CHAPTER-ONE

INTRODUCTION

1.1 Background of the study

Investment in financial sense is placing of money in the other for their use expecting a return or the participation in expected profits. But for manufacturing and trading firms the terms investment will be long term expenditures that aim at increasing return of efficiency or at building up goodwill thereby producing and increasing return over as period. Investment also seek to manage their wealth effectively obtaining the most from it, while protecting it from inflation, taxes and other risks.

Investment by individuals, business and government involves a present sacrifice of income to get on expected on future benefit as a result investment raises an economy of nations.

Investment usually involves putting money into a bet, which is not necessarily marketable in order to enjoy a series of return the investment is expected to yield. On the other hand speculation is usually a shorter run phenomenon. Speculators tend to buy assets with the expecting of a profit than can be earned from subsequent price charge and sale. Investment are usually made expecting a certain stream of income, which has existed, will not change in the future.

Shape, Alexander and Bailey (1998) defined as an Investment in its broadest sense means the sacrifice of current dollars for future dollars. Two different attributes are generally involved time and risk. The sacrifice takes places in the present and its magnitude generally is certain.

In the study of the financial institutions the investment and investment problems will revolve around the concept of managing the surplus financial assets in such a way, which will lead to the wealth maximization and providing a significant further source of income. Thus the investment is the management of the surplus recourses in such a way as to make it work for providing benefits to the supplier of the funds by letting it to third party. However the investment need to be a procedural task. It must follow a definite investment process, which definitely being the formulation of proper investment policy.

Banking sector plays an important role in the economic development of the country. Commercial banks are one of the vital aspects of this sector, which deals in the process of canalizing the available resources in the needed sector. They provide capital for the development of industry, trade and business and other resources. In this way it is the intermediary between the deficit and surplus of financial resources. All the economic activities are directly or indirectly channeled through these banks. A bank is an institution, which deals with money and credit. It accepts deposits from the public and mobilizes the fund to productive sectors. A commercial bank is a bank, which deals in exchanging currency, accepting deposits giving loans and doing commercial transaction. Commercial bank is a financial intermediary accepting deposits and granting loans. IT offers the widest menu of services of any financial institution.

Banking is the business of providing financial services to consumers and business. The development of any country largely depends upon the financial infrastructure of that country. Therefore the primary goal of any nation including Nepal is rapid economic development of any country, bank plays the key role. The basic services of a bank provide are checking accounts which can be used like money for to make payments and purchase goods and services. Saving accounts and time deposits that can be used to save money for future use. Loans that consumed and business can use to purchase goods and services and basis cash management services such check services and foreign currency exchange.

Commercial Banks are those banks who pool together the saving of the community and arrange for their productive due. They supply the financial needs of modern business by various means. They accept deposit from the public on the condition that they are repayable on demand or on short notice. Commercial Banks are restricted to invest their funds in corporate securities. Their business is confined to financing the short term needs of the trade and industry such as working capital, financing. They can’t finance in fixed assets. They grant loans in form of cash credit and overdrafts. Apart from financing, they also render services like collection of bills and cheques, safe keeping of valuables financing advising etc to their customers.

According to Section 2(a) of the Commercial Bank Act 2031 (1974), “Commercial Bank means a Bank which operates currency, exchange transaction, accepts deposit, provide loan. Performs, dealing relating to commerce except the Banks which have been specified for the co-operative, agricultural, industry of similar other specific objectives."

Hence the term Commercial Bank, Joint Stock Bank and credit Banks are frequently used inter changeably. For e.g. in the context of English Banking system the terms "Joint Stock Banks" and Commercial Bank" as distinguished from investment Banks although this distinction if often bussed in practice.

In this way, commercial Bank is different from central Bank and the distinction between the two terms is essentially based on their objects, while the primary objective of a commercial Bank is the maximization of profit, the central Bank is primarily concerned with the effects of its operation on the functioning of commercial Bank, there may central bank comes out it any ordinary Banking business for the general public in complete. It confines itself mainly for controlling the operation of the Banking system in a county. People keep their surplus money as deposits in the bank and hence bank can provide such funds to finance industrial activities in the form of loans and advances. Commercial Bank renders numerous services to their customer to increase their economic and social life. People are interested to invest in the bank for their wealth safety, good return and liquidity convenience.

Commercial Banks should formulate the sound investment policies to ensure maximum amount of investment to the entire sector with proper utilization and can be able to achieve its own objectives of profit maximization and social welfare.

1.1.1 Meaning of Bank

Bank is an Italian word "Banco" which means a bench where a moneylender sits and keeps account of his business. Today there is no exception that bank covers the almost entire sector in business performance of the country. Banking sector definitely plays vital role in overall economic development of the country. It covers the larger sector for the development of the country. It collects the money from scattered spread from the market and promissory to repay principle money in any given time with interest on it. It mobilizes them to the productive sector. In this case Bank is secure place to deposit money rather than some other place and the depositor is benefited by the latest and most advanced blend of technologies and services. Thus Depositor could deposit money and withdraw money whenever needed. Bank plays an intermediary role in accepting deposit and granting loan. Many economists has defined bank more precisely.

Banks are among the most important financial institutions in the economy and essential business in thousands of local towns and cities. Certainly, banks must be identified by their functions, services, and roles they perform in the economy. Nowadays, the functions of bank are not only changing, but the functions of their principal competitors are also changing. The competitors like financial institution including security dealers, brokerage firms, and insurance companies are trying to be similar as possible to bank in the services they offer.

A commercial bank is a bank which deals in exchanging currency, accepting deposits giving loans and doing commercial transactions. (Commercial Bank Act 2031)

Banks are like reservoirs. Banks collect savings of millions of people and institutions and invest or lend for the expansion of business and balanced development of the country. Banks undertake to underwrite for raising capital and loans for companies, corporation and government. Banks are the suitable institutions for the settlement of payment of different credit instruments. Banks also act as the guarantor and agent. Banks are essentials for remittance services, issuance, circulation and utilization of money. Banks also help to maintain price stability. Banks help the government to formulate policy by providing various information and data. Banks also provide necessary information and data to the customers. In a word, banks are indispensable not only to maintain economic activity, i.e., consumption, production, exchange, and distribution, but also for promoting economic development.

Therefore, a bank is an institution, which accepts deposits from the public and in turn advances loans by creating credit. Therefore, it should be differentiated from other financial institutions, as they cannot create though they accept deposits. That is why we call bank "a factory of credit" because it manufactures credit and sells it. Hence, a bank may be called the financial supermarket providing all kinds of monitory service, which is necessary for the industrialization and economic development of a country.

1.1.2 Evolution of the Bank

The evolution of bank is not a non-phenomenon. There was crude firm of banking evening an ancient Vedic ere. The terms banking such as deposits, pledge, policy of loan, interest rates etc can be found in the “Mansuriti”. The Roman Empire collapse in the last of 15^{th} century and beginning of 16^{th} century. Consequently, commercial banking transaction was received because of revival of commercial and other trading activities in European countries. According to the opinion of great economist Geoffrey Crowther, the Merchant trader, the goldsmith and the money Lenders are the ancestors of modern banking.

History tells us it was the merchant banker who first evolved the system of banking by trading in commodities than money. Their trading activities required the remittance of money from one place to another for they issued different documents as the near substitutes of money, called draft of hundies 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 theft. This makes possible to the goldsmith to charge something for taking care of the 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 means ofpayments.

Finally, moneylenders in the early ago contributed in the growth of banking to a lager extent. He advances the coins on load by charging interest. As a safe guard he use to keep some money in the reserve. Therefore goldsmith, moneylender became a banker who started performing the two function of and advancing loans. “The bank of Venice” of Italy was established in 1157 AD as first banking institution in the world. The second banking institution namely, “The bank of Barcelona” of Spain was established in 1401 AD. Its function is to exchange money, receive deposits and discount bill of exchange, both for the citizens and for the foreigner. During 1407 AD. The Bank of Genon was established in 1609 AD. ‘The Bank of England’ was incorporated in 1694 AD as a joint stock bank and later on the 1844 AD. It becomes a first central bank in the world. (Worled Encnopedia 1996)

1.1.3 Origin of Bank in Nepal

Like other countries, landlords, moneylenders, merchant, goldsmith etc are the ancient bankers of Nepal. Through establishment of banking industry was very recent; some crude banking operations were in practice even in the ancient time. In the Nepalese chronicle, it was recorded that the new era known as Nepal Sambat was introduced by Shankhadhar, a Sudra merchant of Kantipur in 880 A.D. after having paid all the outstanding debts in the country. This shows the basic of money lending practice in ancient Nepal. The establishment of "Tejarath Adda" during the year1877 A.D. was the first step in institutional development of banking sector in Nepal. Tejarath Adda did not collect deposit from public but grated loans to public against the collateral of bullions. Consequently the major parts of the country remain untouched from these limited banking activities. The development of trade with India and other countries increase the necessity of the institutional banker, which can act more widely to enhance the trade and commerce and touch the remote non-banking sector in the economy. Reviewing this situation, the 'Udyog Parishad' was constituted in 1936 A.D. One year after its formulation, it formulated the 'Company Act' and 'Nepal Bank Act' in 1937 A.D. Nepal Bank limited was established under Nepal Bank Act in 1937 A.D. as a first commercial bank of Nepal with 10 million authorized capital. Being a commercial bank, it was natural that Nepal Bank limited paid more attention to profit generating business. But, it is the onus of government to look into neglected sectors too.

Having felt need of development of banking sector and to help the government formulate monetary policies, Nepal Rastra Bank was set up in 1956 A.D.(2013.01.14 B.S.) as a central under Nepal Rastra Bank Act 1956 A.D.(2012 B.S.). Since then, it has been functioning as the government's Bank and has contributed to the growth of financial sector.

Being the central bank, NRB had its own limitation and reluctance of NBL to go to the un-profitable sectors was not illogical. To cope with these difficulties, government set up Rastriya Banijya Bank in 1966 A.D. (2022. 10.10 B.S.) as a fully government owned commercial bank. With the emergence of RBB, banking service spread to both urban and rural areas but customers failed to have taste of quality competitive service because of excessive political and bureaucratic interference. For industrial development, Industrial

Development Center was set up in 1956A.D. [2013 B.S.] which was converted to Nepal Industrial Development Corporation (NIDC) in 1959 A.D. (2016 B.S.). Similarly, Agricultural development Bank (ADB) was established in 1976 A.D. (2024.10.07) with an objective to provide agricultural products so that agricultural productivity could be enhanced through introduction of modern agricultural techniques.

After the restoration of democracy in Nepal, the government took the liberal policy in banking sector. As an open policy of the Nepal Government to get permission to invest in banking sector from private and foreign investor under commercial bank act 1974A.D.(2013B.S.) , different private banks are getting permission to establish with the joint venture of other countries. Now a day, there are 32 commercial banks operating in Nepalese financial market.

A commercial bank is one which exchange money, deposits money, accepts deposits, grants loans and performs. A commercial banking function which is not a bank meant for co-operatives, agriculture, industries or for such specific purpose." (Commercial Bank Act 2031 B.S.)

1.2 Profile of the Sample Bank

Presently, there are altogether 32 commercial banks operating in the country. The large numbers of commercial bank is leading them to huge competition. There are various factors that can make a commercial bank leader in the market, but the commercial bank having sound investment policy can lead the market. This study focuses on the investment policies of the commercial banks. The limited resources and time has lead to make this study, a comparative study of investment policy between five leading commercial banks of Nepal. This study focuses on the investment policy of Everest Bank limited, Himalayan Bank limited, Nabil Bank Limited, Nepal Investment Bank Limited & Nepal SBI Bank Limited.

1. **Everest Bank limited**

Everest Bank Ltd was established in 2051 B.S as a joint venture with Punjab National Bank of India. The bank operates with the objective of extending professionalized and efficient banking services to various segments of the society. The bank is providing customer friendly services through a network of 27 branches across the nation. The bank has been conferred with “Bank of the year 2006” by the banker a publication of financial times, London. The bank provides various services and facilities such as Loans and Advance, Credit finance, Bank guarantees, Hire purchase loan, Education / Housing loan, Foreign exchange facility, Automated Teller Machine (ATM) facility.

2. **Himalayan Bank limited**

Himalayan Bank is a joint venture with Habib bank of Pakistan and started its operation in 2049 B.S. This is the first joint venture bank managed by Nepali chief executive. It does not include government ownership. It is established to maintain the economic welfare of the general people to facilitate loan for agriculture, industry and commerce for providing the banking services to the people and country. It holds of a vision to become a leading bank of the country by providing premium products and services to the customers, thus ensuring attractive and substantial returns t the stakeholders of the bank. It provides various services and facilities such as Tele-Banking, 24 hours banking, Credit card facilities, Automated Teller Machine (ATM), Visa card, Letter of credit services, Safe deposit locker and foreign currency transactions, etc.

3. **Nabil Bank Limited**

The first joint venture bank of Nepal is the Nabil Bank Ltd, started its operations in July 1984.It was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursing its objective, Nabil provides a full range of commercial banking services through its 47 points of representation across the kingdom and over 170 reputed correspondent banks across the globe. It is a pioneer in introducing many innovative products such as Tele-Banking, 24 hours banking, Credit card facilities, Automated Teller Machine (ATM), Visa card, Letter of credit services, Safe deposit locker and Foreign currency transaction, etc.

4. **Nepal Investment Bank Limited**

Nepal Investment Bank Ltd. (Nepal Indosuez Bank Ltd) was established on 21st january 1986 as a third joint venture bank under the company Act 1964. Initially, the Bank is manages by Banque Indosuez, paris in accordance with joint venture and technical services. 50% of the shares of Nepal Indosuez bank ltd held by credit Agricole Indosuez was sold to the Nepalese promoters on April 25, 2002 as per the transaction record of

NEPSE. After this divestment of shares by Nepalese Owners, the name of th the company was changed to Nepal Investment Bank Ltd by its 15 AGM held on May 31, 2002. The ownership structure of the shares of NIBL is, A group of companies holding 50% of the capital, Rashtriya Banijya Bank holding 15% of the Capital, Rashtriya Beema Sansthan holding the same percentage and the remaining 20% being held by the General Public (which means that NIBL is a Company listed on the Nepal Stock Exchange).

Authorized capital of NIBL is Rs.590 million and issued and paid up capital is Rs.295.293 million. At present 41 branches of the bank are operating in different parts of the country.

Activities and services are provided by NIBL including normal functions such as Tele Banking, Retail Banking, Corporate Banking, Trade Finance, Treasury, Credit card facilities, SWIFT, Deposit Locker, NTC's Mobile bill payment, ATM, International Trade and Bank Guarantee, E-Banking etc.

5. Nepal SBI Bank Limited

Nepal SBI Bank is a joint venture between employee provident fund and state bank of India. It is the first Indo- Nepal joint venture in the financial sector sponsored by 3 institutions. The main objective of the bank is to carryout modern banking business in Nepal under the commercial bank Act 1974. This bank has been providing full-fledged commercial banking service to its clients. It has launched its new service-Nepal SBI mobile Shakha. The bank providing facilities are Loans and Advance, Trade finance, Bank guarantees, Hire purchase loan, Education / Housing loan, Foreign exchange facility, Automated Teller Machine (ATM) facility etc.

1.3 Focus of the Study

The establishment of the Joint Venture (Commercial) banks has given a new horizon to the financial sector of Nepal. The study is mainly focused on the investment policy of a joint-venture bank namely Everest Bank, Himalayan Bank, Nepal Investment Bank, Nepal SBI Bank, and Nabil Bank in the Five year period form 206/07 to 2010/11. Investment analysis involves determining the investor's objectives and the amount of his or her investable wealth. Investor's objectives should be stated in terms of both risk and return. We must know how to quantify risk merely saying “risky” or “no risky” does not give any concrete idea to compare various financial assets and to reach to ideal decision.

A good investment analysis accepts both borrowers and lenders, which helps to increase the volume and quality of deposits, loan and investment. The loan provided by commercial banks is guided by several principles such as length of time, their purpose, perfectibility, safety etc. Those fundamental principles of commercial banks investment are fully considered while making investment analysis.

1.4 Statement of the problem

After 2046 B.S., privatization and liberalization adopted by the government of Nepal. Due to that policy, in these days commercial bank, developments bank and financial company are operating with Highly competition. The fast growth of such organizations has made pro-rata increment in collecting deposit and their investment. They collected the huge amount from public but couldn't allocate in new investment sectors. The increasing rate of liquidity has pulled in a downward trend in investment. It has ensured bad impact on interest to the depositors, lower market value of shares.

Though several commercial banks have been established in short period, but sufficient return has not been earned. Strong, stable and appropriate investment policy has not been followed. A huge collection and investment policy plays vital role for the economic development of whole country.

A very unhealthy activity is happening in the banking business. After the loan is provided by the bank, regular inspection and monitoring are not made to know whether the debtor has used the loan in productive or not. Due to This reasons, there is great amount of unrecovered bank loan. Banks only depend upon the direction and guidelines of Nepal Rastra Bank but they don't have clear view and have not formulated their own organized investment policy.

The main focus of This study will be towards the investment practices of the banks. They are EBL, HBL, NABIL, NIBL, & SBI Bank Ltd. This study basically deals with the following issues of joint venture banks.

1. Are the available fund properly utilized or not?
2. What is the relationship between investment on loan and advance and deposit, net profit and net profit?
3. What is the investment portfolio behavior of the banks?

1.5 Objectives of the Study

Investment is necessary for economic development of the country. This study attempts to assess the role and impact of investment on economic development of the country.

The main objectives of this study are as follows:

1. To examine the investment policy of the EBL, HBL, NABIL, NIBL, & SBI Bank Ltd.
2. To examine the utilization of available fund of EBL, HBL, NABIL, NIBL, & SBI Bank Ltd.
3. To evaluate the liquidity, profitability and risk position of EBL, HBL, NABIL, NIBL, & SBI Bank Ltd.
4. To analyze relationship between deposits loan and advances, investment, net profit and compare them between EBL, HBL, NABIL, NIBL, & SBI Bank Ltd.
5. To suggest and recommend on the investment policy of sample banks.

1.6 Significance of the Study

The success and prosperity of the bank heavily depends upon the successful implementation and investment of collected resources, which develops the economy of the country. Good investment policy of the bank has positive impact on economic development of the country and vice-versa. The main points of the study are the analysis on investment practice would help the bank to further improve the investment policy, this study would provide clear picture how bank is investing its collecting funds.This study will help for sample bank to formulate the new investment policy. More over, it will prove to be an important value for the entire individual interested in commerce and banking field.

1.7 Limitations of the Study

This study is related to the study of investment policy of Nepalese commercial banks. It is required for the partial fulfillment of MBS degree. It is only mini research and hence is subject to some limitations. This study is basically depends on secondary data. The annual reports published by the bankers are the major data for this research. Reports financial statement, articles, journals and publication are used.

The study will base only on the latest five year data. Statistical tools are used for analysis. Draw back and weakness of those tools are the limitation in this study.

1.8 Organization of the study

This study is divided in five chapters. Which are as follows.

The first chapter presents introduction of the study. It includes background, meaning of the bank, Evoluation of banks, origin of banks, profile of sample bank identification of the problem, objective, significance and limitation of the study.

The second chapter deals with the review of available literature. It includes review of books, journals, previous thesis and web sides, research gap etc.

The third chapter is research methodology, which includes research design, population and sample sources of data and collection procedure, data processing and presentation and method of analysis.

The fourth chapter presents analysis and interpretation of data of related topic based on annual reports of sample banks. Under this chapter, the collected and processed data are presented, analyzed and interpreted using analytical tools, charts and figures.

At the end of the fifth chapter summary, conclusion and recommendation are made.

CHAPTER-TWO

REVIEW OF LITERATURE

2.1 Conceptual Framework

The word Bank is originated from the Latin word 'Banca' and French word 'Banque' all of which means a 'bench'. The medieval European moneylenders and money exchanges used benches to display their valuables and coins. Later, when they were unable to meet their obligation, their benches were broken into pieces. Thus, the word 'bankruptcy' came from this circumstance.

Bank as an institution is originated from Italy. The world's first bank was ' bank of Venice' established 1157 AD in Venice, Italy 'Bank of Barcelona' Spain bank of Geneva; Switzerland was established in 1401 AD and 1407 AD respectively. In England, banking began with the English Goldsmiths only after1640. Bank of Amsterdam, Netherlands set in 1609 A was very popular 'Bank of Hindustan' known as the first bank in India was established in 177 AD.

In Nepal, goldsmiths and merchants and merchants were the ancient bankers. In 1933 BS late Prime Minister Ranadip Singh took the first step towards the development of banking after establishing "Tejrath Adda". Tejrath Adda provided loan to the Government employee in low rates of interest, but did not collect deposit from public. Later, the Primary Minister Chandra Shamsher in 1957 BS. Under took initiation in the setup of other branches outside the valley.

Banking in a true sense was first established in Nepal on 30 Kartik 1994 BS named as Nepal Bank Ltd. The central Bank was established in 2013 BS. For developing banking sectors and to help the Government to formulate the monetary policies. In 2022 BS. Rastriya Banijya Bank as a second commercial bank was established. Similarly, Agriculture development bank was established in 2004 BS. Along with this trend, a new joint venture bank 'Nepal Arab Bank Limited' was set up in 2041 BS.

After the restoration of democracy in Nepal these has been tremendous development in banking sector. It has played an important role in the economic development of the country. After the introduction of development Bank Act 2052, many development banks have been opened in various parts in Nepal. Since the number of banks is increasing, Nepal Rastriya Bank is conducting a study whether or not country

2.1.1 Investment

In general sense investment means to pay out money to get more. But in the broadest sense, investment means the sacrifice of current rupees and resources for the sake of future rupees and recourses. It is a commitment of money and other recourses that ate expected to generate additional money and recourses in the future. The commitment takes place in the present and is certain. The rewards come later, if at all and the magnitude is generally uncertain. Therefore, every investment entails some degree of risk. It is commonly known fact that an investment entails some degree of risk. It is commonly known fact that an investment is possible only when there is adequate saving therefore, both saving and investments are interrelated.

Investment in the government securities are the securities bank has purchased with the positive intent and ability to hold until maturity. The same are recorded at cost or at cost adjusted for amortization of premiums or discounts. Investments are valued at of investments having market value less than the cost. Investments in unlisted companies' shares are valued at cost. Premiums are capitalized and amortized from the date of purchase to maturity. All investments are subjected to regular review as required by NRB Directives.

Investors also seek to manage their wealth effectively obtaining the most from it, while protecting it from inflation, taxes and factors some scholars have given the actual earning of investment, which are as below:

Frorenies (2002) define that An investment is a commitment of money that I expected to generate additional money. Every investment entail some degree of risk, it requires a present certain sacrifice for a future uncertain sacrifice for a future uncertain benefit.

Investment buy individual, business and government involve a present sacrifice of income to get an expected future, benefit as a result investment raises a nation standard of living. (The world Encyclopedia)

This definition concludes that investment means use of rupee of amount today expectation of more income in future. It is clear that investment is the utilization of funds with expected additional return in future.

The saving done by the investor may be affected by taxes, inflation, depression, labor relation, government action plan and other social phenomena. Some time we may get negative return also, if wrongly invested without sound knowledge of investment and their related factor.

Investment has to undergo various types of risk of business risk. Possibility of being wane in earning power of investment due to competition, uncontrollable costs, change in demand, market risk possibility of strong change in market price and collateral value of securities and real properties, therefore making investment is not sufficient one should follow sound investment policy.

From these definitions of different authors about investment clarify that investment means to trade money for expected future stream of payment of benefits that will exceed the current cash outflow which is the benefit to the investors for sacrificing the time and commitment or due to uncertainty and risk factors. Financial institutions must be able to mobilize their deposit collection funds in profitable, secured and marketable sector so that they can earn good return on their investment.

2.1.2 Features/principle of Investment Policy

Investment policy involves determining the investment objectives and the amount of one's investable wealth. Investment always related with risks and returns. Investment policy also involves the identification of the potential categories of financial assets for consideration in the ultimate portfolio. The identification of assets depends upon many things, such as investment objectives, invest able wealth, and tax considerations. The success of the bank is measure by its income and profit, which depends upon its lending procedure, lending policy and investment of its fund in different securities. The greater the credits created by the bank, the higher will the profitability. A sound lending and investment policy created by the bank, the higher will the profitability. A sound lending and investment policy is not only pro-requisite for bank's profitability but also crucial significant for the promotion of commercial saving of an economically backward nation like Nepal. Some necessities for sound lending and investment policies which are explained as under.

1. Safety and Security

Commercial banks must pay a special attention to the principle safety and security. There will be a loss whether it is small or big, if the bank has not invested in secure and safe sectors, Investment in unsafe and insecure sectors with the hope of getting more return is to accept the security of law quality. The condition of unsafe arise when a bank invest in large loan against less securities by receiving commission, invests in new places without careful observation, landing to long-term borrowers etc. All these unsafe conditions should be avoided as much as possible. A bank should be very much conscious in investing procedures and profitable sectors. It should never invest its fund on those securities, which are subjected to too much for volatility (Depreciation are fluctuation) because a little alternation may cause a great loss. It must not invest its fund into speculative businessman, who may be bankrupt at once and who may earn millions in minute also. Only Commercial durable, marketable and high market valued securities should be accepted. For This purpose "MAST" should be followed, where MAST stands for:

M - Marketable

A - Ascertainable

S - Stability

T – Transferability

(Raya 2008)

2. Profitability

The profit of commercial bank mainly depends on the interest rate, volume of loan and its time period and nature of investment in different securities. It is a fact that 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.

Ambition of profit to commercial bank seem reasonable as the bank has to corer all the expenses and make payment in the forms dividend to the shareholder who contribute to build up to bank's capital and interest to the depositors. For This the bank calculates the cost of fund and likely return, if the spread is enough irrespective of risk involved and absorbs its liquidity. Obligation, it will go a head for investment good bank is one who invest more of its fund in different earning assets standing. Safety from the problem of liquidity, i.e. keeping cash resurvey to meet day to day requirements of the depositors

3. Liquidity

It is the position of the firm to meet current or short-term obligations. General public or customers deposit their saving at the banks in different accounts having full confidence of repayment by the banks whenever they require. To show a good current position and maintain the confidence of the customers, every firm must keep proper cash balance with then while investing in difference securities and granting loan from excess fund.

4. Purpose of Loan

This is very important question for any banker is that, why a customer is in need for loan. If borrower misused the loan granted by the bank, he can never repay. Therefore, in order to avoid This situation each and every bank should demand all the essential detailed information about the scheme of the project or activities would be examined before lending.

5. Diversification

The bank should be careful while granting loan, it should not be always in one sector. To minimize risk and maximize the profit, a bank must diversify its investment on different sectors. Diversification of loan helps to sustain loss according to the low of average, if a security of a company is divided of there may be an appreciation in the securities of other companies. In This way, the loss can be recovered.

6. Tangibility

A commercial bank should proper tangible security to an intangible one. Thought it may be considered that tangible property does not yield an income apart from intangible securities, which have lost their value due to price level inflation.

7. Legality

A commercial bank must follow the rules and regulation as well as different directions issued by Nepal Rastra Bank, Ministry of Finance, Ministry of law and other while mobilizing its funds. hiegal secretes will bring out any problems to investors.

2.1.3 Some Important Terms

The study in this section comprises of some important banking terms for which efforts have been made to clarify the meaning, which are frequently used in this study, which are given below.

1. Loan and Advances

Loan, advances and overdraft are the main sources of income for a bank. Bank deposits can cross beyond a desired level but the level of loans, advances and overdraft will never cross it. The facilities of granting loan, advances and overdrafts are the main service in which customers of the bank can enjoy.

Funds borrowed from the banks are much cheaper than those borrowed from unorganized money lenders. The demand for loan has excessively increased due to cheaper interest rate. Furthermore, an increase in an economic and business activity always increases the demand for funds. Due to limited resources and increasing loans, there is some fear that commercial banks and other financial institutions too may take more preferential collateral while granting loans causing unnecessary botheration to the general customers. Such loans from their institutions would be available on special request only and there is a chance of utilization of resources in economically less productive fields. There lies the undesirable effect, of low interest rate.

In additional to this, some portion of loan, advances and overdraft includes that amount which is given to staff of the bank for house loan, vehicle loan, personal loan and others, in mobilization of commercial banks fund, loan, advances and overdrafts have occupied a large portion.

2. Investment on Government Securities, Share and Debenture

Though a **c**ommercial bank can earn some interest and dividend from the investment on government securities, share and debentures, it is not the major portion of income, but it is treated as a second source of banking business. A commercial bank may extend credit by purchasing government securities bond and share for several reasons. Some of them are given as

It may want to space its maturating so that the inflow of cash coincide with expected withdrawals by depositors or large loan demands of its customers. It may wish to have high-grade marketable securities to liquidate if its primary reserve becomes inadequate. It may also be forced to invest because the demand for loans has decreased or is not sufficient to absorb its excess reserves. (Cross and Hample 1980)

However, investment portfolio of commercial bank is established and maintained primarily with a view of nature of banks liabilities that is since depositors may demand funds in great volume without previous notice to banks. The investment must be of a type that can be marketed quickly with little or no shrinkage in volume.

3. Investment on Other Company's Share and Debenture

Due to excess funds and least opportunity to invest their funds in much more profitable sector and to meet the requirement of Nepal Rastra Bank's directives many commercial banks have to utilize their funds to purchase shares and debentures of many other financial and non-financial companies. Nowadays most of the commercial banks have purchased regional development banks and other development banks shares

4. Deposits

For a commercial bank, deposit is the most important source of the liquidity. For bank‟s financial strength, it is treated as a barometer. In the word of Eugene, "a bank's deposits are the amount that it owes to its customers." Deposit is the lifeblood of the commercial bank. Though, they constitute the great bulk liabilities, the success of a bank greatly depends upon the extent to which it may attract more and more deposits, for accounting and analyzing purpose, deposits are categorized in three headings. They are Current Deposits, Saving Deposits and Fixed Deposits.

5. Off-balance Sheet Activities

Off-balance sheet activities involve contracts for future purchase sale of assets and all these activities are contingent obligations. These are not recognized, as assets are liabilities on balance sheet. Some good examples of these items are letter of credit (L/C), letter of guarantee, bins of collection etc. Now days, some economist and finance specialists to expand the modern, transaction of a bank stressfully highlight sub activities.

2.1.4 Sources of Funds for the Investment

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

1. Capital

Capital is the lifeblood of the trade and commerce. Therefore, Capital is needed for the operation of the bank as in other business. So far as that funds, it is only nominal source. So it can be used for the investment purpose. The capital fund consist elements like Issuing Debentures, General Reserves and Issuing Shares.

Bank issues its share for the collections of capital. So this is one of the sources of fund to invest. By increasing in the issue of share, the bank can increase its capital.

2. General Reserves

Reserves are kept by the bank separated from the profit. This reserve is also invested in the times of contingency and to cover the loss in future.

3. Accumulated profit

If the capital is not sufficient and there is need of more money to invest in that case the bank take up the accumulated profit to invest. In the time of contingency also, the bank invests its accumulated profit for recovering its future loss.

4. Deposits

Deposits are the main source of funds. By providing certain rate of interest, commercial bank calls for the deposit from the customer. Mainly, three types of deposits are accepted by the bank like current deposit, fixed deposit, saving deposits. These different types of deposits are used for lending the money to different sector agriculture, productive work, trade, irrigation and industry. The deposits will lead to increase the working capital of the bank.

5. External and internal borrowings

The funds can be collected by borrowings money through different banks or different institution. In a developing country like Nepal, those type of borrowings 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 other economic institution. Generally, the commercial bank borrows from two sources i.e. external and internal. In general, external borrowing means the borrowing from foreign banks, and foreign government. Internally, the commercial banks borrow mainly from Nepal Rastrya Bank. Therefore, the commercial bank cannot provide loan or investment without the funds. From the above different source of fund, the commercial bank grants loan.

2.1.5 Investment Policy of Bank

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 looses may be incurred. Investment objectives should be stated in terms of both risk and return". (Frorencis; 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.

2.2 Review of Major Empirical Studies

This research is the first of this kind and useful reference of related books, journals & articles and previous research work for the researcher carrying for their Master dissertation majoring in Finance. Various studies have been made or done in this field. Some of them have been reviewed so that the chances of duplication can be minimized.

Sharp, Alexander and Bailey (1998) define that investment in its broadest since, means that sacrifices of current dollars for future dollars. Two different arbutus are generally involved: Time & Risk. The sacrifice takes place in the present & is certain. The reward comes later of at all and the magnitude is generally uncertain.

1. Real Investment: Generally, if involves some kind of tangible assets such as: land, machinery & factories.
2. Financially Investment: Involves contract has written on prece of paper such as: common stocks & bonds.

Jerome, Edword & Zeiked (1986) defined the world Investment has many Factors. It may involve money into bonds. It may involve specially in bull market or selling short in bear markets. It may involve options, straddles, silver mutual funds, money market fund, index funds & result in accumulation of wealth or dissipation of resources. Diversity and challenge characterized the field. For the able or lackey the uninformed result can be disastrous."

Cross & Hempal (1980), "Commercial banks bring into being the most important ingredient of the money supply demand deposits through the creation of credit in the form of loans & investment. Banks are the custodians of the community's money as well as the suppliers of its liquidity, Since the study is concerted with the investment activities of commercial Bank in Nepal, we take in to consideration exclusively the sector that are required for & relented to the same.”

Shrestha, Dr. Sunity (1995), explains in her book, Portfolio behavior of commercial banks sector of the economy including agriculture, industry, commercial & social service sectors. The lending policy of commercial is based on the profit maximizing of the institution as well as the economic enhancement of the country.

From above definition, it is clear that an investment means to trade a know rupee amount for some expected future steam of payment or benefits that will exceed currently outlay by an amount that will compensate the investor for the time of uncertainly involved in expected future cash flows. This investment is the most important function of commercial banks. It is very challenging task for commercial banks. So, a bank has to be very cautions while investing their funds in various sectors. The success of a bank heavely depends upon the proper management of its investable funds.

Bajracharya, (1990) in his article “Monetary Policy” deposit mobilization of domestic saving is one of the prime objectives of the monetary policy in Nepal. Commercial banks and more active financial intermediary for generating resources in the form of deposit of private sector and providing credit to the investor in different sector of the economy.

Kishi, (1996) in his article, concludes that following an introduction of the reform in the banking sectors as an integrate part of the liberal economic policy more banks and finance companies have come up as a welcome measure of competition. Slowly and steadily, the two governments controlled banks, Nepal Bank Ltd. and Rastriya Banijya Bank has also shown an improvement of non-performing loans and is taking steps to adopt improved technology. However, higher economic growth with social justice bringing a significant benefit to the poor is yet to the activated as envisaged by the NG”.

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 conclusive to build economic infrastructures of the country it would create atmosphere conductive 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 book. So, they have opinioned that the priority sector program is a timely & opportunities there by increasing production & the general living standard or 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 programmers: Rural development land reform, back to the village national, champion audit literacy etc. couldn't materials their objectives despite their some theoretically philosophy & food objectives.

Pradhan (2003), has studied about 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 coat and interesting 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.

2.3 Review of Previous Thesis

Several thesis works have been conducted by various student regarding different aspects of commercial banks. They have importantly elaborated and addressed various aspects or activities of commercial banking such as financial performances, lending practices, investment policy, interest rate structure, resource mobilization, capital structure, etc. Some of them as to be relevant for the study "topic" are presented below:

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 prolems 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 NIBL 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 NIBL 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 NIBL 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 NIBL Bank Limited.

His Majors Findings, Mean current ratio of SCBL is slightly higher than NBBL and NIBL. Mean ratio of cash and bank balance to total deposit of SCBL is lower than NIBL and NBBL. Liquidity position of SCBL is comparatively better than NIBL 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 NIBL 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.

2.4 Research Gap

Research gap focuses that the researcher how much trying to give new things from his/her study with compare to previous studies held by different researcher. Due to changing the time and circulation of environment the previous and present may be different in many ways. This is a research gap between the present research and previous research. Though many affiliated researchers have been done in this area but these have been very few exclusive researchers on this subject.

To achieve the target goals of investment policies and acts are not enough. To achieve target goals, investment policies and acts must be implemented in effective manner. In Nepal more investment policies and acts are made but it is not implemented so the target goal is not achieved. Investment policy is an important part of the Bank who play vital role on economy in nepal. It is necessary for successful implementation of investments policies.

All the researchers mentioned in review of literature are concerned with the study of laws, provisions and structure of investment policies of commercial bank. Hence in this study overall joint venture banks are taken in a definable way which makes sense. The selection of the banks is made here on the basis of joint venture banks.

CHAPTER-THREE

RESEARCH METHODOLOGY

Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. Research methodology describes the methods and process applied in the entire subject of the study. This chapter attempts to have an insight into the investment policy adopted by HBL, NIBL, EBL, NIBAL and Nepal SBI bank.

3.1 Research design

Research design means an overall framework for the activities to be taken during the course of a research study. It enables the way of research providing the tools & techniques for the data collection & analysis & sampling plan to be followed. Generally research design describes the general plan for collecting analyzing & evaluating data after identifying. It is an integrated system that guides the researcher in formulating, implementing & controlling the study conceived so as to obtain answers to research questions & to control variance. Both analytical & descriptive methods have been used to attain the overall objectives. Firstly, it specifies the sources & type of information relevant to research question, secondly it specifies; the data. Thus, a research design specifies various methods & procedures for acquiring the information including from which sources & by what procedure it is obtained.

3.2 Population and Sample

It means choosing number of population from among available set. These are altogether 32 commercial banks operating all over Nepal. For this study five commercial bank is taken as the sample i.e. HBL, NIBL, EBL, NIBAL and Nepal SBI bank. The impact of directives issued by NRB investment policy procedure of the bank is studied. Hence, 32 commercial banks are regarded as population and five commercial bank is taken as sample for the study because the study has been made only by few researchers. As per to collect accurate and total information to carry out these thesis effectively and efficiency.

3.3 Sources of Data and Data Collection Technique

The report is mainly based on secondary data with negligible information and data collected from secondary 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 were also helpful to obtain the additional information of the related problem.

3.4 Methods of Data Analysis

For the purpose of the study, data analysis, various financial, accounting and statistical tools are used to make the analysis more effective, convenience, reliable and authentic. 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, Karl person's 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.

he 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.

1. Ratio of Total Sample Banks Investment to Sample Bank Investment

Total commercial banks investment to sample banks investment ratio is used to analysis how much investment has cover by the sample bank investment. It is derived by following equation.

Total commercial banks investment to sample banks investment Ratio

$$= \frac{Individual\ Sample\ Bank\ Investment}{Total\ Sample\ Banks\ Investment}$$

2. Segregation of Total Investment of Sample Banks

It is used to analyze how the sample banks have invested its collected funds. Banks generally invest in government securities, share and debentures of other companies and NRB bond. An attempt is made to analyze how much percentage is invested by the banks in different sectors. The following equation is used for this purpose.

a) Total Investment to govt. sec. Investment $= \frac{Investment\ on\ gov.\ securities}{Total\ Investment}$

b) Total Investment to share & Debentures $= \frac{Investment\ on\ \text{Share}\ \&\ Deb.}{Total\ Investment}$

c) Total Investment to Other $= \frac{Investment\ on\ \text{Other Sector}}{Total\ Investment}$

3) Liquidity Ratios: This ratio measures the liquidity position of a firm. It measures the firm's ability to meet its short- term obligations. As a Financial Analytical tools, following liquidity ratios will be used.

a) Current Ratio : This ratio shows the bank's short-term solvency. It shows the ratio of current assets over the current liabilities. This ratio can be computed by dividing the Total Current Assets by Current Liabilities, which can be presents as:

$$\text{Current Ratio} = \frac{Current\ Assets}{Current\ liabilities}$$

Higher ratio indicates the strong short – term solvency position and vice versa.

b) Cash and Bank to Total Deposit 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 can be computed by dividing Cash and Bank Balance by Total Deposit can be presented as:

$$\text{Cash and Bank to Total Deposit Ratio} = \frac{Cash\ \&\ Bank\ Balance}{Total\ Deposits}$$

Cash and bank balance includes cash in hand, cheques and other cash items, balance with domestic and foreign banks. The total deposit includes deposit made by customers though different accounts like current (demand deposit), saving, fixed deposit, call deposit and other deposit accounts.

c) Cash and Bank Balance to Current Assets Ratio: This ratio measures the proportion of most liquid assets viz. cash and bank balance among the total current assets of the bank. Higher ratio shows the bank's ability to meet its demand for cash. The ratio is computed by dividing Cash and Bank Balance by Current Assets, presented as under,

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

d) Investment on Government Securities to Total Current Asset Ratio: This ratio is calculated to find out the percentage of current assets invested on government securities viz. treasury bills and development bonds. The ratio is stated as under,

Investment on Government Securities to Total Current Asset Ratio =

$$\frac{Investment\ on\ Government\ Securites}{Current\ Assets}$$

e) 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,

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

4) 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.

a) 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,

$$\text{Loan and Advances to Total Deposit Ratio} = \frac{Loan\ \&\ Advance}{Total\ Deposits}$$

b) 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. Which can be states as? Total Investment

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

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

c) 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,

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

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

d) Investment on Government Securities to Total Asset Ratio: This ratio shows that bank's investment on government securities in comparison to the total working fund. This ratio can be computed by dividing investment on government securities by total working fund, which can be presented as,

Investment on Government Securities to Total Working Fund =

$$\frac{Investment\ on\ Government\ Securities}{Total\ Working\ Fund}$$

5) Profitability Ratios: Profitability ratios are used to indicate and measure the overall efficiency of a firm in terms of profit and financial performance. For better performance, profitability ratios of firm should be higher. Under this, the following profitability ratio will be computed.

a) 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:

$$\text{Return on Loan and Advances Ratio} = \frac{\textit{Net Profit (Loss)}}{\textit{Loans \& Advance}}$$

b) 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,

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

c) 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,

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

d) Total Interest paid to Total Asset Ratio: This ratio is computed to find out percentage of interest earned to Total Assets (Working Fund). Higher ratio implies better performance of the bank in terms of interest earning on its total working funds. This fund is computed by dividing Total Interest Earned by Total Working Fund can be presented as

Total Interest Paid

Total Interest earned to Total Working Fund Ratio = $\dfrac{}{\textit{Total Working Fund}}$

6) 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 ides 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) 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. By definition, Credit Risk ratio is expressed as the percentage of Non- Performing Loan to Total Loan and Advances.

Bank utilizes its collected fund by providing credit to different sections. There is risk of default or non- repayment of loan. While making investment, bank examines the credit risk involved in the project. The Credit Risk Ratio shows the proportion of non- performing assets in total Loan and Advances of the bank and vice- versa.

Credit Risk Ratio = $\dfrac{\textit{Loan and Advance}}{\textit{Total Assets}}$

b) Liquidity Risk Ratio: The Liquidity Risk of the bank defines its Liquidity needs 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 sash balance but this reduces profitability increase and also the risk. Thus, higher liquidity ratio indicates less profitable return and vice-versa. This ratio is calculated as below:

Cash and Bank Balance

$$\text{Liquidity Risk ratio} = \frac{\quad}{\textit{Total Deposit}}$$

3.4.2 Statistical Tools

Statistical methods are the mathematical techniques used to facilitate the analysis and interpretation of numerical data secured from groups of individuals or groups of observation from a single individual. The figures provide details description and tabulates as well as analyze data without subjectivity, but only objectivity. The result can be presented in brief and complicated problems can be studied in very simple way. It becomes possible to convert abstract problems into figures and complex data in the forms of table.

Some important statistical tools will be used to achieve the objective of this study. In this study statistical tool such as Arithmetic mean, standard deviation, coefficient of variation, coefficient of correlation and trend analysis will be used.

i) Arithmetic Mean: In mathematics and statistics, the arithmetic mean, often referred to as simply the mean or average when the context is clear, is a method to derive the central tendency of a sample space. The term "Arithmetic Mean" is preferred in mathematics and statistics because it helps distinguish it from other averages such as the geometric and harmonic mean

In addition to mathematics and statistics, the arithmetic mean is frequently in fields such as economics, sociology, and history, though it is used in almost every academic field to some extent. For example, per capita GDP gives an approximation of the arithmetic average income of a nation's population. The most popular and widely used measures of representation from the entire data by one value are what most laymen call an 'average' and what the statistician call the arithmetic mean. Its value is obtained by adding together all the times and by dividing this total by the number of items.

The formula to calculated mean is given by,

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

Where, X = Mean of the values

$\sum X$ = Summation of the values

N = No of observation

ii) Standard Deviation (S. D.): Standard deviation is a widely used measurement of variability or diversity used in statistics and probability theory. It shows how much variation or ' Dispersion' there is from the 'Average'. A low standard deviation indicates that the data points tend to be very close to the mean, where as high standard deviation indicates that the data are spread out over a large range of values.

Technically, the standard deviation of a statistical population, data set, or probability distribution is the square root of its variance. A useful property of standard deviation is that unlike variance, it is expressed in the same units as the data.

The standard deviation is absolute measures of dispersion. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of series and vice – versa.

Standard Deviation $(\sigma) = \sqrt{\frac{1}{n}\sum\left(X - \overline{X}\right)}$

Where, σ = Standard Deviation

N= number of items

iii) Coefficient of Variation: The calculated standard deviation gives an absolute measure of dispersion. Hence where the mean value of the variable is not equal, it is not equal, it is not appropriate to compare two pairs of variables based on standard deviation only. The coefficient of variation (C.V.) is given by the following formula in the percentage basis:

Coefficient of Variation $C.V. = \frac{\sigma}{\overline{X}} \times 100$

iv) Measures of Correlation: We examine the relation between the various variables. The correlation between the different variables of a bank is compared to measure the performance of these banks. Correlation refers to the degree of relationship between variables. If between two variables, increase or decrease in one causes increase or decrease in another, then such variables are correlated variables. The reliability of the value of coefficient of correlation is measured by probable error. The correlation coefficient describes the degree of relationship between two variables. It interprets whether variables are correlated positively by which it is helpful to make appropriate investment policy for profit maximization. The Karl Pearson coefficient of correlation (r) is given by following formula

Coefficient of Correlation $(r) = \frac{\sum XY}{N\sigma_1\sigma_2}$

Where, $X = X - \overline{X}$

$Y = Y - \overline{Y}$

σ_1= Standard series of X

σ_2= standard series of Y

N= Number of pair of Observations

The Karl Pearson coefficient of correlation always falls between - 1 to +1. The value of correlation in minus signifies the negative correlation and in plus signifies the positive correlation. As the value of correlation reaches to the value of Zero, it is said that there is no significant relationship between the variables.

v) 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 farming 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_1series

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 $(\sigma_1)^2$

S_2^2 = Variance of X_2 series $(\sigma_2)^2$

v) 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

CHAPTER-FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Financial Analysis

Introduction, review of literature and research methodology are presented in the previous chapters that provide the basic inputs to analyze and interpret the data. Presentation and analysis of data is the main body of the study. In this chapter collected data are analyzed and interpreted as per the stated methodology in the previous chapter. The main sources of data are secondary data, which are mainly related to the investment management and fund mobilization of HBL, EBL, NABIL, NIBL and NSBI Bank Limited. All the Investment management is analyze by calculating following ratio.

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

This ratio indicates the portion of investment made by EBL, NABIL, HBL, NIBL and NSBI 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 shows the investment made by total sample banks investment and by individual bank investment. From the above table it shows that portion of investment made by EBL is in fluacting 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%.

Simerily from the below table it shows that portion of investment made by NABIL is in fluacting and decreasing every year. 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 5.90 and CV is 20%.

Table No. 4.1

Total Sample Banks Investment to Individual Investment Ratio (in Percentage)

Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	3.45	85.49	5.81	3.11	2.13
2007/08	2.80	85.90	6.19	2.73	2.39
2008/09	14.30	45.93	16.58	10.74	12.45
2009/10	9.97	49.76	12.55	14.21	13.51
2010/11	15.41	42.47	15.34	11.57	15.20
Total	45.93	309.56	56.47	42.36	45.68
Mean	9.19	61.91	11.29	8.47	9.14
S.D	5.90	21.86	5.05	5.23	6.36
C.V	20	35.31	44.70	61.73	69.56

Source: Annual Report of sample banks & Appendix 1 & 2

Again from the above table it shows that portion of investment made by HBL is increasing trend in every year except 2009/10. The highest ratio of HBL is 16.58% in f/y 2008/09 and the lowest ratio is 5.81% in f/y 2006/07. The mean ratio is 11.29 during the study period when SD is 5.05 and CV is 44.70%.

So on from the above table it shows that portion of investment made by NIBL is fluacting trend in every year. The highest ratio of NIBL is 14.21% in f/y 2009/10 and the lowest ratio is 2.73% in f/y 2007/08. The mean ratio is 8.47 during the study period when SD is 5.23 and CV is 61.73%.

At last it shows that portion of investment made by NSBI is increasing trend in every year. The highest ratio of NSBI is 15.20% in f/y 2010/11 and the lowest ratio is 2.13% in f/y 2010/11. The mean ratio is 9.14 during the study period when SD is 6.36 and CV is 69.56%.

So, from the above table shows that NABIL has good investment policy but due to changing time it is fulling down and NSBI has used better investment policy because the ratio of individual investment is increasing every year which eximine the better investment policy.

4.1.2 Segregation of Investment

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

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 HBL Bank

HBL invest 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 HBL.

Table: 4.3

Segregation of Investment of HBL

Year	investment	Gov.sec	%	Share & deb	%	others	%
2006/07	6079.37	5876.93	96.67	202.44	3.33	-	-
2007/08	7166.53	7114.22	99.27	52.31	0.73	-	-
2008/09	3907.34	1845.83	47.24	14.46	0.37	2047.06	52.39
2009/10	3455.03	1886.45	54.60	21.08	0.61	1547.51	44.79
2010/11	4725.58	2646.80	56.01	31.67	0.67	1838.73	38.91

Source: Banking and Financial Statistics, NRB

The above table show the investment made by HBL in different sectors. HBL is found to invest its fund in Government securities, shares and debenture of other industries and others. From the FY 2006/07 to 2010/11 the most of investment in Government Securities and least of investment in share and debentures of other companies but from the FY 2008/09 its investment in other sector. It can be concluded that HBL is increasing its investment in different sectors.

C) 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: 4.4

Segregation of Investment of NABIL

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.

D) Segregation of Investment of NIBL Bank

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

Table: 4.5

Segregation of Investment of NIBL

Year	investment	Gov.sec	%	Share & deb	%	others	%
2006/07	3256.4	1561.78	47.96	1694.64	52.04	-	-
2007/08	3155	1508.41	47.81	158.06	5.01	1488.53	47.18
2008/09	2531.3	1125.42	44.46	48.09	1.90	1355.26	53.54
2009/10	3911.85	1953.98	49.95	32.86	0.84	1924.65	49.20
2010/11	3564.6	1519.95	42.64	28.88	0.81	1765.55	49.53

Source: Banking and Financial Statistics, NRB

The above table show the investment made by NIBL in different sectors. NIBL is found to invest its fund in Government securities, shares and debenture of other industries and others. From the FY 2006/07 to 2010/11 investment in Government Securities fluacting and investment in share and debentures of other companies decreasing but in other sector is in fluctuing trend. It can be concluded that NIBL is increasing its investment in different sectors but still less investment in share and debentures.

E) Segregation of Investment of NSBI

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

Table: 4.6

Segregation of Investment of NSBI

Year	investment	Gov.sec	%	Share & deb	%	others	%
2006/07	2227.74	2206.58	99.05	21.16	0.95	-	-
2007/08	2762.82	2741.55	99.23	21.27	0.77	-	-
2008/09	2933.84	2918	99.46	15.84	0.54	-	-
2009/10	3720.59	3670.37	98.65	50.22	0.84	-	-
2010/11	4682.11	4682.11	100	-	-	-	-

Source: Banking and Financial Statistics, NRB

The above table show the investment made by NSBL in different sectors. NSBL 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 NSBI is increasing its investment in government sector as well as in share and debenture but still needs to investment other sector too.

It can be concluded that the investment made by the commercial banks in different sectors are increasing. It is found that mostly commercial banks are investing its fund in Government securities, share and debenture of other industries and other sectors.

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 No. 4.7

Current Assets to Current Liability (in times)

Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	1.39	7.82	0.88	0.95	1.14
2007/08	1.35	7.86	0.89	0.97	1.20
2008/09	1.25	7.88	0.94	0.98	0.72
2009/10	1.41	8.22	0.95	1	0.71
2010/11	1.01	8.05	1.00	1.05	0.73
Total	6.41	39.83	4.66	4.95	4.5
Mean	1.28	7.96	0.93	0.99	0.90
S.D	0.16	0.17	0.05	0.04	0.25
C.V	0.13	0.02	0.05	0.04	0.28

Source: Annual Report of sample banks and Appendix 3

Above Table shows the current ratio of selected commercial banks during the study period. The current ratio of HBL and NIBL Bank is in increasing trend. EBL is general said that have sound ability to meet their short- term obligations. In the case of EBL the C.R. is high in 2009/10 i.e 1.41, NABIL has high in 2009/10 i.e. 8.22, . In an average, liquidity position of NABIL is greater than EBL others sample banks i.e. 7.96. Due to high mean ratio NABIL is better than others banks. Likewise, S. D. and cv of NSBI is higher than others i,e 0.17 and 0.28. It can be said that C.R. of NABIL is more consistent than others.

Lastly, from the above analysis it is known NABIL have better liquidation position and EBL have little better liquidity position then others but HBL, NIBL and NSBI have not good liquidation position because the standard ratio is 1:1 where only NABIL meet that. Generally, banks require more liquid assets with compare to current liabilities in order to provide better bank service but only NABIL is in better liquidity position than liquidity position of other sample banks.

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 No. 4.8

Cash and Bank Balance to Total Deposit Ratio

Banks F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.13	0.12	0.06	0.10	0.10
2007/08	0.11	0.16	0.05	0.11	0.10
2008/09	0.18	0.18	0.09	0.17	0.07
2009/10	0.21	0.14	0.10	0.14	0.10
2010/11	0.15	0.15	0.07	0.16	0.12
Total	0.78	0.75	0.37	0.68	0.49
Mean	0.16	0.15	0.07	0.14	0.10
S.D	0.04	0.02	0.02	0.03	0.02

C.V	0.25	0.14	0.31	0.23	0.18

Source: Annual Report of sample banks and Appendix 4

Above Table revels that the Cash and Bank Balance to Total Deposit Ratio of sample banks where all sample banks are in fluctuating trend. The highest ratio of EBL, NABIL, HBL, NIBL and NSBI are 0.21 time in FY 2009/10, 0.18 in FY 2008/09, 0.10 in 2009/10, 0.17 in 2008/09, and 0.12 times in FY 2010/11 respectively. Similarly, the lowest ratio of EBL, NABIL, HBL, NIBL and NSBI are 0.11, 0.12, 0.05, 0.10 and 0.07 respectively in different year.

The mean ratio of EBL, NABIL, HBL, NIBL and NSBI are 0.16 times, 0.15 times, 0.07 times, 0.14 times, 0.10 times respectively. EBL has higher ratio than the other sample banks, which shows its greater ability to pay depositors money as they want. Similarly, EBL have highest sd 0.04 times and HBL have higher cv i,e 0.31 times.

The above analysis has to conclude that the cash and bank balance position of EBL with respect to NABIL, HBL, NIBL and NSBI is better in order to serve its customer's deposits. It implies the better liquidity position of EBL from the viewpoint of depositor demand but NABIL, NIBL and NSBI are also near about EBL. In contrast a high ratio of cash and bank balance may be undesirable which indicates the bank's inability to invest its funds income generating areas. Thus EBL should invest in more productive sectors like short-term marketable securities insuring enough liquidity which will help the bank to improve its profitability. Whereas HBL is in poor condition than others sample banks.

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 No. 4.9

Cash and Bank Balance to Current Assets

Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.12	0.11	0.06	0.10	0.08
2007/08	0.11	0.16	0.05	0.11	0.08
2008/09	0.18	0.14	0.09	0.17	0.09
2009/10	0.20	0.12	0.11	0.13	0.14
2010/11	0.14	0.13	0.07	0.15	0.16
Total	0.76	0.66	0.38	0.67	0.55
Mean	0.15	0.13	0.08	0.13	0.11
S.D	0.04	0.02	0.02	0.03	0.03
C.V	0.27	0.14	0.29	0.21	0.31

Source: Annual Report of sample banks and Appendix 5

Above table reveals that cash and bank balance to current assets ratio of EBL, NABIL, NIBL and HBL is in fluctuating trend. But NSBI is in increasing trend. The mean ratio and sd of EBL is higher than others and HBL have higher cv than other sample bank. The higher mean ratio shows EBL's liquidity position is better than that of others banks. 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 all sample banks.

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 No. 4.10

Investment on Government Securities to Current Assets

Banks F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.18	0.35	0.22	0.14	0.17
2007/08	0.13	0.29	0.24	0.09	0.17
2008/09	0.10	0.27	0.12	0.05	0.14
2009/10	0.07	0.27	0.09	0.08	0.15
2010/11	0.11	0.24	0.11	0.07	0.15
Total	0.48	1.41	0.79	0.43	0.77
Mean	0.12	0.28	0.16	0.09	0.15
S.D	0.04	0.04	0.07	0.033	0.010
C.V	0.35	0.35	0.44	0.38	0.067

Source: Annual Report of of sample banks and Appendix 6

Above table shows investment on government securities to current assets ratio of sample banks. these Banks has fluctuating type ratios except NABIL whereas it is decreasing. 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 ratio of NABIL, BHL, NIBL and NSBI are 0.35 times in FY 2006/07 and lowest is 0.24 times in FY 2010/11, 0.24 times in FY 2007/08 and lowest is 0.09 times in FY 2009/10, 0.14 times in FY 2006/07 and lowest is

0.05 times in FY 2008/09 and 0.17 times in FY 2006/07 and lowest is 0.14 times in FY 2008/09.

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, HBL 0.16 ie 16percent and NSBI 0.16 ie 16% and NIBL has the lower mean ie 0.09. It means NABIL has invested more money in risk free assets than that of other sample banks. 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, other banks should divert its investment in govt. securities. Similarly, S.D. is similar of EBL and NABIL ie 0.041, whereas HBL 0.07, NIBL 0.033, NSBI 0.010 and C.V is 0.35 for EBL and NABIL and 0.44 of HBL, 0.38 of NIBL and 0.067 of NSBI.

The higher C.V. of HBL shows the more inconsistency in the ratios with compare to NABIL

(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 No. 4.11

Loan and Advances to Current Assets

Banks F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.69	0.32	0.63	0.73	0.71
2007/08	0.73	0.33	0.67	0.79	0.72
2008/09	0.70	0.32	0.74	0.77	0.75
2009/10	0.71	0.33	0.76	0.78	0.70
2010/11	0.37	0.25	0.76	0.77	0.68

Total	3.21	1.55	3.55	3.85	3.55
Mean	0.64	0.31	0.71	0.77	0.71
S.D	0.15	0.03	0.062	0.022	0.025
C.V	0.24	0.11	0.09	0.029	0.04

Source: Annual Report of sample banks and Appendix 7

Table no.5 shows the total mean, standard deviation and coefficient of variation of loan & advances to current assets ratio of commercial banks. Through this table loan & advances to current assets ratios of the sample CBS are analyzed. In case of NABIL loans and advances to current asset ratios are in decreasing trend and after FY 2008/09 it started to increase in decreasing trend. Similarly NIBL & NSBI ratio has fluctuating trend at first after FY 2006/07 of NIBL it started to increased & again in FY 2008/09 it decrease. NSBI ratio has also fluctuating trend as NIBL.

Mean value of this ratio of NABIL bank is 60.74%, which is less than that of NIBL and higher than NSBI. i.e. 60.74<66.91 & 60.74>59.09. But coefficient of variation of NABIL is less than NSBI & NIBL i.e. 0.0412<0.0624<0.1524.

2. Assets Management Ratio

A commercial bank must be able to manage it's assets very well to earn high profit, so to satisfy it's 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 No. 4.12

Loan and Advance to Total Deposit

Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.75	0.67	0.57	0.71	0.83
2007/08	0.76	0.67	0.61	0.78	0.88
2008/09	0.72	0.74	0.71	0.78	0.54
2009/10	0.75	0.70	0.74	0.80	0.50
2010/11	0.76	0.77	0.77	0.82	0.50
Total	3.73	3.53	3.41	3.89	3.26
Mean	0.75	0.71	0.68	0.78	0.65
S.D	0.02	0.04	0.09	0.044	0.19
C.V	0.02	0.06	0.13	0.06	0.29

Source: Annual Report of sample banks & Appendix 7

Above table shows that the loan and advances to total deposit ratio of EBL and NSBI in fluctuating trends, NABIL is increasing trends except 2009/10 and HBL & NIBL are in increasing trend. The ratio of EBL and NSBI has more fluctuating. NSBI has higher ratio than other banks in study period ie 0.88. It indicates the better mobilization of deposit by NIBL. The mean of NIBL is 0.78 . So NIBL has higher ratio than that of. It reveals that the deposit of NIBL 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 NIBL has met the NRB requirement or it has utilized its deposit to provide loan. But HBL and NSBI has not met the NRB requirement or it has not utilized its deposit to provide loan properly. The mean, S.D. and C.V of NABIL is 71%, 0.04 and 0.062 similarly, EBL has 0.75, 0.02 and 0.027. so as HBL has 0.68, 0.09 and 0.13, NIBL has 0.78, 0.044, 0.06 and NSBI has 0.65, 0.19 and 0.29. By the analysis, NIBL has little used the deposit in profit generating sector than that of others sample banks.

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 No. 4.13

Total Investment to Total Deposit

Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.20	3.83	0.20	0.13	0.19
2007/08	0.14	3.11	0.23	0.09	0.20
2008/09	0.10	0.29	0.11	0.05	0.10
2009/10	0.07	0.30	0.09	0.08	0.11
2010/11	0.12	0.26	0.12	0.07	0.11
Total	0.62	7.80	0.75	0.43	0.72
Mean	0.12	1.56	0.15	0.09	0.14
S.D	0.047	1.77	0.06	0.030	0.05
C.V	0.37	1.13	0.40	0.35	0.35

Source: Annual Report of sample banks & Appendix 8

Above table shows that total investment to total deposit ratio of EBL, NABIL, HBL, NIBL & NSBI. These banks have 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 3.83% percent in FY 2006/07 and lowest ratio is 0.26% percent in FY 2010/11. Likewise higher ratio of HBL is 0.20 and lower is 0.09 in 2006/07 and 2009/10 respectively, NIBL higher ratio is 0.13% in 2006/07 and lower is 0.05% in 2008/09 and at last NSBI higher ratio 0.20% in 2007/08 & lower is 0.10 in 2008/09%. Investment volume of NIBL is lower than that of other banks.

The mean ratio of EBL, NABIL, HBL, NIBL and NSBI are 0.12%, 1.56%, 0.15, 0.09, 0.14% respectively so NABIL has higher ratio. It signifies NABIL has successfully allocated its deposit in investment portfolio. The C.V. also higher than others.

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 No. 4.14

Loan and Advances to Total Assets

Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.64	0.57	0.51	0.63	0.68
2007/08	0.68	0.58	0.54	0.69	0.70
2008/09	0.65	0.63	0.63	0.68	0.50
2009/10	0.67	0.62	0.66	0.70	0.46
2010/11	0.67	0.65	0.68	0.70	0.46
Total	3.30	3.05	3.01	3.41	2.81
Mean	0.66	0.61	0.60	0.68	0.56
S.D	0.02	0.04	0.074	0.03	0.1207
C.V	0.0250	0.0589	0.1233	0.0474	0.2148

Source: Annual Report of sample banks & Appendix 9

Above table shows the loan and advances to total assets ratio of sample banks during the study period. Loan and advances to total assets of EBL, NABIL and NSBI are in fluctuating trend. While observing their ratios; EBL is better mobilizing of fund as loan and advances and it seems quite successful in generating higher ratio in each year. The mean of EBL, NABIL, HBL, NIBL and NSBI are 0.66%, 0.61%, 0.60%, 0.68 and 0.56%

respectively. So NIBL has higher ratio than that of others. It reveals that in total assets, NIBL has high proportion of loan and advances. NIBL has utilized its total assets more efficiently in the form of loan and advances. The higher C.V. of NIBL states that it has less uniformity in these ratios throughout the study period. S.D. and C.V. of NIBL has high than the other banks.

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 No. 4.15

Investment on Government Securities to Total Assets

Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.17	0.15	0.18	0.12	0.16
2007/08	0.12	0.10	0.20	0.08	0.16
2008/09	0.09	0.04	0.10	0.05	0.10
2009/10	0.07	0.11	0.08	0.07	0.10
2010/11	0.10	0.11	0.10	0.06	0.10
Total	0.55	0.52	0.66	0.38	0.62

Mean	0.11	0.10	0.13	0.08	0.12
S.D	0.04	0.04	0.05	0.03	0.034
C.V	0.3483	0.3768	0.4047	0.3399	0.2736

Source: Annual Report of sample banks & Appendix 10

Above table shows that the investment on government treasury bills to Total assets of EBL, NABIL, HBL and NIBL are in fluctuating trend and NSBI is in decreasing trend. The highest ratio of EBL, NABIL HBL, NIBL and NSBI are 0.17%, 0.15%, 0.20%, 0.12 and 0.16 respectively. The lowest ratio EBL, NABIL HBL, NIBL and NSBI are 0.07%, 0.04%, 0.08%, 0.05 and 0.10% respectively.

From the table we notice that mean ratio of EBL, NABIL, HBL, NIBL and NSBI are 0.11% ,0.10%, 0.13, 0.08, 0.034 respectively. The mean of HBL is has higher than others. It means HBL has invested more money in risk free assets than that of others sample. In another words EBL 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. There is more variability in the ratio of HBL as compare to others. It shows there is more inconsistent in the ratio of HBL during the study period, which is indicated by higher C.V. of HBL. But there is inconsistent in its investment.

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 No. 4.16

Return on Loan and advances

Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.022	0.043	0.029	0.029	0.027
2007/08	0.025	0.035	0.033	0.026	0.020
2008/09	0.027	0.037	0.030	0.025	0.021
2009/10	0.030	0.035	0.018	0.031	0.022
2010/11	0.030	0.035	0.028	0.029	0.022
Total	0.133	0.186	0.138	0.140	0.112
Mean	0.027	0.037	0.028	0.028	0.022
S.D	0.004	0.004	0.006	0.003	0.003
C.V	0.1359	0.0954	0.2009	0.0941	0.1156

Source: Annual Report of sample banks & Appendix 11

Above table shows that return on loan and advances ratio of EBL is in increasing trend and NABIL, HBL, NIBL and NSBI 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 4.3% in year 2006/07 and lowest ratio is 3.5% in above three years. The mean ratio is 3.7% of NABIL. Again the higher ratio of HBL 0.033% in the year 2007/08 and lower ratio is 0.018% in 2009/10. The mean ratio is 0.028%. Likewise the higher ratio of NIBL is 3.1% in year 2009/10 and lower ratio is 2.5% in FY 2008/09. The mean ratio is 2.8%. And at last the higher ratio of NSBI is 2.7% in FY 2006/07 and the lower ratiio is 2% in FY 2007/08. The mean ratio is 2.2%. These all sample 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. However all sample banks 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 No. 4.17

Return on Total Assets Ratio

Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.014	0.025	0.015	0.02	0.02
2007/08	0.017	0.020	0.018	0.02	0.01
2008/09	0.017	0.024	0.019	0.02	0.01
2009/10	0.020	0.022	0.012	0.02	0.01
2010/11	0.020	0.023	0.019	0.02	0.01
Total	0.088	0.113	0.082	0.10	0.06
Mean	0.018	0.023	0.016	0.02	0.01
S.D	0.003	0.002	0.003	0.002	0.004
C.V	0.1503	0.0773	0.1903	0.1074	0.2841

Source: Annual Report of sample banks & Appendix 12

Above table shows the Return on Total Assets of EBL, NABIL, HBL, NIBL and NSBI. 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 successful in managing and utilizing the available assets in order to generate revenue since its ROA ratio is 0.023% of total assets in an average which is higher than that of others. Where as S.D. and C.V .of EBL is 0.003 and 0.15 respectively, NABIL is 0.002 and 0.077, HBL has 0.003 and 0.19%, NIBL has0.002 and 0.10 relatively and at last 0.004 and 0.28% of mean and CV.

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 No. 4.18

Total interest Earned to Total Operating Income Ratio

Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	1.36	1.07	1.27	1.27	1.56
2007/08	1.28	1.18	1.23	1.33	1.52
2008/09	1.42	1.26	1.18	1.58	1.77
2009/10	1.61	1.46	1.46	1.70	2.05
2010/11	1.97	1.72	1.67	2.05	2.18
Total	7.64	6.71	6.81	7.94	9.08
Mean	1.53	1.34	1.36	1.59	1.82
S.D	0.28	0.26	0.20	0.313	0.294
C.V	0.1818	1.07	0.1490	0.1970	0.1622

Source: Annual Report of sampel Banks and appendix 13

Above table shows Interest Earned to Operating Income Ratio of EBL, NABIL, HBL, NIBL, NSBI. EBL has increasing ratio of study period except 2007/08. EBL has greater share of total interest earn in its total operating income in each year and mean too by NABIL. The mean ratio of EBL, NABIL, HBL, NIBL and NSBI are 1.53 times, 1.34 times, 1.36 times, 1.59 times, and 1.82 times respectively. NSBI, NIBL and EBL has higher ratio, it indicates the high contribution in operating income made by lending and investing activities (core banking activity). NABIL and HBL has lower average ratio, it indicates that high contribution in operating income do not made by lending and investing activities (core banking activity). High contribution in operating income made by lending and investing activities (core banking activity) is not good for long run but in short run it is not so bad. Thus, from short term view, EBL,NIBL and NSBI is in good condition but from long term view, NABIL and HBL is in 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 have 26 and 1.7 times, again HBL has 20 and 14.19 likewise NIBL has 31.30 and 19.70 and at last NSBI have 29.4 and 16.22 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 sellected banks.

Table No. 4.19

Total Interest Paid to Total Assets Ratio

Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.024	0.020	0.023	0.025	0.030
2007/08	0.023	0.020	0.023	0.026	0.026
2008/09	0.027	0.026	0.024	0.032	0.027
2009/10	0.038	0.038	0.036	0.045	0.038
2010/11	0.055	0.051	0.052	0.062	0.045
Total	0.168	0.156	0.157	0.189	0.167
Mean	0.034	0.031	0.031	0.038	0.033
S.D	0.013	0.013	0.013	0.016	0.0081
C.V	0.3956	0.4202	0.4018	0.4161	0.2440

Source: Annual Report of sample banks & Appendix 14

Due to the little bit higher ratio in each year of NIBL and NSBI, it seems less conscious about borrowing cheaper fund. NIBL shows the increasing trend of the interest paid to total asset ratio, its average ratio is 3.8% whereas NABIL and HBL also shows increasing trend and it has maintained same average ratio 3.1%. The mean ratio of EBL is more than NABIL, HBL and NSBI ie 3.4%. In comparison, NIBL and EBL seems ineffective in getting cheaper fund from the mean point of view. However, NIBL and EBL has been conscious in each year for getting cheaper fund.

The S.D. and C.V of EBL is 1.3% and 39.56%, NABIL is 1.3% and 42.02%, HBL is 1.3% and 40.18%, likewise NIBL is 1.6% and 41.61% and at last NSBI has 0.008% and 24.40%respectively.

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, NABIL, HBL, NIBL and NSBI.

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 No. 4.20

Liquidity Risk Ratio

Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.13	0.12	0.06	0.10	0.10
2007/08	0.11	0.16	0.05	0.11	0.10
2008/09	0.18	0.18	0.09	0.17	0.07
2009/10	0.21	0.14	0.10	0.14	0.10
2010/11	0.15	0.15	0.07	0.16	0.12
Total	0.78	0.75	0.37	0.68	0.49
Mean	0.16	0.15	0.07	0.14	0.10
S.D	0.04	0.02	0.02	0.03	0.02

C.V	0.25	0.14	0.31	0.23	0.18

Source: Annual Report of sample banks & Appendix 15

Above table shows liquidity risk ratio of the sellected banks. Ratio of EBL and HBL is in increasing trend except 2010/11, whereas ratio of NABIL, NSBI and NIBL are in fluctuating trend. The higher average ratio of them is 0.16 of EBL. So as NABIL have 15%, again HBL have 7%, likewise NIBL get 14% and NSBI have 10% of average mean. The S.D and C.V of EBL is 4% and 25%, NABIL is 2% and 14%, HBL is 2% and 31%, NIBL is 3% and 23% and at last NSBI is 2% and 18%.

The average mean ratio of EBL is greater than that of other sample banks. 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 No. 4.21

Credit risk ratio (%)

Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.64	0.57	0.51	0.63	0.68
2007/08	0.68	0.58	0.54	0.69	0.70
2008/09	0.65	0.63	0.63	0.68	0.50
2009/10	0.67	0.62	0.66	0.70	0.46
2010/11	0.67	0.65	0.68	0.70	0.46
Total	3.30	3.05	3.01	3.41	2.81
Mean	0.66	0.61	0.60	0.68	0.56
S.D	0.02	0.04	0.074	0.03	0.1207

C.V	0.0250	0.0589	0.1233	0.0474	0.2148

Source: Annual Report of sample banks & Appendix 15

The table no.15 shows that the total mean, standard deviation & coefficient of variation of credit risk ratio of commercial banks.

The table shows that the credit risk ratios of EBL and NSBI are in fluctuating trend. NABIL, HBL and NIBL are in increasing trend. The higher ratio of EBL is 68 and lower is 64 whereas, the higher ratio of NABIL is 65 and lower is 57 again, the higher ratio of HBL is 68 and lower is 51, likewise the higher ratio of NIBL is 70 and lower is 63 and at last the higher ratio of NSBI is 70 and lower ratio is 46.

Mean ratio of NSBI is higher than others sample banks i.e. 66%. And coefficient of variation of NIBL is higher than that of other i,e 21.48%. It indicates that NIBL and NSBI has stable credit policy and consistent than other sample banks.

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, co-efficient of correlation analysis between different variables, test of hypothesis are used.

4.2.1 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 no.4.22

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

Evaluation criteria	r	r^2	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
HBL	0.993	0.986	0.000144	2.306	Insignificant
NIBL	0.997	0.9940	0.00016	2.306	Insignificant
NSBI	0.981	0.9623	0.0505	2.306	Insignificant

Source: Annual Report of sample banks and Appendix 16 & 17

From the table no. 4.21 shows that r, r^2, & test of hypothesis between deposit and loan and advances of EBL, NABIL, HBL, NIBL and NSBI 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, NABIL, HBL, NIBL & NSBI are 0.997, 0.989, 0.993, 0.997 and 0.981 respectively. It shows the highly positive relationship between these two variables. However co- efficient of determination i.e. r^2 it indicates that in the case of NABIL 0.9781 of the variation in the dependent variable i.e. loan & advances has been explained by the independent variables i.e. deposit. In the case of EBL is 0.9940, in case of HBL 0.986, likewise in case of NIBL 0.9940 and in case of NSBI 0.9623 of the dependent variable has been explained by the independent variable. More over considering the hypothesis in case of EBL, NABIL, HBL, NIBL and NSBI are no significant relationship between deposit and loan & advance. The value of r^2 is no significant that means there is no significant relationship between deposit and loan & advances of all sample banks. Due to small sample size all these 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 no.4.23

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

Evaluation criteria	r	r^2	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
HBL	-0.6497	0.4221	0.00026	2.306	Insignificant
NIBL	0.2267	0.05139	0.00165	2.306	Insignificant
NSBI	0.9377	0.8792	0.01498	2.306	Insignificant

Source: Annual Report of sample banks & Appendix 18 and 19

The table no.4.22 shows that, the value of r, r^2 , & test of hypothesis between total deposit and total investment of EBL, NABIL, HBL, NIBL and NSBI 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, NABIL has highly negative correlation i,e -0.8274, whereas HBL has also negative correlation i,e -0.6497, again NIBL and NSBI has 0.2267 and 0.9377 respectively. It shows that positive relationship between deposit & total investment. Moreover, when we consider the value of EBL, NABIL, HBL, NIBL and NSBI coefficient of determination (r^2) are 0.0870, 0.6845, 0.4221, 0.0513, 0.8792 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. Above analysis indicated that NSBI Bank Limited has successful in maximizing the investment of their deposits in comparison to other banks because we have the highest value of r of NSBI than other sample banks. 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 no.4.24

Coefficient of correlation between outside assets and net profit and test of hypothesis

Evaluation criteria	r	r^2	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
HBL	0.6579	0.4328	0.00019	2.306	Insignificant
NIBL	0.9554	0.9127	0.00177	2.306	Insignificant
NSBI	0.9794	0.9592	0.00255	2.306	Insignificant

Source: Annual Report of sample banks & Appendix 18

The table no.4.23 shows the value of r, r^2 , and t-test between total assets and net profit of EBL, NABIL, HBL, NIBL & NSBI 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^2) 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, HBL, NIBL and NSBI there is positive correlation between total asset and net profit. There is no significant relationship between mobilization of funds and returns of all selected banks.

4.2.2 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, NIBL 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 potion.
- 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, NABIL, NIBL & NSBI Bank Ltd.

Calculate the trend values of loan and advances to total deposits ratio of EBL, NABIL, HBL, NIBL and NSBI 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 4.19 shows the trend value of deposit for ten years for the sample banks.

Table 4.25

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

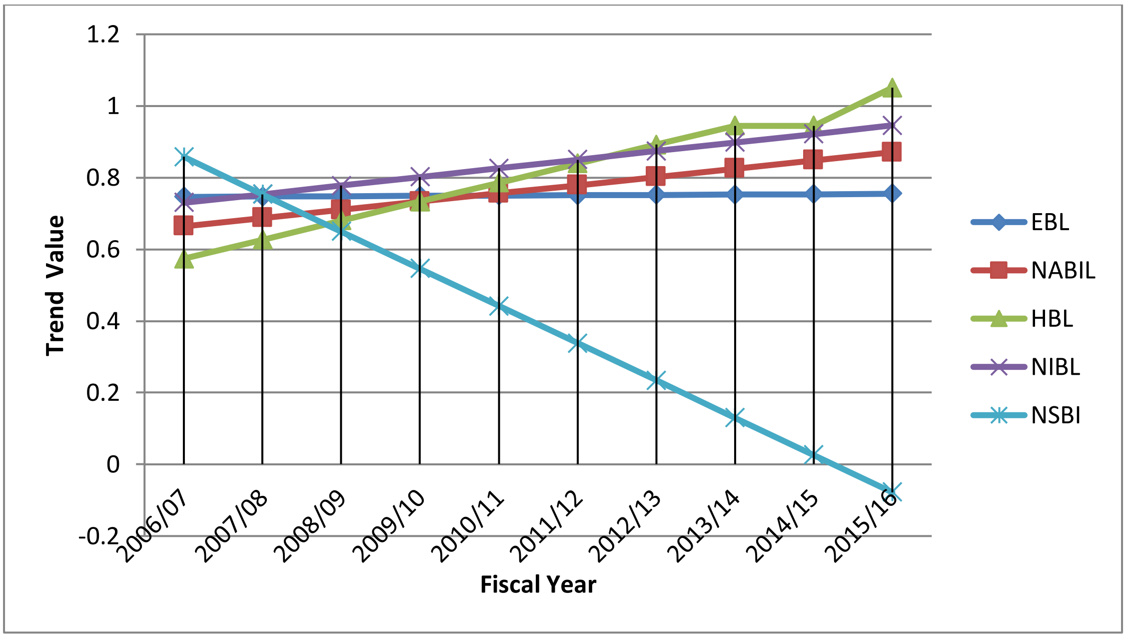
Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.746	0.664	0.574	0.73	0.858
2007/08	0.747	0.687	0.627	0.754	0.754
2008/09	0.748	0.71	0.68	0.778	0.65
2009/10	0.749	0.733	0.733	0.802	0.546
2010/11	0.75	0.756	0.786	0.826	0.442
2011/12	0.751	0.779	0.839	0.85	0.338
2012/13	0.752	0.802	0.892	0.874	0.234
2013/14	0.753	0.825	0.945	0.898	0.13
2014/15	0.754	0.848	0.945	0.922	0.026
2015/16	0.755	0.871	1.051	0.946	-0.078

Source: Annual Report of sample banks

The calculated and projected trend values of loan and advances of EBL, NABIL, HBL NIBL and NSBI are fitted in the following trend line.

Figure 4.1

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



From the table no. 4.19 it has been shows that the ratio of loan & advances to total deposits of EBL, NABIL, HBL and NIBL are in increasing trend but NSBI bank is in decreasing trend. If our assumption are applied the ratio of loan & advances to total deposits of NSBI in 2015/16 will be in negative value. 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. Similarly ratio of of EBL, NABIL, HBL and NIBL in 2015/16 will be 75.5%, 87.1%, 100.51% and 94.6% respectively.

From figure no.4.1 trend analysis it is quite obvious that deposit utilization position in relation to loan & advances to total deposit ratio is lower than other bank but it has fluctuating trend. where as NSBI bank has decreasing trend ratio. These increasing trend means NABIL may use relatively large portion of their deposit by providing loan. It is also found that the loan and advances position of NABIL is increasing trend that means it will be better position in future.

(ii) Trend analysis of total investment to total deposit ratio of NABIL, NIBL and NSBI Bank Ltd.

Calculate the trend values of total investment to total deposits ratio of NABIL EBL, NABIL, HBL, NIBL and NSBI 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, NABIL, HBL, NIBL and NSBI bank.

Table no. 4.26

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

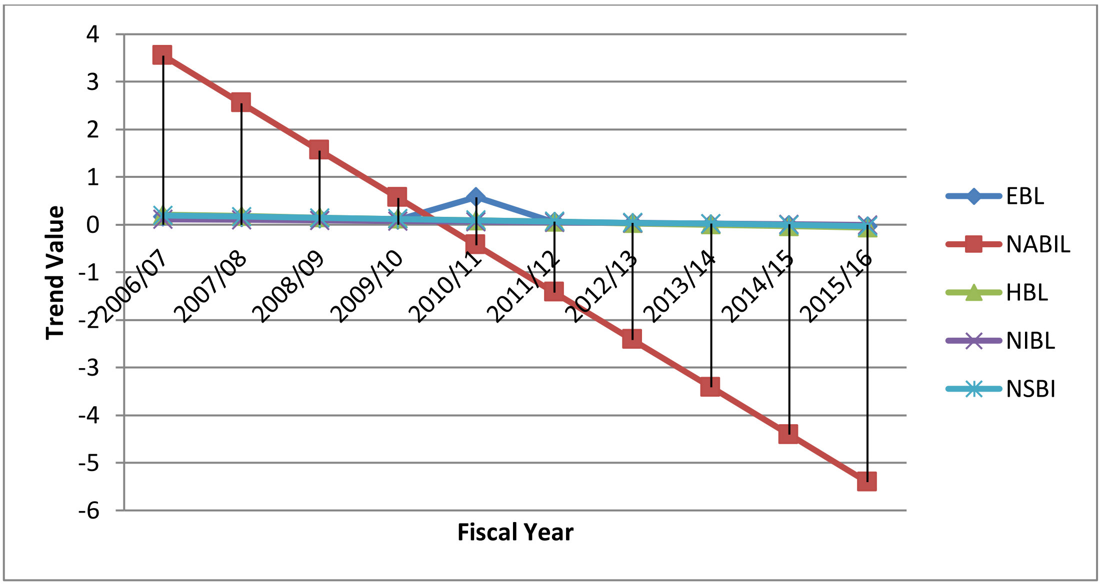
Banks / F/Y	EBL	NABIL	HBL	NIBL	NSBI
2006/07	0.17	3.55	0.21	0.112	0.194
2007/08	0.147	2.555	0.18	0.099	0.169
2008/09	0.124	1.56	0.15	0.086	0.144
2009/10	0.101	0.565	0.12	0.073	0.119
2010/11	0.58	-0.43	0.09	0.06	0.094
2011/12	0.055	-1.425	0.06	0.047	0.069
2012/13	0.032	-2.42	0.03	0.034	0.044
2013/14	0.009	-3.415	0	0.021	0.019
2014/15	-0.014	-4.41	-0.03	0.008	-0.006
2015/16	-0.037	-5.405	-0.06	-0.005	-0.031

Source: Annual Report of sample banks

The calculated and projected trend values of total investment to total deposits of EBL, NABIL, HBL, NIBL and NSBI are fitted in the following trend line.

Figure 4.2

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



From the table no.4.20 and figure 4.2 shows that the ratio of total investment to total deposit ratio of EBL, NABIL, HBL, NIBL and NSBI. All the 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 NABIL in 2015/16 will be -5.4%, which is lower than other banks.

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

4.3 Major Findings of the Study

- It is found from the study that the amount of total deposit collected by Nabil Bank and Nepal Investment bank in each year during 5 years of the study period is higher than that of EBL, HBL and NSBI. Total deposit collected and total investment made, total loan and advances of Nabil Bank is also Higher during the study period but deposit on 2006/07 is lower than that of HBL. 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 and NIBL gives more priority on loan and advances. Hence it has maintained lower liquidity than NIBL. 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 NIBL. It is clear that Nabil Bank has given more emphasis on profit but NIBL has given priority both on liquidity and profit as well.
- 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 bank.
- 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%, Nabil Bank has an average mean ratio of 7.96%, likewise HBL has 0.9%, NIBL has 0.9% and at last NSBI has an average mean ratio of 0.90%.
- Loan & advances to total deposit ratio of NIBL is higher than other sample bank i.e 0.78%. An average mean ratio of EBL is 0.75%, Nabil Bank is 071%, HBL is 0.68 and NSBI is 0.65% . It shows that NIBL is more successful in advancing loans.
- Investment to total deposit ratio of sample banks is in fluacting and decreasing trend. An average mean ratio of NIBL is higher than that of all sample banks i.e

68%. An average mean of EBL is 66% which is near by NABIL bank, NABIL is 6d1%, HBL is 60% and lastly NSBI is 56%.

- Investment on financial institution to total deposit ratio of the selected bank is fluctuating drastically. An average mean ratio of NIBL is higher than that of others Bank.
- The loan loss ratio shows that NIBL has managed loan & advances soundly as it has lower ratio than that of Nabil Bank and others. The overall study of this ratio reveals that NIBL EBL and NABIL is in better position to grant loan and advances but in terms of investment purposed Nabil Bank is more capable to make investment out of total deposit. It shows that NIBL is ready to bear more risk than that of others sample banks.
- Nabil Bank has higher interest rate risk than that of NIBL and also has higher variability ratio.
- Credit risk ratio measures the risk behind making investment or granting loan. NIBL seems risk seeker since its credit risk ratio is higher than that of EBL, NABIL, HBL and NSBI.
- Return on total assets of NSBI is less than others i,e 0.01%. 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, NIBL, HBL and NSBI.
- Correlation of coefficient between deposit and loan & advances found that there is positive relationship between deposit and the loan & advances of the all 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 and HBL bank are negative whereas that of EBL, NIBL and NSBI are 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. But in the case of NIBL it shows that increase in net profit depends upon increase in total assets and vice versa.
- The trend analysis of loan and advance to total deposit ratio of sample bank show that in increasing trend but NSBI is in decreasing trend.
- 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 forcasted negatively it means that the banks ratio is less than par value or it doesn't maintain the standaed of ratio.

CHAPTER-FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

In the last chapter of this study is summary, conclusion and recommendation have discussed and explored the facts and matters required for various parts of the study. Through the analytical chapter by using some important financial as well as statistical tools, makes a comparative analysis of various aspects of the investment of concern commercial banks.

Having completed the basic analysis required for the study, the researcher must point out the mistakes and error and also correct them by giving suitable suggestions for further improvement. Therefore, this summarized and recommended tasks of the researcher of the study would be meaningful to the top management of the bank to initiate the action and 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 economic growth was very slow in earlier year; it has caught its full selling with the restoration democracy in the country. At present, overall economic growth rate still decline year by year. Reasons behind this decline are insecure situation faced by industry, decrease in the tourist arrival, drop in the production and export of carpet, garment and pashmina industry and political situation. 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 many fluctuations. And commercial banks must follow the rules and regulations as well as different directions issued by central banks and ministry of finance while mobilization the funds or the commercial banks should invest its funds only those securities, which are legal.

There has been number of commercial bank established, the research has taken into consideration. Everest Bank Ltd was established in 2051 B.S as a joint venture with Punjab National Bank of India. The bank operates with the objective of extending professionalized and efficient banking services to various segments of the society. The bank has been conferred with "Bank of the year 2006" by the banker a publication of financial times, London. The bank provides various services and facilities. NABIL Bank bank Ltd was the first join venture commercial banks incorporated in 1984 by joint investment of Dubai bank limited and Nepali promoters. This bank is awarded by "Bank of year 2004". Himalayan Bank is a joint venture with Habib bank of Pakistan and started its operation in 2049 B.S. This is the first joint venture bank managed by Nepali chief executive. It does not include government ownership. It is established to maintain the economic welfare of the general people to facilitate loan for agriculture, industry and commerce for providing the banking services to the people and country. It holds of a vision to become a leading bank of the country by providing premium products and services to the customers, thus ensuring attractive and substantial returns the stakeholders of the bank. It provides various services and facilities.

'Nepal Investment bank Ltd' Nepal Investment bank was the third joint venture bank established in 1986 under the company act 1964 by joint investment of Banque Indosues and Nepali promoters. This bank is awarded by "Bank of the Year 2003, 2005 & 2008". 'Nepal State Bank of India Ltd (NSBI)' – Nepal SBI bank was established in 1963 under the company act 1964 by joint investment of state bank of India and Nepalese promoters. This bank has been providing full-fledged commercial banking service to its clients.

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 facet of the overall spectrum 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 mean, standard deviation, coefficient of variation, trend analysis, coefficient of correlation 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 was selected for the purpose evaluation.

5.2 Conclusion

Under This research study, different financial and statistical tools are used to measure the Investment policy of the selected banks. It is found that all sample banks have strong financial performance but comparatively Nabil and NIBL Bank are better position. Despite of social contribution Nabil Bank has higher profit earnings. It is concluded that Nabil Bank has adopted better investment policy than that of other.

In conclusion, it can be said that central banks are required to direct the commercial banks. Commercial bank should move as per the direction given by the central bank. Banks should have optimum policy to collect the deposit in various accounts. Deposit is the major organ of commercial bank to live in the industry. Higher the deposit Higher will be the chance of mobilization of working fund and profit thereto. Banks should not invest their' fund haphazardly. It should be careful while advancing loan because loan is the blood of the commercial bank for survival. If commercial bank does not apply sound investment policy it will be in great trouble in future to collect it in time, hence the possibility of bankruptcy there too. Banks should invest their fund in various portfolios after the deep study of the project to be safe from being bankruptcy. If banks concentrate the investment in few organizations there is a high chance of default risk. Diversification is needed to all the business houses but it has seen immense importance to commercial bank (C.B). Hence, the C.B. should implement the investment policy considering the directives issued by NRB. CBs should not cross the boundary level set by central bank to make investment policy. In overall, it can be concluded that the role of NRB in investment policy of commercial bank has both positive and negative impacts.

5.3 Recommendations

On the basis of analysis and findings of the five banks in previous section, EBL, NABIL, HBL, NIBL & NSBI are recommended to go through following suggestion, which may overcome the weakness and less effectiveness of the existing fund mobilization and investment policy.

- ❖ A commercial bank must maintain its satisfactory liquidity position to meet the credit need of the community; however, external as well as internal factors affect the liquidity position of banks. As Everest bank limited and NABIL's both has maintained the all kinds of Liquidity Ratio and current assets considerably higher than HBL, NIBL & NSBI Bank Ltd. HBL, NIBL & NSBI is recommended to increase cash and bank balance to make the immediate payment to the depositor and to meet the demand of loan & advances. NIBL have to increase the investment in government securities. NSBI have to maintain the ratio of loan and advances to current ratio.

- 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. NIBL's loan & advances to total deposit ratio is lower than EBL, NABIL, HBL & NSBI. To overcome this situation NIBL is strongly recommended to follow liberal lending policy and invest more and more percentage of total deposit and total working fund in loan & advances.
- Besides giving priority of investing on government securities, NIBL & NSBI are recommended to invest its fund in purchase of shares and debentures of other financial and non-financial companies. Government securities such as treasury bills are gives very lowest interest rate rather than other's company's securities. This also helps to maintain the sound portfolio of the banks.
- Profitability is the main indicator of the financial performance of cash and every business organization. In this study, profitability ratio is good from of all sample banks.
- Diversification of investment is highly suggested to the selected bank as they have given priority to invest in government securities only. All sample banks seem risk avoider as they have invested highest amount in risk free securities. Higher the risk higher will be the profit. Hence, EBL, Nabil Bank, HBL, NIBL and NIBL are recommended to diversify their investment in NRB bond, govt. non financial institution, other non-financial institution etc.
- Liquidity and profitability are like two wheels of the same cart and both are very inter-related and have converse relation; one can be achieved only at the cost of the others. Highly liquid bank may have less profitability as it has to hold more assets in the form of cash. However, the bank has to maintain sufficient fund in the form of cash and liquid assets to meet various commitments like depositors claim, personnel expenses, interest payments, to exploit unforeseen opportunities etc. Since, EBL and NABIL has held more liquidity its profitability ratios are also grater than NIBL, NSBI and HBL. So. NIBL, NSBI and HBL are highly recommended to maintain reasonable liquidity so as to increase profitability of the bank.
- To get success in this competitive banking environment, deposit money must be utilized as loan and advances. Loan and advances is the largest item of the bank in

assets side. While granting the loan it should be borne in mind that large number of borrowing customers may benefit from the banker's fund. Negligence in administering these assets could be the main cause of liquidity crisis in the bank and one of the main reasons of the bank's failure. It has been found from the study that NIBL is strongly recommended to follow liberal lending policy and invest more and more percentage of total deposit in loan and advances and similarly maintain more stability on the investment policy. Project oriented approach has to be encouraged in lending business of bank. Although there is high risk in such project, the important things regarding project is that project itself should be capable of generating their own funds and to repay the loan on a timely basis. So, the chance of loan loss in the project oriented approach can be minimized there of.

- Similarly, recovery of loan is another important factor of investment policy. Although effort has been made for collection of repayment, but still there is some increment in sub-standard and doubtful loan. It should be controlled timely, if not sub-standard loan might be converted to doubtful loan and doubtful to bad loan. All the sample banks are suggested to implement a sound collection policy, which should ensure rapid identification of fake loans, immediate contact with borrower and continual follow up until a loan is recovered in full. The recovery of loan loss is the must be very careful in formulating credit collection policy, which should be associated with some legal procedure.
- The commercial banks have been established gradually after the commercial banks act 2031 B.S. With the passage of time so many commercial banks, as a joint venture, have been established gradually because of the liberal and market friendly economic policy of government of Nepal. But banks should provide some social response by expanding their operation in rural areas rather than urban areas. And banks can give response to poor and disadvantage groups. By establishing the branches in rural areas, minimum amount for opening accounts and interest rate should be reduced for creditors.
- In the light of growth competition in the banking sectors, the business of the banks should be customer oriented. It should focus not only towards big clients but also towards small clients. They should treat every client equally. They should bring different schemes to focus the customers like, increase interest rate, bank credit

policies, bank loan insurance policies, evening counters, social responsibilities etc.

- Majority of commercial banks have been found to be profit oriented ignoring their social responsibility, which is not a proper strategy to sustain in long run. So all the banks are suggested to render their serves even in the rural areas providing special loans to the deprived and priority sectors, which might further intensify the goodwill of the banks in future.
- The Economic Liberalization policy adopted by Nepal government has created and environment of strict competition even in the banking sectors. In the context, all the banks are suggested to formulate and implement some sound and attractive financial; and non- financial strategies to meet required level of profitability such as risk analysis diversification, social responsibility, bank credit policy, compensation policy etc.

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APPENDICES

Appendix: 1

Computation of Total SamplenBanks Investment to Individual Investment Ratio of EBL & NABIL

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

Appendix: 2

Computation of Total SamplenBanks Investment to Individual Investment Ratio of HBL & NIBL

Year	HBL		NIBL		Ratio of HBL	Ratio of NIBL
	HBL Investment	Total Sample Banks Investment	NIBL Investment	Total Sample Banks Investment		
2006/07	6079.37	104631.3	3256.4	104631.3	5.81	3.11
2007/08	7166.53	115720	3155	115720	6.19	2.73
2008/09	3907.34	23570.27	2531.3	23570.27	16.58	10.74
2009/10	3455.03	27535.75	3911.85	27535.75	12.55	14.21

2010/11	4725.58	30798.99	3564.6	30798.99	15.34	11.57

Appendix: 3

Computation of Current Ratio of EBL & NABIL

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

Appendix: 4

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

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

Appendix: 5

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

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

Appendix: 6

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

Year	EBL		NABIL		Investment on Govement Securites to current Assets Ratio of EBL = IGS/CA	Investment on Govement Securites to current Assets Ratio of NABIL = IGS/CA
	Current Assets(CA)	Investment on Govement Securites	Current Assets(CA)	Investment on Govement 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

Appendix: 7

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

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

Appendix: 8

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

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

Appendix: 9

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

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

Appendix: 10

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

Year	EBL		NABIL		Investment on Govement Securites to Total Assets Ratio of EBL = IGS/TA	Total Investment to Total deposit Ratio of NABIL = IGS/TA
	Investment on Govement Securites	Total Assets	Investment on Govement 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

Appendix: 11

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

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

Appendix: 12

Computation of Return on Total Assets Ratio of EBL & NABIL

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

Appendix: 13

Computation of Total Interest Earned to Total Operating Income Ratio of EBL & NABIL

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

Appendix: 14

Computation of Total Interest Paid to Total Assets Ratio of EBL & NABIL

Year	EBL		NABIL		Total Interest Paid to Total Assets Ratio of EBL =	Total Interest Paid to Total Assets Ratio of NABIL = TIP/TA
	Total Interest paid	Total Assets	Total Interest Paid	Total Assets		

					TIP/TA	
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

Appendix: 15

Computation of Liquidity Risk Ratio of EBL & NABIL

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

Appendix - 16

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

Year	Total deposit (X_1)	Loan & Advance (X_2)	$x_1=X_1-\bar{x}_1$	$x_2=X_2-\bar{x}_2$	$x_1 . x_2$	x_1^2	x_2^2
2006/07	18186.25	13664.08	-12522.9	-9236.3	115665137	156822824	85309164
2007/08	23976.3	18339.08	-6732.84	-4561.3	30710485	45331161	20805421

2008/09	33322.95	23884.67	2613.808	984.294	2572755.5	6831992.3	968834.68
2009/10	36932.31	27556.36	6223.168	4655.984	28974971	38727820	21678187
2010/11	41127.9	31057.69	10418.76	8157.314	84989080	108550518	66541772
$N_1 = 5$ $N_2 = 5$	$\sum X_1$ =153545.7	$\sum X_2$ =114501.9			$\sum x_1.x_2$ = 262912429	$\sum x_1^2$ = 356264316	$\sum x_2^2$ = 195303378

For Total Deposit,

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

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

For Loan & Advance,

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

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

Correlation between Total deposit and Loan & Advance of EBL,

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

$$= \frac{262912429}{\sqrt{356264316 \times 114501.9}} = 0.997$$

For Hypothesis,

Test statistic under H_0,

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

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

Appendix - 17

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

Year	Total deposit (X_1)	Loan & Advance (X_2)	$x_1=X_1-\bar{x}_1$	$x_2=X_2-\bar{x}_2$	$x_1 . x_2$	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			$\sum x_1.x_2$ = 3751172627	$\sum x_1^2$ = 459510201	$\sum x_2^2$ = 31280439962

For Total Deposit,

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

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

For Loan & Advance,

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

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

Correlation between Total deposit and Loan & Advance of NABIL

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

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

For Hypothesis,

Test statistic under H_0,

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

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

Appendix - 18

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

Year	Total deposit (X_1)	Total Investment (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	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
$N_1 = 5$ $N_2 = 5$	$\sum X_1$ =153545.7	$\sum X_2$ =17714.72			$\sum x_1.x_2$ = 8273498	$\sum x_1^2$ = 356264316	$\sum x_2^2$ = 2209958

For Total Deposit,

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

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

For Total Investment,

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

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

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,

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

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

Appendix - 19

Calculation of Correlation between Total deposit and Total Investment of NABIL

Year	Total deposit (X_1)	Total Investment (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	89453.2	-14400.16	-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	11953.54	17820.68	213020187.3	142887119	317576564
$N_1 = 5$ $N_2 = 5$	$\sum X_1$ =188712.3	$\sum X_2$ =564956.61			$\sum x_1.x_2$ = 841434239.9	$\sum x_1^2$ = 459510201	$\sum x_2^2$ = 1656614489

Correlation between Total deposit and Total Investment of NABIL,

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

$$= \frac{841434239.9}{\sqrt{459510201 * 1656614489}} = 0.9644$$