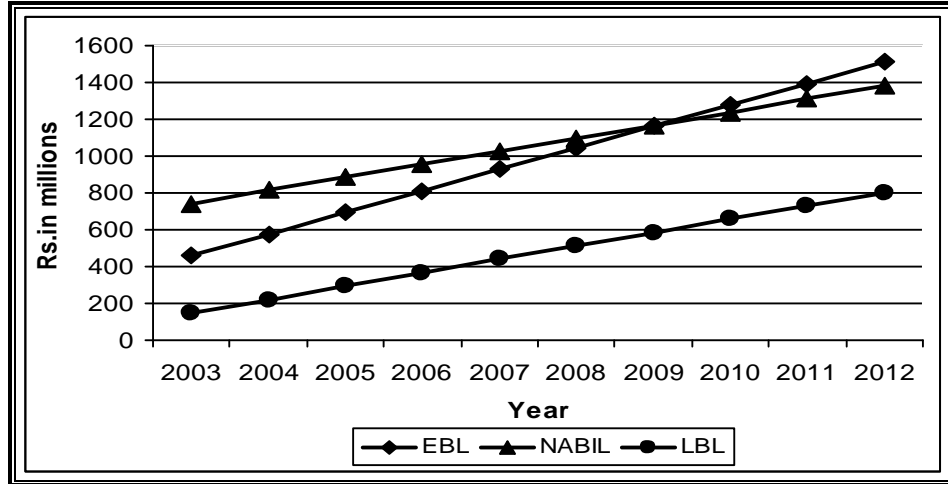
Fiscal Year	EBL		NABIL		LBL	
	Amounts	% Change	Amounts	% Change	Amounts	% Change
2003	459.32	0	742.1	0	148.6	0
2004	576.25	25.46	813.08	9.56	221.4	49.04
2005	693.18	20.29	884.06	8.73	294.3	32.90
2006	810.11	16.87	955.04	8.03	367.2	24.76
2007	927.04	14.43	1026	7.43	440	19.84
2008	1043.97	12.61	1097	6.92	512.9	16.56
2009	1160.9	11.20	1168	6.47	585.7	14.21
2010	1277.83	10.07	1239	6.08	658.6	12.44
2011	1394.76	9.15	1309.9	5.73	731.5	11.06
2012	1511.69	8.38	1380.9	5.42	804.3	9.96

Sources: Appendix:-19

Figure 4.17 show the trend line of interest income from loan and advances of NABIL, EBL and LBL.

Figure 4.17

**Trend Line of Interest Income form Loan and Advances of
EBL, NABIL and LBL**



4.6 Coefficient of Correlation Analysis

a) Correlation between Deposit and Loan and Advances

It measures the intensity, magnitudes, or degree of relationship between the two variables. In the analysis, deposit is independent variable and loan and advances is dependent variable. The main objectives of computing coefficient of correlation (r) between two variables are to justify whether deposit significantly used as loan and advances or not. The Table 4.21 show the value of ‘r’, ‘r²’, P.Er, and 6 P.Er between total deposit and loan and advances.

Table 4.21

Correlation between Deposit and Loan and Advances

Banks	Evaluation Criteria			
	R	R ²	P.Er	6P.Er
NABIL	0.959	0.9197	0.0242	0.1453
EBL	0.9978	0.9974	0.0008	0.0047
LBL	0.9757	0.9520	0.0145	0.868

Sources: Appendix:-20, 21 & 22

The table given above shows the value of 'r', 'r²', P.Er, and 6 P.Er between total deposit and loan and advances of NABIL, EBL and LBL. We found that coefficient of correlation(r) between total deposit and loan and advance of NABIL, EBL and LBL is 0.959, 0.9978 and 0.9757 respectively. It shows the high degree of positive relationship between two variable loan and advances and deposit. The value of coefficient of determination (r²) of NABIL, EBL and LBL is 0.9197, 0.9974 and 0.9520 respectively. That means 91.97%, 99.74% and 95.20% of variation in the dependent variable (loan and advances), has explained by independent variable (total deposit) respectively.

Similarly, considering the value of 'r' of NABIL, EBL and LBL and comparing it with 6P.Er i.e. 0.1453, 0.0047 and 0.868 respectively, we can find, it is greater than the value of 6P.Er which reveals the value of 'r' is significant. On the other hand, we can say that there is significant relation between total deposit and loan and advances of all these commercial banks. After analyzing, the conclusion can be drawn that NABIL, EBL and LBL are successful to grant loan and advances to mobilize the collected deposits in a proper way.

b) Correlation between Loan and Advances to Interest Income from Loan and Advances

The correlation between total loan and advances and interest income from loan and advances measures the degree of relationship between these two variables. . Loans and advances is independent variable(x) and interest income from loan and advances is dependent variable(y). The relationship between these two variables describes the degree of relationship between loan and advances and net income. The Table 4.22 show the value of 'r', 'r²', P.Er, and 6P.Er between loan and advances and interest income from loan and advances of banks.

Table 4.22

Correlation between Loan and Advances and Interest Income from LA

Banks	Evaluation Criteria			
	R	R ²	P.Er	6P.Er
NABIL	0.8443	0.7128	0.0866	0.5197
EBL	0.9983	0.9966	0.0010	0.0061
LBL	0.8734	0.7628	0.0715	0.4293

Sources: Appendix:-23, 24 & 25

The table given above shows the value of 'r', 'r²', P.Er, and 6 P.Er between loan and advances and interest income from loan and advances of NABIL, EBL and LBL. We found that coefficient of correlation(r) of loan and advances and interest income from loan and advances of NABIL, EBL and LBL is 0.8443, 0.9983 and 0.8734 respectively. It shows the high degree of positive relationship between two variable loan and advances and interest income from loan and advances. The value of coefficient of determination (r²) of NABIL, EBL and LBL is 0.7128, 0.9966 and 0.7628 respectively. That means 71.28%, 99.66% and 76.28% of variation in the dependent variable has explained by independent variable respectively.

Similarly, considering the value of 'r' of NABIL, EBL and LBL and comparing it with 6P.Er i.e. 0.5197, 0.0061 and 0.4293 respectively, we can find, it is greater than the value of 6P.Er which reveals the value of 'r' is significant. On the other hand, we can say that there is significant relation between loan and advances and interest income from loan and advances of these commercial banks.

After analyzing, the conclusion can be drawn that NABIL, EBL and LBL are successful to grant loan and advances to mobilize the collected deposits in a proper way. That means if loan and advances is increase then interest income from loan and advances also increase in same way.

c) Correlation between Total Deposit and Net Profit

The coefficient of correlation between deposit and net profit measures the degree of relationship between these two variables. Here deposit (x) is independent variables and net profit (y) is dependent variable. The main objectives of computing between deposit and net profit are to justify whether net profit is significantly correlated with deposit or not. The Table 4.23 show the value of 'r', 'r²', P.Er, and 6P.Er between total deposit and net profit of commercial banks.

Table 4.23
Correlation between Total Deposit and Net Profit

Banks	Evaluation Criteria			
	R	R ²	P.Er	6P.Er
NABIL	0.9314	0.8674	0.040	0.2399
EBL	0.9083	0.8169	0.0552	0.3313
LBL	-0.0362	0.0013	0.3013	1.8075

Sources: Appendix:-26, 27 & 28

The table given above shows the value of 'r', 'r²', P.Er, and 6 P.Er between total deposit and net profit of NABIL, EBL and LBL. We found that coefficient of correlation(r) of total deposit and net profit of NABIL, EBL and LBL is 0.9314, 0.9083 and -0.0362 respectively. It shows the NABIL and EBL have high degree of positive relationship between two variable total deposit and net profit. But the LBL coefficient of correlation(r) is negative which indicate a negative relationship between deposit and net profit of LBL. The value of coefficient of determination (r²) of NABIL, EBL and LBL is 0.8674, 0.8169 and 0.0013 respectively. That means 86.74%, 81.69% and 0.13% of variation in the dependent variable (net profit), has explained by independent variable (total deposit) respectively.

Similarly, considering the value of 'r' of NABIL, EBL and LBL and comparing it with 6P.Er i.e. 0.2399, 0.3313 and 1.8075 respectively, we can find the EBL and

NABIL coefficient of correlation(r) is greater than the value of $6P.Er$ which reveals the value of ' r ' is significant. On the other hand, we can say that there is significant relation between deposit and net profit of EBL and NABIL banks. But the LBL $6P.Er$ is greater than its coefficient of correlation (r) which reveals the value of ' r ' is not significant.

After analyzing, the conclusion can be drawn that NABIL, EBL are successful to grant their deposit to generate the profit in a proper way or there exists a significant relationship between total deposit and net profit of EBL and NABIL. But the LBL was unable to mobilize its deposit to generate profit.

d) Correlation between Total Assets and Net Profit

The coefficient of correlation between the total assets and net profit measures the degree of relationship between them. Here a total asset was taken as independent variables(x) and net profit is taken as dependent variable(y). The main purpose of calculating coefficient of correlation between these two variables is to justify where total assets are significantly used to generate profit or in other words, whether these variables are significantly correlated or not. The Table:-4.24 show the value of ' r ', ' r^2 ', $P.Er$, and $6P.Er$ between total assets and net profit of commercial banks.

Table 4.24

Correlation between Total Assets and Net Profit of EBL, NABIL & LBL

Banks	Evaluation Criteria			
	R	R^2	$P.Er$	$6P.Er$
NABIL	0.6379	0.4069	0.1789	1.0733
EBL	0.9191	0.8448	0.0468	0.2808
LBL	-0.3268	0.1068	0.2694	1.6166

Sources: Appendix:-29, 30 & 31

The table given above shows the value of 'r', 'r²', P.Er, and 6 P.Er between total assets and net profit of NABIL, EBL and LBL. We found that coefficient of correlation(r) of total assets and net profit of NABIL, EBL and LBL is 0.6379, 0.9191 and -0.3268 respectively. It shows the NABIL and EBL have high degree of positive relationship between two variable total assets and net profit. But the LBL coefficient of correlation(r) is negative which indicate a negative relationship between assets and net profit of LBL. Coefficient of determination (r²) of NABIL, EBL and LBL is 0.4069, 0.8448 and 0.1068 respectively. That means 40.69%, 84.48% and 10.68% of variation in the dependent variable (assets), has explained by independent variable (net profit) respectively.

Similarly, considering the value of 'r' of NABIL, EBL and LBL and comparing it with 6P.Er i.e. 1.0733, 0.2808 and 1.6166 respectively, we can find the EBL coefficient of correlation(r) is greater than the value of 6P.Er which reveals the value of 'r' is significant. On the other hand, we can say that there is significant relation between assets and net profit of EBL banks. But the LBL and NABIL banks 6P.Er are greater then its coefficient of correlation (r) which reveals the value of 'r' is no significant relation. Conclusion can be drawn that EBL are successful to grant their assets to generate the profit in a proper way or there exists a significant relationship between total assets and net profit of EBL. But the NABIL and LBL was unable was unable to mobilize its assets to generate profit.

e) Correlation between Loan and Advances to Net profit

The coefficient of correlation between total loan and advances to net profit measures the degree of relationship between these two variables. Loans and advances is independent variable(x) and total net profit is dependent variable(y). The relationship between these two variables describes the degree of relationship between loan and advances and net income. The Table 4.25 show the value of 'r', 'r²', P.Er, and 6P.Er between loan and advances and net profit of commercial banks.

Table 4.25

Correlation between Total Loan and Advances to Net Profit

Banks	Evaluation Criteria			
	R	R²	P.Er	6P.Er
NABIL	0.970	0.9409	0.0178	0.1069
EBL	0.9063	0.8214	0.0539	0.3232
LBL	-0.1970	0.0388	0.2899	1.7396

Sources: Appendix:-32, 33 & 34

The table given above shows the value of 'r', 'r²', P.Er, and 6 P.Er between total loan and advances and net profit of NABIL, EBL and LBL. We found that coefficient of correlation(r) of total loan and advances and net profit of NABIL, EBL and LBL is 0.970, 0.9063 and -0.1970 respectively. It shows the NABIL and EBL have high degree of positive relationship between two variable total loan and advances and net profit. But the LBL coefficient of correlation(r) is negative which indicate a negative relationship between loan and advances and net profit of LBL. The value of coefficient of determination (r²) of NABIL, EBL and LBL is 0.9409, 0.8214 and 0.0388 respectively. That means 94.09%, 82.14% and 3.88% of variation in the dependent variable (net profit), has explained by independent variable (loan and advances) respectively.

Similarly, considering the value of 'r' of NABIL, EBL and LBL and comparing it with 6P.Er i.e. 0.1069, 0.3232 and 1.7396 respectively, we can find the EBL coefficient of correlation(r) is greater than the value of 6P.Er which reveals the value of 'r' is significant. On the other hand, we can say that there is significant relation between loan and advances and net profit of EBL banks. But the LBL and NABIL banks 6P.Er are greater then its coefficient of correlation (r) which reveals the value of 'r' is no significant relation.

Conclusion can be drawn that EBL are successful to grant their assets to generate the profit in a proper way or there exists a significant relationship between total loan and advances and net profit of EBL. But the NABIL and LBL was unable was unable to mobilize its loan and advances to generate profit.

f) Correlation between Deposit and Interest Income

The coefficient of correlation between deposit and interest income measured the relationship between these two variables. Deposit is independent variable(x) and interest income is dependent variable (y). The objective of calculating r between these two variables is to justify to whether deposit is significantly used to interest income or not. The Table 4.26 show the value of 'r', 'r²', P.Er, and 6P.Er between total deposit and interest income of commercial banks.

Table 4.26
Correlation between Total Deposit and Interest Income

Banks	Evaluation Criteria			
	R	R²	P.Er	6P.Er
NABIL	0.9129	0.8334	0.3016	0.0503
EBL	0.9690	0.9389	0.0184	0.1105
LBL	0.8634	0.7454	0.0768	0.4607

Sources: Appendix:-35, 36 & 37

The table given above shows the value of 'r', 'r²', P.Er, and 6 P.Er between total deposit and interest income of NABIL, EBL and LBL. We found that coefficient of correlation(r) of total deposit and interest income of NABIL, EBL and LBL is 0.9129, 0.9690 and 0.8634 respectively. It shows the NABIL, EBL and LBL have high degree of positive relationship between two variable total deposit and interest income. The value of coefficient of determination (r²) of NABIL, EBL and LBL is 0.8334, 0.9389 and 0.7454 respectively. That means 83.34%, 93.89% and 74.54%

of variation in the dependent variable (interest income), has explained by independent variable (total deposit) respectively.

Similarly, considering the value of 'r' of NABIL, EBL and LBL and comparing it with 6P.Er i.e. 0.0503, 0.1105 and 0.4607 respectively, we can find that NABIL, EBL and LBL coefficient of correlation(r) is greater than the value of 6P.Er which reveals the value of 'r' is significant. On the other hand, we can say that there is significant relation between total deposit and interest income of these NABIL, EBL and LBL banks.

Conclusion can be drawn that NABIL, EBL and LBL are successful to grant their deposit to generate the interest income in a proper way or there exists a significant relationship between total deposit and interest income of EBL. When deposits increase the interest income subsequently increased but when it is fall, the interest income also fell.

g) Correlation between Loan and Advances and NPL

This correlation measures the degree of relationship between loan and non performing loan. Loan and advances Is independent variable(y) and non performing loan is dependent(x) variable. The objective of computing coefficient of correlation between loan and advances and non performing loan is to find out whether non performing loan is significantly correlated with loan and advances or not. The Table 4.27 shows the value of 'r', 'r²', P.Er, and 6P.Er between Loan and advance and non performing loan of EBL, NABIL and LBL commercial banks.

Table 4.27

Correlation between Loan and Advances and Non-performing Loan

Banks	Evaluation Criteria			
	R	R ²	P.Er	6P.Er
NABIL	-0.7422	0.5508	0.1355	0.8129
EBL	-0.0245	0.0006	0.3015	1.8088
LBL	0.7979	0.6366	0.1096	0.6577

Sources: Appendix:-38, 39 & 40

The table given above shows the value of 'r', 'r²', P.Er, and 6 P.Er between loan and advances and non performing loan of NABIL, EBL and LBL. We found that coefficient of correlation(r) of loan and advances and non performing loan of NABIL, EBL and LBL is -0.7422, -0.0245 and 0.7979 respectively. It shows the LBL have high degree of positive relationship between two variable loan and advances and non performing loan. If loan and advances increase then non performing loan also increase of LBL. NABIL and EBL have negative correlation between loan and advances and non performing loan. It is good for these two banks. The value of coefficient of determination (r²) of NABIL, EBL and LBL is 0.5508, 0.0006 and 0.6366 respectively. That means 55.08%, 0.06% and 63.66% of variation in the dependent variable (non performing loan), has explained by independent variable (loan and advances) respectively.

Similarly, considering the value of 'r' of NABIL, EBL and LBL and comparing it with 6P.Er i.e. 0.8129,1.8088 and 0.6577 respectively, we can find that LBL bank coefficient of correlation(r) is greater than the value of 6P.Er which reveals the value of 'r' is significant. This significant result is bad for LBL banks because it increase non performing loan. NABIL and EBL bank coefficient of correlation(r) is lower than the value of 6P.Er which reveals the value of 'r' is insignificant. On the other hand, we can say that there is insignificant relation between loan and

advances and non performing loan of these banks. Conclusion can be drawn that NABIL and EBL are successful to grant their loan and advances to decrease their non performing loan. But the LBL was unable to manage their loan and advances.

4.8 Regression Equation and Analysis

a) Regression Analysis between Loan and Advances on Total Deposit

The Table 4.28 shows the regression equation of loan and advances on total deposit of NABIL, EBL and LBL. Where total deposit is independent variable (X) and loan and advances is dependent variable (Y).

Regression equation of loan and advances on total deposit of EBL is $Y = 365.7563 + 0.7171 X$ is positive. In other words, one million increases in total deposit then loan and advances also increase by Rs. 0.7171 million of EBL. The value of constant (a) is relatively high. Regression equation of loan and advances on total deposit of LBL is $Y = 480.5851 + 0.7647 X$ is positive. In other words, one million increases in total deposit then loan and advances also increase by Rs. 0.7647 million of LBL. The value of constant (a) is relatively high.

Regression equation of loan and advances on total deposit of NABIL is $Y = -792.1714 + X$ is positive. In other words, one million increases in total deposit then loan and advances also increase by Rs. 0.7116 million of LBL. Therefore EBL, NABIL and LBL have positive or favorable relationship between total deposit and loan and advances. Deposit is able to increase the loan and advances.

Table 4.28

Regression Equation between Total Deposit and Loan and Advances

Banks	Regression equation of loan and advances on total deposit	Value of constant (a)	Regression coefficient (b)
EBL	$Y = 365.7563 + 0.7171 X$	$a = 365.7563$	$b = 0.7171$
NABIL	$Y = -792.1714 + X$	$a = -792.1714$	$b = 0.7116$
LBL	$Y = 480.5851 + 0.7647 X$	$a = 480.5851$	$b = 0.7647$

Sources: Appendix:-41, 42 & 43

b) Regression Equation between Total Interest Expenses on LA

The Table 4.29 shows the regression equation of total interest expenses on Loan and advances of commercial banks. Negative relation between these two variables will be favorable for this case. Where loan and advances is independent variable(X) and total interest expenses is dependent variable(Y).

Table 4.29

Regression Equation between Total Interest Expenses on Loan and Advances

Banks	Regression equation of loan and advances on total deposit	Value of constant (a)	Regression coefficient (b)
EBL	$Y = 297.4981 + 0.0122 X$	$a = 297.4981$	$b = 0.0122$
NABIL	$Y = 307.2961 + 0.0068 X$	$a = 307.2961$	$b = 0.0068$
LBL	$Y = -101.9236 + 0.0760 X$	$a = -101.9236$	$b = 0.0760$

Sources: Appendix:-44, 45 & 46

Regression equation of total interest expenses on Loan and advances of EBL is $Y = 297.4981 + 0.0122 X$ is positive. In other words, one million increases in total loan and advances then total interest also increase by Rs. 0.0122 million of EBL. The value of constant (a) is relatively high. Regression equation of total interest expenses on Loan and advances of LBL is $Y = -101.9236 + 0.0760 X$ is positive.

In other words, one million increases in total loan and advances then interest income also increase by Rs. 0.0760 million of LBL. Regression equation of total interest expenses on Loan and advances of NABIL is $Y = 307.2961 + 0.0068X$ is positive. In other words, one million increases in total loan and advances then interest expenses also increase by Rs. 0.0068 million of NABIL. Therefore EBL, NABIL and LBL have positive or favorable relationship between total deposit and loan and advances.

c) Regression Equation between Interest Incomes from LA on LA

The Table:-4.30 show the regression equation of interest income from Loan and advances on loan and advances of NABIL, EBL and LBL. Where the interest income from loan and advances is dependent variable(Y) and loan and advances is independent variable(X).

Table 4.30

Regression Equation between Interest Income from Loan and Advances on LA

Banks	Regression equation of loan and advances on total deposit	Value of constant (a)	Regression coefficient (b)
EBL	$Y = 232.3655 + 0.0533 X$	$a = 232.3655$	$B = 0.0533$
NABIL	$Y = 435.1799 + 0.0398 X$	$a = 435.1799$	$B = 0.0398$
LBL	$Y = -190.8724 + 0.1283 X$	$a = -190.8724$	$B = 0.1283$

Sources: Appendix:-47, 48 & 49

According to the Table 4.30, regression equation of the above table shows the regression equation of interest income from Loan and advances on loan and advances of EBL is $Y = 232.3655 + 0.0533 X$.. The positive relationship between these two variables interest income from Loan and advances and loan and advances indicates that the one million increases in the loan and advances will also increasing average about Rs. 0.0533 million of interest income from loan and advances of EBL.

Regression equation of the above table shows the regression equation of interest income from Loan and advances on loan and advances of NABIL is $Y = 435.1799 + 0.0398 X$. The positive relationship between these two variables interest income from Loan and advances and loan and advances indicates that the one million increases in the loan and advances will also increasing average about Rs. 0.0398 million of interest income from loan and advances of NABIL. Regression equation of the above table shows the regression equation of interest income from Loan and advances on loan and advances of LBL is $Y = -190.8724 + 0.1283 X$. The positive relationship between these two variables interest income from Loan and advances and loan and advances indicates that the one million increases in the loan and advances will also increasing average about Rs.0.1283 million of interest income from loan and advances of LBL. The interest incomes from loan and advances and loan and advances variables have a positive relationship of these banks.

d) Regression Equation between NPL on Loan and Advances

The Table:-4.31 show the regression equation of non-performing loan on loan and advances of commercial banks. Where loan and advances is independent variables(Y) and Non performing loan is dependent variables(X). The negative relationship of these two variables is favorable.

Table 4.31

Regression Equation between Non-Performing Loan on Loan and Advances

Banks	Regression equation of loan and advances on total deposit	Value of constant (a)	Regression coefficient (b)
EBL	$Y = 115.3275 - 0.0001X$	$a = 115.3275$	$b = -0.0001$
NABIL	$Y = 580.8493 - 0.0298 X$	$a = 580.8493$	$b = -0.0298$
LBL	$Y = -935.2749 + 0.4317 X$	$a = -935.2749$	$b = 0.4317$

Sources: Appendix:-50, 51 &52

Regression equation of non-performing loan on loan and advances of EBL is $Y=115.3275-0.0001X$ is negative. If loan and advances will increase by one million then non performing loan will be decrease by Rs. 0.0001 million of EBL. Regression equation of non-performing loan on loan and advances of NABIL is $Y = 580.8493-0.0298 X$ is negative. If loan and advances will increase by one million then non performing loan will be decrease by Rs. 0.0298 million of NABIL. Regression equation of non-performing loan on loan and advances of LBL is $Y = -935.2749+0.4317 X$ is positive relation. If loan and advances will increase by one million then non performing loan will be increase by Rs. 0.0.4317 million of LBL. Regression equation of NPL on loan and advances of NABIL and EBL banks is negative which reveals the negative relationship between these two variables. These negative relationship show the NABIL and EBL banks are able to manage their loan and advances in effectively way. But the LBL regression is positive. It indicates the LBL was suffering from NPL

4.9 Major Finding of the Study

From the analysis of data, following finding cab be made

1. EBL and LBL are able to mobilize their deposit in right way. Their mean ratio is 95.57% and 87.68% respectively. These two banks are able to get more profit form their loan and advances. A NABIL bank was unable to utilize its deposits.
2. NABIL bank has lower CV between these three banks. A NABIL banks was success to collected non interest bearing deposit then other banks. LBL have lowest risk then other bank because its standard deviation is 0.98 which is lowest then other banks. But its CV is higher.

3. EBL and NABIL banks have lowest credit risk. Lowest ratio indicates the bad performing of these two banks. They are unable to utilize their total assets as loan and advances. LBL is in better position among these three banks. LBL was able to utilize its assets in the form of Loan and advances.
4. The mean ratio of loan and advances, investment to total deposit of whole EBL, NABIL and LBL bank is higher than 85%. That means loan and advances, investment to total deposit ratio of these commercial bank above the standard. They have lowest deposit expenses.
5. Cash and bank balance to total deposit ratio of these three commercial banks is above 12%. EBL, NABIL and LBL are able to maintain their ratio.
6. NABIL and EBL banks are able to manage their loan loss provision i.e. their ratio was less than 1.0%. LBL is unable to manage its loan and advances and makes effort for timely recover loan
7. NABIL bank was able to manage its deposit in lower cost. So that NABIL can use its deposit in efficiency way and get more profit. EBL have the average ratio. LBL bank has higher cost of deposit.
8. EBL and LBL were earned more than 83% interest from loan and advances. They are success to utilize their lending for generating profit. NABIL bank was unable to get more income from their lending.
9. NABIL and EBL bank was able to mobilize their assets effectively and they are able to get profit. NABIL return on assets higher than other commercial bank. LBL have the negative return from its assets.

10. The average mean return on loan and advances of NABIL, EBL and LBL is 8.11%, 8.39% and 7.48% respectively. LBL banks have the lower return from its loan. NABIL and EBL banks get more return from their loan.
11. EBL and NABIL bank have higher capital risk ratio. That means they are success to mobilize their capital fund. So that they are able to get high return from their capital fund. LBL has lowest capital risk ratios.
12. NABIL and EBL are able to get highest profit in the study period. LBL was suffering for huge loss. LBL net profit is negative. LBL was bearing loss in the year 2005 and 2006. It makes his man net profit is negative.
13. EBL and NABIL bank was able to maintenance its NPL among the three commercial banks. Their NPL is in decreasing trend LBL was badly suffering from NPL from the last five year. NPL of LBL was above the international standard.
14. Priority sector lending was Classify into five sectors. NABIL and EBL give main priority to lending in service sector. Domestic industries sector occupied 2nd position. Agriculture occupied least amount for lending.
15. According to the sectors wise lending area, major portion of the loan portfolio of these banks was distributed to production sector and wholesale and retail sector. Lending to wholesale and retailer was second choice of these banks in last five year. Services industries were able to tap some position of total loan and advances.
16. According to the securities wise lending area, main portion of the loan portfolio of the NABIL and EBL was distributed to guarantee to securities.

Fixed account receipt was covering some portion of total loan. Government securities and non government securities were able to tap only few portions of total loan and advances.

17. The volume amount of deposit of all three commercial banks is in increasing trend. total deposit position of EBL is comparatively lower than NABIL and is better in comparison to LBL i.e. $34504.52 > 32932.25 > 9312.55$ million respectively
18. The volume amount of loan and advances of all three commercial banks is in increasing trend. Increasing trend of loan and advances indicates that in the future commercial banks are able to generate more profit from their lending activity. However, the growth rate is decreasing per year. The total loan and advances position of NABIL bank is better position then other reaming banks.
19. The value of Non-performing loan is in increasing trend. This is the cause of increasing of loan and advances each year. In other side, the growth rate of Non-Performing Loan is in decreasing trend. This decreasing trend of growth rate of non-performing loan is very well significant for the commercial banks. This will increase their profit and mobilization their assets efficiently.
20. The trend of LBL net profit is negative. NABIL and EBL net profit is in positive trend in every year. Each and every year growth rate of net profit is decreasing trend. NABIL bank is in better position among the three banks. LBL is in worst position.

21. The volume of interest income from loan and advances is increasing trend each year. In other side, the growth rate of interest income from loan and advances is decreasing trend per year. With the comparison today, if other things remain same, the total interest income from loan and advances of NABIL, EBL and LBL bank.
22. It shows the high degree of positive coefficient of correlation(r) between two variable loan and advances and deposit of these banks. NABIL, EBL and LBL are successful to grant loan and advances to mobilize the collected deposits in a proper way.
23. It shows the high degree of positive coefficient of correlation(r) between two variable loan and advances and interest income from loan and advances. There is also significant relation between loan and advances and interest income from loan and advances of EBL, NABIL and LBL banks. That means if loan and advances is increase then interest income from loan and advances also increase in same way.
24. NABIL and EBL have high degree of positive relationship between two variable total deposit and net profit. But the LBL coefficient of correlation(r) is negative which indicate a negative relationship between deposit and net profit of LBL. NABIL, EBL are successful to grant their deposit to generate the profit in a proper way or there exists a significant relationship between total deposit and net profit of EBL and NABIL. But the LBL was unable was unable to mobilize deposit to generate profit.
25. NABIL and EBL have high degree of positive relationship between two variable total assets and net profit. But the LBL coefficient of correlation(r)

- is negative which indicate a negative relationship between assets and net profit of LBL.
26. It shows the NABIL and EBL have high degree of positive relationship between two variable total loan and advances and net profit. But the LBL coefficient of correlation(r) is negative which indicate a negative relationship between loan and advances and net profit of LBL.
 27. NABIL, EBL and LBL have high degree of positive relationship between two variable total deposit and interest income. There is significant relation between deposit and interest income of these NABIL, EBL and LBL banks.
 28. LBL have high degree of positive relationship between two variable loan and advances and non performing loan. If loan and advances increase then non performing loan also increase of LBL. NABIL and EBL have negative correlation between loan and advances and non performing loan
 29. EBL, NABIL and LBL have positive or favorable relationship between total deposit and loan and advances. Deposit is able to increase the loan and advances.
 30. EBL, NABIL and LBL have positive or favorable relationship between total deposit and loan and advances. Deposit is able to increase the loan and advances of EBL, NABIL and LBL.
 31. Regression equation of non-performing loan on loan and advances of NABIL and EBL banks is negative which reveals the negative relationship between these two variables. These negative relationship show the NABIL and EBL banks are able to manage their loan and advances in effectively way. But the LBL regression is positive. It indicates the LBL was suffering from non performing loan.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Commercial banks are major financial institutions, which occupy quite an important place in the frame work of every economy because they provide capital for the development of industry trade and business and other resources deflect sectors lending the saving collected as deposit bank, by playing active role have changed the economy structure of the world. Bank has own role and contribution in the economic development; it maintains economic confidence of various segments and extends credit to people.

The income and profit of the EBL, NABIL and LBL depends upon its lending procedure, lending policy and investment policy of its fund utilize in different sectors. EBL, NABIL and LBL aren't able to utilize its deposits properly i.e. providing loan and advances for a profitable project, the reason behind it is lack of sound lending policy. The main objective of study is evaluating lending policy adopted by commercial bank of Nepal.

The study, which researcher have chosen "Lending policy of commercial bank in Nepal", Researcher think that most of the research regarding the banking policy is founding normally moving around the principle aspect again and again rather than filtering the actual situation. Normally, this studies focus on the lending policy of commercial banks. Researcher had consulted many books, articles, booklets and searching related thing in the internet. Researcher under took verbal interviews with different person who are related financial and non financial institutions. During the period, researcher summarized whole task in five chapters including this chapter.

First chapter of the study dealt about basic assumption of the study. Basically it highlighted the concept and importance of the study. It also presented research problem, objective of the study and limitation of the study. Second chapter helped the researcher to provide knowledge about the lending policy of commercial banks. It tried to know some concept used in this study. Moreover, it summarized the previous findings of the study to provide knowledge about the background of the work done. The third chapter of the study discussed about various research methodologies used for the study. Fourth chapter of the study dealt about presentation and analysis of data. It first presented the generated data in tabular form and analyzed it in systematically as per the objectives mentioned above. The last chapter of this study is summary, conclusion and recommendation.

Various norms and regulation and directives as issued by NRB are presented so for these are treated as guidance and for comparing the performance as under which commercial banks has been running or not. Researcher used different graphs, charts and other statistical tools to make the study more compatible. These financial and statistical tools helped to measure the performance of the bank in comparative manner.

Regarding the lending policies of commercial banks there are basically five basic principles of the commercial banks follow while providing loans. Those principles are Liquidity, Safety and Security, Suitability, Diversification, Profitability. The main objective of commercial banks is to generate profit by providing quality service to client.

5.2 Conclusion

EBL and LBL are able to mobilize their deposit in right way. Their mean ratio is 95.57% and 87.68% respectively. A NABIL bank was unable to utilize its deposits. A NABIL banks was success to collected non interest bearing deposit

then other banks. EBL and NABIL banks have lowest credit risk. They are unable to utilize their total assets as loan and advances. LBL is in better position among these three banks. LBL was able to utilize its assets in the form of Loan and advances. Loan and advances, investment to total deposit of whole EBL, NABIL and LBL bank is higher than 85%. These ratios of these commercial banks are above the standard.

Cash and bank balance to total deposit ratio of EBL, NABIL and LBL is above 12%. They are able to maintain their ratio above the average. NABIL and EBL banks are able to manage their loan loss provision i.e. their ratio was less than 1.0%. LBL is unable to manage its loan and advances and makes effort for timely recover loan. NABIL bank was able to manage its deposit in lower cost. LBL bank has higher cost of deposit. NABIL bank was able to mobilize its assets with lower expenses. Therefore, NABIL bank was success to generate more profit. LBL and EBL banks have higher ratio. EBL and LBL were earned more than 83% interest from loan and advances but the NABIL bank was unable to get more income from their lending activity. LBL has lowest capital risk ratios. EBL and NABIL bank have higher capital risk ratio and they are success to mobilize their capital fund. LBL banks have the lower return from its loan. NABIL and EBL banks get more return from their loan. NABIL and EBL bank was able to mobilize their assets effectively and they are able to get profit. NABIL return on assets higher than other commercial bank. LBL have the negative return from its assets. NABIL and EBL are able to get highest profit in the study period. LBL was suffering for huge loss. LBL net profit is negative. LBL was bearing loss in the year 2005 and 2006. It makes his man net profit is negative. EBL and NABIL bank was able to maintenance its NPL among the three commercial banks. Their NPL is in decreasing trend LBL was badly suffering from NPL from the last five year. NPL of LBL was above the international standard.

These banks give main priority to lending in service sector, production sector, guarantee and wholesale and retail sector. Agriculture sector occupied least amount for lending. Government securities and non government securities were able to tap only few portions of total loan and advances.

The volume amount of deposit, loan and advances, Interest income of EBL, NABIL and LBL banks is in increasing trend. Increasing trend indicates that in the future commercial banks are able to generate more profit from their lending activity. The value of Non-performing loan is in increasing trend. This is the cause of increasing of loan and advances each year. The trend of LBL net profit is negative. NABIL and EBL net profit is in positive trend in each and every year. Each and every year growth rate of net profit is decreasing trend. NABIL bank is in better position among the three banks. LBL is in worst position.

EBL, NABIL and LBL have positive or favorable relationship between total deposit and loan and advances, total deposit and interest income. NABIL and EBL have high degree of positive relationship between two variable total loan and advances and net profit and total assets and net profit. LBL coefficient of correlation(r) is negative which indicate a negative relationship between assets and net profit and total loan and advances and net profit of LBL.

Regression equation of non-performing loan on loan and advances of NABIL and EBL banks is negative. NABIL and EBL banks are able to manage their loan and advances in effectively way. But the LBL regression is positive. It indicates the LBL was suffering from non performing loan

5.3 Recommendations

Following recommendation made for further improvement.

1. Deposit collection was in increasing trend. So that NABIL, LBL and EBL bank should be find out the new area for lending and investing to utilize their deposit. Otherwise they have to bear highly deposit expenses in near future, which decrease there profit.
2. Average profit of these banks is not satisfactory. If resources held idle, bank have to beard more cost and result would be lower profit margin. So portfolio condition of bank should be regularly revised from time to time. It should always try to maintain the equilibrium in the portfolio condition of the bank. These banks should use its funds in more portfolio sectors. It should utilize its risky assets and other funds and it should its express should try to collect cheaper fund.
3. The proportion of lending made by NABIL, EBL and LBL in agriculture and domestic industries sector is decreasing despite increasing volume in LA of these banks. Since, the prosperity of national economy is highly dependent upon this sector, banks are recommended to increase its volume of lending in these sectors.
4. NABIL bank lending was found poor then other banks. So that NABIL bank has to utilize its deposit in the form of lending.
5. LBL banks NPL was found higher then international standard. It is recommended that before providing the loan makes sure that your clients is in good character and able to pay its loan or may take the collateral which is nearly two times more than that of your guaranteed.

6. LBL bank interest income from LA to interest income ratio was found good. But its net profit was negative or very poor. So that they have to reduce their operation cost of loan and advance and increase their profit.
7. EBL and LBL banks have tried to increase their Non interest bearing deposit to decrease their interest expenses and increase profit.
8. An interest expense of deposit of these banks was found high. So that EBL and LBL banks have to collect more non interest bearing deposit to decrease their interest expenses.

APPENDIX

Appendix 1

Total Loan and Advances to Total Deposit Ratio

(Rs. in million)

Year	EBL			NABIL			LUMBINI		
	Total Deposit	Loan and Advances	Ratio (%)	Total Deposit	Loan and Advances	Ratio (%)	Total Deposit	Loan and Advances	Ratio (%)
2003	6694.9	5030.90	75.15	13437.7	7996.9	59.51	2959.8	2626.7	88.75
2004	8064	6116.6	75.85	14098.0	8635.1	61.25	3777.6	3207.0	84.90
2005	10097.8	7914.4	78.38	14586.8	11078.	75.95	4029.5	3816.9	94.72
2006	13802.5	10124.20	73.35	19348.4	13021	67.30	4786.5	4315	90.15
2007	19097.7	14059.20	73.62	23342.4	15657.1	67.08	6024.6	4938.2	81.97

Appendix 2

Total Deposit Ratio to Non Interest Bearing Deposit

(Rs. in million)

Year	EBL			NABIL			LUMBINI		
	Total Deposit	NIBD	Ratio (%)	Total Deposit	NIBD	Ratio (%)	Total Deposit	NIBD	Ratio (%)
2003	6694.9	562.40	8.40	13437.7	3025.00	22.51	2959.8	158.70	5.36
2004	8064	719.80	8.93	14098.0	2687.00	19.06	3777.6	200.00	5.29
2005	10097.8	1025.20	10.15	14586.8	2843.50	19.49	4029.5	149.80	3.72
2006	13802.5	1155.20	8.37	19348.4	2953.30	15.26	4786.5	159.90	3.34
2007	19097.7	2620.00	13.72	23342.4	3446.10	14.76	6024.6	348.00	5.78

Appendix 3

Loan and Advances to Total Assets

(Rs. in million)

	EBL	NABIL	LUMBINI
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Year	Loan and Advances	Total Assets	Ratio (%)	Loan and Advances	Total Assets	Ratio (%)	Loan and Advances	Total Assets	Ratio (%)
2003	5030.90	8260.20	60.91	7996.9	18275.90	43.76	2626.7	3651.60	71.93
2004	6116.6	9967.20	61.37	8635.1	18234.30	47.36	3207.0	4785.10	67.02
2005	7914.4	15121.60	52.34	11078.	18752.50	59.07	3816.9	5386.00	70.87
2006	10124.20	16714.50	60.57	13021	24134.60	53.95	4315	6735.20	64.07
2007	14059.20	23335.3	60.25	15657.1	29666.40	52.28	4938.2	7134.70	69.21

Appendix 4
Loan and Advances and Investment

(Rs. in million)

Year	EBL			NABIL			LUMBINI		
	Loan and Advances	Investment	Total	Loan and Advances	Investment	Total	Loan and Advances	Investment	Total
2003	5030.90	1599.4	6630.3	7996.9	3663.5	11660.4	2626.7	274.9	2901.6
2004	6116.6	2466.4	8583	8635.1	3672.6	12307.7	3207.0	433.1	3640.1
2005	7914.4	2100.3	10014.7	11078.	2826.8	13904.8	3816.9	376.	4192.9
2006	10124.20	3548.6	13672.8	13021	2372.3	15393.3	4315	527.0	4842
2007	14059.20	4704.6	18763.8	15657.1	5359.2	21016.3	4938.2	795.6	5733.8

Appendix 5
Loan and Advances and Investment to Total Deposit

(Rs. in million)

Year	EBL			NABIL			LUMBINI		
	LA and Investment	Total Deposit	Ratio (%)	LA and Investment	Total Deposit	Ratio (%)	LA and Investment	Total Deposit	Ratio (%)
2003	6630.3	6694.9	99.04	11660.4	13437.7	86.77	2626.7	2959.8	88.75
2004	8583	8064	106.44	12307.7	14098.0	87.30	3207.0	3777.6	84.90
2005	10014.7	10097.8	99.18	13904.8	14586.8	95.32	3816.9	4029.5	94.72
2006	13672.8	13802.5	99.06	15393.3	19348.4	79.56	4315	4786.5	90.15
2007	18763.8	19097.7	98.25	21016.3	23342.4	90.03	4938.2	6024.6	81.97

Appendix 6
Cash and Bank Balance to Total Deposit Ratio

(Rs. in million)

Year	EBL			NABIL			LUMBINI		
	Total Deposit	Cash and Bank Balance	Ratio (%)	Total Deposit	Cash and Bank Balance	Ratio (%)	Total Deposit	Cash and Bank Balance	Ratio (%)
2003	6694.9	1156.1	17.27	13437.7	1963.1	14.61	2959.8	466.1	15.75
2004	8064	869.7	10.78	14098.0	2365.2	16.78	3777.6	681.0	18.03
2005	10097.8	1624.2	16.08	14586.8	1345.2	9.22	4029.5	469.4	11.65
2006	13802.5	1619.6	11.73	19348.4	3916.9	20.24	4786.5	452.1	9.45
2007	19097.7	3329.7	17.44	23342.4	4162.1	17.83	6024.6	830.9	13.79

Appendix 7
Loan Loss Provision to Total Loan and Advances Ratio

(Rs. in million)

Year	EBL			NABIL			LUMBINI		
	Loan and Advances	Loan Loss Provision	Ratio (%)	Loan and Advances	Loan Loss Provision	Ratio (%)	Loan and Advances	Loan Loss Provision	Ratio (%)
2003	5030.90	16.9	0.34	7996.9	20	0.25	2626.7	59.7	2.27
2004	6116.6	50.7	0.83	8635.1	115.3	1.34	3207.0	130.9	4.08
2005	7914.4	84.3	1.07	11078.	25.6	0.23	3816.9	259.6	6.80
2006	10124.20	69.6	0.69	13021	7.5	0.06	4315	774.6	17.95
2007	14059.20	84.5	0.60	15657.1	23	0.15	4938.2	00	0.00

Appendix 8
Interest Expenses of Deposit to Total Deposit

(Rs. in million)

Year	EBL			NABIL			LUMBINI		
	Total	Interest	Ratio	Total	Interest	Ratio	Total	Interest	Ratio

	Deposit	expenses of Deposit	(%)	Deposit	expenses	(%)	Deposit	expenses	(%)
2003	6694.9	483.0	7.21	13437.7	534.70	3.98	2959.8	56.60	1.91
2004	8064	313.8	3.89	14098.0	283.2	2.01	3777.6	197.3	5.22
2005	10097.8	299.5	2.97	14586.8	243.4	1.67	4029.5	191.0	4.74
2006	13802.5	383.4	2.78	19348.4	345.8	1.79	4786.5	214.1	4.47
2007	19097.7	499.2	2.61	23342.4	482.5	2.07	6024.6	264.1	4.38

Appendix 9
Total Interest Expenses to Total Asset

(Rs. in million)

Year	EBL			NABIL			LUMBINI		
	Total Assets	Interest Expenses	Ratio %	Total Assets	Interest Expenses	Ratio %	Total Assets	Interest Expenses	Ratio %
2003	8260.20	483.0	5.85	18275.90	534.70	2.93	3651.60	56.60	1.55
2004	9967.20	313.8	3.15	18234.30	283.2	1.55	4785.10	197.3	4.12
2005	15121.60	299.5	1.98	18752.50	243.4	1.30	5386.00	193.5	3.59
2006	16714.50	401.4	2.40	24134.60	357.0	1.48	6735.20	215.4	3.20
2007	23335.3	517.2	2.22	29666.4	502.7	0.17	7134.70	264.7	3.71

Appendix 10

Total Interest Income from Loan and Advances to Total Interest Income

(Rs. in million)

Year	EBL			NABIL			LUMBINI		
	Interest income for LA	Interest Income	Ratio (%)	Interest income for LA	Interest Income	Ratio (%)	Interest income for LA	Interest Income	Ratio (%)
2003	504.7	712.6	70.83	864.2	1147.6	75.30	72.8	77.3	94.18
2004	565.9	660.2	85.72	703.7	945.4	74.43	303.1	320.5	94.57
2005	634.5	720.7	88.04	795.1	1033.3	76.95	348.2	365.3	95.32
2006	777.0	907.3	85.64	972.7	1296.4	75.03	317.5	349.1	90.95
2007	983.8	1158	84.96	1084.6	1465	74.03	429.9	460.8	93.29

Appendix 11

Return on Loan and Advances Ratio

(Rs. in million)

Year	EBL			NABIL			LUMBINI		
	Loan and Advances	Interest income form LA	Ratio (%)	Loan and Advances	Interest income form LA	Ratio (%)	Loan and Advances	Interest income form LA	Ratio (%)
2003	5030.90	504.7	10.03	7996.9	864.2	10.81	2626.7	72.8	2.77
2004	6116.6	565.9	9.25	8635.1	703.7	8.15	3207.0	303.1	9.45
2005	7914.4	634.5	8.02	11078.	795.1	7.18	3816.9	348.2	9.12
2006	10124.20	777.0	7.67	13021	972.7	7.47	4315	317.5	7.36
2007	14059.20	983.8	7.00	15657.1	1084.6	6.93	4938.2	429.9	8.71

Appendix 12

Return on Total Assets Ratio

(Rs. in million)

Year	EBL			NABIL			LUMBINI		
	Total Assets	Net Profit	Ratio (%)	Total Assets	Net Profit	Ratio (%)	Total Assets	Net Profit	Ratio (%)
2003	8260.20	94.2	1.14	18275.90	416.23	2.28	3651.60	89.139	2.44
2004	9967.20	14.36	0.14	18234.30	455.31	2.50	4785.10	18.64	0.39
2005	15121.60	170.81	1.13	18752.50	520.11	2.77	5386.00	-197.58	-3.67
2006	16714.50	237.38	1.42	24134.60	635.26	2.63	6735.20	-806.06	-11.97
2007	23335.3	300.6	1.29	296660.4	654.7	0.22	7134.70	225.9	3.17

Appendix 13
Capital Risk Ratio

(Rs. in million)

Years	EBL	NABIL	LUMBINI
	Ratio (%)	Ratio (%)	Ratio (%)
2003	12.33	13.05	11.37
2004	11.07	13.56	8.71
2005	13.57	12.44	6.35
2006	12.86	15.08	(13.29)
2007	11.31	12.61	(7.04)

Appendix 14
Net Profit of Commercial Banks

(Rs. in million)

Years	EBL	NABIL	LUMBINI
	Ratio (%)	Ratio (%)	Ratio (%)
2003	94.2	416.23	89.139
2004	14.36	455.31	18.64
2005	170.81	520.11	(197.58)
2006	237.38	635.26	(806.06)
2007	300.6	654.7	225.9

Appendix 15
Non Performing Loan Status of Commercial Banks

(Rs. in million)

Years	EBL	NABIL	LUMBINI
	Ratio (%)	Ratio (%)	Ratio (%)
2003	111.19	449.63	302.96
2004	104.76	286.68	237.30
2005	128.81	144.51	561.13
2006	121.85	165.98	1401.58
2007	107	178.3	981.4

Appendix 16
Trend Analysis of Total Deposit

(Rs. in million)

Fiscal Year (t)	X = t- 2003	X ²	Total Deposit (Y)			XY			Y _c = a + bx		
			EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL
2003	-2	4	6694.9	13437.7	2959.8	-13389.8	-26875.4	-5919.6	5442.56	11950.7	2887.9
2004	-1	1	8064	14098	3777.6	-8064	-14098	-3777.6	8496.97	14456.68	3601.75
2005	0	0	10097.8	14586.8	4029.5	0	0	0	11551.38	16962.66	4315.6
2006	1	1	13802.5	19348.4	4786.5	13802.5	19348.4	4786.5	14605.79	19468.64	5029.45
2007	2	4	19097.7	23342.4	6024.6	38195.4	46684.8	12049.2	17660.2	21974.62	5743.3
Total	0	10	57756.9	84813.3	21578	30544.1	25059.8	7138.5	5442.56	11950.7	2887.9

Where,

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

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

Project trend values of Total Deposit for Next Five Years

Fiscal Year(t)	X = t-2004	Y _c = a + bx		
		EBL	NABIL	LBL
2008	3	20714.61	24480.60	6457.15
2009	4	23769.02	26986.58	7171
2010	5	26823.43	29492.56	7884.85
2011	6	29877.84	31998.54	8598.70
2012	7	32932.25	34504.52	9312.55

Appendix 17
Trend Analysis of Total Loan and Advances

(Rs. in million)

Fiscal Year(t)	X = t-2003	X ²	Total Loan & Advances (Y)			XY			Y _c = a + bx		
			EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL
2003	-2	4	5031	7996.9	2626.7	-	-	-			
						10061.8	15993.8	5253.4	4236.22	7336.36	2634.56
2004	-1	1	6117	8635.1	3207	-6116.6	-8635.1	-3207	6442.64	9306.99	3207.66
2005	0	0	7914	11078	3816.9	0	0	0	8649.06	11277.62	3780.76
2006	1	1	10124	13021	4315	10124.2	13021	4315	10855.48	13248.25	4353.86
2007	2	4	14059	15657.1	4938.2	28118.4	31314.2	9876.4	13061.9	15218.88	4926.96
Total	0	10	43245	56388.1	18903.8	22064.2	19706.3	5731			

Where,

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

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

Project trend values of total Loan and Advances for next five years

Fiscal Year(t)	X = t-2004	Y _c = a + bx		
		EBL	NABIL	LBL
2008	3	15268.32	17190	5500
2009	4	17474.74	19160	6073
2010	5	19681.16	21131	6646
2011	6	21887.58	23101	7219
2012	7	24094	25072	7792

Appendix 18
Trend Analysis of Non Performing Loan

(Rs. in million)

Fiscal Year(t)	X = t-2003	X ²	Total Loan & Advances (Y)			XY			Y _c = a + bx		
			EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL
2003	-2	4	111.19	449.63	302.96	-222.38	-899.26	-605.92	112.98	377.692	192.642
2004	-1	1	104.76	286.68	237.3	-104.76	-286.68	-237.3	113.851	311.356	444.758
2005	0	0	128.81	144.51	561.13	0	0	0	114.722	245.02	696.874
2006	1	1	121.85	165.98	1401.58	121.85	165.98	1401.58	115.593	178.684	948.99
2007	2	4	107	178.3	981.4	214	356.6	1962.8	116.464	112.348	1201.106
Total	0	10	573.6	1225.1	3484.37	8.71	-663.36	2521.16			

Where,

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

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

Project trend values of total Non Performing Loan for next five years

Fiscal Year(t)	X = t-2004	Y _c = a + bx		
		EBL	NABIL	LBL
2008	3	117.335	46.012	1453
2009	4	118.206	20.32	1705
2010	5	119.077	-86.66	1957
2011	6	119.948	-156	2210
2012	7	120.819	-219.30	2462

Appendix 19
Trend Analysis of Net Profit

(Rs. in million)

Fiscal Year(t)	X = t-2003	X ²	Total Loan & Advances (Y)			XY			Y _c = a + bx		
			EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL
2003	-2	4	94.2	416.23	89.139	-188.4	-832.46	-178.278	36.306	404.944	-23.7566
2004	-1	1	14.36	455.31	18.64	-14.36	-455.31	-18.64	99.888	470.633	-78.8744
2005	0	0	170.81	520.11	-197.58	0	0	0	163.47	536.322	-133.9922
2006	1	1	237.38	635.26	-806.06	237.38	635.26	-806.06	227.052	602.011	-189.11
2007	2	4	300.6	654.7	225.9	601.2	1309.4	451.8	290.634	667.7	-244.2278
Total	0	10	817.4	2681.61	-669.961	635.82	656.89	-551.178			

Where,

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

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

Project trend values of total **Net Profit** for next five years

Fiscal Year(t)	X = t-2004	Y _c = a + bx		
		EBL	NABIL	LBL
2008	3	354.216	733.39	-299.30
2009	4	417.798	799.08	-354.50
2010	5	481.38	864.77	-409.60
2011	6	544.962	930.46	-464.70
2012	7	608.544	996.15	-519.80

Appendix 20
Trend Analysis of Interest Income from Loan and Advances

(Rs. in million)

Fiscal Year(t)	X = t-2003	X ²	Total Loan & Advances (Y)			XY			Y _c = a + bx		
			EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL
2003	-2	4	504.7	864.2	72.8	-1009.4	-1728.4	-145.6	459.32	742.1	148.58
2004	-1	1	565.9	703.7	303.1	-565.9	-703.7	-303.1	576.25	813.08	221.44
2005	0	0	634.5	795.1	348.2	0	0	0	693.18	884.06	294.3
2006	1	1	777	972.7	317.5	777	972.7	317.5	810.11	955.04	367.16
2007	2	4	983.8	1084.6	429.9	1967.6	2169.2	859.8	927.04	1026.02	440.02
Total	0	10	3466	4420.3	1471.5	1169.3	709.8	728.6			

Where,

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

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

Project trend values of total interest income from loan and advances for next five years

Fiscal Year(t)	X = t-2004	Y _c = a + bx		
		EBL	NABIL	LBL
2008	3	1043.97	1097	512.88
2009	4	1160.9	1167.98	585.74
2010	5	1277.83	1238.96	658.6
2011	6	1394.76	1309.94	731.46
2012	7	1511.69	1380.92	804.32

Appendix 21
Coefficient of Correlation between Deposit and Loan and Advances of EBL

(Rs. In million)

Years	Deposit(x)	Loan & Advances (y)	$\sum X$	$\sum X^2$	$\sum Y$	$\sum Y^2$	$\sum XY$
2003	6694.9	5030.9	4856.48	23585397.99	3618.16	13091081.79	17571521.68
2004	8064	6116.6	3487.38	12161819.26	2532.46	6413353.65	8831650.35
2005	10097.8	7914.4	1453.58	2112894.82	-734.66	539725.32	1067887.08
2006	13802.5	10124.2	2251.12	5067541.25	1475.14	2176038.02	3320717.16
2007	19097.7	14059.2	7546.32	56946945.54	5410.14	29269614.82	40826647.68
Total	57756.90	43245.30	0.00	99874598.87	0.00	51489813.59	71618423.96
Mean	11551.38	8649.06					

Calculation of mean of total deposit (\bar{x}) and Loan and advances (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{57756.90}{5} = 11551.38 \qquad \bar{y} = \frac{\sum y}{n} = \frac{43245.30}{5} = 8649.06$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = \frac{71618423.96}{\sqrt{9987459887} \sqrt{5148981359}} = 0.9987$$

Coefficient of Determination (r^2) = 0.9987 | 0.9987 = 0.9974

$$Probable(P.Er) = \frac{1 - r^2}{\sqrt{n}} = \frac{1 - 0.9974}{\sqrt{5}} = 0.0008$$

$$6(P.Er) = 0.0047$$

Appendix 22
Coefficient of correlation between deposit and loan and advances of NABIL
(Rs. In million)

Years	Deposit(x)	Loan & Advances(y)	$\sum x$	$\sum x^2$	$\sum y$	$\sum y^2$	$\sum xy$
2003	13437.7	7996.9	-3524.96	12425343.00	-3280.72	10763123.72	11564406.77
2004	14098	8635.1	-2864.66	8206276.92	-2642.52	6982911.95	7569921.34
2005	14586.8	11078	-2375.86	5644710.74	-199.62	39848.14	474269.17
2006	19348.4	13021	2385.74	5691755.35	1743.38	3039373.82	4159251.40
2007	23342.4	15657.1	6379.74	40701082.47	4379.48	19179845.07	27939943.74
Total	84813.30	56388.10	0.00	72669168.47	0.00	40005102.71	51707792.42
Mean	16962.66	11277.62					

Calculation of mean of total deposit (\bar{x}) and Loan and advances (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{84813.30}{5} = 16962.66 \qquad \bar{y} = \frac{\sum y}{n} = \frac{56388.10}{5} = 11277.62$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}} = \frac{51707792.42 - \frac{84813.30 \times 56388.10}{5}}{\sqrt{\left(72669168.47 - \frac{(84813.30)^2}{5}\right) \left(40005102.71 - \frac{(56388.10)^2}{5}\right)}} = 0.959$$

Coefficient of Determination (r^2) = 0.9590 | 0.9590 = 0.9197

$$Pr obable(P.Er) = \frac{1 - r^2}{\sqrt{n}} = \frac{1 - 0.9197}{\sqrt{5}} = 0.0242$$

6 (P.Er) = 0.1453

Appendix 23
Coefficient of Correlation between Deposit and Loan and Advances of LBL

(Rs. In million)

Year s	Deposit(x)	Loan & Advances(y)	$\sum X$ $\sum x$ $\sum Z$ \bar{x}	$\sum X^2$	$\sum Y$ $\sum y$ $\sum Z$ \bar{y}	$\sum Y^2$	$\sum XY$
2003	2959.8	2626.7	-1355.80	1838193.64	1154.06	1331854.48	1564674.55
2004	3777.6	3207	-538.00	289444.00	-573.76	329200.54	308682.88
2005	4029.5	3816.9	-286.10	81853.21	36.14	1306.10	10339.65
2006	4786.5	4315	470.90	221746.81	534.24	285412.38	251573.62
2007	6024.6	4938.2	1709.00	2920681.00	1157.44	1339667.35	1978064.96
Total	21578.00	18903.80	0.00	5351918.66	0.00	3287440.85	4092656.35
Mean	4315.60	3780.76					

Calculation of mean of total deposit (\bar{x}) and Loan and advances (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{21578.00}{5} = 4315.6$$

$$\bar{y} = \frac{\sum y}{n} = \frac{18903.80}{5} = 3780.76$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}} = \frac{4092656.35 - \frac{21578 \times 18903.8}{5}}{\sqrt{\left(5351918.66 - \frac{(21578)^2}{5}\right) \left(3287440.85 - \frac{(18903.8)^2}{5}\right)}} = 0.9757$$

Coefficient of Determination (r^2) = 0.9757 | 0.9757 = 0.9520

$$Pr obable(P.Er) = \frac{1 - r^2}{\sqrt{n}} = \frac{1 - 0.9520}{\sqrt{5}} = 0.0145$$

$$6 (P.Er) = 0.868$$

Appendix 24
Coefficient of Correlation between LA to Interest Income from LA of EBL

(Rs. In million)

Years	Loan & advance(x)	Interest Income from LA (y)	$\sum X$ $\sum x$ $\sum Z\bar{x}$	$\sum X^2$	$\sum Y$ $\sum y$ $\sum Z\bar{y}$	$\sum Y^2$	$\sum XY$
2003	5030.90	504.7	-3618.16	13091081.79	-188.48	35524.71	681950.80
2004	6116.6	565.9	-2532.46	6413353.65	-127.28	16200.20	322331.51
2005	7914.4	634.5	-734.66	539725.32	-58.68	3443.34	43109.85
2006	10124.20	777.0	1475.14	2176038.02	83.82	7025.79	123646.23
2007	14059.20	983.8	5410.14	29269614.82	290.62	84459.98	1572294.89
Total	43245.30	3465.90	0.00	51489813.59	0.00	146654.03	2743333.28
Mean	8649.06	693.18					

Calculation of mean of loan and advance (\bar{x}) interest income from loan and advances (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{43245.30}{5} = 8649.06$$

$$\bar{y} = \frac{\sum y}{n} = \frac{3465.90}{5} = 693.18$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{(\sum x^2 - \frac{(\sum x)^2}{n})(\sum y^2 - \frac{(\sum y)^2}{n})}} = \frac{2743333.28 - \frac{43245.3 \times 3465.90}{5}}{\sqrt{(51489813.59 - \frac{43245.3^2}{5})(146654.03 - \frac{3465.90^2}{5})}} = 0.9983$$

Coefficient of Determination (r^2) = 0.9983 | 0.9983 = 0.9966

$$Pr obable(P.Er) = \frac{1 - r^2}{\sqrt{n}} = \frac{1 - 0.9966}{\sqrt{5}} = 0.0010$$

$$6 (P.Er) = 0.0061$$

Appendix 25

Coefficient of Correlation between LA to Interest Income from LA of NABIL

(Rs. In million)

Years	Loan and Advances(x)	Interest income from LA(y)	$\sum X$ $\sum x$ $\sum Z\bar{x}$	$\sum X^2$	$\sum Y$ $\sum y$ $\sum Z\bar{y}$	$\sum Y^2$	$\sum XY$
2003	7996.9	864.2	-3280.72	10763123.72	-19.86	394.42	65155.10
2004	8635.1	703.7	-2642.52	6982911.95	-180.36	32529.73	476604.91
2005	11078	795.1	-199.62	39848.14	-88.96	7913.88	17758.20
2006	13021	972.7	1743.38	3039373.82	88.64	7857.05	154533.20
2007	15657.1	1084.6	4379.48	19179845.07	200.54	40216.29	878260.92
Total	56388.10	4420.30	0.00	40005102.71	0.00	88911.37	1592312.32
Mean	11277.62	884.06					

Calculation of mean of loan and advance (\bar{x}) interest income from loan and advances (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{56388.10}{5} = 11277.62$$

$$\bar{y} = \frac{\sum y}{n} = \frac{4420.30}{5} = 884.06$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}} = \frac{1592312.32 - \frac{56388.10 \times 4420.30}{5}}{\sqrt{\left(40005102.71 - \frac{56388.10^2}{5}\right) \left(88911.37 - \frac{4420.30^2}{5}\right)}} = 0.8443$$

Coefficient of Determination (r^2) = 0.8443 | 0.8443 = 0.7128

$$Pr obable(P.Er) = \frac{1 - r^2}{\sqrt{n}} = \frac{1 - 0.7128}{\sqrt{5}} = 0.0866$$

$$6 (P.Er) = 0.5197$$

Appendix 26
Coefficient of correlation between LA to Interest Income from LA of LBL

(Rs. In million)

Years	Loan and Advances(x)	Interest income from LA(y)	$\sum X$ $\sum x$ $\sum Z\bar{x}$	$\sum X^2$	$\sum Y$ $\sum y$ $\sum Z\bar{y}$	$\sum Y^2$	$\sum XY$
2003	2626.7	72.8	-1154.06	1331854.48	-221.50	49062.25	255624.29
2004	3207	303.1	-573.76	329200.54	8.80	77.44	-5049.09
2005	3816.9	348.2	36.14	1306.10	53.90	2905.21	1947.95
2006	4315	317.5	534.24	285412.38	23.20	538.24	12394.37
2007	4938.2	429.9	1157.44	1339667.35	135.60	18387.36	156948.86
Total	18903.80	1471.50	0.00	3287440.85	0.00	70970.50	421866.38
Mean	3780.76	294.30					

Calculation of mean of loan and advance (\bar{x}) interest income from loan and advances (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{18903.80}{5} = 3780.76$$

$$\bar{y} = \frac{\sum y}{n} = \frac{1471.50}{5} = 294.30$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}} = \frac{421866.38 - \frac{18903.80 \times 1471.50}{5}}{\sqrt{\left(3287440.85 - \frac{(18903.80)^2}{5}\right) \left(70970.50 - \frac{(1471.50)^2}{5}\right)}} = 0.8734$$

Coefficient of Determination (r^2) = $0.8734 \times 0.8734 = 0.7628$

$$Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.7628}{\sqrt{5}} = 0.0715$$

$$6 (P.Er) = 0.4293$$

Appendix 27
Coefficient of Correlation between Deposit and Net Profit of EBL

(Rs. In million)

Years	Total Deposit (x)	Net Profit(y)	$\sum X$	$\sum X^2$	$\sum Y$	$\sum Y^2$	$\sum XY$
2003	6694.9	94.2	-4856.48	23585397.99	-69.27	4798.33	336408.37
2004	8064	14.36	-3487.38	12161819.26	-149.11	22233.79	520003.23
2005	10097.8	170.81	-1453.58	2112894.82	7.34	53.88	-10669.28
2006	13802.5	237.38	2251.12	5067541.25	73.91	5462.69	166380.28
2007	19097.7	300.6	7546.32	56946945.54	137.13	18804.64	1034826.86
Total	57756.90	817.35	0.00	99874598.87	0.00	51353.33	2046949.47
Mean	11551.38	163.47					

Calculation of mean of total deposit (\bar{x}) net profit (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{57756.90}{5} = 11551.38 \qquad \bar{y} = \frac{\sum y}{n} = \frac{817.35}{5} = 163.47$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}} = \frac{2046949.47 - \frac{57756.90 \times 817.35}{5}}{\sqrt{\left(99874598.87 - \frac{(57756.90)^2}{5}\right) \left(51353.33 - \frac{(817.35)^2}{5}\right)}} = 0.9038$$

Coefficient of Determination (r^2) = $0.9038 \times 0.9038 = 0.8169$

$$Pr obable(P.Er) = \frac{1 - r^2}{\sqrt{n}} = \frac{1 - 0.8169}{\sqrt{5}} = \frac{0.1831}{\sqrt{5}} = 0.0552$$

$$6 (P.Er) = 0.3313$$

Appendix 28
Coefficient of Correlation between Deposit and Net Profit of NABIL

(Rs. In million)

Years	Total Deposit (x)	Net Profit (y)	$\sum X$ $\sum x$ $Z\bar{x}$	$\sum X^2$	$\sum Y$ $\sum y$ $Z\bar{y}$	$\sum Y^2$	$\sum XY$
2003	13437.7	416.23	-3524.96	12425343.00	-120.09	14422.09	423319.50
2004	14098	455.31	-2864.66	8206276.92	-81.01	6562.94	232071.84
2005	14586.8	520.11	-2375.86	5644710.74	-16.21	262.83	38517.44
2006	19348.4	635.26	2385.74	5691755.35	98.94	9788.73	236040.34
2007	23342.4	654.7	6379.74	40701082.47	118.38	14013.35	755220.86
Total	84813.30	2681.61	0.00	72669168.47	0.00	45049.94	1685169.98
Mean	16962.66	536.32					

Calculation of mean of total deposit (\bar{x}) net profit (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{84813.30}{5} = 16962.66 \qquad \bar{y} = \frac{\sum y}{n} = \frac{2681.61}{5} = 536.32$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}} = \frac{1685169.98 - \frac{84813.30 \times 2681.61}{5}}{\sqrt{\left(72669168.47 - \frac{84813.30^2}{5}\right) \left(45049.94 - \frac{2681.61^2}{5}\right)}} = 0.9314$$

Coefficient of Determination (r^2) = 0.9314 | 0.9314 = 0.8674

$$Pr obable(P.Er) = 0.6745 \left| \frac{1 - r^2}{\sqrt{n}} \right| = 0.6745 \left| \frac{1 - 0.8674}{\sqrt{5}} \right| = 0.040$$

6 (P.Er) = 0.2399

Appendix 29
Coefficient of Correlation between Deposit and Net Profit of LBL

(Rs. In million)

Years	Total Deposit (x)	Net Profit (y)	$\sum x$	$\sum x^2$	$\sum y$	$\sum y^2$	$\sum xy$
2003	2959.8	89.139	-1355.80	1838193.64	223.13	49787.53	-302521.28
2004	3777.6	18.64	-538.00	289444.00	152.63	23296.59	-82116.12
2005	4029.5	-197.58	-286.10	81853.21	-63.59	4043.41	18192.47
2006	4786.5	-806.06	470.90	221746.81	-672.07	451675.13	-316476.73
2007	6024.6	225.9	1709.00	2920681.00	359.89	129522.40	615055.77
Total	21578.00	-669.96	0.00	5351918.66	0.00	658325.05	-67865.89
Mean	4315.60	-133.99					

Calculation of mean of total deposit (\bar{x}) net profit (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{21578.00}{5} = 4315.60$$

$$\bar{y} = \frac{\sum y}{n} = \frac{-669.96}{5} = -133.99$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}} = \frac{67865.89 - \frac{21578 \times -669.96}{5}}{\sqrt{\left(5351918.66 - \frac{(21578)^2}{5}\right) \left(658325.05 - \frac{(-669.96)^2}{5}\right)}} = -0.0362$$

Coefficient of Determination (r^2) = $-0.0362 \times -0.0362 = 0.0013$

$$Pr obable(P.Er) = 0.6745 \left| \frac{1 - Zr^2}{\sqrt{n}} \right| = 0.6745 \left| \frac{1 - 0.0013}{\sqrt{5}} \right| = 0.3013$$

$$6 (P.Er) = 1.8075$$

Appendix 30
Coefficient of Correlation between Total Assets and Net Profit of EBL

(Rs. In million)

Years	Total Assets (x)	Net Profit (y)	$X - \bar{X}$	X^2	$Y - \bar{Y}$	Y^2	XY
2003	8260.2	94.2	-6419.56	41210750.59	-69.27	4798.33	444682.92
2004	9967.2	14.36	-4712.56	22208221.75	-149.11	22233.79	702689.82
2005	15121.6	170.81	441.84	195222.59	7.34	53.88	3243.11
2006	16714.5	237.38	2034.74	4140166.87	73.91	5462.69	150387.63
2007	23335.3	300.6	8655.54	74918372.69	137.13	18804.64	1186934.20
Total	73398.80	817.35	0.00	142672734.49	0.00	51353.33	2487937.68
Mean	14679.76	163.47					

Calculation of mean of total assets (\bar{x}) and net profit (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{73398.80}{5} = 14679.76 \qquad \bar{y} = \frac{\sum y}{n} = \frac{817.35}{5} = 163.47$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - n\bar{x}\bar{y}}{\sqrt{\sum x^2 - n\bar{x}^2} \sqrt{\sum y^2 - n\bar{y}^2}} = \frac{2487937.68 - 5(14679.76)(163.47)}{\sqrt{142672734.49 - 5(14679.76)^2} \sqrt{51353.33 - 5(163.47)^2}} = 0.9191$$

Coefficient of Determination (r^2) = $0.9191 \times 0.9191 = 0.8448$

$$Pr obable(P.Er) = \frac{1 - r^2}{\sqrt{n}} = \frac{1 - 0.8448}{\sqrt{5}} = 0.0468$$

6 (P.Er) = 0.2808

Appendix 31
Coefficient of correlation between Total Assets and Net Profit of NABIL

(Rs. In million)

Years	Total Assets (x)	Net Profit(y)	$\sum x$	$\sum x^2$	$\sum y$	$\sum y^2$	$\sum xy$
2003	18275.9	416.23	-56935.64	3241667102.21	-120.09	14422.09	6837514.88
2004	18234.3	455.31	-56977.24	3246405878.02	-81.01	6562.94	4615840.17
2005	18752.5	520.11	-56459.04	3187623197.72	-16.21	262.83	915313.96
2006	24134.6	635.26	-51076.94	2608853799.76	98.94	9788.73	-5053450.29
2007	296660.4	654.7	221448.86	49039597595.30	118.38	14013.35	26214673.15
Total	376057.70	2681.61	0.00	61324147573.01	0.00	45049.94	33529891.86
Mean	75211.54	536.32					

Calculation of mean of total assets (\bar{x}) and net profit (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{376057.70}{5} = 75211.54 \qquad \bar{y} = \frac{\sum y}{n} = \frac{2681.61}{5} = 536.32$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left[\sum x^2 - \frac{(\sum x)^2}{n} \right] \left[\sum y^2 - \frac{(\sum y)^2}{n} \right]}} = \frac{33529891.86 - \frac{376057.70 \times 2681.61}{5}}{\sqrt{\left[61324147573.01 - \frac{(376057.70)^2}{5} \right] \left[45049.94 - \frac{(2681.61)^2}{5} \right]}} = 0.6379$$

Coefficient of Determination (r^2) = 0.6379 | 0.6379 = 0.4069

$$Pr obable(P.Er) = 0.6745 \left| \frac{1 - r^2}{\sqrt{n}} \right| = 0.6745 \left| \frac{1 - 0.4069}{\sqrt{5}} \right| = 0.1789$$

6 (P.Er) = 1.0733

Appendix 32
Coefficient of Correlation between Total Assets and Net Profit of LBL
(Rs. In million)

Years	Total Assets(x)	Net Profit(y)	$\sum X$	$\sum X^2$	$\sum Y$	$\sum Y^2$	$\sum XY$
2003	3651.6	89.139	-1886.92	3560467.09	223.13	49787.53	-421030.72
2004	4785.1	18.64	-753.42	567641.70	152.63	23296.59	-114996.15
2005	5386	-197.58	-152.52	23262.35	-63.59	4043.41	9698.41
2006	6735.2	-806.06	1196.68	1432043.02	-672.07	451675.13	-804250.09
2007	7134.7	225.9	1596.18	2547790.59	359.89	129522.40	574452.73
Total	27692.60	-669.96	0.00	8131204.75	0.00	658325.05	-756125.83
Mean	5538.52	-133.99					

Calculation of mean of total assets (\bar{x}) and net profit (\bar{y})

$$\bar{x} = \frac{\sum X}{n} = \frac{27692.60}{5} = 5538.52 \qquad \bar{y} = \frac{\sum Y}{n} = \frac{-669.96}{5} = -133.99$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}} = \frac{756125.83 - \frac{27692.60 \times -669.96}{5}}{\sqrt{\left(8131204.75 - \frac{(27692.60)^2}{5}\right) \left(658325.05 - \frac{(-669.96)^2}{5}\right)}} = -0.3268$$

Coefficient of Determination (r^2) = $(-0.3268)^2 = 0.1068$

$$Pr obable(P.Er) = 0.6745 \left| \frac{1 - r^2}{\sqrt{n}} \right| = 0.6745 \left| \frac{1 - 0.1068}{\sqrt{5}} \right| = 0.2694$$

$$6 (P.Er) = 1.6166$$

Appendix 33

Coefficient of Correlation between Loan and Advances and Net Profit of EBL

(Rs. In million)

Years	Loan and Advances (x)	Net Profit(y)	$\sum X$ $\sum x$ $Z\bar{x}$	$\sum X^2$	$\sum Y$ $\sum y$ $Z\bar{y}$	$\sum Y^2$	$\sum XY$
2003	5030.9	94.2	-3618.16	13091081.79	-69.27	4798.33	250629.94
2004	6116.6	14.36	-2532.46	6413353.65	-149.11	22233.79	377615.11
2005	7914.4	170.81	-734.66	539725.32	7.34	53.88	-5392.40
2006	10124.2	237.38	1475.14	2176038.02	73.91	5462.69	109027.60
2007	14059.2	300.6	5410.14	29269614.82	137.13	18804.64	741892.50
Total	43245.30	817.35	0.00	51489813.59	0.00	51353.33	1473772.75
Mean	8649.06	163.47					

Calculation of mean of loan and advances (\bar{x}) and net profit (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{43245.30}{5} = 8649.06$$

$$\bar{y} = \frac{\sum y}{n} = \frac{817.35}{5} = 163.47$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}} = \frac{1473772.75 - \frac{43245.30 \times 817.35}{5}}{\sqrt{\left(51489813.59 - \frac{(43245.30)^2}{5}\right) \left(51353.33 - \frac{(817.35)^2}{5}\right)}} = 0.9063$$

Coefficient of Determination (r^2) = 0.9063 | 0.9063 = 0.8214

$$Pr obable(P.Er) = 0.6745 \left| \frac{1 - r^2}{\sqrt{n}} \right| = 0.6745 \left| \frac{1 - 0.8214}{\sqrt{5}} \right| = 0.0539$$

$$6 (P.Er) = 0.3232$$

Appendix 34
Coefficient of Correlation between Loan and Advances and Net Profit of NABIL
(Rs. In million)

Years	Loan and Advances (x)	Net Profit (y)	$\sum X$ $\sum x$ $\sum Z\bar{x}$	$\sum X^2$	$\sum Y$ $\sum y$ $\sum Z\bar{y}$	$\sum Y^2$	$\sum XY$
2003	7996.9	416.23	-3280.72	10763123.72	-120.09	14422.09	393988.23
2004	8635.1	455.31	-2642.52	6982911.95	-81.01	6562.94	214075.83
2005	11078	520.11	-199.62	39848.14	-16.21	262.83	3236.24
2006	13021	635.26	1743.38	3039373.82	98.94	9788.73	172486.53
2007	15657.1	654.7	4379.48	19179845.07	118.38	14013.35	518434.08
Total	56388.10	2681.61	0.00	40005102.71	0.00	45049.94	1302220.91
Mean	11277.62	536.32					

Calculation of mean of loan and advances (\bar{x}) and net profit (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{56388.10}{5} = 11277.62 \qquad \bar{y} = \frac{\sum y}{n} = \frac{2681.61}{5} = 536.32$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}} = \frac{1302220.91 - \frac{56388.10 \times 2681.61}{5}}{\sqrt{\left(40005102.71 - \frac{(56388.10)^2}{5}\right) \left(45049.94 - \frac{(2681.61)^2}{5}\right)}} = 0.970$$

$$\text{Coefficient of Determination } (r^2) = 0.9700 \times 0.9700 = 0.9409$$

$$Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.9409}{\sqrt{5}} = 0.0178$$

$$6 (P.Er) = 0.1069$$

Appendix 35

Coefficient of Correlation between Loan and Advances and Net Profit of LBL

(Rs. In million)

Years	Loan and Advances(x)	Net Profit(y)	$\sum x$	$\sum x^2$	$\sum y$	$\sum y^2$	$\sum xy$
2003	2626.7	89.139	-1154.06	1331854.48	223.13	49787.53	-257506.79
2004	3207	18.64	-573.76	329200.54	152.63	23296.59	-87574.25
2005	3816.9	-197.58	36.14	1306.10	-63.59	4043.41	-2298.06
2006	4315	-806.06	534.24	285412.38	-672.07	451675.13	-359045.50
2007	4938.2	225.9	1157.44	1339667.35	359.89	129522.40	416553.63
Total	18903.80	-669.96	0.00	3287440.85	0.00	658325.05	-289870.98
Mean	3780.76	-133.99					

Calculation of mean of loan and advances (\bar{x}) and net profit (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{18903.80}{5} = 3780.76 \qquad \bar{y} = \frac{\sum y}{n} = \frac{-669.96}{5} = -133.99$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = \frac{-289870.98}{\sqrt{3287440.85} \sqrt{658325.05}} = -0.1970$$

Coefficient of Determination (r^2) = $(-0.1970)^2 = 0.0388$

$$Pr obable(P.Er) = \frac{1 - r^2}{\sqrt{n}} = \frac{1 - 0.0388}{\sqrt{5}} = 0.2899$$

6 (P.Er) = 1.7396

Appendix 36
Coefficient of correlation between Deposit and Interest Income of EBL

(Rs. In million)

Years	Total Deposit (x)	Interest Income (y)	$\sum x$	$\sum x^2$	$\sum y$	$\sum y^2$	$\sum xy$
2003	6694.9	712.6	-4856.48	23585397.99	-119.16	14199.11	578698.16
2004	8064	660.2	-3487.38	12161819.26	-171.56	29432.83	598294.91
2005	10097.8	720.7	-1453.58	2112894.82	-111.06	12334.32	161434.59
2006	13802.5	907.3	2251.12	5067541.25	75.54	5706.29	170049.60
2007	19097.7	1158	7546.32	56946945.54	326.24	106432.54	2461911.44
Total	57756.90	4158.80	0.00	99874598.87	0.00	168105.09	3970388.71
Mean	11551.38	831.76					

Calculation of mean of total deposit (\bar{x}) and interest income (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{57756.90}{5} = 11551.38$$

$$\bar{y} = \frac{\sum y}{n} = \frac{4158.80}{5} = 831.76$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{(\sum x^2 - \frac{(\sum x)^2}{n})(\sum y^2 - \frac{(\sum y)^2}{n})}} = \frac{3970388.71 - \frac{57756.90 \times 4158.80}{5}}{\sqrt{(99874598.87 - \frac{57756.90^2}{5})(168105.09 - \frac{4158.80^2}{5})}} = 0.9690$$

Coefficient of Determination (r^2) = 0.9690 | 0.9690 = 0.9389

$$Pr obable(P.Er) = 0.6745 \left| \frac{1 - r^2}{\sqrt{n}} \right| = 0.6745 \left| \frac{1 - 0.9389}{\sqrt{5}} \right| = 0.0184$$

$$6 (P.Er) = 0.1105$$

Appendix 37
Coefficient of Correlation between Deposit and Interest Income of NABIL

(Rs. In million)

Years	Total Deposit (x)	Interest Income (y)	$X - \bar{X}$	X^2	$Y - \bar{Y}$	Y^2	XY
2003	13437.7	1147.6	-3524.96	12425343.00	-29.94	896.40	105537.30
2004	14098	945.4	-2864.66	8206276.92	-232.14	53888.98	665002.17
2005	14586.8	1033.3	-2375.86	5644710.74	-144.24	20805.18	342694.05
2006	19348.4	1296.4	2385.74	5691755.35	118.86	14127.70	283569.06
2007	23342.4	1465	6379.74	40701082.47	287.46	82633.25	1833920.06
Total	84813.30	5887.70	0.00	72669168.47	0.00	172351.51	3230722.64
Mean	16962.66	1177.54					

Calculation of mean of total deposit (\bar{x}) and interest income (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{84813.30}{5} = 16962.66$$

$$\bar{y} = \frac{\sum y}{n} = \frac{5887.70}{5} = 1177.54$$

Coefficient of Correlation (r):

$$r = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2} \sqrt{\sum (y - \bar{y})^2}} = \frac{3230722.64}{\sqrt{72669168.47} \sqrt{172351.51}} = 0.9129$$

Coefficient of Determination (r^2) = 0.9129 | 0.9129 = 0.8334

$$Pr obable(P.Er) = 0.6745 \left| \frac{1 - r^2}{\sqrt{n}} \right| = 0.6745 \left| \frac{1 - 0.8334}{\sqrt{5}} \right| = 0.0503$$

$$6 (P.Er) = 0.3016$$

Appendix 38
Coefficient of Correlation between Deposit and Interest Income of LBL

(Rs. In million)

Years	Total Deposit (x)	Interest Income (y)	$X - \bar{X}$	X^2	$Y - \bar{Y}$	Y^2	XY
2003	2959.8	77.3	-1355.80	1838193.64	-237.30	56311.29	321731.34
2004	3777.6	320.5	-538.00	289444.00	5.90	34.81	-3174.20
2005	4029.5	365.3	-286.10	81853.21	50.70	2570.49	-14505.27
2006	4786.5	349.1	470.90	221746.81	34.50	1190.25	16246.05
2007	6024.6	460.8	1709.00	2920681.00	146.20	21374.44	249855.80
Total	21578.00	1573.00	0.00	5351918.66	0.00	81481.28	570153.72
Mean	4315.60	314.60					

Calculation of mean of total deposit (\bar{x}) and interest income (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{21578.00}{5} = 4315.60 \qquad \bar{y} = \frac{\sum y}{n} = \frac{1573.00}{5} = 314.60$$

Coefficient of Correlation (r):

$$r = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2} \sqrt{\sum (y - \bar{y})^2}} = \frac{570153.72}{\sqrt{5351918.66} \sqrt{81481.28}} = 0.8634$$

Coefficient of Determination (r^2) = $0.8634 \times 0.8634 = 0.7454$

$$Pr obable(P.Er) = \frac{1 - r^2}{\sqrt{n}} = \frac{1 - 0.7454}{\sqrt{5}} = 0.0768$$

$$6 (P.Er) = 0.4607$$

Appendix 39
Coefficient of Correlation between Loan and Advances and NPL of EBL

(Rs. In million)

Year	LA (x)	NPL (y)	$\sum x$	$\sum x^2$	$\sum y$	$\sum y^2$	$\sum xy$
2003	5030.9	111.19	-3618.16	13091081.79	-3.53	12.48	12779.34
2004	6116.6	104.76	-2532.46	6413353.65	-9.96	99.24	25228.37
2005	7914.4	128.81	-734.66	539725.32	14.09	198.47	-10349.89
2006	10124.2	121.85	1475.14	2176038.02	7.13	50.81	10514.80
2007	14059.2	107	5410.14	29269614.82	-7.72	59.63	-41777.10
Total	43245.30	573.61	0.00	51489813.59	0.00	420.63	-3604.49
Mean	8649.06	114.72					

Calculation of mean of Loan and advances (\bar{x}) and NPL (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{43245.30}{5} = 8649.06 \qquad \bar{y} = \frac{\sum y}{n} = \frac{573.61}{5} = 114.72$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left[\sum x^2 - \frac{(\sum x)^2}{n} \right] \left[\sum y^2 - \frac{(\sum y)^2}{n} \right]}} = \frac{-3604.49 - \frac{43245.30 \times 573.61}{5}}{\sqrt{\left[51489813.59 - \frac{(43245.30)^2}{5} \right] \left[420.63 - \frac{(573.61)^2}{5} \right]}} = -0.0245$$

Coefficient of Determination (r^2) = $(-0.0245)^2 = 0.0006$

$$Pr obable(P.Er) = \frac{1 - r^2}{\sqrt{n}} = \frac{1 - 0.0006}{\sqrt{5}} = 0.3015$$

6 (P.Er) = 1.8088

Appendix 40
Coefficient of Correlation between loan and Advances and NPL of NABIL

(Rs. In million)

Years	LA (x)	NPL (y)	$\sum X$	$\sum X^2$	$\sum Y$	$\sum Y^2$	$\sum XY$
2003	7996.9	449.63	-3280.72	10763123.72	204.61	41865.25	-671268.12
2004	8635.1	286.68	-2642.52	6982911.95	41.66	1735.56	-110087.38
2005	11078	144.51	-199.62	39848.14	-100.51	10102.26	20063.81
2006	13021	165.98	1743.38	3039373.82	-79.04	6247.32	-137796.76
2007	15657.1	178.3	4379.48	19179845.07	-66.72	4451.56	-292198.91
Total	56388.10	1225.10	0.00	40005102.71	0.00	64401.95	-1191287.36
Mean	11277.62	245.02					

Calculation of mean of Loan and advances (\bar{x}) and NPL (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{56388.10}{5} = 11277.62 \qquad \bar{y} = \frac{\sum y}{n} = \frac{1225.10}{5} = 245.02$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}} = \frac{-1191287.36 - \frac{56388.10 \times 1225.10}{5}}{\sqrt{\left(40005102.71 - \frac{(56388.10)^2}{5}\right) \left(64401.95 - \frac{(1225.10)^2}{5}\right)}} = 0.7422$$

Coefficient of Determination (r^2) = $0.7422 \times 0.7422 = 0.5508$

$$Pr obable(P.Er) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - 0.5508}{\sqrt{5}} = 0.1355$$

6 (P.Er) = 0.8129

Appendix 41
Coefficient of Correlation between Loan and Advances and NPL of LBL

(Rs. In million)

Years	LA (x)	NPL (y)	X X _x Z \bar{x}	X ²	Y X _y Z \bar{y}	Y ²	XY
2003	2626.7	302.96	-1154.06	1331854.48	-393.91	155168.24	454600.39
2004	3207	237.3	-573.76	329200.54	-459.57	211208.26	263685.18
2005	3816.9	561.13	36.14	1306.10	-135.74	18426.43	-4905.79
2006	4315	1401.58	534.24	285412.38	704.71	496610.55	376482.13
2007	4938.2	981.4	1157.44	1339667.35	284.53	80955.04	329321.77
Total	18903.80	3484.37	0.00	3287440.85	0.00	962368.53	1419183.69
Mean	3780.76	696.87					

Calculation of mean of Loan and advances (\bar{x}) and NPL (\bar{y})

$$\bar{x} = \frac{\sum x}{n} = \frac{18903.80}{5} = 3780.76 \qquad \bar{y} = \frac{\sum y}{n} = \frac{3484.37}{5} = 696.87$$

Coefficient of Correlation (r):

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}} = \frac{141983.69 - \frac{18903.80 \times 3484.37}{5}}{\sqrt{\left(3287440.85 - \frac{(18903.80)^2}{5}\right) \left(962368.53 - \frac{(3484.37)^2}{5}\right)}} = 0.7979$$

Coefficient of Determination (r^2) = $0.7979 \times 0.7979 = 0.6366$

$$Pr obable(P.Er) = \frac{1 - r^2}{\sqrt{n}} = \frac{1 - 0.6366}{\sqrt{5}} = 0.1096$$

$$6 (P.Er) = 0.6577$$

Appendix 42
Regression Equation between Loan and Advances on Total Deposit of EBL

(Rs. In million)

Year	Deposit (X)	Loan & advances(Y)	X ²	Y ²	XY
2003	6694.9	5030.9	44821686.01	25309954.81	33681372.41
2004	8064	6116.6	65028096.00	37412795.56	49324262.40
2005	10097.8	7914.4	101965564.84	62637727.36	79918028.32
2006	13802.5	10124.2	190509006.25	102499425.64	139739270.50
2007	19097.7	14059.2	364722145.29	197661104.64	268498383.84
Total	57756.90	43245.30	767046498.39	425521008.01	571161317.47

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + \sum bx \dots\dots\dots\text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$43245.30 = 5 | a + 57756.90 | b \dots\dots\dots\text{equation (iv)}$$

$$571161317.47 = 57756.90 | a + 767046498.39 | b \dots\dots\dots\text{equation (v)}$$

Now multiplying equation (iv) by 57756.90 and equation (v) by 5 then subtract equation (v)

$$2497714467.57 = 288784.50 | a + 3335859497.61 | b$$

$$\underline{-2855806587.35 = -288784.50 | a - 3835232491.95 | b}$$

$$-358092119.78 = -499372994.3 | b$$

or $b = 0.7171$

Substitution the value of b in equation (iv) then we get the value of a

$$43245.30 = 5 | a + 57756.90 | 0.7171$$

or $a = 365.7563$

Appendix 43

Regression Equation between Loan and Advances on Total Deposit of NABIL (Rs. In million)

Year	Deposit (X)	Loan & advance(Y)	X ²	Y ²	XY
2003	13437.7	7996.9	180571781.29	63950409.61	107459943.13
2004	14098	8635.1	198753604.00	74564952.01	121737639.80
2005	14586.8	11078	212774734.24	122722084.00	161592570.40
2006	19348.4	13021	374360582.56	169546441.00	251935516.40
2007	23342.4	15657.1	544867637.76	245144780.41	365474291.04
Total	84813.30	56388.10	1511328339.85	675928667.03	1008199960.77

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots \text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + b \sum x \dots\dots\dots \text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots \text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$56388.10 = 5a + 84813.30b \dots\dots\dots \text{equation (iv)}$$

$$1008199960.77 = 84813.30a + 1511328339.85b \dots\dots\dots \text{equation (v)}$$

Now multiplying equation (iv) by 84813.30 and equation (v) by 5 then subtract equation (v)

$$\begin{aligned} 4782460841.73 &= 424066.50a + 7193295856.89b \\ \underline{-5040999803.85} &= \underline{-424066.50a - 7556641699.25b} \\ -258538962.12 &= -363345842.4b \\ \text{or } b &= 0.7116 \end{aligned}$$

Substitution the value of b in equation (iv) then we get the value of a

$$\begin{aligned} 56388.10 &= 5a + 84813.30(0.7116) \\ \text{or } a &= -792.1714 \end{aligned}$$

Appendix 44
Regression Equation between Loan and Advances on Total Deposit of LBL
(Rs. In million)

Year	Deposit (X)	Loan & advances(Y)	X ²	Y ²	XY
2003	2959.8	2626.7	8760416.04	6899552.89	7774506.66
2004	3777.6	3207	14270261.76	10284849.00	12114763.20
2005	4029.5	3816.9	16236870.25	14568725.61	15380198.55
2006	4786.5	4315	22910582.25	18619225.00	20653747.50
2007	6024.6	4938.2	36295805.16	24385819.24	29750679.72
Total	21578.00	18903.80	98473935.46	74758171.74	85673895.63

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$18903.80 = 5a + 21578.00b \dots\dots\dots\text{equation (iv)}$$

$$85673895.63 = 21578.00a + 98473935.46b \dots\dots\dots\text{equation (v)}$$

Now multiplying equation (iv) by 5 and equation (v) by 5 then subtract equation (v)

$$407906196.40 = 107890.00a + 465610084.00b$$

$$\underline{-428369478.15 = -107890.00a - 492369677.30b}$$

$$-20463281.75 = -26759593.3b$$

or $b = 0.7647$

Substitution the value of b in equation (iv) then we get the value of a

$$18903.80 = 5a + 21578.00(0.7647)$$

or $a = 480.5851$

Appendix 45
Regression Equation between Total Interest Expenses on LA of EBL

(Rs. In million)

Year	Loan & advances (X)	total interest expenses (Y)	X ²	Y ²	XY
2003	5030.9	483	25309954.81	233289.00	2429924.70
2004	6116.6	313.8	37412795.56	98470.44	1919389.08
2005	7914.4	299.5	62637727.36	89700.25	2370362.80
2006	10124.2	401.4	102499425.64	161121.96	4063853.88
2007	14059.2	517.2	197661104.64	267495.84	7271418.24
Total	43245.30	2014.90	425521008.01	850077.49	18054948.70

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$2014.90 = 5 | a + 43245.30 | b \dots\dots\dots\text{equation (iv)}$$

$$18054948.70 = 43245.30 | a + 425521008.01 | b \dots\dots\dots\text{equation (v)}$$

Now multiplying equation (iv) by 43245.30 and equation (v) by 5 then subtract equation (v)

$$87134954.97 = 216226.50 | a + 1870155972.09 | b$$

$$\underline{90274743.50 = 216226.50 | a + 2127605040.05 | b}$$

$$-3139788.53 = -257449068 | b$$

or $b = 0.0122$

Substitution the value of b in equation (iv) then we get the value of a

$$2014.90 = 5 | a + 43245.30 | 0.0122$$

or $a = 297.4981$

Appendix 46
Regression Equation between Total Interest Expenses on LA of NABIL
(Rs. In million)

Year	Loan & advances (X)	total interest expenses (Y)	X ²	Y ²	XY
2003	7996.9	534.7	63950409.61	285904.09	4275942.43
2004	8635.1	283.2	74564952.01	80202.24	2445460.32
2005	11078	243.4	122722084.00	59243.56	2696385.20
2006	13021	357	169546441.00	127449.00	4648497.00
2007	15657.1	502.7	245144780.41	252707.29	7870824.17
Total	56388.10	1921.00	675928667.03	805506.18	21937109.12

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$1921.00 = 5 | a + 56388.10 | b \dots\dots\dots\text{equation (iv)}$$

$$21937109.12 = 56388.10 | a + 675928667.03 | b \dots\dots\dots\text{equation (v)}$$

Now multiplying equation (iv) by 56388.10 and equation (v) by 5 then subtract equation (v)

$$108321540.10 = 281940.50 | a + 3179617821.61 | b$$

$$109685545.60 = 281940.50 | a + 3379643335.15 | b$$

$$-1364005.50 = -200025513.5 | b$$

or $b = 0.0068$

Substitution the value of b in equation (iv) then we get the value of a

$$1921.00 = 5 | a + 56388.10 | 0.0068$$

or $a = 307.2961$

Appendix 47
Regression Equation between Total Interest Expenses on LA of LBL

(Rs. In million)

Year	Loan & advances (X)	total interest expenses (Y)	X ²	Y ²	XY
2003	2626.7	56.6	6899552.89	3203.56	148671.22
2004	3207	197.3	10284849.00	38927.29	632741.10
2005	3816.9	193.5	14568725.61	37442.25	738570.15
2006	4315	215.4	18619225.00	46397.16	929451.00
2007	4938.2	264.7	24385819.24	70066.09	1307141.54
Total	18903.80	927.50	74758171.74	196036.35	3756575.01

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$927.50 = 5a + 18903.80b \dots\dots\dots\text{equation (iv)}$$

$$3756575.01 = 18903.80a + 74758171.74b \dots\dots\dots\text{equation (v)}$$

Now multiplying equation (iv) by 18903.80 and equation (v) by 5 then subtract equation (v)

$$17533274.50 = 94519.00a + 357353654.44b$$

$$\underline{18782875.05 = 94519.00a + 373790858.70b}$$

$$-1249600.55 = -16437204.26b$$

or $b = 0.0760$

Substitution the value of b in equation (iv) then we get the value of a

$$927.50 = 5a + 18903.80(0.0760)$$

or $a = -101.9236$

Appendix 48
Regression Equation between Interest Incomes from LA on LA of EBL

(Rs. In million)

Year	Loan & advances (X)	Interest incomes from LA (Y)	X ²	Y ²	XY
2003	5030.9	504.7	25309954.81	254722.09	2539095.23
2004	6116.6	565.9	37412795.56	320242.81	3461383.94
2005	7914.4	634.5	62637727.36	402590.25	5021686.80
2006	10124.2	777	102499425.64	603729.00	7866503.40
2007	14059.2	983.8	197661104.64	967862.44	13831440.96
Total	43245.30	3465.90	425521008.01	2549146.59	32720110.33

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots \text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + b \sum x \dots\dots\dots \text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots \text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$3465.90 = 5a + 43245.30b \dots\dots\dots \text{equation (iv)}$$

$$32720110.33 = 43245.30a + 425521008.01b \dots\dots\dots \text{equation (v)}$$

Now multiplying equation (iv) by 43245.30 and equation (v) by 5 then subtract equation (v)

$$149883885.27 = 216226.50a + 1870155972.09b$$

$$163600551.65 = 216226.50a + 2127605040.05b$$

$$-13716666.38 = -257449068b$$

or $b = 0.0533$

Substitution the value of b in equation (iv) then we get the value of a

$$3465.90 = 5a + 43245.30(0.0533)$$

or $a = 232.3655$

Appendix 49
Regression Equation between Interest Incomes from LA on LA of NABIL
(Rs. In million)

Year	Loan & advances (X)	Interest incomes from LA (Y)	X ²	Y ²	XY
2003	7996.9	864.2	63950409.61	746841.64	6910920.98
2004	8635.1	703.7	74564952.01	495193.69	6076519.87
2005	11078	795.1	122722084.00	632184.01	8808117.80
2006	13021	972.7	169546441.00	946145.29	12665526.70
2007	15657.1	1084.6	245144780.41	1176357.16	16981690.66
Total	56388.10	4420.30	675928667.03	3996721.79	51442776.01

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$4420.30 = 5a + 56388.10b \dots\dots\dots\text{equation (iv)}$$

$$51442776.01 = 56388.10a + 675928667.03b \dots\dots\dots\text{equation (v)}$$

Now multiplying equation (iv) by 56388.10 and equation (v) by 5 then subtract equation (v)

$$249252318.43 = 281940.50a + 3179617821.61b$$

$$\underline{257213880.05 = 281940.50a + 3379643335.15b}$$

$$-7961561.62 = -200025513.5b$$

or $b = 0.0398$

Substitution the value of b in equation (iv) then we get the value of a

$$4420.30 = 5a + 56388.10(0.0398)$$

or $a = 435.1799$

Appendix 50
Regression Equation between Interest Incomes from LA on LA of LBL
(Rs. In million)

Year	Loan & advances (X)	Interest incomes from LA (Y)	X ²	Y ²	XY
2003	2626.7	72.8	6899552.89	5299.84	191223.76
2004	3207	303.1	10284849.00	91869.61	972041.70
2005	3816.9	348.2	14568725.61	121243.24	1329044.58
2006	4315	317.5	18619225.00	100806.25	1370012.50
2007	4938.2	429.9	24385819.24	184814.01	2122932.18
Total	18903.80	1471.50	74758171.74	504032.95	5985254.72

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$1471.50 = 5 | a + 18903.80 | b \dots\dots\dots\text{equation (iv)}$$

$$5985254.72 = 18903.80 | a + 74758171.74 | b \dots\dots\dots\text{equation (v)}$$

Now multiplying equation (iv) by 18903.80 and equation (v) by 5 then subtract equation (v)

$$27816941.70 = 94519.00 | a + 357353654.44 | b$$

$$\underline{29926273.60 = 94519.00 | a + 373790858.70 | b}$$

$$-2109331.90 = -16437204.26 | b$$

or $b = 0.1283$

Substitution the value of b in equation (iv) then we get the value of a

$$1471.50 = 5 | a + 18903.80 | 0.1283$$

or $a = -190.8724$

Appendix 51
Regression Equation between NPL on Loan and Advances of EBL
(Rs. In million)

Year	Loan & advances (X)	NPL (Y)	X ²	Y ²	XY
2003	5030.9	111.19	25309954.81	12363.22	559385.77
2004	6116.6	104.76	37412795.56	10974.66	640775.02
2005	7914.4	128.81	62637727.36	16592.02	1019453.86
2006	10124.2	121.85	102499425.64	14847.42	1233633.77
2007	14059.2	107	197661104.64	11449.00	1504334.40
Total	43245.30	573.61	425521008.01	66226.31	4957582.82

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$573.61 = 5a + 43245.30b \dots\dots\dots\text{equation (iv)}$$

$$4957582.82 = 43245.30a + 425521008.01b \dots\dots\dots\text{equation (v)}$$

Now multiplying equation (iv) by 43245.30 and equation (v) by 5 then subtract equation (v)

$$24805936.53 = 216226.50a + 1870155972.09b$$

$$\underline{24787914.11 = 216226.50a + 2127605040.05b}$$

$$18022.43 = -257449068b$$

or $b = -0.0001$

Substitution the value of b in equation (iv) then we get the value of a

$$573.61 = 5a + 43245.30(-0.0001)$$

or $a = 115.3275$

Appendix 52
Regression Equation between NPL on Loan and Advances of NABIL
(Rs. In million)

Year	Loan & advances (X)	NPL (Y)	X ²	Y ²	XY
2003	7996.9	449.63	63950409.61	202167.14	3595646.15
2004	8635.1	286.68	74564952.01	82185.42	2475510.47
2005	11078	144.51	122722084.00	20883.14	1600881.78
2006	13021	165.98	169546441.00	27549.36	2161225.58
2007	15657.1	178.3	245144780.41	31790.89	2791660.93
Total	56388.10	1225.10	675928667.03	364575.95	12624924.91

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$1225.10 = 5a + 56388.10b \dots\dots\dots\text{equation (iv)}$$

$$12624924.91 = 56388.10a + 675928667.03b \dots\dots\dots\text{equation (v)}$$

Now multiplying equation (iv) by 56388.10 and equation (v) by 5 then subtract equation (v)

$$69081061.31 = 281940.50a + 3179617821.61b$$

$$63124624.53 = 281940.50a + 3379643335.15b$$

$$5956436.78 = -200025513.5b$$

or $b = -0.0298$

Substitution the value of b in equation (iv) then we get the value of a

$$1225.10 = 5a + 56388.10(-0.0298)$$

or $a = 580.8493$

Appendix 53
Regression Equation between NPL on Loan and Advances of LBL
(Rs. In million)

Year	Loan & advances (X)	NPL (Y)	X ²	Y ²	XY
2003	2626.7	302.96	6899552.89	91784.76	795785.03
2004	3207	237.3	10284849.00	56311.29	761021.10
2005	3816.9	561.13	14568725.61	314866.88	2141777.10
2006	4315	1401.58	18619225.00	1964426.50	6047817.70
2007	4938.2	981.4	24385819.24	963145.96	4846349.48
Total	18903.80	3484.37	74758171.74	3390535.38	14592750.41

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = Xa + bX \dots\dots\dots\text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = Xna + \sum bx \dots\dots\dots\text{equation (ii)}$$

$$\sum xy = Xa \sum x + b \sum x^2 \dots\dots\dots\text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$3484.37 = 5 \sum a + 18903.80 \sum b \dots\dots\dots\text{equation (iv)}$$

$$14592750.41 = 18903.80 \sum a + 74758171.74 \sum b \dots\dots\dots\text{equation (v)}$$

Now multiplying equation (iv) by 18903.80 and equation (v) by 5 then subtract equation (v)

$$65867833.61 = 94519.00 \sum a + 357353654.44 \sum b$$

$$\underline{72963752.05 = 94519.00 \sum a + 373790858.70 \sum b}$$

$$-7095918.44 = -16437204.26 \sum b$$

or $b = 0.4317$

Substitution the value of b in equation (iv) then we get the value of a

$$3484.37 = 5 \sum a + 18903.80 \sum 0.4317$$

or $a = -935.2749$

Appendix 54
Regression Equation between Net Profit on Total Deposit of EBL

(Rs. In million)

Year	Total Deposit (X)	Net Profit (Y)	X ²	Y ²	XY
2003	6694.9	94.2	44821686.01	8873.64	630659.58
2004	8064	14.36	65028096.00	206.21	115799.04
2005	10097.8	170.81	101965564.84	29176.06	1724805.22
2006	13802.5	237.38	190509006.25	56349.26	3276437.45
2007	19097.7	300.6	364722145.29	90360.36	5740768.62
Total	57756.90	817.35	767046498.39	184965.53	11488469.91

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$817.35 = 5 | a + 57756.90 | b \dots\dots\dots\text{equation (iv)}$$

$$11488469.91 = 57756.90 | a + 767046498.39 | b \dots\dots\dots\text{equation (v)}$$

Now multiplying equation (iv) by 57756.90 and equation (v) by 5 then subtract equation (v)

$$47207602.22 = 288784.50 | a + 3335859497.61 | b$$

$$\underline{57442349.54 = 288784.50 | a + 3835232491.95 | b}$$

$$-10234747.33 = -499372994.3 | b$$

$$\text{or } b = 0.0205$$

Substitution the value of b in equation (iv) then we get the value of a

$$817.35 = 5 | a + 57756.90 | 0.0205$$

$$\text{or } a = -73.2778$$

Appendix 55
Regression Equation between Net Profit on Total Deposit of NABIL
(Rs. In million)

Year	Total Deposit (X)	Net Profit (Y)	X ²	Y ²	XY
2003	13437.7	416.23	180571781.29	173247.41	5593173.87
2004	14098	455.31	198753604.00	207307.20	6418960.38
2005	14586.8	520.11	212774734.24	270514.41	7586740.55
2006	19348.4	635.26	374360582.56	403555.27	12291264.58
2007	23342.4	654.7	544867637.76	428632.09	15282269.28
Total	84813.30	2681.61	1511328339.85	1483256.38	47172408.66

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots\text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + b \sum x \dots\dots\dots\text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots\text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$2681.61 = 5a + 84813.30b \dots\dots\dots\text{equation (iv)}$$

$$47172408.66 = 84813.30a + 1511328339.85b \dots\dots\dots\text{equation (v)}$$

Now multiplying equation (iv) by 84813.30 and equation (v) by 5 then subtract equation (v)

$$227436193.41 = 424066.50a + 7193295856.89b$$

$$\underline{235862043.32 = 424066.50a + 7556641699.25b}$$

$$-8425849.90 = -363345842.4b$$

or $b = 0.0232$

Substitution the value of b in equation (iv) then we get the value of a

$$2681.61 = 5a + 84813.30(0.0232)$$

or $a = 142.9645$

Appendix 56
Regression Equation between Net Profit on Total Deposit of LBL

(Rs. In million)

Year	Total Deposit (X)	Net Profit (Y)	X ²	Y ²	XY
2003	2959.8	89.139	8760416.04	7945.76	263833.61
2004	3777.6	18.64	14270261.76	347.45	70414.46
2005	4029.5	-197.58	16236870.25	39037.86	-796148.61
2006	4786.5	-806.06	22910582.25	649732.72	-3858206.19
2007	6024.6	225.9	36295805.16	51030.81	1360957.14
Total	21578.00	-669.96	98473935.46	748094.60	-2959149.58

X= independent variable Y= dependent variable

Let the regression equation of Y on X is

$$Y = a + bx \dots\dots\dots \text{equation (i)}$$

To find the value of a and b we have two normal equation

$$\sum y = na + b \sum x \dots\dots\dots \text{equation (ii)}$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots \text{equation (iii)}$$

Substituting the value of n, $\sum x$, $\sum y$, $\sum x^2$, $\sum xy$ in equation (ii) and (iii) we get,

$$-669.96 = 5a + 21578.00b \dots\dots\dots \text{equation (iv)}$$

$$-2959149.58 = 21578.00a + 748094.60b \dots\dots\dots \text{equation (v)}$$

Now multiplying equation (iv) by 21578.00 and equation (v) by 5 then subtract equation (v)

$$-14456418.46 = 107890.00a + 465610084.00b$$

$$\underline{-14795747.92 = 107890.00a + 492369677.30b}$$

$$339329.46 = -26759593.3b$$

or $b = -0.0127$

Substitution the value of b in equation (iv) then we get the value of a

$$-669.96 = 5a + 21578.00(-0.0127)$$

or $a = -79.2675$

Appendix 57

Sector Wise Loan and Advances of Commercial Banks

(Rs. in million)

Construction			Services Industries			Wholesaler & Retailer			Finance & Insurance			Construction			
EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL	EBL
4019.40		1009.00	398.70	84.00	61.40	488.70	1007.40	423.00	1182.20	1620.20	592.30	139.80	267.60	55.40	182.90
4064.60		1231.60	769.90	369.40	90.60	497.90	952.10	521.40	1351.90	1548.80	754.00	198.30	274.00	73.70	172.80
4375.80		1238.50	1098.00	665.20	163.90	525.20	1387.30	510.70	2120.90	1990.10	724.30	213.30	333.50	136.80	77.20
5107.10		1271.80	1576.80	1378.80	115.70	483.00	1014.30	582.50	2756.90	2068.50	958.60	338.40	480.20	122.90	262.40
5701.50		1174.90	2086.80	1923.30	140.80	502.80	1260.70	571.10	4266.20	2458.50	1016.40	466.00	821.10	160.40	228.00
23268.40		5925.80	5930.20	4420.70	572.40	2497.60	5621.80	2608.70	11678.10	9686.10	4045.60	1355.80	2176.40	549.20	923.30

Appendix 58

Securities Wise Loan and Advances

(Rs. in million)

Government Securities			Non-Government Securities			Fixed Account Receipt			Guarantee			Other		
EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL
381.50		0.00	0.00	29.40	20.00	125.10	112.50	7.00	4616.20	7301.00	2435.90	80.50		443.00
305.30		0.40	0.00	0.00	20.00	145.20	154.10	7.60	5641.70	7387.10	2999.20	128.00		766.00
246.80		8.40	9.10	0.00	20.00	215.40	204.80	58.20	7475.10	9324.20	09.1	79.00		1203.00
181.60		2.70	16.60	0.00	20.00	477.80	299.80	88.70	9492.80	11608.00	3912.00	108.00		1189.00
41.6		0.00	21.30	1.70	20.00	555.40	334.70	88.10	13350.30	14434.30	4559.60	119.70		1090.00
1115.20		11.50	47.00	31.10	100.00	1518.90	1105.90	249.60	40576.10	50054.60	13906.70	515.20		4692.00

Appendix 59

Priority Sector Lending of Commercial Banks

(Rs. in million)

Years	Agriculture			Domestic Industries			Services			Power Sector			Machine & Import		
	EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL	EBL	NABIL	LBL
2003	36.90	58.10	5.00	173.50	184.10	54.50	217.90	360.50	93.40	0.00	1.50	56.80	3.01	11.50	0.00

										0			0		
20 04	23. 78	45. 00	19 8.3 0	202 .03	145 .10	4.3 0	242 .48	415 .80	46. 50	0. 0 0	1.9 0	82. 00	0. 0 0	3.7 0	65. 50
20 05	18. 05	47. 30	4.2 5	182 .20	79. 80	44. 51	324 .73	297 .80	73. 50	0. 0 0	82. 90	67. 00	0. 0 0	0.0 0	0.0 0
20 06	6.3 0	39. 30	3.1 0	231 .80	52. 50	32. 30	340 .40	223 .20	53. 60	0. 0 0	100 .90	67. 00	0. 0 0	0.0 0	0.0 0
20 07	20. 50	24. 80	1.5 0	369 .50	37. 20	18. 70	501 .60	158 .20	26. 60	0. 0 0	145 .00	67. 00	0. 0 0	0.0 0	15 3.0 0
To tal	10 5.5 3	214 .50	21 2.1 5	115 9.0 3	498 .70	15 4.3 1	162 7.1 1	145 5.5 0	29 3.6 0	0. 0 0	332 .20	33 9.8 0	3. 1 0	15. 20	21 8.5 0

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