

A Thesis on

ROLE OF NEPAL RASTRA BANK IN

DEPOSIT MOBILIZATION OF COMMERCIAL BANKS

With reference to Nabil Bank Limited & Everest Bank Limited

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ABBREVIATIONS USED

A.D	After the death of Christ
ADB/ADBN	Agriculture Development Bank
Asst.	Assistant
ATM	Automated Teller Machine
B.S	Bikram Sambat
C.V.	Coefficient of Variation/Variance
CAR	Capital Adequacy Ratio
CGC	Credit Guarantee Corporation
CRAR	Capital to Risk Weighted Assets Ratio
CRR	Cash Reserve Requirement
EBL	Everest Bank Limited
Etc	et cetera
F.Y.	Fiscal Year
FINGO	Financial Intermediaries Non Government Organization
GDP	Gross Domestic Product
HBL	Himalayan Bank Limited
i.e.	That is (id est.)
LaBL	Laxmi Bank Limited
Ltd.	Limited
LuBL	Lumbini Bank Limited
MBS	Masters in Business Studies
MFI	Micro Financial Institution
NABIL	Nabil Bank Limited
NBL	Nepal Bank Limited
NCCBL	Nepal Credit & Commerce Bank Limited
NGO	Non Government Organization
NICCI	Nepal India Chamber of Commerce and Industries
No.	Number

NOW	Negotiable Order of Withdrawal
NPA	Non Performing Loan
NPL	Non Performing Loan
NPR	Nepali Rupees
NRB	Nepal Rastra Bank
NRs	Nepali Rupees
P.Er	Probable Error
P.Y.	Previous Year
RBB	Rastra Banijya Bank
RDB	Rural Development Bank
RMDC	Rural Micro Finance Development Center
ROA	Return on Assets
ROE	Return on Equity
RR	Risk Ratio
RRDB	Rural Region Development Bank
Rs.	Nepalese Rupees
RWA	Risk Weighted Assets
S.D.	Standard Deviation
S.E.	Standard Error
SAARC	South Asian Association for Regional Cooperation
SACCO	Saving and Credit Cooperative Society
SCBNL	Standard Chartered Bank Limited
SLR	Solvency Liquidity Ratio
URL	Uniform Resource Locator
viz.	Namely (vide licet)
VSAT	Very Small Aperture Terminal
WADR	Weighted Annual Deposit Rate
WALR	Weighted Annual Loan Rate

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

In simple terms, 'Bank' can be defined as a place where the money transaction happens. It plays a mediator role of accepting deposit on one side and provides loan to another side. But the scope of bank has been widening in today's professional age. A bank (especially commercial bank) acts as commercial or state institution that provides financial services, including issuing money in form of coins, banknotes or debit cards, receiving deposits of money, lending money and processing transactions. A bank generates a profit from the differential between what level of interest it pays for deposits and other sources of funds, and what level of interest it charges in its lending activities. [<http://en.wikipedia.org>]

Banks have influenced economies and politics for centuries. Banks work as a facilitator for developing sustainable economy by mobilizing & utilizing resources, reducing cost and risk, expanding and diversifying opportunities and promoting productivity and economic growth of the country. And the crux of economic growth of any country depends upon capital formation. Capital formation helps in increasing volume of national output, income and employment, solving the problem of inflation and making economy free of foreign debts. Domestic Capital Formation stands country as self-dependent. According to classical economists, one of the main factors, which help capital formation, is the accumulation of capital. Profit made by business group, which is turned into saving, was assumed to be invested. They considered capital formation plays a vital role in determining the level and growth of national income and ultimately in the overall economic development of the nation. According to many economists, capital plays a central and strategic role in the process of economic development in underdeveloped economy and when the rapid expansion of rate of capital investment produces growth rate of output that

exceeds the growth rate of population with significant margin, and then only living standard will improve gradually in developing countries.

Deposit Collection and Mobilization is one of the major sources of capital formation and hence the essential tools for the economic development of underdeveloped and developing countries. Because in developed country, capital is generated easily by deposit collection, as they have potential market in every sector. Low national income, low per capita income, lack of technical knowledge, vicious cycle of poverty, lack of irrigation and fertilizer, pressure of population increase, geographical conditions etc. are the main problems of developing countries like Nepal. Banking, thus, increases the supply of funds by collecting lodgments from public and then combining them with its capital and reserve fund. Their lodgments are accepted as current, saving and fixed accounts. Overall, however they fall into demand and time deposits, the former payable as and when demand is made and later after the expiry of stated period. [Nigam, B.M.L. 1987:25]

Deposit Mobilization is primary and crucial function of any commercial bank. Bank provide facility of saving to general public and provide funds to investors, which help in mobilization of public fund in fruitful purposes, which helps in country's economic development. According to economists "Investment promotes economic growth and contributes to a nation's wealth. When people deposit money in saving account in a bank for example, the bank must invest by lending the funds of various business companies. These firms in return, may invest the money in new factories and equipment to increase their production. In addition to borrowing from the banks, most issue stocks and bonds that they sell to investors to raise capital needed for business expansion. Government also issues bonds to obtain funds to invest in such project, as the construction of dams, roads and schools. All such investments by individuals, business and government involve a preset sacrifice of income to get an expected future benefits. As a result, investment raises a nation's standard of living". [The world book encyclopedia P. 232]

In Modern Economics, the banking system plays a central role in the economic function of mobilizing the country's saving, supply means of payment and allocating economic resources. To ensure that banks perform these vital functions in an optimal manner, government has established rules and regulations, which the banks must follow during operations. Nepal Rastra Bank (NRB), the central bank of Nepal, was established in 1956 A.D. to discharge the central banking responsibilities including guiding the development of the domestic financial sector. Since then, there has been a huge growth in both the number and the activities of the domestic financial institutions.

The central bank guide commercial banks and other financial institutions to operate smoothly. Central Bank is setup to make sound monetary policy. Due to Liberalization Policy made by Nepal Government, there has been massive increment in number of financial institutions. According to NEPSE record as on August 2008, the Nepal Financial system consists of 25 Commercial Banks, 58 Development Banks, 5 Regional Rural Development Bank, 78 Finance Companies, 16 saving and credit cooperative societies, 46 non-government organizations (micro credit transactions), 26 Insurance Companies, 1 employee provident fund, 1 credit guarantee and deposit insurance cooperation and 1 citizen investment trust.

[[http://www.nrb.org.np/publication/annual_reports_\(Nepali\)--2062-63-New.pdf](http://www.nrb.org.np/publication/annual_reports_(Nepali)--2062-63-New.pdf)]

1.1.1 Central Bank as Regulator of Other Banks

Central banks are non-commercial bodies or government agencies often charged with controlling interest rates and money supply across the whole economy. They generally provide liquidity to the banking system and act as lender of last resort in event of a crisis.

The central banking is the modern concept, yet the clearly defined concept of central bank has not been derived. But the time passes by; every country has now its central bank. It acts as the Chief and Leader of the money market. It supervises, regulates and controls the functions of commercial banks and other financial

institutions. The central bank is banker to government and work as consultant for government on banking matters.

"Central Bank is the central arch of the monetary and fiscal framework in every country of the world and its functions are indispensable for proper functioning of the economy and fiscal operation". [Vaidaya, 1999:50]

Central bank neither accepts deposit nor lend loan to the public. Being government's bank, the main focus of central bank is to stabilizing monetary position. It controls banking sector by regulating, persuasion and market operation. The authority and responsibility of central bank also differs from country to country. The method of central banking also needs to be adjusted accordance to the fundamental changes in economic and political conditions.

At present, every country has a central bank. The worldwide establishment of central banks has added the advantage to the country under modern banking and business conditions. The central bank has offered the best means of communication and cooperation between international banking systems.

The basic and essential functions of central bank can be defined as follows:

The Primary function of Central bank is to **issue notes**. It enjoys the monopoly of note issue. According to theorist "the primary definition of central banking is a banking system in which a single bank has either a complete residuary monopoly in the note issue and that it was out of monopolies in the note issue that were derived the secondary function and characteristics of our modern central banks." Central bank may opt various system of note issue. NRB, the central bank of Nepal uses Proportional Reserve System to issue the notes.

Central Bank acts as the **lender of the last resort of banks**. Central Bank acts as a last option in the event of crisis or problem to any of the banks operating under it.

Central banks provide loans to commercial banks on the basis of security in shortage of deposit from customers. The note issue authority has been great advantage to central bank to act as lender of last resort.

Central Bank increases or decreases the **credit creation capacity** of commercial banks. Commercial banks create credit by giving loans. A central bank acts as a chief authority, which makes regulations regarding operations of financial institutions. Central Bank uses tools as Bank Rate, Cash Reserve Requirement (CRR), Solvency Liquidity Ratio (SLR), Open Market System, Capital Adequacy, Interest Structure, and Credit Portfolio etc. to maintain control over monetary circulation.

Central Bank **assists in healthy competition** among the financial institutions in the country. It is the banker's bank. The rules and regulations regarding banking sector of country formed by central bank always focuses on creating healthy competition among the institutions, for more facilitating customers.

According to *M.H. Kock*, “a central bank is a bank which constitutes the apex of the monetary and banking structure of its country and which performs as best as it can in the national economic interest.” [Bhalla VK 1983]

1.1.2 Central Banking in Nepal

Nepal Rastra Bank, the Central Bank of Nepal, was established in 1956 A.D. according to the NRB Act 2012. Since then, there has been a huge growth in development sector of the nation. To reflect this dynamic environment, the new NRB Act of 2002 has recast the functions and objectives of the Bank. The objectives of NRB are as follows:

- issue notes
- formulate necessary monetary and foreign exchange policies to maintain the stability in price and consolidate the balance of payments for sustainable development of the economy of the Kingdom of Nepal

- develop a secure, healthy and efficient system of payments
- make appropriate supervision of the banking and financial system in order to maintain its stability and foster its healthy development
- further enhance the public confidence in Nepal's entire banking and financial system
- facilitate in the transactions of government

The Bank is eminently aware that, for the achievement of the above objectives in the present dynamic environment, sustained progress and continued reform of the financial sector is of utmost importance. Continuously aware of this great responsibility, NRB is seriously pursuing various policies, strategies and actions.

NRB has been given wide power by the government to exercise control and supervision over banking and monetary system under various provisions of the following legislations:

- NRB Act 1955
- Commercial Bank Act 1974
- Foreign Bank Act 1962
- Finance Company Act 1985

To improve the financial sector legislative framework, some new Acts, viz. *Bank and Financial Institution Act 2006*, *NRB (First Amendment) Act 2006*, *Insolvency Act 2006*, *Secured Transaction Act 2006* and *Company Act 2006* has recently been enacted. Money Laundering, Control and Deposit and Credit Guarantee Acts are expected soon to be materialized, all with the goal of strengthening the financial sector through building on its healthy development and improved stability.

These activities convey the commitment of the NRB for addressing the present and future challenges of the financial system more competently. This dynamic and proactive approach to the financial system, especially with its increasing openness

and competitive process in the context of growing global financial environment, should ensure a sustained progress and stability of the financial system under NRB's guidance and leadership, for contributing substantially to the sustainable development of the economy of Nepal.

1.2 FOCUS OF THE STUDY

This study entitled “*Role of Nepal Rastra Bank on Deposit Mobilization of Commercial Banks (with reference to Nabil Bank Limited and Everest Bank Limited)*” is focused on the rules and regulations issued by the central bank regarding deposit mobilization of the available funds of the commercial banks. The directives issued by NRB for Nepalese commercial banks on deposit mobilization are:

- a) Deprived Sector Lending
- b) Credit For Priority Sector
- c) Provision For Investment in Productive Sector
- d) Single Borrower Limit
- e) Capital Fund Requirement
- f) Cash Reserve Requirement
- g) Loan Classification and Loan loss Provision
- h) Interest Spread

The study focuses on above directives issued by NRB for the Years 2002/2006 and whether these directives have positive or negative impact or no impact on commercial banks. For the study, two sample banks i.e. NABIL (Nabil Bank Limited) and Everest Bank Limited (EBL) have been taken.

1.3 STATEMENT OF PROBLEM

Nepal is an underdeveloped country and economic growth with significant mark is the basic need for the country. Economic development takes time, as it is a long-

term process. After the Second World War, all the countries economies were destroyed and thereafter, the upliftment of living standard of the people was very hard task to achieve. For the proper development of country, it had to build up infrastructure. In Nepal, the process of development started only after 1956 A.D. when the first 5 years plan came into practice.

Deposit Mobilization is one of the primary objectives of commercial banks. In today's age, when commercial banks are mushrooming, the competition among them has been a tough job and one can survive only if it could utilize its available funds properly. The present cutthroat competition has doomed many banks and those, which are surviving, are operating in critical stage. Very few of them are operating in profit, as most of them are unable to satisfy their shareholders and clients in profitability and safe deposits. It is not because of lack of potential clients or adequate deposit, but they can't find profitable sector or opportunities to invest. Banking sectors are facing problems from the external environment of unstable political, legal, economic and social situations in Nepal. Banking sector are not able to grow to their potentials. Various policies launched by NRB may add advantage to the nation, but providing unnecessary interference in the daily transactions of the commercial banks. Major problems in state owned commercial banks are overstaffing, corruption, negligence and cutthroat competition.

Banks in Nepal are acting with mere objective of profit maximization. They are accepting deposit from the community and lending loans to the investors, meeting their criteria. Most of banks are operating in urban areas, focusing on the opportunities. They are just grabbing opportunities rather than creating them. About 86% of the total population lives in the rural area. Due to imbalance in the growth of banking in the country, many people are deprived of the banking facilities. Commercial banks are neglecting rural areas, which cover almost Nepal. There are only 5 Rural Development Banks actively operating in Nepal.

[[http://www.nrb.org.np/publication/annual_reports_\(Nepali\)--2062-63-New.pdf](http://www.nrb.org.np/publication/annual_reports_(Nepali)--2062-63-New.pdf)]

The central bank, NRB, has to supervise and monitor the portfolio behavior of banks, as it is hypothesized that bank portfolio variables like loans, investment, cash reserve, and deposit and borrowing affects the national income. In this study, the role and directives of NRB towards commercial banks, with the help of two joint venture banks i.e. NABIL and EBL are taken into consideration and its effectiveness will be studied.

Moreover, the study will analyze the relationship of deposit and loan and advances with investment and profit position of the banks.

The problems specially related to role of NRB in deposit mobilization of commercial banks have been presented as follow:

- the effectiveness of NRB directives on deposit mobilization aspect of banks
- the efficiency of commercial banks in Nepal
- the gap between banks' performance and NRB directions
- effect of investment decision on Total Profit and GDP of nation thereby
- the condition of studied banks is sound from the viewpoint of nation and banking industry
- the liquidity position of banks as directed by NRB

1.4 OBJECTIVE OF THE STUDY

The primary objective of study is to analyze deposit mobilization policy and directives regarding this policy by NRB followed by two sample banks viz. NABIL and EBL. Some other objectives of this research are as follows:

- examine role of NRB in deposit collection and distribution of commercial banks
- analyze the financial position of the EBL and NABIL in terms of deposit collection and mobilization procedure

- examine and evaluate the liquidity, asset management efficiency, profitability and risk position of NABIL and EBL
- analyze the deposit mobilization trend towards Total Investment and Loan and Advances and its projection for next five years
- extract the significant difference between the various important ratios of NABIL and EBL

1.5 SIGNIFICANCE OF THE STUDY

The proper mobilization and utilization of domestic resources become essential for any developing country to result a gradual improvement in economic development. In developing countries like Nepal, banking sector plays a vital role in economic development of the country. According to NRB research report of 2003 A.D., banking and financial institutions are contributing around 10% to its national GDP. The success and prosperity of bank relies on the sound investment policy. However, the banking sector has not spread all over Nepal yet. Commercial banks are limited to urban sector due to lack of infrastructure. Thus, NRB need to amend its certain rules to motivate commercial banking to incorporate their branches even in the rural areas.

This study will provide information regarding deposit mobilization directives of NRB to commercial banks, and can be taken as basis to concerned banks to make adjustments. Basically, this study will attempt to focus on role of NRB in banking development by prevailing constraints.

Furthermore, the study would provide a useful feedback for academic institutions, bank employees, trainees and investor and also for financial person, policy-making bodies and other personnel concerned with banks.

1.6 LIMITATION OF THE STUDY

Every research is limited with certain constraints. Likewise, this study is being undertaken as the partial fulfillment of the Master's Degree in Business Studies (MBS) level within limited time, sources and referring with mostly secondary sources of data. The major limitations of the study are as follows:

- only secondary data such as annual report, journals, bulletins and URLs available from banks and NRB, newspapers, previous thesis, articles and other reports will be studied and analyzed to interpret results. So, the accuracy of the findings depends on the reliability of available information
- due to the time and resource constraint, only two commercial banks and the central bank will be taken under the study
- Only five years period will be taken for the study (F.Y. 2001/02 to 2005/06). Some relevant data are taken as required from 1998 to 2007.
- among various directives issued by NRB for commercial banks, this study will include the directives regarding deposit mobilization of commercial banks only
- the study is focusing on only two banks, so the result or conclusion may not depict accurate financial position of other banks
- only selected financial and statistical tools will be used for the analysis

1.7 ORGANIZATION OF THE STUDY

The study will be carried out into different stages and procedures. The thesis will be organized in sequence in the following structure:

Chapter – I: Introduction

Background information on the subject matter of research undertaking will be presented under this section to provide general idea of its history. So, this section will include background of the study, which will focus on the introduction of central bank, its role as regulator of other banks, functions of central bank and

central banking in Nepal. Focus of the study, statement of problem, objectives, significance and limitations of the study will follow it.

Chapter – II: Review of Literature

This section will be dealing with the reviews of relevant previous writings and studies to find out the existing gap. It will include the definition of commercial banks, its evolution, deposit and its types, loan and advancement, investment policy of commercial banks etc. It will refer various approaches taken by other researchers and related literature on the related topic.

Chapter – III: Methodology

The methods to gather data and the tools employing and using in its interpretation will be discussed in this section under the headings - Research Design, Population and Sample, Nature & Sources of Data and Financial & Statistical tools for analysis of data.

Chapter – IV: Presentation and Analysis of data

The fourth chapter will be consisting systematic presentation and analysis of financial statements employing financial and statistical tools mentioned in the chapter 3. It will contain the major findings, which is divided into two segments. The first segment will focus on the major findings of the theoretical data and the role of NRB, whereas the second segment will deal on major findings of various ratios, which will show the financial condition of the stated banks and the impact of directives of NRB.

Chapter – V: Summary, Recommendations and Conclusion

The last chapter of the thesis will be the most crucial section as it will be summarizing & concluding the major findings and drawing viable recommendations & suggestions on the basis of the study for the respective institutions.

Chapter 2

LITERATURE REVIEW

This chapter includes various related reviews of banks and their operations. Data and Functions published as Annual Reports, Journals, Bulletins, Websites, Newspapers, Articles are studied and Facts, Figures & Conclusions are drawn on these basis.

2.1 CONCEPTUAL VIEW

Under this heading, concept of banks and its operation are studied. Evolution of modern bank, its functions and other relevant topics are also studied and analyzed.

2.1.1 Evolution of Modern Banking

The development of modern day banking started from ancient time. Historical documents suggest the ancient history of banking transactions. New Testament stated that in the age of Before Christ, there were money transactions in Jerusalem. Alfred Marshall also concludes in his book “Money, Credit and Commerce” as banking transactions are started from Chaldea, Phoenicia and Egypt.

In Ancient Rome, banking era had also started. People in Rome did functions as introducing money, accepting deposits, lending loans, give-take of money, transferring money from one location to another. Goldsmiths also had played important role in introducing banking system. Goldsmiths accepts various wealth of public to keep it safe, and in return charge some amount for it. They also issue receipt of receiving valuables from depositors, which became medium of payment and modern cheque has been developed in its basis as medium of exchange and payment.

The Organization development of Banking Business has started from 1157 A.D. as Bank of Venice was established. It was the firstly established Modern Bank. Bank of Barcelona and Bank of Geneva were established at years 1401 and 1407 respectively. Banking sector slowly expanded in rest of Europe by late 19th Century. In England Bank of England was established at 1649 A.D., which also promotes banking era in the world.

In spite of the establishment of the Bank of England, the development of modern banks as institution pickup only after a century, when the Banking Act of 1833 was formed. The Act provided freedom of establishment for Joint Stock Banks. Today banking is established in various countries with external source, internal source and Joint source. Various Banks are established for the development of modern economy and economic sector. So Modern Banking is becoming an integral part of any country's economic development.

2.1.2 Meaning of Commercial Banks

Basically Bank, which is established, to invest in Business activities is called commercial bank. They accept deposits, advance loans, create credit and perform agency functions.

The first commercial bank established was Bank of Venice in 1157 A.D. In beginning, the functions of commercial banks were limited to accept deposit and lending loans. However, their functions and scope has been widening. They are now becoming constituent units of the banking system.

In Nepal, Nepal Bank Limited was the first commercial Bank established in 1937 A.D. It accepts deposit, extend loan, render customer related service, Invest in Government Bonds and Securities, perform agency functions, acts as banker to government. So in Nepal first commercial bank was established much later than the other part of the world.

Generally commercial banks deal with finance, trade and commerce. Since the nature of most deposit is short-term, these banks also advance short-term loans. Commercial Banks are established with general public majority. They are established by the capital collected by issue of the share. So they are also called Joint Stock Banks. They act as Bankers to Public.

Government of all countries has laws to regulate the operation of banks. Central Banks in each country has been established with the motive to formulation of rules, circulation of rules and amendment of rules. Central bank has the authority and responsibility for efficient working of its country's monetary system. So the central bank administrates the government's regulations affecting commercial Banks. For controlling other Banks, central bank generally formulates regulations under following headings:

- Credit Control
- Foreign Exchange
- Liquidity
- Interest Rate
- Priority Sector
- Capital Adequacy

As defined commercial banks performs all the banking business function. In modern world, the commercial banks perform various functions which are banking functions as well as other supplementary functions. Following are primary functions of commercial banks:

One of the most basic functions of the commercial bank is to accept deposit from the customers. Bank provides its customers the various types of accounts and collects the money from customers as deposit. Bank must return the deposit with interest whenever as per nature of the account. The Major Accounts provided by the Banks are Current Account, Fixed Account, Saving Account, Home Saving

Account and Recurring Deposit Account. This function of bank helps people to build-up the saving habit as well as country by capital formation. Bank provides the general public an opportunity to earn the interest from unused fund as well as safe custody of deposits.

The Main Source of Sustaining for the Bank is to lend deposits as loan and earn the profit from the difference in interest in loan and deposit. Bank provide loan in various conditions. It provide loan against collateral. In old days valuables and property were only considered as collateral, but in modern economy development bonds, debentures, fixed deposit receipt, share and even stock in store are also used as collateral. Overdraft facilities are provided to goodwill earned customers.

Commercial banks provide short-term, mid-term loans and long-term loans as well. Bank Charge certain amount of interest in these loans. Rate of Interest is infected by various elements like productivity of business, duration of finishing product, risk, loan management fee, market interest rate etc.

Commercial banks also provide agency service to customers. Commercial bank do have relation with Government, Businessman, Consumers and others parties. So these banks provide agency related services as per requirement and economic activities. These activities are changing as economic situation changes. The primary agency related activities could be shown as:

- Remittance Facility i.e. Transferring Money from one to another location by charging commission
- Collection of funds from different accounts
- Purchase-Sales of Share Certificates and other Governmental Securities

Foreign Exchange permission is given to commercial bank by central bank. After acquiring such permission, a commercial bank can purchase and sell foreign currency. Bank can also earn commission from such transactions.

Commercial banks help in business activities. Commercial bank helps in by paying bills of exporters and importers, providing letter of credit etc. Commercial banks also provide loans to these activities, which also help in promoting foreign trade.

Above-mentioned functions are primary functions of commercial banks. They also perform various other supplementary activities, which are as follows:

- Protection of Valuables
- Safety for traveling by issuing travelers cheques
- Help in formulation of financial policies by collecting data from monetary and business transactions.
- Underwriting companies debentures
- Accepting customers exchange letter
- Providing consultancy to customers and businessman
- Providing economic data from timely publications
- Create credit by granting loans

2.1.3 Deposit

Bank is a business institution related with financial activities. It generates profit by internal and external source. Deposit is an essential external source for bank. It is the amount, which is saved into bank by customer. According to commercial bank Act 2031 "The amount collected into current, saving and fixed account of bank or financial institution is deposit."

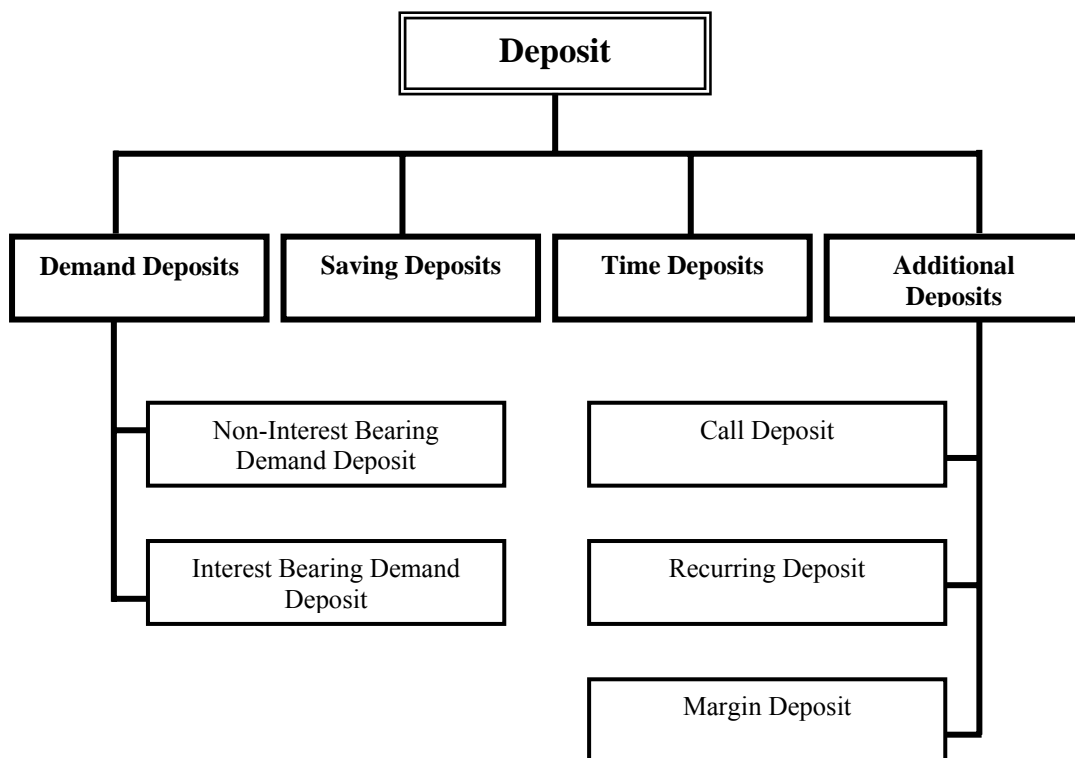
The basic characteristics of deposit can be shown as:

- a) The Deposit is the amount of money received by customer or accountholder.
- b) Deposit is refundable amount as per directions with nature of account
- c) Various facilities are provided to depositor as per nature of account
- d) Deposit is source of income for banks and financial institutions. Excess amount than required amount could be invested in profitable sector.

Deposit is the basic source of income generating fund for financial institution. Growth of deposit has positive correlation with growth of bank to the extent. As deposit increases, the bank can invest in various sector, which will also decrease the risk factor due to existence of portfolio as well as the protective range of cash balance can be made for refunding deposits.

Banks are always seeking for new schemes for deposits. In competitive market, bank must offer number and range of deposit service to attract customers. More than 30 varieties of schemes are in offer for customers to fulfill their business and household needs.

On the basis of nature and features, deposits are classified into three types, which can be discussed as follows:



2.1.3.1 Demand Deposit

It is the type of deposit that can be withdrawn on demand at anytime or any amount up to full amount of deposit. Current account, money orders and traveler's cheque

are examples of demand deposit. Customers having high no of financial transactions use this type of deposit. Characteristics of demand deposits are as follows:

- a. Accountholders can do unlimited no. Of transactions any time.
- b. Normally, this type of account doesn't generate or earn any interest except where it is specially permitted by the central bank.
- c. Accountholder are given facility of overdraft if it is required after agreement with the bank.
- d. Accountholders are allowed to send cheques and note for collection from different locations.
- e. If account only holds minimum balance, the bank can charge balance as handling charge.

It is one of the basic and oldest services provided by bank. Basically these deposits earn interest, but provides customer with payment services, safekeeping of funds and record keeping of transactions.

It is classified into two categories:

a) Non-Interest bearing demand deposit

This type of demand deposit provides customer oriented services, but interest payments are prohibited. Current accounts are created by this kind of deposit, which are also called checking accounts in the United States.

Demand Deposit can be withdrawn without any pre-information, so are non-investment funds of banks. But today's Bank is providing accounts with interest and nature of current accounts, so customers are attracted towards such deposits.

b) Interest bearing demand deposit

Demand deposit, which provides customer with payment services, safekeeping funds and record keeping for any transactions, carried out by cheques as well as interest. It is also called Negotiable Order of Withdrawal (NOW) account. NOWs are interest bearing demand deposit that gives the bank the right to insist on prior notice before withdrawals by customers. But because this notice requirement is rarely exercised. It is behaved as checking account with interest. It is also called money market demand deposit account and interest bearing thrift account.

2.1.3.2 Saving Deposit

Amount deposited in saving account is called saving Deposit. Interest is earned in this deposit. Normally there are agreements for limitations for withdrawals in this type of deposit. So bank can invest rest amount than reserve of customer saving deposit and provide interest to customer.

The basic characteristics of saving deposits can be shown as below:

- a. Interest is payable in this deposit, but interest rate may change according to change in economy.
- b. Limited amount can be withdrawn at certain time and if excess than limited amount is required, then application of pre-information should be forward to bank.
- c. Interest are normally calculated in the period of 6-6 months and deposited in principal account.
- d. Restrictions in frequency and amount of cheques also exist in this type of deposit. Minimum and maximum range for amount in cheques is prefixed in this deposit.
- e. During liquidation or bankruptcy of bank, saving deposit is considered before other deposits.

Most of customer prefer saving deposit because of its interest-generating prospective as well as service of payments.

2.1.3.3 Time Deposit/ Fixed Deposit

This is the type of deposit, which cannot be withdrawn before specific to fixed period. Customers are provided high interest for higher periods. Accountholders can be provided with loan if required against these fixed deposits. It contains following features.

- a. These deposits are not concerned with cheques like saving and demand deposits. Accountholders had to extract principal only after specific time.
- b. After completion of predetermined period, customer can extract deposit or renew the deposit for specific period.
- c. Customer earns high interest in fixed deposit than other deposits. Interests are calculated in period of 3-3 months.
- d. This deposit cannot be withdrawn before specific period. So banks can invest these deposits in profitable sectors.

Time deposits are profitable to both deposit holders and bank. It is investment opportunity to both parties. These are basic sources of funds for banks. Banks can earn high profit from these deposits and provide accountholders the predetermined rate of interest.

The above mentioned are the basic types of deposits. Few other deposits are nowadays in practice can be shown as follows:

2.1.3.4 Call Deposit

It is the type of deposit between current and saving deposit. This type of deposit earns interest as well as can be withdrawn at call. The profit-oriented organization can't open saving accounts, so this call account can be good alternative. Interest

rates are not published for this deposit generally. So it compromised between bank and depositor. Interest is calculated in daily balance.

2.1.3.5 Recurring Deposit

Recurring Deposit is developed to generate saving from public in regular basis. In this deposit, depositor has to deposit fixed amount of installments for specific period and bank repays total amount of principal and interest at maturity.

2.1.3.6 Margin Deposit

Bank issue Letter of Credit, Guarantee and Indemnity on behalf of customer for certain money. These are amount to be paid to the beneficiaries. This action is conditionally liability for bank. Bank demand certain money as deposit to reduce liability. This deposit is called margin deposit. It may vary under mutual understanding.

Interest is not paid under such deposit and these deposits are returned to customer, unless any claims by beneficiaries.

2.1.4 Loans and Advances

Basically, loan can be defined as the sum lent to others for certain time period with agreement to charge interest on principal. It is done with basic objective to earn interest as reward for lending.

Loans and advances are lifelines of any bank. They are the main source through which bank generate income. Bank pays the interest to deposit holders by the income bank makes as interest from landholders, and difference amount is income for bank. As bank hold experience expertise and flexibility in lending. It has advantage over other financial institution. Loans and advances are primary functions of bank. It provides loans to public for creating credit for community. Loans and advances are bank source to spend funds and investment source for business, individuals and government offices. Bank performance in lending has

positive relation with economic health of the country. Banks loans supports growth of new business, existence of small and moderate size business, so banks have contributed to growth of their respective communities and advance of local well-being.

Lending is a risky business and sometimes it may be difficult for repayment of principal than interest. Generally following reasons generate troubles:

- Loans become uncollectible due to mismanagement
- Illegal manipulation of loans
- Misguided lending policies
- Unexpected economic downturn

So lending has high rate of interest as well as high rate of risk. Although bank loans and advances are main source of profit to the bank, it should be done with considering various perspective of Borrower. 3cs i.e. Character, Capacity and Capital of borrower should be considered as well as safety, recovery and return of lending. Four Fundamental principles of safety while lending are:

- Safety
- Meet Cost
- Meet Demand
- Achieving Social Objectives

Generally Bank provides two types of loans.

1. Short Term Loan: Type of loan which payable in less than a year.
2. Long Term Loan: Type of loan which is payable in more than a year

Bank always lends only against collateral as security. Collateral are usually property like land, buildings, stock which are protection for bank in case of forgery. Bank can sell this property in case repayments of loans are not made.

2.1.5 Investment and Investment Policy

Investment is simply defined as sacrifice of current consumption for increase in future wealth. But future level of wealth is not certain. Time and risk are factors of uncertainty. So Investment decisions are difficult to make. There are two alternatives for Investment real assets and financial assets.

Bank also has to earn profit through investment decisions to survive in long run. Bank collects funds through deposit in various accounts and Issuing Shares. These funds are to be investment in those sectors, which can yield optimum profit. All the funds are not being invested; certain amount is to be reserve for fulfilling the cash demand by account holders and others.

The basic and fundamental. Principles for formulation and implementation of investment policy are:

1. Principle of Liquidity

Generally liquidity refers to cash or assets, which can be convertible in cash quickly. According to commercial bank act 2031, "liquidity in bank consists of cash balance of bank, cash in current account, and cash in NRB and assets that are considered as liquidity assets by NRB.

Bank has to invest the funds to earn income. But liquidity and Investment has negative relation between them. So liquidity must be considered while investing. Liquidity is reserve fund for returning to customers.

2. Principle of Safety

Bank has various alternatives for investment. Different alternatives have different level of return and safety Bank has to choose those alternatives containing maximum security with maximum return.

The instrument for security in investment is collateral. Those assets should be accepted as collateral, which can be sold easily and ownership can be transferred easily and valuation of collateral is fairly calculated.

3. Principle of Profitability

Bank invests in various sectors to earn profit. Profit is essential for any organization to operate in long run. Bank has to maintain liquidity and invest, in those sectors, which can earn high profit and in short time.

Time factor is also to be considered while investing to earn profit. Liquidity can be maintained easily in short-term. Investment, whereas maximum profit is earned in long term investment. So decisions are to be made considering these factors.

4. Principle of Diversification

Bank has to invest in various sectors while considering safety, liquidity and profit. Bank has to diversify its investment in various sectors to create portfolio, which decrease risk and provide safety.

Collateral are also should be of various nature. Single type of collateral also contains risk as price may fluctuate of such collaterals.

5. Principle of Marketing

Collaterals are safety measures of investments. If loans are not repaid in time, these collaterals are sold to fulfill loan. So collaterals should be of marketing nature, which can be sold quickly and easily. Collateral are to be transfer from

one location to another easily. Ownership can be transferred easily can be divided and sold.

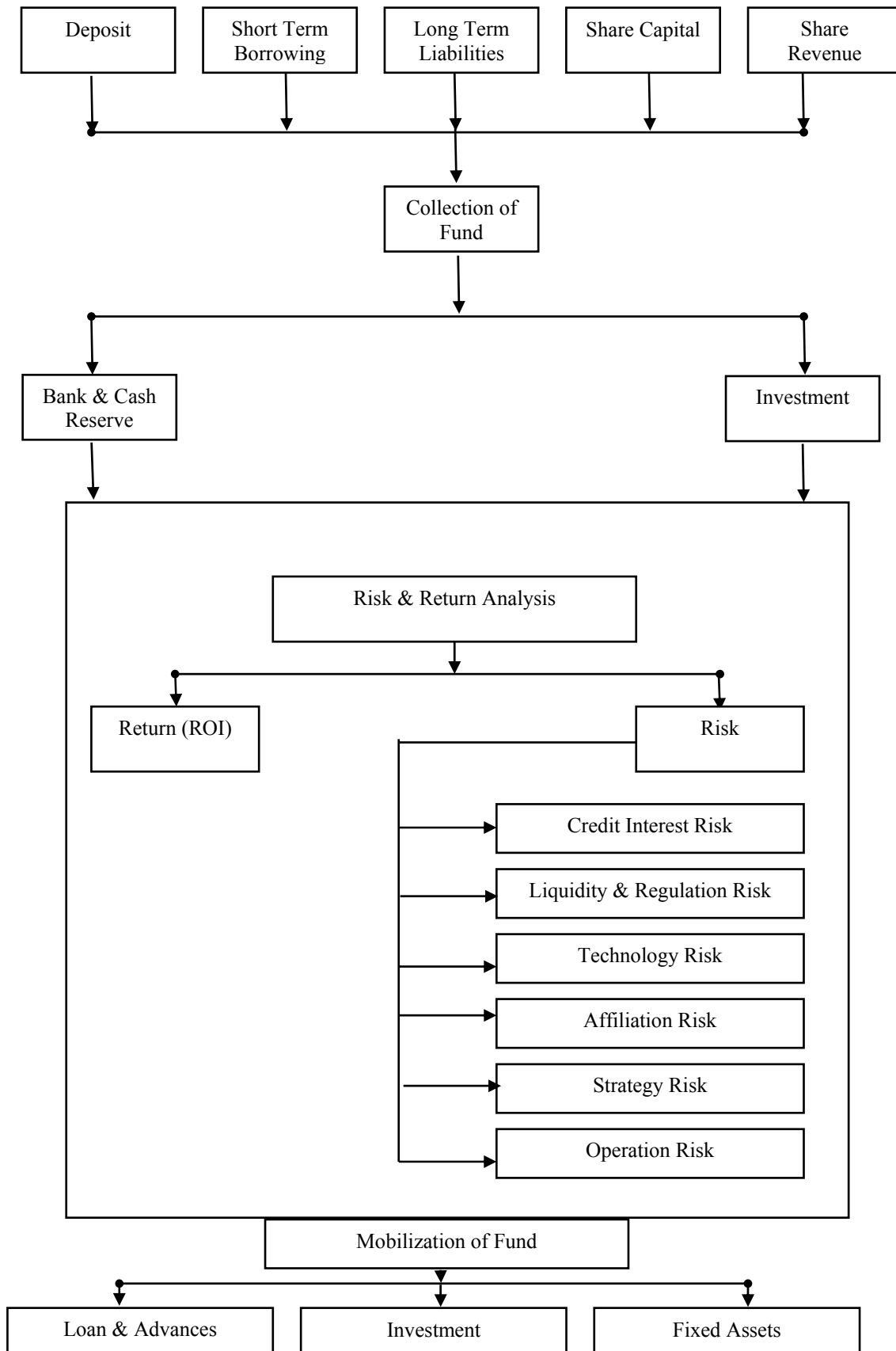
6. Principle of Tax Immunity

Government has imposed tax on profit or Income. These taxes deduct profit of organizations. To earn maximum profit bank has to invest on tax-exempt or low taxable sectors with feasibility.

7. Principle of National Interest

The primary interest of bank is to earn maximum profit, but the responsibility towards society as well as nationals should be equally considered. Bank can earn profit only in favor of national interest. Bank has to operate within national law. The directives provided by NRB are to be followed as well.

The following diagram will show as general investment procedure of joint venture banks.



2.2 REVIEW OF RELATED STUDY

Under this topic, the various published and unpublished thesis, articles by various magazines are studies and their major finding are extracted and analyzed.

2.2.1 Study of Relevant Act

In Today's world, financial sector has been established as primary unit of economy. Financial sector helps in mobilizing artificial and natural sources. Government also motivates financial activities understanding its importance.

Due to this policy of Government, various banks and other financial institutions are establishing in Nepal too. But the quality as well as quantity must be of equivalent nature; so the Nepal Rastra Bank (NRB), the central bank of Nepal is given responsibility of Regulatory, Supervisory and Monitoring system. NRB act 2012 has been established to bring this system, under law of Nepal. Each and Every financial institution has to follow this act from establishment, operation to liquidation. Commercial Bank act 2031 also has been established to form rules and regulation for facilitates the smooth operations of the commercial banks.

In this segment, the related parts of NRB act 2012 and Commercial Bank Act 2031 are reviewed. Later on NRB act 2012 has been revised in 2058 and NRB act 2058 has been formed.

Supervision, monitoring and regulatory system of NRB safeguards public from being exploit by banks as well as provides healthy competition between banks. NRB issues directives timely to ensure public welfare and national development. Basically NRB monitors in following activities of commercial bank.

- Opening Branches in different parts of country
- Exchange of Money
- Accepts Deposits

- Providing Loans
- Interest Rates
- Issuance of Debentures and Financial Instruments

According to New revised directives issued by NRB 2061/062, commercial banks have to maintain following conditions.

1. Minimum capital fund establishment to open a bank
2. Classification of loans/lending and provision for loan loss.
3. Limitations of loans and services to customer of certain sector
4. Accounting System
5. System for minimization of loss
6. Funds required to expand branches

There are many other directives issued by NRB for establishment and operation of commercial banks, but we discussed here only relevant ones as follows:

I. Provision for investment in the Deprived Sector:

NRB plays important role in uplifting economic state of deprived sector. Base stand has been preparing by NRB. According to New laws of NRB, bank has to compulsory extended one branch outside valley to open one branch inside valley. This is positive attitude towards deprived sector development. In 1977 A.D., NRB has issued directives to invest 5% of total deposit in narrow sectors (Agriculture, Cottage, Industry and Service-oriented business). Later on these sectors were converted to priority sector. Schemes like “Unemployment loan Scheme” and “Productivity loan for rural women” were introduced by NRB in 1983 A.D.

The deprived sector lending program has been kept unchanged from 2002/03. Newly established commercial banks are required to disburse 3 percent of their loans and advances to deprived sector. Individual credit up to 40000 and credit for micro enterprises up to Rs 100000 has been defined as deprived sector credit.

[NRB Annual Report 04/05]

II. Provision for credit to the Priority sector

With the financial liberalization policy of phasing out the priority sector lending program has been initiated. However it has been equally challenging to meet credit demand in rural areas. The priority sector lending program has gradually been phased out since 2002/03. In 2004/05 commercial banks were required to disburse only 2.0 percent of total loans and advances to the priority sector. Priority sector includes loans and advances to the priority sector. Priority sector includes agriculture, cottage and small industry and service industries.

III. Provision for Investment in Productive sector:

Agriculture, Industry and Priority sector are considered as productive sector. Nepal's economy totally depends on these sectors, but lacks of adequate infrastructure, sources & means for development. Viewing this importance, NRB has given directives to commercial banks to invest their loans to productive sector. NRB is also gradually increasing the percentage of loan in this sector. In 1985 A.D., 25% of loan is to be invested, which is expanded to 67 districts. According to latest directives issued, commercial banks have to invest 40% of their credit to the productive sectors.

IV. Provision for the Single Borrower Credit Limit:

NRB has directed commercial banks to diversify its investment more in small and middle size borrower and less in big borrower to create a risk and return portfolio. Due to existence of portfolio risk will be reduced, as loss in one sector won't make a noticeable impact. NRB has also made provision for maximum limit of credit can be invest as loan to single borrower. Single borrowers are as follows:

1. One company with 25% or more shares of other company, then such companies.
2. Individual, Firm, Company's proprietor, shareholders, partners and their dependent families.

3. 25% or more share of company owned by above persons (no.2) individually or group.
4. Companies of same group.
5. Companies providing guarantee by each other.

Following provision are made by NRB:

Table 1 Single Borrower Limit Provision

Class of Bank	Limit
Class "A" "B" & "C"	Fund Based: 25% of Core Capital
	Non-Fund Based: 50%
Class "D"	Max Rs 40000 as small business loan
	Max Rs 100000 as small business loan against collateral

[NRB Act 2058, section 79]

Loans against Fixed Deposit Receipt, Government Debenture, NRB's debenture and World Bank, Asian Development Bank, International Finance Cooperation and Internationally Rated Banks in Top Thousand World Banks as well as Nepal Oil Corporation & Nepal Food Corporation are kept outside of this single borrower limit.

V. Directives to raise Capital Fund

By canceling all the previous directives given to financial institutions, NRB has issued new directives under NRB act, 2058 section 79 and from fiscal year 2005/06; the capital adequacy ratio requirement is as follows:

Table 2 Capital Adequacy Ratio of Financial Institution

Class of Bank	CAR of Risk Weighted Assets	
	Core Capital	Supplementary Capital
Class "A" "B" & "C"	6%	12%
Class "D"	4%	8%

Capital Fund is classified into core capital and supplementary capital.

1. Core Capital

Paid up capital, Share Premium, Irredeemable Preference Share, Retained Earning, Capital Redemption Reserve, Statuary Reserve and Other Funds.

2. Supplementary Capital

Provision of loan-loss, Assets Revaluation Fund, Hybrid capital instruments, Subordinated term debt, Exchange Fluctuation Fund, Provision of Investment Loss.

All commercial banks have to maintain capital adequacy ratio (CAR) as directed by NRB.

Table 3 Capital Adequacy Ratio on Core and Supplementary Capital

Fiscal Year	CAR of Risk Weighted Assets	
	Core Capital	Supplementary Capital
2005/06	6%	12%
2004/05	5.5%	11%
2003/04	5%	10%
2002/03	5%	10%
2001/02	4.5%	9%

Similarly For simplifying the calculation of capital fund, risk weighted is divided into two categories:

1. Risk Weighted on Balance Sheet Assets
2. Risk Weighted off Balance Sheet Assets

Table 4 Risk Weighted on Balance Sheet Items

On Balance Sheet Items	Weight (%)
Cash Balance	0
Gold	0
Balance in NRB	0
Investment on Government Debenture	0
Investment on NRB Debenture	0
Fixed Bill Collateral Loan	0
Grand Safety loan on Govt. Debenture Collateral	0
Accrued Amount on Saving	0
Cash Balance in Domestic Bank & Financial Institution	20
Other Banks Fixed Bill Collateral Loan	20
Balance in Foreign Bank	20
Money at Call	20
International Rated: Foreign bank of guarantee loan	20
International Rated: Other Investment of Foreign Banks	20
Investment on Share, Debenture & Bond	100
Other Investment	100
Loan, Bills Purchased/ with discount	100
Fixed Assets	100
Accrued Net Interest Receivable	100
Other Assets (Excluding Tax Prepaid)	100

Table 5 Risk Weighted off Balance Sheet Items

Off Balance Sheet Items	Weight (%)
Bills Collection	0
Forward Foreign Exchange Contract	10
Letter of Credit with less than 6 months maturity	20
Issue of Guarantee granted by foreign bank	20
Letter of Credit with more than 6 months maturity	50
Bid Bond, Performance Bond & Underwriting	50
Advance Payment Guarantee	100
Financial & Other Guarantee	100
Irrevocable loan commitment	100
Possible liability against income tax	100
Other contingent liabilities including acceptance	100

$$\text{Capital Adequacy Ratio} = \frac{\text{Core Capital} + \text{Supplementary Capital}}{\text{Total Risk Weighted Assets}}$$

Total Risk Weighted Assets = Risk Weighted on Balance Sheet Items + Risk Weighted off Balance Sheet Items

VI. Cash Reserve Requirement

Cash means liquidity of the bank. A commercial bank has to maintain cash to reach the expectations of possible withdrawals or advance demands and to meet the unexpected requirements of customers. NRB has directed commercial banks to maintain minimum cash reserve fund in their vault and NRB. The operation of cash reserve ratio shows the performance of Bank and its capital adequacy.

Cash reserve requirement is directed by NRB to commercial banks for the welfare of customer by avoiding uncontrollable transactions by bank. The adequate cash reserve will also maintain positive confidence of depositor for safeguarding of their funds. For this public welfare, NRB has directed commercial banks to maintain minimum cash reserve as under for year.

Table 6 Cash Reserve Requirement

Particular	Limit
Balance to be maintained with NRB	7% of current & saving deposit liabilities
	4.5% of fixed deposit liabilities
Cash in Vault	3% of total deposit

VII. Loan Classification and Loss Provision

On the basis of aging or time, NRB has classified the loans & advances of commercial banks into following categories under NRB act 2002 [section 79]

1. **Pass:** Principal not due or due up to 3 months
2. **Sub-standard:** Principal from 3 months to 6 months
3. **Doubtful** Principal from 6 months to a year
4. **Loss:** Principal due more than a year

Pass loan is also called performing loan, whereas sub-standard, doubtful and loan loss are also known as non-performing loans. Commercial banks have to maintain reserve for loans. NRB has stated commercial banks to maintain certain reserve for loans as loan loss provision as followings:

Table 7 Loan Loss Provision

Loan Classification	Loan Loss Provision
Pass	1
Sub-Standard	25
Doubtful	50
Loss	100

The provision for performing loans is called General loan loss provision, whereas the provision done for non-performing loan is specific loan loss provision. The provision did for loan loss negative impact on the capacity of banks to create the credit.

VIII. Directives regarding Interest Rate Spread

A bank generates profit as difference between interest it earns through loans and interest it provides on deposit. As higher the difference is, the higher profit bank generates. Such difference is called Interest Rate Spread. But to prevent the banks from providing higher rates on loans & lower rates on deposit and generate healthy competitive environment between banks. The NRB has issued directives that interest spread rate should not exceed 5%. Such rate is calculated as under:

$$\text{Interest Spread} = \text{WALR} - \text{WADR}$$

$$\text{Weighted Annual Loan Rate (WALR)} = \frac{\text{Interest Income for a Month}}{\text{Total Interest Earned Assets}}$$

$$\text{Weighted Annual Deposit Rate (WADR)} = \frac{\text{Interest Expenses for a Month}}{\text{Total Deposit Outstanding}}$$

NRB has also directed commercial banks to retain the interest amount in excess of 5% in bank and dividend can't be distributed of this amount.

2.2.2 Article Review

In this section, it has been tried to study some relevant articles to clarify the conceptual framework of the thesis.

In the paper Presented by **Mr. D.K. Dhakal and H.K. Panthi** as “**SAARC Finance Seminar on Credit Operations (December 2002)**”, the duo has explained about Institutional Arrangements on Credit Operations in Nepal, under which they have analyzed background of the country, overview of financial system, evolution of institutional credit activities. They have shown the following finance policies in Nepal

Nepal Rastra Bank Act, 2002 has empowered the NRB to inspect and supervise all financial institutions including Rural Micro-Financial Institutions and issue directives. So, NRB has played a key role in policy formation and execution to the financial institutions. The major policies issued for the financial institutions are as follows:

- Commercial banks are required to extend 12 percent of their outstanding loans and advances as priority sector credit, of which 0.25 to 3.00 percent should be extended to deprived sector.
- The central bank provides refinance facilities to commercial banks against the credit documents of the priority sector credit.
- In order to open an urban branch, commercial banks need to open one branch in semi-urban and one in rural area compulsory.
- Micro credit is normally based on group guarantee and it is actually collateral less lending.
- Financial Intermediary Act 1998 has been enacted to enhance the Financial Intermediaries (FINGOs) for wholesale lending.

- "Poverty Alleviation Fund" has been created for the growth of rural financial markets. The fund will be utilized for conducting training programs and extending micro-financing services.
- Rural Micro-Finance Development Center (RMDC) Ltd. has been established for wholesale lending to Micro Financial Institutions to enhance rural micro-credit.
- Single borrower limit of micro credit (deprived sector) has been fixed up to Rs.30, 000.
- Commercial bank can also provide credit to the ADB/N, RDBs, SACCOs, and FINGOs as priority sector credit.
- Nepal Rastra Bank is carrying out the "Restructuring Programme "in Grameen Bikash Banks due to the heavy losses.
- Priority Sector Credit Programme extended by the commercial banks will be phased out within next five years but deprived sector lending will remain valid.

More they have focused on the problems of rural & micro credit operations. Number of institution, lack of coordination, cost, and limited outreach, lack of proper regulation & supervision and security are major problems.

In conclusion, they have stated that rural micro-financing was started in Nepal since the establishment of credit cooperatives in 1956. Micro financing in a mountainous country like Nepal is considered as an effective system as it helps deliver credit in rural areas in simple and easy way. Commercial banks and other financial institutions normally do not like to go in that area because of the geographical constraints, underdeveloped infrastructure and other physical constraints. However on the other hand, there is a substantial demand of micro credit in the rural areas. In this scenario, locally operating micro financing institutions such as SACCOs and FI-NGOs could obviously play an important role to mobilize local savings, extend credit as well as channelize borrowed fund/grant to the local rural people.

In the Article **“The Role of Central Banks in Micro finance in Asia and the Pacific”** presented by **Sanjay Sinha(February 2006)**, he has explained that the micro finance sector in Nepal has expanded considerably in recent years and has witnessed much innovation, including limited banking licenses for NGOs and cooperatives, a special category of small development bank, and a special law on micro finance. The Nepal Rastra Bank (NRB, the central bank) has played an active role through a variety of “developmental” activities, including directed credit requirements and ownership of a number of regional rural development banks, which apply a Grameen Bank model of micro finance. It has also undertaken a range of “promotional” activities in support of micro finance. Nepal is the only country in this twelve-country study to have passed a law specifically for micro finance. Unfortunately, the legislation appears to have a number of major deficiencies and requires urgent amendment. More generally, it would be appropriate for the central bank to shift its focus even further toward promotional activities emphasizing sustainability of the micro finance sector.

Mr. Sinha has moreover focused on the role of NRB in development and expansion of commercial banks. NRB’s mandate incorporates the supervision, regulation, and monitoring of all commercial banks, development banks, finance companies, and licensed NGOs and cooperatives engaged in micro finance. In its prudential regulation and supervision tasks, NRB fixes norms for capital adequacy, liquidity, deposit to paid-up capital ratio, loan classification and provisioning, reporting requirements, and auditing.

NRB’s developmental objectives have resulted in its either spawning subsidiary Institutions or playing an important part in the plugging of gaps in the financial Structure of the country.

Many of these initiatives have not only started under the guidance of NRB but have actually been initially housed on NRB premises and operated by NRB officers. They have all played important roles in the development of the financial

system in Nepal but, given the small size of the financial market, they have not all been equally effective. However, ADBN has made substantial progress in making agricultural credit available even in some of the more remote parts of the kingdom and RRDBs have brought micro finance to many poor villages, albeit mainly in the *terai* (southern plain) areas. NRB, the central bank, played a dominant role in developing the financial structure and its supervisory powers are comprehensive. NRB has “filled the gaps” in the financial system by establishing, owning, and controlling a range of institutions

Effective from mid-April 1998, NRB reduced the cash reserve ratio (CRR) from the prevailing 12 percent to an average of 10 percent of commercial banks’ total domestic deposit liabilities. Out of the 12 percent cash reserve, the commercial banks had been required to maintain reserves of 8 percent with NRB and to keep 4 percent as cash in their vaults. After the reduction of the CRR to 10 percent, its form was made discriminatory with respect to various types of deposits. The banks were required to maintain 8 percent reserves on their domestic current and savings deposits, and 6 percent on domestic fixed deposits with NRB. They were also required to maintain 3 percent of their domestic deposits as cash in their vaults. The reduction in CRR was expected to release additional liquidity in the market and lower the lending rates of commercial banks by lowering their cost of funds.

Historically, the commercial banks in Nepal have been reluctant to lend to the poor, have failed to achieve the stipulated levels of priority sector lending, and have had to pay penalties for the shortfall to the central bank (Goodwin-Groen 1998). Recent developments in the financial sector in Nepal have, however, made it easier to meet these targets. Lending to RRDBs and licensed NGOs/cooperatives has been included in the ambit of the priority and deprived sector lending requirements.

As a result, most banks have sought to achieve their targets by lending to RRDBs and major MFIs, such as Nirdhan and the Center for Self-help Development, at rates as low as 6–8 percent per annum. This is in spite of the removal of all official

interest rate limits by the central bank. All banks obliged to lend to the priority sector must join the scheme and pay a premium of 1 percent per annum on all outstanding loan balances. The participating bank can claim 75 percent of any loan overdue after its due date and CGC pays out half of the claim within 3–6 months of the claim and the rest after a full audit. About 20 percent of all loans guaranteed are said to be in default though CGC still reports an operational profit.¹⁴

As discussed, all segments of the financial sector, including commercial banks, development banks, finance companies, and licensed NGOs and cooperatives are nominally subject to the regulation and supervision of NRB. In practice, this has meant the licensing of all these institutions but reasonable supervision only of the Role of Central Banks in Micro finance in Asia and the Pacific 166.

It is in recognition of this weakness that a decision has been taken to establish a separate department for supervising non bank financial entities. With World Bank assistance, a financial sector reform program has also been put in place to strengthen the supervision capacity of the department. Ownership of the large banks by the Government resulted in the use of the banking sector for achieving developmental objectives. As is apparent from this discussion, NRB has been fully subservient to government economic and social policies in the past though in recent years an attempt has been made to introduce greater professionalism in its functioning. Thus, there is noticeable concern within the central bank for improving and stabilizing the functioning of the entire financial system. Nevertheless, in a small country with relatively unstable political combinations in power, the independence of the central bank remains a distant goal.

Upadhyaya (1999): Commercial banking dates only from 1937, with foreign banks not admitted until 1985 Nepal 157 Nepal to operate only in 1985, as part of a more open policy to attract modern technology and management into the banking sector. In the late 1980s, liberalization of interest rates, creation of a regulatory framework that included prudential regulations on capital adequacy, and the establishment of a

separate supervision department at NRB were also undertaken. This trend continued in the 1990s with the setting up of regional development banks in 1992. This marked an important turning point in terms of recognition being accorded to the task of providing financial services to the poor. The system comprises 11 commercial banks, 3 2-development banks, 45 regional rural development banks (RRDBs), 45 urban-based finance companies, 25 non-government organizations (NGOs), and 28 cooperatives licensed by NRB. However, in terms of market control, a very large proportion (75 percent) remains in the hands of ADBN, NBL, and RBB. In addition to the formal financial system, there exist a large number of societies and cooperatives.

Typically, these are engaged in group formation activities and in establishing credit linkages of groups with the formal financial system, and also, in many cases, in providing informal financial services on a limited scale. Cooperatives and those NGOs providing financial services have come to occupy an important position in the rural finance sector and along with traditional informal sources of finance—moneylenders, traders, friends, landlords, and relatives’ account for the supply of rural credit in Nepal.

In the Newspaper Article headed as **“Banking deposit touches US\$3.67 billion”** dated 14th February 2006 in **Nepal Samachar Patra**, it is stated that Cumulative deposits of the Nepali banking system has gone up to touch 257.34 billion Nepali rupees (3.67 billion US dollars) by the first quarter of the current Nepali fiscal year (July 16, 2005-July 15, 2006) as per NRB.

The deposit mobilization was recorded at a growth rate of 9 percent as compared to the same period of last year and the cumulative deposit of commercial banks was recorded at 235.61 billion Nepali rupees (3.36 billion US dollars) in the first quarter of last Nepali fiscal year.

Bankers attributed aggressive marketing such as announcement of promotional schemes with higher interest rate return to the rise in deposit mobilization and Increased inflow of remittance also contributed in the growth. Likewise, loans and advances of the commercial banks have gone up by 10 percent to touch 162.17 billion Nepali rupees (2.32 billion US dollars) during the same period of the current Nepali fiscal year, which was recorded at 146.84 billion Nepali rupees (2.1 billion US dollars) in the same period of last year.

2.2.3 Thesis Review

This portion contains the previous published and unpublished thesis, which is of similar nature, so the major conclusions and recommendations made by students can be shown as below:

Miss Pramila Tandukar in her thesis titled “**The Role of NRB in Deposit Mobilization of Commercial Bank**”(2003) has tried to find out the relation between Nepal Rastra Bank and Commercial Banks of Nepal. The directives issued by NRB have both positive and Negative impact on these commercial banks. A sound investment policy containing a portfolio will guarantee long term survival of a commercial bank. More she focuses on importance of Bank in country's economy. It is source of capital formation. She has drawn the conclusion that all new directives of NRB on commercial banks are effective and it is good for both nation and the future of the banks but the loan classification and provisioning seems to be little bit uncomfortable to the commercial banks. She had recommended the banks to minimize the bad loans ratio, creating the conducive environment for the revival of sick investment, formulate future strategies to solve problems.

In Thesis “**Comparative analysis on the performance of banks and financial institutions with manufacturing and Trading Companies**”, **Niraj Shakya (2005)** has tried to make the comparison between banks & financial institution with manufacturing & trading companies. He stated in his finding that banks & financial institutions have higher feasible markets. Average Market Price per Share,

Dividend per Share, Earning per Share, Book Value per Share, Price Earning Ratio and other various ratio supports that Banks are holding big position in country's economy. So although commercial banks have no complete freedom or monopoly to operate, yet they are onto top ranks in operating with higher efficiency and effectiveness.

The Thesis “**An Evaluation of Loan Distribution and Collection of Agriculture Development Bank**” as completed by **Mr. Maha Prasad Mainaly (2001)** and his research objectives are as follows:

- To analyze the target of loan disbursement and collection
- To examine the achievement of purpose wise, term wise and development region wise loan disbursement, outstanding and collection
- To analyze the relationship between targeted and achievement of loan recovery
- To provide suggestion to ADB/N on the basis findings

The adopted research methodologies under his thesis are as follows:

- This study is merely concerned with the primary and secondary data and is based on published and presented data for the loan disbursement and collection of ADB/N.
- Descriptive analysis and statistical tools analysis are research designed used by him. He defines descriptive analysis as, “it is difficult to study the principle causes arising from borrowers side and quantify them in relation to the weak repayment performance of ADB/N’s loans disbursement so that some of the causes are studied in help of descriptive analysis.(Mainaly, 1999)
- Collected data are arranged and tabulated thereafter descriptive studies are made in case of primary data and stastical tools analysis like T-test, F-test, and Karl Pearson’s coefficient of correlation is used for secondary data.

His major findings are:

1. Though targeted loan disbursement and collection are increasing, targeted loan collection of the bank is increasing at decline rate.
2. There is significant relationship between the achievement of loan disbursement and collection.
3. Finding from purpose wise actual loan disbursement, outstanding and collection are increasing and their correlation are significant incase of cereal and cash crop purpose, livestock purpose.
4. Actual disbursement, outstanding and collection reveals the fact that short term and midterm loan flow, outstanding and collection are increasing where as long term loan has mixed trend about that.
5. No significant difference between the mean ratios of targeted loan disbursement and actual disbursement. Likewise there is no significant difference between the mean ratio of targeted loan collection and actual loan collection.

In Thesis “**Lending practice of Commercial banks in Nepal**” presented by **Mrs Ramala Bhattra** (2003) the researcher found the result that utilization of resources is more important than the collection of the deposits. So, she recommended the banks to give more attention on the efficient utilization of the resources which helps in the economic development of the country.

She has concluded that efficient utilization of resource is more important than the collection of the same. Lower investment means lower capital formation that hampers economic development of the people and the country. So, she recommended that banks should give emphasis on efficient utilization of resources. (Bhattra, 1978)

A study conducted as “**Investment Practices of Joint Venture Banks in Nepal**” by **Mr. Upendra Shrestha** (2003) regarding the investment practices of joint

venture banks in Nepal with special reference to NABIL Bank Limited, Standard Chartered Bank Nepal limited and Nepal SBI Bank limited has figured out the problem conclusion and recommendation as follows.

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

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

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

But some where in his recommendation, he has warned commercial Banks to increase the level of loans and Advances and suggested them to increase the level of investment in government securities or in other safe instrument just to avoid the

risk arising from lending. From this, it can be concluded that Mr. Shrestha has made his entire conclusion absolutely and has not made any relative analysis of the pros and cons of the entire factor affecting his study.

Mr. Dirgha Narayan Kafle (2005) has concluded his study entitled “**Non-performing loans of Nepalese commercial banks.**” The researchers main objective of the study was to know the problems of the non-performing loans and its effect in the ROA and ROE of the Nepalese commercial banks and to find out whether the Nepalese commercial banks are following the NRB directives regarding loan loss provision for non-performing loan or not.

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

A thesis conducted by **Mr. Narayan Prasad Subedi (2002)** on “**A Comparative Study of Financial Performance between Himalayan Bank limited and Everest Bank Limited**” of the period from 1996 to 2000 has outlined his major finding and conclusion as follow:

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

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

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

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

Chapter 3

RESEARCH METHODOLOGY

In this chapter methods of research are presented. This chapter is divided into four sections. In first section research design is presented. In second section the population of the study and sample taken from the population is presented. In third section sources of data and data collection techniques are presented. In the fourth section of this chapter the analytical tools used in this study are presented

3.1 RESEARCH DESIGN

According to Howard K. and Pant "Research Design is the plan, structure and strategy of investigation conceived so as to obtain answer to research question and control variance."

This study is based on the secondary data. It follows the historical, descriptive and analytical research design. The research is historical as it has used the past data, is descriptive as the data has been described for their changes observed under the various aspect. The data has been analyzed with the use of various tables and figures. The research has utilized both the qualitative and quantitative data as the study has been made to evaluate the impacts of NRB guidelines to the commercial banks. The period of research has been used from 2001/02 to 2005/06. Some relevant data are taken as required from 1998 to 2007.

3.2 POPULATION AND SAMPLE

There are altogether 25 commercial banks operating all over Nepal. For the study, 2 commercial banks are taken as sample. They are Everest Bank Limited (EBL) and Nepal Arab Bank Limited (NABIL). The impact of directives issued by NRB, in deposit mobilization procedure of these banks is studied. So 25 commercial banks are taken as population and 2 commercial banks are taken as sample for the study.

3.3 SOURCES OF DATA AND DATA COLLECTION TECHNIQUES

The data used in this study are secondary of nature. The data are collected from the financial reports of concerned banks from annual reports. Other sources are various websites, Annual Reports of NRB, Directives of NRB, various issues of Business Magazines, Journals, and Newspaper etc. Five years financial data are collected from selected companies.

Table 8 Time Period of Selected Companies

S.N.	Banks	No. of Years
1	Nepal Arab Bank Limited (NABIL)	5
2	Everest Bank Limited(EBL)	5

3.4 DATA ANALYSIS

As the study is analytical, pooled data analysis is used. Different financial and statistical tools are used to execute the analysis.

3.4.1 Financial Tools

To evaluate the financial condition and performance of a company, financial tools are used.

3.4.1.1 Ratio Analysis

Ratio analysis is used for evaluation of financial performance of the companies. Although the number of financial ratio that be computed increases geometrically with the amount of financial data. We concentrate only one the more important ratios. We have group financial ratios into five types. I.e. liquidity, activity, profitability, risk ratio and growth ratio. None of the ratio gives us accurate information about financial condition and performance of the firm, singly. SO we are analyzing a group of ratios to make reasonable judgment. For the analysis following ratios are calculated from the collected data.

3.4.1.1.1 Liquidity Ratio

Liquidity ratio measures the short run solvency of the firm. This ratio is used to judge a firm's ability to meet short term obligations. From those much insight can be obtained into present cash solvency of the company and its ability to remain solvent in the event of adversities. Essentially, we wish to compare short term obligations with the short term resources available to meet these obligations. Under this, we choose the following ratios:

- NRB Balance to Total Deposit
- NRB Balance to Current & Saving Deposit.
- NRB Balance to Fixed Deposit.
- Total Liquid Fund to Total Deposit.

3.4.1.1.2 Activity Ratio

Activity Ratio is also known as Asset Management Ratio. It is the ratio, which measures how effectively the firm is managing assets. It measures the efficiency of assets side towards the liability of an institution. It shows the necessity of balance between current and fixed assets. Following ratios are calculated under this:

- Credit to Total Deposit
- Investment to Total Deposit
- Credit and Investment to Total Deposit
- Time Deposit to Total Deposit
- Credit to Government Enterprises to Total Credit
- Credit to Private Firm to Total Credit
- Loan Loss Ratio

3.4.1.1.3 Capital Adequacy Ratio

Capital Adequacy ratio is the type of ratio, which provides the information about the available fund of the capital in the firm. It is very useful for evaluation of a bank. Stockholder's equity represents a cushion of financial strength for the bank that can be used to absorb losses and protect the depositors and other creditors.

Therefore creditors are always eager to see these ratios. In addition, regulators and large depositors also closely follow the changes in the bank's capital account. Following ratios are calculated under this:

- Capital to Total Deposit
- Capital to Total Credit
- Capital to Total Asset

3.4.1.1.4 Risk Ratio

In the world, nothing is certain. Everything is under some kind of risk. Likely when a bank grants loan, the entire process is also associated with the risk. So Risk ratio is the measurement of risk associated with banking variables. Higher the Risk, Higher the Return. So bank has to maintain balance between risk and return. Following ratios are calculated under this:

- Capital Risk Ratio
- Interest Rate Risk Ratio
- Credit Risk Ratio

3.4.1.1.5 Profitability Ratio

Profit is lifeline of any firm. A firm has to earn profit to sustain the effectiveness of a firm can be seen through gradually increased profit. Profitability ratio measures the profit earned by a firm in a year. It shows the combined effects of liquid management and debt management. The calculated ratios under this are

- Net Profit to Total Working Fund Ratio
- Net Profit to Loan and Advances
- Net Profit to Total Credit
- Interest earned on total outside assets

3.4.1.1.6 Growth Ratio

A bank cannot sustain in its initial shape and size for long time. To run in long term effectively, a bank has to expand its shape and size through increment in deposit, investment, lending & profit. Growth ratio is the effective way of measuring how

much a bank is growing in specific period. Following ratios are calculated under this ratio:

- Growth Ratio of Total Deposit
- Growth Ratio of Total Loans and Advances
- Growth Ratio of Total Investment
- Growth Ratio of Net Profit

3.4.2 Statistical Tools

Following statistical tools are used to measure efficiency and effectiveness of banks:

3.4.2.1 Coefficient of Correlation

In probability theory and statistics, **correlation**, (often measured as a **correlation coefficient**), indicates the strength and direction of a linear relationship between two random variables. In general statistical usage, *correlation* or co-relation refers to the departure of two variables from independence. In this broad sense there are several coefficients, measuring the degree of correlation, adapted to the nature of data.

A number of different coefficients are used for different situations. The best known is the Pearson product-moment correlation coefficient, which is obtained by dividing the covariance of the two variables by the product of their standard deviations. Despite its name, it was first introduced by Francis Galton.

The correlation coefficient $\rho_{X, Y}$ between two random variables X and Y with expected values μ_X and μ_Y and standard deviations σ_X and σ_Y is defined as:

$$\rho_{X,Y} = \frac{\text{cov}(X, Y)}{\sigma_X \sigma_Y} = \frac{E((X - \mu_X)(Y - \mu_Y))}{\sigma_X \sigma_Y},$$

Where E is the expected value operator and cov means covariance.

Since $\mu_X = E(X)$, $\sigma_X^2 = E(X^2) - E^2(X)$ and likewise for Y , we may also write

$$\rho_{X,Y} = \frac{E(XY) - E(X)E(Y)}{\sqrt{E(X^2) - E^2(X)} \sqrt{E(Y^2) - E^2(Y)}}.$$

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

In our study co-efficient of correlation has been used to find out the relationship between the following variables.

- Correlation Analysis between Deposit and Loans and Advances
- Correlation Analysis between Deposit and Investment
- Correlation Analysis between Outside Assets and Net Profit

3.4.2.2 Trend Analysis

The term "**trend analysis**" refers to the concept of collecting information and attempting to spot a pattern, or *trend*, in the information. In some fields of study, the term "trend analysis" has more formally defined meanings.

Although trend analysis is often used to predict future events, it could be used to estimate uncertain events in the past, such as how many ancient kings probably ruled between two dates, based on data such as the average years which other known kings reigned.

The term "trend analysis" has a history spanning many years. Today, trend analysis often refers to the science of studying changes in social patterns, including fashion, technology and the consumer behavior.

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

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

- Trend analysis Total Deposit.
- Trend analysis Total Loans and Advances
- Trend analysis of Total Investment.
- Trend analysis of Total Net Profit.

Let the trend line between the dependent variable y and the independent variable x i.e. time be represented by:

$$Y = a+bx.....i$$

Where,

a = Y intercept or value of y when x=

b = slope of the trend line or amount of change that comes in y for a unit change in x.

3.4.2.3 Hypothesis

A **hypothesis** (from Greek) consists either have a suggested explanation for a phenomenon or of a reasoned proposal suggesting a possible correlation between multiple phenomena. The term derives from the Greek, hypotithenai meaning "to put under" or "to suppose." The scientific method requires that one can test a **scientific hypothesis**. Scientists generally base such hypotheses on previous observations or on extensions of scientific theories. Even though the words "hypothesis" and "theory" are often used synonymously in common and informal usage, a scientific hypothesis is not the same as a scientific theory.

Any useful hypothesis will enable predictions by reasoning (including deductive reasoning). It might predict the outcome of an experiment in a laboratory setting or the observation of a phenomenon in nature. To meet this additional criterion, it

must at least in principle be possible to make an observation that would disprove the proposition as false, even if one has not actually (yet) made that observation.

In framing a hypothesis, the investigator must not currently know the outcome of a potentially falsifying test or that it remains reasonable under continuing investigation. Only in such cases does the experiment, test or study potentially increase the probability of showing the truth of a hypothesis. If the researcher already knows the outcome, it counts as a "consequence" — and the researcher should have already considered this while formulating the hypothesis. If one cannot assess the predictions by observation or by experience, the hypothesis classes as not yet useful, and must wait for others who might come afterward to make possible the needed observations. For example, a new technology or theory might make the necessary experiments feasible.

Here, Test of Hypothesis tool is used to measure the significance of relation between two variables of Banks. We are using T-Test for this test of hypothesis. Following Test of Hypothesis will be done.

- Test of Hypothesis on Loan and Advances to Deposit
- Test of Hypothesis on Investment to Deposit
- Test of Hypothesis on Return on Loan & Advances Ratio
- Test of Hypothesis on Interest Earned to Total Outside Assets

Chapter 4

DATA PRESENTATION AND ANALYSIS

In this Section, profile of the selected companies, collected data and analysis of those data are presented. The collected data of selected companies are analyzed using financial tools and statistical tools.

4.1 PROFILE OF THE COMPANIES

4.1.1 Nepal Rastra Bank (NRB)

Nepal Rastra Bank (NRB), the Central Bank of Nepal, was established in 1956 under the Nepal Rastra Bank Act, 1955, to discharge the central banking responsibilities including guiding the development of the embryonic domestic financial sector. Since inception, there has been a significant growth in both the number and the activities of the domestic financial institutions.

To reflect this dynamic environment, the functions and objectives of the Bank have been recast by the new NRB Act of 2002, the preamble of which lays down the primary functions of the Bank as:

- To formulate necessary monetary and foreign exchange policies to maintain the stability in price and consolidate the balance of payments for sustainable development of the economy of Nepal;
- To develop a secure, healthy and efficient system of payments;
- To make appropriate supervision of the banking and financial system in order to maintain its stability and foster its healthy development; and
- To further enhance the public confidence in Nepal's entire banking and financial system

The Bank is eminently aware that, for the achievement of the above objectives in the present dynamic environment, sustained progress and continued reform of the

financial sector is of utmost importance. Continuously aware of this great responsibility, NRB is seriously pursuing various policies, strategies and actions, all of which are conveyed in the annual report on monetary policy.

The Primary vision of NRB is to become “A modern, dynamic, credible and effective Central Bank” and its mission is to maintain macro-economic stability through sound and effective monetary, foreign exchange and financial sector policies.

4.1.2 Everest Bank Limited (EBL)

Everest Bank Limited (EBL) started its operation in 1994 with a view and objectives of extending professionalized and efficient banking services to various segments of the society. The bank is providing customer friendly services through a network of 26 branches.

Punjab National Bank (PNB), the joint venture partner (holding 20% equity in the bank) is the largest nationalized bank in India having 112 years of banking history. PNB is a technology driven bank serving over 35 billion customers through a network of over 4500 branches spread all over the country with a total business of large scale.

The bank has been conferred with “*Bank of the Year 2006, Nepal*” by the banker, a publication of financial times, London. Nepal India chamber of commerce for its spectacular performance under finance sector bestowed the bank with the “NICCI Excellence award”.

Recognizing the value of offerings a complete range of services, the bank has pioneered in extending various customer friendly products such as Home Loan, Education Loan, EBL Flexi Loan, EBL Property Plus (Future Lease Rental), Home Equity Loan, Vehicle Loan, Loan Against Share, Loan Against Life Insurance Policy and Loan for Professionals. EBL was one of the first banks to introduce Any

Branch Banking System (ABBS) in Nepal. EBL has introduced Mobile Vehicle Banking system to serve the segment deprived of proper banking facilities through its Birtamod Branch, which is the first of its kind.

EBL in association with Smart Choice Technology (SCT) is providing ATM service to its customers through more than 74 ATMs and over 850 Point of Sales across the country. ATM sharing arrangement with Punjab National Bank has facilitated usage of EBL Debit Card at more than 1000 PNB ATM outlets across the India at a nominal rate. Similarly, Indian tourists and businessmen having PNB cards will be able to use EBL ATM, while in Nepal.

EBL is playing a pivotal role in facilitating remittance to and from across globe. Being the first Nepalese bank to open a representative office in Delhi, India, the Nepalese in India can open account in Nepal from the designated branches of Punjab National Bank and remit their saving economically through banking channel of Nepal. The Bank is also offering Cash Management System through HDFC Bank. India for managing the funds of corporate exporting to India by collecting their fund from about 183 locations in India. The Bank's own Web based online remittance product "Everest Remit" facilitates remittance from Malaysia, Doha, UK, Bahrain, UAE and Qatar to more than 126 payout location in Nepal.

With India Remit, the Bank has same day remittance facility with India with association of PNB's 2200 networked branches at 550 locations, besides draft drawing arrangement with 280 PNB branches across India. All the branches of the bank are connected with anywhere Branch Banking System (ABBS), which enables customers to do all their transactions from any branches other than where they have their account.

4.1.3 Nabil Bank Limited

Nabil Bank Limited, the first foreign joint venture bank of Nepal, started operations in July 1984. Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, Nabil provides a full range of commercial banking services through its 29 points of representation across the kingdom and over 170 reputed correspondent banks across the globe.

Nabil, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business.

Highly qualified and experienced management team manages operations of the bank including day-to-day operations and risk management. Bank is fully equipped with modern technology, which includes ATMs, credit cards, state-of-art, world-renowned software from Infosys Technologies System, Bangalore, India, Internet banking system and Telebanking system.

At this juncture when the nation is passing through a phase of transition, Nabil Bank believe that just registering higher profits, yielding higher returns, strengthening the financials and enhancing the books of accounts, is not enough in the journey to achieve their mission to be Nepal's Bank of 1st Choice. Therefore beyond these traditional parameters, the Bank has embarked on a journey to surge ahead together with the people of Nepal across the nation building new relationships of mutual benefit and playing the role of a catalyst in the economic growth of the nation. In their efforts of adding value towards building a 'New Nepal', the Bank has opened nineteen new Branches spanning the entire length of Nepal, from Mechi to Mahakali. Nabil Team is proud of their now greater contribution towards the upliftment of the economy through their enhanced presence through the entire length of the nation, enabling them to provide the

highest levels of financial products and services to various communities and different segments of the society.

With the opening of the nineteen branches, Nabil is now able to reach and service our customers from Mechi to Mahakali through the hills and terai through online connectivity via VSAT, Radio modems and fiber optics. This is a major step forward for banking in Nepal, as from now modern banking will not only be limited to the urban centers, but a larger part of the economically less privileged, remote and semi urban societies will have access to international standard banking. Today, amongst all private banks, Nabil has the largest Branch and ATM networks.

The Bank has always felt responsible towards the betterment of the society and the community of which we are a part. In this regard, the bank has continued their three-pillar approach to great corporate citizenship through their partnerships in: Health, Education and Sports.

In today's business context where competition is getting more intense with the number of new banks and financial institutions increasing, one of the main strengths of their Bank is their 'People'. The team which, comprises of highly skilled and talented individuals across the Bank, is proud to have amongst the very best banking professionals in their high performing synergistic team. Recognizing this fact, Nabil today is amongst the highest paymasters and most preferred employers in not only the industry but also the nation. As always, the Bank is proud of and thankful to the high performing individuals that make up Team Nabil.

4.2 ANALYSIS OF THE ROLE OF NRB ON THE BASIS OF SECONDARY DATA

This Section will review the role of NRB in deposit mobilization of commercial bank on the basis of secondary data. Impact of directives of NRB on the operation

of commercial banks and its implementation & adaptation by commercial banks are studied, analyzed and presented.

As the trend of banking system changed globally, changes in external and internal environment in the country. NRB also changes the directives in favor of country and banks. NRB is the organization, which can cause direct impact on development of the commercial banks. Commercial banks are one of the essential and core units of country economy and its development, so NRB also considers various things, while forming the new directives and revising the existing ones. NRB has to consider the betterment of Nation, Banks and Consumers. NRB has amending its rule timely. The latest directives of NRB are shown in detail in Annex “A”. There are so many directives issued by NRB for commercial banks but we here only study related directives to deposit mobilization procedure of commercial banks. Following are the detail analysis of the study:

4.2.1 Provision to Invest in Deprived Sector

The deprived sector lending included the investment in share of rural development bank or RMDC, loan to individual up to Rs 30,000 and lending to recognized cooperatives, NGOs and development banks. Such organized financial institutions work as intermediary between the commercial banks and deprived people. Those banks, which do not comply with these requirements, are imposed with a cash penalty computed on the shortfall of the amount of priority sector lending. The table below shows the investment made by all commercial banks in priority sector during previous five years.

Table 9: Deprived Sector Lending of Commercial Banks

Rs. in Million

Loan	Mid July1998	Mid July1999	Mid July2000	Mid July2001	Mid July2002
Total loan	55,032.00	68,912.00	82,889.00	96,935.00	105,732.00
Deprived sector loan to total loan	1,327.00 2.41%	2,763.00 4.01%	3,047.00 3.68%	3,492.00 3.60%	3,507.00 3.32%

The above table shows that investment on deprived sector is around 2 to 4 percentage of total loan and advances made by commercial banks in Nepal.

According to the latest directives issued by NRB, commercial banks have to extend 3 percent of their loans and advances to deprived sector. Following percentage has been maintained by the EBL and NABIL in Starting Month of Year 2007.

Table 10: Deprived Sector Lending of EBL and NABIL

Rs. in Million

Sector	Loan Disbursed		Loan & Advances		Percentages	
	NABIL	EBL	NABIL	EBL	NABIL	EBL
Deprived	417.76	333.30	15,545.77	15,082.69	2.69	2.21

From the above data, it can be seen that both the banks cannot meet the specified percentage by the NRB. Due to the various instabilities in the country, the deprived sector cannot be seen as the profitable sector to invest, so overall the banks are quite stretching to meet the requirements. If commercial banks failed to meet this requirement, there was a legal provision under which they are penalized. In 2003/04, five banks namely HBL, EBL, NCCBL, LuBL and Laxmi Bank Ltd. (LaBL) were penalized a sum of Rs.0.94 million. The Everest bank Ltd alone was penalized Rs. 13,875 for not extending loan to the priority and deprived sector in 2003/04. However both banks are planning to extend their credit in deprived sector by formulating plans and policies. Nabil has formulated various products to extend direct and indirect financing towards micro and small enterprises which help increase production, employment and income as prioritized under the national development plans with an objective to uplift the living standard of general public particularly the deprived and low income people by progressively reducing the prevalent unemployment, poverty, economic inequality and backwardness. The Bank has made equity investment in various leading Co-operatives and Rural Development Banks to further partake in these activities. NABIL has refinanced in

the deprived sectors mostly through these Co-operatives and Rural Development Banks providing Institutional Loans.

4.2.2 Provision for Credit to Priority Sector

Priority sector lending or directed lending may be defined as lending to those people or sectors who/which are normally deprived of lending by organized institutions. The financial institutions would normally concentrate to urban sector and a big lending. They tend to avoid financing low volume large number loans due to low profitability, high operational cost and difficulty in monitoring. A review of the history in this regard shows us that Nepal Rastra Bank issued its first directive on directed lending on 1975 requiring banks to direct their five percent of total deposit to small sector. An amendment on this directive came shortly after that which increased it to Seven percent. Based on this a comprehensive directive on priority sector lending was issued which again increased the ratio to 10 percent of total deposit. On 1986, the priority lending was connected with total lending of bank and new directive was issued entailing 25 percent of total lending to be directed towards production sector inclusive of 8 percent to priority sector. On 1989 this percentage were increased to 40 and 12 respectively. In the next year, deprived sector lending was also introduced. In this way the priority sector lending has a long time existence in Nepalese banking sector, beginning much before the establishment of private sector banks. The objective is very clear, to facilitate the financially poor people living in any area of the country have easy access to the advantages of banking system of the country. Now let's see what exactly the requirement under the directed lending is. In order to qualify for including in priority sector a loan should be used in identified sectors or purposes and the amount to a particular borrower should not exceed the given limit. In other words the purposes and the amount are the determinant factors here. Those banks, which do not comply with these requirements, are imposed with a cash penalty computed on the shortfall of the amount of priority sector lending.

The table below shows the investment made by all commercial banks in priority sector during previous five years.

Table 11: Priority Sector Lending of Commercial Banks

Rs. in Million

Loan	Mid July1998	Mid July1999	Mid July2000	Mid July2001	Mid July2002
Total loan	55,032.00	68,912.00	82,889.00	96,935.00	105,732.00
Priority Sector loan	7,731.00	9,269.00	11,445.00	13,116.00	14,138.00
to total loan	14.05%	13.45%	13.81%	13.53%	13.37%

Under the memorandum of understanding between Nepal and ADB in 1998, Nepal Rastra Bank has conducted a special study on the status and other aspects of priority sector lending in Nepal. The study revealed that out of the total annual demand of Rs 18 billion only Rs 5 billion of credit is being supplied to rural sector of Nepal. The study also revealed that the rural development bank and other micro credit financing institutions are themselves not sound and viable and therefore are not able to reach various parts of rural Nepal.

With regards to directed lending, banks were required to direct 2 percent of total loan portfolio in the priority sector and 3 percent in the deprived sector, for the year 2005/06. The failure to meet such an obligation resulted in the financial penalty for the bank, computed as the product of shortfall amount and the highest published rate of the bank, commensurate to the applicable time period. NRB has issued a Circular on December 23, 2002 that has provided the requisite proportion of Priority Sector lending (Deprived Sector remains unchanged) as follows:

Table 12: Minimum Percentage of Priority Sector Lending

Fiscal Year	Minimum % of Total Credit for Priority Sector
2002/03	7
2003/04	6
2004/05	4
2005/06	2

Following percentage has been maintained by the EBL and NABIL in Starting Month of Year 2007.

Table 13 Percentage of Priority Sector Lending of EBL & NABIL

Rs. in Million

Sector	Loan Disbursed		Loan & Advances		Percentages	
	NABIL	EBL	NABIL	EBL	NABIL	EBL
Priority	804.65	1,023.40	15,545.77	15,082.69	5.18	6.79

As seen above table, both banks have maintained above the required limit for the lending in priority sector. Although the required rate is very low, both banks have invested the huge percentage in the priority sector.

4.2.3 Provision for Credit to Productive Sector

Mobilization of the savings of the general public in the form of deposits and its channelization to various productive sectors of economy is the primary function of any commercial bank.

The trading sector gives instant return but production sector on the other hand takes relatively a long time to generate returns. This very nature of the production sector normally does not attract finance from financial institutions. However, it is necessary to invest in production sector for the long-term benefit of the economy as well as for financial upliftment of the mass of people living below the poverty line. To this end, Nepal Rastra Bank could have played and has in fact played an important role using the tool named as directed lending. A review of the history in this regard shows us that Nepal Rastra Bank issued its first directive on directed lending on 1975 requiring banks to direct their five percent of total deposit to small sector.

Agriculture, Industry and Priority sector are considered as productive sector. According to latest directives issued, commercial banks have to invest 40% of their

credit to the productive sectors. However both EBL and NABIL are investing in productive sector as it generates higher return in long term. Following percentage has been maintained by the EBL and NABIL in Starting Month of Year 2007.

Table 14: Percentage of Productive Sector Lending of EBL & NABIL

Rs. in Million

S.No.	Sector	Loan & Advances		Percentages	
		NABIL	EBL	NABIL	EBL
1	Agriculture	55.40	71.30	0.37	0.61
2	Mining	18.90	4.40	0.12	0.04
3	Productions	5,620.30	2,812.50	37.09	23.87
4	Contructions	1,579.70	1,837.90	10.42	15.60
5	Metal-Machinery & Electrification	159.20	35.50	1.05	0.30
6	Transportation Eqpiment	1,379.10	68.30	9.10	0.58
7	Transportation Communication	920.60	891.30	6.07	7.56
8	Wholesaler & Retailers	2,068.50	3,392.90	13.65	28.79
9	Finance. Insurance & Fixed Assets	656.30	332.60	4.33	2.82
10	Service Industries	1,624.60	473.10	10.72	4.01
11	Consumable Goods	90.50	272.50	0.60	2.31
12	Local Government	-		-	
13	Others	981.40	1,591.50	6.48	13.51
	Total	15,154.50	11,783.80	100.00	100.00
Sum of Productive Sector (1+3+4+5+10)				59.65	44.39

From above figure, it can be seen that both banks have reached the target of production sector lending. NABIL has higher percentage than EBL, but overall all the commercial banks have targeted the production sector for the long-term perspective.

4.2.4 Provision for Single Borrower Limit

NRB has made provision for maximum limit of credit can be invest as loan to single borrower. It is 25% of core capital on fund based and 50% of core capital of non-fund based.

Single Borrower Obligor Limit consists of Fixation Of Limit On Credit And Facilities, Limit Adjustment, Exemption In Limit Of Credit And Facilities, Related Parties Are To Be Considered As A Group, Sublimations of Return on Related Customers, and Provision of Cent Percent to Minimize Concentration Risk.

A bank or financial institution could issue financial guarantee in favor of its client for other banks and financial institutions only if he has a credit transaction with the bank or financial institution and if additional credit to the client exceeds single borrower limit. While issuing the financial guarantee as mentioned above, the guarantee issuing bank and financial institution should issue the financial guarantee not exceeding the single borrower limit prescribed for non-fund based transactions.

As the single borrow limit exceeded as per the direction of this bank, the following finance companies were directed to provision 100 percent for additional loan loss provisioning.

- (a) Crystal Finance Company Ltd.
- (b) Kist Merchant Banking and Finance Company Ltd.
- (c) Alpic Everest Finance Company Ltd.
- (d) Patan Finance Company Ltd.
- (e) Nepal Sri Lanka Merchant Bank Ltd.
- (f) Hisef Finance Company Ltd.

[[http://www.nrb.org.np/publication/annual_reports_\(English\)—2003/04.pdf](http://www.nrb.org.np/publication/annual_reports_(English)—2003/04.pdf)]

Nabil Bank has followed the single borrower limit, whereas Everest Bank Limited was instructed to follow the single borrower limit in its lending practices and to bring all the loans under the single borrower limit by mid-January 2005. Further, it was asked to maintain 100 percent provision for the loan extended to Supreme Pipe and Allied Industries since that was found to be unsecured.

NRB has directed commercial banks to diversify its investment more in small and middle size borrower and less in big borrower to create a risk and return portfolio.

4.2.5 Directives to Raise Capital Fund

According to new capital adequacy regulation, the risk based capital ratio of the commercial banks is to be increased gradually from 8 percent (then) to 12 percent up to 2004. Risk weightage on balance sheet assets and off-balance sheet transactions are also revised. Additional control measures have been taken to measure the capital fund, especially the tier 2 (supplementary) capital. Financial instruments like redeemable preferred stock hybrid instruments, subordinated debt instruments etc. are also included within the definition of capital fund.

Strong capital base is the prerequisite for the safety and soundness of any bank, since; any losses arising out of the unexpected risks have to be borne by the bank out of its own capital. It is for this reason, Basel Capital Accord, 1988 stresses on the creation and maintenance of the strong capital base in proportion to the Risk Weighted Assets of the banks. At present, Banks in Nepal are required to maintain minimum risk weighted capital adequacy ratio of 9%, which is to be increased to 12% from the beginning of FY 2004-05.

In line with the Basel Capital Accord, capital is defined in two tiers, collectively known as capital fund. Capital fund of the banks consists of permanent or core element called 'core capital' and less permanent element called 'supplementary capital'. Banks at present are required to maintain core capital and total capital fund ratios of 4.5% and 9% respectively in proportion to their Risk Weighted Assets (RWA).

Private sector banks of the country complied with the minimum risk adjusted capital requirements of 9% except for Nepal Credit and Commerce Bank Limited, which had negative core capital of Rs. 150 million. The over all risk adjusted capital ratio maintained by these banks stood at 13.25% up from 11.18% during the previous year.

Table 15: Core Capital, Supplementary Capital & CAR of NABIL*Rs. in Million*

Year	Capital				Capital					Total RWA	CAR
	Core	Actual %	Standard %	Excess %	Suppl.	Total	Total%	Standard %	Excess %		
2005/06	1830.79	10.78	6.00	4.78	258.53	2089.32	12.31	12.00	0.31	16976.37	12.31
2004/05	1610.51	11.35	5.50	5.85	155.56	1766.07	12.44	11.00	1.44	14193.07	12.44
2003/04	1439.45	12.12	5.00	7.12	169.96	1609.42	13.56	10.00	3.56	11872.01	13.56
2002/03	1276.85	11.46	5.00	6.46	178.25	1455.10	13.06	10.00	3.06	11145.73	13.06
2001/02	1111.84	10.53	4.50	6.03	352.62	1464.45	13.86	9.00	4.86	10563.62	13.86

Table 16: Core Capital, Supplementary Capital & CAR of EBL*Rs. in Million*

Year	Capital				Capital					Total RWA	CAR
	Core	Actual %	Standard %	Excess %	Suppl.	Total	Total%	Standard %	Excess %		
2005/06	927.55	8.21	6.00	2.21	463.79	1391.34	12.32	12.00	0.32	11291.14	12.32
2004/05	816.79	8.88	5.50	3.38	430.77	1247.56	13.57	11.00	2.57	9195.59	13.57
2003/04	663.27	9.58	5.00	4.58	103.61	766.88	11.07	10.00	1.07	6924.81	11.07
2002/03	597.01	10.46	5.00	5.46	87.15	684.16	11.99	10.00	1.99	5707.03	11.99
2001/02	485.08	11.23	4.50	6.73	79.22	564.30	13.06	9.00	4.06	4321.25	13.06

EBL and NABIL both banks have maintained the percentage of Core Capital, Supplementary Capital and Capital Adequacy Ratio. The Excess Percentage above the standard percentage has been decreasing of both banks, which shows the impact of increasing requirement forced by NRB.

4.2.6 Cash Reserve Requirement

Liquidity management is a critical factor influencing the financial health of the banks. Banks in Nepal are required to maintain minimum cash reserves as per the norms prescribed by the Nepal Rastra Bank and the Bank Supervision department

closely monitoring on weekly basis. In addition to prescribing minimum cash reserve requirement, maturity pattern of the sources and uses of funds of the banks is subject to the regular scrutiny on quarterly basis for any maturity mismatches which may result in unforeseen crisis for the banks.

Liquidity is one of the most important aspects of a commercial bank. The successful operation of a commercial bank depends on its capacity to maintain its liquidity at optimum level. Liquidity is defined as the capacity of the bank to produce the cash as demand by the borrowers. Experienced and efficient bank managers always look after optimum level of liquidity. The bank's policy should be to maintain its liquidity at low cost, if the cost of maintaining liquidity were low, the bank would be able to get high yield. This means the bank should be able to keep less amount of ideal money. It's been proved from the balance sheet that higher the idle money of the bank ledger, the profit and the vice versa. The liquidity policy of commercial bank is guided by Nepal Rastra Bank, NRB issues the directives. As per the directives of NRB, commercial banks are required to keep their certain level of cash deposit at central bank and in the vault of the commercial bank. Commercial banks have to maintain 7% of current & saving deposit liabilities and 4.5% of fixed deposit liabilities balance to be maintained with NRB and 3% of total deposit as Cash in Vault. Banks maintains following Percentage.

Table 17: Cash Reserve Position of EBL

Year	<i>Rs in Million</i>							
	NRB Balance	Current Dep	Saving Dep	Fixed Dep	Total Dep	%	Vault Cash	%
2001/02	357.7	489.6	1733.3	2694.6	4917.5	7.27	169.9	3.46
2002/03	724.8	562.4	2758	2803.4	6123.8	11.84	136.6	2.23
2003/04	441.9	719.8	3730.7	2914.1	7364.6	6.00	128.7	1.75
2004/05	774.5	1025.2	4806.9	3444.5	9276.6	8.35	192.6	2.08
2005/06	1139.5	1155.2	6929.2	4298.2	12382.6	9.20	259.4	2.09

Table 18: Cash Reserve Position of NABIL

Rs in Million

Year	NRB Balance	Current Dep	Saving Dep	Fixed Dep	Total Dep	%	Vault Cash	%
2001/02	366.3	2723	4889	2446.8	10058.8	3.64	318.1	3.16
2002/03	892.8	3025	5237.4	2252.6	10515	8.49	190.6	1.81
2003/04	606.4	2687	5994.1	2310.6	10991.7	5.52	286.9	2.61
2004/05	389.7	2843.5	7026.4	2078.6	11948.5	3.26	146.3	1.22
2005/06	318.4	2953.3	8770.8	3450.2	15174.3	2.10	237.8	1.57

[Source: Banking_and_Financial_Statistics--No_48 January 2007]

As above seen both EBL and NABIL bank has maintained the NRB balance and Vault balance. Banks are required to maintain a minimum cash reserve ratio of 5 percent of total deposit liabilities denominated in local currency, except for margin deposits. Banks, who fail to maintain such reserves, were levied financial penalties, the rate of which escalates every time there is non-compliance. Both NABIL and EBL have maintained the cash reserve ratio. During the year 2005/06, banks like Kumari Bank, Siddhartha Bank, Himalayan Bank & Rastriya Banijya were penalized in terms of non-compliance of cash reserve ratio.

4.2.7 Loan Classification and Loan Provision

In the beginning of FY 2062/63-2005/06,) all Circulars separately issued by NRB for Commercial banks, Development Banks, Finance Company and Micro Credit Banks were replaced by a unified directive and were issued by Banks And Financial Regulations Department, NRB via Bai. Bi. Ni. Bi. 148/1/2062/63/ Dated: 2062.4.3/July 18, 2005. These directives came into effect from July 16, 2005. In this directives loan classification and loan provision topic consists of Classification Of Loan And Advances, Additional Arrangement In Respect Of "Pass Loan", "Loss" Loan, Term Loan, Recover Principal And Interest By Exceeding The Overdraft Limit, Letters Of Credit And Guarantee, Loan Rescheduling And Restructuring, Loan Loss Provisioning, Adjustment In Provisioning, Loan Loss Provision Relating To Non-Banking Assets, Submission Of Return Relating to Classification of Loan and Advances, Actions to be taken in cases of noncompliance.

According to the directives, provision to be made for pass loan is 1%, sub-standard loan 25%, doubtful loan 50% and loss loan 100% by the commercial banks. Following table will show the loan provision made by NABIL and EBL for the fiscal year 2005/06.

Table 19: Loan Provision Position of EBL and NABIL 2005/06

EBL

Particular	Loan	Provision	Stand %	Actual %	Variance
Pass Loan	9,976,323,766.00	128,492,943.00	1	1.29	0.29
Substandard	10,669,326.00	2,667,331.00	25	25.00	0.00
Doubtful	683,784.00	341,892.00	50	50.00	0.00
Loss	117,882,680.00	117,882,680.00	100	100.00	0.00

NABIL

Particular	Loan	Provision	Stand %	Actual %	Variance
Pass Loan	13,096,157,779.00	214,301,301.00	1	1.64	0.64
Substandard	62,665,914.00	42,573,904.00	25	67.94	42.94
Doubtful	29,565,952.00	13,896,064.00	50	47.00	(3.00)
Loss	90,392,614.00	85,467,837.00	100	94.55	(5.45)

[Source: Annual Report of EBL and NABIL 2005/06]

In above table it can be seen that EBL has made standard provisions for the loans. EBL had made provision for pass loan more than the standard. Whereas NABIL bank has not been able to maintain provisions for the loans as doubtful and loss to the standard, whereas it has maintained the provision for pass loan just higher than standard and substandard loan way much higher. So EBL has maintained the standards and NABIL is generating variances in provisions according to nature of loans.

4.2.8 Directives Regarding Interest Rate Spread

Net Interest Income:

Interest Income: Interest income from loans and advances and investments earned by the commercial banks, as a whole during the financial year 2001-02 was Rs. 10221 million. There have been decline in the interest earned by the banks by Rs.

2120 million (i.e., by 17.18%) from the previous financial year. Such decline in the interest income of the banks can be attributed to the New NRB regulation requiring interalia, recognition of the interest income on the cash basis only, except for the interest recovered within 30 days (earlier 90 days) of the end of the financial year and prohibition of capitalization of unpaid interest on loans and advances.

Interest expenditure :Interest paid on deposits and borrowings by the commercial banks as a whole, amounted to Rs. 7671 million, registering altogether decline of Rs. 611million (i.e., by 7.38%) from the previous year.

Interest spread: Interest spread (net interest income) of commercial banks as a whole for FY 2001-02 amounted to Rs2551m registering decline of Rs. 1509 million (i.e., 37.17%) from the previous year.

The situation is so alarming that even net interest income is negative (that is, interest expenses of these banks were higher than the interest income). During the previous year the negative interest income of these banks was Rs. 655 million, registering decline of Rs. 1465 million (i.e., by 180.86%) from the previous year, which is beyond the imagination of a running banking institution. Such sharp decline in the interest spread was mainly due to heavy decline in the interest earned on Rs. 100 of advances from 9.62 in (FY2000-01) to 5.89 in (FY2001-02) whereas cost per Rs. 100 of deposits was comparatively stable.

NRB has issued directives that interest spread rate should not exceed 5% and following table will show the interest rate spread maintained by EBL and NABIL for last five years.

Table 20: Interest Rate Spread of NABIL

	2001/02	2002/03	2003/04	2004/05	2005/06
Walr	N/A	6.60%	6.45%	6.65%	6.95%
Wadr	N/A	2.09%	1.99%	1.64%	2.05%
Interest Spread	4.02%	4.51%	4.46%	5.01%	4.90%

Table: 21 Interest Rate Spread of EBL

	2001/02	2002/03	2003/04	2004/05	2005/06
Walr	N/A	7.76%	8.21%	7.39%	7.09%
Wadr	N/A	5.15%	4.23%	3.33%	3.10%
Interest Spread	3.65%	2.61%	3.98%	4.06%	3.99%

As seen above both the NABIL and EBL are successful in maintaining the spread rate under the limitations. In the year 2004/05, NABIL has marginally just crossed the 5% limit. Comparing both banks in this aspect, EBL is better than NABIL, as it has been maintaining low interest rate spread than NABIL. Interest rate spread determined the efficiency and effectiveness of the bank, as it is the base of profit for the bank.

4.3 ANALYSIS OF SECONDARY DATA USING TOOLS

This Section will analysis the secondary data using financial and statistical tools to find out the financial condition of the sample banks and their effectiveness while implementing the directives issued by the NRB, under deposit mobilization.

4.3.1 Financial Tools

Using financial tools does financial Analysis. Financial analysis helps to know the financial performance of an enterprise. Financial analysis is a process of identifying the financial strength and weakness of a firm by properly establishing relationship between the items of balance sheet and profit and loss account (Panday: 1992).The financial statement provide summary of the accounts of a business enterprises, the balance sheet reflecting the assets, liabilities and capital as of a certain date and the income statement showing the results of operation during a period The essence of financial analysis is to convert data into useful information in a way relevant to measure significant relationship for undertaking the decisions. This needs the fulfillment of some of the essence that constitutes a good financial statement as well as a good financial analysis (Shrestha: 1980).

The objective of financial analysis is a detailed cause and effect study of the profitability and financial position. The analysis of financial statement is done to obtain a better insight into a firm's position and performance. Comparative financial statements, Common Size Percentages, Trend Analysis, Du Pont System, Management Achievement and Performance Chart, Ratio Analysis, Fund Flow Analysis, Break Even Analysis are the major tools of financial analysis.

Comparative statement analysis is a method of measuring performance of companies. It is used to compare the performance and position of the firm with the average performance of the industry or with other firms. Such a comparison facilitates the identification of weakness and remedying situation. Comparison of the financial performance of one company to another, one industry to another and one sector to another sector is essential to identify the relative performance of one to another.

Financial distress has been viewed as technical insolvency; other considers it to be real insolvency where the liabilities of a firm exceed assets. Sometimes it is specified in the strictly legal sense of bankruptcy or liquidation while at other times a firm is taken to be in financial distress, when it begins to incur cash losses leading to the erosion of funds. A firm is regarded as a financially distressed firm when it is not likely to continue its operations or pay dividend to its shareholders or pay wages and salaries to its employees. A general view of financial distress is that it results from a mismatch between the currently available liquid assets of a firm and its current obligation (John: 1993).

4.3.1.1 Ratio Analysis

A ratio analysis is simply one number expressed in terms of another and as such it express the quantitative relationship between any two numbers. Ratio can be expressed in terms of percentage, proportion and as coefficient. The technique of ratio analysis is a part of the whole process of analysis of financial statements of any business of industrial concern especially to take output and credit decision.

Through this technique, a comparative study can be made between different statistics concerning varied facts of a business different statistics concerning varied facts of business units. Just as the blood pressure, pulse and temperatures are the measures of the health of an individual. So, ratio analysis measures the economic financial health of a business concern. Thus, the technique of ratio analysis is of a considerable significance in studying the financial stability, liquidity profitability and the quality of the business and industrial concerns. (Kothari, 1994: 169)

4.3.1.1.1 Liquidity Ratio

Class of financial metrics that is used to determine a company's ability to pay off its short-terms debts obligations. Generally, the higher the value of the ratio, the larger the margin of safety that the company possesses to cover short-term debts.

Common liquidity ratios include the current ratio, the quick ratio and the operating cash flow ratio. Different analysts consider different assets to be relevant in calculating liquidity. Some analysts will calculate only the sum of cash and equivalents divided by current liabilities because they feel that they are the most liquid assets, and would be the most likely to be used to cover short-term debts in an emergency.

A company's ability to turn short-term assets into cash to cover debts is of the utmost importance when creditors are seeking payment. Bankruptcy analysts and mortgage originators frequently use the liquidity ratios to determine whether a company will be able to continue as a going concern.

Liquidity ratio, expresses a company's ability to repay short-term creditors out of its total cash. The liquidity ratio is the result of dividing the total cash by short-term borrowings. It shows the number of times short-term liabilities are covered by cash. If the value is greater than 1.00, it means fully covered.

The formula is the following:

= cash & equivalents / creditors, short

- **NRB Balance to Total Deposit**

NRB has issued the directives to deposit certain amount in the NRB for the assurance of uncertain future. The fund is in direct monitoring of NRB, so can be hold by NRB while taking corrective actions to the banks. The deposit amount is changing from time to time as per demand.

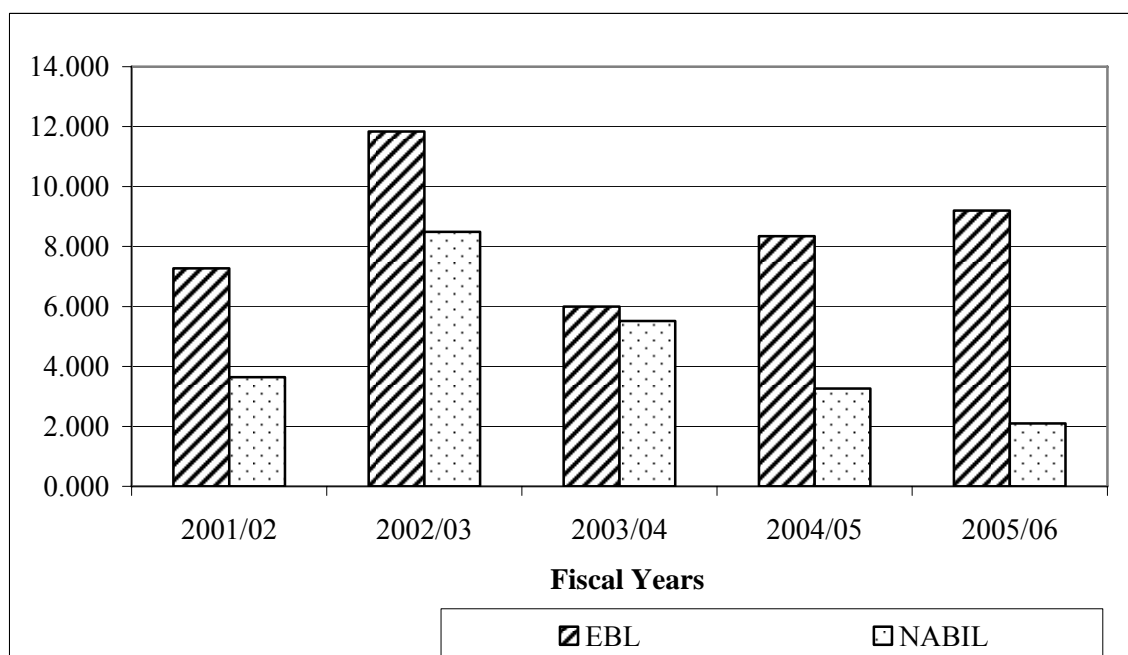
$$NRB\ Balance\ To\ Total\ Deposit = \frac{NRB\ Balance}{Total\ Deposit}$$

**Table 22: Mean, Standard Deviation & Coefficient of Variance of NRB
Balance to Total Deposit of EBL and NABIL**

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	7.274	11.836	6.000	8.349	9.202	8.532	1.969	23.080
NABIL	3.642	8.491	5.517	3.261	2.098	4.602	2.234	48.540

[Source: Annexure B1]

**Figure 1: Mean, Standard Deviation & Coefficient of Variance of NRB
Balance to Total Deposit of EBL and NABIL**



From the above table no 22, it can be seen that the ratio of two joint venture bank are obtained from the annexure B1. This table analyzed the short term responsibility of the bank. As per directives issued by the NRB, all the commercial banks have to deposit certain amount in NRB. Previously it was 7% of current & saving deposit and 4.5% of fixed deposit. Later on from year 2001, the balance is revised as 11.4% as total balance with NRB.

The Mean deposit of EBL is 8 %, whereas that of NABIL is 4%. EBL has maintained approximately double than NABIL. Also EBL has maintained its balance with NABIL whereas the NABIL deposit with the NRB has been fluctuating as it can be seen through the standard deviation and coefficient of variance.

- **NRB Balance to Current & Saving Deposit.**

Commercial banks of Nepal have to deposit 7% of total saving and current deposit at NRB. It is maintained to ensure the safety of depositor specially current and saving deposit. It provides liquidity facility to the bank in condition for demand from customers.

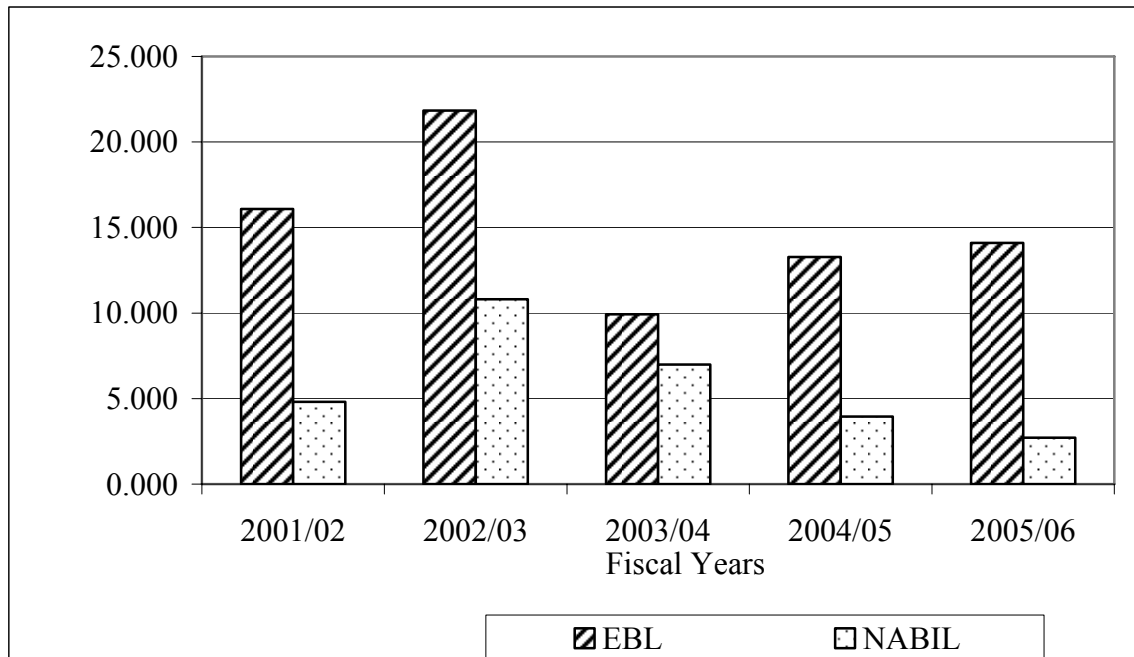
$$NRB\ Balance\ To\ Total\ Deposit = \frac{NRB\ Balance}{Current\ \&\ Saving\ Deposit}$$

Table 23 Mean, Standard Deviation & Coefficient of Variance of NRB Balance to Current & Saving Deposit of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	16.092	21.829	9.929	13.280	14.095	15.045	3.932	26.140
NABIL	4.812	10.806	6.985	3.948	2.716	5.853	2.841	48.540

[Source: Annexure B2]

Figure 2: Mean, Standard Deviation & Coefficient of Variance of NRB Balance to Current & Saving Deposit of EBL and NABIL



It can be clearly seen from the above table that EBL has maintained more than required as NRB Balance whereas NABIL bank has not able to keep the required balance as NRB Balance. Only in Year 2002/03 that NABIL has kept the required balance. The average ratio of EBL and NABIL is 15.045% and 5.853% respectively. EBL has kept the balance 300% more than the NABIL bank.

Standard Deviation and Coefficient of Variance show the changes in the maintained balance. So from the above chart it can be seen that variation of this ratio of EBL is greater than NABIL.

- **NRB Balance to Fixed Deposit.**

Fixed Deposit is considered as the source of fund that can be mobilized without making any provisions. But fixed depositor also in some emergency cases may demand to withdraw the amount even paying the higher interest. So NRB has directed the commercial banks to keep 4.5% of fixed deposit in the NRB balance for the purpose of the liquidity. It is calculated as:

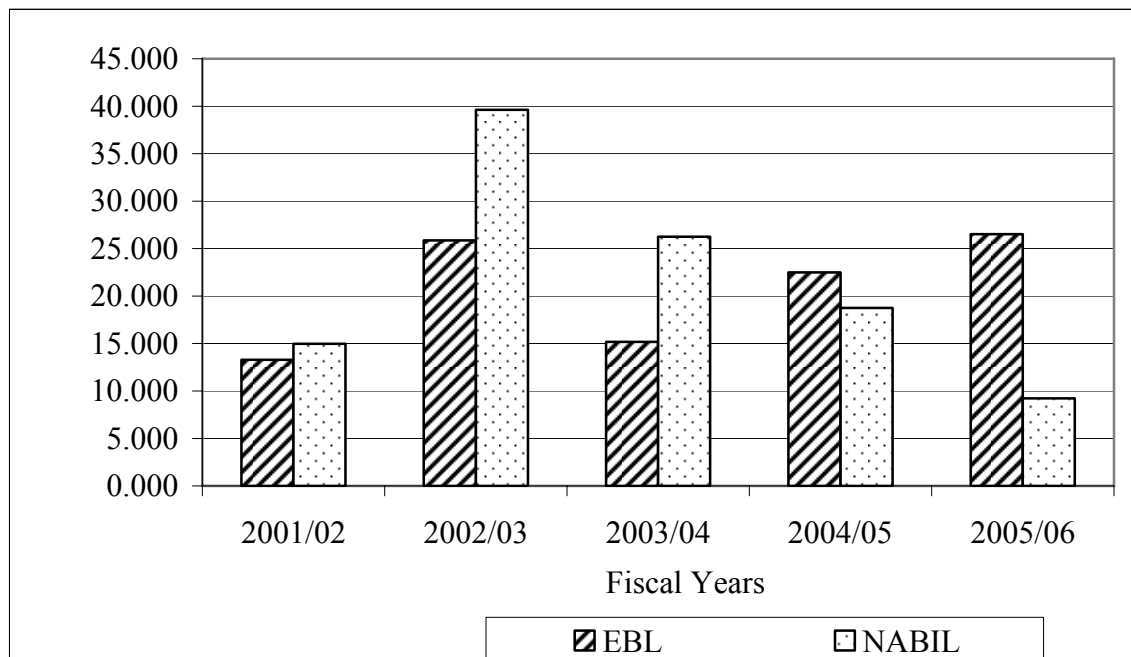
$$NRB \text{ Balance To Total Deposit} = \frac{NRB \text{ Balance}}{\text{Fixed Deposit}}$$

**Table 24: Mean, Standard Deviation & Coefficient of Variance of NRB
Balance to Fixed Deposit of EBL and NABIL**

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	13.275	25.854	15.164	22.485	26.511	20.658	5.464	26.450
NABIL	14.971	39.634	26.244	18.748	9.228	21.765	10.505	48.270

[Source: Annexure B3]

**Figure 3: Mean, Standard Deviation & Coefficient of Variance of NRB
Balance to Fixed Deposit of EBL and NABIL**



From the above table no. 24 it is concluded that both banks have kept much more than the requirement for the NRB balance for the fixed deposit. EBL has average 20.65% and NABIL 21.76% balances in the NRB. The variation of this ratio for the EBL is half from that of NABIL bank. But both banks have kept the strong liquidity position.

- **Total Liquid Fund to Total Deposit.**

Liquidity fund includes funds like Local and Foreign Currency in hand, Balance with NRB, Balance with domestic bank, with other financial institution in nation and abroad and call money. This ratio measures the bank ability to fulfill the short term obligation capacity of the demand of the depositor money. The ratio has positive relation between capacities for payment on demand.

$$NRB\ Balance\ To\ Total\ Deposit = \frac{Total\ Liquid\ Fund}{Total\ Deposit}$$

Table 25 Mean, Standard Deviation & Coefficient of Variance of Total Liquid Fund to Total Deposit of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	14.003	18.609	11.124	17.408	13.082	14.845	2.771	18.670
NABIL	10.769	17.261	17.188	11.950	15.587	14.551	2.700	18.550

[Source: Annexure B4]

Figure 4: Mean, Standard Deviation & Coefficient of Variance of Total Liquid Fund to Total Deposit of EBL and NABIL

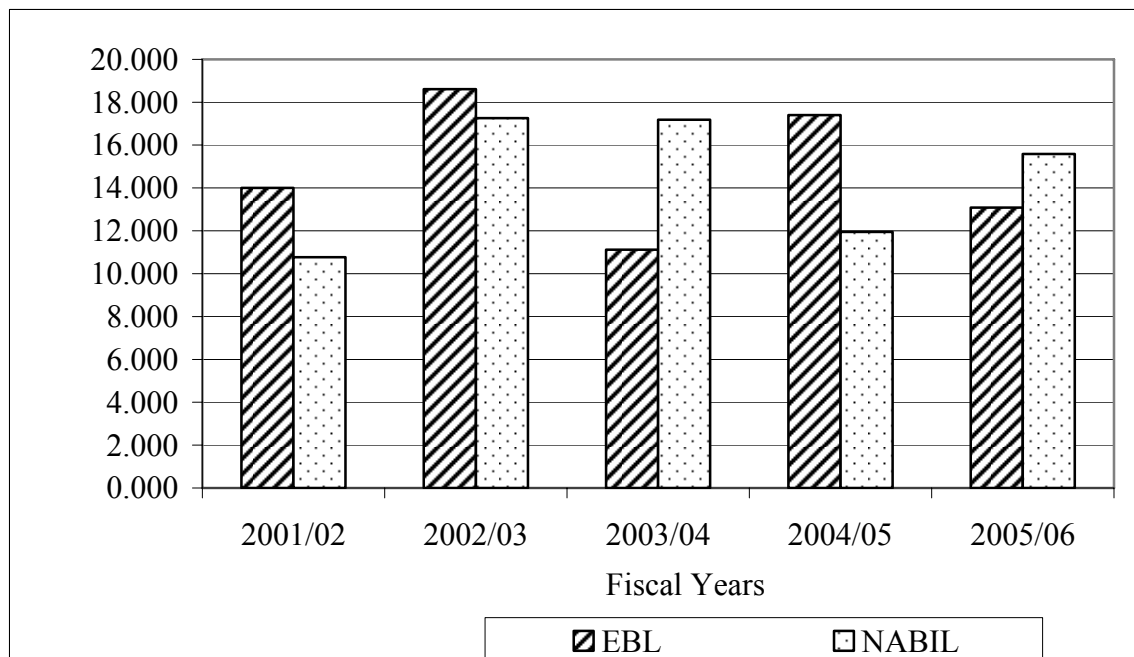


Table 25 explains that the ratio has been ranged from 10.769 of NABIL in 2001/02 to 18.609 of NABIL in FY 2002/03. The ratio of EBL of first two years has in increasing trend, then it is decreased in 2003/04 year and then again increases in 2004/05. The ratios of NABIL of first two years have in increasing trend but it has fallen slightly in 2003/04 and then decreased significantly in FY 2004/05. NABIL and EBL has maintained 14.551% and 14.845% respectively. The overall banks liquid fund is 37.88% which shows the strong position of Nepali commercial banks.

4.3.1.1.2 Activity Ratio

Accounting ratios that measure a firm's ability to convert different accounts within their balance sheets into cash or sales.

Companies will typically try to turn their production into cash or sales as fast as possible because this will generally lead to higher revenues.

Such ratios are frequently used when performing fundamental analysis on different companies. The asset turnover ratio and inventory turnover ratio are good examples of activity ratios.

An indicator of how rapidly a firm converts various accounts into cash or sales. In general, the sooner management can convert assets into sales or cash, the more effectively the firm is being run. Accounting ratios that measure a firm's ability to convert different accounts within their balance sheets into cash or sales.

Companies will typically try to turn their production into cash or sales as fast as possible because this will generally lead to higher revenues.

Such ratios are frequently used when performing fundamental analysis on different companies. The asset turnover ratio and inventory turnover ratio are good examples of activity ratios. Following ratios are calculated under this:

- **Credit to Total Deposit**

This is the ratio which measures the effectiveness and efficiency of any commercial bank through out its operation period. Credit or Loan and Advances are the main source of income for the banks. Bank can earn higher profit only when it increases the portion of loan and advances in present deposit. High Ratio shown the higher mobilization of funds. We have,

$$\text{Credit To Total Deposit} = \frac{\text{Credit}}{\text{Total Deposit}}$$

Table 26 Mean, Standard Deviation & Coefficient of Variance of Credit to Total Deposit of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	80.294	80.154	79.897	82.128	79.154	80.325	0.983	1.220
NABIL	73.944	73.761	74.511	88.598	85.161	79.195	6.373	8.050

[Source: Annexure B5]

Figure 5: Mean, Standard Deviation & Coefficient of Variance of Credit to Total Deposit of EBL and NABIL

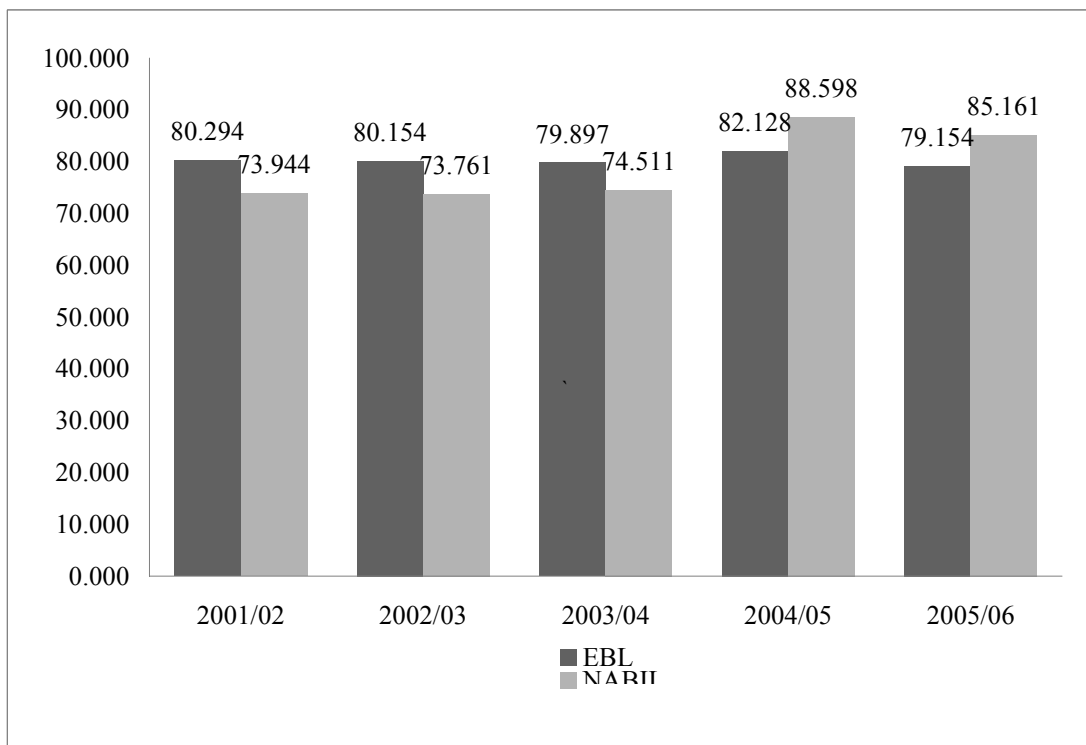


Table 26 explains the relation between a unit of deposit with the tabulated value of loans and Advances of concerning banks in given years. The mean ratio of these two banks is 80.325% for EBL and 79.125% for NABIL, which is the deposit mobilization portion as loans and advances. Banks has to maintain the balance between the mobilization of funds and liquidity, so higher ratio cannot be considered the better one. The S.D. and C.V. of the NABIL is more than EBL. So, it is more risky and less consistent than EBL.

- **Investment to Total Deposit**

Investment is also one of the major sources of income for the financial institution in long run. It also helps in mobilization of deposit fund. Bank can invest in different securities issued by government and other financial institution. This ratio measures the investment proportion in the deposit. It is calculated as:

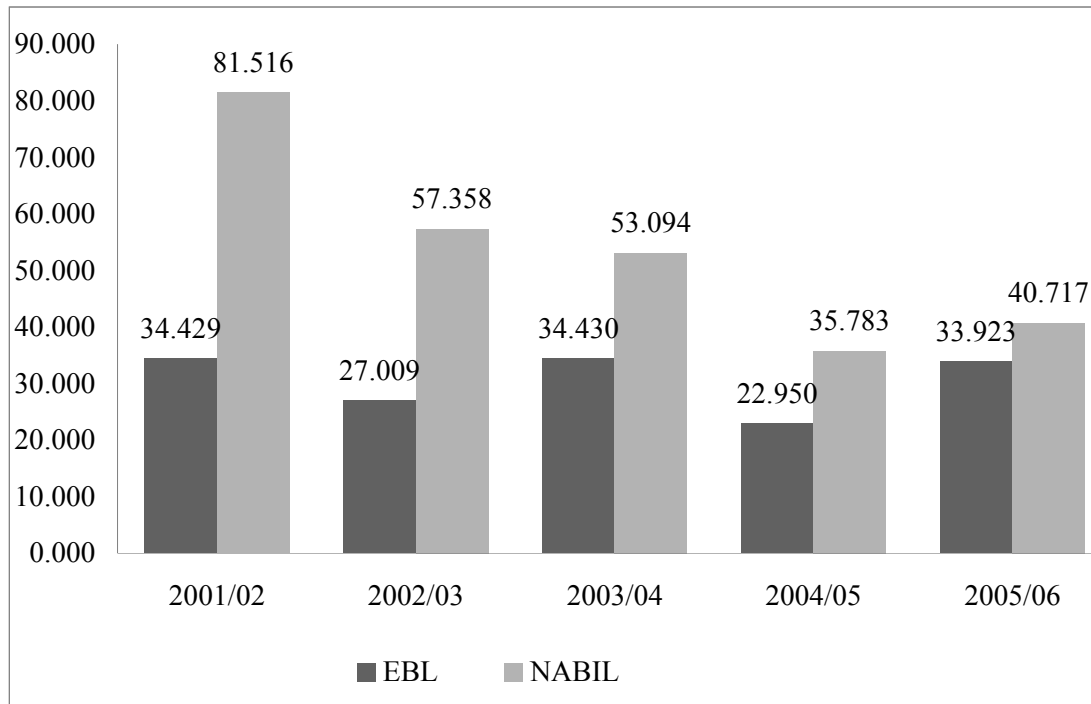
$$\text{Investment To Total Deposit} = \frac{\text{Investment}}{\text{Total Deposit}}$$

Table 27: Mean, Standard Deviation & Coefficient of Variance of Investment to Total Deposit of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	34.429	27.009	34.430	22.950	33.923	30.548	4.728	15.480
NABIL	81.516	57.358	53.094	35.783	40.717	53.694	15.981	29.760

[Source: Annexure B6]

Figure 6: Mean, Standard Deviation & Coefficient of Variance of Investment to Total Deposit of EBL and NABIL



From the above table no. 27 it can be seen that investment to total deposit ratio is maintained by both bank above par. EBL has 30.548% and NABIL has 53.694% average of this ratio. But all the commercial banks had not been consistent in maintaining it. We can also see from the diagram that both banks ratio has been fluctuating. The Investment ratio of NABIL is in decreasing trend whereas that of EBL has been in parallel trend. NABIL has maximum investment in 2001/02 as 81.516%, whereas EBL has maximum investment in 2003/04 as 34.430%.

- **Credit and Investment to Total Deposit**

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

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

$$\text{Credit \& Investment To Total Deposit} = \frac{\text{Credit \& Investment}}{\text{Total Deposit}}$$

Table 28: Mean, Standard Deviation & Coefficient of Variance of Credit & Investment to Total Deposit of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	114.723	107.163	114.328	105.077	113.077	110.874	3.974	3.580
NABIL	155.460	131.119	127.605	124.381	125.878	132.889	11.507	8.660

[Source: Annexure B7]

Figure 7 Mean, Standard Deviation & Coefficient of Variance of Credit & Investment to Total Deposit of EBL and NABIL

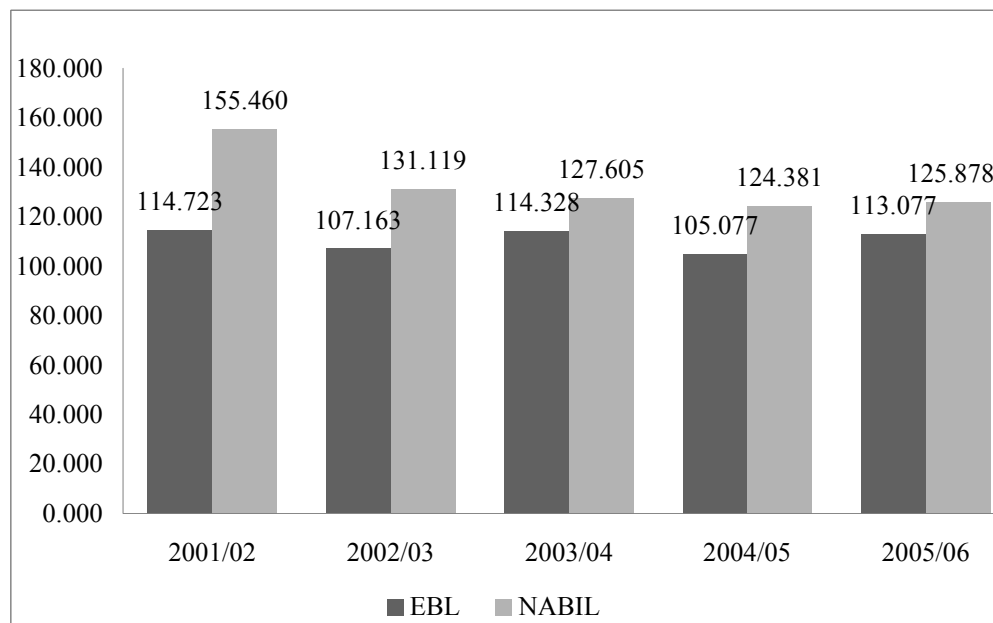


Table No. 28 explains the relation between a unit of deposit with the tabulated value in loans and advances and investment of concerning banks in given years. The ratios have been ranged from 105.077 of EBL in FY 2004/05 to 155.460 of NABIL in FY 2003/04. EBL has the highest ratio for the whole period except in the year 2001/02.

The overall performance of EBL mean ratio is 110.874. NABIL has the mean ratio of 132.889. From this analysis NABIL can be concluded as the best

performs in utilizing its deposit irrespective of the area of its utilization. The S.D. and C.V. of the EBL are lesser than NABIL. So, it is less risky and more consistent than NABIL.

- **Time Deposit to Total Deposit**

Time deposit also known as fixed deposit is considerable type of fund which requires lesser liquidity and provision so that more fund can be invested as loan & advances and investment. The maturity of such deposit is pre informed so the exact time when customer demands the amount can be calculated. Higher proportion of fixed deposit generates higher chances of investment opportunities.

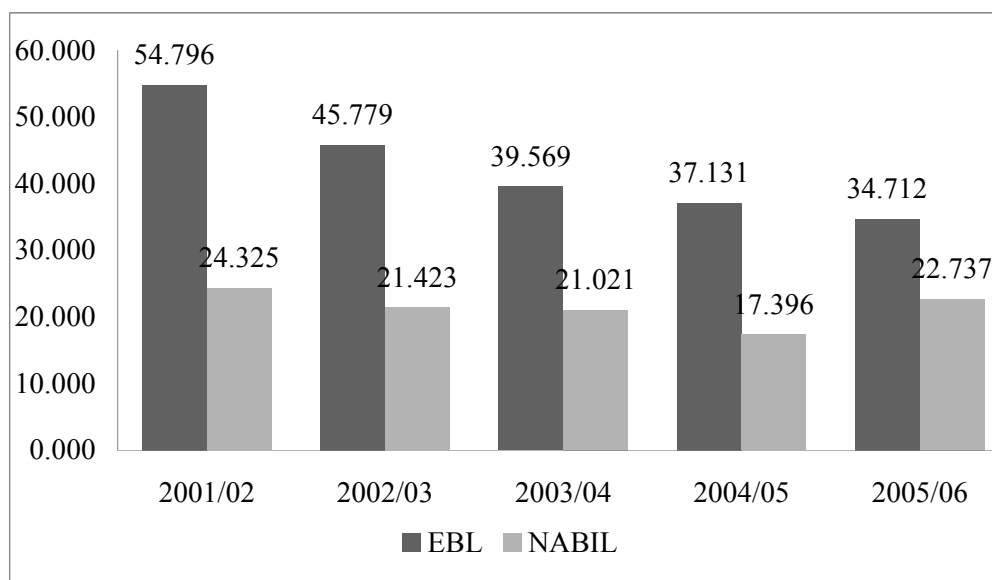
$$\text{Time Deposit To Total Deposit} = \frac{\text{Time Deposit}}{\text{Total Deposit}}$$

Table 29: Mean, Standard Deviation & Coefficient of Variance of Time Deposit to Total Deposit of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.
EBL	54.796	45.779	39.569	37.131	34.712	42.397	7.211
NABIL	24.325	21.423	21.021	17.396	22.737	21.380	2.303

[Source: Annexure B8]

Figure 8 Mean, Standard Deviation & Coefficient of Variance of Time Deposit to Total Deposit of EBL and NABIL



NABIL has average 21.380% of fixed deposit in its total deposit whereas EBL has 42.397%. EBL has higher opportunity to invest than NABIL. Overall fixed deposit to total deposit of all commercial bank is 75.954% which shows that general public deposit in fixed deposit rather than other deposit. This is the positive area for the banks because it prepares the suitable environment to mobilize deposit in lesser risk.

The S.D. and C.V. of NABIL are lesser than EBL, so it is consistent and less risky than EBL.

- **Credit to Government Enterprises to Total Credit**

Credit to government enterprises is one of the options for financial institution for investment. This is sector is considered less feasible than other private sectors. So Commercial banks avoid investing in this sector than other sectors. NRB has directed commercial banks to invest in this sector.

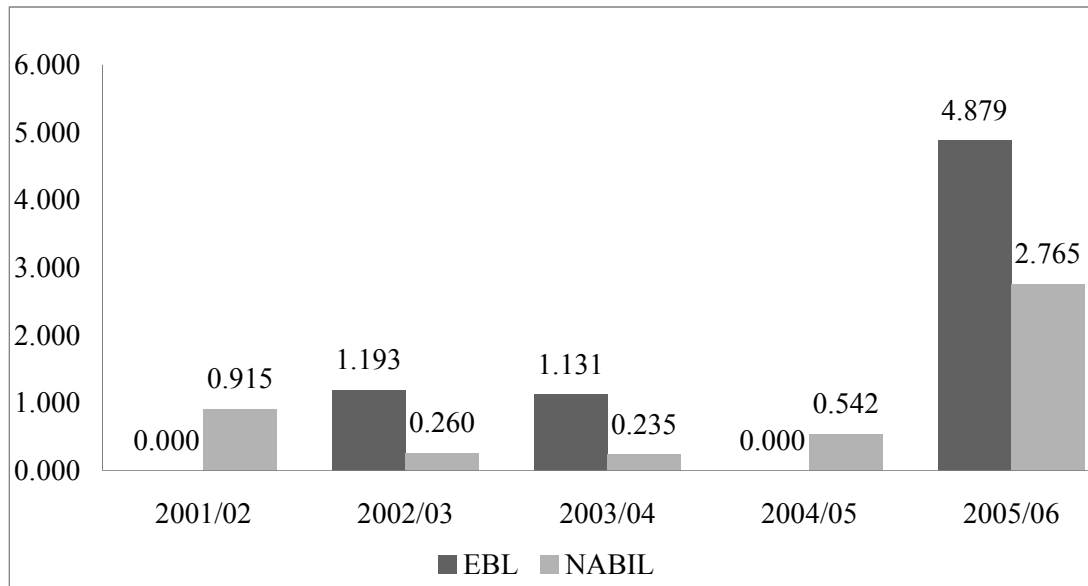
$$\text{Credit To Government Enterprises to Total Credit} = \frac{\text{Credit To Government Enterprises}}{\text{Total Credit}}$$

Table 30: Mean, Standard Deviation & Coefficient of Variance of Credit to Government Enterprises to Total Credit of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	0.000	1.193	1.131	0.000	4.879	1.441	1.796	124.680
NABIL	0.915	0.260	0.235	0.542	2.765	0.943	0.943	99.990

[Source: Annexure B9]

Figure 9: Mean, Standard Deviation & Coefficient of Variance of Credit to Government Enterprises to Total Credit of EBL and NABIL



The above table no. 30 and Figure no. 9 shows the investment being made by banks in due course of last 5 years to the government enterprises. The Mean Investment to this sector by NABIL is 0.943%, whereas the EBL has slightly higher percentage of 1.441%. Although EBL has not been consistent in investing in this sector as we can see in Fiscal year 2001/02, 2004/05, EBL investment in this sector is nil. Whereas NABIL have been investing in this sector regularly. As the S.D. and C.V. of EBL are higher than NABIL, NABIL is consistent and less risky than EBL.

- **Credit to Private Firm to Total Credit**

Private sector lending is considered to be highly profitable and riskier sector than government. Banks have to be careful while mobilizing their deposit in this sector as it generates high profit as well as contains high degree of risk. This can be considered as one of the important tool to earn profit.

$$\text{Credit To Private Firm to Total Credit} = \frac{\text{Credit To Private Firm}}{\text{Total Credit}}$$

Table 31: Mean, Standard Deviation & Coefficient of Variance of Credit to Private Firm to Total Credit of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	100.000	98.807	98.869	99.995	95.129	98.560	1.792	1.820
NABIL	95.462	96.527	98.404	99.458	97.233	97.417	1.399	1.440

[Source: Annexure B10]

Figure 10: Mean, Standard Deviation & Coefficient of Variance of Credit to Private Firm to Total Credit of EBL and NABIL

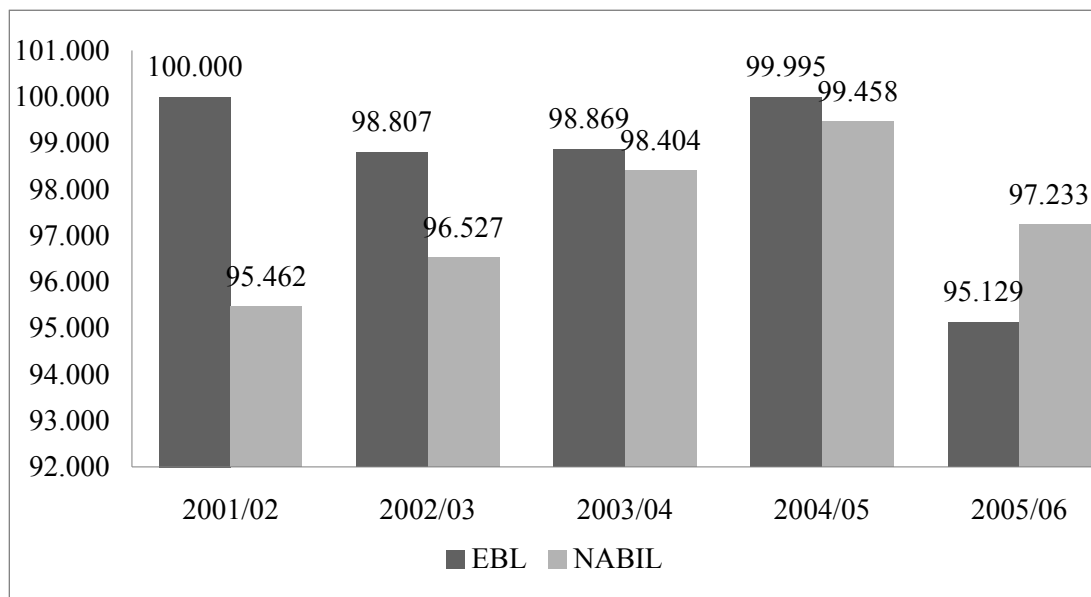


Table 31 explains that the overall ratio of these two banks has ranged from 100% in FY 2001/02 to 95.129% in 2005/06 of EBL. The ratio of EBL has continuously decreasing trend and that of NABIL is in increasing trend.

The mean ratio of EBL is 98.560% and mean ratio of NABIL is 97.417% respectively. This indicates that both NABIL and EBL have invested in private sector more than 97% of their total credit. The S.D. and C.V. of the NABIL are lesser than EBL. So, it is less risky and more consistent than EBL.

- **Loan Loss Ratio**

Loan Loss Provision is made for the recovery of bad debts. NRB has directed the commercial banks to made provision of loans on the basis of the due time of

payment by debtors. Provision is very important in efficiency and precaution of loss. Loan loss provision should be done in such manner which does not lead to capital scarcity as well as low profit and losses.

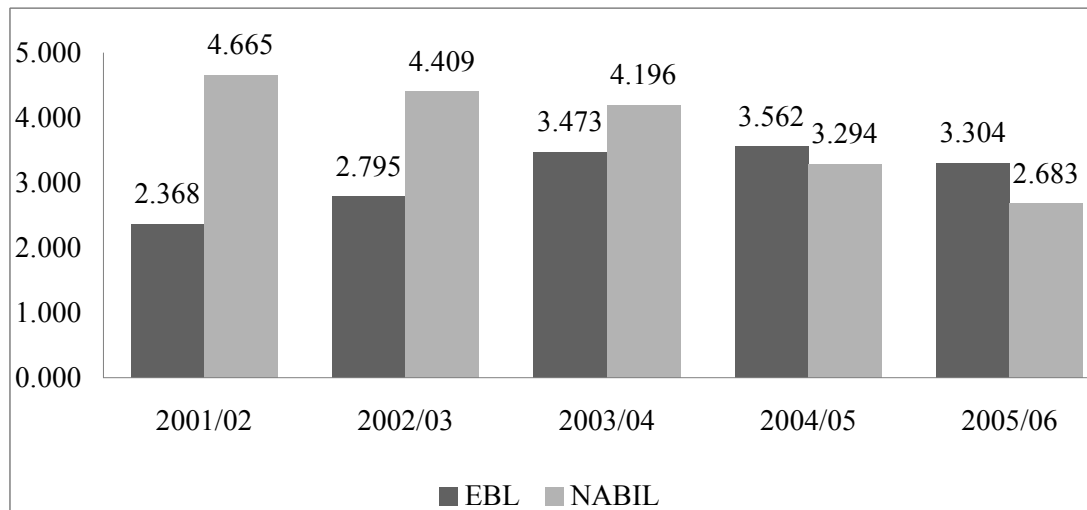
$$\text{Loan Loss Ratio} = \frac{\text{Total Loan Provision}}{\text{Total Loan}}$$

Table 32 Mean, Standard Deviation & Coefficient of Variance of Loan Loss Ratio of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	2.368	2.795	3.473	3.562	3.304	3.100	0.453	14.600
NABIL	4.665	4.409	4.196	3.294	2.683	3.849	0.744	19.330

[Source: Annexure B11]

Figure 11: Mean, Standard Deviation & Coefficient of Variance of Loan Loss Ratio of EBL and NABIL



From above table it can be seen that the ratio of EBL is increasing and NABIL is decreasing trend. The ratio ranges from minimum of 2.368% in FY 2001/02 of EBL to maximum of 4.665% in FY 2001/02 of NABIL. As per latest directives NABIL has manage to made provision at par, so it has slowly decreasing its provision.

4.3.1.1.3 Capital Adequacy Ratio

A measure of a bank's capital. It is expressed as a percentage of a bank's risk weighted credit exposures.

$$\text{CAR} = \frac{\text{Tier One Capital} + \text{Tier Two Capital}}{\text{Risk Weighted Assets}}$$

Also known as "Capital to Risk Weighted Assets Ratio (CRAR)." This ratio is used to protect depositors and promote the stability and efficiency of financial systems around the world.

Two types of capital are measured: tier one capital, which can absorb losses without a bank being required to cease trading, and tier two capital, which can absorb losses in the event of a winding-up and so provides a lesser degree of protection to depositors.

Capital adequacy ratios ("CAR") are a measure of the amount of a bank's capital expressed as a percentage of its risk weighted credit exposures.

Capital adequacy ratio is the ratio which determines the capacity of the bank in terms of meeting the time liabilities and other risk such as credit risk, operational risk, etc. In the simplest formulation, a bank's capital is the "cushion" for potential losses, which protect the bank's depositors or other lenders. Banking regulators in most countries define and monitor *CAR* to protect depositors, thereby maintaining confidence in the banking system.

CAR is similar to leverage; in the most basic formulation, it is comparable to the inverse of debt-to-equity leverage formulations (although CAR uses equity over assets instead of debt-to-equity; since assets are by definition equal to debt plus equity, a transformation is required). Unlike traditional leverage, however, CAR recognizes that assets can have different levels of risk. Its types are as follows:

- **Capital to Total Deposit**

This ratio measures the relationship between the capital and the total deposit that the bank possesses. This ratio shows the percentage of capital bank employs with respect to its deposit. To calculate this ratio we have,

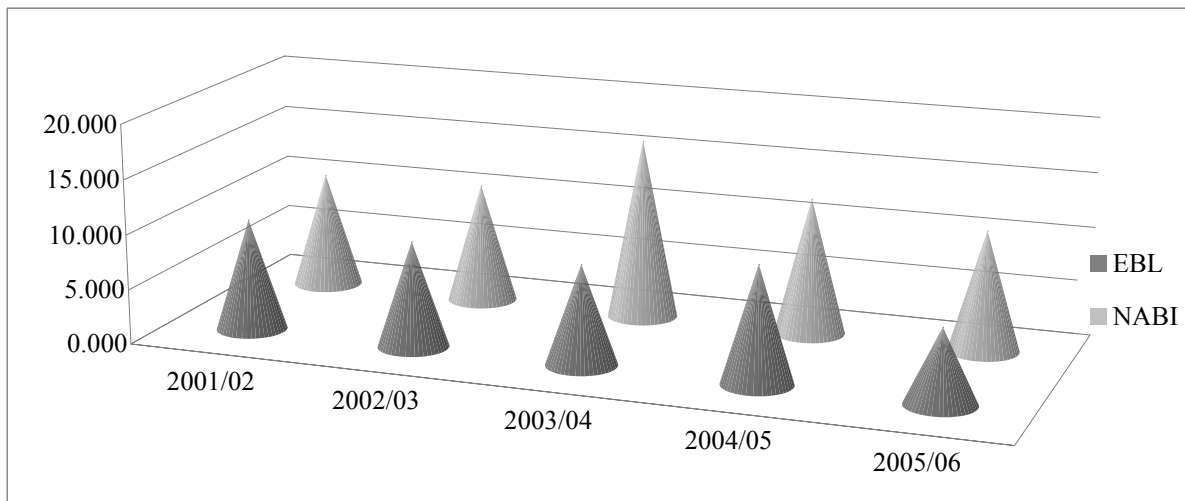
$$\text{Capital to Total Deposit} = \frac{\text{Fund Capital}}{\text{Total Deposit}}$$

Table 33: Mean, Standard Deviation & Coefficient of Variance of Capital to Total Deposit of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	10.123	9.587	9.041	10.567	6.723	9.208	1.344	14.600
NABIL	10.566	10.903	16.414	12.406	10.924	12.243	2.181	17.810

[Source: Annexure B12]

Figure 12: Mean, Standard Deviation & Coefficient of Variance of Capital to Total Deposit of EBL and NABIL



The average capital to total deposit of EBL is 9.208% and that of NABIL is 12.243%. The table is ranged from 16.414% of NABIL in 2003/04 to 6.723% of EBL in 2005/06. The S.D. and C.V. of EBL is less than NABIL, so EBL is considered less risky and more consistent.

- **Capital to Total Credit**

This ratio is calculated to measure the positive or negative relation between capital and total credit. It shows the ratio of deposit to which extent capital has been raised. To calculate this ratio we have,

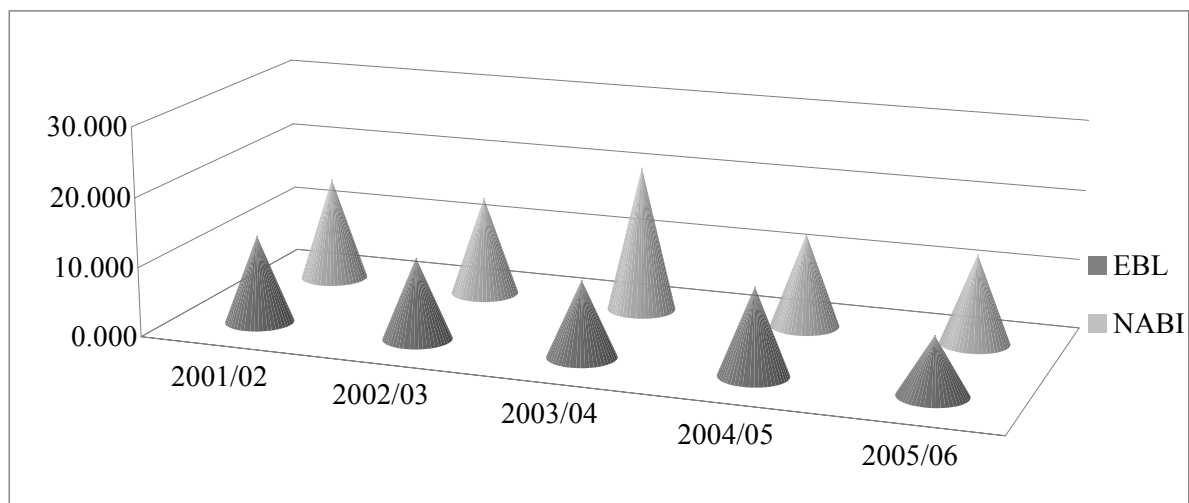
$$\text{Capital to Total Credit} = \frac{\text{Fund Capital}}{\text{Total Credit}}$$

Table 34: Mean, Standard Deviation & Coefficient of Variance of Capital to Total Credit of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	12.540	11.670	10.885	12.386	8.223	11.141	1.573	14.120
NABIL	15.028	14.336	20.894	13.381	12.731	15.274	2.918	19.100

[Source: Annexure B13]

Figure 13: Mean, Standard Deviation & Coefficient of Variance of Capital to Total Credit of EBL and NABIL



The mean ratio of NABIL is 15.274% and this is the highest than that of EBL. Taking the standard of Mean ratio the performance of NABIL is the best and the ratio of EBL is below the mean. Table explains that the ratio of two banks is decreasing in some extend. Looking this fact, it can be concluded that these banks are not extending their credit efficiently and effectively to extent, their liability

permits them. As comparing among the banks the performance of NABIL can be regarded the best. The S.D and C.V of the EBL is lesser than NABIL. So, it is less risky and more consistent than NABIL.

- **Capital to Total Asset**

This ratio measures the relationship between the capital and total asset. This ratio shows the percentage of assets bank purchases with respect to its deposit. To calculate this ratio we have,

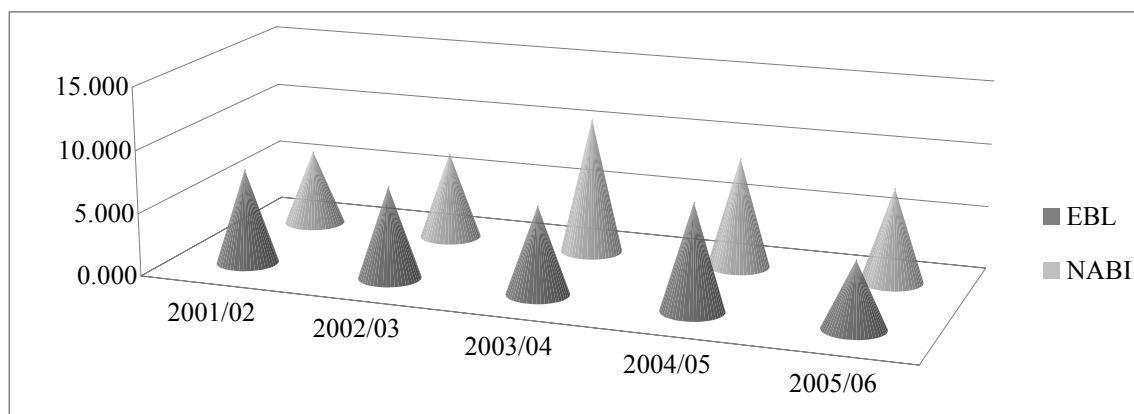
$$\text{Capital to Total Asset} = \frac{\text{Fund Capital}}{\text{Total Asset}}$$

Table 35 Mean, Standard Deviation & Coefficient of Variance of Capital to Total Asset of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	7.523	7.291	6.929	8.355	5.216	7.063	1.036	14.660
NABIL	6.029	6.922	10.774	8.687	7.424	7.967	1.646	20.660

[Source: Annexure B14]

Figure 14: Mean, Standard Deviation & Coefficient of Variance of Capital to Total Asset of EBL and NABIL



From the above table no. 35 we can see that EBL has 7.063% and NABIL has 7.967% average of this ratio. We can also see from the diagram that both banks ratio has been fluctuating. NABIL has maximum of this ratio in 2003/04 as 10.774%, whereas EBL has maximum investment in 2004/05 as 8.355%.

Whereas from the consistency and risk point of view as C.V. and S.D. of EBL is lower than that of NABIL, so EBL is considered better from this point of view.

4.3.1.1.4 Risk Ratio

Relative Risk or Risk Ratio (sometimes also called Hazard Ratio or Odds Ratio, but as the meaning of odds is quite different, especially in, for example, racing circles, this is to be avoided) is at the very heart of the dispute between epidemiology and real science. There are a number of problems in a simplistic application of RR. In particular:

Its Subtypes are as follows:

- **Capital Risk Ratio**

Capital risk ratio is calculated to measure the value of assets with respect to its capital on the basis of risk. Bank must keep the adequate capital to keep up with competitors to attract deposit and other corporate opportunities. Capital risk ratio measures bank's ability to attract deposit and inter bank funds. Capital and Profit has positive relation in between them as higher capital risk generates higher ROE.

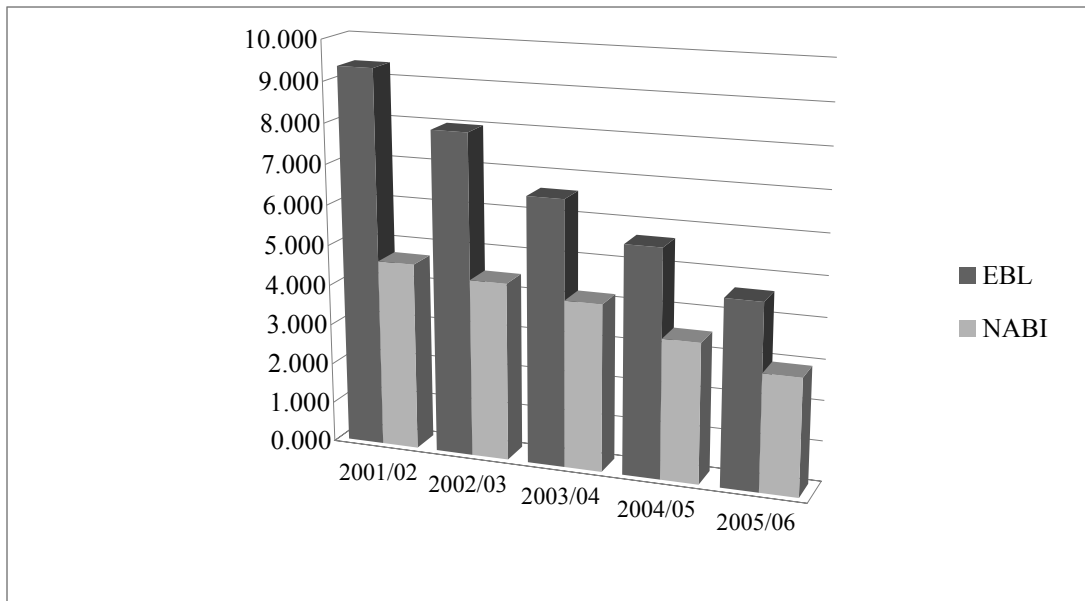
$$\text{Capital Risk Ratio} = \frac{\text{Share Capital}}{\text{Total Risk Weighted Asset}}$$

Table 36: Mean, Standard Deviation & Coefficient of Variance of Capital Risk Ratio of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	9.345	7.973	6.571	5.633	4.588	6.822	1.683	24.670
NABIL	4.654	4.408	4.141	3.464	2.896	3.913	0.645	16.490

[Source: Annexure B15]

Figure 15: Mean, Standard Deviation & Coefficient of Variance of Capital Risk Ratio of EBL and NABIL



From above table no. 36 we can see that it ranges from 2.896% of NABIL in 2005/06 to 9.345% of EBL in 2001/02. Both banks ratio are in decreasing trend. EBL has mean ratio of 6.822% whereas that of NABIL is 3.913%. EBL has maintained Capital Risk Ratio double of NABIL but Being S.D. and C.V. of NABIL is less than EBL so NABIL is considered less risky and consistent out of them. This ratio also shows the profit earning capacity of Banks.

- **Interest Rate Risk Ratio**

Interest is one of the major sources of income for any financial institution. Bank makes profit on difference between the interest it pays on deposit and it receives on loans. So Interest Spread rate is very sensitive in this competitive field. Interest Rate Risk is that kind of risk which is generated by loss due to possibility of change in interest rate. Interest Rate means Market Interest Rate. To calculate this ratio we have,

$$\text{Interest Rate Risk Ratio} = \frac{\text{Interest Sensitive Assets}}{\text{Interest Sensitive Liabilities}}$$

Table 37: Mean, Standard Deviation & Coefficient of Variance of Interest

Rate Risk Ratio of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	129.132	120.537	129.899	121.542	127.702	125.762	3.933	3.130
NABIL	201.693	163.133	164.347	162.920	154.113	169.241	16.632	9.830

[Source: Annexure B16]

Figure 16: Mean, Standard Deviation & Coefficient of Variance of Interest

Rate Risk Ratio of EBL and NABIL

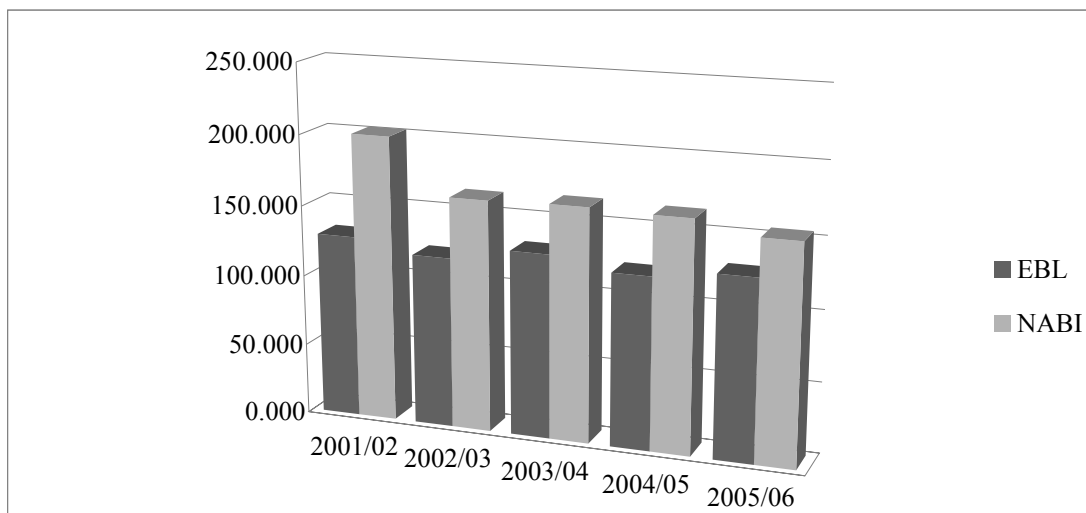


Table No. 37 explains the relation between Interest Sensitive Assets with the tabulated value in Interest Sensitive Liabilities of concerning banks in given years. The ratios have been ranged from 201.69 of NABIL in FY 2001/02 to 120.537 of EBL in FY 2002/03.

The overall performance of EBL mean ratio is 125.762. NABIL has the mean ratio of 169.241. From this analysis NABIL can be concluded as the best performs in utilizing its interest. The S.D. and C.V. of the EBL are very much lesser than NABIL. So, it is less risky and more consistent than NABIL.

- **Credit Risk Ratio**

Commercial Bank analyzes the project report from clients before extending credit to them. Loan and Advances contains high degree of risk as it is invested

of collected fund by depositors, so chances of non payment of loans also exist. It shows the ratio of Non Performing Assets (NPA) in total loan and advances.

We have,

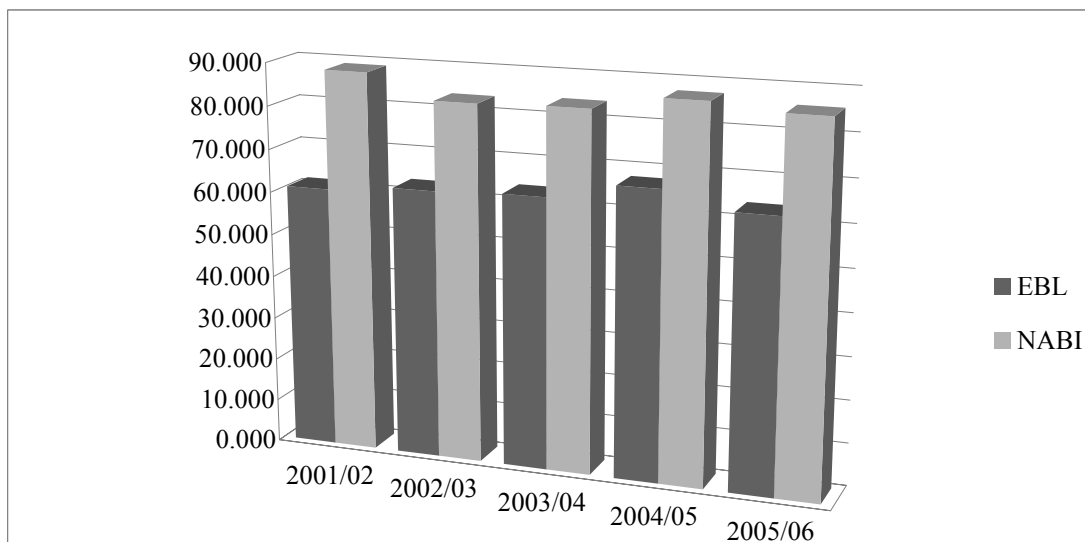
$$\text{Credit Risk Ratio} = \frac{\text{Total Loan \& Advances}}{\text{Total Assets}}$$

Table 38 Mean, Standard Deviation & Coefficient of Variance of Credit Risk Ratio of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	61.120	62.711	63.442	67.334	63.513	63.624	2.045	3.210
NABIL	88.702	83.242	83.760	87.094	85.540	85.667	2.038	2.380

[Source: Annexure B17]

Figure 17: Mean, Standard Deviation & Coefficient of Variance of Credit Risk Ratio of EBL and NABIL



The above table no. 38 and Figure no. 17 shows the investment being made by banks in due course of last 5 years. The Mean Ratio by NABIL is 85.667%, whereas the EBL has slightly lower percentage of 63.513%. EBL has not been consistent in investing as we can see in it has approximately 20% below

NABIL. As the S.D. and C.V. of EBL are higher than NABIL, NABIL is consistent and less risky than EBL.

4.3.1.1.5 Profitability Ratio

A class of financial metrics that are used to assess a business's ability to generate earnings as compared to its expenses and other relevant costs incurred during a specific period of time. For most of these ratios, having a higher value relative to a competitor's ratio or the same ratio from a previous period is indicative that the company is doing well.

Some examples of profitability ratios are profit margin, return on assets and return on equity. It is important to note that a little bit of background knowledge is necessary in order to make relevant comparisons when analyzing these ratios.

For instances, some industries experience seasonality in their operations. The retail industry, for example, typically experiences higher revenues and earnings for the Christmas season. Therefore, it would not be too useful to compare a retailer's fourth-quarter profit margin with its first-quarter profit margin. On the other hand, comparing a retailer's fourth-quarter profit margin with the profit margin from the same period a year before would be far more informative.

Profitability ratios measure how well a company is performing by analyzing how profit was earned relative to sales, total assets and net worth. D&B uses three key financial business ratios to measure a company's efficiency:

- **Net Profit to Total Working Fund Ratio**

This ratio measures the relationship between Net profit and Working Fund so also known as Return on total working fund. Working Fund includes all the funds which are invested from deposit and borrowings. We have,

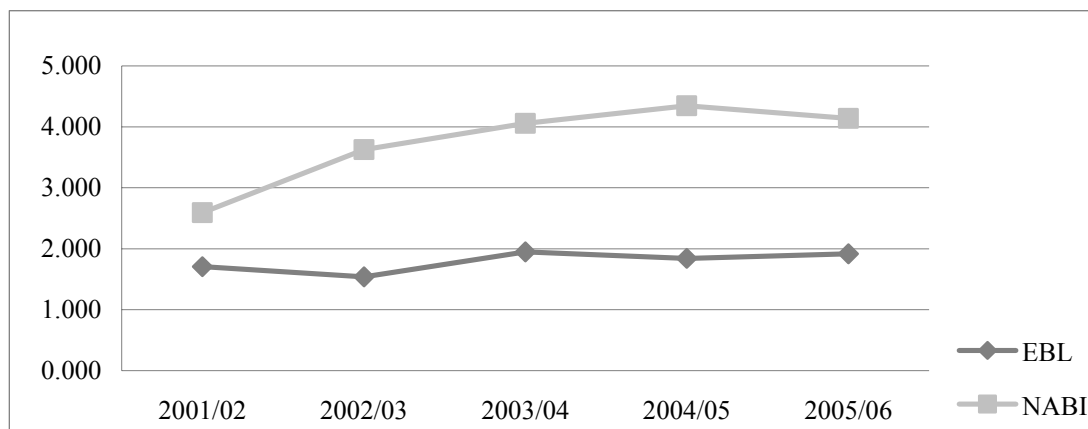
$$\text{Net Profit to Total Working Fund Ratio} = \frac{\text{Net Profit}}{\text{Total Working Fund Ratio}}$$

Table 39: Mean, Standard Deviation & Coefficient of Variance of Net Profit to Total Working Fund Ratio of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	1.707	1.538	1.949	1.841	1.917	1.791	0.151	8.450
NABIL	2.593	3.626	4.058	4.346	4.139	3.753	0.625	16.670

[Source: Annexure B18]

Figure 18 Mean, Standard Deviation & Coefficient of Variance of Net Profit to Total Working Fund Ratio of EBL and NABIL



The mean ratio of NABIL is 3.753% and this is the highest than that of EBL. Taking the standard of Mean ratio the performance of NABIL is the best and the ratio of EBL is below the mean. Table explains that the ratio of two banks is increasing. Looking this fact, it can be concluded that these banks are increasing their profit ratio in respect to their invested fund. As comparing among the banks the performance of NABIL can be regarded the best. The S.D and C.V of the EBL is lesser than NABIL. So, it is less risky and more consistent than NABIL.

- **Net Profit to Loan and Advances**

Loan and advances is main source of income or profit of commercial banks. It generates profit by interest it generates from loan and advances. This ratio

indicates the financial position of the banks. Higher ratio indicates good financial position and vice versa. To calculate this ratio,

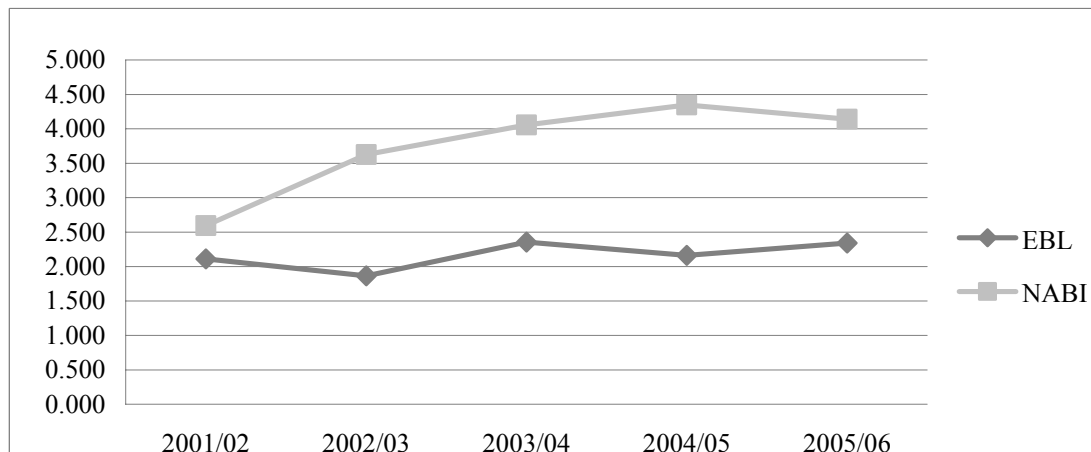
$$\text{Net Profit to Loan and Advances} = \frac{\text{Net Profit}}{\text{Loan and Advances}}$$

Table 40: Mean, Standard Deviation & Coefficient of Variance of Net Profit to Loan and Advances of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	2.110	1.865	2.355	2.162	2.342	2.167	0.179	8.260
NABIL	2.593	3.627	4.057	4.347	4.139	3.753	0.625	16.670

Source: Annexure B19]

Figure 19: Mean, Standard Deviation & Coefficient of Variance of Net Profit to Loan and Advances of EBL and NABIL



From the above table we can analyze that the ratio of NABIL is higher than the ratio of EBL over five years. The ratio ranged from 1.865 of EBL in 2002/03 to 4.347 of NABIL in 2004/05.

Mean ratio of EBL is 2.167 and the mean ratio of NABIL is 3.753. Analyzing S.D. and C.V. of both banks EBL is better between them.

- **Net Profit to Total Equity**

Equity capital is capital collected by bank from its share holders. Bank also invests this fund in feasible areas. If it generates high return it provide high profit and shareholders will remain with the bank and bank can use this fund for the long term. This ratio measures the effectiveness of bank in mobilizing its equity capital. We have,

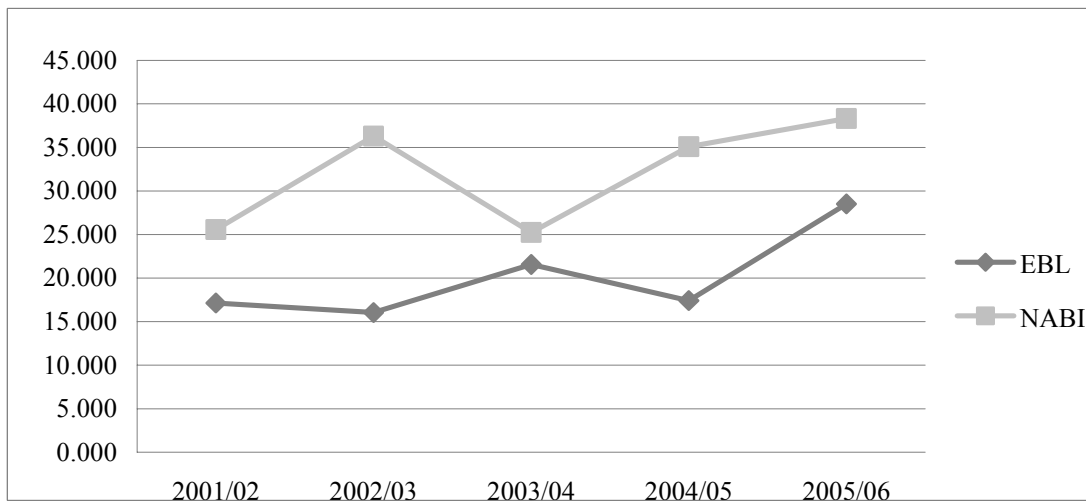
$$\text{Net Profit to Total Equity} = \frac{\text{Net Profit}}{\text{Total Equity}}$$

Table 41: Mean, Standard Deviation & Coefficient of Variance of Net Profit to Total Equity of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	17.145	16.042	21.564	17.424	28.514	20.138	4.589	22.790
NABIL	25.559	36.308	25.237	35.087	38.322	32.103	5.572	17.360

Source: Annexure B20]

Figure 20 Mean, Standard Deviation & Coefficient of Variance of Net Profit to Total Equity of EBL and NABIL



From the above table no. 44 we can see that EBL has 20.138% and NABIL has 32.103% average of this ratio. We can also see from the diagram that both banks ratio has been fluctuating. NABIL has maximum of this ratio in 2003/04 as 38.322%, whereas EBL has maximum ROE in same year as 28.514%.

Whereas from the consistency and risk point of view as C.V. and S.D. of EBL is lower but as the ROE of NABIL is higher than EBL so shareholders of NABIL can be considered more satisfied.

- **Interest earned on total outside assets**

This ratio measures relationship between interest earned and total outside assets. Higher ratio indicates higher earning power of assets. This ratio shows the capability of bank to earn interest on outside assets. To calculate this ratio we have,

$$\text{Interest Earned on Total Outside Assets} = \frac{\text{Net Profit}}{\text{Total Outside Assets}}$$

Table 42: Mean, Standard Deviation & Coefficient of Variance of Interest earned on total outside assets of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Mean	S.D.	C.V.
EBL	1.387	1.245	1.576	1.529	1.545	1.456	0.124	8.520
NABIL	1.656	2.700	2.913	3.222	2.993	2.697	0.546	20.260

Source: Annexure B21]

Figure 21: Mean, Standard Deviation & Coefficient of Variance of Interest earned on total outside assets of EBL and NABIL

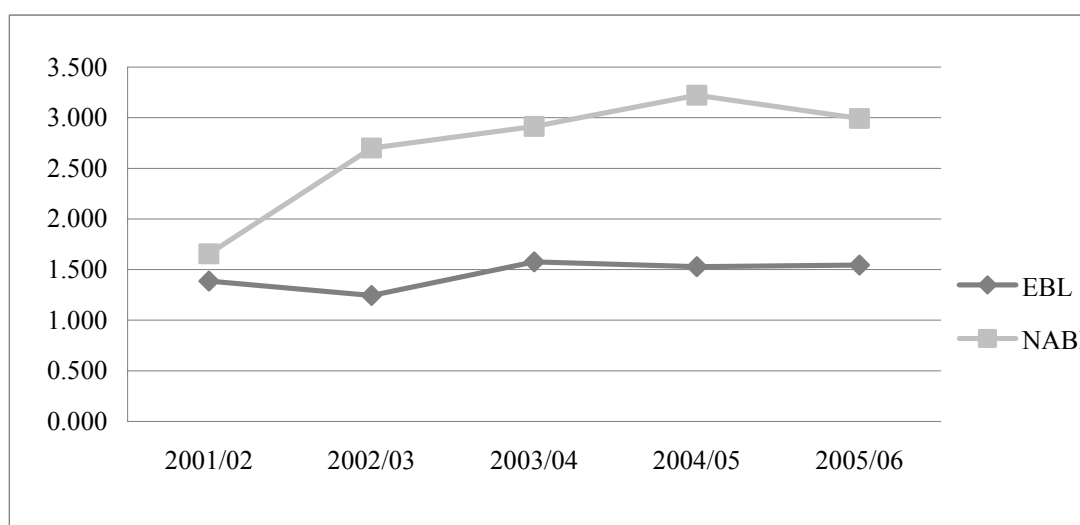


Table 45 explains that the overall ratio of these two banks has ranged from 1.245% in FY 2004/05 of EBL to 3.222% in 2004/05 of NABIL. The ratio of both EBL and NABIL is in increasing trend.

The mean ratio of EBL is 1.456% and mean ratio of NABIL is 2.697% respectively. This shows that NABIL has earned almost double than that of EBL. The S.D. and C.V. of the EBL are lesser than NABIL. So, it is less risky and more consistent than NABIL.

4.3.1.1.6 Growth Ratio

A ratio used to determine a company's progress while taking into account earnings growth. Various elements are taken into consideration like profitability, capital, deposit, net profit etc.

This ratio is a widely used indicator of a company's potential value. Following ratios are calculated:

- **Growth Ratio of Total Deposit**

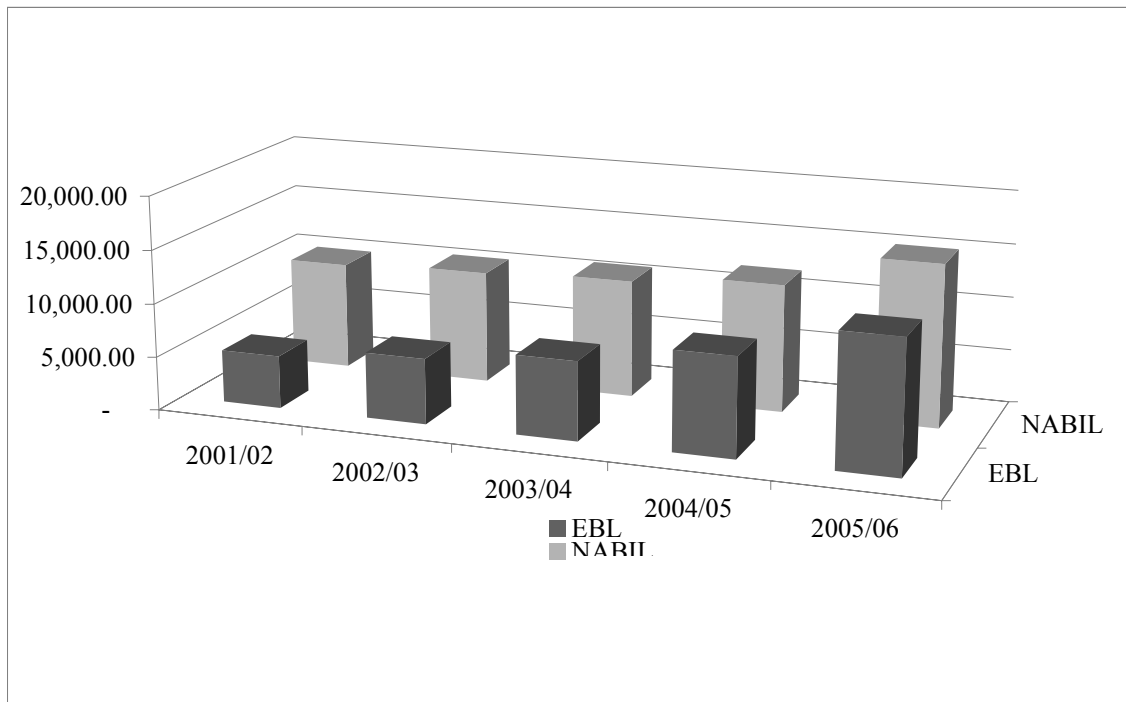
Deposits are the main source of capital for the commercial banks. Bank utilizes these funds in loans and advances and as investments.

Table 43 Growth Ratio of Total Deposit of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Growth Rate
EBL	4,917.50	6,123.80	7,364.60	9,276.60	12,382.60	25.960
NABIL	10,058.80	10,515.00	10,991.70	11,948.50	15,174.30	10.820

[Source: Annexure C1]

Figure 22: Growth Ratio of Total Deposit of EBL and NABIL



The above table shows the growth of total deposit by analysis of five years period of EBL and NABIL. NABIL has the highest deposit of Rs.15174.30 million and EBL has Rs 12382.60 million. According to highest range of the total deposit, we can conclude that NABIL has good performance than EBL But with respect to the growth rate EBL has better growth rate than NABIL. I.e. 25% growth rate of EBL that is more than twice of NABIL 10.820%.

- **Growth Ratio of Total Loans and Advances**

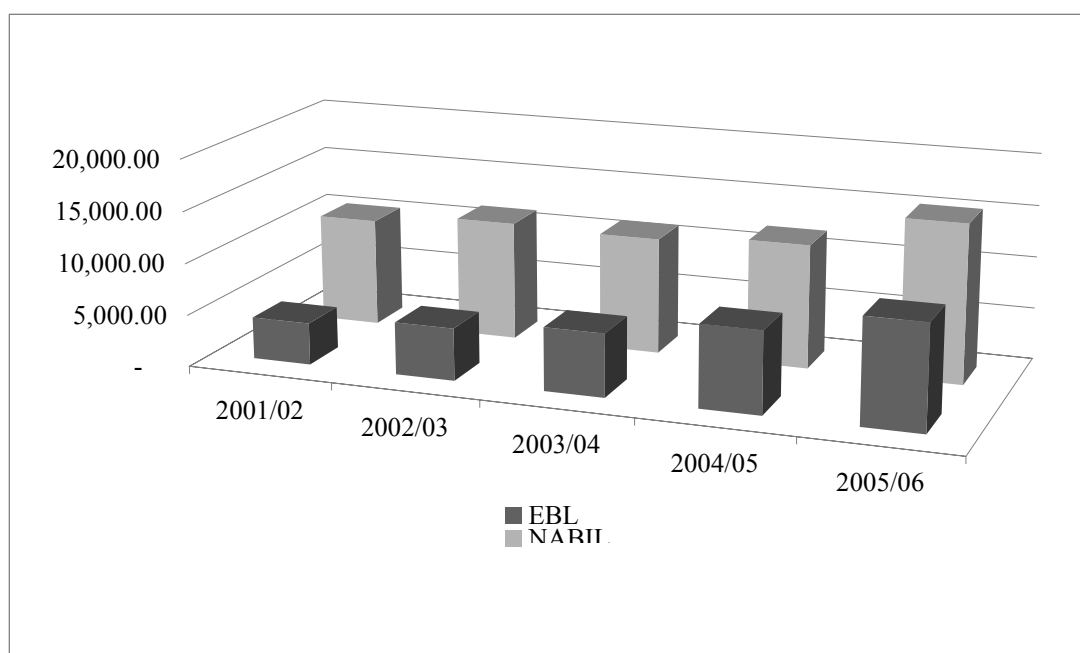
Loans and Advances is the major function of the commercial banking of those loans and advances determines the book performance.

Table 44 Growth Ratio of Total Loans and Advances of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Growth Rate
EBL	4,044.23	5,049.58	6,095.84	7,900.01	10,136.25	25.820
NABIL	10,476.09	11,476.46	11,221.36	11,965.56	15,347.50	10.010

[Source: Annexure C2]

Figure 23: Growth Ratio of Total Deposit of EBL and NABIL



There is increasing trend on loans and advances of both EBL and NABIL. During the study period it has a significant growth of these two banks and explains its aggressiveness. EBL has better growth rate of 25.820% in last five year compared to NABIL 10.010%.

- **Growth Ratio of Total Investment**

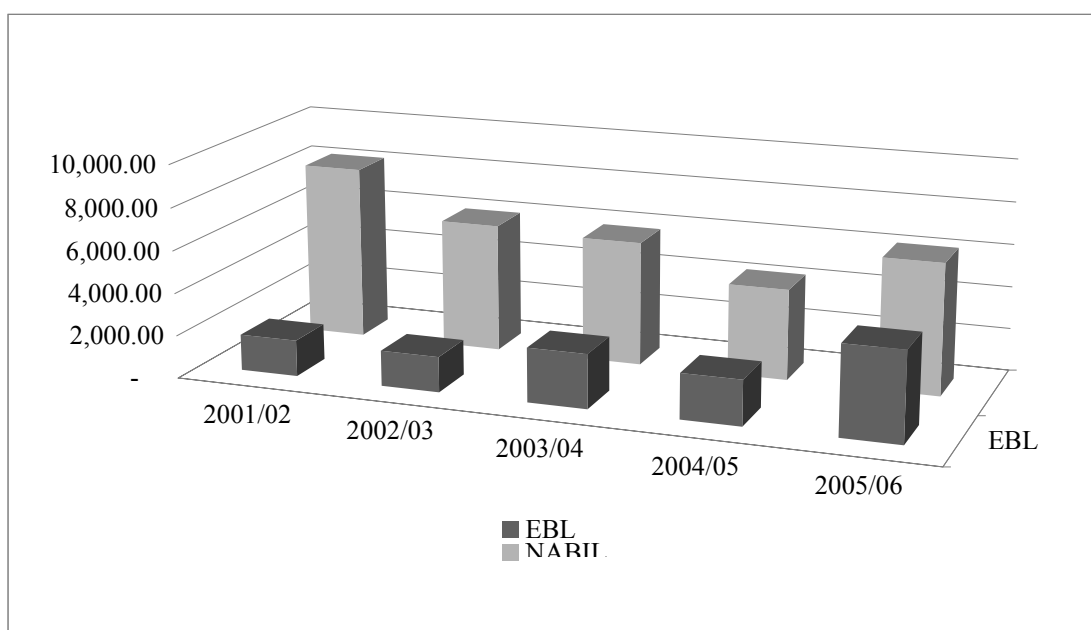
Investment is another important function of banking besides loans and advances. Investment determines the proper utilization of funds.

Table 45 Growth Ratio of Total Investment of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Growth Rate
EBL	1,693.04	1,653.98	2,535.66	2,128.93	4,200.52	25.500
NABIL	8,199.51	6,031.18	5,835.95	4,275.53	6,178.53	-6.830

[Source: Annexure C3]

Figure 24: Growth Ratio of Total Investment of EBL and NABIL



The above table shows that there is an increasing trend over 2003/04 and then it is decreasing trend in FY 2004/05 and significantly increasing in investment of EBL whereas Investment of NABIL has been decreasing till 2004/05 and then increased in last year. During the study period lowest investment of NABIL is more than highest investment of EBL but EBL has very good growth rate of 25.500% whereas the NABIL's growth rate is in negative because of significant drop in investment so growth rate is in negative figure i.e. -6.830%

- **Growth Ratio of Net Profit**

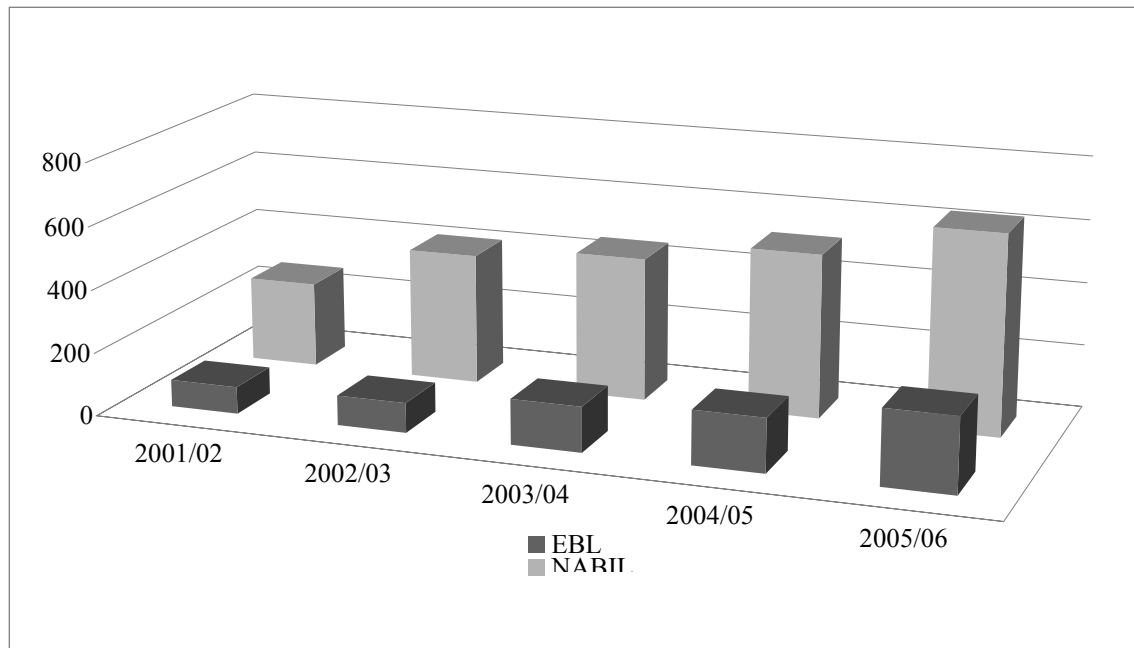
A commercial banks performance measuring criteria is its net profit. The growth of net profit reveals the overall performance of the banks. The net profit analysis is very important from the perspective of performance of the bank.

Table 46: Growth Ratio of Net Profit of EBL and NABIL

Year	2001/02	2002/03	2003/04	2004/05	2005/06	Growth Rate
EBL	85.35	94.18	143.57	170.81	237.38	29.130
NABIL	271.64	416.24	455.32	520.11	635.26	23.660

[Source: Annexure C4]

Figure 25 Growth Ratio of Net Profit of EBL and NABIL



The above table describes the growth rate of net profit of EBL and NABIL of five years the study period. EBL has the highest profit of Rs.237.38 million in FY 2005/06 and NABIL has the highest profit of Rs.635.26 million in same fiscal year. Both banks have increasing trend of profit.

4.3.2 Statistical Tools

Following statistical tools are used to measure efficiency and effectiveness of banks:

4.3.2.1 Coefficient of Correlation

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

relationship between variables i.e. positive or negative. It helps to determine the following.

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

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

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

Likely Probable Error (P.Er) is calculated using Standard Error (S.E.) where,

$$S.E. = \frac{1-r^2}{\sqrt{N}}$$

$$P.Er. = 0.6745 S.E.(r)$$

$$6P.Er. = 6 \times P.Er.$$

4.3.2.1.1 Coefficient of Correlation between Deposit and Loan & Advances

Deposit is mobilized in loans and advances to earn profit by the bank. While mobilizing deposit in loans and advances, bank should consider the adequate fund to invest as it generates enough profit and to preserve balance that can be provided

to deposit holders and loan borrowers on their demand. So commercial banks have to determine the optimum point or range. This tool is used to measure the relationship between these two variables. In this analysis, we have considered deposit as X variable that is dependent variable and Loans and Advances as Y variable as Independent variable.

Table 47 Correlation between Deposit and Loan and Advances

Bank	R	r²	P.Er	6×P.Er
EBL	0.9987	0.9974	0.0008	0.004790
NABIL	0.9857	0.9715	0.0086	0.051548

[Source: Annexure D1]

The above table shows the Correlation Coefficient between deposit and loans and advances of EBL and NABIL is 0.9987 and 0.9857 respectively. There is high degree of positive relationship between deposit and loans and advances of both banks. The value of (r) above explains that a percentage increase in deposit likely generates the same percentage of change in the value of loans and advances in EBL and NABIL.

The coefficient of determination (r^2) of EBL and NABIL are 0.9974 and 0.9715 respectively. This shows the explanation of loans and advances by deposit. Since $r > P.Er < 6P.Er$. The value of the “r” is highly significant.

4.3.2.1.2 Coefficient of Correlation between Deposit and Investment

The correlation between Deposit and Investment measures the degree of relationship between these two variables. The value of r explains whether a percentage change in Deposit it is independent variable and Investment is dependent variable. This tool measures the efficiency of deposit mobilization as investment during the changes.

Table 48: Correlation between Deposit and Investment

Bank	R	r²	P.Er	6×P.Er
EBL	0.9007	0.8112	0.0569	0.341659
NABIL	-0.2937	0.0863	0.2756	1.653734

[Source: Annexure D2]

Table No. 51 presented above has shown the good degree of positive correlation of EBL. The value of r in EBL is significant as it is greater than six time of probable error. This explains that a percentage change in loans and advances is most likely to change the same percentage of income. Whereas in the case of NABIL there is low negative correlation between the investment and deposit as the value of r is -29.37.

While in case of EBL $r > P.Er. < 6P.Er.$ The value of the “r” is highly significant. And in case of NABIL $r < P.Er. < 6P.Er.$ The value of the “r” is not significant. This shows that correlation of coefficient of these variables is positive there is no significant relationship between them and increment in deposit may not effect the investment.

From the above calculation we can say that the performance of EBL is better than NABIL as EBL has higher investment in mobilizing its deposit than NABIL.

4.3.2.1.3 Correlation Coefficient between Outside Asset and Net Profit

This correlation measures the degree of relationship between Outside Assets and Net Profit. This measurement of correlation explain where the banks have a rigid policy to maintain a consistent relationship between two assets or other factor such as seasonal opportunity, economic demand, NRB directives etc. has impact on the volume of these two variables. This calculation will show that whether the net profit is correlated with the outside assets.

Table No. 52 reveals the optimum relationship between Outside Assets and Net Profit of EBL i.e. 0.9906 but there is low degree of correlation between these two variable of NABIL i.e. 0.6781. There is high degree of positive relationship

between these two variables of EBL has the value of r is greater than the value of P.Er. However NABIL has less than 6 times P.Er. This implies that NABIL has not maintained a steady ratio between outside assets and net profit as compared to EBL. The value of r is NABIL suggests that it does not have rigid policy to maintain and fixed and consistent ratio between these assets and the volume of these assets in NABIL is highly of seasonal character than that is explained by the value of r is NABIL.

Table 49 Correlation between Outside Asset and Net Profit

Bank	R	r^2	P.Er	6×P.Er
EBL	0.9906	0.9813	0.0056	0.033812
NABIL	0.6781	0.4598	0.1629	0.977638

[Source: Annexure D3]

Through the above table, we can conclude that EBL has the good opportunity of Net Profit as change in Outside asset than NABIL due to highest degree of positive correlation.

4.3.2.2 Trend Analysis

The term "**trend analysis**" refers to the concept of collecting information and attempting to spot a pattern, or *trend*, in the information. In some fields of study, the term "trend analysis" has more formally-defined meanings.

Although trend analysis is often used to predict future events, it could be used to estimate uncertain events in the past, such as how many ancient kings probably ruled between two dates, based on data such as the average years which other known kings reigned.

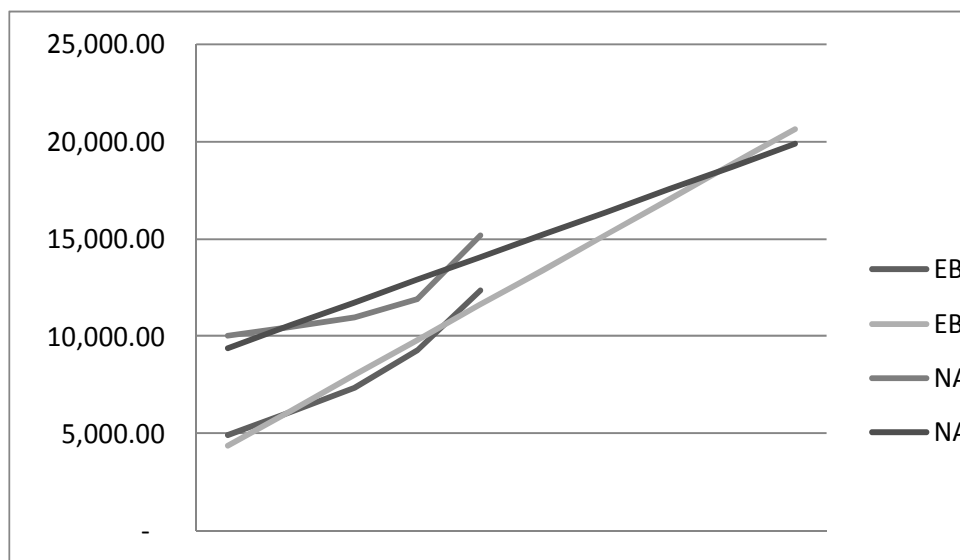
The main objective of this analysis is to analyze the trend of deposit utilization in terms of loans and adverse and investment of EBL and NABIL under five years of study period. A commercial bank may grant loans advances and invest some of the funds in government securities and share and debenture of other companies to utilize its deposit.

4.3.2.2.1 Trend Analysis of Deposit

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

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

Year	EBL		NABIL	
	Trend Value	Actual	Trend Value	Actual
2001/02	4,396.42	4,917.50	9,404.76	10,058.80
2002/03	6,204.72	6,123.80	10,571.21	10,515.00
2003/04	8,013.02	7,364.60	11,737.66	10,991.70
2004/05	9,821.32	9,276.60	12,904.11	11,948.50
2005/06	11,629.62	12,382.60	14,070.56	15,174.30
2006/07	13,437.92		15,237.01	
2007/08	15,246.22		16,403.46	
2008/09	17,054.52		17,569.91	
2009/10	18,862.82		18,736.36	
2010/11	20,671.12		19,902.81	

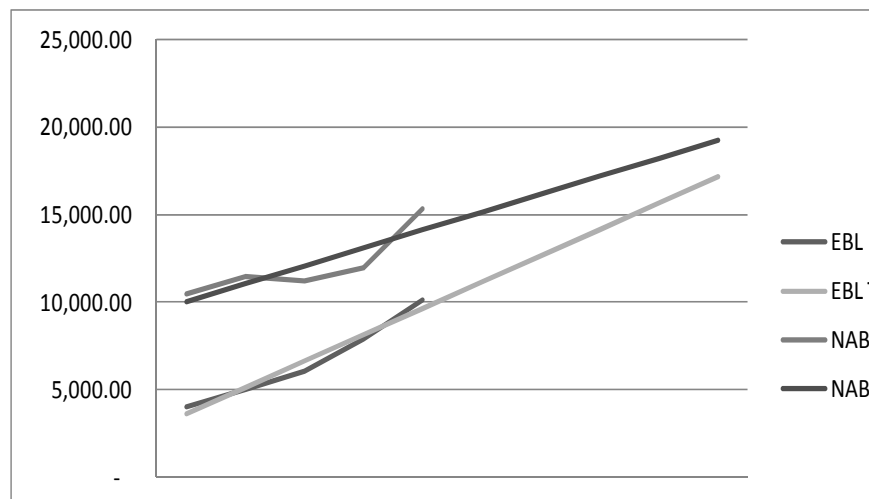


The above table shows that the total deposit of EBL and NABIL is in increasing trend. EBL has the highest trend value of deposit Rs 20671.12 in the year 2010/11 and NABIL has the highest trend value of Rs 19902.81 in the year 2010/11. The increasing trend of total deposit ratio of both banks shows the good performance of the collecting deposit from customer among public by providing good services.

4.3.2.2.2 Trend Analysis of Loan and Advances

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

Year	EBL		NABIL	
	Trend Value	Actual	Trend Value	Actual
2001/02	3,638.29	4,044.23	10,051.01	10,476.09
2002/03	5,141.74	5,049.58	11,074.20	11,476.46
2003/04	6,645.18	6,095.84	12,097.39	11,221.36
2004/05	8,148.63	7,900.01	13,120.59	11,965.56
2005/06	9,652.08	10,136.25	14,143.78	15,347.50
2006/07	11,155.52		15,166.97	
2007/08	12,658.97		16,190.16	
2008/09	14,162.42		17,213.35	
2009/10	15,665.86		18,236.55	
2010/11	17,169.31		19,259.74	



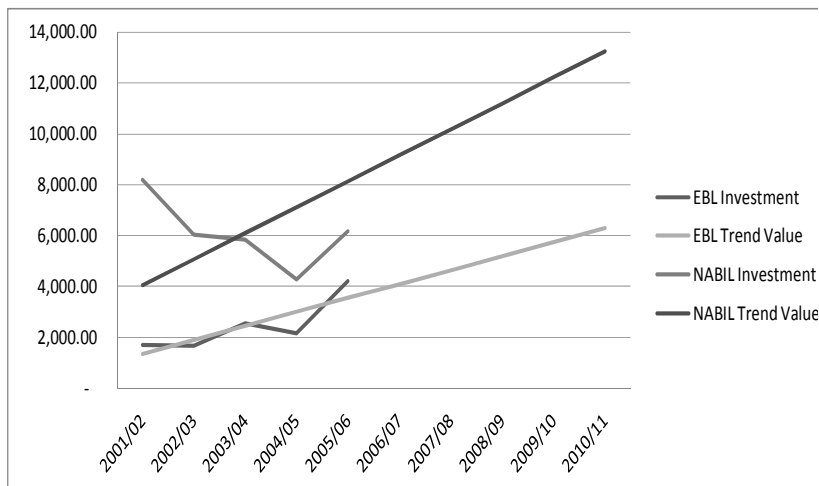
The above table shows that the total loan and advances of EBL and NABIL is in increasing trend. EBL has the highest trend value of Rs 17169.31 in the year 2010/11 and the NABIL has the highest trend value of Rs 19259.74 in the year 2010/11. The increasing trend of loan and advances of both banks shows the good performance of the selected bank on investing the deposit in profit earning sectors.

4.3.2.2.3 Trend Analysis of Investment

The trend analysis of total deposit of EBL and NABIL under five years study period from Mid July 2001/02 to Mid July 2005/06 and projection of trend for the next five years from 2006/07 to 2010/11 is calculated.

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

Year	EBL		NABIL	
	Trend Value	Actual	Trend Value	Actual
2001/02	1,344.44	1,693.04	4,057.76	8,199.51
2002/03	1,893.43	1,653.98	5,080.95	6,031.18
2003/04	2,442.42	2,535.66	6,104.14	5,835.95
2004/05	2,991.41	2,128.93	7,127.33	4,275.53
2005/06	3,540.40	4,200.52	8,150.52	6,178.53
2006/07	4,089.39		9,173.72	
2007/08	4,638.38		10,196.91	
2008/09	5,187.37		11,220.10	
2009/10	5,736.36		12,243.29	
2010/11	6,285.35		13,266.48	

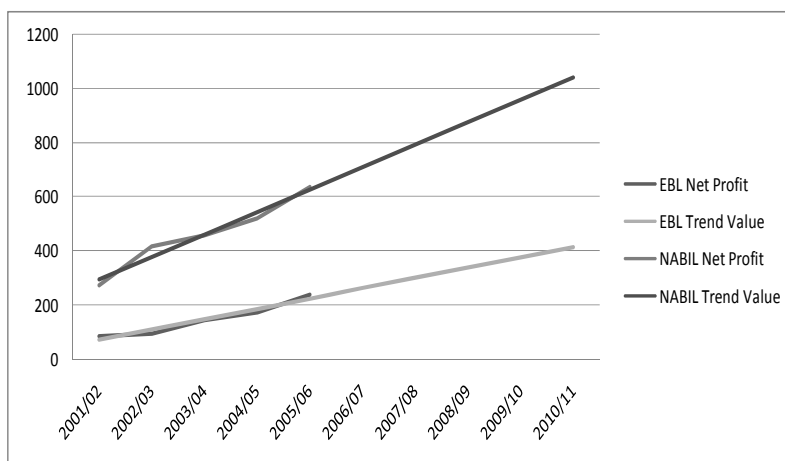


The above table shows that the total Investment of EBL and NABIL is in increasing trend. Only in Fiscal year 2004/05, the Investment of both banks have been dropped but increased in next year. EBL has the highest trend value of Rs 6285.35 in the year 2010/11 and the NABIL has the highest trend value of Rs 13266.48 in the year 2010/11. The increasing trend of Investment of both banks shows the increasing opportunities in market and banks share in it.

4.3.2.2.4 Trend Analysis of Net Profit

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

Year	EBL		NABIL	
	Trend Value	Actual	Trend Value	Actual
2001/02	70.12	85.35	293.49	271.64
2002/03	108.19	94.18	376.60	416.24
2003/04	146.26	143.57	459.72	455.32
2004/05	184.33	170.81	542.83	520.11
2005/06	222.40	237.38	625.94	635.26
2006/07	260.47		709.05	
2007/08	298.53		792.16	
2008/09	336.60		875.28	
2009/10	374.67		958.39	
2010/11	412.74		1,041.50	



The above table shows that the total Net Profit of EBL and NABIL is in increasing trend. EBL has the highest trend value of Rs 412.74 in the year 2010/11 and the NABIL has the highest trend value of Rs 1041.50 in the year 2010/11 which is almost double than that of EBL. The increasing trend of Net Profit of both banks shows the gradual increment in performance of Banks.

4.3.2.3 Test of Hypothesis

This is one of the most important aspects of the theory of decision making. It consists of decision rules required for drawing probability inferences about the population parameters. It often involves deciding at any given point of time whether a given population parameter is the same as before, as claimed or has changed.

It is the assumption that is made about the population parameter and then its validity is tested. It includes the procedure to assess the significance of a statistics or difference between two independent statistics known as the test of significance.

Generally, two complementary hypotheses are set up at one time. If one of the hypothesis is accepted, then the other hypothesis is rejected and vice versa. The two complementary hypothesis' that are set up in the testing of hypothesis are the null hypothesis and the alternative hypothesis.

The steps of test of hypothesis are as follows:

- a. Formulating Hypothesis
 - i. Null Hypothesis(H_0) : $\mu_1 = \mu_2$ i.e. there is no significance difference between mean
 - ii. Alternative Hypothesis(H_1) : $\mu_1 \neq \mu_2$ i.e. there is significance difference between mean
- b. Computing the test statistics
- c. Fixing the level of significance
- d. Finding critical region

- e. Deciding two-tailed or one-tailed test
- f. Making decision

T-test

A **t-test** is any statistical hypothesis test in which the test statistic has a Student's *t* distribution if the null hypothesis is true. It is applied when the population is assumed to be normally distributed but the sample sizes are small enough that the statistic on which inference is based is not normally distributed because it relies on an uncertain estimate of standard deviation rather than on a precisely known value. It is used when the no. of samples are 30.

Among the most frequently used *t* tests are:

A test of the null hypothesis that the means of two normally distributed populations are equal. Given two data sets, each characterized by its mean, standard deviation and number of data points; we can use some kind of *t* test to determine whether the means are distinct, provided that the underlying distributions can be assumed to be normal.

- A test of whether the mean of a normally distributed population has a value specified in a null hypothesis.
- A test of whether the slope of a regression line differs significantly from 0.

Once a *t* value is determined, a p-value can be found using a table of values from Student's t-distribution.

4.3.2.3.1 Test of Hypothesis on Loans and Advances to Total Deposit ratios between NABIL and EBL

	NABIL (X_1)	EBL (X_2)
Mean	79.195	80.325
S.D.	6.373	0.983
No.	5	5

Null Hypothesis (H_0): $\mu_1 = \mu_2$. That is there is no significant difference between mean ratio of two banks or samples are drawn from the same population having same mean size.

Alternative Hypothesis (H_1): $\mu_1 \neq \mu_2$ (two tailed test). That is there is significance difference between mean ratios of the banks.

Under null hypothesis, test statistics is

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

Where,

$$\begin{aligned} S^2 &= \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} \\ &= \frac{5 \times 6.373^2 + 5 \times 0.983^2}{5 + 5 - 2} \\ &= 25.99 \end{aligned}$$

Now,

$$\begin{aligned} t &= \frac{79.195 - 80.325}{\sqrt{25.98 \left\{ \frac{1}{5} + \frac{1}{5} \right\}}} \\ &= -0.3505 \end{aligned}$$

Hence (t) = -0.3505

Degree of freedom (d.f.) = $n_1 + n_2 - 2$ = $5 + 5 - 2$ = 8

$\alpha = 5\%$

The Tabulated Value of $t_{0.05}(8) = 2.306$

Decision: since the tabulated value of $t_{0.05} (8) >$ calculated $t_{0.05} (8)$ null hypothesis is accepted. That means there is no significant difference between the ratio of NABIL and EBL.

4.3.2.3.2 Test of Hypothesis on Total Investment to Total Deposit ratio between NABIL and EBL

	NABIL (X_1)	EBL (X_2)
Mean	53.694	30.548
S.D.	15.981	4.728
No.	5	5

Null Hypothesis (H_0): $\mu_1 = \mu_2$ that there is no significance difference between mean ratio of two banks or samples are drawn from the same population having same mean size.

Alternative Hypothesis (H_1): $\mu_1 \neq \mu_2$ (two tailed test) that is there is significance difference between mean ratios of the banks.

Under null hypothesis, test statistics is

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

Where,

$$\begin{aligned}
 S^2 &= \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} \\
 &= \frac{5 \times 15.981^2 + 5 \times 4.728^2}{5 + 5 - 2} \\
 &= 173.59
 \end{aligned}$$

Now,

$$t = \frac{53.694 - 30.548}{\sqrt{173.59\left\{\frac{1}{5} + \frac{1}{5}\right\}}}$$
$$= 2.7777$$

Hence (t) = 2.7777

Degree of freedom = $n_1 + n_2 - 2$ = $5 + 5 - 2$ = 8

$\alpha = 5\%$

The Tabulated Value of $t_{0.05}(8) = 2.306$

Decision: since the tabulated value of $t_{0.05}(8) <$ calculated $t_{0.05}(8)$ null hypothesis is rejected. That means there is significant difference between the ratio of NABIL and EBL.

4.3.2.3.3 Test of Hypothesis on Return on Loan and Advances Ratio of NABIL and EBL

	NABIL (X_1)	EBL (X_2)
Mean	3.753	2.167
S.D.	0.179	0.625
No.	5	5

Null Hypothesis (H_0): $\mu_1 = \mu_2$ that there is no significance difference between mean ratio of two banks or samples are drawn from the same population having same mean size.

Alternative Hypothesis (H_1): $\mu_1 \neq \mu_2$ (two tailed test) that is there is significance difference between mean ratios of the banks.

Under null hypothesis, test statistics is

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

Where,

$$\begin{aligned} S^2 &= \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} \\ &= \frac{5 \times 0.179^2 + 5 \times 0.625^2}{5 + 5 - 2} \\ &= 0.26 \end{aligned}$$

Now,

$$\begin{aligned} t &= \frac{3.753 - 2.167}{\sqrt{0.26 \left\{ \frac{1}{5} + \frac{1}{5} \right\}}} \\ &= 4.8790 \end{aligned}$$

Hence (t) = 4.8790

$$\text{Degree of freedom} = n_1 + n_2 - 2 = 5 + 5 - 2 = 8$$

$$\alpha = 5\%$$

The Tabulated Value of $t_{0.05} (8) = 2.306$

Decision: since the tabulated value of $t_{0.05} (8) <$ calculated $t_{0.05} (8)$ alternative hypothesis is accepted. That means there is significant difference between the ratio of NABIL and EBL.

4.3.2.3.3 Test of Hypothesis on Interest Earned to Total outside Assets of NABIL and EBL

	NABIL (X_1)	EBL (X_2)
Mean	2.697	1.456
S.D.	0.546	0.124
No.	5	5

Null Hypothesis (H_0): $\mu_1 = \mu_2$ that there is no significance difference between mean ratio of two banks or samples are drawn from the same population having same mean size.

Alternative Hypothesis (H_1): $\mu_1 \neq \mu_2$ (two tailed test) that is there is significance difference between mean ratios of the banks.

Under null hypothesis, test statistics is

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

Where,

$$\begin{aligned} S^2 &= \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} \\ &= \frac{5 \times 0.124^2 + 5 \times 0.546^2}{5 + 5 - 2} \\ &= 0.20 \end{aligned}$$

Now,

$$\begin{aligned} t &= \frac{1.456 - 2.697}{\sqrt{0.20 \left\{ \frac{1}{5} + \frac{1}{5} \right\}}} \\ &= -4.4329 \end{aligned}$$

Hence $t = -4.4329$

Degree of freedom = $n_1 + n_2 - 2 = 5 + 5 - 2 = 8$

$\alpha = 5\%$

The Tabulated Value of $t_{0.05}(8) = 2.306$

Decision: since the tabulated value of $t_{0.05}(8) >$ calculated $t_{0.05}(8)$ alternative hypothesis is rejected. That means there is no significant difference between the ratio of NABIL and EBL.

4.4 MAJOR FINDINGS OF THE STUDY:

4.4.1 Finding as per NRB Directives

The research mainly focuses on the directives of NRB to the commercial banks about the deposit mobilization of the commercial banks and their impact and implementation. The following findings are extracted from this study are stated:

1. Capital Adequacy Ratio

The Capital Adequacy has been changing as per New NRB directives. During the research it is seen that Banks need to maintain its minimum paid-up capital from Rs 250 million to Rs. 1000 million by 2009. Capital Adequacy ratio of bank has been changed to 12% from 11% for FY 2005/06. The capital adequacy ratio of NABIL bank stands at 12.31% with the excess of 0.31% and of EBL is 12.32% with the excess of 0.32%. NABIL has total capital fund of Rs. 2089.32 million comprising of Rs. 1830.79 million core capital and Rs. 258.53 million supplementary capital and the total capital fund of EBL is Rs. 1391.34 million with the core capital of Rs. 927.55 million and supplementary capital of Rs. 463.79 million. The Total Risk Weighted Asset comprising off-balance sheet and on balance sheet of NABIL is Rs. 16976.37 million and of EBL is Rs 11291.14.

2. Loan Classification and Provisioning

According to New Directives Banks are required to be categorized the loans into four different groups. The Percentage of Provision requires to be made by the commercial banks for each category of loans. 100% provision has to be made on loan loss and the loans with past due for the period of one year or above under loss. The data given by the NABIL and EBL shows the impact of the directives. The amount of total provisions of NABIL has been decreased from Rs. 363.95 to Rs. 356.24 million but NABIL has increasing loan amount of Rs. 7801.85 to Rs. 13278.78 million from FY 2001/02 to 2005/06. Whereas EBL has increased its loan provision from Rs. 95.75 million to Rs. 334.95 million as its loans and advances has also been increased from Rs. 4044.23 million to Rs. 10136.25 million. This means that EBL will have decreased its net profit by Rs. 239.20 million. NABIL has gained amounted to Rs. 7.71 million as a profit as well as loan amount has been increased by 70 %. This means increase in total loan amount increase the total provision, which result to affect the bank's profitability.

3. Single Borrower Limit.

The new provision of single borrower limit laid down the limits for the borrower based on fund and non-fund based only on core capital whereas the previous limits were based on capital fund. With the new directives, the limits for the borrower on both fund based and non-fund based loan have come down. This study shows that the limits of NABIL has come down to Rs. 277.96 million from Rs. 457.70 and limits of EBL has also scaled down from Rs. 231.89 to Rs. 121.27 million on fund based loans. In similar way, the non fund based loans has also been decreased in NABIL from Rs. 1044.86 to Rs. 732.23 million and in EBL from Rs. 695.67 million to Rs. 282.15 million. With fall down of the limits to the Banks must cut down the loan disbursements to clients and some of big customers have to repay the loans. This has also helped the banks to create the loan portfolio and minimize the risk.

4. Reducing the Risk

Banks have classified the assets and liabilities based on maturity period into five different time interval. Banks are required to maintain the liquidity based on only primary reserve. Banks need to balance at NRB 7% of current and savings deposits and 4.5% of fixed deposit liabilities, where cash in vault should be 2% of total deposit liabilities. Therefore in case of NABIL, the bank requires another Rs 1426.60 million to meet the requirement of balance at NRB and Rs. 65.68 to meet the requirement for cash in vault.

5. Interest Rate

As per New directives issued by NRB interest spread rate should not exceed 5%. Commercial banks have been monitored by NRB to prevent the customers been exploit by the high rates. NABIL has increase its interest spread rate from 4.02% to 4.90% and the EBL interest spread rate from 3.65% to 3.99%. Comparing both banks in this aspect, EBL is better than NABIL, as it has been maintaining low interest rate spread than NABIL. Interest rate spread determined the efficiency and effectiveness of the bank, as it is the base of profit for the bank.

6. Implementation and Monitoring Aspects

From the data collected of NABIL and EBL, it has been found that both have implemented the NRB's directives. The presenting data clears that NABIL has maintained a capital adequacy ratio at 12.31% and of EBL is 12.32% when requirement if 12%. Both banks have categorized the loans and advances according to the format given by the NRB. Both banks have obeyed the directives and rules laid down by NRB. Banks have maintained the liquidity risk as per provision.

The collected responds from NRB's inspection division clears that the banks are implementing the directives but in some cases they are not following the directives. The concerned authorities of NRB undertake the both on-site and off-site supervision to see whether banking sector are complying with existing acts and the

instructions of NRB. They review functioning of financial institutions as well take necessary actions in case of violation if any.

4.4.2 Finding as Per Financial and Statistical Tools

From Results are been derived from the use of financial and statistical tools.

1. Liquidity Ratio

Liquidity Position of the two commercial banks is found as follows :

- From the study of NRB balance with total deposit ratio it is found that the mean ratio of NABIL and EBL is as enough as directed by the NRB. NABIL has maintained average 4.602% of total deposit while EBL has kept 8.532% in NRB balance. EBL has maintained higher ratio than that of NABIL and it has higher capacity to meet the current obligation than NABIL. EBL is sound from the view point of the liquidity ratio.
- NRB has directed to keep minimum 7% of deposit in NRB balance. It has found that EBL has kept maximum balance in NRB whereas NABIL is struggling to keep up with the requirement. NABIL has average 5.853% and EBL has 15.045% in this account.
- NRB balance to total fixed deposit liabilities of both banks found that it exceed the minimum requirement laid down by the NRB rules as NABIL has 21.765% and EBL has 20.658%, where the requirement is only 4.5%.
- The mean ratio of liquid fund to total deposit ratio of both banks is comparable. It suggests that both NABIL and EBL is sound in this regard.

The overall analysis of this ratio shows that Both banks have sound liquidity position and followed the directives of NRB.

2. Activity Ratio

Activity Ratio of EBL and NABIL shows that :

- Credit to total deposit ratio of NABIL is almost same as that of EBL. This shows that both banks have been successful in mobilizing the funds.

- Investment to Total Deposit ratio of NABIL is higher than EBL and the variability of the ratio is also higher than that of EBL. In this regard NABIL is able to mobilize more funds than EBL.
- The outside asset mobilization of NABIL is found more than that of EBL. It has mobilized more fund than EBL. But NABIL has higher fluctuation in this ratio than EBL as well, so considered more risky.
- The Time deposit to Total Deposit Ratio of NABIL is less than that of EBL and variability of its ratio is low than EBL. It shows that EBL has more certain funds than that of EBL. EBL can mobilize the fund more freely without increasing the risk factor.
- Credit to government enterprises to total credit ratio reveals that NABIL has mobilized its funds to government sector in more years than EBL. Among 5 years, EBL has nil investment in government sector for two years. It shows that EBL has invested in profit oriented sector more.
- The mean ratio of credit to the private sector to total credit of NABIL is just less than EBL. Although EBL has not invest in government sector, even then NABIL has investment fund equal to that of EBL.
- Loan Loss ratio of EBL is lesser than NABIL. EBL is keeping very few funds in this regard. It proves that it has managed the loan and advances soundly.

In overall study of asset management ratio it can be considered that both banks are trying to increase their loan amount in private sector.

3. Capital Adequacy Ratio

Calculation of capital adequacy ratio has reveals that:

- Capital to total deposit shows that it has sound capital positions. NABIL has higher capital to total deposit ratio than that of EBL. EBL is maintaining lower ratio.
- Capital to total credit ratio of NABIL is also higher than EBL. The variability of this ratio of the EBL is lower than NABIL, so shows EBL has more consistency.

- Capital to total asset ratio of NABIL is almost equal to that of EBL. And variation of EBL is lesser than NABIL.

The overall study of this ratio shows that NABIL is in better position in this regards. It has more capital funds, which denote the banks financial position is strong.

4. Risk Ratio

The risk ratio of two banks reveals that:

- Capital risk ratio of NABIL is lesser than that of EBL. Capital risk ratio determines the levels of profit a bank can earn and the deposit a bank can attract. In this regard NABIL wants to avoid the capital risk but EBL is willing to increase its profit level and deposit level though the increment of the capital risk.
- Interest rate risk ratio of NABIL is higher than EBL and it is more violate than that of EBL.
- Credit risk ratio of NABIL is higher than EBL and the variation of this ratio of EBL is higher.

The overall study of risk ratio shows that capital risk ratio of EBL is higher that means it is giving due consideration in increment of profit through the increment of deposit. To increase the deposit EBL has come with various scheme in market.

5. Profitability Ratio

The major findings from this ratio are as follows:

- Return on total working fund ratio of EBL is lesser than that of NABIL. It is also found that the coefficient of variation of NABIL is higher than that of EBL. From this view point NABIL is succeed to mobilize more fund to achieve return on working capital.

- NABIL has achieved net profit to total loan and advances are more than that of EBL. The variation of the net profit of NABIL is also higher. Which signifies that the findings of the net profit is lesser reliable than that of EBL.
- Return of equity of EBL is lesser than NABIL. NABIL is gaining more return on equity than EBL.

From above overall analysis we can conclude from the profitability ratio NABIL is performing well to achieve higher percentage of profit.

6. Growth Ratio

From the calculation of growth ratio of two banks it has found that:

- The growth ratio of total deposit of EBL is higher than that of NABIL. Of which indicates that the performance in collecting deposit of EBL is in better condition comparison to the NABIL.
- The growth ratio of Loan and Advances of NABIL is also lower than EBL. The growth ratio of NABIL is 10.010% and that of EBL is 25.82%. This growth ratio shows that the performance of EBL is continuously improving.
- The growth ratio of Investment of NABIL is in negative figure. It is -6.830%, because it has Rs 8199.51 million to Rs. 6178.53 in last five years. It shows that EBL having growth rate of 25.50% is giving priority in the investment sector.
- The growth ratio of Net profit of NABIL is lesser than that of EBL. It is 29.130% of EBL and 23.660% of NABIL.

The study of growth ratio can be concluded that the EBL is continuously growing and NABIL has slow growth rate.

7. Coefficient of Correlation

The calculation of coefficient of correlation reveals that:

- Correlation of coefficient between deposit and loan & advances found that it is positive of both banks which indicate that the increase in deposit will increase

in loan and advances. The study also suggests that independent variable that is loan and advances is highly dependent to the deposit.

- Correlation of coefficient between deposit and investment of both banks is also found that it is positive for EBL and negative for the NABIL. So for NABIL increase in deposit will have decrease in investment.
- Correlation between outside asset and net profit of NABIL is highly positive for EBL and less positive for NABIL. The profit of NABIL is not so much dependent to the deposit than it is of EBL. EBL's determination of coefficient is 0.9813 and that of NABIL is 0.6781

8. Trend Analysis

Trend analysis of various variables shows the following results:

- The deposit of both banks is in increasing trend. The deposit of NABIL in next 5 years will be Rs. 19902.81 million and Rs. 20671.12 of EBL. In future EBL will be able to collect more deposit whereas it is more of NABIL in present. EBL is found that it is better than NABIL in the sense of collecting deposit.
- The loans and advances of both banks are also in increasing trend. The future loan and advances of NABIL for the year 2011 of Rs. 19259.74 million and that will be Rs. 17169.31 million for EBL.
- The total investment of NABIL in the years 2011 will be Rs. 13266.48 million while that of EBL will be Rs. 6285.35. NABIL will be able to mobilize more funds in future than EBL in the investment sector.

Trend analysis of the banks shows that Deposit of NABIL will be lesser than that of EBL, but in the case of Investment and Loans & Advances NABIL will be able to able to mobilize more funds than EBL in this sector.

9. Hypothesis Test (T-Test)

Hypothesis test made on Loan and Advances to Total Deposit and Interest Earned on Outside Assets both suggest that null hypothesis is accepted i.e. there is no significance difference between two bank's ratio which shows that they are from

the same population, whereas Hypothesis test made on Total Investment to Total Deposit and Return on Loan and Advances both suggest that alternative hypothesis is accepted i.e. there is significance difference between two bank's ratio which shows that they are not from the same population.

Chapter 5

SUMMARY, CONCLUSION AND RECOMMENDATION

This Chapter highlighted some actionable conclusions and recommendation on the basis of the major findings of the study derived from the comparative analysis of EBL and NABIL. The study has covered 5 years data from the year 2001/02 to 2005/06. The major findings of the study based on the financial and statistical analysis listed in chapter 4 of this report in order to carry out this study. Mainly secondary data are used. The analysis of the data is carried out with the help of various financial and statistical tools. The findings of the study are summarized and conclusion and some recommendations drawn as below:

5.1 SUMMARY

Economic development implies the development of all sectors of the nation. In order to gear up development process, high and sustainable economic growth is necessary. Banking development helps to develop the whole sectors of the country. For this central bank has to play vital role. Moreover, Nepal being one of the developing countries of the world, NRB, central bank of Nepal, has great liability to enhance economic development of the country. Joint adoption of monetary and fiscal policy is needed for the developing country like Nepal to mobilize passive resource, to divert saving from speculative and unproductive activities to productive uses to enhance the effectiveness of Public Resource Management to accelerate economic reform program to alleviate poverty etc.

The main objective of this study is to find out the role of NRB in deposit mobilization of commercial banks. Commercial banks collect deposit from people as idle money and mobilize the fund to the needy people. Commercial banks earn profit from the needy people. Commercial banks earn profit from the differences in

interest it provides in deposit and it generates from loan. Deposit amount which are to be repaid at demand from customers. So banks also have to maintain liquidity. They have to optimize between liquidity and mobilization of fund. Bank may go as bank repay, So have to operate effectively. To interest negative in pact to commercial banks and for fair competition in markets NRB has set various provisional regarding to commercial banks. For equal opportunity in all sectors. Banks are been directed by NRB to interest compulsory in deprived productive and sector. NRB has made provision for single borrower limit to create loan portfolios for banks and minimize risk. Similarly to make the financial position strong NRB has been increasing the capital adequacy ratio. Now to open new commercial bank and existing banks, the capital fund to be Rs. 500 million. To minimize the risk of customers and banks as well, NRB has set rule of cash reserve requirement. Loans are also been grouped in four categories on the basis of their nature and provision are to be made accordingly. And finally commercial bank has to maintain interest spread rate below 5% which will assure the positive environment of competition and customers as well.

Commercial bank consists deposit as more than 80% total assets But increment of deposit will not surely increase net profit. A bank must have a sound investment policy to optimum as mobilization of fund as it generates high return

Commercial bank need to keep the optimum relation between deposit collection and wan policy preserving adequate liquidity. In FY 2005/06, EBL has deposit of Rs.12382.60 million among which Rs. 2801.31 million has been granted as loan advances and made Net Profit of Rs. 237.78 Similarly, NABIL has collected Rs. 15174.30 and extended as loan and advances as Rs. 12923 million. NABIL has made Profit of Rs. 635.26 million in FY 2005/06 Deposit is replacement amount at demand so is returnable, so banks need to keep liquidity, EBL have 8.532% in NRB balance and 20.628% in vault and likewise NABIL have 4.602% and 21.765. in NRB balance and Cash in vault respectively.

This research is about the NRB's guidelines on commercial banks and its impact & implementation. The general directives have been taken as guidelines. Banks are following the directives but in some cases such like supplementary capital and banks at NRB there are short false. But these shortfalls are compensating buy banks. Directives are made with a view to protect the deposit of depositors and for safely of loans, which enhances the financial strength of Banks. Even that it has adverse effect in profitability of the banks but this decreasing profit will affect bank in short term. The deposit, loan & advance and net profit of both banks are in increasing trend. The increase in deposit will increase working fund and hence profit too, commercial banks are totally dependent upon the deposit collection policy and the optimum mobilization procedure.

Although the study is limited to only two banks, in however allow to know that there are a significant impact of such directives on the various aspects of the commercial banks. However NRB directives helps to maintain stability of commercial banks in the financial market and to up lift the banking section in Nepal.

The research is about the NRB's guidelines on commercial banks and its impact and implementation. The general directives have been taken as guidelines. The study includes only seven selective directives.

5.2 CONCLUSIONS

This study related to NRB directives concluded that all the changes in NRB Directives made both positive and negative impact on the commercial banks. Even though this study is limited to only two sample i.e. NABIL and EBL, among entire population, it clears the new directives issued by NRB make good impact more than bad impact on the various aspects of the banks. It can be seen that the provision has been changed and the increased provisioning amount has decreased the profitability of the commercial banks. Apart from, loan exposure has been cut

down to customers due to the borrower limits have been brought down by the NRB. Therefore reduction in loan and advances result to decrease the interest income from loans, which will decrease the profits of the banks in coming years. Decreasing profitability push towards the overall performance of the banks. Besides, the change in the single borrower limits, all the commercial banks have to increase their core capital, which will increase the expenses. Thus, recently main problems faced by banks are increasing operating cost and decreasing loan amount due to interest rate competition in the market resulting decrease in profits of the banks.

NRB Directives does not have only negative impact on bank but it has also positive sides of new directives. Recently the problems of banks are increasing operating cost and decreasing loan amount resulting decrease in profits of the banks. But it is the effect to banks for the short term. In the long term directives are more effective to protect the banks from the bad loans, which protect the bank from bankruptcy as well as protection of deposit of depositors. Increased in capital adequacy ratio strength the bank's financial position, loan related provision will make safety of loans except that risk reducing provision will protect the banks from liquidation from liquidation. From the above it can be concluded newly issued directives are more effective than previous one although it has brought some problems toward banks. To decrease the decreasing profit of the banks, they should search the alternatives such like more alternatives in other business, banks should adopt new technology according to demand of time and must not depend on only interest income for profits.

NRB is playing an effective role in the control of the commercial banks credit with the increasing tendency of banking facilities as a result increasing the banking habit of the people resulting the increase in the amount of deposits and the loan operation of the commercial banks.

In conclusion it can be stated that central banks are required to direct commercial banks and commercial banks have to operate as per central banks directions. Commercial banks have to mobilize fund from the collection of deposit by provisioning the liquidity through sound investment policy. Diversification is one of the major alternatives of this. And at last it can be concluded banks are important for the nation. It helps in the capital formation of the nation which is the most important element for the economic growth of the country. Capital helps to solve the various problems arising in the country. In summary directives of NRB has both positive and negative impact on deposit mobilization of commercial banks.

5.3 RECOMMENDATIONS

The recommendations to NABIL and EBL and also to Nepal Rastra Bank are presented on the analysis of data i.e. secondary data, major findings of the study and conclusions in order to solve the problems.

5.3.1 Recommendations to NABIL

With the analysis already made of the data of NABIL, the following recommendations are presented to NABIL:

1. The bank should increase its core capital in order to expose itself to more credit risk. With the reduction in the single obligor limit, there are only two choices for the bank; to limit its clients within standards or to increase the core capital. While staying with the existing core capital, NABIL is exposed to the risk of losing huge and good clients to other banks with huge amount of core capital that can withstand the loan exposure of such clients. On doing this, NABIL will on one way not be able to mobilize its deposits and on the other will have to stick to small clients. The increases in the number of small clients will take the operating costs of the bank up thus decreasing the profitability.

2. The bank should be very careful while analyzing the paying capacity of its credit clients. With the longer period of past due, the bank will end up increasing its provisions which will keep the bottom line low if the bank is not careful.
3. NABIL has increased its interest spread rate up to 4.90%, which is at the maximum point. This shows that bank is using maximum leverage it can get from this, and also it has adverse effect on the interest rate on loans and advances, so NABIL should try to decrease this spread rate.
4. Liquidity and profitability are like two wheels of one cart so banks cannot run in the absence of one of them. One can be achieved only at the cost of others. Only liquid banks can attract more low cost deposits, which helps in reducing interest expenses and give loan to good customers at lower rate, which results in requirement of less provision and high net profit. So, banks should increase their primary reserve not to maintain the liquidity risk due to scrap the secondary reserves. As per liquidity, NABIL has not maintained adequate balance at NRB, as 4.602% as requirement is 7.5% neither it has kept cash balance adequate So NABIL has to maintain balance as required for liquidity aspect.
5. Loan Loss Ratio of NABIL is little higher, so it should concentrate more for managing loans and advances soundly.
6. Growth Rate of NABIL's deposit, loans & advances and Net profit is lesser than EBL and investment is in negative figure, so although NABIL is generating fair amount of Net Profit, but failing to keep up with the tough competition on the aspect of growing market. So NABIL has to consider in this sector. Trend analysis also shows this fact.
7. From correlation of coefficient it is seen that deposit has positive relation with net profit, so NABIL has to increase deposit which will directly impact the positive response in net profit.

5.3.2 Recommendations to EBL

The recommendations to EBL are presented based on the analysis of data are follows:

1. Bank has to reduce the loan exposure to its customers. With the reduction in the single borrower limits of fund based and no fund based loans, EBL has only two alternative wither to limit its customers within standards or to increase its core capital. EBL has almost half core capital of NABIL, so it is also been prevented from credit risk. So it also has to increase its core capital to retain its good clients and increasing its loans and advances.
2. The bank should be very careful while analyzing the paying capacity of its credit clients. With the longer period of past due, the bank will end up increasing its provisions which will keep the bottom line low if the bank is not careful. As seen in loan classification and provisioning section, although NABIL has its loans and advances increasing, being successful to decrease its provisions, whereas as EBL loans and advances are increasing, its provision is also increased which has adverse affect on its net profit. So EBL is recommended to initiate strong policy to collect the due loans so that it can reduce the loan loss provision amount.
3. Nabil Bank has followed the single borrower limit, whereas Everest Bank Limited was instructed to follow the single borrower limit in its lending practices and to bring all the loans under the single borrower limit by mid-January 2005. Further, it was asked to maintain 100 percent provision for the loan extended to Supreme Pipe and Allied Industries since that was found to be unsecured. So EBL has to diversify its loans and advances to create loan portfolio to reduce risk.

4. Credit to Government Sector is considered to be risk free, yet low income generating. So EBL has focused more on private sector lending to generate high income. EBL has nil investment to Government Sector in two years among five years. But Government Sector should also be considered as it should be maintained for relation with government unit as well as safe investment.
5. EBL has low investment and outside asset mobilization compared to NABIL. So it should focus more on these factors as it generates the income for long term perspective. Loan loss ratio of EBL is also less, so it should try to maintain this.
6. EBL has low capital to total deposit and capital to total credit. So EBL should increase its capital base to meet the capital adequacy ratio by increasing both core and supplementary capital.
7. The Risk ratio shows that capital risk ratio of EBL is higher that means it is giving due consideration in increment of profit through the increment of deposit. To increase the deposit EBL has come with various scheme in market. So EBL has to maintain the optimum point between the risk and return.
8. Profit is lifeline of any commercial bank, so EBL should also try to increase its profit by adjusting various other assets and liabilities. Return on working capital fund, return on loans and advances and return on Equity are various measures of net profit, so EBL should increase these factors.
9. Correlation between Deposit and Loan & Advances, Investment and Net Profit are result positive, so EBL should increase its Deposit to Increase Loan & Advances, Investment and Net Profit, which will result in whole bank's efficiency .

5.3.3 Recommendations to NRB

NRB is expected to adopt a suitable policy for banking development, which should ultimately lead to effective collection & utilization of deposits. On the basis of the analysis and findings derived from the study following recommendations are made for augmenting:

1. The NRB has issued new directives which have certainly made changes in the provision to the commercial banks. NRB has issued new directives with the objective to protect the deposits of the depositors and to uplift the banking system in Nepal to international standards. But, to combat the problems associated with the directives NRB may not only issue directives for the sake of issuing them, it needs to be done after being proper homework and consultation with different banking experts. They may become irrelevant if not implemented so NRB should have follow up channel to supervise that its directives are implemented.
2. To reduce the credit risk and bad quality of assets in the commercial bank's balance sheet, Credit Information Bureau should be strong and effective.
3. Rules made by NRB should be easy to use in practical banking operation. They may not be made only to meet the international standards but it can be applied in the context of Nepal.
4. For the actions to be taken by NRB in violation of rules and regulations made by NRB, it should be practical and effective. A framework of penalties also should be sort out for the positive impact even from the penalty to the commercial banks.

5. A visible, transparent as well as unbiased rating agency should be established. Banks which meet or exceed the standards than the directives may be rewarded or admit such banks for counselling as banking expert.

6. Political sector governs the whole sectors of the country. If stable political sector does not exist in the country, professionally effective banking sector cannot run successfully. Country's political situation influences the fiscal, monetary & banking policies. So political stability is most necessary for the effective development of the commercial banking.

7. NRB should maintain certainty in the directives, which are less found there in the present directives. It should come up with straight forward directives leaving no loop holes that can be manipulated. And the suggestions from the commercial banks should be listened and if they are relevant and acceptable, the directives have to be amended.

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APPENDICES

Annexure A: NRB DIRECTIVES

According to Bashu Dev Bhattarai, Asst. Manager, Nepal Rastra Bank, Siddharthanagar in his study of Directives (2007) he has shown that NRB introduced new consolidated directives in accordance with the BFI Act. The consolidated directives are guided under NRB Act 2058 and Basel II principles as well. The new Directives included regulatory measures of international standards and practices in the areas of: Capital adequacy; loan classification and provisioning; credit concentration and single obligor limits; accounting policies and formats of financial statements; management and minimization of risks; good corporate governance; policies relating to compliance with the directives issued after the inspection and supervision; investment policies; reporting requirements; provisions for the purchase and sale of promoter shares; regulation on consortium financing; regulations on credit information and blacklisting; provision for statutory reserve requirements; policies on branch expansion; policies on interest rates; and policies on financial resources generation. It is hoped that adherence to these directives would ensure financial stability and discipline thereby helping Nepalese banking industry to flourish in the country. Banks & financial institutions are responsible for comply these directives according to NRB Act 2058. However related directives to this study are as follows :

Directive No. 1 Capital Adequacy

Capital Adequacy should maintain on the basis of total risk weighted assets. The logic behind the capital adequacy is to protect the interest of public deposit as well as safeguard the banks in their critical financial position.

Minimum Capital Adequacy on RWA (Percentage)

Institution	Primary Capital	Total Capital Fund
A, B & C Class	6.0	12.0
D Class	4.0	8.0

As presented in the above table A, B&C class financial institution should maintain the capital adequacy 6 % in primary capital of their total risk weighted assets. They should maintain 12 % in total capital fund of total risk weighted assets. But D class institution can maintain 4 % in primary capital and 8 % in total capital fund. Capital fund is divided into two categories. They are Primary capital and secondary capital. Primary capital is also known as core capital or Tier-I capital and secondary capital is Tier-II. Total capital fund is the sum of primary capital and secondary capital. Risk is assigned 0% to 100% on the on-balance sheet and off-balance sheet items according to inherent risk over them in order to calculate Risk Weighted Assets (RWA).

High capital adequacy ratio blocks the financial institutions to create unlimited liability. It helps to maintain national and international credibility.

Directive No. 2 Loan Classification and Provisioning

To mitigate risk in default of any loan and advance provided by banks, they should be maintained some provision according to the due date. Provisioning amount should maintain on the basis of classification of loan.

Classification	Provision	Criteria of Provisioning
Pass Loan Good	1%	not overdue and overdue up to 3 months
NPL (Non-Performing Loan) Sub-standard	25%	Overdue by 3 to 6 months
Doubtful	50%	Overdue by 6 to 12 months
Bad	100%	Overdue by 1 year & above

Financial institutions have to be maintained the provision as per classification of loan. It measures the quality of assets in reference of loan and advances and

contraction of profit as well. Quality of assets is decreases, when the credit of financial institutions diversifies in to NPA. Such losses, from quality of assets, can be compensated by debiting the profit and can be harmonized the financial strength of those financial institutions.

Directive No. 3 Credit Concentration and Single Obligor Limit

All the eggs in a basket may be high Risk. So, this directive does not allow investing all the resources in one sector of economy. This directive diverts the loan and advances of financial institutions in different portfolios. To minimize the concentration risk, single borrower limit has been determined as per the primary capital of the Financial Institutions. Single borrower limit for credit and facilities (single borrower, firm, company or group of inter-connected borrower and sector Unit.) 25% in fund based and 50% in non-fund based of their primary capital. Both Limits are given as maximum and it is not allowed to fix the limit by adding both fund based & non-fund based Limit.

Definitely, high return has inherent significant risk. This provision has been controlled to lending in high risk associated portfolios. All firms are affected by the shock of trade cycle due to external and internal causes. This provision tries to manage and escape from shock through imposing credit concentration and single borrower limit.

Directive No. 4 Investment Policies

- To mobilize the financial resources bank should prepare its investment policy under this directive.
- Investment Policy should be implemented after getting NRB Approval.
- Special Directives issued regarding to investment on NRB Board and Government Board.
- Provision regarding to investment on shares & securities of organized institutions.
- Review of Investment.
- Valuation of shares & debentures.

Directives No 5 Interest Rate

- All BFIs are free to quote their interest rate on deposit and lending. But can not quote flat rate
- D Class institutions are free to quote Flat Rate
- Interest policy and procedures should be written form and decided by responsible authority
- Interest Spread on deposit should not exceed 0.5 % than published rate.
- Lending and deposit rate should be reported in NRB in quarterly within a week of each quarter end and should be published in national media
- Interest income should be accounting in Cash Basis not in Accrual Basis

Directives No 6 Financial resources generation

- A Class: No limit
- B Class: 20 times of primary capital
- C Class: 15 times of primary capital
- D Class: 30 times of primary capital
- Single Depositor Limit (SDL):
- For 2062/63 30% of total deposit
- For 2063/64 25% of total deposit
- Then after 20% of total deposit
- If SDL is crossed than limit, then it should take in limit within 3 month

SDL minimizes the risk that may happen when huge amount will be withdrawn. If most of deposit is accepted from single depositor at that situation he/she may withdraw their amount with giving shock the bank. And financial institution may have suffered from fund crisis in some situation. From the side of depositor interest it may have harmful decision to keep all the saving in only one financial institution.

Conclusion

Nepal Rastra Bank is central Bank of Nepal. Its major objectives are concentrated in price stability and financial sector stability in the country. To keep stable financial system some laws, regulations, directives and provisions to be imposed to financial institution by the government and regulatory body. Financial institutions should have to comply such prudential laws, regulations, directives and provisions. If regulation system is loose and flexible, then unsound, trackless and undue financial situation will arise in the financial system as well as in the country's economy. Compulsion and complied in adopting the regulating tools by system member which was issued by regulatory body is strongly required to making the efficient and effective financial system.

Nepal Rastra Bank should know well whole financial system and its activities as well as overall financial way through the provision requirement and reporting requirement of directives. In contrast, all financial institutions are highly responsible to report in time as per the demand and need prescribed by the directives otherwise they are punishable as provision in section 74 of Bank and Financial institutions Act, 2063 and section 99 & 100 of Nepal Rastra Bank Act, 2058. Currently sixteen directives have issued and implemented to financial institutions since 2062 Shrawan 1 onward.

Annexure A1: NRB Balance to Total Deposit

Everest Bank Limited (*Rs. in Million*)

Year	NRB Balance	Total Dep	Ratio	%
2001/02	357.7	4917.5	0.072740	7.274021
2002/03	724.8	6123.8	0.118358	11.83579
2003/04	441.9	7364.6	0.060003	6.000326
2004/05	774.5	9276.6	0.083490	8.348964
2005/06	1139.5	12382.6	0.092024	9.202429
			Σx	42.66153

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{42.66153}{5} = \mathbf{8.532}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{1.969}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{23.08}$$

Nabil Bank Limited (*Rs. in Million*)

Year	Nrb Balance	Total Dep	Ratio	%
2001/02	366.3	10,058.80	0.0364159	3.641587
2002/03	892.8	10,515.00	0.0849073	8.490728
2003/04	606.4	10,991.70	0.0551689	5.51689
2004/05	389.7	11,948.50	0.0326154	3.261539
2005/06	318.4	15,174.30	0.0209828	2.098285
			Σx	23.00903

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{23.00903}{5} = \mathbf{4.602}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{2.234}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{48.54}$$

Annexure B2: NRB Balance to Current & Saving Deposit.

Everest Bank Limited (*Rs. in Million*)

Year	Nrb Balance	Saving & Current Dep	Ratio	%
2001/02	357.7	2222.9	0.160916	16.0916
2002/03	724.8	3320.4	0.218287	21.8287
2003/04	441.9	4450.5	0.099292	9.9292
2004/05	774.5	5832.1	0.132800	13.2800
2005/06	1139.5	8084.4	0.140950	14.0950
			$\sum x$	75.22451

$$\text{Mean} = \frac{\sum x}{N} = \frac{75.22451}{5} = 15.045$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 3.932$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 26.14$$

Nabil Bank Limited (*Rs. in Million*)

Year	Nrb Balance	Saving & Current Dep	Ratio	%
2001/02	366.3	7612.0	0.0481214	4.812139
2002/03	892.8	8262.4	0.1080558	10.80558
2003/04	606.4	8681.1	0.0698529	6.98529
2004/05	389.7	9869.9	0.0394837	3.948368
2005/06	318.4	11724.1	0.0271577	2.715773
			$\sum x$	29.26715

$$\text{Mean} = \frac{\sum x}{N} = \frac{29.26715}{5} = 5.853$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 2.841$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 48.54$$

Annexure B3: NRB Balance to Fixed Deposit.

Everest Bank Limited (Rs. in Million)

Year	Nrb Balance	Fixed Dep	Ratio	%
2001/02	357.7	2694.6	0.132747	13.2747
2002/03	724.8	2803.4	0.258543	25.8543
2003/04	441.9	2914.1	0.151642	15.1642
2004/05	774.5	3444.5	0.224851	22.4851
2005/06	1139.5	4298.2	0.265111	26.5111
			$\sum x$	103.2894

$$\text{Mean} = \frac{\sum x}{N} = \frac{103.2894}{5} = 20.658$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 5.464$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 26.45$$

Nabil Bank Limited (Rs. in Million)

Year	Nrb Balance	Fixed Dep	Ratio	%
2001/02	366.3	2446.8	0.1497057	14.97057
2002/03	892.8	2252.6	0.3963420	39.6342
2003/04	606.4	2310.6	0.2624427	26.24427
2004/05	389.7	2078.6	0.1874820	18.7482
2005/06	318.4	3450.2	0.0922845	9.228451
			$\sum x$	108.8257

$$\text{Mean} = \frac{\sum x}{N} = \frac{108.8257}{5} = 21.765$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 10.505$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 48.27$$

Annexure B4: Total Liquid Fund to Total Deposit.

Rs in million

Everest Bank Limited

Year	Liquid Fund	Total Dep	Ratio	%
2001/02	688.62	4,917.50	0.1400336	14.0034
2002/03	1,139.57	6,123.80	0.1860885	18.6089
2003/04	819.25	7,364.60	0.1112416	11.1242
2004/05	1,614.82	9,276.60	0.1740746	17.4075
2005/06	1,619.91	12,382.60	0.1308217	13.0822
			Σx	74.225993

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{74.225993}{5} = 14.845$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = 2.771$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 18.67$$

Nabil Bank Limited

Year	Liquid Fund	Total Dep	Ratio	%
2001/02	1,083	10,058.80	0.1076856	10.7686
2002/03	1,815	10,515.00	0.1726079	17.2608
2003/04	1,889	10,991.70	0.1718770	17.1877
2004/05	1,428	11,948.50	0.1194969	11.9497
2005/06	2,365	15,174.30	0.1558649	15.5865
			Σx	72.75322

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{72.75322}{5} = 14.551$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = 2.70$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 18.55$$

Annexure B5: Credit to Total Deposit

Rs in million

Everest Bank Limited

Year	Loan & Advances	Total Dep	Ratio	%
2001/02	3,948.48	4,917.50	0.8029442	80.2944
2002/03	4,908.46	6,123.80	0.8015384	80.1538
2003/04	5,884.12	7,364.60	0.7989738	79.8974
2004/05	7,618.67	9,276.60	0.8212784	82.1278
2005/06	9,801.31	12,382.60	0.7915387	79.1539
			Σx	401.62736

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{401.62736}{5} = \mathbf{80.325}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{0.983}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{S.D.}{\text{Mean}} = \mathbf{1.22}$$

Nabil Bank Limited

Year	Loan & Advances	Total Dep	Ratio	%
2001/02	7,438	10,058.80	0.7394416	73.9442
2002/03	7,756	10,515.00	0.7376084	73.7608
2003/04	8,190	10,991.70	0.7451070	74.5107
2004/05	10,586	11,948.50	0.8859832	88.5983
2005/06	12,923	15,174.30	0.8516072	85.1607
			Σx	395.9747

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{395.9747}{5} = \mathbf{79.195}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{6.373}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{S.D.}{\text{Mean}} = \mathbf{8.05}$$

Annexure B6: Investment to Total Deposit

Rs in million

Everest Bank Limited

Year	Investments	Total Dep	Ratio	%
2001/02	1,693.04	4,917.50	0.3442881	34.4288
2002/03	1,653.98	6,123.80	0.2700900	27.0090
2003/04	2,535.66	7,364.60	0.3443035	34.4304
2004/05	2,128.93	9,276.60	0.2294948	22.9495
2005/06	4,200.52	12,382.60	0.3392272	33.9227
			Σx	152.74037

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{152.74037}{5} = \mathbf{30.548}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{4.728}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{S.D.}{\text{Mean}} = \mathbf{15.48}$$

Nabil Bank Limited

Year	Investment	Total Dep	Ratio	%
2001/02	8,200	10,058.80	0.8151584	81.5158
2002/03	6,031	10,515.00	0.5735783	57.3578
2003/04	5,836	10,991.70	0.5309414	53.0941
2004/05	4,276	11,948.50	0.3578297	35.7830
2005/06	6,179	15,174.30	0.4071709	40.7171
			Σx	268.46786

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{268.4679}{5} = \mathbf{53.694}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{15.981}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{S.D.}{\text{Mean}} = \mathbf{29.76}$$

Annexure B7: Credit and Investment to Total Deposit

Rs in million

Everest Bank Limited

Year	Credit & Investment	Total Dep	Ratio	%
2001/02	5,641.51	4,917.50	1.1472323	114.7232
2002/03	6,562.44	6,123.80	1.0716284	107.1628
2003/04	8,419.78	7,364.60	1.1432773	114.3277
2004/05	9,747.60	9,276.60	1.0507733	105.0773
2005/06	14,001.82	12,382.60	1.1307660	113.0766
			$\sum x$	554.3677251

$$\text{Mean} = \frac{\sum x}{N} = \frac{554.3677}{5} = 110.874$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 3.974$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 3.58$$

Nabil Bank Limited

Year	Credit & Investment	Total Dep	Ratio	%
2001/02	15,637	10,058.80	1.5545999	155.4600
2002/03	13,787	10,515.00	1.3111866	131.1187
2003/04	14,026	10,991.70	1.2760484	127.6048
2004/05	14,862	11,948.50	1.2438129	124.3813
2005/06	19,101	15,174.30	1.2587781	125.8778
			$\sum x$	664.442592

$$\text{Mean} = \frac{\sum x}{N} = \frac{664.4425}{5} = 132.889$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 11.507$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 8.66$$

Annexure B8: Time Deposit to Total Deposit

Rs in million

Everest Bank Limited

Year	Fixed Dep	Total Dep	Ratio	%
2001/02	2,694.60	4,917.50	0.5479614	54.7961
2002/03	2,803.40	6,123.80	0.4577876	45.7788
2003/04	2,914.10	7,364.60	0.3956902	39.5690
2004/05	3,444.50	9,276.60	0.3713106	37.1311
2005/06	4,298.20	12,382.60	0.3471161	34.7116
			$\sum x$	211.9865928

$$\text{Mean} = \frac{\sum x}{N} = \frac{211.9865}{5} = 42.397$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 7.211$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 17.01$$

Nabil Bank Limited

Year	Fixed Dep	Total Dep	Ratio	%
2001/02	2446.80	10,058.80	0.2432497	24.3250
2002/03	2252.60	10,515.00	0.2142273	21.4227
2003/04	2310.60	10,991.70	0.2102132	21.0213
2004/05	2078.60	11,948.50	0.1739633	17.3963
2005/06	3450.20	15,174.30	0.2273713	22.7371
			$\sum x$	106.9024685

$$\text{Mean} = \frac{\sum x}{N} = \frac{106.9024685}{5} = 21.380$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 2.303$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 10.77$$

ANNEXURE B9

Rs in million

• Credit to Government Enterprises to Total Credit

Everest Bank Limited

Year	Credit to Government Enterprises	Total Credit	Ratio	%
2001/02	0.00	3,969.60	0.0000000	-
2002/03	60.00	5,030.90	0.0119263	1.1926
2003/04	69.20	6,116.60	0.0113135	1.1313
2004/05	0.00	7,914.40	0.0000000	-
2005/06	494.00	10,124.20	0.0487940	4.8794
			$\sum x$	7.203374908

$$\text{Mean} = \frac{\sum x}{N} = \frac{7.20337}{5} = 1.441$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 1.796$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 124.68$$

Nabil Bank Limited

Year	Credit to Government Enterprises	Total Credit	Ratio	%
2001/02	64.70	7,072.00	0.0091488	0.9149
2002/03	20.80	7,996.90	0.0026010	0.2601
2003/04	20.30	8,635.10	0.0023509	0.2351
2004/05	60.00	11,078.00	0.0054161	0.5416
2005/06	360.00	13,021.30	0.0276470	2.7647
			$\sum x$	4.716378306

$$\text{Mean} = \frac{\sum x}{N} = \frac{4.711637}{5} = 0.943$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 0.943$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 99.99$$

ANNEXURE B10

Rs in million

- Credit to Private Firm to Total Credit

Everest Bank Limited

Year	Credit to Private Firm	Total Credit	Ratio	%
2001/02	3969.60	3,969.60	1.0000000	100.0000
2002/03	4970.90	5,030.90	0.9880737	98.8074
2003/04	6047.40	6,116.60	0.9886865	98.8687
2004/05	7914.00	7,914.40	0.9999495	99.9949
2005/06	9631.00	10,124.20	0.9512850	95.1285
			$\sum x$	492.7994729

$$\text{Mean} = \frac{\sum x}{N} = \frac{492.7994}{5} = \mathbf{98.560}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = \mathbf{1.792}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{1.82}$$

Nabil Bank Limited

Year	Credit to Private Firm	Total Credit	Ratio	%
2001/02	6751.10	7,072.00	0.9546239	95.4624
2002/03	7719.20	7,996.90	0.9652740	96.5274
2003/04	8497.30	8,635.10	0.9840419	98.4042
2004/05	11018.00	11,078.00	0.9945839	99.4584
2005/06	12661.00	13,021.30	0.9723300	97.2330
			$\sum x$	487.08536

$$\text{Mean} = \frac{\sum x}{N} = \frac{487.08536}{5} = \mathbf{97.417}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = \mathbf{1.399}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{1.44}$$

ANNEXURE B11

Rs in million

- **Loan Loss Ratio**

Everest Bank Limited

Year	Loan Loss Provision	Total Loan	Ratio	%
2001/02	95.75	4,044.23	0.0236758	2.3676
2002/03	141.12	5,049.58	0.0279470	2.7947
2003/04	211.72	6,095.84	0.0347316	3.4732
2004/05	281.42	7,900.09	0.0356222	3.5622
2005/06	334.95	10,136.25	0.0330444	3.3044
			Σx	15.50210981

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{15.50210981}{5} = \mathbf{3.10}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{0.453}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{14.60}$$

Nabil Bank Limited

Year	Loan Loss Provision	Total Loan	Ratio	%
2001/02	363.95	7,801.85	0.0466497	4.6650
2002/03	357.73	8,113.68	0.0440900	4.4090
2003/04	358.66	8,548.66	0.0419556	4.1956
2004/05	360.57	10,946.74	0.0329383	3.2938
2005/06	356.24	13,278.78	0.0268277	2.6828
			Σx	19.24612691

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{19.246126}{5} = \mathbf{3.849}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{0.744}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{19.33}$$

ANNEXURE B12

Rs in million

- Capital to Total Deposit

Everest Bank Limited

Year	Capital	Total Dep	Ratio	%
2001/02	497.80	4,917.50	0.1012303	10.1230
2002/03	587.10	6,123.80	0.0958718	9.5872
2003/04	665.80	7,364.60	0.0904055	9.0405
2004/05	980.30	9,276.60	0.1056745	10.5674
2005/06	832.50	12,382.60	0.0672314	6.7231
			$\sum x$	46.04135278

$$Mean = \frac{\sum x}{N} = \frac{46.04135}{5} = 9.208$$

$$Standard\ Deviation\ (S.D.) = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 1.344$$

$$Coefficient\ of\ Variance\ (C.V.) = \frac{S.D.}{Mean} = 14.60$$

Nabil Bank Limited

Year	Capital	Total Dep	Ratio	%
2001/02	1062.80	10,058.80	0.1056587	10.5659
2002/03	1146.40	10,515.00	0.1090252	10.9025
2003/04	1804.20	10,991.70	0.1641420	16.4142
2004/05	1482.35	11,948.50	0.1240616	12.4062
2005/06	1657.70	15,174.30	0.1092439	10.9244
			$\sum x$	61.21314799

$$Mean = \frac{\sum x}{N} = \frac{61.2131}{5} = 12.243$$

$$Standard\ Deviation\ (S.D.) = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 2.181$$

$$Coefficient\ of\ Variance\ (C.V.) = \frac{S.D.}{Mean} = 17.81$$

ANNEXURE B13

Rs in million

- **Capital to Total Credit**

Everest Bank Limited

Year	Capital	Total Credit	Ratio	%
2001/02	497.80	3,969.60	0.1254031	12.5403
2002/03	587.10	5,030.90	0.1166988	11.6699
2003/04	665.80	6,116.60	0.1088513	10.8851
2004/05	980.30	7,914.40	0.1238628	12.3863
2005/06	832.50	10,124.20	0.0822287	8.2229
			$\sum x$	55.70447389

$$\text{Mean} = \frac{\sum x}{N} = \frac{55.7044}{5} = 11.141$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 1.573$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 14.12$$

Nabil Bank Limited

Year	Capital	Total Credit	Ratio	%
2001/02	1062.80	7,072.00	0.1502828	15.0283
2002/03	1146.40	7,996.90	0.1433556	14.3356
2003/04	1804.20	8,635.10	0.2089379	20.8938
2004/05	1482.35	11,078.00	0.1338103	13.3810
2005/06	1657.70	13,021.30	0.1273068	12.7307
			$\sum x$	76.36933469

$$\text{Mean} = \frac{\sum x}{N} = \frac{76.3693}{5} = 15.274$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 2.918$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 19.10$$

ANNEXURE B14

Rs in million

- **Capital to Total Asset**

Everest Bank Limited

Year	Capital	Total Assets	Ratio	%
2001/02	497.80	6,616.90	0.0752316	7.5232
2002/03	587.10	8,052.21	0.0729117	7.2912
2003/04	665.80	9,608.57	0.0692923	6.9292
2004/05	980.30	11,732.52	0.0835541	8.3554
2005/06	832.50	15,959.28	0.0521640	5.2164
			Σx	35.31536989

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{35.3153}{5} = 7.063$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = 1.036$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 14.66$$

Nabil Bank Limited

Year	Capital	Total Assets	Ratio	%
2001/02	1062.80	17,629.25	0.0602862	6.0286
2002/03	1146.40	16,562.62	0.0692161	6.9216
2003/04	1804.20	16,745.49	0.1077425	10.7742
2004/05	1482.35	17,064.08	0.0868696	8.6870
2005/06	1657.70	22,329.97	0.0742365	7.4237
			Σx	39.83508601

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{39.8350}{5} = 7.967$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = 1.646$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 20.66$$

ANNEXURE B15

Rs in million

- **Capital Risk Ratio**

Everest Bank Limited

Year	Share Capital	Total Risk Weighted Assets	Ratio	%
2001/02	399.32	4,272.93	0.0934531	9.3453
2002/03	455.00	5,707.03	0.0797262	7.9726
2003/04	455.00	6,924.81	0.0657058	6.5706
2004/05	518.00	9,195.59	0.0563314	5.6331
2005/06	518.00	11,291.14	0.0458767	4.5877
			Σx	34.10931985

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{34.1093}{5} = \mathbf{6.822}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{1.683}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{24.67}$$

Nabil Bank Limited

Year	Share Capital	Total Risk Weighted Assets	Ratio	%
2001/02	491.65	10,563.62	0.0465422	4.6542
2002/03	491.65	11,153.13	0.0440822	4.4082
2003/04	491.65	11,872.01	0.0414129	4.1413
2004/05	491.65	14,193.07	0.0346404	3.4640
2005/06	491.65	16,976.37	0.0289611	2.8961
			Σx	19.56387273

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{19.5638}{5} = \mathbf{3.913}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{0.645}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{16.49}$$

ANNEXURE B16

Rs in million

- **Interest Rate Risk Ratio**

Everest Bank Limited

Year	Interest Sens. Assets	Interest Sens. Liabilities	Ratio	%
2001/02	5,823.40	4,509.67	1.2913149	129.1315
2002/03	6,703.56	5,561.40	1.2053727	120.5373
2003/04	8,631.50	6,644.80	1.2989857	129.8986
2004/05	10,028.94	8,251.40	1.2154228	121.5423
2005/06	14,337.57	11,227.40	1.2770161	127.7016
			Σ x	628.8112166

$$\text{Mean} = \frac{\sum x}{N} = \frac{628.8112}{5} = 125.762$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 3.933$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 3.13$$

Nabil Bank Limited

Year	Interest Sens Assets	Interest Sens Liabilities	Ratio	%
2001/02	15637.41	7753.09	2.0169263	201.6926
2002/03	13787.13	8451.46	1.6313306	163.1331
2003/04	14025.94	8534.36	1.6434673	164.3467
2004/05	14861.70	9122.06	1.6292037	162.9204
2005/06	19101.08	12394.20	1.5411300	154.1130
			Σ x	846.2057953

$$\text{Mean} = \frac{\sum x}{N} = \frac{846.2057}{5} = 169.241$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = 16.632$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 9.83$$

ANNEXURE B17

Rs in million

- **Credit Risk Ratio**

Everest Bank Limited

Year	Total Loan & Advances	Total Assets	Ratio	%
2001/02	4,044.23	6,616.90	0.6111972	61.1197
2002/03	5,049.58	8,052.21	0.6271049	62.7105
2003/04	6,095.84	9,608.57	0.6344169	63.4417
2004/05	7,900.01	11,732.52	0.6733432	67.3343
2005/06	10,136.25	15,959.28	0.6351318	63.5132
			Σx	318.1194132

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{318.1194}{5} = \mathbf{63.624}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{2.045}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{3.21}$$

Nabil Bank Limited

Year	Total Loan & Advances	Total Assets	Ratio	%
2001/02	15637.41	17,629.25	0.8870149	88.7015
2002/03	13787.13	16,562.62	0.8324241	83.2424
2003/04	14025.94	16,745.49	0.8375953	83.7595
2004/05	14861.70	17,064.08	0.8709345	87.0935
2005/06	19101.08	22,329.97	0.8554009	85.5401
			Σx	428.3369657

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{428.336}{5} = \mathbf{85.667}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{2.038}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{2.38}$$

ANNEXURE B18

Rs in million

- Net Profit to Total Working Fund Ratio**

Everest Bank Limited

Year	Net Profit	Total Working Fund Ratio	Ratio	%
2001/02	85.35	4,999.27	0.017073	1.70725
2002/03	94.18	6,123.80	0.015379	1.53793
2003/04	143.57	7,364.60	0.019495	1.94946
2004/05	170.81	9,276.60	0.018413	1.84130
2005/06	237.38	12,382.60	0.019170	1.91704
			Σx	8.95299

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{8.9529}{5} = \mathbf{1.791}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{0.151}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{8.45}$$

Nabil Bank Limited

Year	Net Profit	Total Working Fund Ratio	Ratio	%
2001/02	271.64	10476.09	0.0259293	2.592933
2002/03	416.24	11476.46	0.0362690	3.626902
2003/04	455.32	11221.36	0.0405762	4.057619
2004/05	520.11	11965.56	0.0434676	4.346758
2005/06	635.26	15347.50	0.0413919	4.139188
			Σx	18.7634

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{18.7634}{5} = \mathbf{3.753}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{0.625}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{16.67}$$

ANNEXURE B19

Rs in million

- **Net Profit to Loan and Advances**

Everest Bank Limited

Year	Net Profit	Total Loan & Advances	Ratio	%
2001/02	85.35	4,044.23	0.021104	2.11041
2002/03	94.18	5,049.58	0.018651	1.86511
2003/04	143.57	6,095.84	0.023552	2.35521
2004/05	170.81	7,900.01	0.021621	2.16215
2005/06	237.38	10,136.25	0.023419	2.34189
			Σx	10.83477

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{10.8347}{5} = \mathbf{2.167}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{0.179}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{8.26}$$

Nabil Bank Limited

Year	Net Profit	Total Loan & Advances	Ratio	%
2001/02	271.64	10476.09	0.0259293	2.592933
2002/03	416.24	11476.46	0.0362690	3.626902
2003/04	455.32	11221.36	0.0405762	4.057619
2004/05	520.11	11965.56	0.0434676	4.346758
2005/06	635.26	15347.50	0.0413919	4.139188
			Σx	18.7634

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{18.7634}{5} = \mathbf{3.753}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{0.625}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{16.67}$$

ANNEXURE B20

Rs in million

- **Net Profit to Total Equity**

Everest Bank Limited

Year	Net Profit	Total Equity Capital	Ratio	%
2001/02	85.35	497.80	0.171454	17.14544
2002/03	94.18	587.10	0.160416	16.04156
2003/04	143.57	665.80	0.215635	21.56353
2004/05	170.81	980.30	0.174243	17.42426
2005/06	237.38	832.50	0.285141	28.51411
			Σx	100.6889047

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{100.6889}{5} = \mathbf{20.138}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{4.589}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{22.79}$$

Nabil Bank Limited

Year	Net Profit	Total Equity Capital	Ratio	%
2001/02	271.64	1062.80	0.2555871	25.55871
2002/03	416.24	1146.40	0.3630844	36.30844
2003/04	455.32	1804.20	0.2523667	25.23667
2004/05	520.11	1482.35	0.3508713	35.08713
2005/06	635.26	1657.70	0.3832189	38.32189
			Σx	160.5128

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{160.5128}{5} = \mathbf{32.103}$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = \mathbf{5.572}$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = \mathbf{17.36}$$

ANNEXURE B21

Rs in million

- Interest earned on total outside assets

Everest Bank Limited

Year	Net Profit	Total Outside Assets	Ratio	%
2001/02	85.35	6,152.92	0.013871	1.38715
2002/03	94.18	7,565.35	0.012449	1.24489
2003/04	143.57	9,110.27	0.015759	1.57591
2004/05	170.81	11,175.00	0.015285	1.52850
2005/06	237.38	15,362.40	0.015452	1.54520
			Σx	7.281648656

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{7.2816}{5} = 1.456$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = 0.124$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 8.52$$

Nabil Bank Limited

Year	Net Profit	Total Outside Assets	Ratio	%
2001/02	271.64	16402.44	0.0165608	1.656083
2002/03	416.24	15414.32	0.0270035	2.700346
2003/04	455.32	15628.28	0.0291344	2.913436
2004/05	520.11	16143.15	0.0322189	3.221887
2005/06	635.26	21228.40	0.0299251	2.99251
			Σx	13.48426

$$\text{Mean} = \frac{\Sigma x}{N} = \frac{13.48426}{5} = 2.697$$

$$\text{Standard Deviation (S.D.)} = \sqrt{\frac{\Sigma (x - \bar{x})^2}{N}} = 0.546$$

$$\text{Coefficient of Variance (C.V.)} = \frac{\text{S.D.}}{\text{Mean}} = 20.26$$

ANNEXURE C1

Rs in million

• **Growth Ratio of Total Deposit**

Year	EBL	NABIL
2001/02	4,917.50	10,058.80
2002/03	6,123.80	10,515.00
2003/04	7,364.60	10,991.70
2004/05	9,276.60	11,948.50
2005/06	12,382.60	15,174.30

Where,

D_n = Total Deposit For n year

D_o = Total Initial Deposit

g = growth

$N = 5$

EBL

Now we have,

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

$$D_{2006} = D_{2002}(1+g)^{5-1}$$

$$12382.6 =$$

$$10058.8(1+g)^4$$

$$(1+g)^4 = \frac{12382.6}{4917.5}$$

$$(1+g) = (2.518068)^{1/4}$$

$$g = 1.259699-1$$

$$g = 0.259699 \text{ or } 25.96\%$$

$$10.82\%$$

NABIL

now we have,

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

$$D_{2006} = D_{2001}(1+g)^{5-1}$$

$$4917.5(1+g)^4 = 15174.3$$

$$(1+g)^4 = \frac{15174.3}{10058.8}$$

$$(1+g)^4 = (1.50856)^{1/4}$$

$$g = 1.108257-1$$

$$g = 0.108257 \text{ or}$$

ANNEXURE C2

Rs in million

• **Growth Ratio of Total Loan & Advances**

Year	EBL	NABIL
2001/02	4,044.23	10,476.09
2002/03	5,049.58	11,476.46
2003/04	6,095.84	11,221.36
2004/05	7,900.01	11,965.56
2005/06	10,136.25	15,347.50

Where,

D_n = Total Loan & Advances For n year

D_0 = Total Initial Loan & Advances

g = growth

N = 5

EBL

Now we have,

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

$$D_{2006} = D_{2002}(1+g)^{5-1}$$

$$10136.2 =$$

=

$$(1+g)^4 = \frac{10136.2}{4044.23}$$

$$4044.23$$

$$(1+g) = (2.506336)^{1/4}$$

$$g = 1.258229-1$$

$$g = 0.258229 \text{ or } 25.82\%$$

10.01%

NABIL

now we have,

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

$$D_{2006} = D_{2001}(1+g)^{5-1}$$

$$4044.23(1+g)^4 = 15347.5$$

$$10476.09(1+g)^4$$

$$(1+g)^4 = \frac{15347.5}{10476.09}$$

$$10476.09$$

$$(1+g)^4 = (1.465003)^{1/4}$$

$$g = 1.10017-1$$

$$g = 0.10017 \quad \text{or}$$

ANNEXURE C3

Rs in million

• Growth Ratio of Total Investment

Year	EBL	NABIL
2001/02	1,693.04	8,199.51
2002/03	1,653.98	6,031.18
2003/04	2,535.66	5,835.95
2004/05	2,128.93	4,275.53
2005/06	4,200.52	6,178.53

Where,

D_n = Total Investment For n year

D_o = Total Initial Investment

g = growth

$$N = 5$$

EBL

Now we have,

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

$$D_{2006} = D_{2002}(1+g)^{5-1}$$

$$4200.52 =$$

=

$$(1+g)^4 = \frac{4200.52}{1693.04}$$

$$1693.04$$

$$(1+g) = (2.481052)^{1/4}$$

$$g = 1.255044 - 1$$

$$g = 0.255044 \text{ or } 25.50\%$$

$$6.83\%$$

NABIL

now we have,

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

$$D_{2006} = D_{2001}(1+g)^{5-1}$$

$$1693.04(1+g)^4 = 6178.53$$

$$8199.51(1+g)^4$$

$$(1+g)^4 = \frac{6178.53}{8199.51}$$

$$8199.51$$

$$(1+g)^4 = (0.753524)^{1/4}$$

$$g = 0.931696 - 1$$

$$g = -0.0683 \text{ or } -$$

ANNEXURE C4

Rs in million

• **Growth Ratio of Net Profit**

Year	EBL	NABIL
2001/02	85.35	271.64
2002/03	94.18	416.24
2003/04	143.57	455.32
2004/05	170.81	520.11
2005/06	237.38	635.26

Where,

D_n = Net Profit For n year

D_o = Initial Net Profit

g = growth

$$N = 5$$

EBL

Now we have,

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

$$D_{2006} = D_{2002}(1+g)^{5-1}$$

$$237.38 = 85.35(1+g)^4$$

$$(1+g)^4 = \frac{237.38}{85.35}$$

$$85.35$$

$$(1+g) = (2.781254)^{1/4}$$

$$g = 1.291398 - 1$$

$$g = 0.291398 \text{ or } 29.13\%$$

NABIL

now we have,

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

$$D_{2006} = D_{2001}(1+g)^{5-1}$$

$$635.26 = 271.64(1+g)^4$$

$$(1+g)^4 = \frac{635.26}{271.64}$$

$$271.64$$

$$(1+g)^4 = (2.33861)^{1/4}$$

$$g = 1.236629 - 1$$

$$g = 0.2366 \text{ or } 23.66\%$$

ANNEXURE D1

- **Correlation Coefficient between Deposit and Loans and Advances**

Everest Bank Limited

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

Year	X	Y	$x = X - \bar{X}$	$y = Y - \bar{Y}$	x^2	y^2	xy
2001/02	4,917.50	4,044.23	(3,095.52)	(2,600.95)	9582244.1	6764951.306	8051298.935
2002/03	6,123.80	5,049.58	(1,889.22)	(1,595.60)	3569152.2	2545945.742	3014443.21
2003/04	7,364.60	6,095.84	(648.42)	(549.34)	420448.5	301776.633	356204.3396
2004/05	9,276.60	7,900.01	1,263.58	1,254.83	1596634.4	1574593.31	1585575.564
2005/06	12,382.60	10,136.25	4,369.58	3,491.07	19093229.4	12187555.78	15254500.91
N =	$\sum X =$	$\sum Y =$			$\sum X^2 =$	$\sum Y^2 =$	$\sum XY =$
5	40,065.10	33,225.91			34261708.6	23374822.8	28262022.96

$$\begin{aligned} \text{Mean } (\bar{X}) &= \frac{\sum X}{N} & \text{Mean } (\bar{Y}) &= \frac{\sum Y}{N} \\ &= \frac{40065.10}{5} & &= \frac{33225.91}{5} \\ &= 8013.02 & &= 6645.18 \end{aligned}$$

$$\begin{aligned} \text{Correlation Coeff. (r)} &= \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} & \text{P.Er.} &= 0.6745 \frac{1-r^2}{\sqrt{N}} \\ &= \frac{28262022.96}{\sqrt{34261708.6} \sqrt{23374822.8}} & &= 0.6745 \times \frac{1-(0.9987)^2}{\sqrt{5}} \\ & & &= 0.0008 \end{aligned}$$

$$= \frac{28262022.96}{5853.35 \times 4834.75}$$

$$\begin{aligned} \text{Coefficient of Determination } (r^2) &= \\ (0.9987)^2 & \end{aligned}$$

$$= \frac{28262022.96}{28299494.09}$$

$$= 0.9974$$

$$= 0.9987$$

$$\begin{aligned} 6 \text{ P.Er} &= 6 \times (0.0008) \\ &= 0.004790 \end{aligned}$$

Nabil Bank Limited

Year	X	Y	$x = X - \bar{X}$	$y = Y - \bar{Y}$	x^2	y^2	xy
2001/02	10,058.80	10,476.09	(1,678.86)	(1,621.30)	2818570.9	2628626.66	2721942.433
2002/03	10,515.00	11,476.46	(1,222.66)	(620.93)	1494897.5	385559.0324	759191.1644
2003/04	10,991.70	11,221.36	(745.96)	(876.03)	556456.3	767435.5692	653486.3226
2004/05	11,948.50	11,965.56	210.84	(131.83)	44453.5	17380.20356	-27795.88056
2005/06	15,174.30	15,347.50	3,436.64	3,250.11	11810494.5	10563189.01	11169444.28
N =	$\sum X =$	$\sum Y =$			$\sum X^2 =$	$\sum Y^2 =$	$\sum XY =$
5	58,688.30	60,486.97			16724872.7	14362190.5	15276268.32

$$\begin{aligned} \text{Mean } (\bar{X}) &= \frac{\sum X}{N} \\ &= \frac{58688.3}{5} \\ &= 11737.66 \end{aligned}$$

$$\begin{aligned} \text{Mean } (\bar{Y}) &= \frac{\sum Y}{N} \\ &= \frac{60486.97}{5} \\ &= 12097.39 \end{aligned}$$

$$\begin{aligned} \text{Correlation Coeff. } (r) &= \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} \quad \text{P.Er.} = 0.6745 \frac{1-r^2}{\sqrt{N}} \\ &= \frac{15276268.32}{\sqrt{16724872.7} \sqrt{14362190.5}} \\ &= 0.6745 \times \frac{1-(0.9857)^2}{\sqrt{5}} \\ &= 0.0086 \end{aligned}$$

$$= \frac{15276268.32}{4089.61 \times 3789.75}$$

$$\begin{aligned} \text{Coefficient of Determination } (r^2) &= \\ &(0.9857)^2 \end{aligned}$$

$$= \frac{15276268.32}{15498574.36}$$

$$= 0.9715$$

$$= 0.9857$$

$$6 \text{ P.Er} = 6 \times (0.0086)$$

$$= 0.051548$$

ANNEXURE D2

• Correlation Coefficient between Deposit and Investment

Let, X be Deposit and Y be Investment respectively.

Everest Bank Limited

Year	X	Y	$x = X - \bar{X}$	$y = Y - \bar{Y}$	x^2	y^2	xy
2001/02	4,917.50	1,693.04	(3,095.52)	(749.39)	9582244.1	561580.7685	2319742.225
2002/03	6,123.80	1,653.98	(1,889.22)	(788.45)	3569152.2	621648.1426	1489549.207
2003/04	7,364.60	2,535.66	(648.42)	93.23	420448.5	8692.573087	-60454.7706
2004/05	9,276.60	2,128.93	1,263.58	(313.49)	1596634.4	98277.15406	-396122.06
2005/06	12,382.60	4,200.52	4,369.58	1,758.09	19093229.4	3090885.707	7682121.437
N =	$\sum X =$	$\sum Y =$			$\sum X^2 =$	$\sum Y^2 =$	$\sum XY =$
5	40,065.10	12,212.12			34261708.6	4381084.3	11034836.04

$$\begin{aligned} \text{Mean } (\bar{X}) &= \frac{\sum X}{N} & \text{Mean } (\bar{Y}) &= \frac{\sum Y}{N} \\ &= \frac{40065.10}{5} & &= \frac{12212.12}{5} \\ &= 8013.02 & &= 2442.42 \end{aligned}$$

$$\begin{aligned} \text{Correlation Coeff. } (r) &= \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} & \text{P.Er.} &= 0.6745 \frac{1-r^2}{\sqrt{N}} \\ &= \frac{11034836.04}{\sqrt{34261708.6} \sqrt{4381084.3}} & &= 0.6745 \times \frac{1-(0.9007)^2}{\sqrt{5}} \\ & & &= 0.0569 \end{aligned}$$

$$= \frac{11034836.04}{5853.35 \times 2093.1}$$

$$= \frac{11034836.04}{12251670.7}$$

$$= 0.9007$$

$$\begin{aligned} \text{Coefficient of Determination } (r^2) &= \\ &= (0.9007)^2 \end{aligned}$$

$$= 0.8112$$

$$6 \text{ P.Er} = 6 \times (0.0569)$$

$$= 0.341659$$

Nabil Bank Limited

Year	X	Y	$x = X - \bar{X}$	$y = Y - \bar{Y}$	x^2	y^2	xy
2001/02	10,058.80	8,199.51	(1,678.86)	2,095.37	2818570.9	4390595.461	-3517840.9
2002/03	10,515.00	6,031.18	(1,222.66)	(72.96)	1494897.5	5323.81648	89210.76065
2003/04	10,991.70	5,835.95	(745.96)	(268.19)	556456.3	71926.70041	200060.1588
2004/05	11,948.50	4,275.53	210.84	(1,828.61)	44453.5	3343821.213	-385544.5176
2005/06	15,174.30	6,178.53	3,436.64	74.39	11810494.5	5534.32934	255662.2111
N =	$\sum X =$	$\sum Y =$			$\sum X^2 =$	$\sum Y^2 =$	$\sum XY =$
5	58,688.30	30,520.70			16724872.7	7817201.5	-3358452.287

$$\begin{aligned} \text{Mean } (\bar{X}) &= \frac{\sum X}{N} \\ &= \frac{58688.3}{5} \\ &= 11737.66 \end{aligned}$$

$$\begin{aligned} \text{Mean } (\bar{Y}) &= \frac{\sum Y}{N} \\ &= \frac{30520.7}{5} \\ &= 6104.14 \end{aligned}$$

$$\begin{aligned} \text{Correlation Coeff. } (r) &= \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} \quad \text{P.Er.} = 0.6745 \frac{1-r^2}{\sqrt{N}} \\ &= \frac{-3358452.28}{\sqrt{16724872.7} \sqrt{7817201.5}} \\ &= \frac{-3358452.28}{4089.61 \times 2795.93} \end{aligned}$$

$$\begin{aligned} &= 0.6745 \times \frac{1 - (-0.2937)^2}{\sqrt{5}} \\ &= 0.2756 \end{aligned}$$

$$= \frac{-3358452.28}{11434233.70}$$

$$= -0.2937$$

$$\text{Coefficient of Determination } (r^2) = (-0.2937)^2$$

$$= 0.0863$$

$$6 \text{ P.Er} = 6 \times (0.2756)$$

$$= 1.653734$$

ANNEXURE D3

- Correlation Coefficient between Outside Asset and Net Profit**

Let, X be Outside Asset and Y be Net Profit respectively.

Everest Bank Limited

Year	X	Y	$x = X - \bar{X}$	$y = Y - \bar{Y}$	x^2	y^2	xy
2001/02	85.35	6,152.92	(60.91)	(3,720.27)	3709.8	13840393.99	226594.0833
2002/03	94.18	7,565.35	(52.08)	(2,307.84)	2712.1	5326116.234	120187.5874
2003/04	143.57	9,110.27	(2.69)	(762.92)	7.2	582043.8747	2050.723584
2004/05	170.81	11,175.00	24.55	1,301.81	602.8	1694714.483	31962.08822
2005/06	237.38	15,362.40	91.12	5,489.21	8303.2	30131448.38	500187.9759
N =	$\sum X =$	$\sum Y =$			$\sum X^2 =$	$\sum Y^2 =$	$\sum XY =$
5	731.29	49,365.94			15335.1	51574717.0	880982.4584

$$\begin{aligned} \text{Mean } (\bar{X}) &= \frac{\sum X}{N} \\ &= \frac{731.29}{5} \\ &= 146.26 \end{aligned}$$

$$\begin{aligned} \text{Mean } (\bar{Y}) &= \frac{\sum Y}{N} \\ &= \frac{49365.94}{5} \\ &= 9873.19 \end{aligned}$$

$$\begin{aligned} \text{Correlation Coeff. } (r) &= \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} \quad \text{P.Er.} = 0.6745 \frac{1-r^2}{\sqrt{N}} \\ &= \frac{880982.45}{\sqrt{15335.1} \sqrt{51574717}} &= 0.6745 \times \frac{1-(0.9906)^2}{\sqrt{5}} \\ & &= 0.0056 \\ &= \frac{880982.45}{123.84 \times 7181.55} \end{aligned}$$

$$\begin{aligned} \text{Coefficient of Determination } (r^2) &= (0.9906)^2 \\ &= 0.9813 \end{aligned}$$

$$\begin{aligned} \text{6 P.Er} &= 6 \times (0.0056) \\ &= 0.033812 \end{aligned}$$

$$= 0.9906$$

Nabil Bank Limited

Year	X	Y	$x = X - \bar{X}$	$y = Y - \bar{Y}$	x^2	y^2	xy
2001/02	271.64	16402.44	(188.08)	(560.88)	35372.9	314584.1309	105488.1394
2002/03	416.24	15414.32	(43.47)	(1,549.00)	1890.1	2399394.804	67342.37825
2003/04	455.32	15628.28	(4.39)	(1,335.04)	19.3	1782326.461	5867.225002
2004/05	520.11	16143.15	60.40	(820.17)	3648.1	672675.5482	-49537.49107
2005/06	635.26	21228.40	175.55	4,265.08	30816.8	18190924.47	748723.2029
N =	$\sum X =$	$\sum Y =$			$\sum x^2 =$	$\sum y^2 =$	$\sum xy =$
5	2,298.57	84,816.59			71747.1	23359905.4	877883.4545

$$\begin{aligned} \text{Mean } (\bar{X}) &= \frac{\sum X}{N} & \text{Mean } (\bar{Y}) &= \frac{\sum Y}{N} \\ &= \frac{2298.57}{5} & &= \frac{84816.59}{5} \\ &= 459.71 & &= 16963.32 \end{aligned}$$

$$\begin{aligned} \text{Correlation Coeff. } (r) &= \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} & \text{P.Er.} &= 0.6745 \frac{1-r^2}{\sqrt{N}} \\ &= \frac{877883.45}{\sqrt{71747.1} \sqrt{23359905.4}} & &= 0.6745 \times \frac{1-(0.6781)^2}{\sqrt{5}} \\ & & &= 0.1629 \\ &= \frac{877883.45}{267.86 \times 4833.21} & & \end{aligned}$$

$$\begin{aligned} \text{Coefficient of Determination } (r^2) &= (0.6781)^2 \\ &= \frac{877883.45}{1294606.64} & &= 0.4598 \end{aligned}$$

$$\begin{aligned} &= 0.6781 & \text{6 P.Er} &= 6 \times (0.1629) \\ & & &= 0.977638 \end{aligned}$$

ANNEXURE E1: Trend Analysis of Deposit

Let the straight line trend be represented by

$$Y = a + bx \dots \dots \dots i$$

Let y be deposit. Since no of year is 5 i.e. odd. So, the deviation taken from the mid year of the year 2003/04

Everest Bank Limited

Year X	y	x = X-2003/04	x ²	xy
2001/02	4,917.50	-2	4	(9,835.00)
2002/03	6,123.80	-1	1	(6,123.80)
2003/04	7,364.60	0	0	-
2004/05	9,276.60	1	1	9,276.60
2005/06	12,382.60	2	4	24,765.20
N= 5	$\sum y = 40,065.10$	$\sum x = 0$	$\sum x^2 = 10.00$	$\sum xy = 18,083.00$

$$\sum x = 0 \quad \sum x^2 = 10 \quad \sum xy = 18083 \quad \text{Since } \sum x = 0,$$

$$\text{So } a = \frac{\sum Y}{N} = \frac{40065.10}{5} = 8013.020$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{18083}{10} = 1808.30$$

Therefore, the trend line is $y = a + bx$
 $= 8013.020 + 1808.30x$

Year	Trend values and forecasting for next year		
2001/02	$y = a + bx =$	$8013.02 + 1808.3 \times -2$	4396.42
2002/03	$y = a + bx_1 =$	$8013.02 + 1808.3 \times -1$	6204.72
2003/04	$y = a + bx_2 =$	$8013.02 + 1808.3 \times 0$	8013.02
2004/05	$y = a + bx_3 =$	$8013.02 + 1808.3 \times 1$	9821.32
2005/06	$y = a + bx_4 =$	$8013.02 + 1808.3 \times 2$	11629.62
2006/07	$y = a + bx_5 =$	$8013.02 + 1808.3 \times 3$	13437.92
2007/08	$y = a + bx_6 =$	$8013.02 + 1808.3 \times 4$	15246.22
2008/09	$y = a + bx_7 =$	$8013.02 + 1808.3 \times 5$	17054.52
2009/10	$y = a + bx_8 =$	$8013.02 + 1808.3 \times 6$	18862.82
2010/11	$y = a + bx_9 =$	$8013.02 + 1808.3 \times 7$	20671.12

Nabil Bank Limited

Year X	y	x = X-2003/04	x ²	xy
2001/02	10,058.80	-2	4	(20,117.60)
2002/03	10,515.00	-1	1	(10,515.00)
2003/04	10,991.70	0	0	-
2004/05	11,948.50	1	1	11,948.50
2005/06	15,174.30	2	4	30,348.60
N=	Σy=	Σx=	Σx ²	Σxy=
5	58,688.30	-	10.00	11,664.50

$\Sigma x = 0$ $\Sigma x^2 = 10$ $\Sigma xy = 11664.50$ Since $\Sigma x = 0$,

$$\text{So } a = \frac{\Sigma Y}{N} = \frac{58688.30}{5} = 11737.660$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{11664.50}{10} = 1166.45$$

Therefore, the trend line is $y = a + bx$

$$= 11737.660 + 1166.450x$$

Year	Trend values and forecasting for next year		
2001/02	$y = a + bx =$	$11737.66 +$	$1166.45 x -2$ 9404.76
2002/03	$y = a + bx_1 =$	$11737.66 +$	$1166.45 x -1$ 10571.21
2003/04	$y = a + bx_2 =$	$11737.66 +$	$1166.45 x 0$ 11737.66
2004/05	$y = a + bx_3 =$	$11737.66 +$	$1166.45 x 1$ 12904.11
2005/06	$y = a + bx_4 =$	$11737.66 +$	$1166.45 x 2$ 14070.56
2006/07	$y = a + bx_5 =$	$11737.66 +$	$1166.45 x 3$ 15237.01
2007/08	$y = a + bx_6 =$	$11737.66 +$	$1166.45 x 4$ 16403.46
2008/09	$y = a + bx_7 =$	$11737.66 +$	$1166.45 x 5$ 17569.91
2009/10	$y = a + bx_8 =$	$11737.66 +$	$1166.45 x 6$ 18736.36
2010/11	$y = a + bx_9 =$	$11737.66 +$	$1166.45 x 7$ 19902.81

Annexure E2: Trend Analysis of Loan and Advances

Let the straight line trend be represented by

$$Y = a + bx \dots \dots \dots i$$

Let y be loans and advances. Since no of year is 5 i.e. odd. So, the deviation taken from the mid year of the year 2003/04

Everest Bank Limited

Year X	y	x = X-2003/04	x ²	xy
2001/02	4,044.23	-2	4	(8,088.46)
2002/03	5,049.58	-1	1	(5,049.58)
2003/04	6,095.84	0	0	-
2004/05	7,900.01	1	1	7,900.01
2005/06	10,136.25	2	4	20,272.50
N=	$\Sigma y =$	$\Sigma x =$	Σx^2	$\Sigma xy =$
5	33,225.91	0	10.00	15,034.47

$$\Sigma x = 0 \quad \Sigma x^2 = 10 \quad \Sigma xy = 15034.47 \quad \text{Since } \Sigma x = 0,$$

$$\text{So } a = \frac{\Sigma Y}{N} = \frac{33225.91}{5} = 6645.182$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{15034.47}{10} = 1503.447$$

Therefore, the trend line is $y = a + bx$

$$= 6645.182 + 1503.447x$$

Year	Trend values and forecasting for next year		
2001/02	$y = a + bx =$	$6645.182 + 1503.447 x$	-2 3638.288
2002/03	$y = a + bx_1 =$	$6645.182 + 1503.447 x$	-1 5141.735
2003/04	$y = a + bx_2 =$	$6645.182 + 1503.447 x$	0 6645.182
2004/05	$y = a + bx_3 =$	$6645.182 + 1503.447 x$	1 8148.629
2005/06	$y = a + bx_4 =$	$6645.182 + 1503.447 x$	2 9652.076
2006/07	$y = a + bx_5 =$	$6645.182 + 1503.447 x$	3 11155.52
2007/08	$y = a + bx_6 =$	$6645.182 + 1503.447 x$	4 12658.97
2008/09	$y = a + bx_7 =$	$6645.182 + 1503.447 x$	5 14162.42
2009/10	$y = a + bx_8 =$	$6645.182 + 1503.447 x$	6 15665.86
2010/11	$y = a + bx_9 =$	$6645.182 + 1503.447 x$	7 17169.31

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Year X	y	x = X-2003/04	x ²	xy
2001/02	10,476.09	-2	4	(20,952.18)
2002/03	11,476.46	-1	1	(11,476.46)
2003/04	11,221.36	0	0	-
2004/05	11,965.56	1	1	11,965.56
2005/06	15,347.50	2	4	30,695.00
N= 5	Σy= 60,486.97	Σx= -	Σx ² 10.00	Σxy= 10,231.92

$$\Sigma x = 0 \quad \Sigma x^2 = 10 \quad \Sigma xy = 10231.92 \quad \text{Since } \Sigma x = 0,$$

$$\text{So } a = \frac{\Sigma Y}{N} = \frac{60486.97}{5} = 12097.394$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{11664.50}{10} = 1023.192$$

Therefore, the trend line is $y = a + bx$

$$= 12097.394 + 1023.192x$$

Year	Trend values and forecasting for next year		
2001/02	$y = a + bx =$	$12097.39 + 1023.192 \times -2$	10051.01
2002/03	$y = a + bx_1 =$	$12097.39 + 1023.192 \times -1$	11074.2
2003/04	$y = a + bx_2 =$	$12097.39 + 1023.192 \times 0$	12097.39
2004/05	$y = a + bx_3 =$	$12097.39 + 1023.192 \times 1$	13120.59
2005/06	$y = a + bx_4 =$	$12097.39 + 1023.192 \times 2$	14143.78
2006/07	$y = a + bx_5 =$	$12097.39 + 1023.192 \times 3$	15166.97
2007/08	$y = a + bx_6 =$	$12097.39 + 1023.192 \times 4$	16190.16
2008/09	$y = a + bx_7 =$	$12097.39 + 1023.192 \times 5$	17213.35
2009/10	$y = a + bx_8 =$	$12097.39 + 1023.192 \times 6$	18236.55
2010/11	$y = a + bx_9 =$	$12097.39 + 1023.192 \times 7$	19259.74

• **Trend Analysis of Investment**

Let the straight line trend be represented by

$$Y = a + bx \dots \dots \dots i$$

Let y be Investment. Since no of year is 5 i.e. odd. So, the deviation taken from the mid year of the year 2003/04

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Year X	y	x = X-2003/04	x ²	xy
2001/02	1,693.04	-2	4	(3,386.07)
2002/03	1,653.98	-1	1	(1,653.98)
2003/04	2,535.66	0	0	-
2004/05	2,128.93	1	1	2,128.93
2005/06	4,200.52	2	4	8,401.03
N=	Σy=	Σx=	Σx ²	Σxy=
5	12,212.12	0	10.00	5,489.91

$\Sigma x = 0 \quad \Sigma x^2 = 10 \quad \Sigma xy = 5489.91$ Since $\Sigma x = 0$,

So $a = \frac{\Sigma Y}{N} = \frac{12212.12}{5} = 2442.424$

$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{5489.91}{10} = 548.99$

Therefore, the trend line is $y = a + bx$
 $= 2442.424 + 548.99x$

Year	Trend values and forecasting for next year		
2001/02	$y = a + bx =$	$2442.424 +$	$548.99 \times -2 \quad 1344.444$
2002/03	$y = a + bx_1 =$	$2442.424 +$	$548.99 \times -1 \quad 1893.434$
2003/04	$y = a + bx_2 =$	$2442.424 +$	$548.99 \times 0 \quad 2442.424$
2004/05	$y = a + bx_3 =$	$2442.424 +$	$548.99 \times 1 \quad 2991.414$
2005/06	$y = a + bx_4 =$	$2442.424 +$	$548.99 \times 2 \quad 3540.404$
2006/07	$y = a + bx_5 =$	$2442.424 +$	$548.99 \times 3 \quad 4089.394$
2007/08	$y = a + bx_6 =$	$2442.424 +$	$548.99 \times 4 \quad 4638.384$
2008/09	$y = a + bx_7 =$	$2442.424 +$	$548.99 \times 5 \quad 5187.374$
2009/10	$y = a + bx_8 =$	$2442.424 +$	$548.99 \times 6 \quad 5736.364$
2010/11	$y = a + bx_9 =$	$2442.424 +$	$548.99 \times 7 \quad 6285.354$

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Year X	y	x = X-2003/04	x ²	xy
2001/02	8,199.51	-2	4	(16,399.03)
2002/03	6,031.18	-1	1	(6,031.18)
2003/04	5,835.95	0	0	-
2004/05	4,275.53	1	1	4,275.53
2005/06	6,178.53	2	4	12,357.07
N=	Σy=	Σx=	Σx ²	Σxy=
5	30,520.70	-	10.00	(5,797.61)

$\Sigma x = 0$ $\Sigma x^2 = 10$ $\Sigma xy = -5797.61$ Since $\Sigma x = 0$,

$$\text{So } a = \frac{\Sigma Y}{N} = \frac{30520.70}{5} = 6104.140$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{-5797.61}{10} = -579.760$$

Therefore, the trend line is $y = a + bx$

$$= 6104.140 + (-579.760)x$$

Year	Trend values and forecasting for next year		
2001/02	$y = a + bx =$	$6104.14 + 1023.192 x$	-2 4057.756
2002/03	$y = a + bx_1 =$	$6104.14 + 1023.192 x$	-1 5080.948
2003/04	$y = a + bx_2 =$	$6104.14 + 1023.192 x$	0 6104.14
2004/05	$y = a + bx_3 =$	$6104.14 + 1023.192 x$	1 7127.332
2005/06	$y = a + bx_4 =$	$6104.14 + 1023.192 x$	2 8150.524
2006/07	$y = a + bx_5 =$	$6104.14 + 1023.192 x$	3 9173.716
2007/08	$y = a + bx_6 =$	$6104.14 + 1023.192 x$	4 10196.91
2008/09	$y = a + bx_7 =$	$6104.14 + 1023.192 x$	5 11220.1
2009/10	$y = a + bx_8 =$	$6104.14 + 1023.192 x$	6 12243.29
2010/11	$y = a + bx_9 =$	$6104.14 + 1023.192 x$	7 13266.48

ANNEXURE E4

• Trend Analysis of Net Profit

Let the straight line trend be represented by

$$Y = a + bx \dots\dots\dots i$$

Let y be Net Profit. Since no of year is 5 i.e. odd. So, the deviation taken from the mid year of the year 2003/04

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Year X	y	x = X-2003/04	x ²	xy
2001/02	85.35	-2	4	(170.70)
2002/03	94.18	-1	1	(94.18)
2003/04	143.57	0	0	-
2004/05	170.81	1	1	170.81
2005/06	237.38	2	4	474.76
N=	Σy=	Σx=	Σx ²	Σxy=
5	731.29	0	10.00	380.69

$$\Sigma x = 0 \quad \Sigma x^2 = 10 \quad \Sigma xy = 380.69 \quad \text{Since } \Sigma x = 0,$$

$$\text{So } a = \frac{\Sigma Y}{N} = \frac{731.29}{5} = 146.258$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{380.69}{10} = 38.069$$

Therefore, the trend line is $y = a + bx$
 $= 146.258 + 38.069x$

Year	Trend values and forecasting for next year		
2001/02	$y = a + bx =$	$146.258 + 38.069 \times -2$	70.12
2002/03	$y = a + bx_1 =$	$146.258 + 38.069 \times -1$	108.189
2003/04	$y = a + bx_2 =$	$146.258 + 38.069 \times 0$	146.258
2004/05	$y = a + bx_3 =$	$146.258 + 38.069 \times 1$	184.327
2005/06	$y = a + bx_4 =$	$146.258 + 38.069 \times 2$	222.396
2006/07	$y = a + bx_5 =$	$146.258 + 38.069 \times 3$	260.465
2007/08	$y = a + bx_6 =$	$146.258 + 38.069 \times 4$	298.534
2008/09	$y = a + bx_7 =$	$146.258 + 38.069 \times 5$	336.603
2009/10	$y = a + bx_8 =$	$146.258 + 38.069 \times 6$	374.672
2010/11	$y = a + bx_9 =$	$146.258 + 38.069 \times 7$	412.741

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Year X	y	x = X-2003/04	x ²	xy
2001/02	271.64	-2	4	(543.28)
2002/03	416.24	-1	1	(416.24)
2003/04	455.32	0	0	-
2004/05	520.11	1	1	520.11
2005/06	635.26	2	4	1,270.52
N= 5	Σy= 2,298.57	Σx= -	Σx ² 10.00	Σxy= 831.12

$$\Sigma x = 0 \quad \Sigma x^2 = 10 \quad \Sigma xy = 831.12 \quad \text{Since } \Sigma x = 0,$$

$$\text{So } a = \frac{\Sigma Y}{N} = \frac{2298.57}{5} = 459.715$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{831.12}{10} = 83.1122$$

Therefore, the trend line is $y = a + bx$

$$= 459.715 + 83.1122x$$

Year	Trend values and forecasting for next year		
2001/02	$y = a + bx =$	$459.715 + 83.1122 \times -2$	293.4906
2002/03	$y = a + bx_1 =$	$459.715 + 83.1122 \times -1$	376.6028
2003/04	$y = a + bx_2 =$	$459.715 + 83.1122 \times 0$	459.715
2004/05	$y = a + bx_3 =$	$459.715 + 83.1122 \times 1$	542.8272
2005/06	$y = a + bx_4 =$	$459.715 + 83.1122 \times 2$	625.9394
2006/07	$y = a + bx_5 =$	$459.715 + 83.1122 \times 3$	709.0516
2007/08	$y = a + bx_6 =$	$459.715 + 83.1122 \times 4$	792.1638
2008/09	$y = a + bx_7 =$	$459.715 + 83.1122 \times 5$	875.276
2009/10	$y = a + bx_8 =$	$459.715 + 83.1122 \times 6$	958.3882
2010/11	$y = a + bx_9 =$	$459.715 + 83.1122 \times 7$	1041.5