CHAPTER 1
INTRODUCTION

1.1 Background

Commercial banks and other financial institutions collect immobilized money in the form of deposits from every corner and parts of the country. They play active role in providing capital for the development of the industry, trade and other economic sectors and removing the deficiency of the capital. Integrated and speedy development of the country is only possible when competitive and reliable banking services are reached and operated every corner of the country. Commercial banks formulate sound investment policies to make it more effective, which eventually contribute to the economic development of the country. Formulation of sound investment policies and coordinated and planned efforts pushes forward the forces of economic growth. Many countries, aspiring for the rapid economic development have developed several banking and non-banking specialized financial institutions with objectives of meeting the financial needs of their economy.

Hence the growth of financial institutions is considered as catalyst in the process of the economic growth.

It has been fully established that economic development if any country can be active only through a balanced growth in the field of industry, trade, commerce and agriculture. It has equally self-evident that the development in these fields cannot be made possible without the existence of sound banking system in the country.

The term 'Bank' derived from the Latin word Bancus, which refers to the bench on which the baker would keep its money and his records. Some persons traced its origin to the French word "Banque" and Italian word "Banea" which means a bench for keeping lending and exchanging money in the market. The first bank called the "Bank of Venica" was stablished in Venica, Italy in year 1157 AD. And 1407 AD. Respectively. In England the banking began with English goldsmith only after 1640. The bank of Amsterdam was the great bank in seventeenth century. Bank is a financial intermediary accepting depositing and granting loans. It offers the widest menu of services of any financial institution. In fact, a modern bank performs such a variety of functions that is difficult to give a precise and general definition of a bank. At present context bank is not only confined to accepting deposits and disbursing

loan. In addition to this, a bank may be engaged in different types of functions such as remittance, exchange currency, joint venture, underwriting, bank guarantee, discounting bills etc.

1.1.1Origin and Growth of Commercial Banks in Nepal

Goldsmith only after 1640. The bank of Amsterdam was the great bank in seventeenth century. In the context of Nepal, like as in other country the goldmiths and landlord ware the ancient bankers. The Nepalese people were highly exploited by Shahu Mahajan by charging higher interest rate i.e. compounding interest rate and even by manipulating the principal amount. If we try to see the history of banking transaction in depth then evidence of money lending function are found in practice before 8th century. In 780 B.S. Gunakamadev the rules of Kathmandu reconstructed Kathmandu valley by borrowing debt from the people. In 14th century Tanka dhari system had been running in the period of Ranodip Sigh in Kathmandu established an office called TejarathAdda. From this office the government distributed salary to their employees and provided loans to government employee @ 5% of interest against the security of gold, silver, etc.

Because of the development of economic activities in Nepal the above institutions could not be fulfilled the need of people. So in Kartik 30, 1994 B.S. Nepal Bank Limited was established as one of the semi government commercial bank which had 10 million authorized capital and 842000 paid up capital. It has banking habits among the people. Having felt a need of central bank to control and direct the commercial bank and help the government for making monetary policies, Nepal Rastra Bank was set up in 14 Baisakh 2013 B.S.

To fulfill the growing credit requirement of the country, the commercial bank i.e. Rastriya Banijya Bank was established in 10thBhadra 2022 B.S. This bank also provides facility for the economic welfare of the general public. Nepal is an agriculture country to develop agriculture system. Agriculture Development Bank and Nepal Industrial Development Corporation was established in 2024 B.S. and 2016 B.S. respectively.

The initiation of the financial sector, liberalization policy by Nepal Rastra Bank, a board of joint venture banks entered with the view to accelerate the race of development of nation. At present, there are many joint venture banks which are running successfully in a competitive

environment. Government of Nepal deliberates policy of allowing foreign joint venture banks to operate in Nepal basically targeted, to encourage local tradition commercial bank to enhance their capacity through competitor's bank to enhance their capacity through competitor's efficiencies mechanization modernization and prompt customer service. Nepal Arab Bank LTD was established in 2041 as a first foreign joint venture bank.

1.1.2 Commercial bank and Investment Policy

Commercial bank is an entity, which accepts deposits and makes short-term loans to business enterprises, regardless of the scope of its other services. (American Institution of Banking 1972)

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

Commercial bank in current year presents a new picture of innovation in practice of wider horizon and of new enterprises. The most remarkable diversification of banking function in the banks increasing participation in medium and long term financial industries and other sector so they are not only financial institution of finance agriculture and industry and other economic activities but are more than financial institutions in the sense that they help saving, create deposits and make the subsequent distribution of such accumulated funds.

In addition to the acceptance of deposits, lending and investing they provide a multiple of services including accepting traveler's cheque and underwriting, purchase and sales of securities, government bonds of customer, buy and sale of foreign exchange, the insurance of commercial letter of credit supply of timely credit and market information, providing remittance facilities and so on.

A commercial bank is those banks which exchange money, accept deposits, grants loan and perform banking functions. For the poor and least developed country like Nepal, having low

per capita income and GDP, faces many economic problems such as inflation and deflation of monetary trade, trade deficit and budget deficit. Commercial banks play important role in removing such problems by capital formulation for deficits spending units (trade and industry as well general public). They also finance in small and cottage industries and agricultural sector under priority sector investment scheme to serve the marginal people.

The American Institute of Banking has laid down the four major functions of the commercial banks such as receiving and handling deposits, handling payments for its clients, making loans and investment and creating money by extension of credit. Nepal commercial bank act 2031 B.S. has defined commercial bank as stated earlier and it has also emphasized on their functions. They are as follows:-

1. They accept custody of funds with or without interest and open fixed accounts and saving accounts in the name of depositions.
2. They supply loans (short term debt as well as long term debts whatever necessary for trade and commerce) or make investment.
3. They help to issue shares and debentures of any company or any others corporate body, guarantee or underwrite such shares or debentures and undertake any agency business but not become a managing agent.
4. Conduct transactions in bonds, provisionary notes or bills of exchange foreign exchange relating to commerce or corporation as are redeemable within the kingdom.
5. They grant overdraft.
6. They issue letter of credit draft and traveler's cheque.
7. They remit or transit fund to different place within or outside kingdom.
8. They purchase, sell or accept the securities of Government.
9. They provide locker facilities.

Beside this, the commercial bank arranges the amount of foreign exchange required by various organizations and travelers. Moreover foreign trade transactions are facilitated through the issuance of letter of credit. Banks also provide locker facilities or the customers to keep valuable ornaments and documents. Banks also provide reference about the financial position of their customers as and when required. The bank works as an agent of its customers to receive and make payments, pay and collect rent, pay insurance premium etc. In

case of joint venture commercial bank it issue internationally valid credit cards, ATM cards, Tele banking etc. Beside bank has many more functions and roles in the development of national economy.

Commercial banks must mobilize its deposits and other funds to profitable, secured, stable and marketable sector. Then only they can earn more profit as well as it should be secured can be converted into cash whenever needed. But, commercial banks have to pay due consideration while formulating investment policy regarding loan and investment. Investment policy is one facet of the overall spectrum of policies that guide bank's investment operations. A healthy development of any bank depends heavily upon its investment policy. A sound and viable investment policy attracts both borrowers and lenders, which helps to increase the volume and quality of deposits, loan and investment. Commercial bank should be careful in those securities, which are subject to too much depreciation and fluctuations because a little difference may cause a great loss. It must not invest its funds into speculative businessman who may be bankrupt at once and who may earn millions in a minute.

Commercial banks must follow the rules and regulation as well as different directions issued by the central bank, ministry of finance, ministry of law and other regulatory bodies while mobilizing its funds. So, the bank should invest its funds in legal securities only.
Diana McNaughton in her research paper '**Banking Institutions in Developing Market**' states that investment policy should in corporate several elements such as regulatory environment, the availability of funds the selection of risk, loan portfolio balance and term structure of the liabilities. Thus commercial banks should incorporate several elements while making investment policy. The loan provide by commercial bank is guided by several principles such as length of time, their purpose profitability, safety etc. These fundamental principles of commercial bank's investment are fully considered while making investment decisions.

In developing countries like ours, there is always a dearth of capital. The government cannot contribute to the economic development all alone. Nevertheless, the private sector also cannot reinforce due to low per capita income and higher propensity to consume of the people. Hence due to low income, saving is low which on the other hand results in low capita

formulation. Thus, investment is one of the vital aspects in the improvement of the economic condition of a country.

An investment is a commitment of funds made in the expectation of the positive rate of return. If the investment is properly undertaken the return will be commensurate with the risk, the investor assumes. Investment is concerned with the management of an investor's wealth, which is the sum of current income and present values of all future income funds to be invested, came from assets already owned borrowed money and saving or foregone consumption by the investor.

In general investment means to pay out money to get more and is generally uncertain. Investment has to undergo various types of risk e.g. Business risk, possibility of being wane in earning power of investment due to competition, uncontrollable cost, change in demand etc., market risk, possibility of change in market price and collateral value of securities and real properties. Therefore investment is a very risk job for a purposeful safe and profitable investment, making an investment is not sufficient one should follow sound investment policy. The fundamental principle of investment must be followed thoroughly for profitable investment. Investment policy should ensure maximum amount of investment to all sectors with proper utilization. There is high liquidity in the market and it seems no profitable place to invest these. Investment policy provides the bank several inputs through which they can handle their investment operation efficiently ensuring the maximum return with minimum risk, which ultimately leads the bank to the path of success to achieve its organizational objectives of shareholders wealth maximization.

This is a common factor that investment is possible only when there are adequate saving. If all of the income is spend on for daily usage, there will be no amount left for making investment. So, collection and investment are always interrelated and go hand in hand. Every people wish to collect or save their income and invest in highly return firm. In terms of bank, collection means deposits, borrowing, income saving of customers etc.

Investments are made in assets. Assets generally are of two types. Real assets (Land, building, factories etc.) and financial assets (stocks, bonds, T-bills etc.). These two types of investment are not competitive but complementary, highly – developed institutions for

financial investment greatly facilitating real investment. Investment policy fixes responsibilities for the investment deposition of the bank assets in term of allocation funds for investment and loan establishing responsibility for day to day management of those assets.

Investment can be categorized as real investments and financial investments. Real investments generally involve some kinds of tangible assets such as land, machinery or factories. Financial investments involve contracts written on pieces of paper, such as common stocks and bonds.

Investment in its broadest sense, means the sacrifice of certain present value for (possible uncertain) future value. In short investment means to trade money for exceed the current cash out flow which is the benefits to the investors for sacrificing the time and commitment or due to uncertainty and risk factors. Financial institutions must be able to mobilize their deposits collection funds in profitable, secured and marketable sector so that they can earn good return to their investment.

The bank and finance companies are such type of financial institutions which deal in money and substitute of money, or deal with credit and credit instrument. Good management of credit and credit instrument in very important for the banks and financial institutions to collect funds and utilize it in good investment sector. Any way the goal of investment is the maximization of the owner's economic welfare. Intelligent investors always search for the project with minimum risk and higher return.

Investment in its broadest sense means the sacrifice of current rupees (dollars) and resources for the sake of future rupees (dollars) and resources. In other words, it is a commitment of money and other resources that are expected to generate additional money and resources in the future. Such a commitment takes place in the present and is certain to occur but the reward comes in the future and always remains uncertain. Therefore, every investment entails some degree of risk.

1.1.3 Features of Sound Investment Policy:

The income and profit of the bank depends upon its lending procedure, lending policy and investment of its fund in different securities. The greater the credit created by the bank, the higher will be the profitability. A sound lending and investment policy is not only pre-requisite for profitability, but also crucially important for the promotion of commercial savings of backward country like Nepal. Many authors as under have given some necessities for sound lending and investment policies, which most of the bank must consider:

-Safety and security

The bank should never invest its funds in those securities, which are subject to too much depreciation and fluctuation because a little difference may cause a great loss. It must not invest its fund into speculative businessman who may be bankrupt at once and who may earn million in a minute also. The bank should accept that type of securities, which are commercial, durable and marketable and have high market prices. In this case, "mast" should be applied for the investment.

Where,

M=Marketability

A=Ascertained

S=Stability

T=Transferability

-Profitability

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

-Liquidity

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

-Purpose of Loan

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

-Diversification

"A bank should not lay all its eggs on the same basket". This saying is very important to the bank and it should be always careful not to grant loan in only one sector. To minimize risk, a bank must diversify its investment on different sectors. Diversification of loan helps to sustain loss according to the law of average because it securities of a company deprived, there may be appreciation in the securities of other companies. In this way, the loss can be recovered.

-Tangibility

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

-Legality

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

Other factors affecting the investment policies:

Beside above mentioned basic principle, some basic factors really affect the investment policies and composition of the components. However, their degree of affecting power may vary. These other factors that have significant affecting power are given as follows:

-Regulatory provision

Regulatory provision has the maximum impact upon the investment policies and the composition of portfolio. Usually, in every state there will be the legal restrictions for the

investors to invest their funds in various components. Such restrictions might be in the form of the limitation of the investible amount on particular securities or the allowed sectors of the investment.

-Management Perception

Another factor affecting the investment policy and component will be the management's attitude as well as the self-imposed limitation from their side. If management wishes to increase the yield, investment policy will be to divert the fund to the high yielding portfolios, rather than the more safe but low yielding components or vice-versa. Beside this, the management may impose self- limitation of investment components according to the condition of the business and it also capable of changing the investment portfolio.

-Present Composition of the Investment portfolio

Investment policy and the composition are also affected by the size, maturity stage, and interest or return rate on the capital etc. if it already holds the component having mid- term maturity, then the consideration of upcoming investments will be on the long or short term maturity components. Thus the composition of the investment in hand also affects the investment policy.

-Availability and accessibility of the investment components

When best-suited investment components are not available of accessible, then also the investment policy can be affected. When best-suited investment sector will not be available, then a strong search for the investment area should be made. We can take the example of present condition of our Nepal in which the investment horizon has gone to minimum the situation is because of the political condition in the country.

1.2.1 Profile of Sample Banks:

In this chapter, it has been discussed about the profiles of concerned banks. These profiles are related to the establishment, objectives, capital structure and facilities granted by the concerned banks.

NABIL Bank Limited (NABIL)

NABIL the first joint venture bank of Nepal, newly named of previous Arab Bank Limited was established in 1984 A.D. under the company Act, 1964 A.D. It is joint venture with the

Dubai Bank Limited owned 50% equity partner which was transferred to Emirates Bank International Limited Dubai (EBIL). Later in EBIL sold its entire stock to National Bank Limited Bangladesh (NBL). NABIL bank was incorporated with the objectives of extending international standard modern banking services to various sectors of the society. Pursuing its objectives, NABIL provides a full range of commercial banking services through its 49 points of representations across the kingdom and over 170 reputed corresponded banks across the globe. There are 13 branches in Kathmandu. It is the only bank having its presence at Tribhuvan International Airport. NABIL, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sectors, represents a milestone in the banking history of Nepal as it paved the way of modern banking with customer satisfaction measured as a focal objective while doing business. It is Customer oriented, Result oriented, Innovative, Synergistic and Professional (C.R.I.S.P). "The Banker", the publication of the Financial Times, London, has honored the NABIL as "Bank of the year 2004" and it is a matter of prestige to be a leading bank of the country.

Operation of the bank including day –to-day operations and risk management are managed by highly qualified and experienced management team. Various facilities (products & services) have been provided by NABIL. It provides loan as Bills discounting facility under supplier's credit' Import/Export loan, Loan against deposit and Govt. securities, Housing finance, Auto finance, NABIL property, and Personal finance. It receives deposits as Current, Call, Time, Normal savings, and Provident fund, Retirement fund. Similarly, it is also serving for Trade finance, Remittance facilities, cards & ATMs, E- banking, clean bills etc. Others facilities are U.S VISA fee, Safe deposit locker, Balance certificate and Advance Payment Certificate.

Nepal Investment Bank

Nepal Investment Bank Limited (NIBL), previously known as Nepal Indosuez Bank Limited, was established in the year 1986 as a joint venture between Nepalese and French Partners. The French partner (holding 50% of the capital of NIBL) was Credit AgricoleIncdosuez, a subsidiary of one the largest banking group in the world. With the decision of Credit AgricoleIndosueze, a group of companies consisting a bankers, professionals, industrialists and business man has acquired 50% shareholding of agricoleIndusuez in Nepal Indosuez bank limited in April of 2002. The bank got its new name of Nepal Investment Bank Limited upon the approval of banks annual general meeting, Nepal Rastra Bank and company

registered office with the following shareholders structure: A group of company holding 50% of total capital, Rastriya Banijya Bank holding 15% of capital, Rastriya Beema Sanstha holding 15% and the remaining 20% being held by the general public (which does mean NBIL is the company listed on the Nepal Stock Exchange. The Bank has open altogether 16 branches inside and outside the valley. The bank provided different types of service like premier banking saving, e-banking, 365 days service, Tele Banking, Credit and facilities, safe deposit lockers, ATM (Automatic Teller Machine).

KBL Bank Limited

KBL Bank Limited, came into existence as the fifteenth commercial bank of Nepal by starting its banking operations from Chitra 21, 2057 B.S (April 03, 2001) with an objective of providing competitive and modern banking services in the Nepalese financial markets. The bank has paid up capital ofRs. 750 million, of which 70% is contributed from promoters and remaining from public. KBL Bank Ltd. Has been providing wide – range of modern banking services through 8 points of representations located in various urban and semi urban part of the country, 5 outside and 3 inside the valley. The bank is pioneer in providing some of the latest/ lucrative banking services like e-banking and SMS baking services in Nepal. The bank always focus on building sound technology driven internal system to cater the changing needs of the customers that enhance high comfort and value. The adoption of modern Globes Software, developed by Temenos NV, Switzerland and arrangement of centralized data base system enables customer to make highly secured transactions in any branch regardless of having account with particular branch. Similarly the bank has been providing 365 days banking facilities, extended banking hours till 7 PM in the evening, utility bill payment services, inward and outward remittance services, and various other banking services. Visa Electron Debit Card, which is accessible in entire VISA linked ATMs (including 8 own ATMs) and POS (Point of Sale) terminals both in Nepal and India, has also added convenience to the customers. Within 6 years of excellence in banking, the bank has been able to get recognition as an innovative and fast growing institution striving to enhance customer value and satisfaction by banking transparent business practice, professional, corporate governance and total quality management as the organizational mission. The key focus of the bank is always center on serving unfulfilled needs of all classes of customers located in various part of the country by offering modern and competitive banking products

and services in their door step. The bank always prioritizes the priorities of the valued customers.

1.2.2 Focus of the Study

Banking sector plays an important role in the economic development of a nation. Without banking, the development of the nation is a mere thought. It is regarded as the heart of financial system. People invest their earning with a hope of getting good return on their investment. Nevertheless, due to certain circumstances they lose their hard earnings. Therefore, in order to make the right decision we have to have a sound investment policy. The study focuses on evaluating the deposit utilization of the banks in terms of loans and advances and investments and its contribution in the profitability of the bank.

The main focus of the study will be to make a comparative study of NIBL, Nabil Bank Ltd and KBL regarding financial performance in term of liquidity, asset management, profitability and risk. It also focuses on fund mobilization and investment policy.

1.3Statement of the Problem

Today is the day of competition in each field of business and in banking sector also. There are 30 banks in operation in Nepal up to the mid-2013 and some banks are going to start in near future. The fasts growth of such organization has contributed the prorate increment in collection deposits and their investment. They collect adequate amount from the mass, however they could not find or locate new investment sectors required to mobilize their funds on the changing context of Nepal. Only few commercial banks are getting regular profits. Most of them are incurring clients or adequate deposits but they cannot find profitable sectors or opportunities to invest the deposit collections. They have always feared with high degree of risk and uncertainty.

There are various problems in resource mobilization by financial in Nepal. The most important problem is poor investment climate prevailing in Nepal due to heavy regulatory procedure, uncertain government policy, NRB's stringent directives, unsecured social environment etc. Lack of sound investment policy is another reason for a commercial bank not to properly utilizing its deposits that is making loan and advances or lending for a profitable project. This condition may lead the commercial bank to the position of liquidation.

Many of Nepalese commercial banks have not formulated their investment policy in an organized manner. Majority of them mainly rely upon instruction and guideline of Nepal Rastra Bank. They don't have clear view towards investment policy. Furthermore, the implementation of policy formulation and absence of strong commitments towards its proper implementation has caused many problems to commercial banks.

The compared problems specially related to investment functions of the commercial banks have been presented briefly as under:

1.3.1 Is their policy more effective and efficient than that of each other's policy?

1.3.2 Is their Strategy successful to utilize its available fund in comparison to the each other's?

1.3.3 Are they maintaining sufficient liquidity, profitability and risk position?

1.3.4 What is the relationship of investment on loan and advances with total deposit and total net profit?

1.4 Objectives of the Study

The objectives of the study will be as follows:

a. To analyze the financial performance of Sample Banks in terms of liquidity, asset management, profitability and risk.
b. To explore the investment policy of Sample Banks.
c. To know the trend of loans and advances and total investment.
d. To examine and evaluate the fund mobilization and lending policy.

1.4.1 Significance of the Study

This study has been summarizing, sensible and precious to the people having in the investment policy of NABIL, NIBL and KBL. This has been beneficial for bank management, shareholders and customers. Furthermore, this has been useful for teacher and students related to the accountancy and finance. In conclusion, the importance of the study focuses at following points:

- It has been helpful for commercial banks and financial institutions.
- It has been provided required information and data to required person, readers, shareholders, decision makers, traders, investors, general public, etc.

- This study can also be used as reference for future research.

1.4.2 Limitations of the Study

The study has the following limitations:

1 The study will cover only Seven (from 2006/7to 2012/13) years data.

2 The study will deals with only three commercial banks (NABIL, NIBL and KBL) and data related to other commercial banks have not been accounted.

3 The study is mainly based on secondary data (published annual reports of commercial banks), journals, newspapers, magazines etc.

4 Out of the numerous affecting factors, this study concentrates only on those factors which are related with investment policy and available in the form required for analyzing the different issues.

5 The study cannot cover all the dimensions of the subject and cannot penetrate the depth because of the lack of sufficient time and other resources limitation.

1.4.3 Organization of the Study

The Whole study has been divided into five chapters, which are as follows:

Chapter 1: introduction

This chapter includes background, origin and & development of commercial bank, commercial bank & investment policy, features of sound investment policy, profile of the concern sample banks, focus of the study, statement of the problem, objectives of the study, significant of the study, limitations of the study and chapter plan.

Chapter 2: Review of Literature

The chapter deals with the review of available literatures in the field of the study being conducted. This includes review of the theories of the concerned topic, review of legislative provisions, review of thesis and research Gap.

Chapter 3: Research Methodology

It includes research design, population and sample, sources of data, data collection techniques, data analysis tools, limitations of methodology, etc.

Chapter 4: Data presentation and Analysis

This chapter tries to analyze and evaluate data through various tools like financial analysis and statistical analysis and interpretation major findings of the study.

Chapter 5: Summary, Conclusion and Recommendations
This chapter contains summary, conclusion and recommendations.

The bibliography and appendices are also included as supplements at the end of the study.

CHAPTER-2
REVIEW OF LITERATURE

Review of literature helps the researcher to develop a thorough understanding previous research works that relates the present study. This chapter is concerned with review of literature relevant to the investment policy of commercial bank. Theoretical framework from the information helps to develop the idea for hypothesis testing. Therefore, this chapter has its own importance in this study. This chapter is categorized into conceptual review, review of legislative provisions, review of books and review of thesis.

2.1 Conceptual Review

This chapter focuses to discuss briefly about the theoretical concept of the investment and its relation with other subject matter in relation to banks. This chapter is further divided into different part as below:

2.1.1 Investment

Investment is the sacrifice of present rupees for future rupees. Investment the employing money to generate more money in the future. It is the use of capital to create more money, through more risk – oriented ventures designed to result in capital gains. Investment is the forfeit of current rupees for future rupees. The forfeit takes place in the present, and is certain. The reward comes later and is uncertain. Hence there are three elements in investment which are return, risk and time. Investment, in its broad sense, means the sacrifice of current Rupees and Resources for the sake of future Rupees and Resources. In another words it is commitment of money in the future. Such commitment takes place in the present and is certain to occur but the reward comes in the future and always remains uncertain. Therefore, every investment entails some degree of risk.

An investment is a commitment of funds made in the expectation of some positive rate of return (Francis and Jack Clark, 1990).

Similarly investment is any vehicle into which funds can be placed with the expectation that will preserve of increase in value and generate positive returns (Gitman LJ, 2001).

Likewise, an investment is simply deferred consumption: instead of spending today, we choose to wait because we wish to have more to spend latter (Corrado and Jordon, 2002).

From these definitions, it is clear that investment is simply the conversion of money into claims on money and use of fund for productive and income earning assets. It is the employment of funds with the target of achieving additional income or value in the future. It involves saving of resources from current consumption in the hope that some benefits will accrue in the future.

2.1.2 Policy

A policy is a plan of action to guide decisions and actions. It is the course of action to obtain objectives. Policy means rules and regulations set by organization. Policy determines the type of internal and external information resources. Policies in short can be understood as political management, financial and administrative mechanisms arranged to reach explicit goals.

2.1.3 Investment Policy

Investment policy can be defined as the action plan by which its funds are distribute on different type of assets with good profitability on the one hand provide maximum safety and security on other hand. Investment policy is the cornerstone of the investment process. Without it, investors have no appropriate context in which to make decisions

Commercial bank should consider the national interest followed by borrower's interest and the interest of the bank itself before investing to the borrowers. To further pursue his view, bank lending must be for such purposes of the borrowers that are in keeping with the national policy and bank's overall investment policy. A bank's overall investment should be basically of short term characters, well spread, repayable on demand profitable and well inadequate security.

2.1.4 Investment Environment

The investment environment refers to all internal and external forces, which have a bearing on the functioning of investment decision. It encompasses the kinds of marketable securities that exist and where and how they are bought and sold through the broker's network and financial intermediaries. Thus, the investment environment is combination of securities

markets and intermediaries. Any securities transaction conducted without using broker is directly illegal in accordance with rules and regulation.

Security is piece of paper representing the investor's rights to certain prospects of property and the conditions under which he or she may exercise those rights. It serves as evidence of property rights. It may be transferred to another investor. The term "security" refers to a claim to receive prospective future benefits under certain conditions.

Security markets are mechanisms created to facilitate the exchange of financial assets. It brings the buyers and sellers together. On the basis of securities traded, security market can be classified into primary and secondary market. On the basis of life- span of securities, it can be divided into money market and capital market.

Financial intermediaries are organization that issue financial claims against themselves and use the proceeds to purchase primarily the financial assets of others. They actively participate as both suppliers and demanders of funds. Thy includes savings and loan associations, saving banks, credit unions, life insurance companies, mutual funds, pension funds, etc.

2.1.5 Commercial Banks and Their Investment Policy

The term "bank" derives from the Latin "bancus", which refers to the bench on which the banker would keep its money and records. Some person traces its origin to the Italian word "banca", which means a bench for keeping. Lending and exchanging of money. A bank is one who in the ordinary course of his business receives money which he pays by honouringcheques of persons from whom or whose account receives (Hampton, 2001).
Shakespeare (2001) in his book "Banking and Insurance Management" has classified bank as:

Central Bank	5.Exchange Bank	9. Mutual Bank
Commercial Bank	6. Savings Bank	10. Pension Funds
Agricultural Bank	7. Co- operative Bank	11. Housing Bank
Industrial Bank	8. Merchant Bank	12. Equipment Bank

Commercial banks are those banks which perform all kinds of banking functions as accepting deposits, advancing loans, credit creation and agency function. They provide short term loan

and longs term loans to trade and industry. They also operate off balance sheet functions such as issuing guarantee, bonds, letter of credit, etc. commercial banks are institutions which provide services such as accepting deposits and giving business loans. They are one of the vital aspects of banking sector, which deal in the process of channel Zing the available resources in the needed sectors.

.A commercial bank means the bank which deals in exchanging currency, accepting deposits, giving loans and doing commercial transactions. Commercial banks bring into being the most important ingredient of the money supply, demand deposits through the creation of credit in the form of loan and investments.

Commercial banks deal with other people's money. They have to find ways of keeping their liquid assets so that they could meet demands of their customers. Their motive is wealth maximization and giving maximum benefit to its shareholders. In the anxiety to make profit, the bank cannot afford to lock up their funds in assets, which are not easily releasable. The depositors must be to understand the bank is fully solvent. The depositors' confidence could be secured only if the bank is able to meet the demand for cash promptly and fully. The banker has to keep adequate cash for this purpose. Cash is an idle asset and bankers cannot afford to keep a large possession of his assets in the form of cash, cash brings in no income to the bank. Therefore, the baker has to distribute his assets in such a way that he can have adequate profits without sacrificing liquidity.

Commercial banks are profit making organization. A bank established without the aim of gaining the profit is the central bank. Other banks are inspired with the object of earning profit and helping the economic development. They should have the ability to use the policy of banking investment to implement it much more carefully otherwise a bank may be unsuccessful in its goal.

Without investment, a bank can't gain profit. Therefore, after the establishments of bank it collects deposits. It also collects capita by selling its shares. Thus, a great capital is collected in the bank. It is not better to keep such capital fund inactive. The bank should able to clear the policy of its investment by making deep study. Every commercial bank has an investment policy. The basic factors that will determine the objectives of a bank's investment policy are its income and liquidity needs and management's willingness to trade liquidity for greater

income opportunities and vice versa, which means accepting greater or less risk. A bank that has a portfolio of high quality loans and relatively stable deposits can assume more risk. It might be preferable for the bank to pursue an aggressive lending policy. The higher risk in the loan portfolio would be countered with a very liquid investment portfolio. One of the acceptable methods of reducing risk is by diversification, a basic and important rule of any investment. The investment process includes the following steps:

1. Setting investment policy
2. Performing security analysis
3. Constructing a portfolio
4. Revision of portfolio
5. Evaluating the portfolio

Banks have developed format, written lending policies in recent years. They provide guidance for lending officers by establishing a greater degree of uniformity in lending practices.

Emphasizing the importance of investment policy, lending is the essence of commercial banking, consequently the formulation and implementation of sound policies are among the most important responsibilities of bank directors and management (Crosse, 1963), Cross further adds, the formulation of sound lending policies for all banks should have adequate and careful consideration over community needs, sizes of loan portfolio, character of loan, credit worthiness of borrower and asset pledged to security borrowing, interest rate policy.

The investment policy of a bank should be reviewed occasionally and modified as economic conditions change. It should be reviewed when developments occurring within or outside the bank dictate.

2.2 Review of Legislative Provisions

In this section, the review of legislative framework under which the commercial banks are operating has been discussed. All the commercial banks have to conform to the legislative provisions specified in the "Commercial Bank Act 2031" and the rules and regulations formulated to facilitate the smooth running of commercial banks.

Some of the important rules and regulations affecting the investment policy of commercial banks that have been directed by Nepal Rastra Bank are discussed below.

2.2.1Provisions Relating to Investments

The following Directives have been issued with regard to investment of financial resources of a licensed institution having exercised the powers conferred by Section 79 of the Nepal Rastra Bank Act, 2002.

1) Implementation of Investment Policy and Procedures upon Approval

The licensed institutions shall implement the policies and procedures regarding the investment in Government of Nepal securities, Nepal Rastra Bank bonds, and other corporate bodies' share and debentures only upon the approval of investment policy and procedures by the Board of Directors.

2) Provision for Investment in Government of Nepal Securities and Nepal Rastra Bank Bonds

There shall be no restriction as to investment by the licensed institution in the securities of Government of Nepal and Nepal Rastra Bank bonds.

3) Provisions for Investment in Shares and Debenture of Corporate Bodies

1) Licensed Institutions shall invest only in the shares and debentures of corporate bodies listed in the Nepal Stock Exchange after the public issues of shares.

   Provided that, where the investment has been made in the shares and debentures of corporate bodies which are not listed in the stock exchange, and if such listing is not completed within one year from the date of investment, a provision of equivalent to the whole amount of such investment be provided and credited to Investment Adjustment Reserve by creating such reserve fund. The outstanding amount in such Reserve shall not be utilized for any other purpose till they said shares and securities of the corporate body are listed.

   With respect to investment in newly opened corporate body that where such company is not listed in stock exchange within two years from the date of operation or investment

being made a provision of equivalent to the whole amount of such investment be provided and credited to Investment Adjustment Reserve.

2) While carrying out projects such as land development, land purchase and housing construction for residential purpose and sale and management of such houses and land pursuant to clause (ad) of sub-section (2) of section 47 of the banks and Financial Institutions Act, 2006 by the class "B" licensed institution and pursuant to clause (u) of sub- Section (3) of the same Section of the same Act, licensed institution shall not invest more than twenty-five percent of the core capital of immediately preceding month.
3) While investing in housing construction and land development by a licensed institution, it may invest an amount not exceeding ten percent of the core capital maintained immediately preceding month. If found to have been invested more than the limit, the core capital shall be maintained having deducted the amount equal to the exceeded investment from the core capital. While making such investment, investment shall be made only in the building construction and land development companies that have been incorporated as public companies.
4) Licensed institutions may invest in shares and securities of any one corporate body up to 10 percent of its core capital maintained at immediately preceding trimester and not exceeding the cumulative amount of such investment in all the companies by more than 30 percent of its core capital. Similarly, while investing in shares and debentures of corporate bodies by a licensed institution, investment shall be made not exceeding 10 percent of the paid up capital of the institution in which the investment is being made and not exceeding 25 percent of the same in case of investment made in class "D" institutions. Any amount of investment made in excess of this limit, for the purpose of calculation of the capital fund, shall be deducted from the Core capital fund.
5) Chairperson/member of a parent company shall not be allowed to be the chairperson or number of the subsidiary company. In case of Directors who are Directors in the subsidiary company prior to issuance of these Directives on May10. 2010, he/she shall have to move from it before the upcoming first general meeting of the parent company or within one year of issuance of this directive, whichever is earlier.

4) Arrangement for Underwriting of Share and Debentures

1) For "A" Class licensed institutions, there is no limit prescribed for underwriting the shares and debentures. In respect of "B" and "C" Class financial institutions, they may underwrite to the extent of their core capital as follows:

Class of Licensed Institution	Any one organized Institution	All corporate bodies (Cumulative)
"B" Class	Up to 20 percent of its core capital	Up to 100 percent of its core capital
"C" Class	Up to 10 percent of its core capital	Up to 50 percent of its core capital

Provided that, in case the class "B" and "C" licensed institution is going to underwrite shares and debenture of an institution licensed by this Bank, the provision of underwriting only up to the prescribed limit of its core capital shall not be mandatory.

2) Where situation arises, owing to under subscription of the underwritten shares according to (1) above, requiring the licensed institution to acquire such shares, the same shall be disposed within year from the date of underwriting. Failing to which, the amount of investment, for the purpose of calculation of the capital fund, shall be deducted from the Core capital fund.

5. Provision for Review of Investment Portfolios

Licensed institutions shall review its investment portfolios on half-yearly basis. With respect to such review, a statement from the Internal Auditor of the licensed institution certifying that the investments are made according to the existing investment policy and according to this Directives be obtained and shall also be approved by the management of the institution within 1 (one) month from the close of the half yearly period. A copy of the approval of the management of the institution shall be submitted within Falgun 15 (end of February) and Bhadra 15 (end of August) of each fiscal year to this Bank's Bank and Financial Institutions Regulation Department and concerned Supervision Department.

6. Valuation of Shares and Debentures

The investments of the licensed institutions in shares and debentures shall be separated company wise according to Directives Form No. 8.1, 8.2 and 8.3. It shall be shown in its

assets having evaluated it semiannually based on the purchase price or the market price, whichever is lesser.

Provided that, where the market price of any company's shares or debenture falls below the cost price, the difference amount has to be debited to the Profit and Loss Account and credited to provision for loss in investment account.

Moreover, while evaluating investment, it shall have to be evaluated according to the provision made in Points 2 and 2.B.3 (Investment Policy) of Directives No. 4/067 and the details thereof shall be prepared in the format of Nepal Rastra Bank Directive form No. 8.2.

7. Provision Relating to Purchase/Investment in Fixed Assets (House/ Land) For Own Purpose

The banks of financial institutions incorporated and in operation under the B to F1A shall be allowed to purchase/ invest in the fixed assets, (house/ land) for the self-purpose in the case they meet the following terms and conditions:

(a) Entire pre-operating expenses of the bank/ financial institution are written off.

(b) The first general meeting is completed upon issued of shares to general public as refund to in the Memorandum of Association/ Articles of Association.

(c) The institution is in profit at the time of purchase of the property.

(d) The capital fund is adequate according to the Directives issued by this Bank. Moreover, in case of purchase of investment in the fixed assets without meeting the said terms and condition, the amount equivalent to that to be deducted while calculating the core capital fund.

8. Additional Arrangement Regarding Investment

(1) Licensed institutions shall not invest in any shares, securities and hybrid capital instruments issued by any other institution of "A", "B" and "C" class licensed by this Bank.

Provided that, this clause is not applicable in case of shares investment in class "D" institution and income of share investment with approval from this Bank.

(2) The core capital maintained in the Directives relating to investment means, the core capital maintained at the immediately preceding trimester except specifically stated otherwise.

9. Action for Non- Compliance of Directives on Investment

Action under Sections 99 or 100 of Nepal Rastra Bank Act, 2002 may be initiated for non-compliance of the Directives by the licensed institutions relating to investment.

10. Repeal and Saving:

(1) The following Directives issued by this Bank heretofore have been repealed:-

Provisions relating to investment made in the Unified Directives, the Directives issued under Directive No. 8/066 and all circulars issued until mid-July, 2010 relating to the matters under this subject.

(2) Actions taken under the Directives repealed pursuant to sub- clause.

2.4 Review of Journals and Articles

This part of the study deals with the examination and reviewing of some related research papers, articles and journals published in different magazines, newspapers, World Bank discussion paper and economic journals and other related books and publications. There are not sufficient articles related to investment management published in Nepalese perspective. However, some personalities have given short glimpse of investment management. Some of them are as follows:

Morris (1990), in his discussion paper on "Latin American Banking System in the 1980's" has concluded that most of the bank concentrated on compliance with central bank rules on reserve requirement credit allocation (investment decision) and interest rates. While analyzing loan portfolio quality, operating efficiency and soundness of bank investment management has largely been overlooked. He further add that miss management in financial institutions has involved inadequate and over optimists loan appraisal high risk diversification of loan portfolio and investment high risk concentration related parties lending etc are major cause of investment and loan that has gone bad.

Shrestha (2005) in his study, **"Deposits and credit of commercial banks in Nepal",** concluded that the credit deposit ratio would be 51.3%, other things remaining the same in 2004 A.D, which has the lowest under the period of review. So the author had strongly recommended that the commercial banks should try to give more credit entering new field as for as possible, otherwise they might not be able to absorb even its total expenses.

Bhatta (2006), in his study, "**Financial Policies to Prevent Financial Crisis"** has given more emphasis on Nepalese financial market sector. He has mentioned the financial crisis occurred in China, Mexico, South Asia, Russian Federation Ecuador, Brazil and Argentina. This crisis affected all the economy by posing negative effects in the real output. He has also focused on Nepalese financial market, which is directly affected by the national and international events. The event that affected the most was September 11 incident in U.S.A., which had added more to the fragility in the global financial market. In present context in many part of world, the move towards liberalization is getting its momentum on one hand and the process of economic development is being threatened due to various unanticipated incidents on the other hand. He has defined the financial crisis as a description to financial markets in which adverse section and moral hazard problems become much worse, so that financial markets are unable to efficiently channel funds to those who have the most productive investment opportunities.

He has given light on dynamics of financial crisis dividing it into three stages. In addition, he has suggested the policies to prevent financial crisis.

- Prudential Supervision
- Accounting Standards & Disclosure requirements
- Legal and Judicial System
- Monetary policy and Price stability
- Exchange rate regimes and foreign exchange reserves
- Capital controls
- Restriction on foreign denominated debt
- Reduction of the role of the state owned financial institution
- Encouraging market based discipline

Pradan (2007) has presented a glimpse on investment in different sectors, its problems and prospects through his article, "**Deposit mobilization, its problems and prospects".** In his study, he has expressed that the deposit is the life blood of any financial institution, and be it commercial bank, finance company, co-operative or non-government organization. He also added, in consideration of 10 commercial banks and nearly three dozens of finance companies, that latest figure does produce a banks strong feeling that a serious review must be made of problems and prospects of

deposit sector. Except few joint venture banks, other organization rely heavily on the business deposit receiving and credit disbursement. In the light of this, Mr. Pradhan has pointed out following problems of deposit mobilization in Nepalese Perspective:

- Due to lack of education most of Nepalese people do not go for saving in institutional manner. However, they are very much used of saving, be it in the system are governed by their lower level of understanding about financial organization, process requirements, office hours withdrawals systems availability of depositing facilities and so on.
- Due to lesser office hours of banking system people for holding the cash in the personal possession.
- Unavailability of institutional services in the rural areas.
- No more mobilization and improvement of the employment of deposits in the loan sector.

Shrestha (2008), has presented a short scenario of investment management from his article, **"Portfolio management in commercial banks, theory and practice".** He has stressed in the issues like the portfolio management is essential both for individuals and for institutional investors. Investors would like to select a best mix of investment assets subject to following aspects:

- Higher return which is comparable with alternative opportunities available according to the risk class of investor.
- Good liquidity with adequate safety of investment.
- Certain capital gains.
- Maximum tax concession.
- Flexible investment
- Economic efficient and efficient investment mix

In the view of these aspects, investors are expected to develop following strategies:

- Do not hold any single security. Try to have a portfolio of different securities
- Do not pull all the eggs in one basket i.e. to have a portfolio of diversified investment
- Choose such a portfolio of securities which ensures maximum return with minimum risk or lower of return but with added objective wealth maximization

At last Mr. Shrestha has concluded that in this competitive and market oriented economy each and every bank has to play vital role in the development of the country. But the survivals of the banks depend upon its own financial health, and its various activities. Thus, the Nepalese banks having greater network and access have to go for portfolio management of their fee-based income as well as to enrich the client base and to contribute in national economy.

Sharma & Bhatt (2009) in their article **"Priority Sector"** have explained that the commercial bank should take care of board national interest and they should not confine their lending activities only to commercial area providing quick interest if some proportion could be directed to the area conclusive to building economic infrastructures of the country it would create atmosphere conductive to their investment in future. In our society where ignorance and illiteracy in wide scale, it is necessary that the bank search entrepreneurs instead of entrepreneurs searching banks. So, they have opined that the priority sector program is a timely and appropriate will be designed to create additions productive employment opportunities there by increasing production and the general living standard of rural poor. But the success of the program largely depends upon the intergraded operation with other programs designed for rural development. Further they argue that various programmers VIZ, rural development land reform SAJHA, Back to the village national Champaign, Adult literacy etc. Could not material their objective despite their some theoretical philosophy and good objectives.

Pokharel (2010), in his article entitled, **"Financial Sector Reform and Challenges"** stressed that the highest liquidity makes the financial institutions' un- bankable by creating unnecessary burden of bearing the cost of capital. Dr. Pokharel expresses that most of the financial institutions are lying on uneconomic situation due to ineffectiveness of portfolio management on the one hand and deficiencies of efficient modern management on the other. As for the betterment of financial possibility in portfolio projects, like health, residential buildings, communications, tea gardening etc. Pokharel further suggests that commercial banks need to make strong strategy urgently with shifting the money form fixed deposit to saving reducing strong strategy

between deposits and interest spread in both sectors. He highlights that fixed deposit has been increasing in the ratio of 0.44 to 0.95 from 2006 to 2009.

2.5 Review of Related Thesis

On the topic "Investment Policy" has published by many researchers in their research Thesis. The mentioned these were reviewed as they are relevant to the present research.

Bajracharya Sujita (2010) has conducted a research entitled on investment policy of Joint Venture Commercial Banks of Nepal.

This study has the following objectives

- To determine the proportion of loan loss provision to total loans & advances and to evaluate the non-performing assets position of bank.
- To analyze deposit utilization and its relationship with total investment and net profit and to determine the growth rate of bank in terms of deposits, loans and advances, investment and profitability of the bank.
- To evaluate the liquidity, assets management, profitability position activity and risk determine the proportion of investment in risk and risk free assets and so evaluate the off-balance sheet operation of the bank.
- To suggest and recommend with the help of major findings.

The major findings of the study are:

- From the analysis of current ratio, it is found the mean ratio of HBL is less than NIBL, it means NIBL has maintained higher current ratio in compared to HBL. The ratio of NIBL is more variable than HBL. NIBL has more consistency than HBL because of NIBL has lower C.V. than HBL.
- The mean ratio of cash and bank balance to current assets ratio of HBL is lesser than NIBL. It states that the NIBL has utilized its fund better than that of HBL. NIBL has more consistency to utilize its fund than that of HBL because of NIBL has lower C.V. than that of HBL.
- The mean ratio of loan and advances to current assets of HBL is higher than NIBL. It concluded that HBL use to provide more loan and advances than that of NIBL. But NIBL has more consistency than HBL because of NIBL has less C.V. than that of HBL.

- The mean ratio of loan and advances to working fund ratio of HBL is lower than that of NIBL. It can conclude that NIBL has better mobilizing its fund than that of HBL. NIBL has more consistency than that of HBL because of NIBL has less C.V. than that of HBL.
- The mean ratio of total interest paid to total working fund of HBL is lower than that of NIBL. It means HBL has paid lower interest than that of NIBL. HBL has more consistency paid interest than that of NIBL because of HBL has lower C.V.

Jha Sarita (2010), has conducted a research entitled on A Study on Ratio Analysis of Nepalese Commercial Banks. A case study of KBL and KBL.

This study has the following objectives

- To evaluate the liquidity, profitability, capital structure activity and capital adequacy position of NIBL and KBL.
- To show the composition of assets & liabilities of NIBL & KBL.
- To evaluate the trend of deposits and loans of NIBL & KBL. To find out the growth of Investment situation of the two banks.

The major findings of the study are:

1. The idle standard of the current ratio is 2:1 but none of the banks under study could perform that standard. The banks contain more current assets than current liabilities. Thus banks are willingness to serve its consumers deposits. Moreover, from the liquidity point of view, NIBL seems better which the result of higher portion of fixed deposit is possible from 2005/06 to 2009/10 NIBL is above the average.
2. NIBL seems to be successful to maintain higher Total credit to Total deposit ratio in the fiscal year 2009/10 i.e. 82.66%
3. The return on risky ratio of NIBL is very good comparing to KBL. KBL is decreasing trend due to suffering loss.
4. The expected Total deposit of NIBL is in increasing trend but KBL is in decreasing trend. Thus it can be concluded that NIBL will collect more deposits in the future but KBL

won't be enjoy for loss. Finally, in statistical analysis, NIBL seems better comparing to KBL under study.

Basnet Subash(2011) has conducted a research, entitled on "Investment Policies of Joint Venture Banks", He has compared investment policy with special reference to NABIL Bank and Everest Bank Ltd.

This Study has the following Objectives

- To analyze the investment policy of the NABIL Bank and Everest Bank.
- To find out the deposit and investment condition of commercial bank.
- To analyze the utilization of available fund of NABIL & Everest Bank.
- To evaluate the liquidity, profitability and risk position of NABIL & Everest Bank.

The major findings of the study

1. The Cash and Bank balance to Total deposit ratio of both bank fluctuation trend. Mean ratio of NABIL is lower than Everest Bank i.e. 5.58<14.29 which indicates that liquidity position of NABIL is bad to serve its customers deposits, withdraw demands but Everest Bank position is strong to serve its unanticipated calls on all types of deposit.
2. The loan & advances to Total deposit ratio of NABIL is lower than Everest Bank i.e. 69.39< 74.05 which shows that the ratios are not satisfactory consistent over the study period.
3. Return on Total working fund ratio is of NABIL Everest have fluctuated. The Mean & C.V. of NABIL & Everest 2.52%, 14.48% & 1-63%, 13.71% respectively it shows.
4. The mean return on loan & advance of NABIL bank is higher than Everest i.e. 4.16>2.46, it indicates that the earning capacity of NABIL is better of Everest Bank.
5. The trend analysis of Total deposits of NABIL & Everest Bank has increasing trend from the trend analysis it is forecasted that the Total deposit of NABIL in 2014/15 will be Rs.1, 11,808.43 million. Similarly the total deposit of Everest bank will be Rs. 93,242.77 million. The deposit collection of NABIL is better than Everest.

Tamang (2012) has conducted a research entitled on "Relation between liquidity and Profitability of Joint Venture Banks in Nepal" It is the comparative study on Everest bank, Himalayan bank and NABIL bank limited.

This study has the followings objectives:

- To study and examine the relationship between liquidity and profitability of JVB's
- To determine the operational efficiency of the management of the banks under study.
- To evaluate efficiency of the total assets in terms of profitability and liquidity.
- To analyze the profitability and liquidity faced by the banks.

Major findings of the study are:

- The average current ratio of EBL, HBL and NABIL are 1.99%, 4.49% & 2.81% respectively. Moreover, the C.V. of such banks is 44.73%, 15.37% & 12.79% respectively. It shows that NABIL is more consistent in maintaining the current ratio among the other two banks.

Rimal Akur (2012) has conducted a research entitled on Investment Policy Analysis of Commercial Banks with reference of NABIL & NIBL.

This study has the followings objectives:

- To determine the growth of bank in terms of deposits loans & advances, investment & profitability of the banks.
- To evaluate the liquidity, assets management, profitability & risk position of NIBL & NABIL.
- To analyze the investment policy of NABIL & NIBL.
- To recommend policies that may help in proper investment.

The major findings of the study:

- The mean ratio of current assets of NIBL & NABIL is almost equal which shows the consistency in comparison.
- The mean ratio of loan & advances to total deposit of NIBL is higher than that of NABIL. Likewise, NIBL's ratios are more variable than NABIL.
- The mean ratio of return on loan & advances of NIBL is lower than that of NABIL. On the other hand, NIBL's variability between ratios is lower than that of NABIL.
- The mean ratio of credit risk ratio of NIBL is higher than that of NABIL & NIBL's ratios are more homogenous than that of NABIL.

- Growth ratio of total deposit of NABIL is lower than NIBL.
- Co-efficient of correlation between deposit & total investment of both banks has positive relationship. Value of 'r' of NIBL is slightly higher than that of NABIL. In case of both banks it has been found that there is no significant relationship between deposit & total investment during the study period.

Shrestha Bharat Kumar (2013) has conducted a research entitled on Performance Analysis of Selected Nepalese Commercial Banks with reference of NABIL, NIBL & Standard Chartered Banks.

This study has the followings objectives:

- To evaluate the liquidity position to measure the performance of selected banks.
- To evaluate the earning and profitability position of the selected banks.
- To evaluate the activity and operation with reference to mobilization of the collected funds.
- To provide suggestions and recommendations for the selected banks.

The major findings of the study

- In the of average capital adequacy ratio (supplementary capital) of NABIL, NIBL and SCBNL in the study period are 1.84%, 3.31% & 1.83% respectively. Among the selected banks NIBL slightly better maintained the ratio i.e. 3.31% than other two banks. NABIL & SCBNL have the ratio almost same.
- PE ratio exhibits the confidence of the investor in the firm's future. In the study period, the average price earnings ratio of NABIL, NIBL and SCBNL are 35.82 times, 28.34 times and 41.07 times respectively. It implies that investors are more confident in investing the shares of SCBNL as SCBNL has the highest PE ratio and next to it comes NABIL. Among the selected banks NIBL has the ratio lowest at 28.34 times.
- The mean ratio of cash and bank balance to total deposit of NABIL, NIBL and SCBNL are 14.82%, 9.99% and 29.24% respectively. Investing in government securities are risk free in nature and highly liquid, SCBNL has the ratio highest 29.24%. There is NABIL next to it with the ratio 14.82% and NIBL with the ratio lowest 9.99%.

- During the study period, the mean CD ratios of NABIL, NIBL & SCBNL are 69.93%, 76.54% & 45.98% respectively. Among the selected banks CD ratio of NIBL 81.74% in F.Y. 2011/12 exceeds the provision of NRB i.e. 80.00 and SCBNL has the lowest CD ratio. It reveals than on an average basis SCBNL has more liquidity to serve it depositors and to invest in new loan and other opportunities.

Acharya Kulraj (2013) has conducted a research entitled on Investment Policy Analysis of Joint Venture Banks with reference of NABIL & NIBL.

This study has the followings objectives:

- To assess the liquidity, efficiency and profitability and risk position.
- To determine the growth ratios of loan and advances, total investment with other financial variables.
- To examine fund mobilization and investment policy of NABIL Bank & NIBL.

The major findings of the study:

- Moreover, NIBL seems to have more variable or less consistent than that of NABIL. The mean ratio of loan and advance to current assets ratio of NIBL is lower than that of the loan and advance to current assets ratio of NIBL is less consistent than that of NABIL. Asset management ratio the main ratio of loan and advance to total deposit of NIBL is higher than that of NABIL. The variability of the loan and advances to total deposit ratio of NABIL seems to be less stable and consistent than that of NIBL.
- The mean ratio of total investment to total deposit of NIBL is lower than that of NABIL. The variability of total investment to total deposit ratio of NIBL is less consistent than that of NABIL. The mean ratio of total investment on government securities to total working fund of NIBL is lower than that of NABIL.
- It seems NIBL has not made any effective strategy to win the confidence of shareholders, depositors and its all customs. Co- efficient of correlation analysis. Coefficient of correlation analysis between different variables of NIBL & NABIL reveals that Co- efficient of correlation analysis between deposit and total investment of the both banks has significantly positive values.

Tamang Ramesh (2014) has conducted a research, "Investment Practices of Commercial banks with reference of Bank of Kathmandu & NABIL Bank Limited".

This Study has the following Objectives:

- To study & evaluate the investment policies of concerned banks.
- To analyze the fund utilization & mobilizations.
- To study the growth ratio of total deposit, loan & advances, total investment & net profit of BOK & NABIL.
- To study risk & profitability positions of concerned banks.

The major findings of the study:

- The current ratio of BOK is more variable than NABIL.
- The mean ratio of loan & advances to total deposit of BOK is higher than the ratio of NABIL. The ratios of BOK are very consistent & more stable.
- The mean credit risk ratio of BOK is high than NABIL. The fluctuation of ratios of BOK are consistent than the NABIL.
- The mean ratio of total interest earned to total working fund of BOK is slightly higher than NABIL but the ratios of BOK are more inconsistent than NABIL.

Bhattarai Maheshwar (2014) has conducted a research, "Investment Policies of Nepal Credit & Commercial Bank Limited".

This Study has the following Objectives:

- To evaluate the liquidity and profitability position of NCCB.
- To analyze loan and advances portfolio management, and deposit utilization and its relationship with total investment and net profit of the bank with the help of assets management ratios.
- To assess the proportion of loan provision to total loans and advances and to evaluate the non- performing assets position of the bank.

The major findings of the study:

- Net profit to loan and advances ratio is overall in decreasing trend. The mean ratio is found to be 6.05% with 1.21 of C.V. between them. This indicates that the ratios are variable and inconsistent during the period of study and it is not indicating satisfactory track.
- The interest earned to total working fund of NCCB has fluctuating trend. The mean ratio is found to be 7.06% and C.V. between them is 0.27 during the study period. The ratios are consistent and less variable.
- Loan & advances to total deposit ratio of NCCB is in fluctuating trend with mean ratio 81.88% & C.V. of 0.09. The C.V. between the ratios shows that the ratios are satisfactory consistent over the study period.

2.6 Research Gap

There have been a number of valuable studies on investment policies, all of which present evidence on financial performance, utilization of resources. However, none of these studies provides a picture of the changes over the last seven years. Therefore, to complete this research many books, journals, articles and various published and unpublished dissertation are followed as guideline to make research easier and smooth through reference materials.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Research Design

Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. "It is the plan, structure and strategy on investigations conceived for obtaining answers to research questions and to control variances to achieve the objective of this study, descriptive and analytical research designs have been used. Some statistical and financial tools have also been applied to examine facts and descriptive techniques have been adopted to evaluate financial performance of the banks.

3.2 Population and Sample

It is not possible to study all the data related with all banks of Nepal. There are altogether 30 listed Commercial Bank in the country and their stocks are traded actively in stock market. So the investment policy of listed three banks is being compared with that average of the same which are selected from population. Form the above listed commercial banks are considered as population. So, the investment analyses are done on NABIL Bank Ltd, Nepal Investment Bank Ltd and KBL Bank Ltd which are selected from population.

To calculated investment of the selected sample are as follows:-

- NABIL Bank Ltd.
- Nepal Investment Bank Ltd.
- KBL Bank Ltd.

3.3. Data Collection Procedure

3.3.1 Nature and Source of Data

This study is conducted on the basis of secondary data. The data relating to investment, deposit, loan and advances and profit are directly obtained from the balance sheet and profit and loss account of the concerned Bank's annual reports published on web sites. Supplementary data and information are collected from number of institutions and regulating authorities like Nepal Rastra Bank, website www.nepalstockexchage.com , and different related website.

According to the need and objectives, all the secondary data are compiled, processed and tabulated in time series. In order to judge the reliability of data provided by the banks and other sources they are compiled with the annual reports of auditor.

Similarly, various data and information are collected from the periodicals, economic journals, managerial magazines and other published and unpublished reports and documents from various sources and websites.

3.4 Tools for Analysis

To achieve the objectives of the study, various financial, statistical and accounting tools have been used in this study. The analysis of data done according to pattern of data available. The various calculated results obtained through financial, accounting and statistic tools are tabulated under different headings. Then they are compared with other to interpret the results. The various tools applied in this study are presented below:

3.4.1 Financial Tools

Financial analysis is the process of identifying the financial strength and weakness of the form by properly establishing relationship between the items of the balance sheet. In this study ratio analysis are used as the financial tools for the data analysis.

Ratio Analysis

The relationship between two accounting figures expressed mathematically is known as a financial ratio "Ratio analysis is used to compare a firm's financial performance and status to that of other firms or to itself over time. "From the help of ratio analysis, the qualitative judgment can be done regarding financial performance of a firm. In this study, following ratios are calculated and analyzed:

1. Liquidity Ratios

It is the applicator to measure the ability of the firms to meet short term obligations. As name denotes the liquidity refers to the ratio between liquid assets and liability. The ability of firm to meet its obligation in the short term is known as liquidity. It reflects the short term financial strength of the business. In order to ensure short term solvency, the company must maintain adequate liquidity. But liquidity ratio must be optimum. If the company maintain unnecessary high liquidity ratio then it may adversely effect in the profitability of the

company will invest all its assets in safe liquid assets, which can lose the opportunity to earn high profit. Means everybody known that investing all assets doesn't have a good return. As well as, high liquidity may unnecessary tie up in the current assets. In the other hand if a company doesn't maintain adequate liquidity then it will result in bad credit ratings, less creditors, confidence, eventually may lead to bankruptcy. Thus the company should endeavor to maintain proper balance between inadequate liquidity and unnecessary liquidity for the survival and for avoiding risk.

The following ratios are evaluated under liquidity ratio:

a) Current Ratio

The current ratio is the ratio of total current assets to total current liabilities. It is calculated by dividing current assets by current liabilities, which is presented as follows:

Mathematically,

$$\text{Current Ratio}=\frac{CurrentAssets}{CurrentLiabilities}$$

Current assets are those assets which can be converted into cash and bank balance with in analysis accounting period such as cash and bank balance, investment in treasury bill, money at call or placement, loans and advances, bills purchased and discount, inter branch account, other short term loans, receivable and prepaid expense etc.

Current liabilities refer to the short- term maturing obligations. This includes all deposit liabilities, intra bank reconciliation account, bill payable, tax provision, staff bonus, dividend payable, bank overdrafts, provisions and accrued expenses.

b) Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance are the most liquid current assets. This ratio measures the percentage of most liquid fund with the bank to make immediate payment to the depositors. This ratio is computed by dividing cash and bank balances by total deposit. This can be presented as follows:

Mathematically,

$$\text{Cash and Bank balance to Total Deposit Ratio}=\frac{Cash\&BankBalance}{TotalDeposit}$$

Cash and bank balance includes cash on hand, foreign cash on hand, cheques and other cash items, balance with domestic banks, balance held in foreign banks and other financial

institutions. The total deposits encompass current deposits, fixed deposits, and investment in other financial institution, money at call and short deposit and other deposits. A high ratio indicates the greater ability to meet their deposits liability and vice versa. Moreover, too high ratio is unfit, as capital will be tied- up and opportunity cost will be higher.

c) Cash and Bank Balance to Current Assets Ratio

Since cash and bank balance is the most liquid assets, a financial analyst may examine the ratio of cash and balance to current assets. This ratio shows the percentage of readily available fund within the banks. It is calculated by dividing cash and bank balance by current by current assets, which is as follow:

Mathematically,

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

A high ratio indicates the sound ability to meet their daily cash requirements of their customer deposits and vice versa. Bother higher and lower ratios are not desirable.

The reason is that if a bank maintain higher ratio of cash, it has to pay interest on deposits but couldn't invest its cash or current assets in a profitable area so it may lost opportunity to earn something. In the opposites, if a bank maintain low ratio of cash, it may fail to make the payment for presented cheques by its customers. So, sufficient and appropriate cash reserve should be maintained properly.

d) Investment on Government Security to Total Deposit Ratio

Government security is a risk free security. The banks instead of keeping their funds idle, invest in various government securities i.e. treasury bills and development bonds which are liquid in nature as they can be traded any time. This ratio measures how much of the total deposit is utilized in investment in government securities. It is calculated as dividing investment in government securities by total deposit.

Mathematically,

$$\text{Government Securities to Total Deposit Ratio} = \frac{Government\ securities}{Total\ Deposits}$$

2. Assets Management Ratio/ Activity or Performing Ratios

Activity ratio evaluates the efficiency with which the firm manages and utilizes its assets. This ratio is also known as turnover ratio. It measures how effectively the company employs the resources at its command. Funds are creates by the collection of shares as well as debt from the owner, creditors and outside parties. Those are invested in procuring various kinds of assets to generate or income. Activity ratios are the indicators of a concern with regard to its efficiency in assets management, hence they are often referred to as efficiency ratio are computed to assess finance companies efficiency in utilizing available. These ratios are design to answer this question: Does the total amount of each type of assets as regarded on the balance sheet seem reasonable, how high, too low, in view of current assets and operating levels? Either a company or a bank must borrow or obtain funds from other sources to acquire assets. If it has too many assets its interest expenses will be too high and hence its profits will be low, on the other hand, if assets are too low, profitability sales may be lost.

The following ratio is used under this asset management:

a) Loan and Advances to Total Deposit Ratio

This ratio measures the extent to which the banks are successful to utilize the outsider's fund (Total Deposit) for the profit generating purpose on the loans and advance. Generally, a high ratio reflects higher efficiency to the utilization of fund and vice- versa. It can be calculated by dividing the amount of loans and advances by the amount of total deposits, which is given as below:

Mathematically,

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

Here loan and advances refers to total of loan, advances and overdraft and total deposits refer to total of all kinds of deposits.

b) Total Investment to Total Deposit Ratio

Investment is one of the major forma of credit created to earn income. This implies the utilization of firm's deposit on investment in government securities and shares, debenture of the other

Mathematically,

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

Investment consists of investment of government securities, investment on debenture and bonds, shares in subsidiary companies, share in other companies and other investment. A high ratio indicates that the Bank's efficiency is more investing on its deposit and low indicates in ability to put its deposits for the lending activities.

c) Loans and Advances to Total Working Fund Ratio

Loan and advance is the major components in the total working fund, which indicates the ability of banks are successful in mobilizing their loan and advances on the working fund ratio for the purposes of income generator is computed by dividing loans and advance by total working fund. This is listed as below:

Loans and advances to Total Working Fund Ratio = $\frac{LoansandAdvances}{TotalWorkingFund}$

Here Total working fund includes all assets of on balance sheet items. In other words, this includes current assets, net fixed assets, loans for development bonds and other investment in share, debenture and other etc. Higher the ratio, higher the utilization, higher the profit and, at the same time higher the risk.

d) Investment on Government Securities to Total working fund Ratio

The ratio measures to what extent, Banks are successful in mobilizing their total working fund on different types of govt. securities to grow income. All the deposits of Banks should not be utilized as loans and advances and other credits from liquidity as well as company's security point of view. That's why some of the investments should be diversified into such kind of investment that has lower risk in comparison to loans. Higher the ratio result, better the mobilization of fund as investment on govt. securities and vice versa. This ratio is calculated by dividing investment on government securities by total Assets. This can be stated as:

Investment on Government Securities to Total working find Ratio=$\frac{InvestmentonGovernmetnSecurities}{Total\ working\ fund}$

e) Investment on Shares and Debenture to Total working Ratio

The purpose of this ratio is to measures the successfulness of mobilizing the total working fund to shares and debenture. Share and Debenture are long term Investment. Banks should invest in long term securities by maintaining a liquidity position. The investment risk can diversified with the help of portfolio management. This ratio can be computed by dividing investment on shares and debentures by Total Assets.

This can be stated as:

Investment on shares and Debenture to Total working fund Ratio= $\frac{InvestmentonSharesandDebenture}{Total\ working\ fund}$

3. Profitability Ratios

Profit is the difference between total revenues and total expenses over a period of time. Profit is the ultimate output of a commercial bank and it will have no future if it fails to make sufficient profits. Therefore, the financial manager continuously evaluates the efficiency of the banks in terms of profits. Profitability shows the overall efficiency of the business concerns. The relation of the return of the firm to either its sales or equity of its assets is knows as profitability ratio. Profit is necessary to survive in any business field for its successful operation and further expansion. It measures management's overall effectiveness as shown by the return generated on sales and investment. Higher the profitability ratio, better the financial performance of the banks and vice-versa. Profitability ratio can be calculated by following different ratio:

a) Return on Loan and Advances Ratio

This ratio shows how effectively the bank has utilized its resources in the form of loans and advances. The ratio can be calculated as:

Mathematically,

$$\text{Return on Loan and Advances Ratio}=\frac{NetProfit\ (Loss)}{LoanandAdvances}$$

b) Return on Total Working Fund Ratio (ROA)

It is also known as assets. The ratio measures the overall profitability of all working funds, i.e. total assets. A firm or a financial institution has to earn satisfactory return on assets or working fund for its survival. The ratio can be computed as:

Mathematically,

$$\text{Return on Total Working Fund Ratio} = \frac{NetProfit(Loss)}{TotalWorkingFund}$$

c) Return on Equity Ratio (ROE)

This ratio measures how efficiently the banks have used the funds of owner. It is calculated by dividing Net Profit by total equity capital. Total capital includes shareholder's reserve including P/L A/C and share capital i.e. ordinary share and preference share capital.

Mathematically,

$$\text{Return on Equity Ratio} = \frac{NetProfit}{TotalEquity}$$

- **Risk Ratio**

The possibility of risk makes a bank's investment a challenging risk. Bank has to take risk to get return on its investment. The risk taken is compensated by the increase in profit. So, a bank has to have idea of the level of risk that one has to bear while investing funds.

The following ratios are evaluated under this study:

a) Liquidity Risk Ratio

The liquidity risk ratio of a bank defies its liquidity need for deposits. The cash and bank balance are the most liquid assets and they are considered as bank's liquidity sources and deposits as the liquidity needs. The ratio of cash and bank balance to total deposits is an indicator of bank liquidity needs.

The risk is low if funds are kept idle or as cash and bank balance but this affects profitability. When bank makes loan, its profitability increases and also the risk. Thus, higher liquidity ratio indicates less risk and less profitability or vice-versa. The ratio can be computed as:

$$\text{Liquidity Risk Ratio} = \frac{CashandBankBalance}{TotalDeposit}$$

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. This is expressed as the percentage of loan and advances to total assets. It helps to check the probability of loan non- repayment loan or the possibility of loan to go into defaults. Risk of non- repayment loan is known as credit risk.

Mathematically,

Liquidity Credit Risk Ratio=$\frac{TotalLoanandAdvances}{TotalAssets}$

5. Growth Ratio

Growth ratio represents how well the Current Banks are marinating their economic and financial status. Higher the ratio, better the executing of the bank and vice- versa. Under this title, four types of ratio are studied. They are directly related to the fund mobilization and investment of CB. These ratios are:

a) Growth Ratio of Total Deposits
b) Growth Ratio of Loans and Advances
c) Growth Ratio of Total Investment
d) Growth Ratio of Net Profit

3.4.2 Statistical Tools

After the collection, organization and the presentation of data, the next step is to analyze the data. On this study, various statistical tools like trend analysis, standard deviation, coefficient of variance, coefficient of correlation analysis etc. have been used to analyze this data. Statistical tool or appropriate technique of analysis depends upon the nature of the data and the purpose of the enquiry. The following tools are used in the analysis of the financial position of the bank:

1. Trend Analysis

Trend Analysis is an analysis of a firm's financial ratios over time. This measures the change of data over a period of time. This reveals whether the firm's ratio are improving or deteriorating over time. Under segment, current and projected trend, total investment, total deposit, total loan and total net profit are calculated.

i) Trend analysis of Total Deposits

ii) Trend analysis of Loans and Advances

iii) Trend analysis of Total Investment

iv) Trend analysis of Net Profit

2. Co-efficient of Variance (CV)

Standard deviation is only an absotute measure of dispersion, depending upon the units of measurement. The ralative measure of dispersion based on standard deviation is called the coefficient of stardard (Gupta, 1993).

It is given by

$$CV = \frac{\sigma}{\bar{x}} \times 100\%$$

For comparing the variability of two distributions, CV is computed of each disrtribution. A distribution with smaller CV is said to be less variable or more consistent or more homogeneous or more uniform or more stable than the other and vice veras.

3. Karl Pearson's Co-Efficient of Correlation®

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

$$r = \frac{N\Sigma XY - \Sigma X\Sigma Y}{\sqrt{N\Sigma X^2 - (\Sigma X)^2}\sqrt{N\Sigma Y^2 - (\Sigma Y)^2}}$$

Where,

r= coefficient of correlation

x= independent variable

y= dependent variable

n= no. of periods

4. Probable Error of the Co-Efficient of Correlations

After the calculation of co- efficient of correlation the next thing is to find out the extent to which it is dependable. For this purpose the probable error of the coefficient of correlation is calculated. If the probable error is added to and subtracted from the co-efficient of correlation t would give two such limits with in which we can reasonably accept the value of co-efficient of correlation to vary. The formula for finding out the probable of error of the Karl Pearson's co- efficient of correlation is:

$$P.E.r=.06745\times \frac{(1-r\ 2)}{\sqrt{N}}$$

Where,

P.E.r = Probable error of co-efficient of correlation

r = co- efficient of correlation

n = number of pairs of observations.

In order to conclude whether the co-efficient of correlation is significant or not. The following points should be kept in mind.

- If the co- efficient of correlation is less than its probable error, it is not at all significant.
- It the co- efficient of correlations is more than six times of probable error it is definitely significant.
- If the probable error is not much and if the co- efficient of correlation is 0.5 or more it is generally to be significant.

CHAPTER- IV
DATA PRESENTATION AND ANALYSIS

This chapter is the most important of the study since all the collected data are processed, presented and analyzed here. Data are collected from various secondary sources. The outcome of the study solely depends upon this chapter. Financial and statistical tools mentioned in the previous chapter are used here for interpretation. For the sole purpose, interpretations are categorized into two headings:

1. Analysis of Financial Raito
2. Analysis of Statistical Ratio

4.1 Analysis of Financial Ratio

The analysis of the financial ratios verifies the performance of the concerned banks. Appropriate ratios are calculated and proper interpretations are made.

4.1.1 Liquidity Ratios

Liquidity ratios measure the ability of the firm to meet its current obligations. Difference between current assets and current liabilities is known as working capital, which provides liquidity in business organizations. A commercial bank must maintain a fair liquidity position to satisfy the credit needs of the community, to meet demands for deposit withdrawals, pay matured obligations in times and convert non-cash to satisfy immediate needs without loss to the bank and without consequential impact on long- run profitability of the bank. To measure the liquidity portion of concerned banks following ratio has been calculated and bring analysis of the same has been done.

1. Current Ratio

Current ratio shows the relationship between current assets and current liabilities. Current assets are those assets which can be converted into cash within the short period of time, normally not exceeding one year (i.e. cash and bank balance, money at call, investment, loan and advances and bill purchase). Current liabilities are those obligations which are payable within a short span of time (i.e. Borrowing, Deposit).

Table 4.1

Current Ratio **(Rs. millions)**

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D.	C.V (%)
NABIL	C.assets	17509	25989	31515	36787	42923	46707	53886	0.787	0.044	6%
	C.liabilitie	24818	33989	39910	47370	52415	56376	65181			
	Ratios	0.705	0.765	0.790	0.777	0.819	0.828	0.827			
NIBL	C.assets	19891	24565	44158	47133	49234	53438	59653	0.862	0.128	15%
	C.liabilitie	30752	34648	47691	50808	51028	57729	63685			
	Ratios	0.647	0.709	0.926	0.928	0.965	0.926	0.937			
KBL	C.assets	9973	12324	16399	17610	16247	21657	23529	0.968	0.039	4%
	C.liabilitie	10798	12930	16080	18061	17660	22122	23352			
	Ratios	0.924	0.953	1.020	0.975	0.920	0.979	1.008			

Sources: Annual Reports of Sample Banks

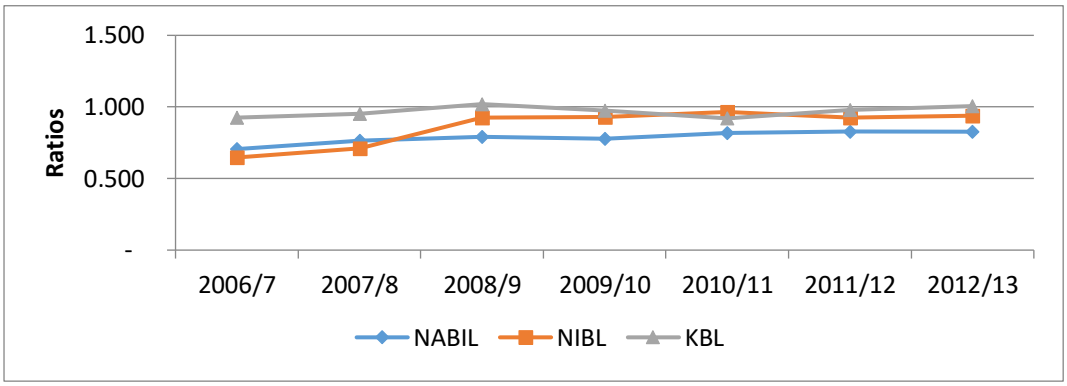


Figure 4.1

Table 4.1 and figure 4.1indicate that sample banks are not capable to pay their current obligation. The comparative table has revealed that selected banks have more current liabilities than current assets. In average, KBL has maintained higher current ratio than two other selected banks INBL and NABIL i.e. 0.968> 0.862> 0.787, but the liquidity position of selected banks are not so satisfying. The co-efficient of variation between current ratio are 6%, 15%, 4% respectively of NABIL, NIBL and KBL.

The above ratios are not consistent because the optimal standard ratio should be 2:1, but 1:1 is also considered for the banks. This ratio represents the relationship between cash & other current assets to its current obligation.

2. Cash and Bank Balance to Total Deposit Ratio

This ratio measures the proportion of the most liquid assets i.e. cash and bank balance among the total assets of the bank. Higher ratio proves the bank's ability to meet the demand for cash.

Table 4.2

Cash and Balance to Total Deposit Ratio (Rs. millions)

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D	C.V.(%)
NABIL	Cash&bank	1301	2671	3372	1400	2436	4275	5882	0.068	0.024	35%
	Total depo	23342	31915	37348	46410	49696	55023	63609			
	Ratios	0.056	0.084	0.090	0.030	0.049	0.078	0.092			
NIBL	Cash&bank	2442	3755	7917	6815	8139	11802	13253	0.157	0.044	28%
	Total depo	24489	34452	46698	50094	50138	57010	62429			
	Ratios	0.100	0.109	0.170	0.136	0.162	0.207	0.212			
KBL	Cash&bank	672	934	1670	2724	1169	3722	3407	0.112	0.045	40%
	Total depo	10557	12774	15710	17432	16986	21985	23319			
	Ratios	0.064	0.073	0.106	0.156	0.069	0.169	0.146			

Sources: Annual Reports of Sample Banks

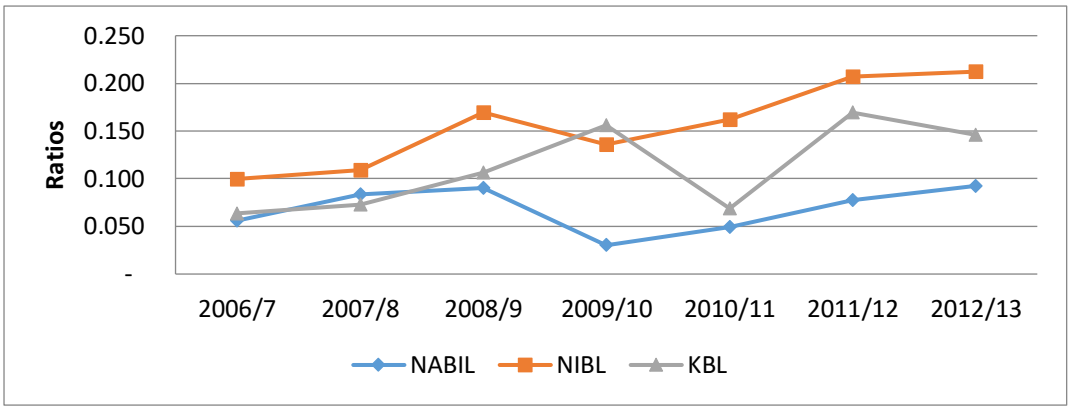


Figure 4.2

The table 4.2 shows that the comparative cash and bank balance to current assets ratio, which is in fluctuating trend for selected banks NABIL, NIBL &KBL. The mean ratios of KBL, NIBL & NABIL are 0.122, 0.157 & 0.068 respectively. On the basis of co-efficient of variation it can be conclude that NIBL ratios is i.e. 28% are consistent that of NABIL & KBL i.e. 35%& 40%. The above analysis helps to conclude that the cash and bank balance position of NIBL with respect to current assets ratio is better than NABIL & KBL. It implies the better liquidity position of NIBL.

3 Cash and Bank Balance to Total Current Assets Ratio

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

Table 4.3

Cash and Bank Balance to Total Current Assets Ratio (Rs. millions)

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D.	C.V(%)
NABIL	Cash & ba	1301	2671	3372	1400	2436	4275	5882	0.083	0.027	33%
	T.Current	17509	25989	31515	36787	42923	46707	53886			
	Ratios	0.074	0.103	0.107	0.038	0.057	0.092	0.109			
NIBL	Cash & ba	2442	3755	7917	6815	8139	11802	13253	0.168	0.042	25%
	T.Current	19891	30752	44158	47133	49234	53438	59653			
	Ratios	0.123	0.122	0.179	0.145	0.165	0.221	0.222			
KBL	Cash & ba	672	934	1670	2724	1169	3722	3407	0.113	0.044	39%
	T.Current	9973	12324	16399	17610	16247	21657	23529			
	Ratios	0.067	0.076	0.102	0.155	0.072	0.172	0.145			

Sources: Annual Reports of Sample Banks

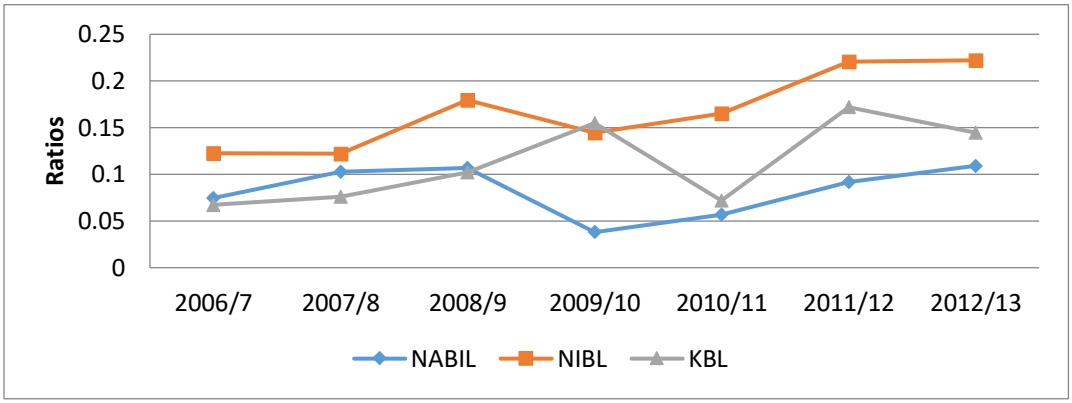


Figure 4.3

It is observed from the above table & figure 4.3 that cash and bank balance to total current assets of selected banks are in fluctuating trend. The mean ratio of NIBL is higher than that of other selected banks ratios i.e 0.168>0.113> 0.083. The higher mean ratio of cash and bank balance to total current assets of KBL reveals that its liquidity position regard to its total current assets is more satisfactory than NABIL & NIBL. The standard deviation of KBL is higher than other two sample banks. On the basis of co- efficient of variation it can be concluded that KBL's ratios are less consistency than that of NABIL & NIBL because of it's higher C.V. i.e 39%>33%>25%.

4 Investment on Government Securities to Total Deposit Ratio

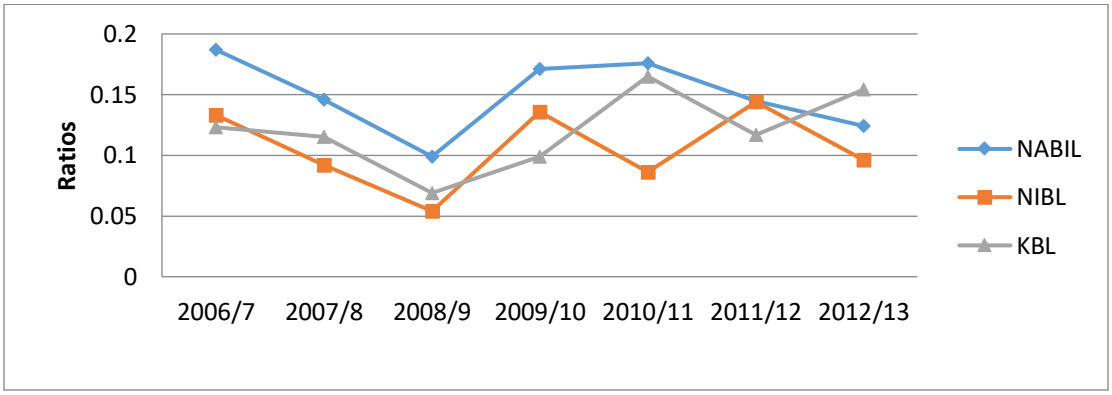
This ratio is calculated to find our the percentage total deposit in government securites such as treasury bills and government bond etc, the government securities are not so much liquid as cash and bank balance. But they can earning be sold in the market or they can be converted into cash in other ways.

Table 4.4

Investment on Government Securities to Total Deposit Ratio (Rs. millions)

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D.	C.V(%)
NABIL	Invt. on Govt. Security	4373	4647	3706	7942	8745	8000	7913	0.150	0.031	21%
	Total deposit	23342	31915	37348	46410	49696	55023	63609			
	Ratios	0.187	0.146	0.099	0.171	0.176	0.145	0.124			
NIBL	Invt. on Govt. Security	3256	3155	2531	6812	4295	8187	5986	0.106	0.033	31%
	Total deposit	24489	34452	46698	50094	50138	57010	62429			
	Ratios	0.133	0.092	0.054	0.136	0.086	0.144	0.096			
KBL	Invt. on Govt. Security	1298	1469	1081	1730	2806	2575	3592	0.120	0.032	27%
	Total deposit	10557	12774	15710	17432	16986	21985	23319			
	Ratios	0.123	0.115	0.069	0.099	0.165	0.117	0.154			

Sources: Annual Reports of Sample Banks



The above table and figure reveals that the mean ratio of investment on government securities to total deposit of NABIL is higher than the mean ratios of KBL & NIBL i.e. 0.150>0.120>0.106. From the analysis we can say that invesment of total deposit as Government securities indicates that it wants to invest more in government securities than in other productive sector.

4.1.2. Assets Management (Activity Ratio)

Assets management ratio shows how a bank is managing its assets. It shows how successfully the bank is mobilizing its deposits. It also shows how and in which sectors the deposit is utilized or invested. These are shown with help of following ratios:

1) Loan and Advances to Total Deposit Ratio

This ratio assists to find out how successfully the banks are utilizing their total deposits on loans and advances for profit generating purpose. Greater the ratio implies the better utilization of total deposits.

Table 4.5

Loan and Advance to Total Deposit Ratio (Rs. millions)

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D.	C.V(%)
NABIL	loan &adv	15546	21365	27589	32268	38034	41605	46369	0.717	0.040	6%
	total depo	23342	31915	37348	46410	49696	55023	63609			
	Ratios	0.666	0.669	0.739	0.695	0.765	0.756	0.729			
NIBL	loan &adv	17286	26997	36241	40318	41095	41636	46400	0.766	0.041	5%
	total depo	24489	34452	46698	50094	50138	57010	62429			
	Ratios	0.706	0.784	0.776	0.805	0.820	0.730	0.743			
KBL	loan &adv	8929	11335	14593	14766	14626	17614	19369	0.857	0.041	5%
	total depo	10557	12774	15710	17432	16986	21985	23319			
	Ratios	0.846	0.887	0.929	0.847	0.861	0.801	0.831			

Sources: Annual Reports of Sample Banks

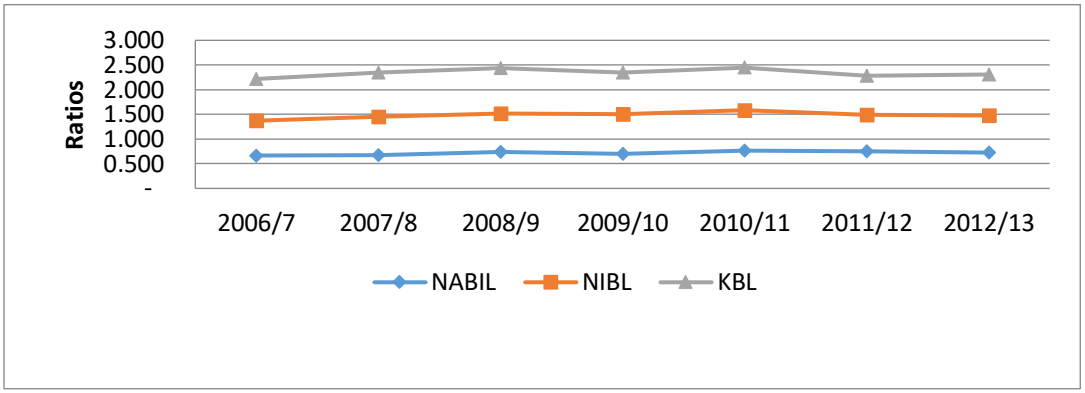


Figure 4.5

Table 4.5 & figure 4.5 shows that loan & advance to total deposit ratio have fluctuating trend during the study period. The higher ratio of NABIL, NIBL & KBL are 0.765(F/Y 2010/11), 0.820(F/Y2010/11) & 0.929(F/Y 2008/9) respectively. An average, the ratio of KBL is higher than that of NIBL & NABIL (i.e.0.857>, 0.766>, 0.717). It shows that KBL seems to be strong to mobilize its total deposit as loan & advances in comparison to NABIL & NIBL. On the basis of co- efficient of variation, we can say that NIBL & KBL loan & advances is more consistent that of & NABIL because of its lower C.V i.e. 5%>5%>6%. It is concluded that NIBL & KBL is successful mobilizing its total deposit as loan and advance.

2. Total Investment to Total Deposit Ratio

This ratio measures the extent to which the banks are able to mobilize their deposits in investments in various securities and other investments. Higher ratio indicates the success in mobilizing deposits in securities and vice versa. This ratio can be computed by dividing the total investment by total amount of deposits collections. Securities, debentures and bonds, shares in subsidiary companies, shares in other companies and other investments.

Table 4.6

Total Investment to Total Deposit Ratio (Rs. millions)

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D.	C.V(%)
NABIL	Investmen	8945	9940	10826	13703	13081	14048	16332	0.294	0.045	15%
	total depo	23342	31915	37348	46410	49696	55023	63609			
	Ratios	0.383	0.311	0.290	0.295	0.263	0.255	0.257			
NIBL	Investmen	6506	6874	7399	8635	7423	10438	11435	0.187	0.039	21%
	total depo	24489	34452	46698	50094	50138	57010	62429			
	Ratios	0.266	0.200	0.158	0.172	0.148	0.183	0.183			
KBL	Investmen	1678	2139	1511	2297	3533	2940	4135	0.153	0.036	24%
	total depo	10557	12774	15710	17432	16986	21985	23319			
	Ratios	0.159	0.167	0.096	0.132	0.208	0.134	0.177			

Sources: Annual Reports of Sample Banks

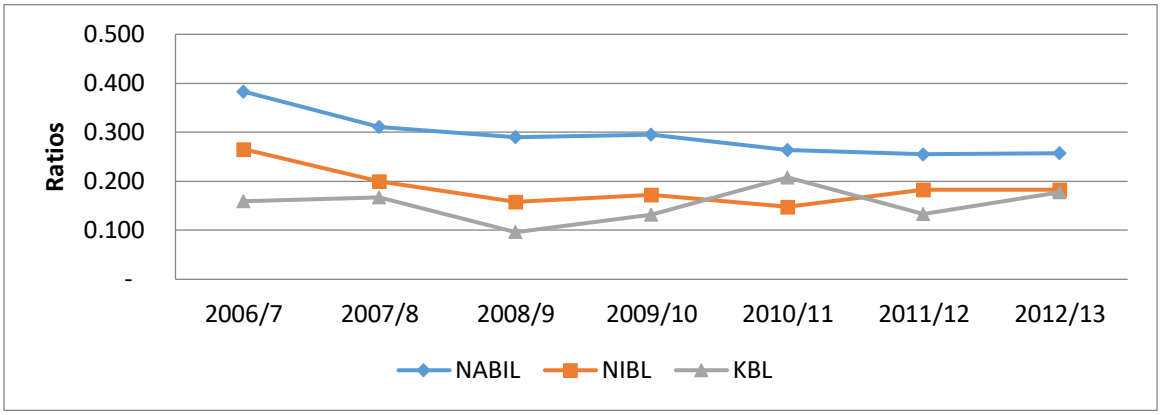


Figure 4.6

It is clear from the table 4.6 & figure 4.6 that sample bank's total investment to total deposit ratios are in fluctuating trend. The mean value of NABIL is higher than NIBL & KBL and its co-efficient of variation between the ratios is also lower at 15% clearly indicating investment policy of NABIL is better than two other sample banks and has more homogeneous investment in total deposit.

3. Loan and Advance to Total Assets Ratio

Loan and advance is the major element in the total working fund (total assets) which indicates the ability of a bank to channelize its deposit in the form loan and advance to earn the utmost return. A high ratio indicates better in mobilization of funds as loans and advances and vice- versa.

Table 4.7

Loan and advance to Total Assets Ratio (Rs. millions)

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D.	C.V(%)
NABIL	Loan & Ad	15546	21365	27589	32268	38034	41605	46369	0.620	0.035	6%
	T. assets	27253	37133	43867	52151	58141	63193	73241			
	Ratios	0.570	0.575	0.629	0.619	0.654	0.658	0.633			
NIBL	Loan & Ad	17286	26997	36241	40318	41095	41636	46400	0.669	0.036	5%
	T.assets	27591	38873	53010	57305	58356	65756	73152			
	Ratios	0.627	0.694	0.684	0.704	0.704	0.633	0.634			
KBL	Loan & Ad	8929	11335	14593	14766	14626	17614	19369	0.730	0.035	5%
	T. assets	11918	15026	18538	20522	20491	25131	28223			
	Ratios	0.749	0.754	0.787	0.720	0.714	0.701	0.686			

Sources: Annual Reports of Sample Banks

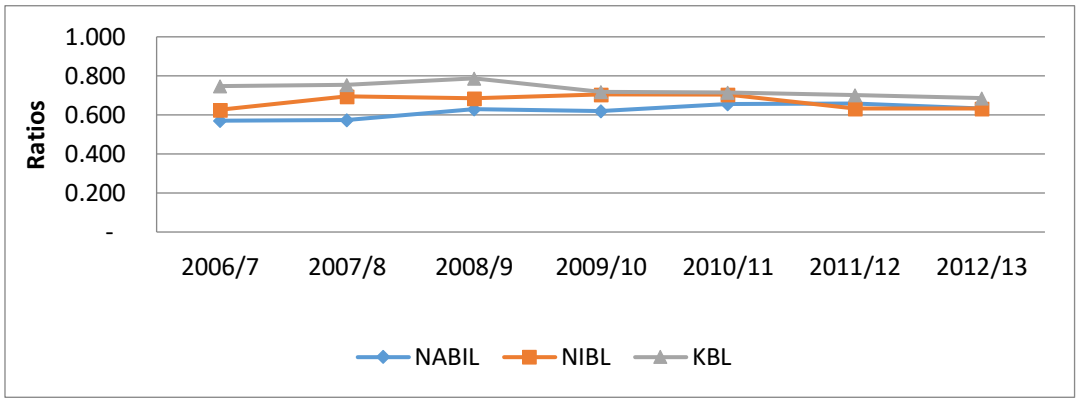


Figure 4.7

The table 4.7 & figure 4.7 shows that loan & advance to total Assets ratio are in fluctuating trend of selected banks. NABIL has the highest ratios in the F/Y 2011/12 i.e. 0.658 and the lowest ratio is 0.570 in the F/Y 2006/7. In the case of NIBL the highest ratio in F/Y 2009/10 & F/Y 2010/11 is 0.704 & lowest 0.627 in F/Y 2006/7 which is in fluctuating trend,. In the case of KBL, higher ratio F/Y 2008/09 i.e. 0.787 & lowest i.e. 0.701 in 2011/12. From the above analysis, it is concluded that NABIL is more consistent having high C.V i.e. 6% and less consistent of NIBL &KBL with same C.V. i.e. 5%.

1. Investment on Government Securities to Total working fund Ratio

This ratio indicates the relationship between the banks investment on securities in comparison to total working fund. Government securities are a safe medium of investment though it is not as liquid as cash and bank balance. This ratio is very important to know the extent to which the banks are successful in mobilizing their total fund on different type of government securities to maximize its income and to minimize its risk assets

Table 4.8

Investment on Government Securities to Total working fund Ratio (Rs. millions)

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D.	C.V(%)
NABIL	Invt. on Govt. Security	4373	4647	3706	7942	8745	8000	7913	0.130	0.027	21%
	Total working fund	27253	37133	43867	52151	58141	63193	73241			
	Ratios	0.160	0.125	0.084	0.152	0.150	0.127	0.108			
NIBL	Invt. on Govt. Security	3256	3155	2531	6812	4295	8187	5986	0.092	0.029	31%
	Total working fund	27591	38873	53010	57305	58356	65756	73152			
	Ratios	0.118	0.081	0.048	0.119	0.074	0.125	0.082			
KBL	Invt. on Govt. Security	1298	1469	1081	1730	2806	2575	3592	0.102	0.026	26%
	Total working fund	11918	15026	18538	20522	20491	25131	28223			
	Ratios	0.109	0.098	0.058	0.084	0.137	0.102	0.127			

Sources: Annual Reports of Sample Banks

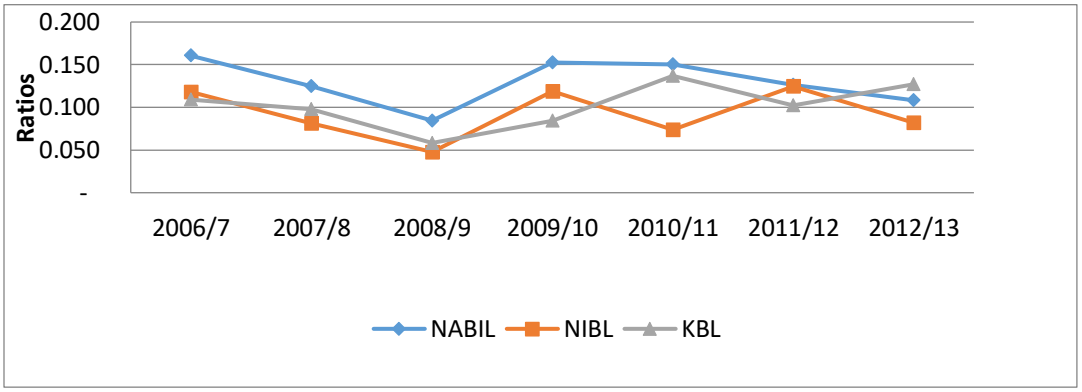


Figure 4.8

The above comparative table 4.8& figure 4.8 shows that the ratio of sample banks is fluctuating trend in the study period. The mean ratio of NABIL is more than two other sample banks KBL & NIBL i.e. 0.130>0.102> 0.092 respectively.

While comparing mean ratio of selected banks, it reveals that NABIL is strong to mobilize their working funds as investment in government securities. The co-efficient of variation are 21 %, 31%, 26%. Respectively, it indicates that NABIL's ratios are more consistent than that of NIBL & KBL. From the analysis, it can be concluded that NABIL has invested its more portion of working fund on government securities than two other selected banks in the starting period of the study.

2. Investment on Shares and Debentures to Total working fund Ratio

This ratio reflects the banks investments in shares and debentures of subsidiaries and other companies. Bank may invest in shares and debentures of any one organized institution not exceeding 10% of the paid of capital of such organized institution.

Table 4.9

Investment on Shares and Debentures to Total working fund Ratio

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D.	C.V(%)
NABIL	Investment on share & Deb.	57	81	83	170	190	198	205	0.003	0.001	33%
	Total working fund	27253	37133	43867	52151	58141	63193	73241			
	Ratios	0.002	0.002	0.002	0.003	0.003	0.003	0.003			
NIBL	Investment on share & Deb.	35	54	61	63	71	172	305	0.002	0.001	50%
	Total working fund	27591	38873	53010	57305	58356	65756	73152			
	Ratios	0.001269	0.001389	0.001151	0.001099	0.001217	0.002616	0.004169			
KBL	Investment on share & Deb	Na	18	18	22	23	23	13	0.001	0.0003	30%
	Total working fund	11918	15026	18538	20522	20491	25131	28223			
	Ratios	Na	0.001	0.001	0.001	0.001	0.001	0.000			

Sources: Annual Reports of Sample Banks

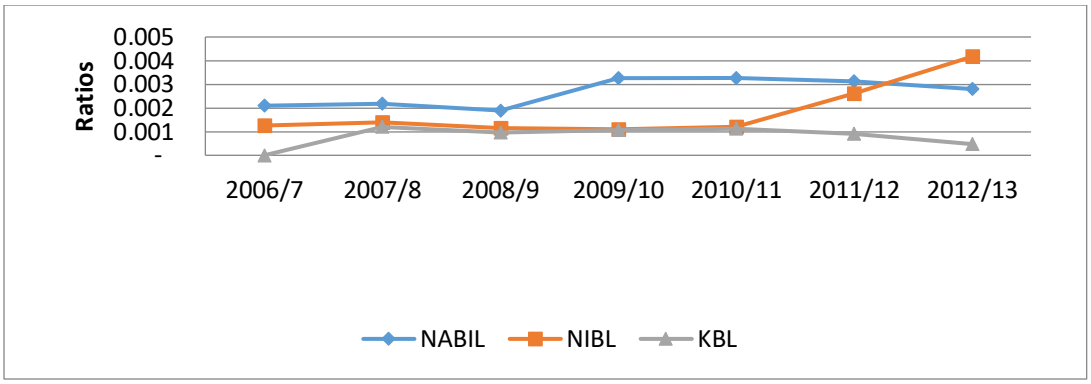


Figure 4.9

Form the above comparative table 4.9 & figure 4.9, it is found that the NABIL & NIBL have invested nominal percentage but higher than KBL to total working fund into shares & debentures of other companies. NIBL ratios are in rising trend but NABIL & KBL ratios are in a fluctuating trend showing the lack of efficient and uniform investment policy. The comparison of mean ratios of NABIL, NIBL & KBL, it reveals that NABIL & INBL has invested higher amount in shares and debentures than KBL. Moreover, C.V of NIBL, NABIL & KBL i.e. 50%>33%>30%. Higher C.V. states that its ratios are less consistent than of less C.V.

4.3.3 Analysis of Profitability Ratio

Profit is the difference between total revenue and total expenses over a period of time. Profit is the end result of a commercial bank operations and it will have no future of it if it fails to make sufficient profits. Therefore, one of the important objectives of the commercial bank is to earn profits, as all stakeholders such as stockholders, management, and creditors of the bank expect the bank has to earn reasonable return. In addition, the bank's efficiency is also measured in terms of its profit and profitability.

In order to measure the profitability of the selected banks, therefore, profitability ratios have be calculated and analyzed, as they indicate the banks have won public acceptance of their service even in an intense competitive situation and earned profits. in this study, the profitability ratios are computed on the basis of profit of banks vis-à-vis their investment. To measure and analyze of profitability of NABIL, NIBL and KBL following ratio have been computed and presented in table.

1. Return on loan and advances

Return on loan and advances ratio measures how efficiently the banks have utilized their resources to earn good return on loans and advances provided. Put it another way, it measures the earning capacity of commercial bank on its deposits used in the form of loans and advances. Mostly loans and advances include loan cash credit, overdraft, bills purchased and discounted.

Table 4.10

Return on Loan and Advances **(Rs. millions)**

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D.	C.V(%)
	Net profit	674	746	1031	1139	1337	1696	2218			
	loan &adv	15546	21365	27589	32268	38034	41605	46369			
NABIL	Ratios	0.043	0.035	0.037	0.035	0.035	0.041	0.048	0.039	0.005	13%
	Net profit	501	697	901	1265	1176	1039	1915			
	loan &adv	17286	26997	36241	40318	41095	41636	46400			
NIBL	Ratios	0.029	0.026	0.025	0.031	0.029	0.025	0.041	0.029	0.006	20%
	Net profit	170	175	258	316	251	276	291			
	loan &adv	8929	11335	14593	14766	14626	17614	19369			
KBL	Ratios	0.019	0.015	0.018	0.021	0.017	0.016	0.015	0.017	0.002	12%

Sources: Annual Reports of Sample Banks

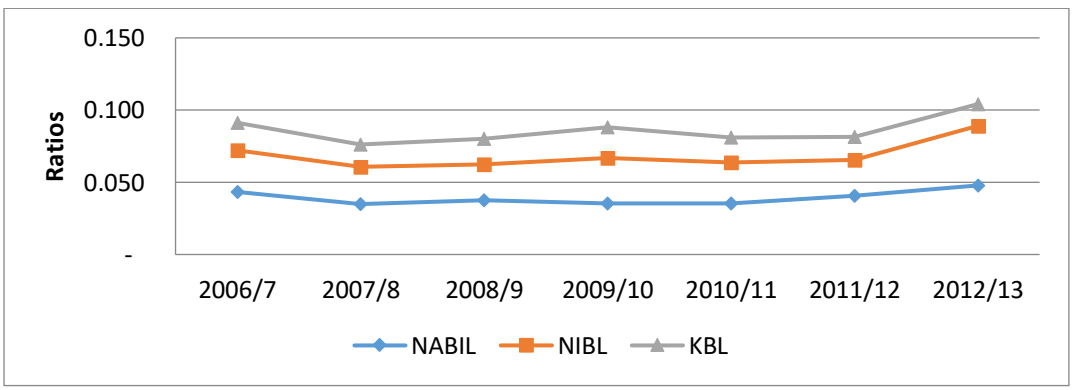


Figure 4.10

Table & figure 4.10, show that the ratios of NABIL, NIBL KBL are in fluctuating trend. During the study period, the highest ratio of NABIL is in F/Y 2012/13i.e. 0.048& lowest ratio is 0.035 in F/Y 2007/8 & 2009/10. In the case of NIBL, higher ratio is 0.041 in F/Y 2012/13 & less is 0.025 at two periods that is in F/Y 2008/09 & F/Y 2011/12. In case of KBL the higher ratio is 0.021 in F/Y 2009/10 & the lowest ratio is 0.015 in F/Y2007/8 &2012/13.

On the other hand, when the mean ratios are observed, NABIL has higher ratio than NIBL & KBL (i.e. 0.039>0.029>0.017). Likewise, high C.V. of NIBL i.e. 20% indicates high variability of ratios than that of NABIL& KBL. Moreover, NIBL significantly high C.V. shows its less homogeneous ratios during the study period.

2. Return on Total Working Fund Ratio

This is also known as return on assets and this ratio assists in calculating the overall profitability of total working fund which fund which should be satisfactory for its survival. In the present study, this ratio is calculated and analyzed to measure the profitability of all financial resources invested in the bank's assets. A higher ratio usually indicates efficiently in the utilization its overall resources and vice versa.

Table 4.11

Return on Total Assets **(Rs. millions)**

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D.	C.V(%)
NABIL	Net profit	674	746	1031	1139	1337	1696	2218			
	T. assets	27253	37133	43867	52151	58141	63193	73241	0.024	0.003	13%
	Ratios	0.025	0.020	0.024	0.022	0.023	0.027	0.030			
NIBL	Net profit	501	697	901	1265	1176	1039	1915			
	T. assets	27591	38873	53010	57305	58356	65756	73152	0.020	0.004	20%
	Ratios	0.018	0.018	0.017	0.022	0.020	0.016	0.026			
KBL	Net profit	170	175	258	316	251	276	291			
	T. assets	11918	15026	18538	20522	20491	25131	28223	0.013	0.002	15%
	Ratios	0.014	0.012	0.014	0.015	0.012	0.011	0.010			

Sources: Annual Reports of Sample Banks

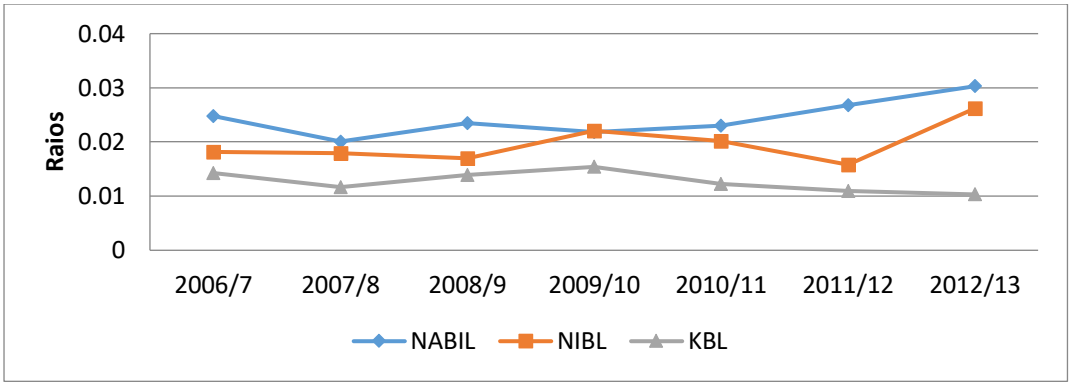


Figure 4.11

From the table 4.11 it is clear that NABIL recorded its highest ratio of 0.03 in F/Y 2012/13 & the lowest 0.020 in F/Y 2008/9. NIBL, registered high ratio in F/Y 2012/13 i.e. 0.026 & lowest in F/Y 2011/12 i.e. 0.016. Similarly, KBL registered higher ratio of return on total Assets is 0.015 in F/Y 2009/10 & lowest at F/Y2012/13 i.e. 0.010. Likewise, NABIL registered higher mean ratio of return on total assets than that of two other selected banks NIBL & KBL i.e. 0.024>0.020>0.013. This shows that NABIL had been able to earn higher profit on total assets than NIBL & KBL. And also have more consistent because of its less C.V. i.e. 13%.

3. Return on Equity Ratio

This ratio measures how efficiently the banks have used the fund of owner.

Table 4.12

Return on Equity Ratio **(Rs. millions)**

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D.	C.V(%)
NABIL	Net profit	674	746	1031	1139	1337	1696	2218	0.829	0.352	43%
	Equity	492	689	966	2028	2029	2436	6046			
	Ratios	1.370	1.083	1.067	0.562	0.659	0.696	0.367			
NIBL	Net profit	501	697	901	1265	1176	1039	1915	0.462	0.124	27%
	Equity	801	1203	2407	2410	3011	3766	4145			
	Ratios	0.625	0.579	0.374	0.525	0.391	0.276	0.462			
KBL	Net profit	170	175	258	316	251	276	291	0.191	0.036	19%
	Equity	750	1070	1186	1306	1604	1604	1828			
	Ratios	0.227	0.164	0.218	0.242	0.156	0.172	0.159			

Sources: Annual Reports of Sample Banks

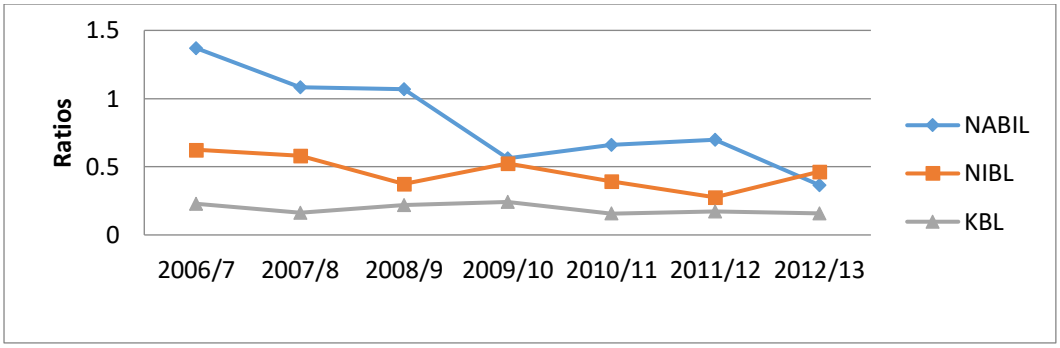


Figure 4.12

Table & figure show that the return on equity ratios of selected banks are fluctuating trend during the study period. NABIL has maintained higher ratio i.e. 1.083 in F/Y 2007/8 & lowest ratio i.e. 0.367 in F/Y 2012/13. Similarly, NIBL higher & lowest ratios are 0.625&0.276 in F/Y 2006/7& 2011/12 respectively. Likewise, KBL higher & lowest ratios are 0.227 &0.159 in F/Y 2006/7& 2012/13 respectively.

On the basis of mean ratio, it can be said that NABIL hasn't been weaker to earn high profit to its shareholders in comparison to KBL & NIBL which can be viewed by the higher mean ratio i.e. 0.352>0.124>0.036. The co-efficient of variation of KBL is higher than NIBL & NABIL (i.e. 43%>27%>19%) which indicates that NABIL has low degree of stability than that of KBL& NIBL. Thus, it can be concluded that NABIL has not been able to earn high profit through the efficient utilization of its owned capital. KBL, low C.V. shows its quite homogenous ratios during the study period, which indicates efficiency investment policy for the mobilization of capital resources.

4.1.4 Risk Analysis Ratio

Risk means variations in actual returns on investment than expected. There is a positive relationship between risk and return vis. Higher the risk, higher the return and vice versa. Therefore, a bank has to take high risk, if it expects high return on its investment. Thus, the banks have to face the challenge posed by the presence of risk in investment. This ratio examines the degree of risk involved in the banks' investment and other financial operations. Through the following ratios, efforts have been made to measure the banks' level of risk during the period of study.

1. Credit Risk Ratio

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

Table 4.13

Credit Risk Ratio **(Rs. millions)**

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D.	C.V (%)
NABIL	T. Loan & Adv.	15546	21365	27589	32268	38034	41605	46369	0.620	0.035	6%
	T.Assets	27253	37133	43867	52151	58141	63193	73241			
	Ratios	0.570	0.575	0.629	0.619	0.654	0.658	0.633			
NIBL	T. Loan & Adv.	17286	26997	36241	40318	41095	41636	46400	0.669	0.036	5%
	T.Assets	27591	38873	53010	57305	58356	65756	73152			
	Ratios	0.627	0.694	0.684	0.704	0.704	0.633	0.634			
KBL	T. Loan & Adv.	8929	11335	14593	14766	14626	17614	19369	0.730	0.035	5%
	T.Assets	11918	15026	18538	20522	20491	25131	28223			
	Ratios	0.749	0.754	0.787	0.720	0.714	0.701	0.686			

Sources: Annual Reports of Sample Banks

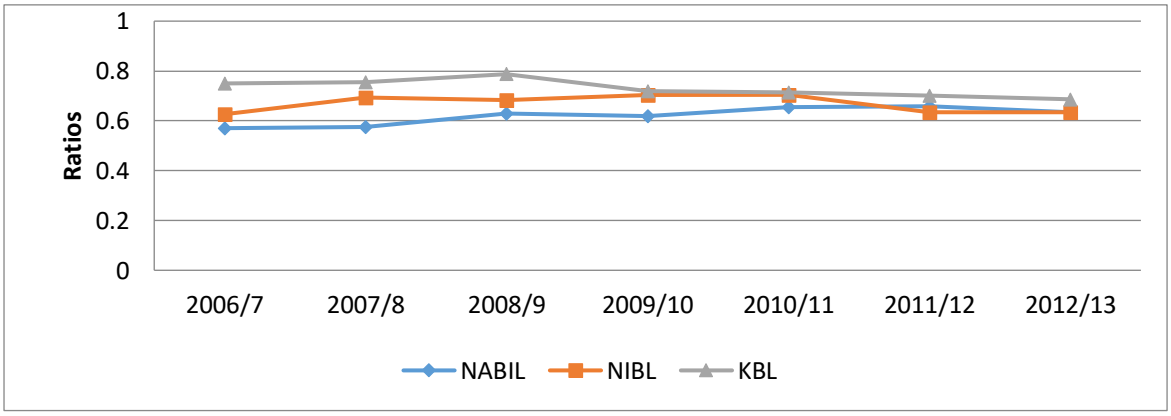


Figure 4.13

The table 4.13& figure 4.13 illustrates that NABIL, NIBL &KBL has the fluctuating trend in the last seven years. The table shows NABIL has the highest return i.e. 0.658 in the FY 2011/12 and lowest i.e. 0.570 in the FY 2006/7. Whereas NIBL and KBL have the highest 0.704 & lowest return 0.627 in the FY 2009 to 2011& in FY 2011/12 and 0.787 in FY 2008/09& 0.686 in FY 2012/13 respectively. The KBL average ratio is i.e. 0.730, which is greater than that of NIBL & NABIL (0.730>0.669>0.620). The co-efficient of variation of KBL & NBIL has same figure i.e. 5% & NABIL has 6% respectively. It indicates that the ratio of KBL & NIBL is more uniform than the NABIL.

2. Liquidity Risk Ratio

The liquidity risk ratio of a bank defines its liquidity need for deposit the cash and bank balance are the most liquid assets and they are considered as bank's liquidity source and deposit as the liquidity needs. The ratio of cash and bank balance to total deposits is an indicator of bank liquidity need.

Table 4.14

Liquidity Risk Ratio **(Rs. millions)**

Banks		2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	Mean	S.D.	C.V (%)
	Cash & Bank Bal.	1301	2671	3372	1400	2436	4275	5882			
NABIL	T.Deposit	23342	31915	37348	46410	49696	55023	63609	0.068	0.024	35%
	Ratios	0.056	0.084	0.090	0.030	0.049	0.078	0.092			
	Cash & Bank Bal.	2442	3755	7917	6815	8139	11802	13253			
NIBL	T.Deposit	24489	34452	46698	50094	50138	57010	62429	0.157	0.044	28%
	Ratios	0.100	0.109	0.170	0.136	0.162	0.207	0.212			
	Cash & Bank Bal.	672	934	1670	2724	1169	3722	3407			
KBL	T.Deposit	10557	12774	15710	17432	16986	21985	23319	0.112	0.045	40%
	Ratios	0.064	0.073	0.106	0.156	0.069	0.169	0.146			

Sources: Annual Reports of Sample Banks

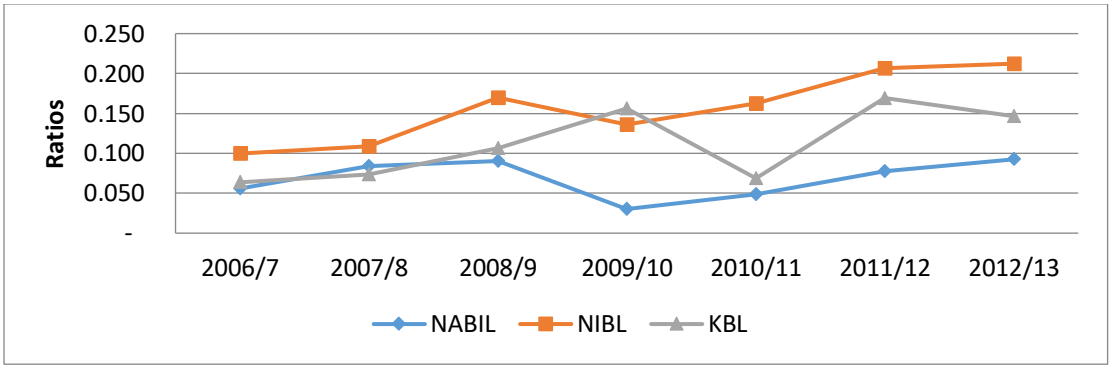


Figure 4.14

The table 4.14 & figure 4.14 shows that the liquidity risk ratios of selected banks have fluctuating trend. In case of NABIL, its highest ratio is 0.092 in F/Y 2012/13 & the lowest ratio is 0.030 in the F/Y 2009/10. Whereas, the NIBL & KBL has maintained the highest & lowest ratios 0.212 in the F/Y 2012/13& 0.100 2006/7 and 0.169 in F/Y 2010/11 & 0.064 in F/Y 2006/7 respectively.

The mean ratio of NIBL is higher than that of KBL & NABIL i.e. 0.157>0.112>0.068. But, the C.V. of KBL is higher than of NABIL&NIBL i.e. 40%, 35% & 28%. It indicates that NABIL & NIBL's liquidity risk ratios are less variable than that of KBL.

From the above analysis, it can be said that has NIBL maintains higher liquidity which means it operates with lower risk, which decrease profitability. Whereas NABIL & KBL has maintained low liquidity policy proved by higher co-efficient of variation.

4.1.5 Growth Ratio

Growth ratios are analyzed and interpret which are directly related to the fund mobilization and investment of a commercial bank. It represents how well the commercial banks are maintaining their economic and financial position. Under this topics four types of growth ratio are studied which as follows:

a. Growth ratio of total deposit
b. Growth ratio of loan & advances
c. Growth ratio of total investment
d. Growth ratio of total net profit

1. Growth to Total Deposits

Growth ratio of total deposit of both banks is calculated to find out the trend of growth of total deposit and to detect better position of banks. The growth ratio is derived from the interpolation of the factor, which is calculated by dividing final deposit with initial deposit.

Table 4.15

Growth Ratio of Total Deposits

Banks	Fiscal Years							Growth Ratio %
	2006/7	2007/8	2008/09	2009/10	2010/11	2011/12	2012/13	
NABIL	23342	31915	37348	46410	49696	55023	63609	18.18
NIBL	24489	34452	46698	50094	50138	57010	62429	16.87
KBL	10557	12774	15710	17432	16986	21985	23319	14.11

Sources: Annual Reports of Sample Banks

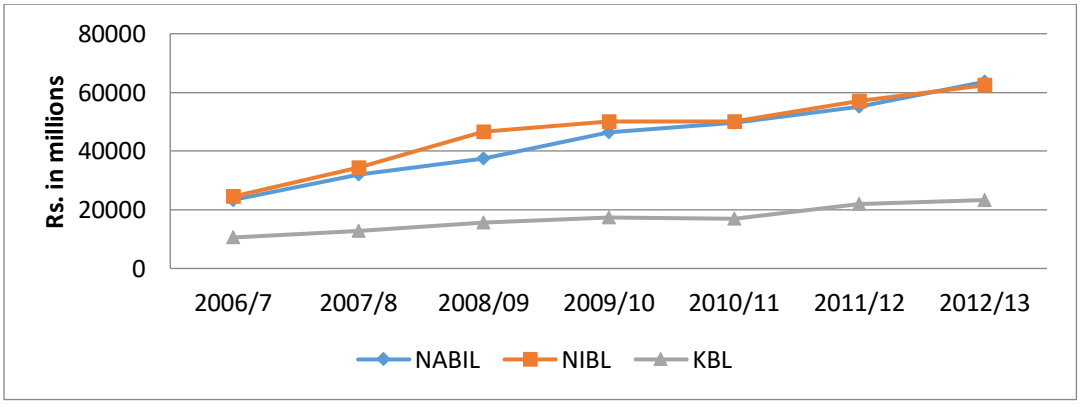


Figure 4.15

Table 4.15 & figure 4.15 show that the growth ratio of total deposits of NABIL & NIBL is higher than the KBL. The growth ratio of NABIL & NIBL, total deposit is 18.18% & 10.87% whereas the KBL 14.11% respectively. It indicates that NABIL & NIBL successful in increasing deposit funds in comparison to NIBL.

2. Growth Ratio of Loan and Advance

Growth ratio of total loan and advance of both banks are calculated to find out the trend of growth of total loan and advances and to detect better position of banks. The growth ratio are derived from the interpolation of the factor, which is calculated by dividing final loan and advance with initial loan and advance.

Table 4.16

Growth Ratio of Total Loans and Advances

Banks	Fiscal Years							Growth Ratio %
	2006/7	2007/8	2008/09	2009/10	2010/11	2011/12	2012/13	
NABIL	15546	21365	27589	32268	38034	41605	46369	19.97
NIBL	17286	26997	36241	40318	41095	41636	46400	17.88
KBL	8929	11335	14593	14766	14626	17614	19369	13.77

Sources: Annual Reports of Sample Banks

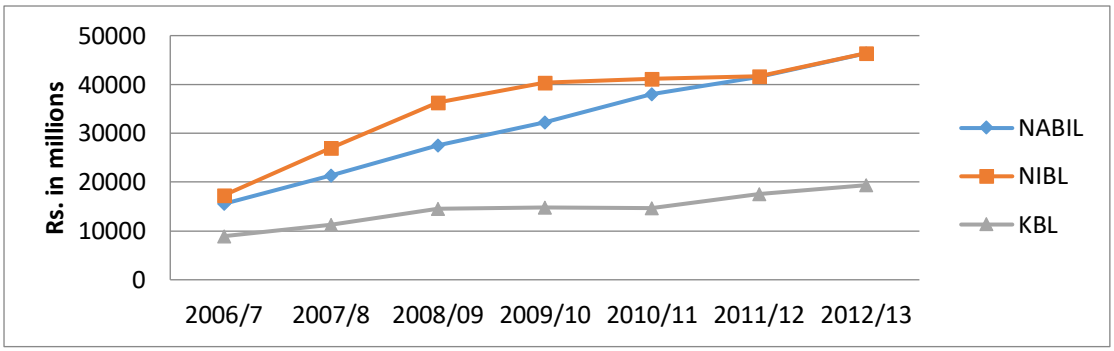


Figure 4.16

The table 4.16 & figure 4.16 reveals that the growth ratio of loan & advances in case of NABIL is in higher than NIBL & KBL. It indicates that NABIL is more successful in utilizing its collection fund as loan & advances in comparison to NIBL & KBL. Form the above analysis it can be said that the performance of NABIL to grant loan & advances in compare to NIBL & KBL is better year- by- year.

3. Growth Ratio of Total Investment

Growth ratio of total investment of three banks is calculated to find out the trend of growth of total investment and to detect better position of banks. The growth ratio is derived from interpolation of the factor, which is calculated by dividing final investment with initial investment.

Table 4.17

Growth Ratio of Total Investments

Banks	Fiscal Years							Growth Ratio %
	2006/7	2007/8	2008/09	2009/10	2010/11	2011/12	2012/13	
NABIL	8945	9940	10826	13703	13081	14048	16332	10.55
NIBL	6506	6874	7399	8635	7423	10438	11435	9.85
KBL	1678	2139	1511	2297	3533	2940	4135	16.21

Sources: Annual Reports of Sample Banks

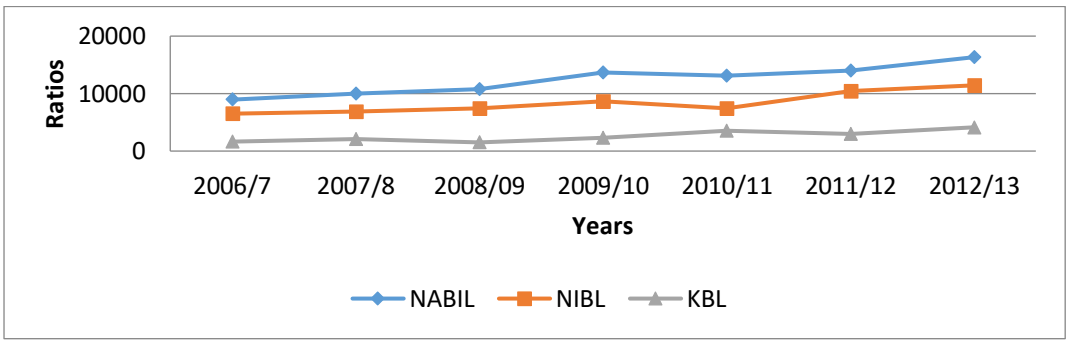


Figure 4.17

The table 4.17 reveals that the growth ratio of investment of KBL is higher than the NABIL & NIBL. The growth ratio of KBL investment is 16.21% whereas the same of the NABIL & NIBL are 10.55% & 9.85%. It indicates that KBL performance is better on investment of different sectors in comparison to NABIL & NIBL.

4. Growth Ratio of Net Profit

Growth ratio of total net profit of both banks is calculated to find out the trend of growth of total net profit and to detect better position of banks. The growth ratio is derived from the interpolation of the factor, which is calculated by dividing final net profit with initial net profit.

Table 4.18

Growth Ratio of Net Profit

Banks	Fiscal Years							Growth Ratio %
	2006/7	2007/8	2008/09	2009/10	2010/11	2011/12	2012/13	
NABIL	674	746	1031	1139	1337	1696	2218	21.95
NIBL	501	697	901	1265	1176	1039	1915	25.04
KBL	170	175	258	316	251	276	291	9.37

Sources: Annual Reports of Sample Banks

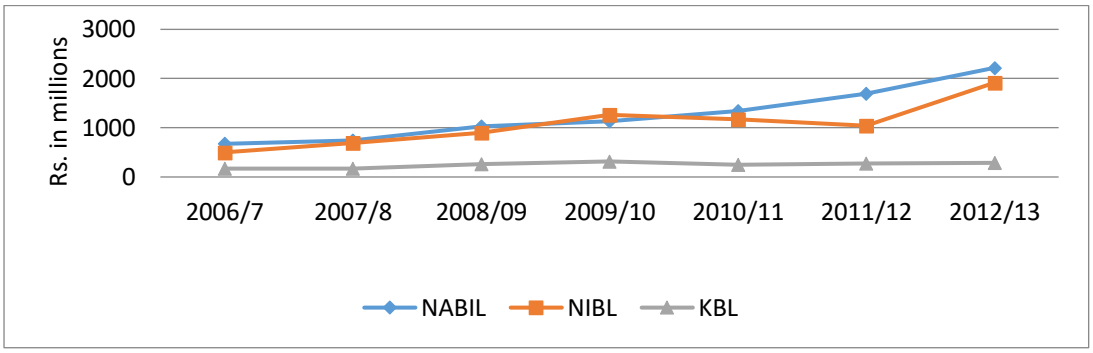


Figure 4.18

The table 4.18 & figure 4.18 show the comparative growth rate of net profit of three sample banks. NIBL has higher growth ratio of 25.04% than NIBL i.e. 21.95% & 9.37 % of KBL. This indicates NIBL has maintained better net profit during these seven years in compare to NABIL & KBL.

4.2 Analysis of Statistical Tools

In order to achieve the effective of this study, some essential statistical tools are using such a trend analysis, Coefficient of correlation analysis standard deviation and coefficient of variation.

4.2.1 Trend Analysis

Analysis of trend of loan advances, total deposits, total investment, and total net profit of NABIL Bank, NIBL and KBL Banks are estimated and forecasted for next year's under this heading. The following assumptions are considered for the analysis.

e. Other things will remain unchanged.
f. The banks will run is position.
g. The economy will remain in the present state.
h. The forecast will be true only when the limitation of square method is carried out.

1. Trend Analysis of Investment of NABIL, NIBL and KBL Bank

Here, for seven years from FY 2006/7to 2012/13 and forecasted the same for next seven years till 2019/20. The following table shows the trend values of total investment of NABIL bank, NIBL and KBL bank for 14 years FY 2006/7to 2018/20.

Table 4.19

Trend Values of Total Investment of NABIL, NIBL and KBL Bank

Years	Trend Value of NABIL	Trend Value of NIBL	Trend Value of KBL
2006/7	5,581.74	3,778.63	1,426.68
2007/8	8,996.23	6,082.89	1,819.36
2008/09	12,410.71	8,387.14	2,212.04
2009/10	15,825.20	10,691.40	2,604.71
2010/11	19,239.69	12,995.66	2,997.39
2011/12	22,654.17	15,299.91	3,390.07
2012/13	26,068.66	17,604.17	3,782.75
2013/14	29,483.14	19,908.43	4,175.43
2014/15	32,897.63	22,212.69	4,568.11
2015/16	36,312.11	24,516.94	4,960.79
2016/17	39,726.60	26,821.20	5,353.46
2017/18	43,141.09	29,125.46	5,746.14
2018/19	46,555.57	31,429.71	6,138.82
2019/20	49,970.06	33,733.97	6,531.50

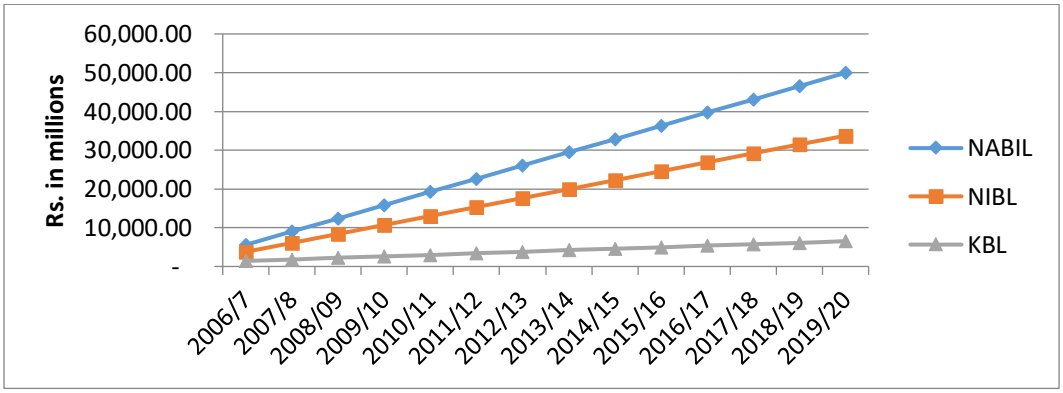


Figure 4.19

The table 4.19 reveals that the total investments of sample banks are in increasing trend. If other things remaining constant, the total investment of NABIL, NIBL & KBL in FY 2017/18 reaches up to Rs. 49970.06, Rs. 33733.97 & 6531.50 respectively.

- **Trend Analysis of Total Deposits of NABIL, NIBL and KBL Bank**

Here, an effort has been made to calculate the trend values of total deposit of NABIL Bank, NIBL and KBL Bank for 14 years from FY 2006/7 to 2012/13 and forecasted the same for next seven years till 2019/20.

Table 4.20

Trend Analysis of Total Deposits of NABIL, NIBL and KBL Bank

Years	Trend Value of NABIL	Trend Value of NIBL	Trend Value of KBL
2006/7	24,688.46	29,075.43	10,753.57
2007/8	31,094.36	34,874.57	12,824.43
2008/09	37,500.25	40,673.71	14,895.29
2009/10	43,906.14	46,472.86	16,966.14
2010/11	50,312.04	52,272.00	19,037.00
2011/12	56,717.93	58,071.14	21,107.86
2012/13	63,123.82	63,870.29	23,178.71
2013/14	69,529.71	69,669.43	25,249.57
2014/15	75,935.61	75,468.57	27,320.43
2015/16	82,341.50	81,267.71	29,391.29
2016/17	88,747.39	87,066.86	31,462.14
2017/18	95,153.29	92,866.00	33,533.00
2018/19	101,559.18	98,665.14	35,603.86
2019/20	107,965.07	104,464.29	37,674.71

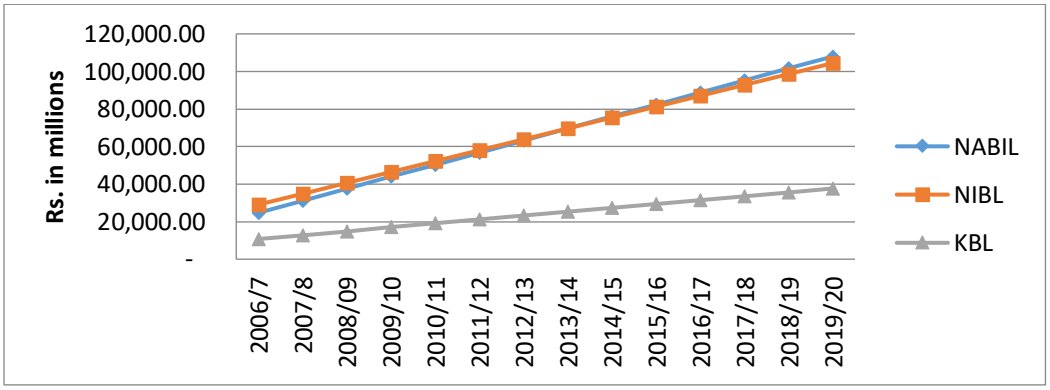


Figure 4.20

From the above result it is apparent that the NABIL total deposit is greater than that of the NIBL & KBL & it also have in increasing trend. The deposit position of NABIL will be increasing trend which is higher than NIBL & KBL.

- **Trend Analysis of Total loan and Advance of NABIL, NIBL and KBL Bank**

The trend of loan and advances of NABIL, NIBL and KBL Bank have been calculated for 14 years from 2006/7 to 2019/20.

Table 4.21

Trend Analysis of Total loan and Advance of NABIL, NIBL and KBL Bank

Years	Trend Value of NABIL	Trend Value of NIBL	Trend Value of KBL
2006/7	16,461.50	22,695.36	9,756.96
2007/8	21,582.71	27,033.71	11,325.21
2008/09	26,703.93	31,372.07	12,893.46
2009/10	31,825.14	35,710.43	14,461.71
2010/11	36,946.36	40,048.79	16,029.96
2011/12	42,067.57	44,387.14	17,598.21
2012/13	47,188.79	48,725.50	19,166.46
2013/14	52,310.00	53,063.86	20,734.71
2014/15	57,431.21	57,402.21	22,302.96
2015/16	62,552.43	61,740.57	23,871.21
2016/17	67,673.64	66,078.93	25,439.46
2017/18	72,794.86	70,417.29	27,007.71
2018/19	77,916.07	74,755.64	28,575.96
2019/20	83,037.29	79,094.00	30,144.21

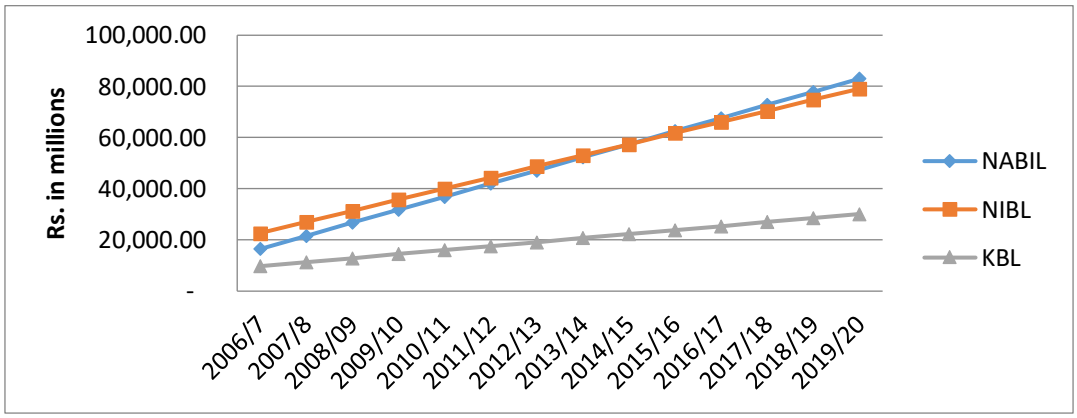


Figure 4.21

The above table 4.21 depict that the total loan & advances of samples banks are in increasing trend. The total loan & advance of the NABIL in FY 2019/20 will be Rs. 83037.29 million, NIBL will be Rs 79094.00 million & KBL will be Rs. 30144.21 million in the same FY, which is the highest under the study period. It is evident that the NABIL position in total loans & advances is greater than that of the NIBL& KBL, but these have increasing trend. We can say that NABIL has pertains large portion of total loans & advances and also it has high increasing trend than NIBL &KBL. Thus, it can be concluded that total loans & advances of NABIL is increasing & it will be in better position in future.

4. Trend Values of Total Net Profit of NABIL, NIBL and KBL

Under this topic the trend value of net profit for seven years from 2006/7-2012/13 has has been calculated and forecast for next seven years from 20013/14 to 2019/20.

Table 4.22

Trend Values of Total Net Profit of NABIL, NIBL and KBL

Years	Trend Value of NABIL	Trend Value of NIBL	Trend Value of KBL
2006/7	530.36	513.32	188.36
2007/8	774.57	699.07	208.29
2008/09	1,018.79	884.82	228.21
2009/10	1,263.00	1,070.57	248.14
2010/11	1,507.21	1,256.32	268.07
2011/12	1,751.43	1,442.07	288.00
2012/13	1,995.64	1,627.82	307.93
2013/14	2,239.86	1,813.57	327.86
2014/15	2,484.07	1,999.32	347.79
2015/16	2,728.29	2,185.07	367.71
2016/17	2,972.50	2,370.82	387.64
2017/18	3,216.71	2,556.57	407.57
2018/19	3,460.93	2,742.32	427.50
2019/20	3,705.14	2,928.07	447.43

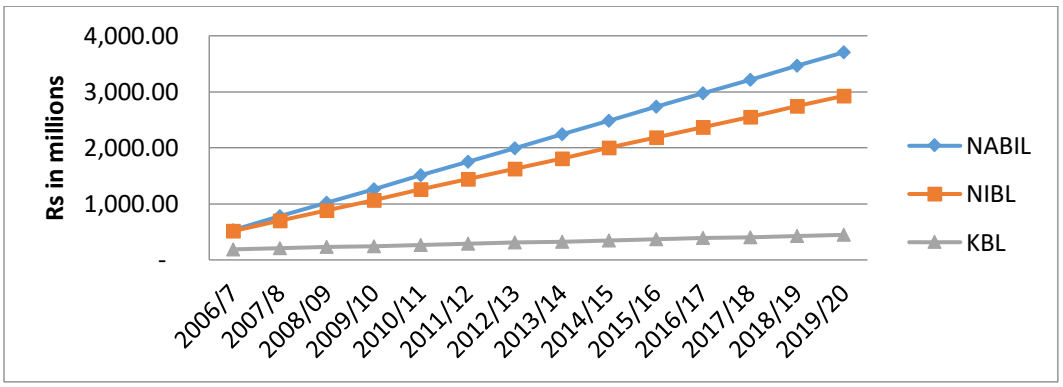


Figure 4.22

The above table 4.22 illustrate that the total net profit of NABIL & NIBL is in increasing trend. The total net profit of NABIL, NIBL & KBL in FY 2017/18 will be Rs 3705.14 million, Rs. 2928.07 million, Rs. 447.43 million respectively. Here among the sample banks, NABIL has slightly greater figure than NIBL & KBL. This means the NABIL, pertains relatively higher total net profit than the NIBL & KBL but KBL have low increasing trend. We can conclude that it will be also better portion in future.

4.2.2 Coefficient of Correlation Analysis

Under the analysis, Karl Person Coefficient of correlation is used to uncover the relationship between total deposit and loan and advance, total deposit and total investment and outside asset and net profit.

1. Coefficient of Correlation between Total Deposit and Loans & Advance

Deposits have played very important role in performance of a commercial bank and similarly loans and advances are very important to mobilize the collected deposits. Co- efficient of correlation between deposit and loan and advances measure the degree of relationship of correlation between these two variables. In this analysis, deposit is independent variable (x) and loan and advances are dependent variable (y). The main objective of computing 'r' between these two variables is to justify whether deposits are significantly used as loan and advances in proper way or not.

The following table shows the value of r, r^2, P.Er. and 6 P.Er. between total deposit and loan and advances of NABIL, NIBL and KBL bank during the study period. For detail see appendix-

Table 4.23

Evaluation Criteria	r	R^2	P.E.r	6 P.E.r	Significance
NABIL	0.994	0.988	0.0003	0.001	significant
NIBL	0.984	0.968	0.0082	0.049	Significant
KBL	0.986	0.972	0.0071	0.043	significant

Here, deposit is the independent variables (X) and loan & advances is dependent variable (Y). The main objectives of computing 'r' between these two variables are to justify, whether deposit is significantly used as loan & advance or not. The above table shows the value of 'r', r^2, P. Er. & 6P.E.r between the deposit & loan & advance of NABIL, NIBL &KBL to comparison each other during the study period, 2006/7 to 2012/13. From the above table in respect to NABIL is found that co-efficient of correlation between the deposit & loan & advance is 0.994 positive. Furthermore, when we consider the value of coefficient of determination (r^2), it is 0.988 which does mean only 98.8% of the variation in the dependent

variable is explained by the independent variable. At the same time considering the value of 'r' and comparing it with 6P.E.r, we found then the r is higher than value of '6P.E.r' which does mean that the value of 'r' is significant. Hence there is significant relationship between deposit & loan & advances of NABIL this indicates that NABIL is successful to mobilize its deposit appropriately.

Similarly, NIBL also have the positive relationship between deposit and loan & advance. The relationship is significant as their value of 'r'0.984 is higher than 6P.E.r i.e. 0.049 and the value of r^2 it is 0.968 which does mean only 96.8% of the dependent variable which has been explained by the independent variable. This indicates that NIBL is successful in mobilizing deposit and loan & advance.

Likewise, in the case of KBL, the co-efficient of correlation between deposit & loan and advances is 0.986 which indicates positive co-relation between two variables. The value of co-efficient of determination r^2 is to be found 0.972, which shows that 97.2% in the dependent variable has been explained by the independent variable. Moreover, considering the 6P.E.r. i.e. 0.043, which mean the relationship between deposit and loan & advances is significant.

In conclusion from the above analysis of NABIL, NIBL &KBL, there is a positive relationship between deposits and loan & advances. The relationship of sample banks is significant and the value r^2 show high degree of explanation with NABIL, NIBL& KBL shows low degree of explanation. This indicates that sample banks are successful to mobilize their deposits in proper way as loan & advances.

2 Co- efficient of correlation between deposit and total investment

Co- efficient 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. Here, deposit is independent variable (X) and total investment is dependent variable (Y). For detail see

Table 4.24

Evaluation Criteria	r	r^2	P.E.r	6 P.E.r	Significance
NABIL	0.982	0.965	0.008	0.053	significant

NIBL	0.861	0.742	0.066	0.395	significant
KBL	0.768	0.589	0.104	0.628	significant

Here, deposit is the independent variable (X) and total investment is dependent variable (Y). The main objectives of computing 'r' between these two variables are to justify whether deposit is significantly uses as total investment or not. The above table shows the value of 'r',PEr and 6PEr between deposit and total investment of NABIL, NIBL & KBL with comparison, during the study period 2006/7 to 2012/13.Form the above table in respect to NABIL, it is found that coefficient of correlation between deposit and total investment is 0.982. It shows that positive relationship between these two variables. Furthermore when we consider the value of coefficient of determination 'r^2' is 0.965 which does mean 0.96.5% of the variation in the dependent variable is explained by the independent variable. At the same time, considering the value of 'r' and comparing with 6P.E.r, we found that 'r' is high than value of '6P.E.r' which shows that the value of 'r' is significant. In other word, there is significant relationship between investment & deposit.

Likewise, NIBL have also the positive relationship between deposit and total investment. Their values or 'r' i.e. 0.861 are more than values of '6P.E.r i.e. 0.395 the relationship is significant and the value of r^2 is 0.742 which does means 74.2% of the variation in the dependent variable is explained by the independent variable. At the same time, considering the value of 'r' and comparing with 6P.E.r, we found that 'r' is higher than value of '6P.E.r', it indicates INBL is successful in maximizing the investment of their deposit.

Similarly, the coefficient of correlation between deposit and total investment in case of KBL is found to be 0.768, which shows the positive relation between these two variables. If we again consider the value of coefficient of determination 'r^2' is 0.589 which means that 58.9% in the dependent variable is explained by the independent variable. When analyze the value of 'r' and comparing with 6P.E.r we can find that r is more than value of 6P.Er.that reveals there is significant relationship between deposit & investments.

In conclusion, NABIL, NIBL& KBL have the positive correlation between deposit and total investments. The relationship is significant and the value of r^2 shows high percent in the

dependent variables, which has been explained by the independent variable in the case of NABIL, NIBL& KBL. While considering P.E.r., the sample banks have higher than 6P.E.r so it have significant relation between these two variables and have shown the opposite with NABIL, NIBL& KBL.

3 Coefficient of Correlation between Loans and Advances and Net Profit

The coefficient of correlation between loans & advances and net profit measures the degree of relationship between these two variables. In correlation analysis, loans & advances is independent variables (X) and net profit is dependent variables (Y). The purpose of computing coefficient of correlation is to justify whether the net profit is significantly correlated with respect to loans & advances or not.

Table 4.25

Evaluation Criteria	r	R^2	P.E.r	6 P.E.r	Significance
NABIL	0.949	0.902	0.025	0.150	significant
NIBL	0.862	0.743	0.065	0.393	significant
KBL	0.829	0.688	0.0794	0.477	insignificant

Here, loan & advances is the independent variable (X) and net profit is dependent variable (Y). The main objective of computing 'r' between these two variables is to justify whether net profit is significantly correlated with respect to loan & advances or not. The above table shows the value of r, P.E.r and 6P.E.r between loan &advances and net profit of NABIL, NIBL & KBL, during the study period 2006/7 to 2011/13. From the above table in respect to NABIL, it is found that coefficient of correlation between loan & advance and the net profit is 0.949. It shows that the positive relationship between these two variables. Furthermore when we consider the value of coefficient of determination 'r^2' is 0.902 which shows higher percentage 90.2% of the variation in the dependent variable is explained by the independent variables. Considering the value of 'r' and comparing it with the value of 6P.E.r, we found that r is much higher than the value of 6P.E.r, which does mean that NABIL is highly significant.

In the case of NIBL, the coefficient of correlation between loan & advances and net profit is 0.862, which shows the positive relationship between these two variables. The coefficient of determination of NIBL is 0.743. It indicates that there will be the variation of 74.3% in net profit is due to the loans & advances. The remaining 25.7% variation is due to the other factors. Moreover, the value of P.Er is 0.065 and 6P.E.r is 0.393. It shows that the value of coefficient of correlation 'r' is greater than 6P.E.r. Therefore, the value of 'r' is significant. It can be concluded that there is significant relationship between loans & advances and net profit.

Likewise KBL have also the positive relationship between loan & advances and net profit. Their values or 'r' is 0.829 is more than values of 6P.E.r i.e. 0.477 the relationship is significant and the value of 'r^2' is 0.688 which does mean only 0.68.8% of the dependent variable. Which has been explained by the independent variable? This indicates that bank is successful in maximizing the net profit in regarding to the loan & advances.

4.3 Major Findings of the study

1. The mean current ratio of KBL is the highest among the three commercial banks. It indicates that the KBL has maintained the higher liquidity in compare to other bank. And has more consistent among the three commercial banks.
2. The mean ratio of cash & bank balance to total deposits of NIBL has high figures with comparing to NABIL & KBL. It shows the more consistent to maintain of its liquidity position than that NABIL &KBL because of less C.V.
3. The mean ratio of cash and balance to current assets ratio of NIBL is higher than that of NABIL & KBL. It states that the NIBL has utilized its fund better than that of NABIL & KBL. And has more consistency to utilize its fund than that of NABIL & KBL because of lower C.V.
4. The mean ratio of investment on government securities to Total Deposit of NABIL is higher than NIBL & KBL. It states that NABIL uses to invest its Total Deposit in Government securities more than of NIBL & KBL. And the figure also sported by C.V, NABIL has more consistency to utilize its fund than NIBL & KBL because of lower C.V.

5. The mean ratio of loan &advances to total deposit of KBL has higher than NABIL & NIBL. And also more consistent or we can say that KBL has strong position regarding the mobilization of total deposit on loan & advance.
6. The mean ratio of total investment to total deposit ratio of NABIL is higher than that of NIBL& KBL. It can conclude that NABIL has better utilization of deposits to investment than selected other two banks & has more consistency than that of NIBL & KBL because of less C.V.
7. The mean ratio of loan & advance to total assets ratio of KBL is higher than that of NABIL & KBL. It indicates that KBL has better mobilization its fund than selected other banks. And also, in case C.V., have more consistency than NABIL because the less C.V. i.e. 5%.
8. The mean ratio of investment on government securities to total working fund ratio of NABIL is higher than that of NIBL & KBL.NIBL & KBL have investment policy less variable than that of NABIL. But, NABIL has more consistency than these two banks because of less C.V.
9. The mean ratio of investment on share & debenture to total working fund ratio of KBL has lower than that of two other selected banks. KBL has very nominal investment on shares & debentures of other companies. And have more uniform in comparison to NABIL & NIBL.
10. The mean ratio of return on loan & advances of KBL is lower than that of NABIL & NIBL. And have less variability with less C.V. i.e. 14%.
11. The mean ratio of return on total assets ratio of NABIL is higher than NIBL & KBL. It can be concluded that NABIL has success to maintain the high ratio in return on assets. And also have more consistent than among the selected banks because of less C.V. i.e. 14%.
12. The mean ratio of return on equity of NABIL is greater than that of NIBL & KBL. It indicates NABIL has better than among the sample banks. But, KBL has lower C.V. among the sample banks. This does signify its consistency.
13. The mean ratio of credit risk of KBL is greater than that of NABIL & NIBL. Therefore KBL has higher credit risk than that of sample banks. KBL & NIBL has more consistency with less % of C.V. than NABIL.
14. The mean ratio of liquidity risk of NIBL is greater than selected banks & has more consistency because of lesser C.V. than that of NABIL & KBL.

15. The growth ratio of total deposit of NABIL &NIBL has higher than that of KBL. It indicates that the performance of NABIL &NIB has better to collect deposit.
16. The growth ratio of loans & advances of NABIL (19.97%) is higher than among the selected banks, NIBL & KBL (i.e. 17.88% &13.77%). It indicate that the performance of to grant loans & advances is satisfactory.
17. The growth ratio of total investment of KBL (i.e. 16.21%) is higher than that of NABIL & NIBL (i.e. 10.55% & 9.85%). It indicates that the performance of KBL to grant investment is better.
18. The growth ratio of net profit is higher of NIBL than the selected three banks. It indicated that the NIBL has successful to earn more profit among the selected banks.
19. The trend values of total investment of NABIL, NIBL& KBL are in increasing trend.
20. The trend values of total deposit of sample banks are found to be in increasing trend.
21. It is found that the trend value of loan & advances of all the selected commercial banks are in increasing trend. The highest trend value of NABIL, NIBL & KBL will be Rs. 83037.29, 79094.00 and 30144.21 in F/Y 2019/20 respectively.
22. It is found that the trend value of net profit of NABIL, NIBL& KBL is in increasing trend.
23. Co- efficient of correlation(r) between deposit & loan and advances of sample banks are 0.994, 0.984 & 0.986 respectively, which shows the higher positive relationship between these two variables of selected banks. The coefficient of determination i.e. $r^2$of NABIL is 0.988 whereas it is 0.968 & 0.972 with respect of INBL & KBL. In case of NABIL, NIBL& KBL indicating that the 98.8%, 96.8% & 97.2% of variation of loans & advances is caused by deposit while rest part of variation is due to other unexplained variables. The probable error of NABIL is lower i.e. 0.0003 than that of NIBL & KBL i.e. 0.0082 & 0.0071 exhibiting a significant relationship between deposit and loans and advances. Thus, sample banks are successful in mobilizing their deposit and loans and advances.
24. Co-efficient of correlation between deposit and total investment of sample banks has positive relationship. The value of 'r' of NABIL is higher than that of NIBL & KBL. Relationship between deposits & total investment during the study period all sample banks have found significant relationship.
25. It is found that there is positive correlation between loans & advances & net profit of selected commercial banks. There is significant relationship between loans &advances and net profit of NABIL, NIBL& KBL.

CHAPTER 5
SUMMARY, CONCLUSION & RECOMMENDTIONS

This research attempts to analyze the investment policy of commercial banks in Nepal. This chapter presents summary & conclusion derived from the analysis of the study. Summary of the study has been presented in the first section. The second section has been designed for the conclusions drawn from the study. And also research recommendations that help to erase the weakness and drawbacks of investment policy of commercial banks.

5.1 Summary

Formulation of investment policy is the challenging task for the commercial banks. Without proper investment policy, banks cannot compete effectively in the present competitive market. Proper analysis of investment policies would help to survive in the competitive market and reduces risk and increase return of the company. Commercial banks as well as other financial institutions are the backbone of the nation for the economic development. Commercial banks mobilize their investable funds in different sectors where return can be maximized with low risk. Effective investment policy helps in development of company as well as the nation. Nepalese capital market has been passing through the transaction phase with various inconsistencies and hindrances due to ineffective investment policy.

The main objective of present study is to examine and analyze the financial position and the investment practices of the banks in the current competitive market. As per the nature of the study, secondary data are used with analytical and descriptive research design. The data are collected from annual reports of the concerned banks, Securities Board of Nepal & Banking and Financial Statistics published by NRB.

Out of 30 commercial banks only three commercial banks are taken into consideration to analyze the investment policy with the help of secondary data. For this, financial tools as well as statistical tools are used. Information are tabulated and presented as per the requirement of the study. It is found that only those banks which determine effective investment policy will get better result because of the current competitive environment.

5.2 Conclusion

Following are the main conclusions drawn from the study:

a) The liquidity position of sample banks has satisfactory. The liquidity position of NIBL is comparatively better than NABIL & KBL. At the same time, NIBL has highest ratio among the three commercial banks on cash & bank balance to current ratio. At last we can conclude that NIBL has maintained moderate investment policy in liquidity position.

b) The analysis also total investment to total deposit, investment on govt. securities to working fund & investment on shares & debentures to total working fund ratio are highest in NABIL But NABIL capacity to mobilize its loan & advances to total deposit & working fund is not so good than KBL. Finally it can be concluded that asset management position of NABIL is more effective in comparison to NIBL & KBL.

c) The profitability position of NABIL is better than NIBL &KBL. It has highest return on loan & advances, return on total working fund & return on equity than NIBL & KBL. But, NIBL & KBL has not maintained better position in comparison to NABIL.

d) From the risk ratios point of views, it can be concluded that NIBL& KBL has higher degree of liquidity risk & credit risk in comparison to NABIL.

e) From the analysis of growth ratio, NABIL has high rate on total deposits, loan & advances and total net profit than NABIL & KBL. Therefore NABIL has successfully collected and utilized fund amount of its customer than NIBL & KBL.

f) The trend analyses of sample banks are in increasing trend for the all aspect of the subject.

g) From this study we can be concluded that sample banks, there is positive relationship co-efficient of correlation between deposit & loan and advance, deposit & investment and loan & advances and net profit, there is highly significant relationship in case of NABIL. Co-efficient of correlation between deposit and total investment and loan & advances and net profit, there is significant relationship in case of NIBL but KBL has vice-versa relationship. NABIL is comparatively better than NIBL&KBL.

5.3 Recommendations

Suggestions help to take corrective actions in their activities in future. On the base of analysis and findings of the study, following recommendations can advanced to overcome weakness and efficiency and to improve fund mobilization and investment policy of NABIL, NIBL & KBL.

Increase deposits ratio

The commercial bank's main source of fund is collecting deposit from public, who don't need that fund recently. Without enough deposit collection, banks cannot operate effectively. The growth rate of the deposits of NABIL is higher than that of NIBL & KBL, so it is suggested to attract depositors through variety of deposits schemes & facilities like cumulative deposit scheme, prize bonds schemes, gift cheque scheme, recurring deposit scheme (life insurance), monthly interest scheme etc.

Increase investment in government securities

NIBL & KBL has not invested more money in government securities than that of NABIL. Investment on those securities issued by government i.e. treasury bills, development bonds, saving certificates are free of risk and highly in nature and have very lower yield than other companies' securities. This also helps to maintain the sound portfolio of the bank. It is better in regard to safety than other means of investment. So both banks (i.e. NIBL& KBL) are strongly recommended to invest more funds in govt. securities.

Increase loan & advances

From the above study, NABIL has properly used their existing funds as loan and advances. The largest item of the bank in the asset side is loan and advances. If it is neglected, than it could be the main cause of liquidity crisis in the bank and one of the main reasons for a bank's failure. So NIBL& KBL is strongly recommended improving the efficiency in utilizing the deposits in loan & advances for generating the profit.

Increase investment in shares & debentures of the other company

It is good to make investment more on share and debenture as it encourage financial and non-financial companies. It can be found that NABIL & NIBL's investment on shares and debenture to total working fund ratios are higher than that of KBL. So, KBL is suggested to invest its more funds in shares & debenture of other different companies. So, it can get either dividend from the existing share & capital gain after selling those shares & debentures in capital market after holding for some time.

Liberal lending policy and sound credit collection policy

Loan & advances are the main source of income and also utilization resources of commercial banks. Negligence in administrating these could be the cause of liquidity crisis in the bank and one of the main reasons of bank failure. When the bank grants loan & advances, it must be collected after a certain period. But now days there are many difficulties in recovery loan & advances and large amount of loan is blocked as non-performing assets and which sometime reduce income. So it is essential to exercise a suitable mechanism through with the overdue loan can be recovered with time. To fulfill this purpose sample banks are suggested the special "Loan Recovery Act" should be enacted. Therefore sample banks should follow liberal policy when sanctioning loan & advances with sufficient guarantee and implement a sound collection policy including procedure which rapid identification of bad debtor loans, immediate contact with borrower, continual follow up and a legal procedure if required.

Increase profit

Profitability is the main indicator of the financial performance of every business organization & is essential for the survival growth of banks. But over the study period, NABIL is seen highest in profit than INBL & KBL. So, both banks are recommended more to earn profit and adopt various measures to improve its profitability.

Investment vision

Portfolio management is very important for each and every investor's. Forming the efficient and optimal portfolios can minimize the risk. Both banks have been increasing total investment in every year and total investment amount size of KBL is higher in comparison to NABIL & NIBL, But has in marginal. So, portfolio conditions of sample banks should be examine carefully from time to time and alternation should be made to maintain equilibrium in the portfolio of loan & investment & make continuous efforts to explore new, competitive and high yielding investment opportunities to optimize the return.

Extend branches over the country

Sample banks do not have branches in the rural area of the country. Its branches are limited only to the urban areas only. Therefore, all selected banks recommended to open branches in rural areas to help in economic development of the country. Nepal government has also encouraged the joint venture banks to expand banking service in rural areas and communities without making unfavorable impact in their profit.

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Ratio Analysis

Annex- 1

NABIL

Calculation of S.D.

S. No.	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.705	(0.08)	0.006643
2	0.765	(0.02)	0.0005
3	0.790	0.00	7.03E-06
4	0.777	(0.01)	0.000108
5	0.819	0.03	0.001018
6	0.828	0.04	0.001721
7	0.827	0.04	0.001577
n = 7	∑X= 5.510		$\sum(X-\bar{X})^2$=0.01158

Source: Annual Reports. (Table 4.1)

Mean ($\bar{X}$)

$\bar{X} = \frac{\sum X}{n} = \frac{5.510}{7} = 0.787$

Standard Deviation (σ) = $\sqrt{\frac{\sum(X-\bar{X})2}{n-1}} = \frac{\sqrt{0.01158}}{6} = 0.044$

C.V. = $\frac{\sigma}{\bar{X}}.100 = \frac{0.044}{0.787}100 = 6\%$

NIBL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.647	(0.22)	0.04630255
2	0.709	(0.15)	0.02341282
3	0.926	0.06	0.00408563
4	0.928	0.07	0.0043124
5	0.965	0.10	0.01057665
6	0.926	0.06	0.00405386
7	0.937	0.07	0.00557836
n = 7	∑X= 6.037		$\sum(X-\bar{X})^2$=0.098322

Source: Annual Reports (Table 4.1)

KBL

Calculation of S.D

S. No.	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.924	(0.04)	0.0019716
2	0.953	(0.01)	0.000221
3	1.020	0.05	0.0026872
4	0.975	0.01	4.941E-05
5	0.920	(0.05)	0.0023051
6	0.979	0.01	0.0001206
7	1.008	0.04	0.0015665
n = 7	∑X= 6.778		$\sum(X-\bar{X})^2$=0.0089215

Source: Annual Reports (Table 4.1)

NABIL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.056	(0.01)	0.00015039
2	0.084	0.02	0.00024621
3	0.090	0.02	0.00049666
4	0.030	(0.04)	0.00143142
5	0.049	(0.02)	0.00036032
6	0.078	0.01	9.3989E-05
7	0.092	0.02	0.00059884
n = 7	∑X= 0.479		$\sum(X-\bar{X})^2$=0.0033778

Source: Annual Reports (Table 4.2)

Calculation of S.D of NIBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.100	(0.057)	0.003281
2	0.109	(0.048)	0.002305
3	0.170	0.013	0.000157
4	0.136	(0.021)	0.000439
5	0.162	0.005	2.84E-05
6	0.207	0.050	0.002502
7	0.212	0.055	0.003057
n = 7	∑X= 1.0959		$\sum(X-\bar{X})^2$=0.01177

Source: Annual Reports (Table 4.2)

Calculation of S.D of KBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.064	(0.048)	0.00233729
2	0.073	(0.039)	0.00151187
3	0.106	(0.006)	3.247E-05
4	0.156	0.044	0.00195933
5	0.069	(0.043)	0.00186439
6	0.169	0.057	0.00328297
7	0.146	0.034	0.00116309
n = 7	∑X= 0.7836		$\sum(X-\bar{X})^2$=0.0121514

Source: Annual Reports (Table 4.2)

NABIL

Calculation of SD

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.074	(0.01)	7.5609E-05
2	0.103	0.02	0.00039102
3	0.107	0.02	0.00057584
4	0.038	(0.04)	0.00201988
5	0.057	(0.03)	0.00068892
6	0.092	0.01	7.2727E-05
7	0.109	0.03	0.00068416
n = 7	∑X= 0.580		$\sum(X-\bar{X})^2$=0.0045081

Source: Annual Reports (Table 4.3)

Calculation of SD of NIBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.123	(0.045)	0.00204584
2	0.122	(0.046)	0.00210627
3	0.179	0.011	0.00012742
4	0.145	(0.023)	0.00054799
5	0.165	(0.003)	7.2222E-06
6	0.221	0.053	0.00279355
7	0.222	0.054	0.00293419
n = 7	∑X= 1.177		$\sum(X-\bar{X})^2$**0**.0105625

Sources: Annual Reports (Table 4.3)

Calculation of S.D of KBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.067	(0.046)	0.00208101
2	0.076	(0.037)	0.0013848
3	0.102	(0.011)	0.00012465
4	0.155	0.042	0.00173763
5	0.072	(0.041)	0.00168496
6	0.172	0.059	0.00346465
7	0.145	0.032	0.00101124
n = 7	∑X= 0.788		$\sum(X-\bar{X})^2$=0.0114889

Source: Annual Reports (Table 4.3)

NABIL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.187	0.04	0.00139463
2	0.146	(0.00)	1.9312E-05
3	0.099	(0.05)	0.00257771
4	0.171	0.02	0.00044635
5	0.176	0.03	0.00067444
6	0.145	(0.00)	2.1218E-05
7	0.124	(0.03)	0.00065533
n = 7	∑X= 1.049		$\sum(X-\bar{X})^2$=0.005789

Source: Annual Reports (Table 4.4)

NBIL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.133	0.027	0.000729
2	0.092	-0.014	0.000196
3	0.054	-0.052	0.002704
4	0.136	0.03	0.0009
5	0.086	-0.02	0.0004
6	0.144	0.038	0.001444
7	0.096	-0.01	1E-04
n = 7	∑X= 0.741		$\sum(X-\bar{X})^2$=0.00647

Source: Annual Reports (Table 4.4)

Calculation of SD of KBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.123	0.003	9E-06
2	0.115	-0.005	2.5E-05
3	0.069	-0.051	0.002601
4	0.099	-0.021	0.000441
5	0.165	0.045	0.002025
6	0.117	-0.003	9E-06
7	0.154	0.034	0.001156
n = 7	∑X= 0.842		$\sum(X-\bar{X})^2$=0.00627

Source: Annual Reports (Table 4.4)

NABIL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.666	(0.05)	0.0026
2	0.669	(0.05)	0.00226248
3	0.739	0.02	0.00047093
4	0.695	(0.02)	0.00047171
5	0.765	0.05	0.0023361
6	0.756	0.04	0.00153181
7	0.729	0.01	0.00014326
n = 7	∑X= 5.020		$\sum(X-\bar{X})^2$=0.0098163

Source: Annual Reports (Table 4.5)

NBIL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.706	(0.06)	0.00361586
2	0.784	0.02	0.00031018
3	0.776	0.01	0.00010144
4	0.805	0.04	0.00150908
5	0.820	0.05	0.00287701
6	0.730	(0.04)	0.00127249
7	0.743	(0.02)	0.00051782
n = 7	∑X= 5.364		$\sum(X-\bar{X})^2$=0.0102039

Source: Annual Reports (Table 4.5)

KBL

Calculation of SD

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.846	(0.01)	0.00012567
2	0.887	0.03	0.00092108
3	0.929	0.07	0.00516944
4	0.847	(0.01)	9.8746E-05
5	0.861	0.00	1.65E-05
6	0.801	(0.06)	0.00311558
7	0.831	(0.03)	0.00069642
n = 7	∑X= 6.002		$\sum(X-\bar{X})^2$=0.0101434

Source: Annual Reports (Table 4.5)

NABIL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.383	0.09	0.00795928
2	0.311	0.02	0.00030458
3	0.290	(0.00)	1.7071E-05
4	0.295	0.00	1.5867E-06
5	0.263	(0.03)	0.00094739
6	0.255	(0.04)	0.00149681
7	0.257	(0.04)	0.00138711
n = 7	∑X= 2.055		$\sum(X-\bar{X})^2$=0.0121138

Source: Annual Reports (Table 4.6)

Calculation of SD of NIBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.266	0.08	0.00618902
2	0.200	0.01	0.00015685
3	0.158	(0.03)	0.00081547
4	0.172	(0.01)	0.00021386
5	0.148	(0.04)	0.001517
6	0.183	(0.00)	1.5283E-05
7	0.183	(0.00)	1.4684E-05
n = 7	∑X= 1.310		$\sum(X-\bar{X})^2$=0.0089222

Source: Annual Reports (Table 4.6)

Calculation of S.D of KBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.159	0.01	3.5363E-05
2	0.167	0.01	0.00020879
3	0.096	(0.06)	0.00322842
4	0.132	(0.02)	0.00045075
5	0.208	0.05	0.00302443
6	0.134	(0.02)	0.00037143
7	0.177	0.02	0.00059162
n = 7	∑X= 1.073		$\sum(X-\bar{X})^2$=0.0079108

Source: Annual Report (Table 4.6)

NABIL

Calculation of SD

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.570	(0.05)	0.00245693
2	0.575	(0.04)	0.00199235
3	0.629	0.01	7.9634E-05
4	0.619	(0.00)	1.5832E-06
5	0.654	0.03	0.00116747
6	0.658	0.04	0.00147302
7	0.633	0.01	0.00017165
n = 7	∑X= 4.339		$\sum(X-\bar{X})^2$=0.0073426

Source: Annual Reports (Table 4.7)

Calculation of S.D of NIBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.627	(0.04)	0.00180552
2	0.694	0.03	0.00064986
3	0.684	0.01	0.00021502
4	0.704	0.03	0.00119499
5	0.704	0.04	0.00123989
6	0.633	(0.04)	0.0012824
7	0.634	(0.03)	0.00120439
n = 7	∑X= 4.680		$\sum(X-\bar{X})^2$=0.0075921

Source: Annual Reports (Table 4.7)

Calculation of S.D of KBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.749	0.02	0.00036875
2	0.754	0.02	0.00059337
3	0.787	0.06	0.00327114
4	0.720	(0.01)	0.00010982
5	0.714	(0.02)	0.00026319
6	0.701	(0.03)	0.00084755
7	0.686	(0.04)	0.00191107
n = 7	∑X= 5.111		$\sum(X-\bar{X})^2$=0.0073649

Source: Annual Reports (Table 4.7)

NABIL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.160	0.030	0.00092777
2	0.125	(0.005)	2.3573E-05
3	0.084	(0.046)	0.00207183
4	0.152	0.022	0.00049678
5	0.150	0.020	0.00041658
6	0.127	(0.003)	1.1585E-05
7	0.108	(0.022)	0.00048222
n = 7	∑X= 0.907		$\sum(X-\bar{X})^2$=0.0044303

Source: Annual Reports (Table 4.8)

NIBL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.118	0.03	0.00067649
2	0.081	(0.01)	0.00011747
3	0.048	(0.04)	0.00195844
4	0.119	0.03	0.00072214
5	0.074	(0.02)	0.00033856
6	0.125	0.03	0.00105662
7	0.082	(0.01)	0.00010344
n = 7	∑X= 0.646		$\sum(X-\bar{X})^2$=0.0049732

Source: Annual Reports (Table 4.8)

KBL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.109	0.01	4.776E-05
2	0.098	(0.00)	1.7945E-05
3	0.058	(0.04)	0.00190858
4	0.084	(0.02)	0.0003133
5	0.137	0.03	0.00122068
6	0.102	0.00	2.1446E-07
7	0.127	0.03	0.00063868
n = 7	∑X= 0.716		$\sum(X-\bar{X})^2$=0.0041472

Source: Annual Reports (Table 4.8)

NABIL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.002	(0.00)	8.2535E-07
2	0.002	(0.00)	6.7019E-07
3	0.002	(0.00)	1.2275E-06
4	0.003	0.00	6.7478E-08
5	0.003	0.00	7.178E-08
6	0.003	0.00	1.7758E-08
7	0.003	(0.00)	4.041E-08
n = 7	∑X= 0.019		$\sum(X-\bar{X})^2$= 2.92045E-06

Source: Annual Reports (Table 4.9)

NIBL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.001	(0.00)	5.3505E-07
2	0.001	(0.00)	3.7315E-07
3	0.001	(0.00)	7.2127E-07
4	0.001	(0.00)	8.1112E-07
5	0.001	(0.00)	6.1361E-07
6	0.003	0.00	3.7912E-07
7	0.004	0.00	4.7063E-06
n = 7	∑X= 0.013		$\sum(X-\bar{X})^2$=8.14E-06

Source: Annual Reports (Table 4.9)

Calculation of S.D of KBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.001	0.000198	3.92E-08
2	0.001	-2.9E-05	8.42E-10
3	0.001	7.2E-05	5.19E-09
4	0.001	0.000122	1.5E-08
5	0.001	-8.5E-05	7.19E-09
6	0.000	-0.00054	2.91E-07
7	0.177	0.02	0.00059162
n = 7	∑X= 0.006		$\sum(X-\bar{X})^2$ =3.6E-07

Source: Annual Reports (Table 4.9)

NABIL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.043	0.00	1.90E-05
2	0.035	(0.00)	1.67E-05
3	0.037	(0.00)	2.66E-06
4	0.035	(0.00)	1.37E-05
5	0.035	(0.00)	1.48E-05
6	0.041	0.00	3.11E-06
7	0.048	0.01	7.80E-05
n = 7	∑X= 0.275		$\sum(X-\bar{X})^2$ = 1.48E-04

Source: Annual Reports (Table 4.10)

Calculation of S.D of NIBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.029	(0.00)	2.89E-10
2	0.026	(0.00)	1.01E-05
3	0.025	(0.00)	1.71E-05
4	0.031	0.00	5.64E-06
5	0.029	(0.00)	1.47E-07
6	0.025	(0.00)	1.64E-05
7	0.041	0.01	1.51E-04
n = 7	∑X= 0.206		$\sum(X-\bar{X})^2$=02.00E-04

Source: Annual Reports (Table 4.10)

Calculation of S.D of KBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.019	0.00	4.15787E-06
2	0.015	(0.00)	2.43701E-06
3	0.018	0.00	4.62005E-07
4	0.021	0.00	1.93645E-05
5	0.017	0.00	2.59918E-08
6	0.016	(0.00)	1.77062E-06
7	0.015	(0.00)	3.90455E-06
n = 7	∑X= 0.121		$\sum(X-\bar{X})^2$= 3.21E-05

Source: Annual Reports (Table 4.10)

Calculation of S.D of NABIL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.025	0.001	5.3469E-07
2	0.020	(0.004)	1.5289E-05
3	0.024	(0.000)	2.4715E-07
4	0.022	(0.002)	4.6638E-06
5	0.023	(0.001)	1.0084E-06
6	0.027	0.003	8.0566E-06
7	0.030	0.006	3.9483E-05
n = 7	∑X= 0.170		$\sum(X-\bar{X})^2$=6.928E-05

Source: Annual Reports (Table 4.11)

NIBL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.018	(0.002)	3.3926E-06
2	0.018	(0.002)	4.2841E-06
3	0.017	(0.003)	9.0193E-06
4	0.022	0.002	4.3051E-06
5	0.020	0.000	2.3156E-08
6	0.016	(0.004)	1.7633E-05
7	0.026	0.006	3.8172E-05
n = 7	∑X= 0.137		$\sum(X-\bar{X})^2$=7.683E-05

Source: Annual Reports (Table 4.11)

Calculation of S.D of KBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.014	0.001	1.598E-06
2	0.012	(0.001)	1.832E-06
3	0.014	0.001	8.4155E-07
4	0.015	0.002	5.7509E-06
5	0.012	(0.001)	5.6358E-07
6	0.011	(0.002)	4.0705E-06
7	0.010	(0.003)	7.2321E-06
n = 7	∑X= 0.089		$\sum(X-\bar{X})^2$=2.189E-05

Source: Annual Reports (Table 4.11)

Calculation of S.D of NABIL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	1.37	0.541	0.292681
2	1.083	0.254	0.064516
3	1.067	0.238	0.056644
4	0.562	-0.267	0.071289
5	0.659	-0.17	0.0289
6	0.696	-0.133	0.017689
7	0.367	-0.462	0.213444
n = 7	∑X= 5.804		$\sum(X-\bar{X})^2$ = 0.74516

Source: Annual Reports (Table 4.12)

NIBL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.625	0.163	0.026569
2	0.579	0.117	0.013689
3	0.374	-0.088	0.007744
4	0.525	0.063	0.003969
5	0.391	-0.071	0.005041
6	0.276	-0.186	0.034596
7	0.462	0	0
n = 7	∑X= 3.232		$\sum(X-\bar{X})^2 = 0.09161$

Source: Annual Reports (Table 4.12)

Calculation of S.D of KBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.227	0.036	0.001296
2	0.164	-0.027	0.000729
3	0.218	0.027	0.000729
4	0.242	0.051	0.002601
5	0.156	-0.035	0.001225
6	0.172	-0.019	0.000361
7	0.159	-0.032	0.001024
n = 7	∑X= 1.338		$\sum(X-\bar{X})^2$=0.00797

Source: Annual Reports (Table 4.12)

Calculation of S.D of NABIL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.570	(0.05)	0.00245693
2	0.575	(0.04)	0.00199235
3	0.629	0.01	7.9634E-05
4	0.619	(0.00)	1.5832E-06
5	0.654	0.03	0.00116747
6	0.658	0.04	0.00147302
7	0.633	0.01	0.00017165
n = 7	∑X= 4.339		$\sum(X-\bar{X})^2 = 0.0073426$

Source: Annual Reports (Table 4.13)

NIBL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.627	(0.04)	0.00180552
2	0.694	0.03	0.00064986
3	0.684	0.01	0.00021502
4	0.704	0.03	0.00119499
5	0.704	0.04	0.00123989
6	0.633	(0.04)	0.0012824
7	0.634	(0.03)	0.00120439
n = 7	∑X= 4.680		$\sum(\mathbf{X}-\bar{\mathbf{X}})^2 = 0.0075921$

Source: Annual Reports (Table 4.13)

Calculation of S.D of KBL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.749	0.02	0.00036875
2	0.754	0.02	0.00059337
3	0.787	0.06	0.00327114
4	0.720	(0.01)	0.00010982
5	0.714	(0.02)	0.00026319
6	0.701	(0.03)	0.00084755
7	0.686	(0.04)	0.00191107
n = 7	∑X= 5.111		$\sum(\mathbf{X}-\bar{\mathbf{X}})^2$=0.0073649

Source: Annual Reports (Table 4.13

Calculation of S.D) of NABIL

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.056	(0.01)	0.00015039
2	0.084	0.02	0.00024621
3	0.090	0.02	0.00049666
4	0.030	(0.04)	0.00143142
5	0.049	(0.02)	0.00036032
6	0.078	0.01	9.3989E-05
7	0.092	0.02	0.00059884
n = 7	∑X= 0.479		$\sum(\mathbf{X}-\bar{\mathbf{X}})^2 = 0.0033778$

Source: Annual Reports (Table 4.14)

NIBL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.100	(0.06)	0.0032812
2	0.109	(0.05)	0.00230475
3	0.170	0.01	0.00015716
4	0.136	(0.02)	0.00043914
5	0.162	0.01	2.843E-05
6	0.207	0.05	0.00250163
7	0.212	0.06	0.00305689
n = 7	∑X= 1.096		$\sum(X-\bar{X})^2$ = 0. 0087123

Source: Annual Reports (Table 4.14)

KBL

Calculation of S.D

S. No	Ratio (X)	(X-$\bar{X}$)	$(X-\bar{X})^2$
1	0.064	(0.05)	0.00233729
2	0.073	(0.04)	0.00151187
3	0.106	(0.01)	3.247E-05
4	0.156	0.04	0.00195933
5	0.069	(0.04)	0.00186439
6	0.169	0.06	0.00328297
7	0.146	0.03	0.00116309
n = 7	∑X= 0.784		$\sum(X-\bar{X})^2$=0.0121514

Source: Annual Reports (Table 4.14)

Annex-2

Calculation of Growth Ratio

Calculation of Growth Ratio of Total deposit

Let,

D_n= Date in the nth Year.

D_0= Date in the initial Year.

g= Growth Rate.

n= Number of Year of Study = 7

Then we have $D_n=D_0(1+g)^{n-1}$

NABIL

Here,

D_0= Total Deposit in 2006/7=23342

D_n= Total Deposit in 2012/13=63609 (Amount in million)

Then we have,

$D_n=D_0 (1+g)^{n-1}$

Or, $63609=23342 (1+g)^{7-1}$

Or, $2.725= (1+g)^{6}$

Or, $2.725^{1/6}=1+g$

Or, $1.181=1+g$

Or, $0.181=g$

$\therefore g=18.18\%$

NBIL

Here,

D_0= Total Deposit in 2006/7=24489

D_n= Total Deposit in 2012/13=62429 (Amount in millions)

Then we have,

$D_n=D_0(1+g)^{n-1}$

Or,62429=24489 $(1+g)^{7-1}$

Or, 2.549=$(1+g)^6$

Or, $2.549^{1/6}=1+g$

Or, 1.168=1+g

Or, 0.168=g

∴ g=16.87%

KBL

Here,

D_0= Total Deposit in 2006/7=10557

D_n= Total Deposit in 2012/13=23319 (Amount in millions)

Then we have,

$D_n=D_0(1+g)^{n-1}$

Or,23319=10557 $(1+g)^{7-1}$

Or, 2.208=$(1+g)^6$

Or, $2.208^{1/6}=1+g$

Or, 1.141=1+g

Or, 0.141=g

∴ g=14.11%

Calculation of Growth Ratio of Loan & Advances

Let,

D_n= Date in the nth Year.

D_0= Date in the initial Year.

g= Growth Rate.

n= Number of Year of Study = 7

Then we have $D_n=D_0(1+g)^{n-1}$

NABIL

Here,

D_0=Loan & Advances in 2006/7= 15546

D_n= Loan & Advances in 2012/13=46369 (Amount in millions)

Then we have,

$D_n=D_0(1+g)^{n-1}$

Or, $46369=15546\ (1+g)^{7-1}$

Or,$2.982=(1+g)^6$

Or, $2.982^{1/6}=1+g$

Or, $1.199=1+g$

Or,$0.199=g$

$\therefore g=19.97\%$

NIBL

Here,

D_0=Loan & Advances in 2006/7=17286

D_n= Loan & Advances in 2012/13=46400 (Amount in millions)

Then we have,

$D_n=D_0(1+g)^{n-1}$

Or, $46400=17286\ (1+g)^{7-1}$

Or, $2.684 =(1+g)^6$

Or, $2.684^{1/6}=1+g$

Or, $1.178=1+g$

Or, $0.1788=g$

$\therefore g=17.88\%$

KBL

Here,

D_0=Loan & Advances in 2006/7=8929

D_n= Loan & Advances in 2012/13=19369 (Amount in millions)

Then we have,

$D_{n=}D_0(1+g)^{n-1}$

Or, $19369=8929\ (1+g)^{7-1}$

Or,$2.169 =(1+g)^6$

Or, $2.169^{1/6}=1+g$

Or, $1.137=1+g$

Or, $0.0733=g$

∴ g=13.77%

Calculation of Growth Ratio of Total Investment

Let,

D_n= Date in the nth Year.

D_0= Date in the initial Year.

g= Growth Rate.

n= Number of Year of Study = 7

Then we have $D_n=D_0(1+g)n-1$

NABIL

Here,

D_0= Total Investment in 2006/7=8945

D_n= Total Investment in 2012/13=16332 (Amount in millions)

Then we have,

$D_n=D_0\ (1+g)n-1$

Or, $16332=8945\ (1+g)7-1$

Or, 1.8258=(1+g)6

Or, $1.8258^{1/6}$=1+g

Or, 1.1055=1+g

Or,0.1055=g

∴g=10.55%

NIBL

Here,

D_0= Total Investment in 2006/7=6506

D_n= Total Investment in 2012/13=11435 (Amount in millions)

Then we have,

$D_n=D_0$ (1+g)n-1

Or, $11435=6506 (1+g)^{7-1}$

Or, $1.7576=(1+g)^6$

Or, $1.7576^{1/6}$ =1+g

Or, 1.098=1+g

Or,0.0985=g

∴g=9.85%

KBL

Here,

D_0= Total Investment in 2006/7=1678

D_n= Total Investment in 2012/13=4135 (Amount in millions)

Then we have,

$D_n=D_0 (1+g)^{n-1}$

Or, $4135=1678 (1+g)^{7-1}$

Or,$2.4642 =(1+g)^6$

Or, $2.4642^{1/6}$ =1+g

Or, 1.1621=1+g

Or, 0.1621=g

∴g=16.21%

Calculation of Growth Ratio of Net Profit

Let,

D_n= Date in the nth Year.

D_0= Date in the initial Year.

g= Growth Rate.

n= Number of Year of Study = 7

Then we have $D_n=D_0(1+g)n-1$

NABIL

Here,

D_0= Net Profit in 2006/7=674

D_n= Net Profit in 2012/13=2218 (Amount in millions)

Then we have,

$D_n=D_0\ (1+g)^{n-1}$

Or, $2218=674\ (1+g)^{7-1}$

Or, $3.290=(1+g)^6$

Or, $3.290^{1/6}=1+g$

Or, 1.219=1+g

Or, 0.2195=g

∴g=21.95%

NIBL

Here,

D_0= Net Profit in 2006/7=501

D_n= Net Profit in 2012/13=1915 (Amount in millions)

Then we have,

$D_n=D_0\ (1+g)^{n-1}$

Or, $1915=501\ (1+g)^{7-1}$

Or, $3.8223=(1+g)^6$

Or, $3.8223^{1/6}=1+g$

Or, $1.250=1+g$

Or, $0.2504=g$

$\therefore g=25.04\%$

KBL

Here,

D_0= Net Profit in 2006/7=170

D_n= Net Profit in 2012/13=291 (Amount in millions)

Then we have,

$D_n=D_0\ (1+g)^{n-1}$

Or, $291=170\ (1+g)^{7-1}$

Or, $1.7117=(1+g)^6$

Or, $1.7117^{1/6}=1+g$

Or, $1.0937=1+g$

Or, $0.0937=g$

$\therefore g=9.37\%$

Annex-3

Calculation of the trend

Calculation of the trend of Investment of NABIL

(Rs. in millions)

F/Y	t	Investment (y)	X(t-4)	X^2	xy	y= a+ bx
2006/7	1	8945	-3	9	-26835	5581.743
2007/8	2	9940	-2	4	-19880	8996.229
2008/9	3	10826	-1	1	-10826	12410.71
2009/10	4	13703	0	0	0	15825.2
2010/11	5	13081	1	1	13081	19239.69
2011/12	6	14048	2	4	28096	22654.17
2012/13	7	16332	3	9	48996	26068.66
		∑ y = 86875	∑ x = 0	$\sum X^2$ =28	∑xy= 32632	

Source: Annual Reports (Table 4.18)

Calculation of the trend of Investment of NABIL

F/Y(t)	t	X(t-4)	y = a+bx
2013/14	8	4	26068.66
2014/15	9	5	29483.14
2015/16	10	6	32897.63
2016/17	11	7	36312.11
2017/18	12	8	39726.6
2018/19	13	9	43141.09
2019/2020	14	10	46555.57

Let trend line be

Y = a + bx ....., (i)

Where, Y = dependent variable

a = y- intercept

b = slope of the trend line

x = independent variable

$a = \frac{\sum X}{N}$ $b = \frac{\sum X^2}{\sum XY}$

$\sum X$= Sum of the observations in series X

$\sum XY$= Sum of the observation in series X and Y

$\sum X^2$= sum of square of the observations in series X

Calculation of the trend of Investment of NIBL (Rs. in millions)

F/Y	t	Investment (y)	X(t-4)	X^2	xy	y= a+ bx
2006/7	1	6506	-3	4	-19518	1474.371
2007/8	2	6874	-2	1	-13748	3778.629
2008/9	3	7399	-1	0	-7399	6082.886
2009/10	4	8635	0	1	0	8387.143
2010/11	5	7423	1	4	7423	10691.4
2011/12	6	10438	2	9	20876	12995.66
2012/13	7	11435	3	16	34305	15299.91
		$\sum$ y = 58710	$\sum$ x = 0	$\sum X^2$ =35	$\sum$xy= 21939	

Source: Annual Reports (Table 4.18)

Calculation of the trend of Investment of NIBL

F/Y(t)	t	X(t-4)	y = a+bx
2013/14	8	4	17604.17
2014/15	9	5	19908.43
2015/16	10	6	22212.69
2016/17	11	7	24516.94
2017/18	12	8	26821.2
2018/19	13	9	29125.46
2019/2020	14	10	31429.71

Calculation of the trend of Investment of KBL (Rs. in millions)

F/Y	t	Investment (y)	X(t-4)	X^2	xy	y= a+ bx
2006/7	1	1678	-3	9	-5034	1426.679
2007/8	2	2139	-2	4	-4278	1819.357
2008/9	3	1511	-1	1	-1511	2212.036
2009/10	4	2297	0	0	0	2604.714
2010/11	5	3533	1	1	3533	2997.393
2011/12	6	2940	2	4	5880	3390.071
2012/13	7	4135	3	9	12405	3782.75
		$\sum$ y = 18233	$\sum$ x = 0	$\sum X^2$ =28	$\sum$xy= 10995	

Source: Annual Reports (Table 4.18)

Calculation of the trend of Investment of KBL

F/Y(t)	t	X(t-4)	y = a+bx
2013/14	8	4	4175.429
2014/15	9	5	4568.107
2015/16	10	6	4960.786
2016/17	11	7	5353.464
2017/18	12	8	5746.143
2018/19	13	9	6138.821
2019/2020	14	10	6531.5

Calculation of the trend of Total Deposit of NABIL (Rs. in millions)

F/Y	t	Deposit (y)	X(t-4)	X^2	xy	y= a+ bx
2006/7	1	23342	-3	9	-70026	24688.46429
2007/8	2	31915	-2	4	-63830	31094.35714
2008/9	3	37348	-1	1	-37348	37500.25
2009/10	4	46410	0	0	0	43906.14286
2010/11	5	49696	1	1	49696	50312.03571
2011/12	6	55023	2	4	110046	56717.92857
2012/13	7	63609	3	9	190827	63123.82143
		$\sum$ y = 307343	$\sum$ x = 0	$\sum X^2$ =28	$\sum$xy= 179365	

Source: Annual Reports (Table 4.19)

Calculation of the Total Deposit of NABIL

F/Y(t)	t	X(t-4)	y = a+bx
2013/14	8	4	69529.71429
2014/15	9	5	75935.60714
2015/16	10	6	82341.5
2016/17	11	7	88747.39286
2017/18	12	8	95153.28571
2018/19	13	9	101559.1786
2019/2020	14	10	107965.0714

Calculation of the trend of Total deposit of NIBL (Rs. in millions)

F/Y	t	Deposit (y)	X(t-4)	X^2	xy	y= a+ bx
2006/7	1	24489	-3	9	-73467	29075.43
2007/8	2	34452	-2	4	-68904	34874.57
2008/9	3	46698	-1	1	-46698	40673.71
2009/10	4	50094	0	0	0	46472.86
2010/11	5	50138	1	1	50138	52272
2011/12	6	57010	2	4	114020	58071.14
2012/13	7	62429	3	9	187287	63870.29
		∑ y = 325310	∑ x = 0	$\sum X^2$ =28	∑xy= 162376	

Source: Annual Reports (Table 4.19)

Calculation of the trend of deposit of NIBL

F/Y(t)	t	X(t-4)	y = a+bx
2013/14	8	4	69669.43
2014/15	9	5	75468.57
2015/16	10	6	81267.71
2016/17	11	7	87066.86
2017/18	12	8	92866
2018/19	13	9	98665.14
2019/2020	14	10	104464.3

Calculation of the trend of Total deposit of KBL (Rs. in millions)

F/Y	t	Deposit (y)	X(t-4)	X^2	xy	y= a+ bx
2006/7	1	10557	-3	9	-31671	10753.57
2007/8	2	12774	-2	4	-25548	12824.43
2008/9	3	15710	-1	1	-15710	14895.29
2009/10	4	17432	0	0	0	16966.14
2010/11	5	16986	1	1	16986	19037
2011/12	6	21985	2	4	43970	21107.86
2012/13	7	23319	3	9	69957	23178.71
		∑ y = 118763	∑ x = 0	$\sum X^2$ =28	∑xy= 57984	

Source: Annual Reports (Table 4.19)

Calculation of the trend of deposit of KBL

F/Y(t)	t	X(t-4)	y = a+bx
2013/14	8	4	25249.57
2014/15	9	5	27320.43
2015/16	10	6	29391.29
2016/17	11	7	31462.14
2017/18	12	8	33533
2018/19	13	9	35603.86
2019/2020	14	10	37674.71

Calculation of the trend of loan & advance of NABIL (Rs. in millions)

F/Y	t	Loan & Advance (y)	X(t-4)	X^2	xy	y= a+ bx
2006/7	1	15546	-3	9	-46638	16461.5
2007/8	2	21365	-2	4	-42730	21582.71429
2008/9	3	27589	-1	1	-27589	26703.92857
2009/10	4	32268	0	0	0	31825.14286
2010/11	5	38034	1	1	38034	36946.35714
2011/12	6	41605	2	4	83210	42067.57143
2012/13	7	46369	3	9	139107	47188.78571
		$\sum$ y = 222776	$\sum$ x = 0	$\sum X^2$ =28	$\sum$xy= 143394	

Sources: Annual Reports (Table 4.20)

Trend value of Loans and Advances of NABIL

F/Y(t)	t	X(t-4)	y = a+bx
2013/14	8	4	52310
2014/15	9	5	57431.21429
2015/16	10	6	62552.42857
2016/17	11	7	67673.64286
2017/18	12	8	72794.85714
2018/19	13	9	77916.07143
2019/2020	14	10	83037.28571

Calculation of the trend of loan & advance of NIBL (Rs. in millions)

F/Y	t	Loan & Advance (y)	X(t-4)	X^2	xy	y= a+ bx
2006/7	1	17286	-3	9	-51858	22695.36
2007/8	2	26997	-2	4	-53994	27033.71
2008/9	3	36241	-1	1	-36241	31372.07
2009/10	4	40318	0	0	0	35710.43
2010/11	5	41095	1	1	41095	40048.79
2011/12	6	41636	2	4	83272	44387.14
2012/13	7	46400	3	9	139200	48725.5
		∑ y = 249973	∑ x = 0	∑X^2 =28	∑xy= 121474	

Sources: Annual Reports (Table 4.20)

Trend value of Loans and Advances of NIBL

F/Y(t)	t	X(t-4)	y = a+bx
2013/14	8	4	53063.86
2014/15	9	5	57402.21
2015/16	10	6	61740.57
2016/17	11	7	66078.93
2017/18	12	8	70417.29
2018/19	13	9	74755.64
2019/2020	14	10	79094

Calculation of Loan & Advance trend of KBL (Rs. in millions)

F/Y	t	Loan & Advance (y)	X(t-4)	X^2	xy	y= a+ bx
2006/7	1	8929	-3	9	-26787	9756.964
2007/8	2	11335	-2	4	-22670	11325.21
2008/9	3	14593	-1	1	-14593	12893.46
2009/10	4	14766	0	0	0	14461.71
2010/11	5	14626	1	1	14626	16029.96
2011/12	6	17614	2	4	35228	17598.21
2012/13	7	19369	3	9	58107	19166.46
		∑ y = 101232	∑ x = 0	∑X^2 =28	∑xy= 43911	

Source: Annual Reports (Table 4.20)

Trend value of Loan & Advances of KBL

F/Y(t)	t	X(t-4)	y = a+bx
2013/14	8	4	20734.71
2014/15	9	5	22302.96
2015/16	10	6	23871.21
2016/17	11	7	25439.46
2017/18	12	8	27007.71
2018/19	13	9	28575.96
2019/2020	14	10	30144.21

Calculation of the trend of Net Profit of NABIL (Rs. in millions)

F/Y	t	Net Profit (y)	X(t-4)	X^2	xy	y= a+ bx
2006/7	1	674	-3	9	-2022	530.36
2007/8	2	746	-2	4	-1492	774.57
2008/9	3	1031	-1	1	-1031	1,018.79
2009/10	4	1139	0	0	0	1,263.00
2010/11	5	1337	1	1	1337	1,507.21
2011/12	6	1696	2	4	3392	1,751.43
2012/13	7	2218	3	9	6654	1,995.64
		∑ y = 8841	∑ x = 0	$\sum X^2$ =28	∑xy= 6838	

Source: Annual Reports (Table 4.21)

Trend value of Net Profit of NABIL

F/Y(t)	t	X(t-4)	y = a+bx
2013/14	8	4	2,239.86
2014/15	9	5	2,484.07
2015/16	10	6	2,728.29
2016/17	11	7	2,972.50
2017/18	12	8	3,216.71
2018/19	13	9	3,460.93
2019/2020	14	10	3,705.14

Calculation of Trend of Net Profit of NIBL (Rs. in millions)

F/Y	t	Net Profit (y)	X(t-4)	X^2	xy	y= a+ bx
2006/7	1	501	-3	9	-1503	513.3214
2007/8	2	697	-2	4	-1394	699.0714
2008/9	3	901	-1	1	-901	884.8214
2009/10	4	1265	0	0	0	1070.571
2010/11	5	1176	1	1	1176	1256.321
2011/12	6	1039	2	4	2078	1442.071
2012/13	7	1915	3	9	5745	1627.821
		∑ y = 7494	∑ x = 0	$\sum X^2$ =28	∑xy= 5201	

Source: Annual Reports (Table 4.21)

Trend value of Net Profit of NIBL

F/Y(t)	t	X(t-4)	y = a+bx
2013/14	8	4	1813.571
2014/15	9	5	1999.321
2015/16	10	6	2185.071
2016/17	11	7	2370.821
2017/18	12	8	2556.571
2018/19	13	9	2742.321
2019/2020	14	10	2928.071

Trend of Net Profit of KBL

F/Y	t	Net Profit (y)	X(t-4)	X^2	xy	y= a+ bx
2006/7	1	170	-3	9	-510	188.3571
2007/8	2	175	-2	4	-350	208.2857
2008/9	3	258	-1	1	-258	228.2143
2009/10	4	316	0	0	0	248.1429
2010/11	5	251	1	1	251	268.0714
2011/12	6	276	2	4	552	288
2012/13	7	291	3	9	873	307.9286
		∑ y = 1737	∑ x = 0	$\sum X^2$ =28	∑xy= 558	

Source: Annual Reports (Table 4.21)

Trend value of Net Profit of KBL

F/Y(t)	t	X(t-4)	y = a+bx
2013/14	8	4	327.8571
2014/15	9	5	347.7857
2015/16	10	6	367.7143
2016/17	11	7	387.6429
2017/18	12	8	407.5714
2018/19	13	9	427.5
2019/2020	14	10	447.4286

Annex-4

Calculation of Correlation of Coefficient

Calculation of Correlation of Coefficient Between

Total Deposit and Loan & Advances of NABIL

(Rs. in millions)

F/Y	Deposit (X)	***Loan*** & $adv.(\boldsymbol{Y})$	XY	X^2	Y^2
2006/7	23342	15546	362874732	544848964	241678116
2007/8	31915	21365	681863975	1018567225	456463225
2008/9	37348	27589	1030393972	1394873104	761152921
2009/10	46410	32268	1497557880	2153888100	1041223824
2010/11	49696	38034	1890137664	2469692416	1446585156
2011/12	55023	41605	2289231915	3027530529	1730976025
2012/13	63609	46369	2949485721	4046104881	2150084161
Total	$\sum X$=307343	$\sum Y$= 222776	$\sum X^2$= 10701545859	$\sum Y^2$= 14655505219	$\sum XY$=7828163428

Source: Annual Reports (Table

Coefficient of correlation (r) can be calculated by using the following formula.

$$r = \frac{N\Sigma XY - \Sigma X \Sigma Y}{\sqrt{N\Sigma X^2 - (\Sigma X)^2}\sqrt{N\Sigma Y^2 - (\Sigma Y)^2}}$$

$$= \frac{7 * 10701545859 - 307343 * 222776}{\sqrt{7 * 14655505219 - (307343)2}\sqrt{7 * 7828163428 - (222776)2}}$$

$$= \frac{6442176845}{90159.951 \text{ x } 71888.788}$$

$\therefore$ r = 0.9939

$\therefore$ r^2= 0.9879

Calculation of Probable Error:

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

$$= 0.6745* \frac{1 - 0.9879}{\sqrt{7}}$$

= 0.000308

6P. Er. = 6*0.000308

= 0.0018

Calculation of Correlation of Coefficient Between

Total Deposit and Loan & Advances of NIBL (Rs. in millions)

F/Y	Deposit (X)	$\boldsymbol{Loan}$ & $adv.$ ($\boldsymbol{Y}$)	XY	X^2	Y^2
2006/7	24489	17286	423316854	599711121	298805796
2007/8	34452	26997	930100644	1186940304	728838009
2008/9	46698	36241	1692382218	2180703204	1313410081
2009/10	50094	40318	2019689892	2509408836	1625541124
2010/11	50138	41095	2060421110	2513819044	1688799025
2011/12	57010	41636	2373668360	3250140100	1733556496
2012/13	62429	46400	2896705600	3897380041	2152960000
	∑X=325310	∑Y= 249973	∑X^2= 12396284678	∑Y^2= 16138102650	∑XY=954191053 1

Source: Annual Reports (Table 4.18)

Calculation of Correlation of Coefficient Between

Total Deposit and Loan & Advances of KBL (Rs. in millions)

F/Y	Deposit (X)	$\boldsymbol{Loan}$ & $adv.(\boldsymbol{Y})$	XY	X^2	Y^2
2006/7	10557	8929	94263453	111450249	79727041
2007/8	12774	11335	144793290	163175076	128482225
2008/9	15710	14593	229256030	246804100	212955649
2009/10	17432	14766	257400912	303874624	218034756
2010/11	16986	14626	248437236	288524196	213919876
2011/12	21985	17614	387243790	483340225	310252996
2012/13	23319	19369	451665711	543775761	375158161
	∑X=118763	∑Y= 101232	$\sum X^2$= 1813060422	$\sum Y^2$= 2140944231	∑XY=1538530704

Source: Annual Reports (Table 4.18)

Calculation of Correlation of Coefficient Between

Total Deposit and Total Investment of NABIL (Rs. in millions)

F/Y	Deposit (X)	***Total Investm***	XY	X^2	Y^2
2006/7	23342	8945	208794190	544848964	80013025
2007/8	31915	9940	317235100	1018567225	98803600
2008/9	37348	10826	404329448	1394873104	117202276
2009/10	46410	13703	635956230	2153888100	187772209
2010/11	49696	13081	650073376	2469692416	171112561
2011/12	55023	14048	772963104	3027530529	197346304
2012/13	63609	16332	1038862188	4046104881	266734224
	∑X=307343	∑Y= 86875	$\sum X^2$= 4028213636	$\sum Y^2$= 1465550521 9	∑XY=1118984199

Source: Annual Reports (Table 4.18)

Calculation of Correlation of Coefficient Between

Total Deposit and Total Investment of NIBL (Rs. in millions)

F/Y	Deposit (X)	***Total Investment***. (***Y***	XY	X^2	Y^2
2006/7	24489	6506	159325434	599711121	42328036
2007/8	34452	6874	236823048	1186940304	47251876
2008/9	46698	7399	345518502	2180703204	54745201
2009/10	50094	8635	432561690	2509408836	74563225
2010/11	50138	7423	372174374	2513819044	55100929
2011/12	57010	10438	595070380	3250140100	108951844
2012/13	62429	11435	713875615	3897380041	130759225
	∑X=325310	∑Y= 58710	$\sum X^2$= 2855349043	$\sum Y^2$= 16138102650	∑XY=513700336

Source: Annual Reports (Table 4.18)

Calculation of Correlation of Coefficient Between

Total Deposit and Total Investment of KBL (Rs. in millions)

F/Y	Deposit (X)	***Total Investment***. (***Y***)	XY	X^2	Y^2
2006/7	10557	1678	17714646	111450249	2815684
2007/8	12774	2139	27323586	163175076	4575321
2008/9	15710	1511	23737810	246804100	2283121
2009/10	17432	2297	40041304	303874624	5276209
2010/11	16986	3533	60011538	288524196	12482089
2011/12	21985	2940	64635900	483340225	8643600
2012/13	23319	4135	96424065	543775761	17098225
	∑X=118763	∑Y= 18233	$\sum X^2$= 329888849	$\sum Y^2$= 2140944231	∑XY=53174249

Source: Annual Reports (Table 4.18)

Calculation of Correlation of Coefficient Between

Loan & advances and Net Profit of NABIL (Rs. in millions)

F/Y	Loan & adv. (X)	$\boldsymbol{Net\ Profit(Y)}$	XY	X^2	Y^2
2006/7	15546	674	10478004	241678116	454276
2007/8	21365	746	15938290	456463225	556516
2008/9	27589	1031	28444259	761152921	1062961
2009/10	32268	1139	36753252	1041223824	1297321
2010/11	38034	1337	50851458	1446585156	1787569
2011/12	41605	1696	70562080	1730976025	2876416
2012/13	46369	2218	102846442	2150084161	4919524
	$\sum X$=222776	$\sum Y$= 8841	$\sum X^2$= 315873785	$\sum Y^2$= 7828163428	$\sum XY$=12954583

Source: Annual Reports (Table 4.18)

Calculation of Correlation of Coefficient Between

Loan & advances and Net Profit of NIBL (Rs. in millions)

F/Y	Loan & adv. (X)	$\boldsymbol{Net\ Profit(Y)}$	XY	X^2	Y^2
2006/7	17286	501	8660286	298805796	251001
2007/8	26997	697	18816909	728838009	485809
2008/9	36241	901	32653141	1313410081	811801
2009/10	40318	1265	51002270	1625541124	1600225
2010/11	41095	1176	48327720	1688799025	1382976
2011/12	41636	1039	43259804	1733556496	1079521
2012/13	46400	1915	88856000	2152960000	3667225
	$\sum X$=249973	$\sum Y$= 7494	$\sum X^2$= 291576130	$\sum Y^2$= 9541910531	$\sum XY$=9278558

Calculation of Correlation of Coefficient Between

Loan & advances and Net Profit of KBL (Rs. in millions)

F/Y	Loan & adv. (X)	$\boldsymbol{Net\ Profit(Y)}$	XY	X^2	Y^2
2006/7	8929	170	1517930	79727041	28900
2007/8	11335	175	1983625	128482225	30625
2008/9	14593	258	3764994	212955649	66564
2009/10	14766	316	4666056	218034756	99856
2010/11	14626	251	3671126	213919876	63001
2011/12	17614	276	4861464	310252996	76176
2012/13	19369	291	5636379	375158161	84681
	$\sum X$=101232	$\sum Y$= 1737	$\sum X^2$= 26101574	$\sum Y^2$= 1538530704	$\sum XY$=449803