

# CHAPTER-I

## INTRODUCTION

### 1.1 General Background of the Study

The development of a country is measured by its economic indices. Nepal, like any other country has been laying emphasis on the upliftment of its economy. The process of economic development depends upon various factors. Financial institutions are viewed as catalyst in the process of economic development and growth. The mobilization of domestic resources, capital formation and its proper utilization plays an important role in the economic development of a country. Every financial institution, big or small, be it a commercial bank or a finance company or a cooperative bank, plays an important role in the development of a country.

Commercial banks are major financial institutions, occupying an important place in the economy of a country because the deposits collected by them provide much needed capital for the development of industry, trade, and commerce and other sectors, thereby contributing to the economic growth of the nation.

Investment in the actual sense refers to the sacrifice of current dollars for future dollars (Sharpe, 1986:231). Investment involves two attributes, time and risk. The sacrifice takes place in the percent and is certain. The element of time predominates (for example government bonds). In other case, risk is more dominant (for example call option on common stock). In yet others, both time and risk plays a dominant role (for example share of common stock).

Investment is the use of money to earn profit. It can be said that investment is the concerned with the proper management of the investor's wealth. Which is the sum of the current income and the present value of all future income. Fund to be invested come from assets already owned, borrowed money and saving or foregone consumption. By foregoing today and investing the saving, visitors

expect to enhance their future consumption possibilities i.e. the fund is invested to increase wealth. Investors also seeks to manage wealth effectively obtaining the most from it, while protecting it from inflation, taxes and other possible harms.

Investments policy determines the investor's objective and the amount wealth. It is not appropriate for a investors to say that the objective is to make a lot of money (Clarke, 1989:97). What is appropriate for a investors in this situation is to state that objective to earn profit while recognizing that here exists some chances of incurring large losses.

Investment objective should be stated in terms of both risk and return. National development of any country depends upon the economic development of that country and economic development is supported by financial infrastructure of that country. Therefore, the primary goal of nation including Nepal is rapid economic development to promote the welfare of the people and the nation as well. Nepal being listed among the least developed countries, is trying to embark upon the path of economic development by achieving a higher economic growth rate and developing all sectors of economy. The proper mobilization and utilization of domestic resource is one the key factors in the economic development of a country. Similarly, integrated and speedy development of the country is possible only when the competitive and reliable banking services reached and carried to every corner of the country. It has been well established that the economic activities of any country can hardly be carried forward without the assistance and proper support of financial institutions. Financial institutions have catalytic role in the process of economic development. Successful formulation and effective implementation of investment policy is prime requisite for the successful performance of banks and other financial institution. Proper investment policy has a positive impact on economic development of the country.

The initial step of an investment policy involves is determining the investment objective and the amount of one's wealth. Investment is always related with risks and return .making money alone cannot be an appropriate to state that objective is to make profit by recognizing the possible losses. Therefore, investment objective

should be stated in terms of both risk and returns. Setting a clear investment policy also involves the identification of the potential categories of financial asset for consideration institution the ultimate portfolio. The identification of asset depends upon many things such as investment objectives, investable wealth, tax consideration etc. (Bhattarai, 2004:3)

Investment policy provides the bank several inputs through which they can handle their investment operation efficiently ensuring the maximum return with minimum risk, which leads the bank to the path of success.

### **1.1.1 Evolution of Bank**

The evolution of Bank is not a non-Phenomenon. The crude form of banking is found even in the ancient Vedic era. The banking terms such as deposits, pledge, policy of loan, interest rates etc can be found in the “Manusmiriti”.

The Roman Empire collapse in the last of the 15<sup>th</sup> century and beginning of 16<sup>th</sup> century. Consequently, Commercial banking transaction was received because of revival of commercial and other trading activities in European countries. According to opinion of Geoffrey Crothers, following community groups are the ancestors of modern banking.

1. The Merchant trader
2. The goldsmith
3. The money lenders

History tells us that it was the merchant banker who first involved the system of banking by trading in commodities than money. Their trading activities required the remittance of money from one place to another. For this they issued different documents as the near substitutes of money, called draft of hands in modern days.

The next stage in the growth of banking was the goldsmith; the business of goldsmith was such that he had to take deposits such as bullion, money and amendments for the security from the theft. This makes possible to the goldsmith to charge something for taking care of money and bullion. On the other hand, as the evidence of receiving valuables, he used to issue a receipt to the depositors. As

such receipts are good for payment equipment to the amount mentioned, it become like the modern cheque, as a medium of exchange and a means of payment.

Finally, money lender in the early age contributed to the growth of banking to a large extent. He advanced coins on load by charging interest. As a safe guard he used to keep some money in the reserve. Therefore goldsmith and moneylender became a banker who started performing the two functions of collecting and advancing loans. “The Bank of Venice” of Italy was established in 1157 A.D. as first banking institution of the World. The second banking institution namely, “The bank of Barcelona” of Spain was established in 1401 A.D. Its function is to exchange money, receive deposits and discount bill of exchange, both for the citizens and for the foreigner. The Bank of Geneon was established in 1694 A.D. “The Bank of England” was incorporated in 1694 A.D. as a joint stock bank and later on in 1844 A.D, became the first central bank of the world.

### **1.1.2 Commercial Banks in Nepal**

Commercial banks are the most numerous banks. They offer a full range of services, including current and savings accounts, loans, and trust services. They primarily serve the needs of businesses but also offer their services to individuals. A commercial bank is owned by shareholders, who buy shares in it ( The world Book Encyclopedia, 1996:93,'B')

Thus, commercial bank plays a vital role in the economic growth of the nation. They hold the deposits of persons, government and business houses. They make funds available through their lending and investing activities to borrowers, individuals, business firms and governments. Moreover they provide technical and administrative assistance to industries, trade and business enterprises.

Nepal's first ever commercial bank, NBL ,began operating in 1994B.Swith the government owing 51 percent of its share .It was followed decade later, by RBB established in 2022 B.s which also was owned by the government. In order to police these commercial banks and guide the country's monetary policy the

government established NRB in 2013 B.S prior to the establishment of RBB, Kathmandu valley had a little power over its foreign currency holdings. The use of Nepalese currency was Nepal signed the trade and transit treaty with India in 1960 A.D; Nepal had the full access to foreign currencies other than the Indian rupees.

It was only in the early 40s that three foreign commercial banks made their way to Nepal. Nepal Arab Bank Limited, a joint venture bank established in 2041B.S. was Co-owned by the Emirates Bank International Limited (Dubai), Nepalese financial institution and the local public. Nepal Indosuez Bank Limited, now known as Nepal Investment Bank Limited (NABIL) established in 2042 B.S. was jointly owned by French Basque Indosuez, Rastriya Banijya Bank, Rastriya Bema sans than and the local public. Thirdly, Nepal Grind lays Bank Limited (NGBL) now known as standard chartered Bank Limited (SCBNL) established in 2043 B.S. was co-owned by a British firm called Grind lays Bank, Nepal Bank Limited and the local public. Ever since, the country's financial world has come a long way with 31 commercial Banks in the country.

### **1.1.3 Commercial Banks and Investment Policy**

Commercial Bank are major financial institution, which occupy quite important place in the framework of every economy. Commercial banks lender numerous services to their customer with a view of facilitating their economic and social life. All the economic activities of each and every country are greatly influenced by the commercial banking business of that country. Commercial banks, by playing actives roles, have changed the economic structure of the world. Thus commercial banks have become the heart of financial system.

Commercial banks deal with other people's money. They have to find the ways of keeping their liquid so that they could meet the demand of their customer. In anxiety to make profit, banks can't afford to lock up their funds in institutions assets that are not easily realizable. The depositors confidence could be secured only if the bank able to meet the cash promptly and fully. The banker has to keep

adequate cash for this purpose. Cash is an ideal asset and hence the banker can't afford to keep a long portion of his assets in the bank. Therefore the banker has to distribute his assets in such a way that he can have adequate profits without sacrificing liquidity (Radhaswamy and Vasudevan 1999:510).

Commercial banks must mobilize its deposits and other fund to profitable, secured, stable and marketable sector. Then only it can earn more profit and it also be secured and can be converted into cash whenever needed. But, commercial bank have to pay due consideration while formulating investment policy regarding loan and investment. Investment policy is one fact of the overall spectrum of policies that guide banks investment operations. A healthy development of any bank depends heavily upon its investment policy. A sound and viable investment policy attracts both borrowers and lender, which helps to increase the volume and quality of deposits, loan and investment. Commercial bank should be careful while performing the credit creation. The banks should never invest its fund in those securities, which are subject to too much depreciation and fluctuations because a little difference may cause a great loss. It must not invest its funds into speculative businessmen who may become bankrupt at once and who may earn millions in a minute. Emphasizing upon this, H.D Crosse stated "The investment policy should be carefully analyzed." So they must invest their funds where they gain maximum profits with minimum risk.

Commercial banks must follow the rules and regulation as well as different directives issued by central bank. The bank should invest its funds in legal securities only. Diana McNaughton in her research paper "Banking institution in developing markets" state that, investment policy should incorporate several elements such as regulatory environment, the availability of the funds. The selection of risk, loan portfolio balance and term structure and liabilities. (Mc Naught on, Diana, 1994:38). Thus, commercial bank should incorporate several elements while making investment policy. The loan provided by commercial bank is guided by several principles such as length of time, their purpose, profitability,

safety etc. These fundamental principles of commercial bank's investment are fully considered while making investment decision.

#### **1.1.4 Profile of concerned Bank**

In this section, general introduction of the bank under study is being attempted to furnish for the easy reference of sample to the research.

##### **Everest Bank Ltd.**

Everest Bank Ltd. is joint venture with Punjab National Bank (PNB) India was established in 1994 (2051B.S). The bank started operation in first of kartik 2051. The head office is situated in Lazimpat, Kathmandu. This bank has 47 branches in different parts of the country.

The bank has an authorized capital of Rs 2000 million, issued capital of Rs 1218.40 million and paid up capital Rs 1279.60 million. The present configuration consist of 50% Nepalese promoter, 30% general public & 20% Punjab National Bank. Following activities & service are provided by EBL.

- Tele Banking
- Credit card facility
- Locker facility
- Foreign exchange
- Remittance
- ATM facility

This bank is awarded as Bank of the year in 2066.

##### **Nabil Bank Ltd.**

Nabil Bank Ltd, the commercial bank was incorporated in 1984. Dubai Bank Ltd. was the initial joint venture partner with 50% equity investment. The shares owned by Dubai Bank Ltd. (DBL) were transferred to Emirates Bank International Ltd. (EBIL) Dubai. Later on EBIL sold its entire stock to National Bank Ltd, Bangladesh (NBLB).

The present configuration consists of 50% share capital by national Bank Ltd, Bangladesh. 10% NIDC, 9.66% Rastriya Bema Sans than, 0.34% Nepal Stock Exchange and 30% Nepalese public. At present 40 branches of this bank are operating in different parts of country. Authorized capital and paid up capital of Nabil bank Ltd are Rs 2100 million and Rs. 2029.76 million. Following activities and services are undertaken by Nabil bank Ltd.

- Tele banking
- Credit Card Facility
- SWIFT
- Deposit locker
- Western Union Money Transfer
- ATM
- International Trade and Bank Guarantee
- This bank is awarded the “Bank of year 2004

## **1.2 Statement of the problem**

After the restoration of democracy the first elected government in 1991 adopted liberalized and market oriented economic policies followed by liberalization in the financial sector and its reform. As a result, many commercial banks, development banks, financial institution, co-operatives and NGOs operating in micro finance have mushroomed in the country. This has created keen competition among themselves and challenge to them. The problem of commercial banks are facing in Nepal include the problem in resources mobilization, poor investment climate, heavy regulatory procedure, uncertain government policy, and NRB directives etc. Lack of sound investment policy is another reason for commercial banks not utilizing its deposit that is making loan and advances or lending for a profitable project. This condition may even lead the commercial banks to the position of liquidation.

Commercial banks invest their funds in limited area to achieve highest amount of profit. They are found to be more interested to invest in less risky and highly liquid



sector i.e. treasury bills, development bonds and other securities. There is hesitation to invest on long-term projects because commercial banks are much more safety minded. So, they seem to follow conservative and un- effective investment policy.

In Nepal, every commercial bank has invested in the similar sectors. These major sectors include tourism, garments, and trading as well. But given the current situation of the country, it is not up to them to decide in which sector they want invested. The main factor for success of any organization is secured situation. Once the economic and political situation is stabilized, then only commercial banks can consider rationally as to where they invest and grow. Till then it is a question of moving into sectors as and when thing develop. So, security problem is the big problem for every commercial bank to invest their funds in any sectors.

Nepalese commercial banks do not seem to have formulated their investment policy in an organized manner. They mainly rely upon the instruction and guidelines of Nepal Rastrya Bank. They do not have clear view toward investment policy. Furthermore, implementation of policy is not done in effective way. Lack of farsightedness in policy formulation and absence of strong commitment towards its proper implementation has caused many problems to commercial banks.

The issued specially related to investment function of the commercial banks under study have been presented briefly.

- a) Is the investment policy of Nabil Bank Ltd. and Everest Bank Ltd effective and efficient?
- b) Is the investment strategy of Nabil Bank Ltd. and Everest Bank Ltd. are successful to utilize the available fund?
- c) Does the investment decision affect the total earning of bank?
- d) Are they maintaining sufficient, liquidity, profitability, and risk position?
- e) What is the relationship of investment on loan and advances with total deposits and total net profit?

### **1.3 Objective of the Study**

The main objective of this study is to examine the investment policy of two joint venture banks (JVBS), namely NABIL and EVEREST Banks Ltd. the specific objectives are given below:

- a) To examine the investment policy of commercial banks.
- b) To evaluate the liquidity, profitability, and risk position of the banks.
- c) To examine and evaluate the utilization of available funds of Nabil and Everest banks.
- d) To find the empirical relationship between deposits, loans and advances, investment and net profit.

### **1.4 Focus and Significance of the study**

Every investor in the worlds invests their money in the hope of getting good return from their investment. Some of them succeed while other become failure in their goal. Due to many reasons they lose their hard earning just not by analyzing risk and return involved in the investment. Thus recoverable investment is must because investment policy is the proper management of wealth to generate income. Moreover, without sound investment policy no banks and institutions can run or exits in the long run. Thus the main focus of the study is to analyze the sound investment policy of EBL and NBL. With the help of financial and statistical analysis. Moreover the study is focused on evaluating the deposits utilization in terms of loans and advances and investment and its impact in the profitability of the banks and the study is the portfolio behavior of the banks.

Furthermore, this study will provide a useful feedback to the policy maker of the banks and will be helpful for anyone who wants know about the investment policy of EBL and NABIL.

## **1.5 Limitation of the study**

This study is simply a partial study for the fulfillment of MBS degree. The limitations of this study are as follows:

- a) The study is mainly based on secondary data.
- b) The study has recovered only five fiscal years i.e. from 2006/07 to 2010/11
- c) Out of the affecting factors, this study concentrates only on those factors, which are related with the investment policy, and available in the required from analyzing the different issues.
- d) The study deals with only two commercial banks, which may not be representative of all CBs of Nepal.

## **1.6 Organization of the Study**

The whole study has been divided into five chapters:

### **First chapter**

This chapter deals with the introduction part of the study. It includes background of study, focus of the study, statement of problem, objective of the study, limitation of the study and organization of the study.

### **Second chapter**

The second chapter deals with the review of literature conceptual review, review of articles, review of pervious thesis and research gap.

### **Third chapter**

This chapter is the most important part of the study and includes the interpretation parts like research design, sources of data, sampling and population, data collection techniques and data analysis tools which are financial tools and statistical tools.

#### **Fourth chapter**

The fourth chapter is analyzing chapter which deals with the presentation and analysis of data and major findings of the study are also included.

#### **Fifth chapter**

Fifth chapter is the last chapter the study which provides summary, conclusions and recommendations.

## **CHAPTER-II**

### **REVIEW OF LITERATURE**

This chapter deals with the theoretical aspect of the topic on investment policy. It provides the foundation for developing a comprehensive theoretical framework and knowledge for the status relevant to the field of research in order to explore the relevant facts for reporting purpose. For this NRB directive, books, journal, article, annual report and some related research paper have been reviewed. This chapter has been broadly classified into two sector: theoretical perspective and review of related studies.

#### **2.1 Review of Supportive Text**

Review of supportive text provides the fundamental theoretical framework and foundation to the present study. For this, various books, research paper, article etc dealing with theoretical aspect of investment policy analysis are taken into consideration.

##### **2.1.1 Definition of Investment**

The term investment covers a wide range of activities. It is commonly known fact that an investment is only possible when there is adequate saving. If all the income and saving are consumed to solve the problem of hand to mouth and to the other basic needs, then there is no existence of investment. Therefore both investment and saving are interrelated. Different author have tried to explain the meaning of investment in their own way. Some of them are explained below.

Investment is the allocation of capital to investment proposal whose benefit are to be received in the future. Because the future benefits are not known with certainty, investment proposal necessarily involve risk. Consequently, they should be evaluated in relation to their expected return and risk, for these are the factor that affect the firm's valuation in the marketplace. Moreover investment in capital

projects should provide expected return in the excess of what financial market require (Van Horne, 2002:6).

Investment as the commitment of future one or more assets that will be held over some future time period. Investment is concerned with the management of an investor's wealth. Which is the sum of current income and present value of all income (Charles 1991:2).

The investment objective are to increases systematically the individual wealth, defined as asset minus liabilities. Higher the level of desired wealth the higher must be received. An investor seeking higher return must be willing to face the higher level of risk (John M.Cheney and Edward A.Moses 1998).

Investment are made in assets in all are two types, real assets(land, building, factories etc) and financial assets(stocks, bond, T-bill etc.). These two investment are not competitive but complementary. High developed institution for financial investment greatly facilitates real investment (Bhattari, 2004:3).

### **2.1.2 Principles of Sound Lending Investment Policy**

Some of the principles of sound lending and investment policies which the banks have to keep in mind are mentioned below.

#### **1. Safety and Security**

The bank should never invest it's fund in those securities, which are subject to too much depreciation and fluctuations because a little difference may cause a great loss. It must not invest in funds into speculative businessman who may be bankrupt at once and who may earn millions in a minute also. The bank should accept that type of securities, which are commercial, durable, marketable and high market prices in the cases "MAST" should be applied for the investment where,

M = Marketability

A = Ascertain ability

S = Stability

T = Transferability

## **2. Profitability**

A commercial bank can maximize its volume of wealth through maximization of return on their investment and lending. So, they must invest their funds where they gain maximum profit. The profit of commercial bank mainly depends on the interest rate, volume of loan; it's time period and nature of investment in different securities.

## **3. Liquidity**

People deposit money at the bank in different account with confidence that the bank will repay their money when they need. To maintain such confidence of the depositors, the bank must keep this point in mind while investing its excess funds in different securities of at the same time of lending. So that, it can meet current or short-term obligation when become due for payment.

## **4. Purpose of loan**

Why is a customer in need of loan? This is very important for any Banker, if borrower misuses the loan granted by the Bank, they can never repay and bank will possess heavy bad debts. Detailed information about the scheme of the project or activities would be examined before lending.

## **5. Diversification**

"A bank should not lay all its eggs on the same basket." This saying is very important to the bank and it should always careful not to grant loan in only one sector. To minimize risk, a bank diversify it's investment on different sectors.

Diversification of loan helps to sustain loss according to the law of average because if securities of a company deprived, there may be appreciation in the securities of other companies. In this way, the loss can be recovered.

## **6. Tangibility**

Though it may be considered that tangible property doesn't yield an income a part from direct satisfaction of possession of property many times, intangible securities have lost their value due to price level inflation. A commercial bank should prefer tangible security to intangible one.

## **7. Legality**

Illegal securities will bring out many problem for the investor. A commercial bank must follow the rules and regulation as well as different direction issued by Nepal Rastra Bank, Ministry of Finance, Ministry of Law and other while mobilizing its fund.

### **2.1.3 Sources of Funds for the Investment**

There are different sources of funds for the investment of the bank.

#### **a) Capital**

Capital is the lifeblood of the trade and commerce. Capital is needed for the operation of the bank as in other business. But, it is only a nominal source. Still it can be used for the investment purpose. The capital fund consist of two element like

- I) Shares
- II) General Reserve

#### **i) Shares**

Sources of fund to invest. By increasing the issue of shares, the bank can increase its capital.



## **ii) General Reserves**

The bank is required to assign certain percentage of its profit to the reserves. This reserve is also invested.

## **b) Accumulated profit**

When there is a need of more funds for investment, the bank can retain the accumulated profit. The bank invests its accumulated profit.

## **c) Deposits**

Deposits are the main sources of funds. By providing certain rate of interest, commercial banks call for the deposit from the customer. Mainly, banks accept three type of deposits i.e. current deposit, fixed deposit, saving deposit. These different of deposits are used for lending the money to different sector like agriculture, productive work, trade, irrigation and industry. The deposits will lead to increase in the working capital of the bank.

## **d) External and Internal Borrowing**

The funds can be collected by borrowing money through different banks or different institution. In a developing country like Nepal, borrowing is very important. The commercial bank may not have sufficient fund to invest in different sector. In that case it has to borrow from other bank or institution. Generally the commercial bank borrows from two sources i.e. external and internal. Generally external borrowing means the borrowing from foreign banks, and foreign government. Internally, the commercial banks borrow mainly from Nepal Rastra Bank. So the commercial bank cannot provide loan or investment without the funds. From the above different sources of funds commercial bank grants loan.

## **2.2 Review of Previous Study**

In this section review of articles, review of research papers & review of thesis of previous study are taken into consideration.

### **2.2.1 Review of Legislative Provisions**

In this section review of legislative framework under which the commercial banks are operating has been discussed. This legislative environment has significant impact on the commercial bank's establishment, their mobilization and utilization of resources. All the commercial banks have to conform to the legislative provisions specified in the commercial Bank Act. 2031 and the rules and regulations formulated to facilitate the smooth running of commercial banks.

#### **Investment Management Regulation**

“A commercial bank formulating a written policy may decide to invest in shares and securities of an organized institution. However, such investment is restricted to 10% of paid up capital of the organization. However, the cumulative amount of such investment in all the companies in which the bank has financial interest shall by limited to 20% of the paid up capital of the bank. But the total amount of investment in share and securities of organized institution is restricted to 30% of the paid up capital of the bank.”(Directives to commercial Banks, directive No.8, NRB Banking operation department 81-82)

Likewise, commercial banks are not allowed to invest in any shares, securities, and hybrid capital instruments issued by any banks and financial institutions, licensed by NRB. Where such investment exists prior to issuance of this directive, such investment should be brought within the restrictive limitations by the fiscal year 2060/61. But investment on rural micro finance development banks' shares are not comes under such restriction. A commercial bank is directly related to the fact that how much fund must be collected as paid up capital while being established at a certain place of the nation, how much fund is needed to expand the branch and counters, how much flexible and helpful the NRB rules are also important. But we discuss only those, which are related to investment function of commercial banks. The main provisions, established by NRB in the form of prudential norms in above relevant area are briefly discussed here under.

**i) Provisions for investment in the deprived sector**

Some rules, which are formulated by NRB, affect the areas of credit and investment extension to the deprived sector by the commercial bank.

According to the new provision, with effect from the 3<sup>rd</sup> quarter of FY 1995/96, investment in shares of the rural development bank by CBs, which used to be counted for the priority sector lending, only is now to be included under the deprived sector lending.

According to the new provisions effective from FY 1997/98, NBL, RBB, NABIL, NGBL, NABIL are required to invest 3 percent, HBL, NSBL, NBBL, EBL, are required to invest 2 percent, Bank of Kathmandu is required to invest 1.75 percent, NBCL is required to invest 0.75 percent while new commercial banks are required to invest 0.25 percent of their total loans and advances to the deprived sector.

**ii) Provision for credit to the priority sector**

NRB requires commercial banks to extend loan and advances, amounting at least to 12 p.c. of their total outstanding credit to the priority sector. Commercial banks credit to the deprived sector is also a part of priority sector. Under priority sector, credit to agriculture, credit to the cottage and small industries and credit to service are counted commercial bank's loan to the co-operatives licensed by the NRB is also to be computed as the priority sector credit from the fiscal year 1995/96 onwards.

**iii) Provision for the investment in productive sector**

Nepal, being a developing country needs to develop infrastructure and other primary productive sectors like agriculture, industry etc. For this, NRB has directed commercial banks to extend at least 40 p.c. of their total credit to the productive sectors. Loans to priority sector, agriculture sector, industrial sector have to be included in productive sector investment.

#### **iv) Provision for the single borrower credit limit**

With the objectives of lowering the risk of over concentration of bank loans to a few big borrowers and also to increase the access of small and middle size borrower to the bank loans, NRB directed CBs to set an upper limit on the amount of loan financed to an individual, firm, company or group of companies. According to this, CBs are required not to exceed the single borrower limit of 35 percent in the case of fund- based credit and 50 percent, in the case of non- fund based credit such as the letter of credit, guarantee, acceptance letter, commitment has been fixed is a proportion of capital funds of bank.

Similarly, NRB has graded six foreign joint venture banks now as the prestigious class “A” bank, which is NABIL, NGBL, NABIL, HBL, SBI, and NBBL. These banks have been kept outside the purview of the single borrower credit limit.

Likewise, in the case of consortium financing, commercial banks are permitted to extend an additional 10 percent credit above the limit fixed by the NRB as before.

In addition, Nepal Oil- Corporation, Agriculture-inputs Corporation and Nepal Food Corporation for their imports of petrol, diesel, kerosene, fertilizer and foodstuff respectively have been removed from the restrictions of single borrower credit limit.

#### **v) Provision for Minimize liquidity Risk**

Commercial banks are required monitor their liquidity risk. This is to minimize risk inherent in the activities and portfolio of the banks. According to the regulation a gap found between maturing assets and maturing liabilities is the liquidity risk. They are monitoring their assets and liabilities on the basis of maturity period. Maturity periods such as 0-90, 91-180, 181-270, 271-365 days and above 1 year are classified for the purpose of checking.

**vi) Cash Reserve Requirements (CRR)**

To ensure adequate liquidity in the commercial banks, to meet the depositors' demand for cash at anytime and to inject the confidence in depositors regarding the safety of their deposited funds, commercial banks are required to have maximum CRR. In this regard, NRB has directed commercial banks to deposit minimum 8 percent of current and saving and 6 percent of fixed deposits in the NRB as primary cash reserve the commercial banks are further required to have 3 percent cash of total deposits in their own bank as secondary reserve.

**vii) Loan Classification and Loss Provision**

With a view to improving the quality of assets of commercial banks NRB has directed commercial banks to classify their out-standing loan and advances, investment and other assets into six categories. The classification is done in two ways. The loans of more than one lakh are to be classified as debt service charge ratio, repayment situation, financial condition of borrower, management efficiency, quality of collateral. The loans of less than one lakh have to be classified as per maturity period.

**viii) Directives regarding interest rate spread**

The interest rate spread, the difference between interest charged on loan and advances and the interest paid to the depositors, has widened significantly in the aftermath of deregulation in interest rates. This has caused lower financial intermediation. Therefore, NRB has required commercial banks to limit interest rate spread between deposit and lending rates to a maximum extent of 5 percent. NRB has also provided commercial banks with new calculation method of interest rate spread for a certain period recently. (MOF 2009/10)

### 2.2.2 Review of Articles & Journal

Under this heading, effort has been made to examine and review some of the related articles published in different economic journals, bulletin of World Bank, dissertation papers, magazines, newspapers and other related books.

**Bista, Bhagat (2001).** in his article, "*Issue in banking reform*" write that the banks are main vehicle in transferring currency from one country to another commercial bank deal heavily in foreign exchange transactions.

**Sharma & Bhatt, (2002).** in their article "*Priority receiver sector*" has present the commercial banks should take care of board national interest & they showed not confine their lending activities only to commercial area providing quick interest if some proportion could be directed to the area conducive to build economic infrastructures of the country it would create atmosphere conducive to their investment in future.

In our society where ignorance & literacy is in wild scale, it is necessary that the banks search entrepreneurs instead of entrepreneurs searching bank. So, they have opinioned that the priority sector program is a timely & opportunities there by increasing production & the general living standard of rural poor. But the success of the largely depends upon the interpreted operation with other program design for rural development. Further they agree that various programmes: Rural development land reform, back to the village national, champion audit literacy etc. couldn't materialise their objectives despite their some theoretically philosophy & food objectives.

**Sunity, Shrestha (2003).** in her article, "*Lending operation of commercial Banks of Nepal and its impact on GDP*" has presented with the objectives to make an analysis of contribution of commercial banks lending to the gross domestic product (GDP) of Nepal. She has set hypothesis that there has been positive impact of lending of commercial banks to the GDP. In research methodology, she has considered GDP as the dependent variable and various sectors of lending viz.

Agriculture, industrial, commercial service and general multiple regression technique has been applied to analyze the contribution.

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

**Pradhan, (2003).** has studied *“The strong role & impact of saving, investment & capital formation on economic development of Nepal”*. This study is based on secondary data only. The necessary data on saving, investment, capital formation and gross domestic product has been collected for the period of 1974/75 to 2000/01. The role & impact of saving, investment and capital formation on economic development were analyzed by using various regression models. The regression equation used in this study have been estimated at current prices as well as in real term with the entire study period divided into different sub- period.

The results presented in this paper suggest that in all cases, GDP is significantly associated with saving. Investment and capital formation both at current prices and in real terms. The result of the empirical analysis led to three important conclusions: first, saving, investment & capital formation have positive impact on economic development. Second, the current values & past values of saving, investment & capital formation have positive impact on economic development but the current values have the largest impact. Third, there is a strong role played by saving & capital formation on economic development while weak role-played by investment.

**Mahat, (2004).** *“The concept of productivity and profitability can be applied while evaluating efficiency of banks”*. The term productivity refers to the relationship between the quantity of inputs employed and the quantity of output produced. An increase in productivity means that more output can be produced from the same inputs or the same outputs or the same outputs can be produced from fewer inputs. Interest expenses to interest income ratio shows the efficiency of banks in

mobilizing resource at lower cost and investing in high yielding assets. In other words, it reflects the efficiency in use of funds.

The analysis of operational efficiency of banks will help one in understanding the extent of vulnerability of banks under the changed scenario and deciding whom to bank upon. This may also help the inefficient banks to upgrade their efficiency and be winner in the situations developing due to slowdown in the economy. The regulators should also be concerned on the fact that the banks with unfavorable ratio may bring catastrophe in the banking industry.

### **2.2.3 Review of Thesis**

Under this heading, reviews of research papers of researchers are analyzed to find out about the investment policies of commercial banks.

**Thapa, (2005).** has a research on the topic of “*A comparative study on Investment policy of Nepal Bangladesh Bank Limited and other joint venture banks*”. Her main problems are how to implement sound credit collection policy, matter related to the investment policy of the commercial banks, problem mainly on the loan and advances and investment in share and securities and problem in liquidity position.

Her Main Objectives are to analyze the relationship between loan and advance and total investment with other financial variable of NBBL bank and compare them with NABIL and NBL, to evaluate the liquidity, asset management efficiency, profitability and risk position of NBBL bank in comparison to NABIL and NBL, to study the various risks in investment of NBBL bank in comparison to NABIL and NBL.

Research Methodology, In this study she used the secondary data such as annual report of sample banks, various articles, journals, newspapers etc. She used the different tools like financial tools & statistical tools.

Her Major Findings are, NBBL bank has good deposit collections, it has better liquidity position, It has made enough loan and advances but it has the negligible



amount of investment in government securities, Credit risk ratio;, interest risk ratio, capital risk ratio and profitability position of NBBL bank is comparatively worse than NABIL and NBL and There is significant relationship between deposit and loan and advance, outside assets and net profit of NBBL bank.

**Dhungana, (2006).** his research, “*A Comparative Study on Investment Policy of Nepal, Bangladesh Bank and Other Joint Venture Banks*”, tries to compare the Investment policy of NBBL with HBL and NSBL. His main problems are What is the position of commercial banks regarding investment policy, What is the sector of selected commercial banks and What is the impact of investment policy.

His Main Objectives are to study the growth ratios of loan and advance and investment to total deposit and net profit of NBBL on comparison with HBL and NSBL, to analyze the relationship between loan and advance and total investment with other financial variable of NBBL and compare with HBL and NSBL, to examine the profitability position and credit risk ratios and interest risk ratios.

Research Methodology, As per the requirement of this study he used the secondary data, such as different articles bulletins, news, and financial report etc. He also used different financial as well as statistical tools.

His Majors Findings are NBBL has not good deposit collection, it hasn't made enough cash and bank balance and it has made negligible amount of investment in government securities, The Asset management ratios were highly variable which reveals NBBL has not followed stable policy NBBL's ratio and loan and Advances is lower than that of HBL but its ratio is greater than that of NSBL. The profitability position on NBBL is comparatively not better than that of HBL but better than that of NSBL.

The credit risk ratios and interest risk ratios of NBBL is higher than that of HBL and NSBL Banks profitability is solely depends on Interest charged by a bank but the high interest rate risk of NBBL shows that bank is failure to maintain this and

trend of deposit collection, lending, Investment and net profit were not better than HBL but better than NSBI.

**Loudari, (2007).** conducted a study on “*A study on investment policy of Nepal Investment Bank Ltd. in comparison to Nepal SBI Bank Ltd*”. His problems are Are the available fund properly utilized or not? What are the proportion of nonperforming assets on total loan and advanced of the banks? And What is the investment portfolio behavior of the banks?

His Main Objectives are to examine the liquidity asset management and profitability position and investment policy of NABIL in comparison to Nepal SBI Bank Ltd. To study the growth ratios of loans and advances and investment to total deposit and net profit of NABIL on comparison to Nepal SBI Bank Ltd and to analyze relationship between deposit and investment, deposit and loans and advances, net profit and outside assets of Nepal Investment Bank Ltd. in comparison to Nepal SBI Bank Ltd.

Research Methodology, According to the nature of the study requires primary as well as secondary data are collected through questionnaire statistical tools as well as financial questions propositions models are used according to necessity.

His Majors Findings are Current ratios for both the Banks is satisfactory, Although cash reserve ratio (CRR) is managed by both banks as per Nepal Rastra Bank directives, both banks have not paid sufficient insight toward cash management. Their cash reserves have fluctuated in a high degree, Nepal SBI Bank Ltd. has increased investment in government securities where as Nepal Investment Bank Ltd. has decreased, The analysis of growth ratios shows that growth ratios of total deposits, loans and advances, total investment and net profit of Nepal Investment Bank Ltd. are less than that of Nepal SBI Bank Ltd and the trend value of loans and advances to total deposit ratio is decreasing in case of both the banks. The trend value of total investment to total deposits ratio is also decreasing in case of both the banks.

**Raya, (2008).** in his thesis, *“Investment Policy and Analysis of Commercial Banks in Nepal”* made a comparative study of SCBL, with NABIL and NBBL. His main problem in this study is how to managed and analyze the investment policy of the commercial banks of Nepal.

His Main Objectives are to discuss fund mobilization and Investment policy of SCBL in respect to its fee based off- mbalance sheet transaction and fund based on balance sheet transaction, to evaluate the quality, efficiency and profitability and risk position, and to evaluate trend of deposit, investment, loan and advances and projection for next years.

Research Methodology, The study of the thesis has been taken from secondary data, he used financial tools to examine the investment policy of SCBL, NBBL and NABIL Bank Limited.

His Majors Findings, Mean current ratio of SCBL is slightly higher than NBBL and NABIL. Mean ratio of cash and bank balance to total deposit of SCBL is lower than NABIL and NBBL. Liquidity position of SCBL is comparatively better than NABIL and NBBL. It has the lowest cash and bank balance to total deposit and cash and bank balance to current ratio. SCBL has a good deposit collection. It has made enough Investment on government securities but it has maintained low investment policy on loan and advances. SCBL is comparatively average successful in it's on balance sheet operation. But off balance sheet operation activities in compared to NABIL and NBBL has maintained the strong position. SCBL is comparatively higher position than that of other banks, as well as its use to provide interest to the customers for different activities and there is significant relationship between deposit of loan and advances and between asset and net profit of SCBL.

**Joshi, (2009).** has conducted a study on *“Investment Policy of Commercial Bank of Nepal”* a comparative study of EBL with NABIL Bank and BOK. His main problems are How to increase in investment policy on loan and advance, how to

effective portfolio management and for project oriented approach, how to enhancing the Off Balance Sheet operation etc.

Her Main Objectives, To examine the liquidity assets management and profitability position and investment policy of EBL in comparison to NABIL and BOK, to analyze the relationship between loan and advance and total investment with other financial variable of EBL and compare with NABIL and BOK and to study the various risks in investment of EBL in comparison to NABIL and BOK.

Research Methodology, As we know for the study of the thesis we need different data, news, bulletins, report etc, as per the requirement he utilized the secondary data from different sources like financial report from sample banks, taken the review from different journals, old thesis etc. He also used statistical as well as financial tools to compare investment policy of sample banks.

Her Majors Findings, EBL has higher idle cash and bank balance. It may decrease profit of bank. It is good to invest more on share & debentures as it encourage financial and economic development of the country. A commercial bank must mobilize its fund in different sector such as to purchase share & debentures of other financial and non financial companies out of total working fund. EBL has invested its more of the funds i.e. total investment on total deposit ratio, in comparison to other commercial banks but percentage of investment on share and debenture in very nominal. Portfolio condition of a bank should be regularly revised from the time to time. It should always try to maintain the equilibrium in the portfolio condition of the bank. So it can be said “all eggs should not be kept in the same basket”. The bank should make continuous effort to explore new, competitive and high yielding investment opportunities to optimize their investment portfolio.

EBL has to make way for small depositors and entrepreneurs for the promotion and mobilization of small investor's fund. On the basis of above facts, it is seen that EBL has invested much of its fund in total outside assets but it has not achieved the desired result. And the risk taken by EBL, from the angle of credit

and capital are in an average whereas the consistencies of the same are highly volatile which may result higher loss. The bank should not test those risks on an experiment basis as seen from the consistency angle.

**Paudyal, (2010).** has conducted a study “*Guidelines of Nepal Rastra Bank on Investment Policy of Commercial Bank In Nepal*” The basic objectives of this study are, To analyze the NRB directives regarding investment policy of commercial banks, To analyze the liquidity practice of NIBL, To determine the relationship between total deposit and loan and advance etc.

Research Methodology, According to the nature of the study requires primary as well as secondary data are collected through questionnaire statistical tools as well as financial questions propositions models are used according to necessity.

His major findings are, Total investment of NIBL has maintained in an increasing trend in respect to total deposit. The mean ratio of its 39.18%. To find out whether NRB guideline is actually being implemented The mean ratio of cash and bank balance to total deposit is 9.08%. Analysis shows that the ratios are fluctuating trend. Analysis shows that net profit to total working fund ratios are fluctuating trend. The mean ratio of net profit to total working fund is 13.44%.

### **2.3 Research Gap**

The purpose of the research work is quite different from the studies made by the above persons (related to Joint Venture Banks). The author focuses this study in effectiveness on investment policy analysis of NABIL Bank and Everest Bank in comprehensive manner considering the major items.

The method of analysis is fully different. Financial tools and statistical tools are used in this study as ratio analysis, overall ratio, trend analysis, correlation matrix and hypothesis. So this study will be fruitful to those interested person, scholars, students, teachers, civil society, businessmen and government for academically as well as policy perspectives.

## **CHAPTER-III**

### **RESEARCH METHODOLOGY**

Research methodology is a way to systematically solve the research problem. It refers to the various sequential steps that are to be adopted by a researcher during the course of studying the problem with certain objectives. This chapter deals with overall research method used for the purpose of the study.

It includes research design, sources of data, population and sample and method of analysis.

#### **3.1 Research Design**

A research design is the arrangement of conditions for collection and analysis of data. Moreover the research design is the conceptual structure within which research is conducted; it constitutes the blueprint for collection and analysis of data. This study follows descriptive and analytical research designs. Some financial and statistical tools have been applied to evaluate investment policy of EBL & NABIL.

#### **3.2 Sources of Data**

The thesis is mainly based on secondary data with negligible information and data collected from primary sources. The data required for the analysis are directly obtained from the balance sheet and P/L account of concerned bank's annual reports. Supplementary data and information are collected from number of institutions and regulating authorities like NRB, SEBON, NEPSE, Ministry of finance, budget speech of different fiscal years and economic survey. All the secondary data are compiled, processed and tabulated in the time series as per the need and objectives. Likewise various data and information are collected from the economic journals, periodicals, bulletins, magazines and other published and unpublished reports and documents from various sources. Formal and informal

talks with the concerned authorities of the bank are also helpful to obtain the additional information of the related problem.

### **3.3 Population and Sample**

The population refers to the industries of the same nature and its services and product in general. Thus, the total commercial banks constitute the population of data and the bank under study constitutes the sample for the study. So, from the population of 31 commercial banks operating in Nepal, Everest Bank Limited and Nabil Bank Limited has been selected as sample for study.

### **3.4 Method of Analysis**

Financial as well as the statistical tools were used to make the analysis more convenient, reliable and authentic. For data analysis, different items from the balance sheet and other statements were tabulated. . The analysis of data will be done according to the pattern of data available because of limited time and resources. Simple analytical statistical tools such as percentage, coefficient of correlation, the method of least square and test of hypothesis are used in this study. Similarly some accounting tools such as ratio analysis and trend analysis have also been used for financial analysis. The various tools applied in this study have been briefly presented as under.

#### **3.4.1 Financial Tools**

Financial tools are used to examine the financial strength and weakness of bank in this study financial tool like ratio analysis has been used.

#### **Ratio Analysis**

Ratio analysis is the relationship between two accounting figure expressed mathematically. It is computed by dividing one item of relationship with other. Management itself can use these parameters to improve the organization's performance. The knowledge regarding strength and weakness is necessary for

exploiting maximum benefits and to repair the weaknesses to meet the challenges. The financial ratios, which are calculated and analyzed in this study, are as follows:

### **A) Liquidity Ratios**

Liquidity ratios measure the firm's ability to current obligations. It reflects the short – term financial strength of the business. It is the measurement of speed with which a bank's assets can be converted into cash to meet deposit withdrawal and other current obligations. A bank should ensure that it does not suffer from lack of liquidity and also it does not have excess liquidity. Both condition of liquidity are not in favor the viewpoint of banks.

The following ratios are evaluated under liquidity ratios.

#### **i) Current Ratio**

A ratio between current assets and current liabilities is known as current ratio. It shows the relationship between current assets and current liabilities. Current assets are those assets which can be converted into cash within short period of time, normally not exceeding one year current liabilities are those obligations which are payable within a short period, normally not exceeding one year.

Mathematically it is represented as:

$$\text{Current ratio} = \frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$$

Higher the current ratio better is the liquidity position. The widely accepted standard of current ratio is 2:1 but accurate standard depends on circumstances in case of seasonal business ratio.

This ratio measures the bank short-term solvency i.e. its ability to meet short-term obligations. As a measure of creditors versus current assets, it indicates each rupee of current assets available for each rupees of current liability.



**ii) Cash and Bank Balance to Total Deposit Ratio (Cash Reserve Ratio)**

Cash and bank balances are the most liquid current assets. This ratio measures the percentage of most liquid fund with the bank to make immediate payment to the depositor. This ratio is calculated by dividing the cash and bank balance by the amount of total deposits. Mathematically it is expressed as,

$$\text{CRR ratio} = \frac{\text{Cash and Bank Balance}}{\text{Total Deposit}}$$

Hence, cash and bank balance includes cash on hand, foreign cash on hand, cheques and other cash items, balance with domestic and abroad banks where as the total deposits include current deposits, saving deposits, fixed deposits, money at call and short term notice and other deposits.

**iii) Cash and Bank Balance to Current Assets Ratio**

This ratio measures the proportion of most liquid assets i.e. cash and balance among the total current assets of the bank. Higher ratio shows the banks ability to meet its demand for cash.

This ratio is calculated by dividing cash and bank balance by current assets.

Mathematically it is expressed as,

$$\text{Cash and bank balance to current assets ratio} = \frac{\text{Cash and Bank Balance}}{\text{Current Assets}}$$

**iv) Investment on Government Securities to current Assets Ratio**

Investment on government securities includes treasury bills and development bonds etc. This ratio is calculated to find out the percentage of current assets invested in government securities.

This ratio is calculated by dividing investment made on government securities by current assets,

Mathematically it is expressed as,

Investment on govt. securities to current assets ratio

$$= \frac{\textit{Investment on Government Securities}}{\textit{Current Assets}}$$

**v) Loan and Advances to Current Assets Ratio**

Loan and advances to current asset ratio shows the percentage of loan and advances in the total current assets. Where loan & advances include loans, advances, cash credit, local and foreign bill purchased and discounted etc.

This ratio can be calculated by dividing loans and advances by current assets.

Mathematically it is expressed as,

$$\text{Loan and advances to current assets ratio} = \frac{\textit{Loan and Advances}}{\textit{Current Assets}}$$

**B) Assets Management Ratios (Activity Ratios)**

Activity ratios are employed to evaluate the efficiency with which the firm manages and utilizes its assets. These ratios are also called turnover ratios because they indicate the speed with which assets are being converted turnover into sales. Asset management ratio measures how efficiently the bank manages the resources at its command.

The following ratios are used under this asset management ratio.

**i) Loan and Advances to Total Deposit Ratio**

This ratio is calculated to find out that which banks are able to utilizing their total deposits on loan and advances for profit generating purpose. This ratio can be obtained by dividing loan and advances by total deposits, which can be states as,

$$\text{Loan and Advances to Total Deposit Ratio} = \frac{\textit{Loan and Advances}}{\textit{Total Deposit}}$$

**ii) Total Investment to Total Deposit Ratio**

This ratio implies the utilization of firm's deposit on investment in government securities and share debentures of other companies and bank.

This ratio can be calculated by dividing total investment by total deposit. This can be states as,

$$\text{Total Investment to Total Deposit Ratio} = \frac{\text{Total Investment}}{\text{Total Deposit}}$$

Hence, total investment consist investment on government securities, investment on debenture and bonds, share in subsidiary companies, share in other companies and other investment.

**iii) Loan and Advances to Working Fund Ratio**

Loan and advances indicates the ability of any bank to canalize its deposits in the form of loan and advances to earn high return. This ratio is computed by dividing loan and advances by total working fund, which can be states as,

$$\text{Loan and Advances to Working Fund Ratio} = \frac{\text{Loan and Advances}}{\text{Working Fund Ratio}}$$

Where, Total working fund consists of current assets, net fixed assets, loan for development banks and other miscellaneous assets.

**iv) Investment on Government Securities to Total Working Fund Ratio**

This ratio shows that banks investment on government securities in comparison to the total working fund.

This ratio is calculated by dividing investment on government securities by total working fund, which can be states as,

Investment on Govt. Securities to Total Working Fund Ratio

$$= \frac{\text{Interest on Govt. Securities}}{\text{Working Fund Ratio}}$$

Hence, Investment on government securities includes treasury bills and development bonds etc.

### C) Profitability ratios

Profit is the difference between revenues and expenses over a period of time. A company should earn profit to survive and grow over a long period of time, and it will have no future if it fails to make sufficient profits. Therefore, the financial manager should continuously evaluate the efficiency of its company in terms of profits. The profitability ratios are calculated to measure the operating efficiency of a company. It is the indicator of the financial performance of any institution. This implies that higher the profitability ratio, better the financial performance of the bank and vice versa.

The following ratios are taken into account under this heading.

#### i) Return on Loan and Advances Ratio:

This ratio indicates how efficiently the bank utilizes its resources in the form loans and advances. This also measures the earning capacity of its loans and advances. This ratio is computed by dividing Net Profit (Loss) by Loans and Advances which can be expressed as:

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

#### ii) Return on Total Asset Ratio (ROA):

This ratio measures the overall profitability of all working fund i.e. total assets. It is also known as Return on Assets (ROA). This ratio is calculated by dividing net profit (loss) by total working funds. This can be presented as,

$$\text{Return on Total Working Fund Ratio (ROA)} = \frac{\text{Net Profit ( Loss )}}{\text{Total Working Fund}}$$

**iii) Interest Income to Total Income Ratio:**

This ratio measures the volume of Interest Income in Total Income of the bank. The high ratio indicates the high contribution made by the Lending and Investing and Vice Vera. This ratio can be computed by dividing Interest Income by Total Income presented as under,

$$\text{Interest income to Total Income ratio} = \frac{\text{Interest Income}}{\text{Total Income}}$$

**iv) Total Interest Paid to Total Working Fund Ratio**

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

Which, can be expressed as,

$$\text{Total Interest Paid to Total Working Fund Ratio} = \frac{\text{Total Interest Paid}}{\text{Total working fund}}$$

Where, total interest paid includes total expenses on deposits, loan and advances, borrowings and other deposits.

**D) Risk Ratios**

Risk taking is the prime business of bank's investment management. It increases effectiveness and profitability of the bank. These, ratio indicate the amount of risk associated with the various banking operations, which ultimately influences the bank investment policy.

The following ratios are taken into account under this heading.

### **i) Credit Risk Ratio**

Credit risk ratios measures the possibility that loan will not be repaid or that investment will deteriorate in quality or go into default with consequent loss to the bank. By definition, credit risk ratio is expressed as the percentage of non-performing loan to total loan & advances. This ratio is calculated by dividing total loan and advances by total assets.

This can be mentioned as,

$$\text{Credit Risk Ratio} = \frac{\text{Total Loan and Advancements}}{\text{Total Assets}}$$

### **ii) Liquidity Risk Ratio**

The Liquidity risk ratio measures the level of risk associated with the liquid assets i.e. cash, bank balance that are kept in the bank for the purpose of satisfying the depositor's demand for cash. Higher the ratio, lower is the liquid risk. Dividing cash & bank balance calculate this ratio by total deposits. This can be mentioned as,

$$\text{Liquidity Risk Ratio} = \frac{\text{Total Cash \& Bank Balance}}{\text{Total Deposit}}$$

## **3.4.2 Statistical Tools**

Some important statistical tools are used to achieve the objective of this study. In this study, statistical tools such as trend analysis of important variables, coefficient of correlation between different variables as well as test of hypothesis have been used which are as follow:

### **a) Arithmetic Mean**

An arithmetic mean is obtained by adding together all the items and dividing this total by the number of items. It is denoted as  $(\bar{X})$  and formula used to calculate it is as follows:

$$\text{Mean} = \frac{\sum X}{N}$$

**b) Standard Deviation**

The standard deviation (S.D.) measures the absolute dispersion. IT is said that higher the value of S.D higher variability and vice versa. It is denoted as ( $\sigma$ ) and formula used to calculate S.D. in sample case is as follows:

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

**c) Coefficient of Variation:**

Coefficient of variation (C.V.) measures the relative dispersion. Greater the C.V., the more variable or less consistent, less uniform, less stable and less homogeneous the ratio and vice versa. The formula used to calculate C.V. as follows:

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

**d) Co- efficient of Correlation Analysis**

This analysis identifies and interprets the relationship between the two or more variables. In the case of highly correlated variables, the effect on one variable may have effect on other correlated variable under this topic; correlation is calculated by using Microsoft Excel. For fine report here correlation matrix also used.

$$r = \frac{N \sum xy - \sum x. \sum y}{\sqrt{N \sum X^2 - (\sum X)^2} \sqrt{N \sum Y^2 - (\sum Y)^2}}$$

**e) Trend Analysis**

Among the various methods of determining trend of time series, The most popular and mathematical method is the least square method. Using this least square method, it has been estimated the future trend values of

different variables. For the estimation of linear trends line following formula can be used:

$$Y = a + bx$$

Where, Y = Dependent variable  
X = Independent variable  
A = Y - intercept  
B = Slope of the trend line

#### f) Test of 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 scientific method requires that one can test a scientific hypothesis. 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. In forming a hypothesis, the investigator must not currently know the outcome, of a potentially satisfying test or that it remains reasonably under continuing investigation. Only in such cases does the experiment, test or study potentially increase the probability of showing the truth of a hypothesis.

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 deposits and loan & advances
- ❖ Test of hypothesis on deposits and total investment
- ❖ Test of hypothesis on net assets and aet profit

#### Test statistic under $H_0$ ;

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



Where,

$\bar{X}_1$  = Mean value of  $X_1$  series

$\bar{X}_2$  = Mean value of  $X_2$  series

$n_1$  = No of  $X_1$  series

$n_2$  = No. of  $X_2$  series

$S^2$  =  $\frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2}$

$S_1^2$  = Variance of  $X_1$  series ( $\sigma_1$ )<sup>2</sup>

$S_2^2$  = Variance of  $X_2$  series ( $\sigma_2$ )<sup>2</sup>

## CHAPTER-IV

### DATA PRESENTATION AND ANALYSIS

This chapter makes systematic presentation and analysis of data. Analysis is based on the data obtained from secondary sources. Appropriate statistical as well as financial tools as described in the research methodology chapter have been used to derive actual result from the analysis of data. The chapter has been divided into two main section. The first section of the chapter includes presentation and analysis of data while the second section includes major finding of the study.

#### 4.1 Financial Analysis

For the first objectives of the study the different views and Ratio of Total Sample Banks Investment to Individual Sample Banks Investment indicates the investment policy of the sample banks

A bank is a legal organization, which can do nothing alone. Banks established without the aim of gaining profit is central bank. Other banks are inspired with the objects of earning profit and helping the economic development and finally to take the social responsibilities. They should have the ability to use the policy of banking investment and to implement it much more carefully otherwise a bank may be unsuccessful in its goals.

"Investment policy involves determining the investor's objectives and the amount of his or her investable wealth. Because there is a positive relationship between risk and return for sensible investment strategies. It is not an appropriate for investors to say that his or his objectives are to make a lot of money'. What is appropriate for a investors in this situation is to state that the objectives is to attempt to make a lot of money while recognizing that there is some chance that large loses may be incurred. Investment objectives should be stated in terms of both risk and return". (Jack Clark Francis; 2002:10)

"A study on investment policy of Nepal Bank Ltd. in comparison to other joint venture banks of Nepal" Has recommended that "the banks must utilize depositor's money as loans and advance to get success in competitive banking environment. The largest items of the bank in the assets side is loans and advance. Negligence in administering this asset could be the main cause of liquidity crisis in the bank and one of the main reasons of banks failure". (Khadka; 1998:43)

#### **4.1.1 Ratio of Total Sample Banks Investment to Individual Sample Banks Investment**

This ratio indicates the portion of investment made by EBL and NABIL Bank to total investment made by total sample banks. It shows how much sample banks directly involved in investment and how they made investment policy. The ratio is derived by dividing investment made by individual sample bank by Total Investment made by Total sample banks.

The below table 4.1 shows the investment made by total sample banks investment and by individual bank investment. From that table it shows that portion of investment made by EBL is in fluctuating every year. The highest ratio of EBL is 15.41% in f/y 2010/11 and the lowest ratio is 2.70% in f/y 2007/08. The mean ratio is 9.19 during the study period when SD is 5.90 and CV is 20%.

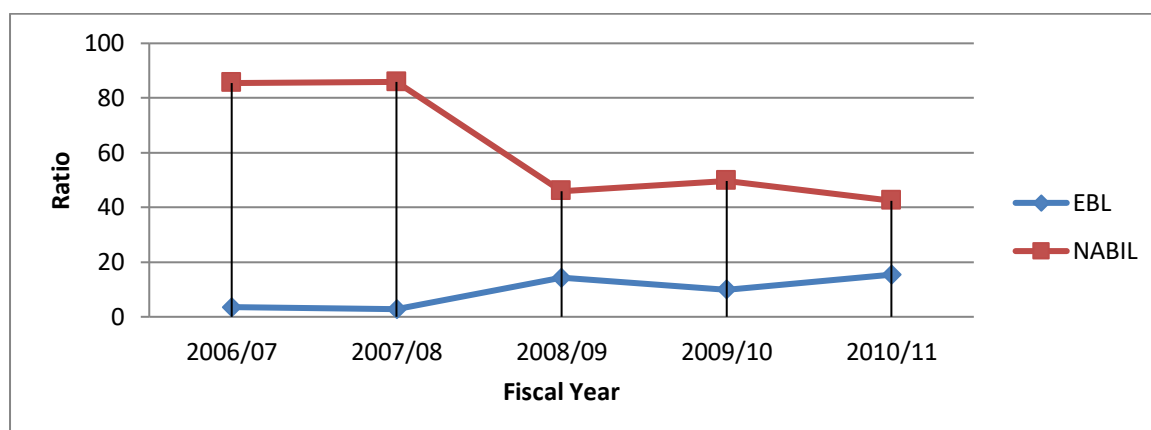
**Table: 4.1**  
**Total Sample Banks Investment to Individual Investment Ratio (in Percentage)**

Banks F/Y	EBL	NABIL
2006/07	3.45	85.49
2007/08	2.80	85.90
2008/09	14.30	45.93
2009/10	9.97	49.76
2010/11	15.41	42.47
Total	45.93	309.56
Mean	9.19	61.91
S.D	5.90	21.86
C.V	20	35.31

Source: Annual Report & Appendix 1

**Figure: 4.1**

**Total Sample Banks Investment to Individual Investment Ratio**



The above table 4.1 shows the investment made by total sample banks investment and by individual bank investment. The highest ratio of NABIL is 85.90% in f/y 2007/08 and the lowest ratio is 42.47% in f/y 2010/11. The mean ratio is 61.91 during the study period when SD is 21.86 and CV is 35.31%.

So, from the above table shows that NABIL has good investment policy but due to changing time it is falling down and EBL has in proving its investment technique and doing better every upcoming fiscal year.

**4.1.2 Segregation of Investment**

Banking business is rapidly changing in Nepal. At several commercial banks in Kathmandu advice is given on issues like credit scoring. The problem of use of technology to cope with the expanded products and services is tackled. A plan to start a mutual fund is advised on. Aspects thereof are covered like: the target group, the type and the size of the fund, open-end vs. close-end, public vs. private offering, distribution policy of income and profits. The advisers open the discussion about sales and marketing policy of the fund. Also outsourcing of the fund administration is commented on. But here on third objectives of the study, different fund are segregation as below.

### A) Segregation of Investment of EBL Bank

EBL invests its collected funds in different sectors. Mostly commercial banks are found to invest in government securities, share and debentures of other companies and other sector. Here an attempt is made to segregate the investment made by EBL.

**Table: 4.2**  
**Segregation of Investment of EBL (Rs in Million)**

Year	investment	Gov.sec	%	Share & deb	%	others	%
2006/07	3614.54	3589.97	99.32	24.57	0.68	-	-
2007/08	3237.98	3207.54	99.06	30.44	0.94	-	-
2008/09	3371.42	2848.18	84.48	15.85	0.47	507.40	15.05
2009/10	2745.28	2591	94.38	10.97	0.40	143.31	5.22
2010/11	4745.5	4602.19	96.98	8.79	0.32	129.56	2.73

Source: Banking and Financial Statistics, NRB

The above table show the investment made by EBL in different sectors. EBL is found to invest its fund in Government securities, shares and debenture of other industries. The most of its fund investment in government securities and less in share debenture of other industries. From the FY 2008/09 it's invested in other sector. It can be concluded that EBL has started to increase and investment in other sector too but still less investment in share and debentures.

### B) Segregation of Investment of NABIL Bank

NABIL invests its collected funds in different sectors. Mostly commercial banks are found to invest in government securities, share and debentures of other

companies and other sector. Here an attempt is made to segregate the investment made by NABIL.

**Table: 4.3**

**Segregation of Investment of NABIL (Rs in Million)**

Year	investment	Gov.sec	%	Share & deb	%	others	%
2006/07	89453.2	88585.51	99.03	867.69	0.97	-	-
2007/08	99397.71	95441.69	96.02	3956.02	3.98	-	-
2008/09	10826.37	10456.11	96.58	370.27	3.42	-	-
2009/10	13703	10669.16	77.86	3033.84	22.14	-	-
2010/11	13081.2	8627.06	65.95	4454.14	34.05	-	-

Source: Banking and Financial Statistics, NRB

The above table shows the investment made by NABIL in different sectors. NABIL is found to invest its fund in Government securities, shares and debenture of other industries. The most of its fund investment in government securities and less in share debenture of other industries. It can be concluded that NABIL is increasing its investment in government securities and share and debenture only but still needs to invest in other sector too.

### **4.1.3 Ratio Analysis**

Ratio analysis shows the mathematical relationship between two accounting figures. It helps to analyze the financial strengths and weaknesses of the banks. It is also inevitable for the quantitative judgment with which the liquidity management of banks can be presented properly.

#### **1. Liquidity Ratio**

Commercial bank must maintain its satisfactory liquidity posting to satisfy the credit needs of community, to meet demands for deposit-withdrawals, pay maturity obligation in time and convert non-cash assets into cash to satisfy immediate needs without loss to bank and consequent impact on long-run profit.

Liquidity ratio is mainly used to analyze the short-term strength of commercial banks.

### A) Analysis of Current Ratio

This ratio measures the liquidity position of the commercial banks. It indicates the ability of Banks to meet the current liquidity.

**Table: 4.4**

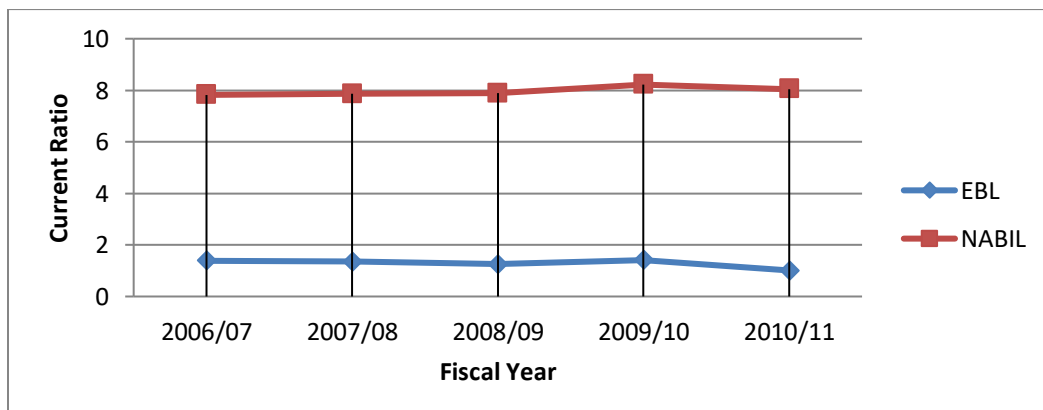
#### Current Assets to Current Liability (in times)

F/Y \ Banks	EBL	NABIL
2006/07	1.39	7.82
2007/08	1.35	7.86
2008/09	1.25	7.88
2009/10	1.41	8.22
2010/11	1.01	8.05
Total	6.41	39.83
Mean	1.28	7.96
S.D	0.16	0.17
C.V	0.13	0.02

Source: Annual Report & Appendix 2

**Figure: 4.2**

#### Current Assets to Current Liability Ratio



Above Table and figure shows the current ratio of selected commercial banks during the study period. The current ratio of EBL is fluctuating and NABIL Bank is in increasing trend except 2010/11. Nabil is general said that have good ability to meet their short- term obligations. In the case of Nabil the C.R. is high in 2009/10 i.e 8.22, In an average, liquidity position of Nabil is greater than EBL i.e.  $7.96 > 1.28$ . Due to high mean ratio Nabil is better than EBL. Likewise, S. D. and CV of Nabil is 0.17 and 0.02. Again S.D and C.V of EBL is 0.16 and 0.13 respectively.

Lastly, from the above analysis it is known Nabil have better liquidation position and EBL have sound liquidation position.

### **B) Cash and Bank Balance to Total Deposit Ratio**

Cash and Bank Balance to Total Deposit Ratio indicates the bank ability to meet their daily requirement of depositors. Higher ratio shows the greater ability of the firms to meet customer demands on their deposits. Following table shows cash and bank balance to total deposit of sample banks during the study period.

**Table: 4.5**  
**Cash and Bank Balance to Total Deposit Ratio (in Percent)**

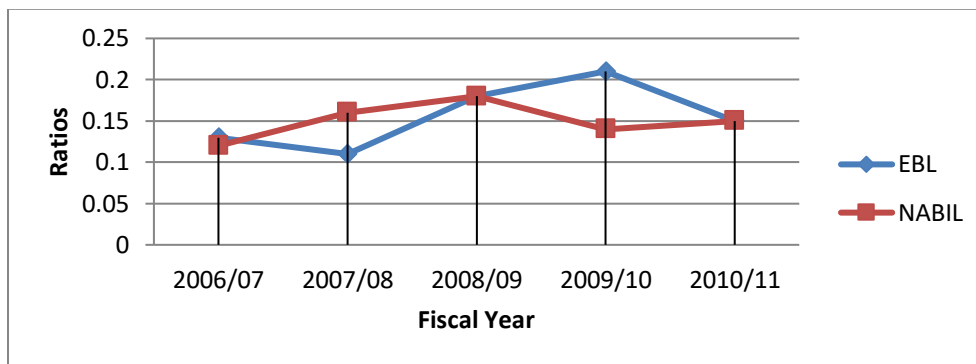
Banks F/Y	EBL	NABIL
2006/07	0.13	0.12
2007/08	0.11	0.16
2008/09	0.18	0.18
2009/10	0.21	0.14
2010/11	0.15	0.15
Total	0.78	0.75
Mean	0.16	0.15
S.D	0.04	0.02
C.V	0.25	0.14

Source: Annual Report & Appendix 3



**Figure: 4.3**

**Cash and Bank Balance to Total Deposit Ratio**



Above Table and figure reveals that the Cash and Bank Balance to Total Deposit Ratio of sample banks where both sample banks are in fluctuating trend. The highest ratio of EBL and NABIL are 0.21 time in FY 2009/10 and 0.18 times in 2008/09 respectively. Similarly, the lowest ratio of EBL and NABIL is 0.11 in f/y 2007/08 and 0.12 in f/y 2006/07 respectively in different year. The mean ratio of EBL and NABIL, is 0.16 times and 0.15 times respectively. EBL has higher ratio than the NABIL, which shows its greater ability to pay depositors money as they want. Similarly, EBL have highest S.D 0.04 times and CV i.e 0.25 times, when NABIL S.D is 0.02 and CV 0.14.

The above analysis has to conclude that the cash and bank balance position of EBL with respect to NABIL is better in order to serve its customer's deposits. It implies the better liquidity position of EBL from the viewpoint of depositor demand.

**C) Cash and Bank Balance to Current Assets Ratio**

Cash and Bank Balance are the most liquid or quick assets. Cash and bank balance to current assets ratio represents the liquidity capacity of the firms as per cash and bank balance. Higher the ratios, better the ability of the firms to meet the daily cash requirement of their customers. But high ratio is not so preferred to the firms because firms have to manage the cash and bank balance to current asset ratio in such manner that firm may not be paid interest on deposits and may not have

liquidity crisis. Following the states the cash and bank balance to current assets of sample banks during the study period.

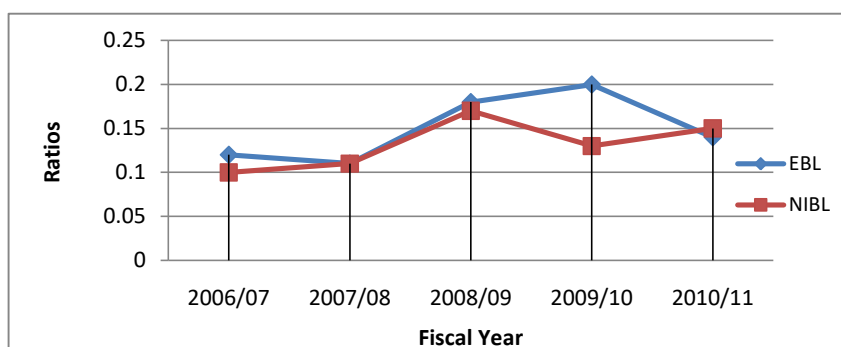
**Table: 4.6**  
**Cash and Bank Balance to Current Assets in Percent)**

Banks F/Y	EBL	NABIL
2006/07	0.12	0.11
2007/08	0.11	0.16
2008/09	0.18	0.14
2009/10	0.20	0.12
2010/11	0.14	0.13
Total	0.76	0.66
Mean	0.15	0.13
S.D	0.04	0.02
C.V	0.27	0.14

Source: Annual Report & Appendix 4

**Figure: 4.4**

**Cash and Bank Balance to Current Assets**



Above table and figure reveals that cash and bank balance to current assets ratio of EBL and NABIL is in fluctuating trend. The mean ratio, SD and CV of EBL is higher than NABIL. The higher mean ratio shows EBL's liquidity position is better than that of NABIL. That indicates that it has more inconsistency in the ratios in comparison to others.

Regarding the above analysis, it can be concluded that EBL has a little bit better ability to meet daily cash requirements of their customers but there is not any fix policy to maintain the standard ratio of cash balance over the period of NABIL bank.

**D) Investment on Government Securities to Current Assets Ratio**

This ratio examines that portion of a commercial bank’s current assets, which is invested on different government securities. More or less, each commercial bank is interested to invest their collected funds on different securities issued by government in different times to utilize their excess funds and for other purpose. Although those securities can be sold easily in the financial market or they can be converted into cash, they are liquid assets like cash and bank balance. It shows the portion of current assets to banks that are invested on various securities. Government securities are the more secured investment alternatives. These securities are also called risk less investment but less return is generated than others risky assets.

**Table: 4.7**

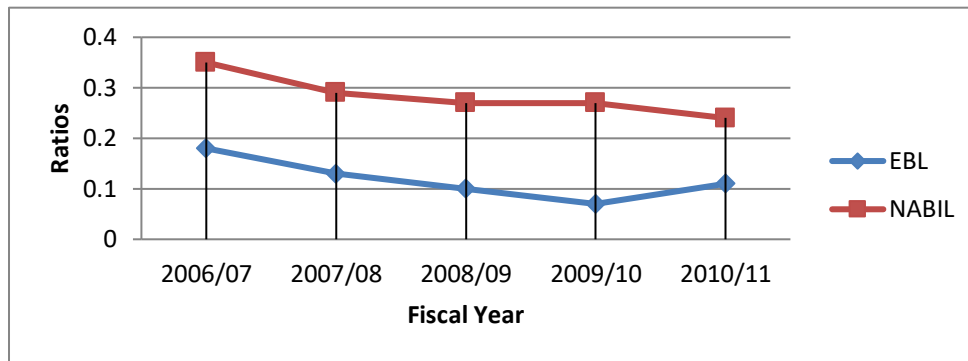
**Investment on Government Securities to Current Assets (in Percent)**

F/Y \ Banks	EBL	NABIL
2006/07	0.18	0.35
2007/08	0.13	0.29
2008/09	0.10	0.27
2009/10	0.07	0.27
2010/11	0.11	0.24
Total	0.48	1.41
Mean	0.12	0.28
S.D	0.04	0.04
C.V	0.35	0.35

Source: Annual Report & Appendix 5

**Figure: 4.5**

**Investment on Government Securities to Current Assets**



Above table and figure shows investment on government securities to current assets ratio of sample banks. EBL has fluctuating type ratios but NABIL is in decreasing trend. The table shows the highest ratio of EBL is 0.18 times in FY 2006/07 and lowest is 0.07 times in FY 2009/10. In the same way, the highest ratio of NABIL is 0.35 times in FY 2006/07 and lowest is 0.24 times in FY 2010/11.

The mean ratio of EBL is 0.12 i.e. 12 percent which is lower than the mean ratio of NABIL 0.28 i.e. 28 percent. It means NABIL has invested more money in risk free assets than that of EBL bank. In another words in other word less mean ratio means it has emphases on more loan and advances and other short term investment than investment in govt. securities. For minimization of investment risk, EBL should divert its investment in govt. securities. Similarly, S.D. is of EBL and NABIL is same ie 0.04 and C.V is also the same i,e 0.35 for both banks.

**(e) Loan and Advances to Current Assets Ratio**

To make a high profit mobilizing its fund in the best way, a commercial bank should not keep its all collected funds as cash and bank balance but they should be invested as loan and advances to the customers. In the present study loan & advances represent to local and foreign bills discounted and purchased and loans, cash credit and overdraft in local currency as well as inconvertible foreign currency.

**Table: 4.8**  
**Loan and Advances to Current Assets (in Percent)**

Banks F/Y	EBL	NABIL
2006/07	0.69	0.32
2007/08	0.73	0.33
2008/09	0.70	0.32
2009/10	0.71	0.33
2010/11	0.37	0.25
Total	3.21	1.55
Mean	0.64	0.31
S.D	0.15	0.03
C.V	0.24	0.11

Source: Annual Report & Appendix 5

**Figure: 4.6**  
**Loan and Advances to Current Assets**

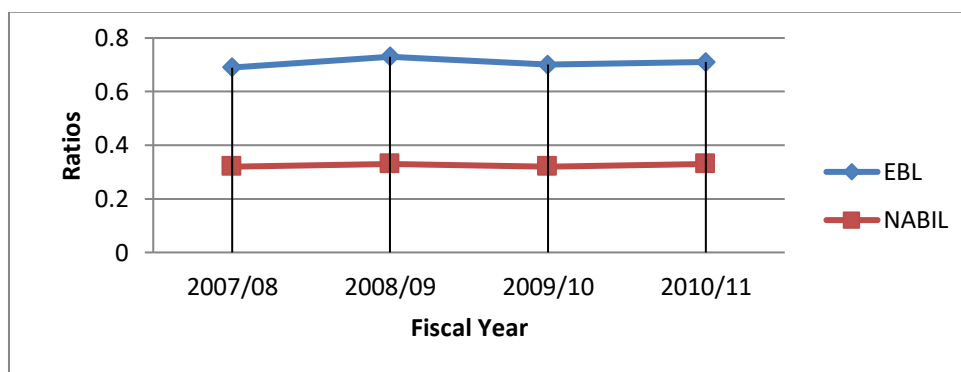


Table 4.6 and figure 4.6 shows the total mean, standard deviation and coefficient of variation of loan & advances to current assets ratio of sample commercial banks. Through this table loan & advances to current assets ratios of the sample banks. In case of EBL and NABIL loans and advances to current asset ratios are in fluctuating trend. The highest ratio of EBL is 0.73 in f/y 2007/08 and the lowest ratio is 0.37 in f/y 2010/11. Similarly, the highest ratio of NABIL is 0.33 in 2007/08 and 2009/10 the lowest is 0.25 in 2010/11.

Mean value of this ratio of EBL is 64%, which is greater than that of NABIL i.e. 0.31%. But SD and CV of EBL is also greater than NABIL i.e.  $0.15 > 0.03$  and  $0.24 > 0.11$  respectively.

## 4.2 Assets Management Ratio

A commercial bank must be able to manage its assets very well to earn high profit, so to satisfy its customers and for own existence. Assets management ratio measures how efficiently the bank manages the resources at its commands. Through following ratios, assets management ability of banks has been measured.

### A) Loan and Advance to Total Deposit Ratio

This ratio actually measures the extent to which the banks are successful to mobilize the total deposit on loan and advances for the purpose of profit generation. A higher ratio of loan and advances indicates better mobilization of collection deposit and vice-versa. But it should be noted that too high ratio might not be better from its liquidity point of view. Following Table shows the loan and advances to total deposit ratio of related banks.

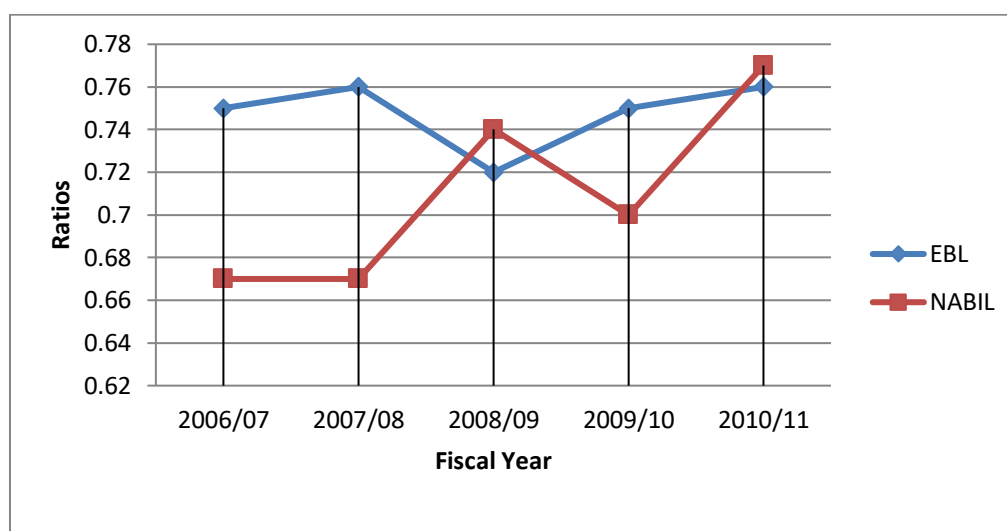
**Table: 4.9**  
**Loan and Advance to Total Deposit (in Percent)**

Banks F/Y	EBL	NABIL
2006/07	0.75	0.67
2007/08	0.76	0.67
2008/09	0.72	0.74
2009/10	0.75	0.70
2010/11	0.76	0.77
Total	3.73	3.53
Mean	0.75	0.71
S.D	0.02	0.04
C.V	0.02	0.06

Source: Annual Report & Appendix 7

**Figure: 4.7**

**Loan and Advance to Total Deposit**



Above table and figure shows that the loan and advances to total deposit ratio of EBL and NABIL is in fluctuating trend. The ratio of EBL is more fluctuating. EBL has higher average ratio than NABIL in study period ie 0.75. So It reveals that the deposit of EBL is quickly converted in to loan and advances to earn income. According to NRB directives above 70% to 90% of loan and advances to total deposit ratio is able to better mobilization of collected deposit. So all of the year the EBL and NABIL both has met the NRB requirement or it has utilized its deposit to provide loan. The mean, S.D. and C.V of EBL has 0.02 and 0.027. So as NABIL has 0.04 and 0.06.

**B) Total Investment to Total Deposit Ratio**

Commercial banks and financial companies invest their collected funds in various government securities and other financial or non-financial companies. This ratio measures how successfully and efficiently the banks are mobilizing their funds on investment in various securities. This ratio of sample banks are calculated and presentation below.

**Table: 4.10**

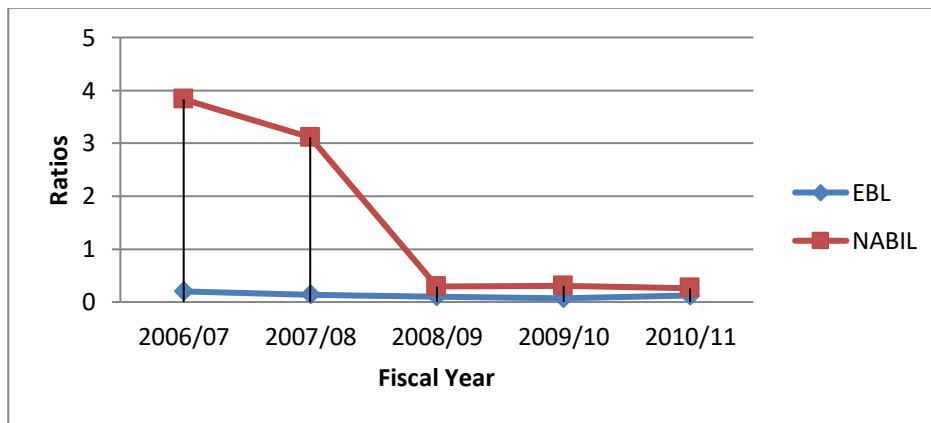
**Total Investment to Total Deposit (in Percent)**

Banks F/Y	EBL	NABIL
2006/07	0.20	3.83
2007/08	0.14	3.11
2008/09	0.10	0.29
2009/10	0.07	0.30
2010/11	0.12	0.26
Total	0.62	7.80
Mean	0.12	1.56
S.D	0.047	1.77
C.V	0.37	1.13

Source: Annual Report & Appendix 8

**Figure: 4.8**

**Total Investment to Total Deposit**



Above table and figure shows that total investment to total deposit ratio of EBL and NABIL. These banks have decreasing and fluctuating trend of total investment to total deposit ratio. Higher ratio of EBL is 0.20 percent in FY 2006/07 and lowest ratio is 0.07 percent in FY 2009/10 and in the same way the highest ratio of NABIL is 3.83% in 2006/07 and lower is 0.26% in 2010/11. Investment volume of EBL is lower than NABIL.



The mean, SD and CV of EBL is 0.12, 0.047 and 0.37 and NABIL is 1.56, 1.77 and 1.13 respectively.

### C) **Loan and Advances to Total Assets Ratio**

A commercial bank's working fund plays very active role in profit generation through fund mobilization. This ratio reflects the extent to which the banks are successful in mobilizing their total assets on loan and advances for the purpose of income generation. A high ratio indicates better mobilization of funds as loan and advance and vice-versa. The following table shows loan and advances to total assets of sample banks as follows.

**Table: 4.11**

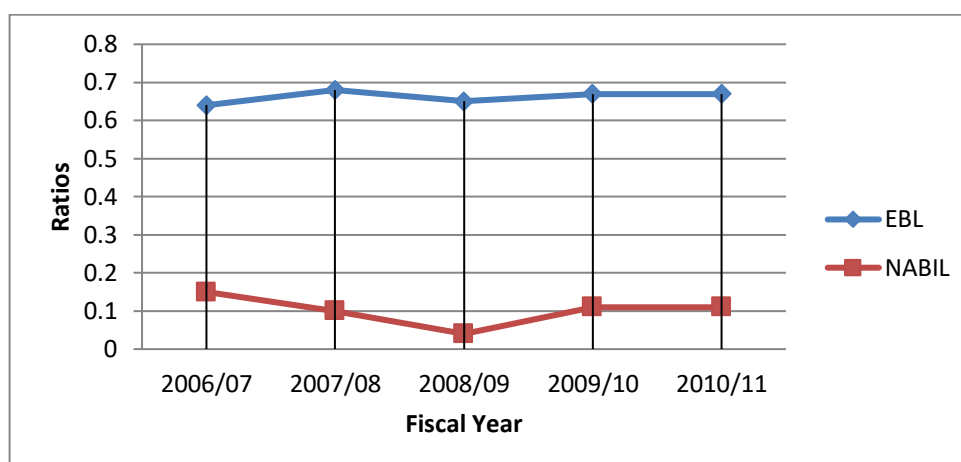
**Loan and Advances to Total Assets (in Percent)**

Banks F/Y	EBL	NABIL
2006/07	0.64	0.57
2007/08	0.68	0.58
2008/09	0.65	0.63
2009/10	0.67	0.62
2010/11	0.67	0.65
Total	3.30	3.05
Mean	0.66	0.61
S.D	0.02	0.04
C.V	0.0250	0.0589

Source: Annual Report & Appendix 9

**Figure: 4.9**

**Loan and Advances to Total Assets**



Above table and figure shows the loan and advances to total assets ratio of sample banks during the study period. Loan and advances to total assets of EBL and NABIL both are in fluctuating and increasing. While observing their ratios both banks are better mobilizing of fund as loan and advances and it seems quite successful in generating higher ratio in each year. The mean of EBL, and NABIL is 0.66%, and 0.61% respectively. So NABIL has higher ratio than EBL. It reveals that in total assets, NABIL has high proportion of loan and advances. NABIL has utilized its total assets more efficiently in the form of loan and advances. The higher C.V. of NABIL states that it has less uniformity in these ratios throughout the study period. S.D. and C.V. of NABIL has high than the EBL.

**D) Investment on Government Securities to Total Assets ratio**

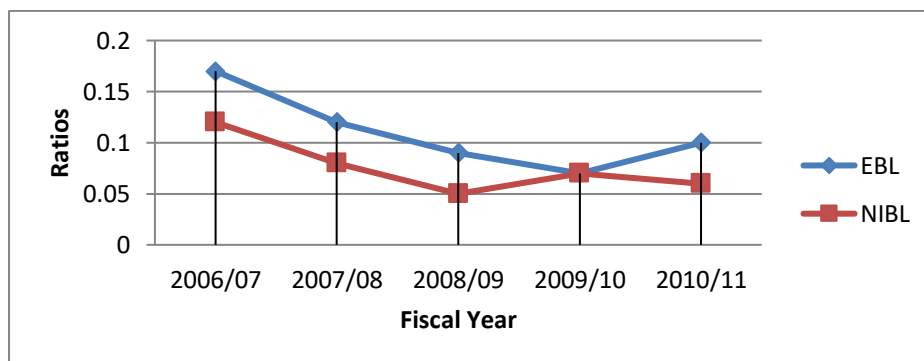
It is not possible to apply all collection, deposit and other resources in to loan and advances for the banks. Therefore, they arrange their total assets in various sectors. Among all possible sectors, investment on government securities is one, which is very less risky. Invest on government securities to total assets ratio measures how successfully selected banks have applied their total assets on various forms of government securities in profit maximization and risk minimization point of view. The higher ratio represents the better position of fund mobilization into investment on government securities and vice-versa.

**Table: 4.12**  
**Investment on Government Securities to Total Assets (in Percent)**

F/Y \ Banks	EBL	NABIL
2006/07	0.17	0.15
2007/08	0.12	0.10
2008/09	0.09	0.04
2009/10	0.07	0.11
2010/11	0.10	0.11
Total	0.55	0.52
Mean	0.11	0.10
S.D	0.04	0.04
C.V	0.3483	0.3768

Source: Annual Report & Appendix 10

**Figure: 4.10**  
**Investment on Government Securities to Total Assets**



Above table and figure shows that the investment on government treasury bills to Total assets of EBL and NABIL are in fluctuating trend. The highest ratio of EBL and NABIL is 0.17% and 0.15% respectively. The lowest ratio EBL and NABIL is 0.07 and 0.04 respectively.

From the table we notice that mean ratio of EBL and NABIL are 0.11% and 0.10 respectively. The mean of EBL is has higher than NABIL. It means EBL has invested more money in risk free assets than that of NABIL. In another words NABIL has emphases on more loan and advances and other short-term investment

than investment in govt. securities. For minimization of investment risk, NABIL should divert its investment in govt. securities.

### 4.3 Profitability Ratio

The major performance indicator of any firm is profit. The objective of investment policy is to make good return. Any organization has to desire of earning high profited which helps to survive the firm and indicates the efficient operation of the firm. Profit is the essential part of business activities to meet internal obligation, overcome the future contingencies, make a good investment policy, expand the banking transaction etc. Profitability ratios are the best indicators of overall efficiently. Here, those ratios are presented and analyzed which are related with profit as well as fund mobilization. Through the following ratios, effort has been made to measure the profit earning capacity of EBL and NABIL.

#### A) Return on Loan and advances

Every financial institution tries to mobilize their deposits on loan and advances properly. So this ratio helps to measure the earning capacity selected banks. Returns on loan and advances ratio of selected banks are presented as follows

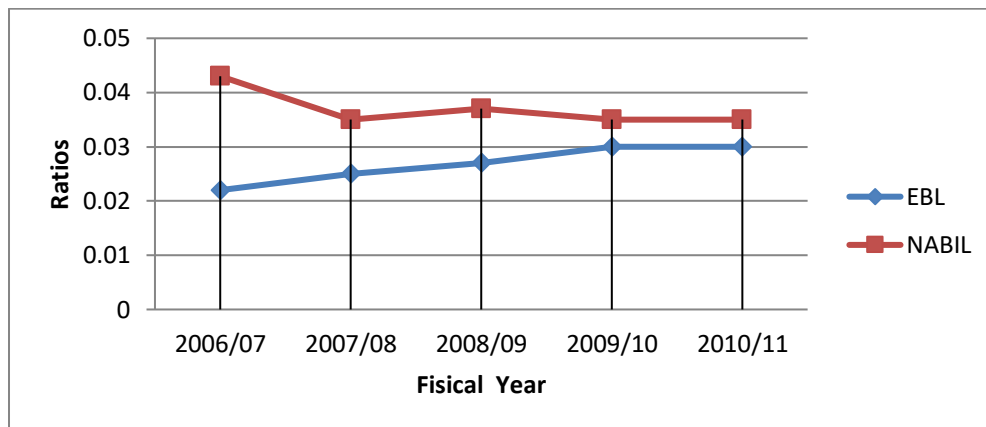
**Table: 4.13**  
**Return on Loan and advances in Percent)**

Banks F/Y	EBL	NABIL
2006/07	0.022	0.043
2007/08	0.025	0.035
2008/09	0.027	0.037
2009/10	0.030	0.035
2010/11	0.030	0.035
Total	0.133	0.186
Mean	0.027	0.037
S.D	0.004	0.004
C.V	0.1359	0.0954

Source: Annual Report & Appendix 11

**Figure: 4.11**

**Return on Loan and advances**



Above table and figure shows that return on loan and advances ratio of EBL is in increasing trend and NABIL is in fluctuating trend. The highest ratio of EBL is 0.03% in the year 2009/10 and 2010/11 and lowest ratio is 0.02% in year 2006/07. The mean ratio is 0.027%. Whereas highest ratio of NABIL is 0.043% in year 2006/07 and lower ratio is 0.035% in three fiscal year. The mean ratio is 0.037%. These both banks show the normal earning capacity in loan and advances and same earning capacity in form of loan and advances.

From the table we notice that NABIL has higher ratio of average in the study period. It can be concluded that NABIL have utilized the loan and advance for the profit generation in same earning capacity than EBL. However both seem to have poor performance in order to have returns from loan and advances because of heavy less than five percents of return on loan and advances as five percent is benchmarking ratio in this case.

**B) Return on Total Assets**

This ratio measures the overall profitability of all working fund i.e. Total assets. A firm has to earn satisfactory return on working funds for its survival. The following table shows return on total assets ratio of selected banks.

**Table: 4.14**

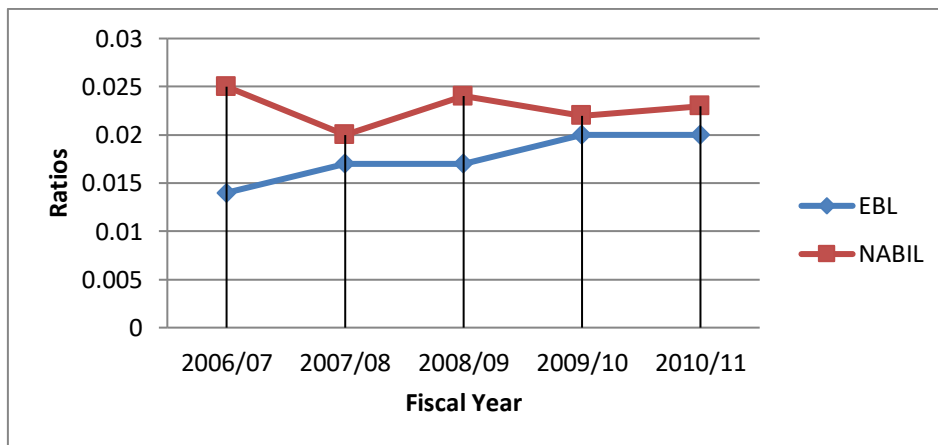
**Return on Total Assets Ratio (in Percent)**

Banks F/Y	EBL	NABIL
2006/07	0.014	0.025
2007/08	0.017	0.020
2008/09	0.017	0.024
2009/10	0.020	0.022
2010/11	0.020	0.023
Total	0.088	0.113
Mean	0.018	0.023
S.D	0.003	0.002
C.V	0.1503	0.0773

Source: Annual Report & Appendix 12

**Figure: 4.12**

**Return on Total Assets Ratio**



Above table and figure shows the Return on Total Assets of EBL and NABIL. This table states the net profit to total assets of selected banks during the study period. EBL has almost same value of return on asset beside 2007/08 and 2008/09 is 1.7%, 2009/10 and 2010/11 is 2%. But EBL has constantly increasing trend of return on its total assets however, NABIL seems fluctuating every year. Where as

S.D. and C.V. of EBL is 0.003 and 0.15 respectively, NABIL has 0.002 and 0.0733 relatively.

**C) Total interest Earned to Total Operating Income Ratio**

Total interest earned to total operating income ratio reveals that portion of interest income on total operating income of the firms. The major sources of income for the bank are interest income so the banks should mobilize their funds in more interest generating sectors considering the risk and return. This ratio measures how successfully the selected banks have been mobilizing their fund uninterested generating assets during last from FY 2006/07 to 2010/11 are presented to analyze in the following table. The major sources of income for the bank are interest income. So the banks should mobilize their funds in more interest generating sectors considering the risk and return.

**Table: 4.15**

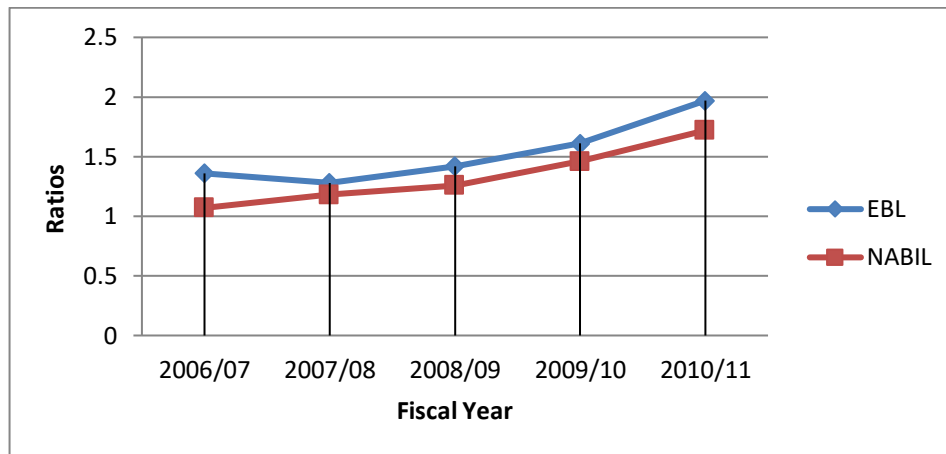
**Total interest Earned to Total Operating Income Ratio (in Percent)**

Banks F/Y	EBL	NABIL
2006/07	1.36	1.07
2007/08	1.28	1.18
2008/09	1.42	1.26
2009/10	1.61	1.46
2010/11	1.97	1.72
Total	7.64	6.71
Mean	1.53	1.34
S.D	0.28	0.26
C.V	0.1818	1.07

Source: Annual Report & Appendix 13

**Figure: 4.13**

**Total interest Earned to Total Operating Income Ratio**



Above table and figure shows Interest Earned to Operating Income Ratio of EBL and NABIL. Both banks has increasing ratio of study period except 2007/08 of EBL. EBL has greater share of total interest earn in its total operating income in each year. The mean ratio of EBL and NABIL is 1.53 times and 1.34 times respectively. NABIL and EBL both has higher ratio, it indicates the high contribution in operating income made by lending and investing activities (core banking activity). Thus, from short term view, EBL and NABIL is in good condition but from long term view it is not so good condition. In overall and has managed sound interest earned to operating income ratio.

The S.D. and C.V of EBL is 28% and 18.18, similarly NABIL has 26% and 1.07 times respectively.

**D) Total Interest Paid to Total Assets Ratio**

Total interest paid to total assets ratio help to show and measure the percentage of interest paid by the firm in comparison with total assets. If interest paid to total assets ratio is higher, there will be higher interest expenditure on total assets. The following table shows that total interest paid to total assets of selected banks.



**Table: 4.16**

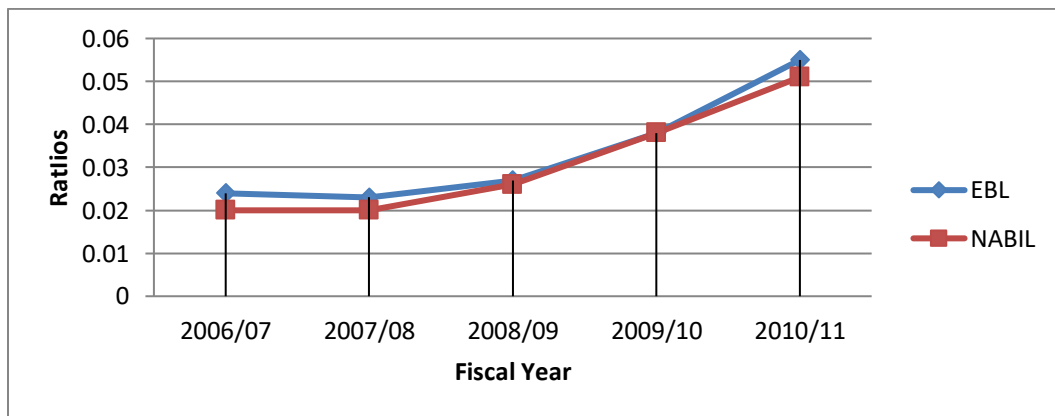
**Total Interest Paid to Total Assets Ratio (in Percent)**

Banks F/Y	EBL	NABIL
2006/07	0.024	0.020
2007/08	0.023	0.020
2008/09	0.027	0.026
2009/10	0.038	0.038
2010/11	0.055	0.051
Total	0.168	0.156
Mean	0.034	0.031
S.D	0.013	0.013
C.V	0.3956	0.4202

Source: Annual Report & Appendix 14

**Figure: 4.14**

**Total Interest Paid to Total Assets Ratio**



Due to the little bit higher ratio in each year of EBL, it seems less conscious about borrowing cheaper fund. NABIL shows the increasing trend of the interest paid to total asset ratio, its average ratio is 3.1% whereas EBL also shows increasing trend and it has maintained average ratio of 3.4%. In comparison, EBL seems ineffective in getting cheaper fund from the mean point of view.

The S.D. and C.V of EBL is 1.3% and 39.56%, likewise NABIL is 1.3% and 42.02% respectively.

## E) Total Investment to Profit

Total investment to profit ratio help to show and measure the percentage of profit earned by the firm in comparison with total investment. The following table shows that total investment to profit ratio.

**Table: 4.17**

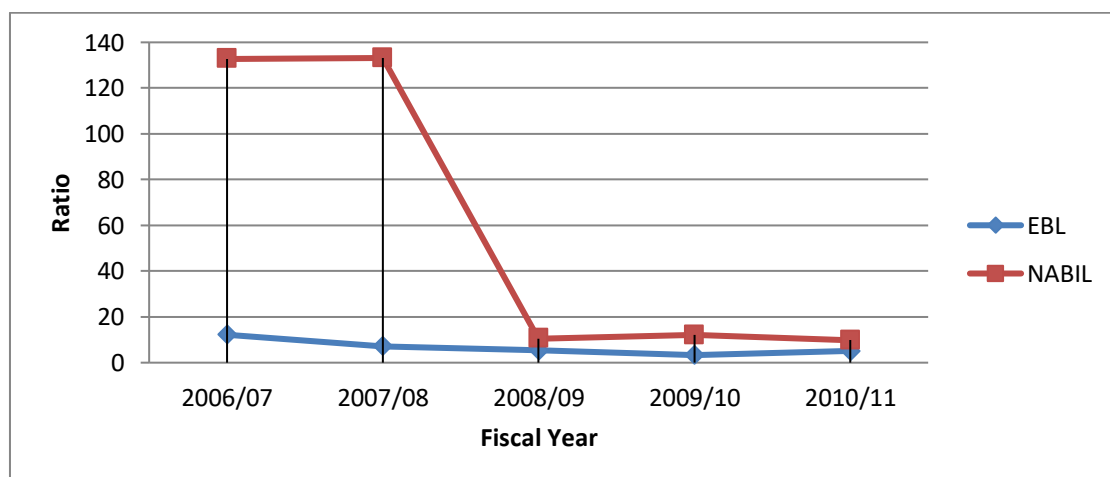
**Total Investment to Profit (in Percent)**

Banks F/Y	EBL	NABIL
2006/07	12.19	132.73
2007/08	7.18	133.16
2008/09	5.28	10.50
2009/10	3.30	12.01
2010/11	5.10	9.78
Total	33.05	298.18
Mean	6.61	59.64
S.D	3.41	66.93
C.V	51.61	112.23

Source: Annual Report & Appendix 14

**Figure: 4.15**

**Total Investment to Profit**



Above table and figure shows Total Investment to Profit of EBL and NABIL. Both banks has decreasing ratio of study period except 2010/11 of EBL. Nabil has greater share of Total Investment to Profit. The mean ratio of EBL and NABIL is 6.61 times and 59.64 times respectively. NABIL has higher ratio. Thus, from short term view, NABIL is in good condition but from long term view it is not so good condition.

The S.D. and C.V of EBL is 3.41% and 51.61, similarly NABIL has 66.93% and 112.23 times respectively.

#### **4.4 Activity Risk Ratio**

Risk and uncertainty is a part of business loss. All the business activities are influenced by risk, so business organization cannot achieve a good return as per their desires. The profitability of risk makes banks investment a challenging task. Bank has to take risk to get return on its investment. The risk taken is compensated by the increase in profit. So the banks options for high profit have to accept the risk and manage it efficiently. A bank has to have idea of the level of risk of risk that one has to bear while investing its funds. Through following ratios, effort has been made to measure the level of risk inherent in the EBL and NABIL.

##### **A) Liquidity Risk Ratio**

The liquidity risk of the bank defines its liquidity need for deposit. The cash and bank balance are the most liquid assets and they are considered as banks liquidity sources and deposit as the liquidity needs. The ratio of cash and bank balance to total deposit is an indicator of bank's liquidity of need. This ratio is low if funds are kept idle as cash balance but this reduces profitability, when the banks makes loan, its profitability increase and also the risk. Thus, higher liquidity ratio indicates less profitable return and vice-versa. This ratio is calculated as below:

**Table: 4.18**

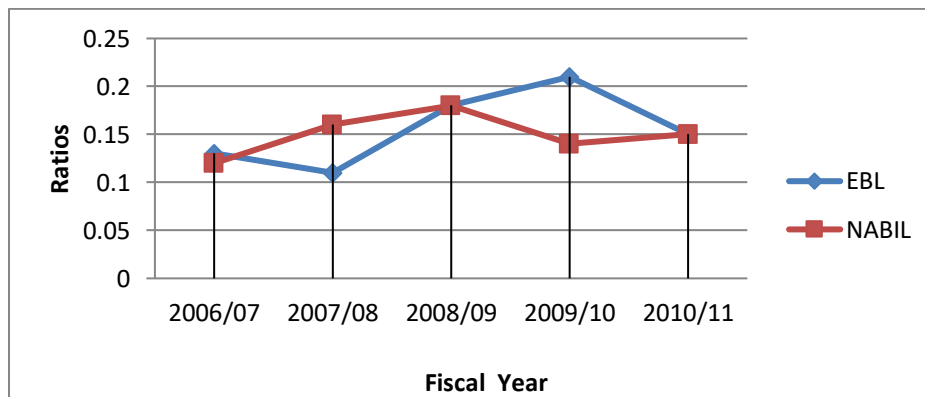
**Liquidity Risk Ratio (in Percent)**

Banks F/Y	EBL	NABIL
2006/07	0.13	0.12
2007/08	0.11	0.16
2008/09	0.18	0.18
2009/10	0.21	0.14
2010/11	0.15	0.15
Total	0.78	0.75
Mean	0.16	0.15
S.D	0.04	0.02
C.V	0.25	0.14

Source: Annual Report & Appendix 6

**Figure: 4.16**

**Liquidity Risk Ratio**



Above table shows liquidity risk ratio of the selected banks. Ratio of EBL and NABIL is in fluctuating trend. The higher average ratio of them is 0.16 of EBL. likewise NABIL get 15% average mean. The S.D and C.V of EBL is 4% and 25%, and NABIL is 2% and 14% .

The average mean ratio of EBL is greater than that of NABIL. It signifies that EBL has sound liquid fund to make immediate payment to the depositors.

## B) Credit Risk Ratio

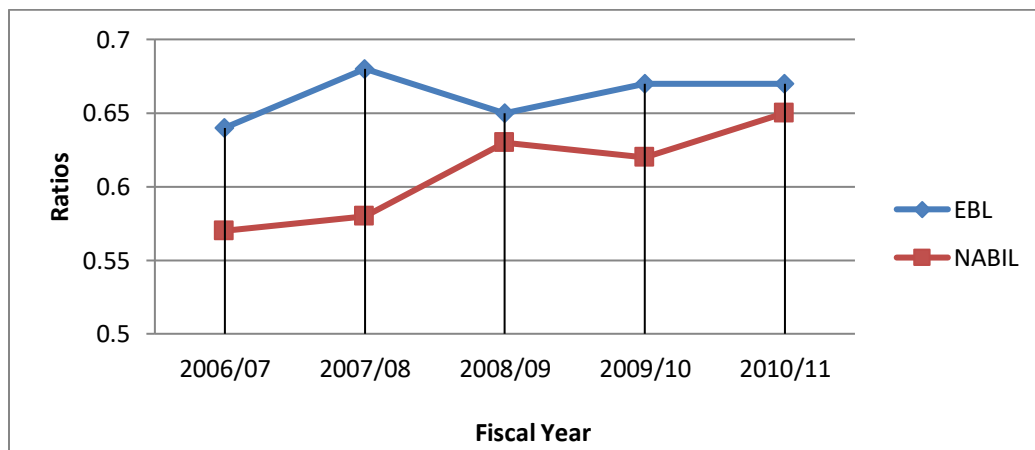
Credit risk ratio measures the possibility that loan will not be repaid or that investment will deteriorate in quality or go into default with consequent loss to the bank. Actually credit risk ratio shows the proportion of non-performing assets in total loan and advances of a bank.

**Table: 4.19**  
**Credit risk ratio (%)**

Banks F/Y	EBL	NABIL
2006/07	0.64	0.57
2007/08	0.68	0.58
2008/09	0.65	0.63
2009/10	0.67	0.62
2010/11	0.67	0.65
Total	3.30	3.05
Mean	0.66	0.61
S.D	0.02	0.04
C.V	0.0250	0.0589

Source: Annual Report & Appendix 6

**Figure: 4.17**  
**Credit risk ratio (%)**



The table 4.16 and figure 4.17 shows that the total mean, standard deviation & coefficient of variation of credit risk ratio of sample commercial banks.

The table shows that the credit risk ratios of EBL is in fluctuating trend and NABIL is in increasing trend except 2009/10. The higher ratio of EBL is 68 and lower is 64 whereas, the higher ratio of NABIL is 65% and lower is 57%.

#### **4.5 Trend Analysis**

Under this topic, analysis trend of loan & advances to total deposit ratio as well as trend of total investment to total deposit ratios of EBL, NABIL, HBL, NABIL and NSBI bank are calculated and forecasted for next five years. The forecast is based on the following assumptions.

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

##### **(i) Trend analysis of loan and advances to total deposits ratio of EBL and NABIL Bank Ltd.**

Calculate the trend values of loan and advances to total deposits ratio of EBL and NABIL for five years from 2006/07 to 2010/11 and forecast for next five years from 2010/11 to 2015/16. The following table no 4.20 shows the trend value of deposit for ten years for the sample banks.

**Table: 4.20**

**Trend analysis of loan and advances to total deposits ratio of EBL, NABIL, NABIL & NSBI (%)**

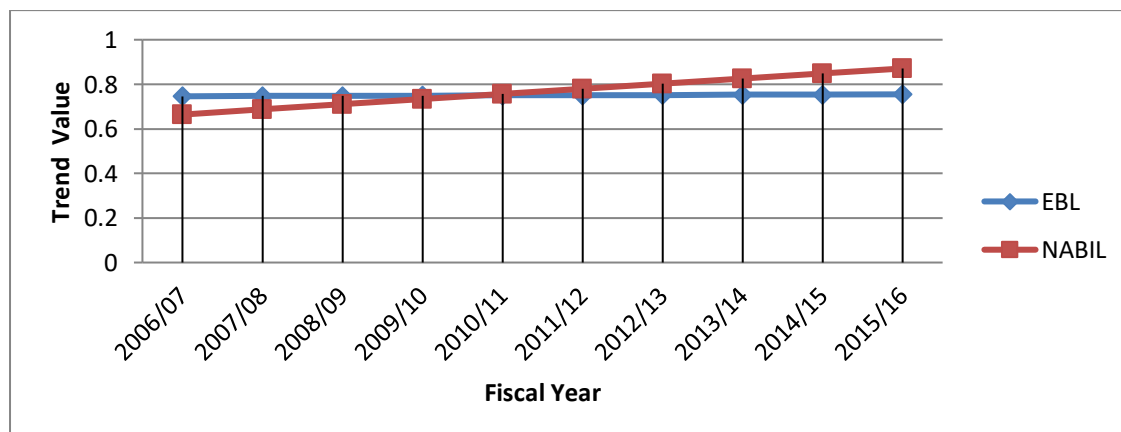
Banks F/Y	EBL	NABIL
2006/07	0.746	0.664
2007/08	0.747	0.687
2008/09	0.748	0.71
2009/10	0.749	0.733
2010/11	0.75	0.756
2011/12	0.751	0.779
2012/13	0.752	0.802
2013/14	0.753	0.825
2014/15	0.754	0.848
2015/16	0.755	0.871

Source: Annual Report & Appendix 16 & 17

From the table 4.19 it has been shows that the ratio of loan & advances to total deposits of EBL and NABIL are in increasing trend. If our assumption are applied the ratio of loan & advances to total deposits of NABIL is greater than EBL in every forecasting year. The highest ratio of EBL and NABIL is 75.5% and 94.6% in 2015/16 and lowest are in 2011/12 respectively. It indicates that both of banks have increasing the loan and advances to total deposit ratio.

**Figure: 4.18**

**Trend analysis of loan and advances to total deposits ratio of Sample Banks**



From figure 4.18 trend analysis it is quite obvious that deposit utilization position in relation to loan & advances to total deposit ratio is increasing trend. These increasing trend means EBL may use relatively large portion of their deposit by providing loan. It is also found that the loan and advances position of EBL is increasing trend that means it will be better position in future and NABIL is less better than EBL it means NABIL is also in increasing trend.

**(ii) Trend analysis of total investment to total deposit ratio of EBL and NABIL Bank Ltd.**

Calculate the trend values of total investment to total deposits ratio of EBL and NABIL for five years from 2006/07 to 2010/11 and forecast for next five years from 2010/11 to 2015/2016. The following table shows the trend value of total investments to total deposits ratio of EBL and NABIL bank.

**Table: 4.21**

**Trend analysis of total investment to total deposit ratio of Sample Bank (%)**

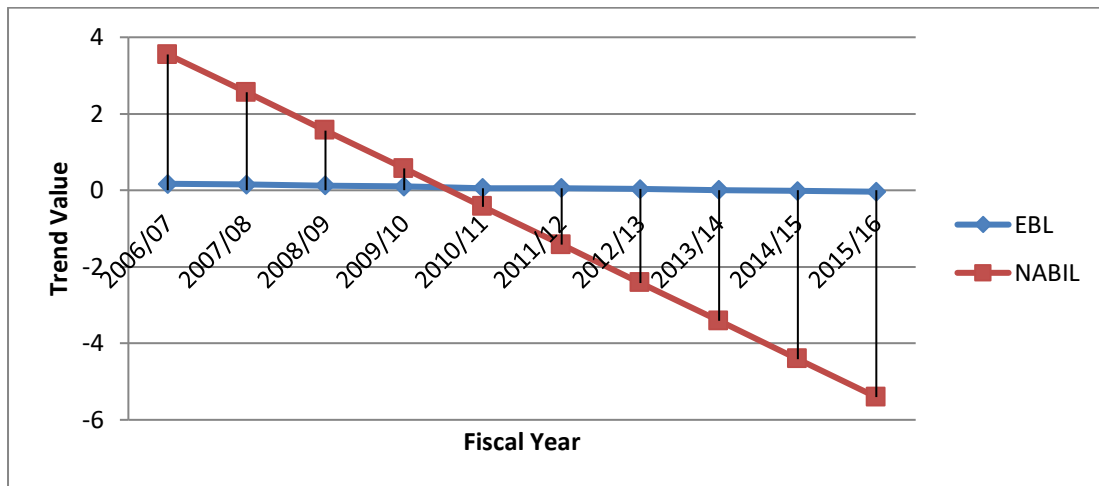
Banks F/Y	EBL	NABIL
2006/07	0.17	3.55
2007/08	0.147	2.555
2008/09	0.124	1.56
2009/10	0.101	0.565
2010/11	0.058	-0.43
2011/12	0.055	-1.425
2012/13	0.032	-2.42
2013/14	0.009	-3.415
2014/15	-0.014	-4.41
2015/16	-0.037	-5.405

Source: Annual Report & Appendix 18



**Figure: 4.19**

**Trend analysis of total investment to total deposit ratio of sample banks**



From the table 4.21 and figure 4.19 shows that the ratio of total investment to total deposit ratio of EBL and NABIL. Both sample banks are in decreasing trend and it will be negative value at end of the study period i.e 2015/16. If other things remaining the same it shows that the value of ratio decreasing by negatively. The negative trend value means the banks ratio is less than par value. If our assumption is applied the ratio of total investment to total deposit of EBL & NABIL in 2015/16 will be -0.037% and 0.005% respectively.

From the analysis it can be concluded that NABIL decreasing trend ratio has less decreaseing ratio than EBL. Above analysis only mention when it meet the above assumption and if other things remaining same but in real life it is different.

**(iii) Trend analysis of total investment to profit of EBL and NABIL Bank Ltd.**

Calculate the trend values of total investment to profit ratio of EBL and NABIL for five years from 2006/07 to 2010/11 and forecast for next five years from 2010/11 to 2015/2016. The following table shows the trend value of total investments to profit ratio of EBL and NABIL bank.

**Table: 4.22**

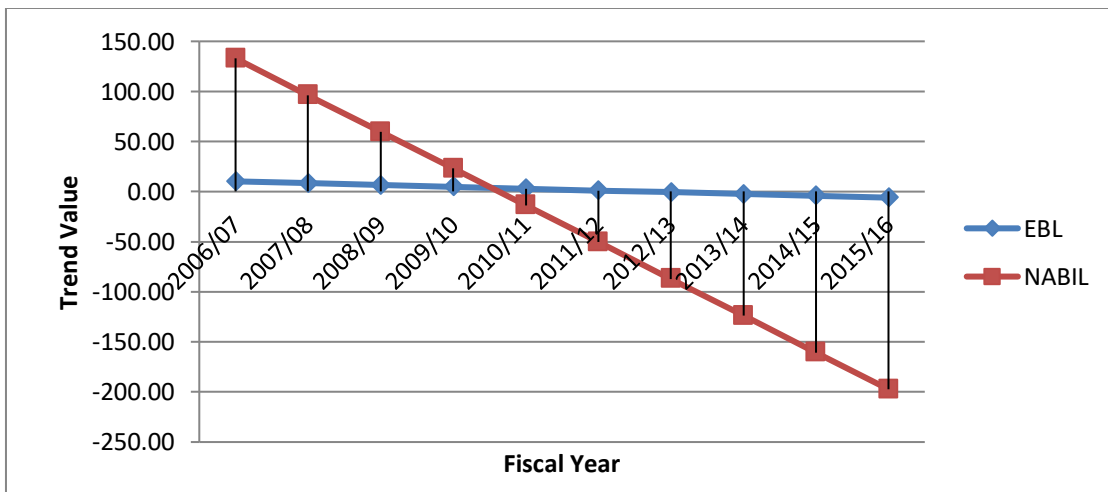
**Trend analysis of total investment to total deposit ratio of Sample Bank (%)**

Banks F/Y	EBL	NABIL
2006/07	10.22	133.04
2007/08	8.42	96.34
2008/09	6.61	59.63
2009/10	4.8	22.93
2010/11	3.0	-13.77
2011/12	1.19	-50.47
2012/13	-0.61	-87.18
2013/14	-2.42	-123.88
2014/15	-4.22	-160.59
2015/16	-6.03	-197.29

Source: Annual Report & Appendix 18

**Figure: 4.20**

**Trend analysis of total investment to total deposit ratio of sample banks**



From the table 4.21 and figure 4.20 shows that the ratio of total investment to profit ratio of EBL and NABIL. Both sample banks are in decreasing trend and it will be negative value at end of the study period i.e 2015/16. If other things remaining the same it shows that the value of ratio decreasing by negatively. The

negative trend value means the banks ratio is less than par value. If our assumption is applied the ratio of total investment to profit of EBL & NABIL in 2015/16 will be -6.03% and -197.30% respectively.

From the analysis it can be concluded that NABIL decreasing trend ratio has high decreasing ratio than EBL. Above analysis only mention when it meet the above assumption and if other things remaining same but in real life it is different.

## **4.6 Statistical Tools**

Some important statistical tools are used to achieve the objective of this study. In this study, statistical tools such as, trend analysis, co-efficient of correlation analysis between different variables, test of hypothesis are used.

### **4.6.1 Coefficient of Correlation Analysis & Test of Hypothesis**

Under this topic, Karl person's coefficient of correlation & test of hypothesis are used to find out the relationship between deposit and loan & advances, deposit and total investment, total asset and net profit.

#### **(i) Co-efficient of correlation & test of hypothesis between deposits and loan & advances**

Coefficient of correlation ( $r$ ) between deposits and loans and advances measures the degree of relationship between these two variables. The purpose of correlation analysis between deposit and loan and advances is to find out whether deposit is significantly used as loan and advances. In this analysis deposit is independent variables ( $x$ ) and loan & advances are dependent variables ( $y$ ).

**Table: 4.23**

**Coefficient of correlation between deposit and loan & advances and test of hypothesis**

Evaluation criteria	r	r <sup>2</sup>	t-cal	t-tab	Result
EBL	0.997	0.9940	0.0023	2.306	Insignificant
NABIL	0.989	0.9781	0.00050	2.306	Insignificant

Source: Annual Report & Appendix 17 and 18

From the table 4.17 shows that r, r<sup>2</sup>, & test of hypothesis between deposit and loan and advances of EBL and NABIL for the period of 2006/07 to 2010/11.

It is found that the co-efficient of correlation (r) between deposit and loan and advances of EBL and NABIL is 0.997 and 0.989 respectively. It shows the highly positive relationship between these two variables. However co-efficient of determination i.e. r<sup>2</sup> it indicates that in the case of both banks which is 0.9940 and 0.9781. The variation in the dependent variable i.e. loan & advances has been explained by the independent variables i.e. deposit. More over considering the hypothesis in case of EBL and NABIL is in no significant relationship between deposit and loan & advance. The value of r<sup>2</sup> is no significant that means there is no significant relationship between deposit and loan & advances of all sample banks. Due to small sample size both banks are insignificant.

**(ii) Coefficient of correlation between deposit and total investment and test of hypothesis**

Coefficient of correlation between deposit and total investment measures the degree of relationship between these two variables. The purpose of calculating this analysis is to find out whether deposit is significantly used as investment or not. In this analysis deposit is independent variable (x) and total investment is independent variable (y).

**Table: 4.24**

**Coefficient of correlation between deposit and total investment and test of hypothesis**

Evaluation criteria	r	r <sup>2</sup>	t-cal	t-tab	Result
EBL	0.295	0.0870	0.00278	2.306	Insignificant
NABIL	-0.8274	0.6845	0.7710	2.306	Insignificant

Source: Annual Report & Appendix 18 and 19

The table 4.17 shows that, the value of r, r<sup>2</sup>, & test of hypothesis between total deposit and total investment of EBL and NABIL Bank Limited for the study period 2006/07 to 2010/11.

In case of EBL it is found that coefficient of correlation between deposit and total investment is 0.295 and NABIL has -0.8274 respectively. It shows that positive relationship between deposit & total investment of EBL but NABIL is highly negative correlated. Moreover, when we consider the value of EBL and NABIL coefficient of determination (r<sup>2</sup>) is 0.0870 and 0.6845 respectively. When analyze the value of r and comparing with test of hypothesis we can find that there is insignificant relationship between deposit and investment of all sample banks.

The relationship is insignificant and the value of r shows high percent in the dependent variables, which has been explained by the independent variable. Here due to small sample size it becomes no significant.

**(iii) Coefficient of correlation between total assets and net profit and test of hypothesis**

Coefficient of correlation between Total assets and net profit measures the degree of relationship between these two variables. The purpose of computing these analysis is to find out whether net profit is significantly correlated with respect to

total assets or not. In this analysis outside asset is independent variable (x) and net profit is independent variable (y).

**Table: 4.25**  
**Coefficient of correlation between outside assets and net profit and test of hypothesis**

Evaluation criteria	r	r <sup>2</sup>	t-cal	t-tab	Result
EBL	0.9756	0.9517	0.00109	2.306	Insignificant
NABIL	0.9553	0.9125	0.00734	2.306	Insignificant

Source: Annual Report & Appendix 18 and 19

The table 4.18 shows the value of r, r<sup>2</sup>, and t-test between total assets and net profit of EBL and NABIL Bank Limited for the study period 2006/07 to 2010/11. From the table in case of EBL it is found that coefficient of correlation between total assets and net profit is 0.9756. It shows the positive relationship between these two variables. Moreover, when we consider the value of coefficient of determination (r<sup>2</sup>) it 0.9517 and it means 95.17% of the variation in the dependent variable is explained by the independent variable. Where analyze the value of r and comparing with hypothesis we can find that there is insignificant relationship between total assets and net profit which reveals that due to small sample size. In case of NABIL there is positive correlation between total asset and net profit. There is no significant relationship between mobilization of funds and returns of both selected banks.

#### **4.7 Major Findings of the Study**

- ❖ It is found from the study that the amount of total deposit collected by Nabil Bank in each year during 5 years of the study period is higher than that of EBL. Total deposit collected and total investment made, total loan and advances of Nabil Bank is also Higher during the study period. It

is clear that Investment policy adopted by Nabil Bank is sound from profit point of view.

- ❖ Nabil Bank has given more priority on investment. Nabil Bank has accepted higher level of interest rate risk rather than credit risk. Overall profitability ratio of Nabil Bank shows that it has earned Higher profit than EBL. It is clear that Nabil Bank has given more emphasis on profit.
- ❖ The study has found that total deposit and loan and advances and investment of the selected bank will be in increasing trend if other things remain constant.
- ❖ There is positive relationship between deposit and loan & advances and deposit and investment of the selected banks.
- ❖ NRB has directed all the commercial banks to keep minimum 5.5% of total deposit in the NRB balance so as to maintain the liquidity position. EBL has an average mean ratio of 1.28% and Nabil Bank has an average mean ratio of 7.96%.
- ❖ An average mean ratio of EBL and Nabil of Loan & advances to total deposit ratio is 0.75% and 0.71% respectively.
- ❖ Investment to total deposit ratio of sample banks is in fluctuating and decreasing trend. An average mean of EBL is 66% which is nearby Nabil.
- ❖ Investment on financial institution to total deposit ratio of the selected bank is fluctuating drastically
- ❖ Nabil Bank has higher interest rate risk than that of EBL.
- ❖ Credit risk ratio measures the risk behind making investment or granting loan.
- ❖ Nabil Bank has accepted higher level of risk. It is clear that Nabil Bank is in better position to earn higher profit out of its working fund.

- ❖ Return on Loan & advance of Nabil Bank is higher than that of other sample bank i.e 0.037% That means Nabil Bank has achieved the net profit from loan & advances four times more than that of EBL.
- ❖ Correlation of coefficient between deposit and loan & advances found that there is positive relationship between deposit and the loan & advances of the both sample bank. It indicates that the increase in deposit tends to increase in loan and advances. The study also suggests that the dependent variable i.e. loan & advances of sample bank is highly dependent upon the total deposit.
- ❖ Correlation coefficient between deposit and investment of Nabil bank is negative whereas that of EBL is positive. It is found from the study that the dependent variable i.e. investment and independent variable i.e. deposit.
- ❖ It indicates that increase in net profit of Nabil Bank is not caused by the increase in total assets of the bank.
- ❖ It is forecasted that all sample banks will have decreasing trend of investment to total deposit ratio. The total investment to total deposit ratio of all sample banks are forecasted negatively it means that the banks ratio is less than par value or it doesn't maintain the standard of ratio.



## **CHAPTER-V**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

In this chapter we present the summary and conclusion drawn from the analysis of preceding chapter. Then based on the finding and conclusion we recommend certain measure for further improvement. With the help of some financial and statistical tools, the researcher has tried to analysis investment policy of concerned banks. This study may be helpful for management of the concerned bank to initiate the action to achieve the desired result.

#### **5.1 Summary**

The economic development of a country depends upon the development of commerce and industry. And, there is no any doubt; banking promotes the development of commerce because banking itself is the part of commerce. The process of economic development depends upon various factors, however economists are now convinced that capital formation and its proper utilization plays a paramount role for rapid economic development.

The evolution of the organized financial system in Nepal has more recent history than in other countries of the world. In Nepalese context, the history of banking is not more than six decade. After the announcement of liberal and free market economic based policy Nepalese banks and financial sectors having greater network and access to national and international markets. Commercial banks plays a vital role which deals with other people's money and stimulate saving by mobilized idle resources to those sectors where have investment opportunities. Modern bank provides various services to their customer in view of facilitating their economic and social life.

The objective of the commercial banks is always to earn more profit by investing or granting loan and advances into profitable, secured and marketable sector. But commercial bank should be careful while performing the credit creation function; the banks should never invest its funds in those securities, which are too much

fluctuations. And commercial banks must follow the rules and regulations as well as different directions issued by central banks and ministry of finance.

There has been number of commercial bank established, the research has taken into consideration.

**‘Nabil Bank Ltd’** – Nabil bank limited was the first joint venture commercial banks incorporated in 1984 by joint investment of Dubai bank limited and Nepali promoters. This bank is awarded by “Bank of year in ‘2004’”

**Everest Bank Ltd’** - Everest bank limited is joint venture with Punjab national bank incorporated in 1994. This bank is awarded by “Bank of year in 2066”

In the study, the word investment covers a wide range of activities i.e. the investment of income, savings or other collected fund. If there is no savings, there is no existence of investment therefore, savings and investment are interrelated. Investment policy is a one fact of the overall of policies that guide banks investment operations and it ensures efficient allocation of funds to achieve the well being economic development of the nation. A sound and viable investment policy attracts both borrowers and lenders, which help to increase the volumes and quality of deposits, loan and investment. Therefore, the investment policy should be carefully analyzed.

Some sources of funds for the investment of the bank are capital, general reserves, accumulated profit, deposits and external & internal borrowings. Similarly, some important banking terms, which are frequently used in this study, are loan and advances, investment on government securities, shares and debentures, deposits and other use of funds.

In this study, for the analysis and interpretation of the data different financial & statistical tools are used. In the financial tools liquidity ratios, assets management ratios, profitability ratios, risk ratios and growth ratio have been used. Where, as in statistical tools trend analysis and test of hypothesis have been used. Only the secondary data have been used for the analysis in this research. The data are

obtained from annual reports of concerned banks, likewise, the financial statement of five years i.e. 2006/07 to 2010/11 were selected for the purpose evaluation.

## **5.2 Conclusion**

The above mentioned major finding led this study to the following conclusion.

- The liquidity position of Nabil is comparatively lower than Everest bank but it has highest loan & advance to current assets ratio.
- Nabil bank has highest ratio in investment to total deposit and lower in loan & advance to total deposit , loan & advance to total working fund, investment in government securities.
- Analyzing the profitability ratio, we found that return on total working fund and return on loan & advance, total interest earned to total working fund ratio of Nabil is higher than Everest bank. But , total interest paid to total working fund of Nabil lower than Everest bank.
- Liquidity risk ratio, credit risk ratio of Nabil is lower than Everest bank, whereas it is higher in case of capital risk.
- From growth ratio we found that, Nabil has lower growth rate in total deposit , loan& advance and net profit , but it has highest growth rate in total investment.
- From trend analysis, we found that total deposit, loan & advance, total investment and net profit of Nabil is better than Everest bank.

Through the analysis and finding we can summarize that investment policy of Nabil is better in every sector and profitability ratio is also good. Similarly trend analysis shows that position of Nabil will be better in future. However liquidity position growth rate is not satisfactory and it has average risk ratio.

### 5.3 Recommendations

On the basis of above summary and conclusion, following recommendation are made:

- Commercial bank must maintain its satisfactory liquidity position to meet the credit need of its customer, however internal as well as external factor affect the liquidity position of the bank. As Nabil bank has maintained lower ratio of cash and bank balance to total deposit and current assets than Everest bank. Nabil is recommended to increase cash and bank balance to meet the requirement of cash for various purposes. Everest bank is able to maintain higher liquidity ratio but it should be careful that it's not more than required level.
- Profitability is the main indicator of the financial performance. In this study, profitability ratio of Nabil is good from the view of return. So Everest bank is recommended to increase its interest earning capacity by investing more funds on loan & advance.
- Besides giving priority on government securities, Everest bank is recommended to invest its fund purchase of shares and debenture of other finance companies. Government securities offer lower interest rate than others.
- The growth ratio represent how well the commercial bank maintaining their economic and financial position; it is directly related to fund mobilization and investment. Everest bank growth ratio is better Nabil bank. Nabil bank is recommended to increase growth ratio into deposit, loan & advance, net profit.
- If bank expect high return on its investment, it has to accept risk. The risk taken by Nabil, capital risk is high whereas liquidity risk and credit risk is lower than Everest bank. The bank should not take high risk. Both bank should carefully analyze the risks to achieve higher return.
- In the light of growing competition in the banking sector, the business of the bank should be customer oriented. The bank is recommended to adopt new technology and services such as financial switch system (SWIFT),

automatic teller machine (ATM) cards, visa electron debit card, international credit card, locker services, lending against gold and silver services, parking service, 24 hour services etc. The bank should involve in different kind of social and community development activities. The bank has been able to provide more personalized services and a better environment for its customer, it is an effective tool to attract and retain the customers.

- To get success in competitive banking environment, depositor's money must be utilized as loan and advances. The largest item of the bank in the asset side is loan and advances. If it is neglected, then it could be the main cause of liquidity crisis in the bank. Nabil's loan & advances to total deposit ratio and loan & advances to total working fund ratio is lower than Everest bank. To overcome this situation Nabil is strongly recommended to follow liberal lending policy and invest more and more percentage of total deposit and total working fund in loan & advances.

## BIBLIOGRAPHY

### Books

- Bhattarai, R. (2009), *Investment Theory and Practice*, Kathmandu: Buddha Academic Publication.
- Charles, J.P. (1999), *Investment Analysis and Management*, Bombay: Himalayan Publishing House.
- Gitman, L.J. and Joehnk (1990), *Fundamental of Investment*, New York: Harper and Row.
- John, M. Cheney and Edward, A Moses (1998), *Fundamental of Investment*, St. Pant: West Publishing Company.
- Pandey, I.M. (2000), *Financial Management*, New Delhi: Vikash Publishing House Pvt. Ltd.
- Singh, P. (1992), *Investment Management*, New Delhi: Himalayan Publication House.
- Van Horne, James C. (1998), *Financial Management and Policy*, (10<sup>th</sup> ed.). New Delhi: Prentice Hall Pvt. Ltd.
- Weston and Brigham (1980), *Management Finance* (7<sup>th</sup> Ed.). USA: The Dryden Press Hinsdale, Illinois.

### Journals and Periodicals:

- Bista, Bhagat (2001). "Issue in Banking Reform." *Nepal Rastra Bank Samachar*, Gorkhapatra.
- Murari, R. Sharma (1988). "A Study of Joint Venture Banks in Nepal, Co-Existing and Growing Out". *Pradarshan*, Nepal Govt. 5<sup>th</sup> Kathmandu.
- Pradhan, K. (1999). "Nepalma Baniija Banking Upalabdhi Tatha Chunauti." *Nepal Bank Patrika*, p. 13.
- Pradhan, R.S. (2003). "Role of Saving, Investment and Capital Formulation in Economic Development: A Case of Nepal." *Research in Nepalese Finance*.

Shrestha, S. (2055). "Lending Operation of Commercial Banks of Nepal and Its Impact on GDP. The Business Voice of Nepal." *A Special Issue of Banijya Sansar*. T.U.

Thapa, G.B. (1994). "Financial System of Nepal." *Development Vision*, Patan Multiple Campus, Lalitpur, Vol. 3.

*Annual Reports of Nabil and EBL.*

### **Dissertations**

Laudari, S. (2001). *A Study on Investment Policy of Nepal Indosuez Bank Ltd. in Comparison to Nepal SBI Bank Ltd.*, An Unpublished Master's Degree Thesis, T.U.

Pandit, K. (2003). *A Study on Investment Policy Analysis of S.C. Bank Ltd.*, An Unpublished Master Degree Thesis, T.U.

Regmi, G. (2006). *A Comparative Study on Investment Policy of Everest Bank Ltd. and Himalayan Bank Ltd.*, An Unpublished Master Degree Thesis, T.U.

Shrestha, S. (2007). *A Comparative Analysis on Investment Performance of Commercial Banks in Nepal*, An Unpublished Master Degree Thesis, T.U.

### **Websites:**

<http://www.nabilbanklimited.com>

<http://www.everestbanklimited.com>

## APPENDICES

### Appendix: 1

#### Computation of Total Sample Banks Investment to Individual Investment Ratio of EBL & NABIL (Rs in Million)

(Rs in Million)

Year	EBL		NABIL		Ratio of EBL	Ratio of NABIL
	EBL Investment	Total Sample Banks Investment	NABIL Investment	Total Sample Banks Investment		
2006/07	3614.54	104631.3	89453.2	104631.3	3.45	85.49
2007/08	3237.98	115720	99397.71	115720	2.80	85.90
2008/09	3371.42	23570.27	10826.37	23570.27	14.30	45.93
2009/10	2745.28	27535.75	13703	27535.75	9.97	49.76
2010/11	4745.5	30798.99	13081.2	30798.99	15.41	42.47

Sources: Annual report of EBL and NABIL Bank

### Appendix: 2

#### Computation of Current Ratio of EBL & NABIL

(Rs in Million)

Year	EBL		NABIL		Current Ratio of EBL (CR = CA/CL)	Current Ratio of NABIL(CR = CA/CL)
	Current Assets(CA)	Current Liabilities(CL)	Current Assets(CA)	Current Liabilities(CL)		
2006/07	19892.71	14304.41	258370.9	33057.13	1.39	7.82
2007/08	24967.25	18481.92	343750	43720.1	1.35	7.86
2008/09	33912.63	27051.25	405082.7	51423.94	1.25	7.88
2009/10	38656.64	27478.74	507180	61709.8	1.41	8.22
2010/11	42777.47	42340.67	555143.9	68978.06	1.01	8.05

Sources: Annual report of EBL and NABIL Bank



### Appendix: 3

#### Computation of Cash & bank balance to Total deposit Ratio of EBL & NABIL

(Rs in Million)

Year	EBL		NABIL		Cash & bank balance to Total deposit Ratio of EBL =CBL/TD	Cash & bank balance to Total deposit Ratio of NABIL=CBL/TD
	Total deposit	Cash and bank balance		Cash and bank balance		
2006/07	18186.25	2391.42	0.13	2704.06	0.13	0.12
2007/08	23976.3	2667.97	0.11	5114.26	0.11	0.16
2008/09	33322.95	6164.38	0.18	6743.95	0.18	0.18
2009/10	36932.31	7818.82	0.21	6359.86	0.21	0.14
2010/11	41127.9	6122.8	0.15	7445.92	0.15	0.15

Sources: Annual report of EBL and NABIL Bank

### Appendix: 4

#### Computation of Cash & bank balance to Current Assets Ratio of EBL & NABIL

(Rs in Million)

Year	EBL		NABIL		Cash & bank balance to Current Assets Ratio of EBL =CBL/CA	Cash & bank balance to Current Assets Ratio of NABIL =CBL/CA
	Current Assets(CA)	Cash and bank balance	Current Assets(CA)	Cash and bank balance		
2006/07	19892.71	2391.42	24988.39	2704.06	0.12	0.11
2007/08	24967.25	2667.97	32749.67	5114.26	0.11	0.16
2008/09	33912.63	6164.38	46821.24	6743.95	0.18	0.14
2009/10	38656.64	7818.82	52835.66	6359.86	0.20	0.12
2010/11	42777.47	6122.8	56012.26	7445.92	0.14	0.13

Sources: Annual report of EBL and NABIL Bank

### Appendix: 5

#### Computation of Investment on Government Securites to Current Assets Ratio of EBL & NABIL

(Rs in Million)

Year	EBL		NABIL		Investment on Government Securites to current Assets Ratio of EBL = IGS/CA	Investment on Government Securites to current Assets Ratio of NABIL = IGS/CA
	Current Assets(CA)	Investment on Government Securites	Current Assets(CA)	Investment on Government Securites		
2006/07	19892.71	3614.54	258370.9	89453.2	0.18	0.35
2007/08	24967.25	3237.98	343750	99397.71	0.13	0.29
2008/09	33912.63	3371.42	405082.7	108263.7	0.10	0.27
2009/10	38656.64	2745.28	507180	137030	0.07	0.27
2010/11	42777.47	4745.5	555143.9	130812	0.11	0.24

Sources: Annual report of EBL and NABIL Bank

### Appendix: 6

#### Computation of Liquidity Risk Ratio of EBL & NABIL

(Rs in Million)

Year	EBL		NABIL		Liquidity Risk Ratio of EBL = CBB/TD	Liquidity Risk Ratio of NABIL = CBB/TD
	Cash and bank balance	Total deposit	Cash and bank balance	Total deposit		
2006/07	2391.42	18186.25	2704.06	23342.3	0.13	0.12
2007/08	2667.97	23976.3	5114.26	31915	0.11	0.16
2008/09	6164.38	33322.95	6743.95	37348	0.18	0.18
2009/10	7818.82	36932.31	6359.86	46411	0.21	0.14
2010/11	6122.8	41127.9	7445.92	49696	0.15	0.15

Sources: Annual report of EBL and NABIL Bank

### Appendix: 7

#### Computation of Loan & Advance to Total deposit Ratio of EBL & NABIL

(Rs in Million)

Year	EBL		NABIL		Loan & Advance to Total deposit Ratio of EBL = L&A/TD	Loan & Advance to Total deposit Ratio of NABIL = L&A/TD
	Loan & Advance	Total deposit	Loan & Advance	Total deposit		
2006/07	13664.08	18186.25	15545.77	23342.3	0.75	0.67
2007/08	18339.08	23976.3	21365.05	31915	0.76	0.67
2008/09	23884.67	33322.95	27589.93	37348	0.72	0.74
2009/10	27556.36	36932.31	32268.87	46411	0.75	0.70
2010/11	31057.69	41127.9	38034.09	49696	0.76	0.77

Sources: Annual report of EBL and NABIL Bank

### Appendix: 8

#### Computation of Total Investment to Total deposit Ratio of EBL & NABIL

(Rs in Million)

Year	EBL		NABIL		Total Investment to Total deposit Ratio of EBL = TI/TD	Total Investment to Total deposit Ratio of NABIL = TI/TD
	Total Investment	Total deposit	Total Investment	Total deposit		
2006/07	3614.54	18186.25	89453.2	89453.2	0.20	3.83
2007/08	3237.98	23976.3	99397.71	99397.71	0.14	3.11
2008/09	3371.42	33322.95	108263.7	10826.37	0.10	0.29
2009/10	2745.28	36932.31	137030	13703	0.07	0.30
2010/11	4745.5	41127.9	130812	13081.2	0.12	0.26

Sources: Annual report of EBL and NABIL Bank

### Appendix: 9

#### Computation of Loan & Advance to Total Assets Ratio of EBL & NABIL

(Rs in Million)

Year	EBL		NABIL		Loan & Advance to Total Assets Ratio of EBL = L&A/TA	Total Investment to Total deposit Ratio of NABIL = L&A/TA
	Loan & Advance	Total Assets	Loan & Advance	Total Assets		
2006/07	13664.08	21432.57	15545.77	27253.39	0.64	0.57
2007/08	18339.08	27149.34	21365.05	37132.75	0.68	0.58
2008/09	23884.67	36916.84	27589.93	43867.39	0.65	0.63
2009/10	27556.36	41382.76	32268.87	52150.23	0.67	0.62
2010/11	31057.69	46236.21	38034.09	58141.43	0.67	0.65

Sources: Annual report of EBL and NABIL Bank

### Appendix: 10

#### Computation of Investment on Government Securites to Total Assets Ratio of EBL & NABIL

(Rs in Million)

Year	EBL		NABIL		Investment on Government Securites to Total Assets Ratio of EBL = IGS/TA	Total Investment to Total deposit Ratio of NABIL = IGS/TA
	Investment on Government Securites	Total Assets	Investment on Government Securites	Total Assets		
2006/07	3614.54	21432.57	4085.83	27253.39	0.17	0.15
2007/08	3237.98	27149.34	3788.38	37132.75	0.12	0.10
2008/09	3371.42	36916.84	1838.81	43867.39	0.09	0.04
2009/10	2745.28	41382.76	5865.88	52150.23	0.07	0.11
2010/11	4745.5	46236.21	6489.95	58141.43	0.10	0.11

Sources: Annual report of EBL and NABIL Bank

### Appendix: 11

#### Computation of Return on Loan & Advance Ratio of EBL & NABIL

(Rs in Million)

Year	EBL		NABIL		Return on Loan & Advance Ratio of EBL = NP/L&D	Return on Loan & Advance Ratio of NABIL = NP/L&D
	Net profit	Loan & Advance	Net profit	Loan & Advance		
2006/07	296.4	13664.08	673.95	15545.77	0.022	0.043
2007/08	451.21	18339.08	746.46	21365.05	0.025	0.035
2008/09	638.73	23884.67	1031.05	27589.93	0.027	0.037
2009/10	831.76	27556.36	1141.05	32268.87	0.030	0.035
2010/11	931.3	31057.69	1337.74	38034.09	0.030	0.035

Sources: Annual report of EBL and NABIL Bank

### Appendix: 12

#### Computation of Return on Total Assets Ratio of EBL & NABIL

(Rs in Million)

Year	EBL		NABIL		Return on Total Assets Ratio of EBL = NP/L&D	Return on Total Assets Ratio of NABIL = NP/L&D
	Net profit	Total Assets	Net profit	Total Assets		
2006/07	296.4	21432.57	673.95	27253.39	0.014	0.025
2007/08	451.21	27149.34	746.46	37132.75	0.017	0.020
2008/09	638.73	36916.84	1031.05	43867.39	0.017	0.024
2009/10	831.76	41382.76	1141.05	52150.23	0.020	0.022
2010/11	931.3	46236.21	1337.74	58141.43	0.020	0.023

Sources: Annual report of EBL and NABIL Bank

**Appendix: 13****Computation of Total Interest Earned to Total Operating Income Ratio of  
EBL & NABIL****(Rs in Million)**

Year	EBL		NABIL		Total Interest Earned to Total Operating Income Ratio of EBL = TII/TOI	Total Interest Earned to Total Operating Income Ratio of NABIL = TII/TOI
	Total Interest Income	Total Operating Income	Total Interest Income	Total Operating Income		
2006/07	11444.08	8413.32	15877.58	14801.57	1.36	1.07
2007/08	15486.57	12098.98	19786.96	16704.27	1.28	1.18
2008/09	21868.14	15449.65	27984.86	22209.83	1.42	1.26
2009/10	31024.51	19279.76	40477.25	27984.86	1.61	1.45
2010/11	43310.26	21929.4	52582.69	30619.8	1.97	1.72

Sources: Annual report of EBL and NABIL Bank

**Appendix: 14****Computation of Total Interest Paid to Total Assets Ratio of  
EBL & NABIL****(Rs in Million)**

Year	EBL		NABIL		Total Interest Paid to Total Assets Ratio of EBL = TIP/TA	Total Interest Paid to Total Assets Ratio of NABIL = TIP/TA
	Total Interest paid	Total Assets	Total Interest Paid	Total Assets		
2006/07	5171.66	214325.7	5557.1	272533.9	0.024	0.020
2007/08	6326.09	271493.4	7584.36	371327.5	0.023	0.020
2008/09	10128.74	369168.5	11532.8	438673.9	0.027	0.026
2009/10	15727.9	413827.6	19601.07	520797.2	0.038	0.038
2010/11	25358.75	462362.1	29554.03	580996.1	0.055	0.051

Sources: Annual report of EBL and NABIL Bank

## Appendix - 15

### Calculation for Mean value, Standard Deviation, CV, Correlation & t-test between Total deposit and Loan & Advance of EBL

(Rs in Million)

Year	Total deposit (X <sub>1</sub> )	Loan & Advance (X <sub>2</sub> )	x <sub>1</sub> =X <sub>1</sub> - x̄ <sub>1</sub>	x <sub>2</sub> =X <sub>2</sub> -x̄ <sub>2</sub>	x <sub>1</sub> · x <sub>2</sub>	x <sub>1</sub> <sup>2</sup>	x <sub>2</sub> <sup>2</sup>
2006/07	18186.2	13664.08	-12522.9	-9236.3	115665137	156822824	85309164
2007/08	23976.3	18339.08	-6732.84	-4561.3	30710485	45331161	20805421
2008/09	33322.9	23884.67	2613.80	984.294	2572755.5	6831992.3	968834.68
2009/10	36932.3	27556.36	6223.16	4655.984	28974971	38727820	21678187
2010/11	41127.9	31057.69	10418.7	8157.314	84989080	108550518	66541772
N <sub>1</sub> = 5 N <sub>2</sub> = 5	∑ X <sub>1</sub> =153545.7	∑ X <sub>2</sub> =114501.9			∑ x <sub>1</sub> ·x <sub>2</sub> = 262912429	∑ x <sub>1</sub> <sup>2</sup> = 356264316	∑ x <sub>2</sub> <sup>2</sup> = 195303378

Sources: Annual report of EBL and NABIL Bank

For Total Deposit,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{153545.7}{5} = 30709.14$$

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum (X_1 - \bar{x}_1)^2}{N_1}} = \sqrt{\frac{356264316}{5}} = 9437.48$$

For Loan & Advance,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{114501.9}{5} = 22900.38$$

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum (X_2 - \bar{x}_2)^2}{N_2}} = \sqrt{\frac{195303378}{5}} = 6987.54$$

Correlation between Total deposit and Loan & Advance of EBL,

$$(r_{12}) = \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}}$$

For Hypothesis,

Test statistic under  $H_0$ ,

$$t = \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}} = \frac{(30709.14 - 22900.38)}{\sqrt{86182340.01 \left( \frac{1}{5} + \frac{1}{5} \right)}} = 0.0023$$

$$S^2 = \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} = \frac{5 \times 9437.48^2 + 5 \times 6987.54^2}{5 + 5 - 2} = 86182340.01$$

### Appendix - 16

#### Calculation for Mean value, Standard Deviation & Correlation between Total deposit and Loan & Advance of NABIL

(Rs in Million)

Year	Total deposit ( $X_1$ )	Loan & Advance ( $X_2$ )	$x_1 = X_1 - \bar{X}_1$	$x_2 = X_2 - \bar{X}_2$	$x_1 \cdot x_2$	$x_1^2$	$x_2^2$
063/64	23342.3	155457.8	-14400.2	-114150	1643773598	207364608	13030148531
064/65	31915	213650.5	-5827.46	-55956.9	326086748	33959290.05	3131177567
065/66	37348	275899.3	-394.46	6291.864	-2481888.67	155598.6916	39587552.59
066/67	46411	322688.7	8668.54	53081.23	460136800.2	75143585.73	2817617403
067/68	49696	380341	11953.54	110733.5	1323657369	142887118.5	12261908908
$N_1 = 5$ $N_2 = 5$	$\sum X_1$ =188712.3	$\sum X_2$ =1348037.33			$\sum x_1 \cdot x_2 =$ 3751172627	$\sum x_1^2 =$ 459510201	$\sum x_2^2 =$ 31280439962

Sources: Annual report of EBL and NABIL Bank

For Total Deposit,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{188712.3}{5} = 37742.46$$

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum (X_1 - \bar{X}_1)^2}{N_1}} = \sqrt{\frac{459510201}{5}} = 10718.095$$

For Loan & Advance,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{1348037.33}{5} = 269607.5$$

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum (X_2 - \bar{X}_2)^2}{N_2}} = \sqrt{\frac{31280439962}{5}} = 88431.39$$



## Correlation between Total deposit and Loan & Advance of NABIL

$$(r_{12}) = \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}}$$

$$= \frac{3751172627}{\sqrt{459510201 \cdot 31280439962}} = 0.9894$$

For Hypothesis,

Test statistic under  $H_0$ ,

$$t = \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}} = \frac{(37742.46 - 269607.5)}{\sqrt{4959367686 \left( \frac{1}{5} + \frac{1}{5} \right)}} = 0.00017$$

$$S^2 = \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} = \frac{5 \times 10718.095^2 + 5 \times 88431.39^2}{5 + 5 - 2} = 4959367686$$

### Appendix - 17

#### Calculation for Mean value, Standard Deviation & Correlation between Total deposit and Total Investment of EBL

(Rs in Million)

Year	Total deposit (X <sub>1</sub> )	Total Investment (X <sub>2</sub> )	x <sub>1</sub> = X <sub>1</sub> - $\bar{X}_1$	x <sub>2</sub> = X <sub>2</sub> - $\bar{X}_2$	x <sub>1</sub> · x <sub>2</sub>	x <sub>1</sub> <sup>2</sup>	x <sub>2</sub> <sup>2</sup>
063/64	18186.25	3614.54	-12522.9	71.596	-896589	156822824	5125.987
064/65	23976.3	3237.98	-6732.84	-304.964	2053274	45331161	93003.04
065/66	33322.95	3371.42	2613.808	-171.524	-448331	6831992.3	29420.48
066/67	36932.31	2745.28	6223.168	-797.664	-4963997	38727820	636267.9
067/68	41127.9	4745.5	10418.76	1202.556	12529140	108550518	1446141
N <sub>1</sub> = 5 N <sub>2</sub> = 5	$\sum X_1$ =153545.7	$\sum X_2$ =17714.72			$\sum x_1 \cdot x_2 =$ 8273498	$\sum x_1^2 =$ 356264316	$\sum x_2^2 =$ 2209958

Sources: Annual report of EBL and NABIL Bank

For Total Deposit,

$$\text{Mean } (\bar{X}) = \frac{\sum X_1}{N_1} = \frac{153545.7}{5} = 30709.14$$

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum (X_1 - \bar{x}_1)^2}{N_1}} = \sqrt{\frac{356264316}{5}} = 8441.14$$

For Total Investment,

$$\text{Mean } (\bar{X}) = \frac{\sum X_2}{N_2} = \frac{17714.72}{5} = 3542.944$$

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum (X_2 - \bar{x}_2)^2}{N_2}} = \sqrt{\frac{2209958}{5}} = 664.82$$

Correlation between Total deposit and Total Investment of EBL,

$$(r_{12}) = \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}}$$
$$= \frac{8273498}{\sqrt{356264316 * 2209958}} = 0.2949$$

For Hypothesis,

Test statistic under  $H_0$ ,

$$t = \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{S^2 \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}} = \frac{(30709.14 - 3542.944)}{\sqrt{25.72 \left( \frac{1}{5} + \frac{1}{5} \right)}} = 0.002$$

$$S^2 = \frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} = \frac{5 \times 8441.14^2 + 5 \times 664.82^2}{5 + 5 - 2} = 25.72$$

## Appendix - 18

### Calculation of Correlation between Total deposit and Total Investment of NABIL

(Rs in Million)

Year	Total deposit (X <sub>1</sub> )	Total Investment (X <sub>2</sub> )	x <sub>1</sub> =X <sub>1</sub> - x̄ <sub>1</sub>	x <sub>2</sub> =X <sub>2</sub> - x̄ <sub>2</sub>	x <sub>1</sub> · x <sub>2</sub>	x <sub>1</sub> <sup>2</sup>	x <sub>2</sub> <sup>2</sup>
063/64	23342.3	89453.2	- 14400.1 6	-23538.1	338952722.9	207364608	554043187
064/65	31915	99397.71	-5827.46	-13593.6	79216230.19	33959290	184786287
065/66	37348	108263.7	-394.46	-4727.62	1864857.774	155598.69	22350409.8
066/67	46411	137030	8668.54	24038.68	208380241.8	75143586	577858040
067/68	41127.9	130812	11953.5 4	17820.68	213020187.3	142887119	317576564
N <sub>1</sub> = 5 N <sub>2</sub> = 5	∑ X <sub>1</sub> =188712.3	∑ X <sub>2</sub> =564956.61			∑ x <sub>1</sub> ·x <sub>2</sub> = 841434239.9	∑ x <sub>1</sub> <sup>2</sup> = 459510201	∑ x <sub>2</sub> <sup>2</sup> = 1656614489

Sources: Annual report of EBL and NABIL Bank

Correlation between Total deposit and Total Investment of NABIL,

$$\begin{aligned}
 (r_{12}) &= \frac{\sum x_1 x_2}{\sqrt{\sum x_1^2 \sum x_2^2}} \\
 &= \frac{841434239.9}{\sqrt{459510201 \cdot 1656614489}} = 0.9644
 \end{aligned}$$