CHAPTER-I

INTRODUCTION

1.1 Background of the Study

Nepalese economy is underdeveloped compared to the huge and rapidly progressive economics of two neighbors. But Nepal is online developing country in the world and slowly has also increasing the trend of the economic condition. The developing of a country is always measured by its economic indices. Therefore every country has given emphasis on uplift of its economy. Now a days the financial institution are viewed as catalyst in the process of the economic growth. The mobilization of domestic resources is one of the key factors in the economic development of a country. Every well-organized financial institution including financial intermediaries play pivotal role in the development and advancement of the financial sectors of the country. They collect scattered financial resources from the mass and invest them among those who are social activities of the country. This will provide fuel to the development process. The economic activities of the country assistance of the financial institution. They are actually indispensable part of the development process. It is the fact that the unorganized financial system leads the country nowhere. Therefore the central bank (Nepal Rastra Bank) Continuous to play major role in development and advancement of the financial sectors of the country.

Bank is the most important financial institution, which is engaged in monetary transactions. It is an institution, which deals with money by accepting various types of deposit from the depositors under various deposit schemes there by allowing interest on them & also rendering loans on mortgage to deficit unit for productive use by charging interest. Bank accepts various kinds of deposit from the public, which are repayable on demand or on the short notice. Thus, it helps in mobilization of cash from saver groups to user groups.

Banks are expected to support their local communities with an adequate supply of credit for all legitimate business and consumer financial needs and to price that credit reasonably in line with competitively determined interest rates. Indeed making loans is the principal economic function of banks to fund consumption and investment

spending by businesses, individual, and units of government. How well a bank performs its lending function has a great deal to do with economic health of its region, because bank loans support the growth of new business and jobs within the bank's trade territory and promote economic vitality. Moreover, bank loans often seem to convey positive information to the market place about a borrower's credit quality, enabling a borrower to obtain more and perhaps somewhat cheaper funds from other sources.

For most banks, loans account half or more of their total assets and about half to two thirds of their revenues. Moreover, risk in banking tends to be concentrated in the loan portfolio. When a bank gets into serious trouble, its problems usually springs from loans that have become uncollectible due to mismanagement, illegal manipulation of loans, misguided lending policies, or an unexpected economic downturn. A detailed analysis of the documentation and collateral for the largest loan, a review of a sample of small loans and an evaluation of the bank's loan policy should be properly monitored to ensure that it is sound and prudent in order to protect the public's funds. Thus it becomes necessary that the funds of the bank, which has been granted as loans, into various sectors be thoroughly inspected to guarantee the protection of the bank against unforeseen risks.

In the present context, the role of money in the economy has become very important. Proper and well-planned management of money – directs, determines and enhances the health and productivity of total financial sector and performance of financial sector affects the growth of the economy. Bank collects, disperses and controls the flow of money. Banks collect the funds from public who has savings and it disperses the fund to the people who are in need of it. This way, whole infrastructure of national development, direction of economy, rate of progress and even the habit of people is being the function of the banking system. Therefore, the existence of bank is for the change in every aspect of human beings and its presence is for the enrichment of the people.

The issue of development always rests upon the mobilization of resources. Bank's function of lending ensures required volume of capital to resources mobilization. Thus, the foundation of resources mobilization is pillared on the bank's function of

lending. The primary issue of economic development is to increase the investment in productive sector. The increase in investment affects positively in every sector of economy such as employment, production, income, government revenue, international trade etc. What roles can a bank play to assist the economic development is the main issue that the banking sector in Nepal and sectors around the world is facing today. The liberalization of economy has posed more responsibility and challenges to commercial banks. This has created new areas of probabilities and posed high degree of competition risks. The existence of bank has its root in economic development and the banks have a big role to play in fund mobilization to increase the pace of development .The liberalization of financial sector in Nepal has opened a new horizon of expectancy in banking industry.

Investment policy is a study in determining the importance of the bank's investment policy towards National Economic Development because it ensures efficient allocation of funds to achieve the material and economic well being of the society as a whole. In this regards loan disbursement pattern has been a major catalyst in achieving priority of industries in the context of Nepal's economic development.

All Commercial Banks in Nepal have their own investment policy apart from government policy and Central Bank's rules. Timely evaluation and reform of investment policy is utmost important for strengthening the position of banks.

Talking about the history of bank, an institutional banking system came into existence in Nepal only in the 19th century. Nepal Bank Limited was the first financial institutional of Nepal established on the 30th of Kartik 1994. Being a commercial bank, it focuses on income generating and profit maximization. As it was only one commercial bank has to look the economic condition of country. Only one Nepal Bank Limited was not sufficient to look all the sector of country. So in 2013 B.S. another bank named "Nepal Rastra Bank" was established as the central bank. Similarly the 2nd commercial bank Rastriya Banijya Bank was established as the second commercial bank of Nepal in Magh 10, 2022 B.S., under Rastriya Banijya Bank Act 2021. This act is now revised as Commercial Bank Act 2031. B.S. "Accepting deposits, granting loan and performing commercial banking functions are the main motto of commercial bank" (Commercial Bank Act, 2031**)**. For the

development of industry, commerce and trade, Nepal Industrial Development Corporation was established under Industrial Development Corporation Act 2016. For the development of agricultural section, Agricultural Development Bank was established on Magh 7th 2024 B.S., under the Agricultural Bank Act 2024 B.S.

The government of Nepal observed the necessities of rapid development of the country for which it has adopted "liberalized economic policy, laissez fair economy and encouraged foreign investment". "The government formed Foreign Investment & Technology Act 1981 A.D. which was later revised as Act 1992 A.D. by new elected democratic government"(Foreign Investment and Technology Act ,1992). The joint venture bank was introduced in Nepal in 2041 B.S. with the establishment of "Nepal Arab Bank Limited". It was established with joint venture of U.A.E bank, financial institution of Nepal.

The second joint venture bank, Nepal Indosuez Bank Limited was established in 6thMagh 2042 B.S. Similarly, others joint venture banks like, Nepal Grindlays Bank Limited on 16thMarg 2043, Nepal Investment Bank Limited on 2049 B.S., Nepal State Bank of India Limited on 2050 B.S., Nepal Bangladesh Bank Limited on 2051 B.S., Everest Bank Limited on 2051 B.S., Bank of Kathmandu on 2052 B.S. and Nepal Bank of Ceylon Limited on 2052 B.S. have been established. Till now other commercial banks have been also established.

Among them majority of banks are established in joint venture banks. "A joint venture is the joining of forces between two or more enterprises for the purpose of carrying out a specific operation industrial or commercial investment, production or trade." *(Gupta, 1984: 15)*

Joint venture banks play an important role for economic development of nation. They have been adopted new banking technique, management like, hypothecation, syndication lending policies, tale banking credit card, master card from international banking technique. They render various services to their customers in order to facilitate their economic and social life. Joint venture banks are operating in Nepal in an act as commercial banks are operating and performing their work under the direction of Nepal Rastra Bank. Nowadays, there are many joint venture banks and

other financial institutions, but there are little opportunities to make fair investment. Meanwhile, the banks and financial institutions are offering very low deposit and credit interest rate. So to survive in the competitive banking market, one should follow the fundamental principles of sound investment policy with minimum risk and maximum profit.

However, the joint venture banks are operating in Nepal and play important role in the economic development of the country. Investment policy is an important ingredient of overall national economic development because it ensures efficient allocation of fund to achieve the materials and economic well being of the society as a whole. In this regard, joint venture bank investment policy push drives to achieve priority of commercial sectors in the context of Nepal's economic development. National development of any country depends upon the economic development of that country and economic development is supported by financial infrastructure of that country. Banks constitute an important segment of financial infrastructure of any country. Banking when properly organized it aids and facilities the growth of trade and industry and hence of national economy. In the modern economy, banks are to be considered not as dealers in money but as the leaders of development.

Banking plays a significant role in the development of nations. Bank is a financial institution which primary classes in borrowing and lending. Modern bank prefers varieties of functions. Therefore it is difficult to decide the function of a modern bank because of their complexity and versatility in operation. Various authors have defined the word 'Bank' in different ways. "A commercial bank is dealer in money and it substitutes for money such as cheque or bills of exchange, it also provides a variety of financial service."*(Britannica, 1985:600)*

Commercial banks are major financial institution, which occupy quite important place in the framework in every economy because they provide capital for the development of industry. Commercial banks formulate sound investment policies to make it more effective, which eventually contribute to the economic growth of country. The bound policies help commercial banks maximizing quality and quantity of investment and hereby achieve the own objective of profit maximization and social welfare.

Formulation of sound investment policies and co-ordinate and planned efforts pushed forward the forces of economic growth.

In the study the word investment conceptualized the investment of income, savings or other collected fund. The term investment covers a wide range of activities. It is commonly known fact that an investment is only possible where there is adequate saving. If all the incomes and savings are consumed to solve the problem of hand to mouth and to the other basic needs. Then there is no existence of investment. Therefore, both saving and investment are interrelated. Investment policy is an important ingredient of overall national economy development because it ensures efficient allocation of fund to achieve the materials and economic well being of the society as a whole. In this regards, joint venture bank investment policy push drives to achieve priority of commercial sectors in the context of Nepal's economic development.

1.2 The Definition of Bank

When, where and how the modern banking actually came in existence cannot be pointed out. But, from the different historical facts it reveals that some banking activities have been carried out since the time immemorial. At that time merchants, money lenders, goldsmiths, etc. performed the banking transactions. Later, the transactions started increasing and they became the activities of money exchange, securing the valuable goods, deposit money, lending money and so on. For all these types of activities, written receipts began to be used and the modern banking started. In the historic age sources say that goldsmiths and money lenders contributed to large extent in the growth of banking system. They used to store peoples' gold by charging nominal charges, issued receipts to the depositors, which was good for payments. Later, they started advancing money charging interest on it. So, the goldsmiths and money lenders started performing the functions of modern banking i.e. accepting deposits and advancing loans. However, the modern banking originated in Italy. The word bank was derived from the Italian word "Banco" which means accumulation of money or stock. Bank as an institution was originated from Italy. The bank of Venice which was established in 1157 A.D was the first bank in the history of banking and it was established to finance the monarch in the wars. The Bank of Barcelona Spain

which was established in 1404A.D. was the second bank in the World and then. The Bank of Genoa was set up in 1407 AD.

The first central bank though was the bank of England which was established in 1844 A.D; banking has come to the present advanced form through various stages. Some sorts of banking activities have been carried out since the time immemorial. Traditional forms of banking were traced during the civilization of Greek, Rome and Mesopotamia. With large banking firms established in Florence, Rome, Venice and other Italian cities the banking activities spread throughout the Europe and it slowly spread throughout the world.

1.2.1 Commercial Banks

Commercial banks means a bank which operates currency exchanges transactions, accept deposits, provides loan performs dealing relating to commerce except the banks which have been specified for the cooperative, agriculture, industry or other similar specific objectives. There are 31 commercial banks in Nepal.

There are 31 licensed commercial Banks in Nepal. These commercial banks have given a new horizon to the financial sector of the country regarding healthy competition, foreign capital investment, technological transfer and experience and skills. The name of 31 Licensed Commercial Banks are as follows:

List of Commercial Banks in Nepal

SN	Name of Commercial Bank	Year of Est. (AD)	Head Office
1	Nepal Bank Ltd.	1937	Dharmapath Kathmandu
2	Rastriya Banijya Bank	1966	Kathmandu
3	Agriculture Development Bank	1968	Ram sha Path Kathmandu
4	Nabil Bank Ltd	1984	Nabil House, Kamaladi, Kathmandu
5	Nepal Investment Bank	1986	Durbar Marga Kathmandu
6	Standard Chartered Bank	1987	Baneshor, KTM
7	Himalayan Bank	1993	Tridevi Marg, Thamel
8	Nepal SBI Bank	1993	Hattishar, Kathmandu
9	Nepal Bangladesh Bank	1993	New Baneswor, Kathmandu
10	Everest Bank Ltd	1994	Baneshwor Main Branch Kathmandu
11	Bank of Kathmandu	1995	Kamal Pokhari,kathmandu
12	Nepal Credit Commerce Bank Ltd	1996	NB Building, Bagbazar, Kathmandu,
13	Lumbini Bank Ltd	1998	Durbar Marg, Kathmandu, Nepal.
14	Machapuchre Bank	2000	Naya Bazar, Pokhara
15	Kumari Bank	2001	Putali Sadak, Kathmandu
16	Laxmi Bank	2002	Hattisar, Kathmandu
17	Siddhartha Bank	2002	Hatissar, KamaladiKathmandu
18	IME Global Bank	2007	Panipokhari Kathmandu
19	Citizens Bank International	2007	Kamaladi Kathmandu
20	Prime Commercial Bank	2007	Bira Complex, New Road
21	Sunrise Bank	2007	Gairidhara Crossing, Kathmandu, Nepal
22	Grand Bank Nepal Ltd	2008	Kathmandu Plaza, First Floor, Kamaladi
23	NMB Bank	2008	Babarmahal, Kathmandu
24	Kist Bank	2010	KIST Building ,Anamnagar, Kathmandu
25	Janata Bank	2010	New Baneshor, Kathmandu
26	Mega Bank	2010	Mega Mahal, Kantipath, Nepal
27	Commerz and Trust Bank	2010	Tindhara Road, Kamaladi, Kathmandu.
28	Civil Bank	2010	Classic Complex, Tindhara Road, Kamaladi, Kathmandu-31
29	Century Bank	2010	Putalisadak, Kathmandu,
30	Sanima Bank	2012	Naxal, Kathmandu
31	NIC Asia	2013	Kamaladi, Kathmandu

Source: *http://commoditysansar.blogspot.com :- 2013*

1.3 Brief Introduction of Sample Banks

NABIL Bank Limited

Nabil Bank Limited, the first foreign joint venture bank of Nepal, started operations in July 1984. Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, Nabil provides a full range of commercial banking services through its 51 points of representation across the nation and over 170 reputed correspondent banks across the globe.

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

Operations of the bank including day-to-day operations and risk management are managed by highly qualified and experienced management team. Bank is fully equipped with modern technology which includes ATMs, credit cards, state-of-art, world-renowned software from Infosys Technologies System, Bangalore India, Internet banking system and Tele banking system. In the recent data 2012/13 49 branch are available.

Share subscription and capital structure:

Subscription	% Holding
NB (International) Limited	50%
Nepal Industrial Development Corporation	10%
Rastriya Beema Sansthan	9.67%
Nepal Stock Exchange	0.33%
General Public	30%

Nepal Investment Bank Limited

Nepal Investment Bank Ltd. (NIBL), previously Nepal Indosuez Bank Ltd., was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital of NIBL) was Credit Agricole Indosuez, a subsidiary of one the largest banking group in the world.

With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen, had acquired on April 2002 the 50% shareholding of Credit Agricole Indosuez in Nepal Indosuez Bank Ltd.

The name of the bank has been changed to Nepal Investment Bank Ltd. upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar office with the following shareholding structure. NIBL is managed by a team of experienced bankers and professionals having proven track record. The Nepal investment bank has 44 branch in Nepal according to the annual report 2011/012.

Its Vision is to be the most preferred provider of Financial Services in Nepal. To be the leading Nepali bank, delivering world class service through the blending of state-of-the-art technology and visionary management in partnership with competent and committed staff, to achieve sound financial health with sustainable value addition to all our stakeholders. We are committed to do this mission while ensuring the highest levels of ethical standards, professional integrity, corporate governance and regulatory compliance.

Share subscription and capital structure:

Subscription	% Holding
Group of Company Holding	50%
Rastrya Banija Bank	15%
Rastriya Beema Sansthan	15%
General Public	30%

1.4 Statement of the Problem

In developing countries, the contribution on industrial sector is also very low in the output and the employment. In Nepal the commercial bank has played a catalytic role in the economic growth. Its investment range from small-scale cottage industries to large industries making investment in loans and government securities one may always wonder which investment is better. It can be hypothesized that bank portfolio variables like loans, investment, cash reserve, deposit and borrowing affects the national income and Government policy affects these variables. Such as the effect of an interest rate on the bank portfolio variables is of great concern, therefore when monitoring money and credit conditions, the central bank has to keep an eye on the bank portfolio behavior.

Thus the present study will make a modest attempt to analyze investment policy of NABIL Bank Ltd. and Nepal Investment Bank Ltd. In this study, NABIL Bank investment policy is analyzed comparing it with Nepal Investment bank. Following are the major problems that have been identified for the purpose of this study.

- Do the NABIL Bank and Nepal Investment Bank utilize their available fund?
- Whether these commercial banks are able to meet obligations?
- Is NABIL Bank fund mobilization and investment policy more effective and efficient than Nepal Investment Bank?
- Are they maintaining sufficient liquidity position?

1.5 Objective of Study

Main objective of this study is to examine investment policy of NABIL Bank and Nepal Investment Bank. The specific objectives of the study are as follows:

1. To assess the liquidity, efficiency and profitability and risk position.
2. To determine the growth ratios of loan and advances, total investment with other financial variables.
3. To examine fund mobilization and investment policy of NABIL Bank and Nepal Investment Bank.

1.6 Significance of the Study

This study is to find out the existing situation as well as future prospectus of marketing and financial returns. The collected fund is utilized in a good manner as investment then only good return and sustainability or possible. Return on investment first sustains the institution and provides handful income to the investors. The better the investment policy, the more valuable the company, the higher return to shareholders etc. and vice versa. Since the different parties, shareholders, general public and government are directly affected by the investment policy of the financial institutions. The researcher feels the needs to study this policy effects on following stated parties. Management of banks, Financial institution, Share holder, General public, customer, depositors and creditors, Related parties .

Nepalese commercial banks have not formulated their investment policy in an organized manner. They mainly rely upon the instructions and guidelines of Nepal Rastra Bank. They do not have clear view towards investment policy. Furthermore the implementation of policy is not in an effective way.Thus the present study will make a modest attempt to analyze investment policy of Nepal Investment Bank and NABIL Bank Ltd. This study will provide a useful feedback for academic institution, bank employees, trainees, investors, for financial person, policy making bodies and other concerned people with bank.

1.7 Limitation of the Study

The followings are limitation of the study:

- Most of the data used in the research are of secondary-nature; therefore there might be reporting errors.
- This study covers only a five year period i.e. from 2007/08 to 2011/2012.
- Data which are related to find mobilization as loan & advance investment on government securities and other financial institutions are considered.
- This study is based on secondary data from the banks' annual report, different publication, website and journals.
- Only two banks Nepal Investment Bank and NABIL Bank are taken as joint venture banks for this study.

1.8 Organization of the Study

The study has been divided into five chapters:

Chapter One: Introduction

This chapter deals with subject matters of the study consisting background of the study, Definition of Bank, Statement of the problem, objective of the study ,Significance of the study, Limitation of the study and Organization of the study.

Chapter Two: Review of literature

This chapter deals with review of the different literature of the study field. Therefore it includes conceptual framework along with the review of major books, journals, research works and thesis etc.

Chapter Three: Research Methodology

This chapter deals with research methodology and it includes research design, population and sample, source and technique of data collection and data analysis tools.

Chapter Four: Data Presentation and Analysis

This chapter deals with analysis and interpretation of the data using financial and statistical tools described in chapter three. This deals with the presentation and analysis of data through a definite course of research methodology. This chapter deals with different statistical tools and financial tools mainly consists of ratio analysis, which involves the liquidity ratio, asset management ratio, profitability ratio, risk ratio and growth ratio. Statistical tools involves test of hypothesis, co-relation analysis and trend analysis have been used to present the data and analyze them which are related to the investment policy and fund mobilization of selected two banks. Similarly this chapter also includes the major finding of the study.

Chapter Five: Summary, Conclusion and Recommendations

This chapter provides summary and conclusion, suggestions and recommendations for improving the future performance of the sample banks. Similarly, at the beginning part of the study recommendation, viva-voice sheet, declaration, acknowledgements,

table of content, list of tables, list of figures, and abbreviations are presented and bibliography and appendix are also included at the end.

CHAPTER-II
REVIEW OF LITERATURE

"Banking institutions are inevitable for the resources mobilization and all-round developing of the country. It is resources for economic development; it maintains economic confidence of various segments and extends credit to people." *(Robert O.Edimister,"Financial Institution", New York: Mc Graw Hill,1980:142)*

Review of literature refers to analyzing, assessing, re-evaluating and re-examining the previously written works. The effort has been given to cover as much literature, articles, thesis works and research paper as possible to make the study in informative and broad. This second chapter is related with reviews of relevant studies. This chapter is divided into two sub sections. The word literature refers to writings on specific subject or printed information. It is an analytical expression on the concerned topic. The first section presents the conceptual framework. This section covers the concepts of basic terms used in the study. And second section presents the review of relevant studies and this section includes the review research articles published in international and national journals and Master's dissertations.

2.1 Conceptual Framework

2.1.1 Banking Institutions and Commercial Banks

"The business of banking is collection of funds from the community and extension of credit to people for useful purposes. Banks have played a pivotal role in making money from lenders to borrowers. Banking is a profit seeking business, not a community to carry profit seeker, expected to pay dividend and otherwise, add to wealth of shareholders. *(Ronald Grywinshki, The New Fashioned Banking (Harvard Business Review: May-June 1993: 87)*

"Banking institutions are inevitable for the resource mobilization and all-round developing of the country. It is resource for economic development; it maintains economic confidence of various segments and extends credit to people." *(Edimister; 1980:95).*Commercial Bank Act 1975 A.D. defended "A commercial bank is one which exchange money, deposits money, accepts deposits, grant loans and performs

commercial banking functions and which is not a bank meant for Co-operatives, agriculture and industries or for such specific purpose."

"Commercial bank is a corporation which accepts demand deposits subject to check and makes short term loans to business enterprises, regardless of the scope of its other service". *(American Institute of Banking, 1972; 325).*The commercial bank has its own role and contributions in the economic development. It is a resource for the economic development; it maintains economic confidence of various segments and extends credit to people. *(Grywinshki; 1991: 87)*

Commercial banks are the vital aspects in accelerating of the economic development of a country. "They are organized on a joint stock company system, primarily for the purpose of earning profit. They can be either of the branches banking type, as we see in most of the countries, with large network of branches, or of a unit banking type, as seen in USA, where banks' operations are confined to a single office or to a few branches within a strictly limited area." J.H. Clemens (1963) has said, "Commercial banks should consider the national interest followed by borrower's interest and the interest of the bank itself before investing to borrowers." To clarify this, bank's lending must be for such purposes of the borrowers that are keeping with the national policy and bank's overall investment policy. A bank's overall investment

- Should be short term oriented
- Should be well spread
- Should be repayable on demand
- Must be profitable
- Should have adequate security.

The main function of commercial bank is concerned with the accumulation of the temporarily idle of the general public to advance it to deficit sections i.e. trade and commerce for expenditures. Its main functions are:

- Accepting various types of deposits;
- Lending money in various productive sectors;
- Letter of credit (LC);
- Guarantee;
- Remittance;

- Bills etc.

Hence, a commercial bank can be defined as a "Financial department store", which renders a host of financial services besides taking deposits and giving loans.

2.1.2 Investment

"Investment by an individual, business and government involves a present sacrifice of income to get an expected future benefits, as a result investment raises a nation's standard of living". *(The World Book Encyclopedia, 1976: 232)*

"Investing involves making a current commitment of funds in order to obtain an uncertain future return. It is risky business that demands information. To process information effectively and select the best investment requires goals that are clearing cut and realistic."*(Francis; 1983: 7).*"Investment is made in assets. Assets in all are of two types' real assets (land, building, factories etc.) and financial assets (stock, bond, T-bill etc.). These two investments are not competitive but complementary. Highly developed institutions for financial greatly facilitate real investment."*(Bhattarai; 2004: 142)*

Delhi stock exchange, 2002, defines investment as, "Investment is nothing but deploying our saving in manner that ensures safety of our money and provides a sustained return to supplement our regular income". "Investment is any vehicle into which funds can place with the expectation that will present or increase in value and generate positive returns." *(Gitman; 1990:16)*

"Investment is the employment of funds with the aim of achieving additional income of growth in value."*(Singh; 1992: 3).* "Investment its broadcast sense means sacrifice of certain present value for (possible uncertain) future value." *(Sharpe and Gorden; 1998: 9).*Different writers and experts have given different views and definitions for the term investment but all those definitions emphasize the only fact i.e. investment is the sacrifice of current fund or savings which involves time and risk as the main attributes. Investments are usually done to exceed the current cash flow that generates benefit to the investors for sacrificing the time and commitment. Every investment entails some degree of risk.

2.1.3 Investment Policy

The commercial banks are inspired with the goal of earning profit. There are many reasons after the goals of gaining profit. In order to reach their desired goals, they must invest the resources. It is not better to keep the available resources idle. The bank should be able to clear the policy of its investment by making a deep study on the subjects that which sector would be the trust worthy and dependable to invest. To invest the funds collected in the bank, they should have the ability to use the policy of banking investment in its goal."A banker seeks optimum combination of earning liquidity and safety, while formulation investment policy". *(Chandra; 1973: 12)*

"A sound investment policy of a bank is such that its funds are distributed of different types of assets with good profitability on the one hand and provides maximum safety and security to the depositors and bank on the other hand, moreover risk in banking sectors trends to be concentrated in the loan portfolio when a book gets into serious financial trouble its problem usually spring from significant amounts of loan that have become uncollectable due mismanagement illegal manipulation of loan misguided lending policy or unexpected economic down turn. So the bank investment policy must be such that it is sound and prudent in order to protect public funds". *(Baidya; 1967: 13).*"The investment policy of banks is conditioned to great extent by the national policy frame works every banker has to apply his own judgment for arriving at a credit decision, keeping of course, his banker's credit policy also in hand". *(Singh; 1993: 3)*

They further state," The field of investment is more challenging as it offers relatively greater scope to banker for judgment and discretion in selecting their loan portfolio. But this higher degree of freedom in the field of credit management is also accomplished greater risk. Particularly during recent years, the credit function has become more complex."

2.2 Some Important Terms

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

A. Loans and Advances

Loan, advances and overdraft are the main source of income for a bank. Bank deposit can cross beyond a desired level but the level of loans, advances and overdraft will never cross it.

B. Investment on Government securities, Shares and Debentures

Though a commercial bank can earn some interest and divided from the investment on Government securities, shares and debentures, it is not the major portion of income, but it is treated as a second source of income of banking business. A commercial bank may extend credit by purchasing government securities bond and shares for several reasons.

Some of them are Given As:

It may want to spare, its maturity so that the inflow of cash coincide, with expected withdrawals by depositors or large loan demands of its customers:

- It may also be forced to invest because the demand for loans of it decreased or is not sufficient to take up its excess reserves.
- It may wish to have grade marketable securities to liquidate if its primary reserve becomes inadequate.

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

C. Deposits

Financial institutions collect deposits from the customers in various accounts; like current account, saving account and fixed account. Therefore, the sums of money

collected by the financial institutions from the depositors in various accounts are called deposits. Deposit is the main source of fund of the financial institutions.

D. Investment on Other Company's Share and Debentures

Due to excess funds and least opportunity to invest these funds in much more profitable sectors and to meet the requirement of Nepal Rastra Bank's directives many commercial banks have utilized their funds to purchase shares and debentures of other financial and non-financial companies. Now a day's most of the commercial banks purchase shares and debentures of regional development bank, NIDS and other development Bank's shares.

E. Other Use of Fund

A commercial bank must maintain the minimum bank balance with NRB i.e. 6% for fixed deposits and 8% for each of current and saving deposits account in local currency. Similarly, 3% cash balance and local cash balance in local currency accounts must be maintained in the vault of bank. Again a part of the fund should be sued for bank balance in foreign bank and to purchase fixed assets like land, building, furniture, computers and stationary etc.

F. Off-Balance Sheet Activities

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

2.2.1 An Overview of NRB Rules and Regulations on Investment of Commercial Banks

NRB established in 2013 B.S. is the Central Bank of Nepal. It has major role in economic plans and implementation in the country. Systematically allocation, management and implementation of economic factors over the state is governed by NRB as a Central Bank. All the economic plans, progress, policy, strategies, implementation, evaluation made by government are performed under the direction of

NRB. So, NRB is the bank of government works for the welfare of nation. Similarly, NRB direct the bank and other financial institution to formulate plans, policies, directions, rules, regulations from NRB as a representative of government. To allocate and mobilized the deposits collected by commercial bank in different sectors of different policies etc. In fact NRB controls the over the activities made by the commercial bank as well as establishment or operation or dissolution of banks. To maintain the uniform standard NRB has formulated commercial bank act 2031 for the establishment and operation of commercial bank. The directions, rules, regulations, directed by NRB in terms of investment made by commercial banks are briefly mentioned below. (NRB Rules 2061)

1. Establishment of New Commercial Banks:

NRB has enhanced liberal policy for establishment of new commercial bank in Nepal. For such objectives of NRB has regulated the following directions.

A minimum of Rs. 200 million of paid up capital is required for opening a new bank inside the Kathmandu Valley. Similarly, as per directions by NRB Rs. 120 million is necessary for starting banking business out of Kathmandu Valley.Rs. 50 million paid up capital are necessary for opening central office of bank out of Kathmandu.

- Commonly for establishing the commercial bank in rural areas NRB has directed Rs. 30 million as compulsory paid up capital.
- The investor can invest maximum upto 70% of total paid up capital if the bank is promoted by domestic investor and 30% of paid up capital should be as liquidity margin for repayment for certain deposits.
- For Joint venture bank, foreign investor can invest minimum 40% of paid up capital and 50% as maximum. Such bank should manage 30% of paid up capital as floatation for general public.
- Individually, firm or company or groups of company can invest up to 110% of paid up capital.
- Applications for the establishment of new banks are to be adopted within the stipulated times fixed by NRB.

2. Directions for Raising Funds

Commercial banks are directed to raise the capital funds at minimum level of Rs. 500 million. For this, commercial bank can include paid up capital and dedications made loss for meeting such requirement.

3. Directives for Single Borrower Limit

NRB has set the single borrower limit as 35% in case of fund based credit and 50% in the case of non fund based such as letter of credit, acceptance letter etc.

4. Regulations for Expansion of Commercial Bank

- To open the branch in the area of Kathmandu, Lalitpur, Pokhara, Birjung, Biratnagar, Narayanghat. Joint venture banks need to open firstly at least two branch in adjoining semi-urban area and secondary at least one branch in rural area not adjoining to any municipalities.
- Banks are not required to open their new branch in semi-urban or rural area if they open new branch outside in seven municipalities.
- To get the permission of establishment of new branch commercial banks have to specify the whole details about the new branch, they must open a branch in a rural or semi-urban area before opening in urban area.

5. Direction for Extension counters of Joint Venture Banks

- Commercial banks cannot open extension in metropolitan area except during trade fairs, festive, ceremonies, celebrations etc. as directed by NRB such extensions must be converted and a branch within two years otherwise must be closed.
- The extension opened can accept deposit and make payment as well as exchange of foreign currencies after the permission for NRB.
- If the extension is open in the area of Royal Palace, hospitals, foreign diplomatic offices, those extensions are not allowed to operate as a branch as mentioned in (II).

6. **Credit for Shareholder**

   The individual or group who holds more than 1% of shares of the commercial banks cannot borrow from same bank under the directions from NRB 2061 B.S.

7. **Fluctuation in Interest**

   The agreement can be made between bank and customers for making change in bank loan interest rate up to 0.5% in now cancelled by NRB to be effective from 2061/062 B.S.

2.3 Review of Books

William F. Sharp, J. Alexander and Jeffery Bailey Jack Clark Froncishare said in their book "Investment Analysis and Management" that investment its broadest sense, means that sacrifices of current dollars for future dollars. Two different attributes are generally involved: time and risk. The sacrifice takes place in the present and is certain. The reward comes later, if at all, and the magnitude is generally uncertain.

Jerome B. Chome, Edword D. Zinbang and Arthur Zeiked defined the word Investment as "Investment has many factors. It may involve money into bonds. T-bills or notes or common stocks or real state or mortgage or oil venture or cattle or the theater. It may involve specially in bull market or selling short in bear markets. It may involve options, straddles, silver mutual funds, money market fund, index funds and results in accumulation of wealth or dissipation of resources. Diversity and challenge characterized the field. For the able or lackey the uninformed result can be disastrous."

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

Chancy, John M. and Moses, Edulard A. focused on the individual investment. They state, " It is important that the investor set the appropriate investment objectives and the accompanying investment horizon. In addition, in developing investment strategies to achieve the objectives, the investor must understand the tax conservancies and expected risk and return associated with the various investment alternatives perhaps most importantly the investor should recognise that investment objectives involves the creation of a portfolio of assets and not a collection of individual assets". They further state that, individual assets may be very risky. Combining these assets into a portfolio of other assets may actually reduce the risk of the overall risk.

2.4 Review of Related Studies

2.4.1 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 papers 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 glimse of investment management. Some of them are as follows:

Bhatta (2006), in his article, *"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 effected 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 liberlization 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 more 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

Pradhan (2007), has presented a glimse on investment in different sectors, it's problems and prospects through his article, *"Deposit mobilization, its problem and prospects."* In his article, 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 organisation. He also added, in consideration of 10 commercial banks and nearly three dozens of finance companies, that latest figure does produce a 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 form of cash, ornaments or kind. The reluctance to deal with institutional system are governed by their lower level of understanding about financial organizations, process requirements, offoce hours withdrawls systems, availability of depositing facilities and so on.
- Due to lesser office hours of banking system people prefer 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.

Mr. Pradhan has not only pointed out the problems but also suggested for the prosperity of deposit mobilization. They are given as:

- By cultivating the habit of using the formal sector for transactions must be a priority and continuous educational program.
- By adding service hours system will definitely be an appropriate step.
- By providing sufficient institutional service in the rural areas.
- Nepal Rastra Bank should also organize training program to develop skilled manpower.
- By spreading co-operative to the rural areas mini banking services are to be launched.
- The scheme of mobilizing the deposits in the form of free personal accident insurance, deposit insurance may be fruitful. Not only waiting for potential customer it is better to reach to the potential depositors.

At last Mr. Pradhan mentioned, " Deposit mobilization carried out effectively is in the interest of depositors, society, financial sector and the nation. Lower level of deposit raising allows squeezed level of loan delivery leaving more room to informal sector. That is why higher priority to deposit mobilization has all the relevance.

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 assential 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 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 survival of the banks depend upon it's own financial health, and it's 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 and 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 build economic infrastructures of the country it would create atmosphere conductive to their investment in future. In our society where ignorance and iliteracy 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 depend upon the integrated 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 the 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 from fixed deposit to saving reducing the interest 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 2001 to 2002.

2.5 Review of Thesis

Prior to this, several works has been attempted by previous student regarding various aspects of commercial banks like financial performance, lending policy, investing policy, resource mobilization, capital structure, etc. Among them some research that were found relevant for this study and the main theme of these dissertations are given as:

Shrestha, (2008), has conducted a research entitled *"Investment Analysis of Commercial Banks" (A comparative study of Nepal Bank Limited and Nepal State Bank of India Limited).*

The objectives of the study are as follows:

- To analyze investment trend, deposit trend and total income and to analyse percentage of investment made by HBL and NSBIL in total investment made by commercial banks.
- Projection for next five year of HBL and compare them with that of NSIBL.
- To identify investment sector of HBL and NSBIL.
- To evaluate the liquidity, asset management efficiency, profitability and risk position of HBL in comparision to that of NSBIL.
- To study the relationship between investment and deposit of bank.

The major findings of the study are as follows:

- Percentage of HBL's investment to total commercial banks investment in extremely higher than NSBIL.
- Both HBL and NSBIL have invested mostly on government securities but HBL has invested in NRB bonds also as well as in other productive sector.
- NSBIL is better than HBL from liquidity point of view.
- HBL has higher profitability position than NSBIL.
- HBL is exposed to more risk than NSBIL.
- HBL has maintained higher growth rate in net profit in comparision to NSBIL.

Yadav, (2009), conducted a study on *" A comparative Financial Performance of Joint Venture Banks in Nepal."* In his study he has given emphasis to the following objectives:

- To find out comparative and competitive position of two JVBs.
- To rank the NABIL and NBBL in terms of financial operational profitability, productivity position.
- To show the trend of total deposits, investments, total income, total expenses and total net income.
- Measuring financial risk of NABIL and NBBL.
- To provide package of recommendation and possible guidelines to improve banking business based on the findings of the study.

The major findings of the research are as follows:

- Capital structure ratios of both banks are low. Debt portion is more used in NBBL but profitability position is lower than NABIL.
- Both banks should be developed separately research and training department so they would be able to study different aspects of management and supply practical suggestion to develop as an innovative approach in bank management and bank operation.
- The trend of total deposits, total investment, total expenses, total net income, interest expenses and Interest earning of NBBL is exceptionally higher than NABIL.

- NBBL is more risky bank. Reaserchers recommended that portfolio situation should be carefully examined from time to time. The varied rate of return should be verified in such a way, that balances the conflicting goal of maximum yield and minimum risk.
- It should be careful in increasing profit in real sense to maintain the confidence of shareholders, depositors and its customers. Comparatively NABIL's profitability position is better than NBBL.

Thapa, (2010), have conducted a research entitled, " *Investment Policy of commercial Banks in Nepal."*

The study was based on following objectives:

- To evaluate liquidity, activity and profitability ratios of RBB in comparison with NBL and industry average.
- To analyze the relationship of loan and total investments with total deposit and net profit of RBB and to compare it with that of NBL and industry average.
- To use trend analysis to compare loan and advance, total investment, total deposit and net profit of RBB and compare the same with other two.
- To examine the loan loss provision of RBB and NBL.
- To provide suggestion and recommendation on the basis of findings.

The major findings of the study are as follows:

- RBB has good deposit collection, enough loan and advance and investment in government securities. It had comparatively better liquidity position than NBL.
- RBB loan and advance is in comparatively better position regarding issue of loan and advances of NBL but it does not have good position in regarding investment in shares and debentures of other companies, off balance sheet operation. Loan loss ratio shows low quality of loan and advances.
- The profitability position of RBB and advance is worse. RBB and advance needs to take immediate steps to increase its profitability.

There is significant relationship between deposit and loan and advance. There is insignificant relationship between deposit and investment, and outside assets and net profit.

Shrestha, (2011), has conducted a thesis research namely, *"Investment Portfolio Analysis of JVB's"*.

The objectives of the study are as follows:

- To analyze the risk and return ratios of commercial banks.
- To evaluate the financial performance of JVBs.
- To provide suggestions package based on the analysis of data.
- To study existing investment policies taken by NIBL in various sectors.
- To study portfolio structure of NIBL in investment as compared to other JVBs.
- To study preference given by NIBL for investment between, loan investment, Investment in real fixed assets, Investment in financial assets.

The main findings of the study are as follows:

- BOKL has the highest return on share holders fund and total assets. It has also been successful in mobilizing its deposits as investments. NIBL and EBL have invested high amounts of deposits as loan and advance compared to BOKL, NIBL and HBL.
- Among the JVB's looking at the investment portfolio, EBL has investment highest amount of funds in government securities, NBB has invested highest amount of funds on share and debentures and has invested highest amount of funds on NRB bonds compared to other JVBs.
- BOKL has the highest EPS and EBL the lowest EPS among the JVBs.

Gautam (2012), in his thesis study, *"Investment Practice of Commercial Banks in Nepal"* have pointed out the following objectives:

- To measure the financial performance.
- To find out comparative and competitive position of two JVBs banks of Nepal.
- Measuring risk of NABIL and NIBL bank ltd.
- To find out the relationship between different variables like investment, deposits, loan and advances, net profit and compare them between NABIL and NIBL.

- To recommend measure for the improvement of the financial performance and efficiency on the basis of the conclusion drawn from the research.

The main conclusions of the study are as follows:

- The mean ratio of return on loan and 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 and NIBL's ratios are more homogenous than that of NABIL.
- From the analysis of growth ratio, NABIL has lower growth rate on total deposits, loan and advances, total investment and net profit than NIBL. Therefore, NIBL has successfully collected and utilized fund amount of its customer than NABIL.
- Banks are recommended to activate foreign technology and investment in Nepal by means of their wide international banking sector and make Nepalese personnel capable of operating these banks as efficiency as international banks.
- Complain boxes should be kept in each and every branch and bank personnel try to eliminate those deficit which are in the complaint box in order to maintain better relation with the customers.

2.6 Research Gap

The purpose of the research work is quite different from the studies made by the above scholars (related to commercial banks). The study focused in effectiveness of investment policy. This study comprises of two of the most successful JVB's as sample viz NABIL and NIBL. This study is also different from previous studies in terms of time period it covers. During this period the country has witnessed political uncertainty, deteriorating security situation that have rendered the economy further sluggish. There has been restructuring in the banking business. This study gives a new dimension to the research topic in the sense that it has adhered to most of the fresh guidelines and directives issued by NRB to commercial banks, which previous studies lack. This study aims at providing a more realistic picture to various financial aspects of the sample banks. In line with fresh guidelines and NRB directives and practices

adopted by banks, some items of the balance sheet that were previously booked under one heading have now been accounted under a different heading. Most research studies conducted prior to this study involving comparative analysis comprised of a successful bank and emerging bank as samples. It was obvious that the successful bank sound financial health would excel in various aspects of banking. The possibility of the samples showing different result during data analysis was high. The financial and empirical analysis to data revealed higher degree of consistency in case of successful bank and less uniformity in case of emerging banks.

CHAPTER-III
RESEARCH METHODOLOGY

Research Methodology, describes the methods and process applied in the entire aspects of study. Every research should be outlined in a systematic manner and for that reason Research Methodology is one of the most important parts of every research. In fact, Research Methodology is a way to systematically solve the research problems.

Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. In other words, research methodology describes the method and proves applied in the entire aspect of the study. This study helps to conclude the real position of Nepal Investment Bank and NABIL Bank Ltd. The study will seek the conclusion to the point that what position NABIL and has got in whole commercial banks of Nepal and recommend the useful and meaningful points so that all concerned can achieve something from this study. To accomplish the global, the study follows the research methodology described in this chapter.

3.1 Research Design

A research design is the specification of methods and procedures for acquiring the information needed. It is the over-all operational pattern or framework of the project that stipulates what information is to be collected from which source by what procedures.

Descriptive as well as analytical approaches have been adopted in this study. This is a comparative study of two commercial banks. This study mainly has been based on secondary data of NIBL and NABIL Bank Ltd. The data relating to the investment, deposit, loan and advance and profit directly obtained from the balance sheet and profit and loss account. The main source of data assessed under the study includes, concerned banks i.e. NIBL and NABIL bank. Supplementary data and information are collected from number of institutions and regulating authorities like Nepal Rastra Bank, ministry of finance, Central library, and department library. Various data and

information are collected from the economic, journals, periodicals, magazines and publications etc. Regression analysis of microeconomic variables both bank, significance test of correlation via hypothesis t- testing and trend analysis are used in this study.

3.2 Sources of Data

Research Design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions (Kerlinger, 1978). The research design basically followed the comparative evaluation of investment policy in the sample firms. Analytical and descriptive approaches are used to evaluate the investment policy of the sample firms. In this study, descriptive and analytical research designs have been followed in order to make the study more authentic and reliable, financial as well as statistical tools are used for comparison NABIL with NIBL separately. Some financial and statistical tools have been applied to examine facts and descriptive, techniques have been adopted to evaluated investment of Nepal Investment Bank and NABIL Bank Ltd.

3.3 Population and Sample

There are 31 commercial banks in Nepal. Whose shares are traded actively in stock market, hence it is not possible to study all of them because the research is going to be conduct in a limited period of time as well as resources play a vital role. The sum of different commercial bank in Nepal is taken as total Population. In this study, two joint venture banks NABIL and NIBL have been taken into account for research purposes as samples to compare their investment policy.

3.4 Analysis and Presentation of Data

The analysis of data will be done according to the pattern of data available. To achieve the objective of the study various financing, accounting and statistical tools have been used to achieve the objective of study. This studies some financial and statistical tools to accomplish the objectives of this study.

3.4.1 Financial Tools

Financial tools help to show the mathematical relationship between two accounting items or figure. Ratio analysis is the only tools that can collect the financial performance and status of a firm with the other firms. Ratio analysis is the part of whole process of analysis of financial statements of any business or industrial concerned especially to take output and credit decision. Only ratio has been covered in this study, which is related to investment policy of banks. This study contains following ratios;

A. Liquidity Ratio

Liquidity ratios are used to judge the ability of banks to meet its short terms liabilities that are likely to mature in the short period. Such insights can be obtained into present cash solvency of the bank and its ability to remain solvent in the event of advertise it is the measurement of speed with which a bank's assets can be converted into cash to meet deposit, withdrawal and other current obligations. Under liquidity ratio are evaluated as below;

I. Current Ratio

Ability for payment of current debt from current assets is current ratio. It refers to the relationship between current assets and a current liability of a firm that also measures the short-term solvency of the firm. Current assets involve cash and bank balance, money at call or short notice, loans and advance, overdraft bill purchased and discounted, investment on govt. securities and other interest receivables and misc. current assets. Similarly, current liabilities involve deposit and other short term loans, tax provision, dividend payable, bills payable, staffs bonus and sundry liabilities. Current ratio is calculated by diving current assets by current liabilities. It can measured as,

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

2:1 standard of current ratio is acceptable.

II. Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance are the most liquid current assets of a firm, cash and bank balance to total deposit ratio measures the percentage of most liquid assets to pay depositors. The total deposit consists of current deposits, saving deposits, fixed deposits, money at call and short notice and other deposits. This ratio is computed by diving cash and bank balance by total deposit. It can be presented as:

$$\text{Cash and bank balance to total deposit ratio} = \frac{\text{Cash and bank balance}}{\text{Total deposits}}$$

Iii. Cash and Bank Balance to Current Asset Ratio

This ratio measures the percentage of liquid assets i.e. cash and bank balance among the current assets of a firm. Cash and banks balance includes cash in hand, foreign cash and banks. This ratio computed by diving cash and bank balance by total deposit. This can be presented as:

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

Higher ratio shows the higher capacity of firms to meet the cash demand.

IV. Investment on govt. securities to Current Assets Ratio

Investment on government securities includes treasury bills, development bonds; saving bonds etc. This ratio is used to find the percentage of current assets invested on govt. securities, treasury bills and development bonds. This ratio can be computed by diving investment on govt. securities by current assets. This can be stated as:

$$\text{Investment on govt. securities to Current Assets} = \frac{\text{Investment on govt. securities}}{\text{Total Current Assets}}$$

V. Loan and advance to Current Assets Ratio

Loan and advance includes loans, advances, cash credit, loan and foreign bills purchase and discounted. This ratio can be computed by dividing loan and advances by current assets. This can be stated as:

$$\text{Loan and advance to current assets ratio} = \frac{\text{Loan and advance}}{\text{Current assets}}$$

B. Assets Management Ratio

Asset management ratio is here used to indicate how efficiently the selected banks have arranged and invested their limited resources. The following ratios are used under this assets management ratio.

I. Loan and advance to Total Deposit Ratio

This ratio is calculated to find out how successfully the selected banks and finance companies are utilizing their total deposit on loans and advances for profit generating purpose of earning profit. This can be stated as:

$$\text{Loan and advances to deposit ratio} = \frac{\text{Loan and advance}}{\text{Total Deposits}}$$

Where, greater ratio shows the better utilization of total deposits.

Ii. Loan and Advances to Total Working Fund Ratio

This ratio indicates the ability of selected banks and finance companies in terms of earning high profit from loan and advances. Total working fund includes total amount of assets given in balance sheet which refers to current assets, net assets, total loans for development banks and other sundry assets expect off balance sheet items i.e. letter of credit, letter of guarantee etc. This ratio can be stated as;

$$\text{Loan and advances to working fund ratio} = \frac{\text{Loan and advance}}{\text{Total working fund}}$$

Iii. Total Investment to Total Deposit Ratio

Investment is one of the major credits created to earn income. This implies the utilization of firm's deposit on investment in govt. securities and share debentures of other companies and banks. This ratio can be obtained by diving total investment by total deposit. This can be mentioned as;

$$\text{Total investment to total deposit ratio} = \frac{\text{Total investment}}{\text{Total deposit}}$$

Iv. Investment on Government Securities to Total Working Funds Ratio

This ratio shows that banks' investment on government securities in comparison to total working funds. This ratio is calculated by dividing investment on govt. securities by total working fund. This is presented as;

Investment on govt. securities to total working fund ratio = $\frac{\text{Total investment}}{\text{Total working fund}}$

V. Investment on Shares and Debenture to Total Working Fund Ratio

Investment on share and debentures to total working fund ratio shows the investment of banks and finance companies on the shares and debentures of other companies in terms of total working fund. Where, total investment includes investment on govt. securities, investment on debenture and bonds, shares of other companies. That can be calculated as:

Investment on shares and debenture to total working fund ratio

= $\frac{\text{Investment on shares and debenture}}{\text{Total working fund}}$

C. Profitability Ratio

Profitability ratios are very helpful to measure the measure the overall efficiency of operations of a firm. It is a true indicator of the financial performance of any institution. For better financial performance, profitability ratios of firms should be higher. It position of the firms can be presented through the following different ways:

I. Interest earned to total operating income ratio

It is calculated to find out the ratio of interest income with operating income of financial institutions. This ratio indicates how efficiently the selected banks and finance companies have mobilized their resources to bear the interest on total operating, income and it can be stated as:

Interest earned to total operating income ratio = $\frac{\text{Total interest earned}}{\text{Operating income}}$

II. Return on total assets

Return on assets ratio measures the profitability position of the selected banks and finance companies in comparison with total assets of those selected firms. This ratio is calculated by dividing net profit by total assets (working fund). This can be stated as:

Return on total assets (working fund) = $\frac{\text{Net profit}}{\text{Total working fund}}$

III. Return on loan and advance ratio

Return on loan and advances ratio shows how efficiently the banks and the finance companies have utilized their resources to earn good return from provided loan and advances. This can be mentioned as:

$$\text{Return on loan and advances ratio} = \frac{\text{Net profit}}{\text{Total loan and advance}}$$

IV. Total interest earned to total working fund ratio

This ratio find out the percentage of interest earned to total assets. Higher ratio indicates the better performance on financial institutions in the firm of interest earning on its working fund. This is mentioned as:

$$\text{Total interest earned to total working fund ratio} = \frac{\text{Total interest earned}}{\text{Total assets}}$$

V. Total interest paid to total working fund ratio

This ratio measures the percentage of total interest expenses against total working fund. A high ratio indicates higher interest expenses on total working fund and others deposits. This ratio can be calculated by dividing total interest paid by total working fund. This can be stated as:

$$\text{Total interest paid to total working fund ratio} = \frac{\text{Total interest paid}}{\text{Total working funds}}$$

D. Risk Ratio

Risk taking is the prime business of bank's investment management. When a firms bear risk and uncertainty, profitability and effectiveness of the firm increases. These ratios indicate the amount of risk associated with the various banking operation, which ultimately influences the bank investment policy. In this study, following risk ratios are used to analyze and interpret the financial data and investment policy.

I. Credit Risk Ratio

Credit risk ratio helps to check the profitability of loan non-repayment or the possibility of loan to go into default. It risk ratio is expressed as the percentage on non-performing loan to total loan and advances. Here, dividing total loan and advances by total assets derives this ratio. This can be stated as:

$$\text{Credit risk ratio} = \frac{\text{Total loan and advances}}{\text{Total assets}}$$

Ii. Liquidity Risk Ratio

The liquidity risk of the bank defines its liquidity need for deposit. The cash and bank balance are the most liquid assets and they are considered as banks liquidity sources and deposit, as the liquidity needs. The ratio of cash and bank balance to total deposit is the indicator of bank liquidity needed. The risk is low if funds are kept idle as cash and bank balance. But this reduces profitability. When bank flow loan, it is profitability increases and also the risk. Thus higher liquidity ratio indicates less risk and less profitable bank. This can be stated as:

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

E. Growth Ratio

A growth ratio helps to calculate the commercial bank's economic and financial condition. It is related to the fund mobilization and investment management of the bank. The higher ratios represent the better performance of the selected firms to evaluate, check and analyze the expansion and growth of the selected banks the following growth ratio are calculated.

(a) Growth ratio of total deposits (b) Growth ratio of total investment

(c) Growth ratio of loan and advances and (d) Growth ratio on net profit.

3.4.2 Statistical Tools

Some important statistical tools are used to achieve the objective of this study. The basic analysis tools are follows.

- Coefficient of correlation between different variances.
- Trend analysis of important variables.
- Test of hypothesis of important variables

A. Coefficient of Correlation Analysis

The coefficient of correlation measures the degree of relationship of between two sets of figures. This tool analyzes the relationship between those variables and helps the selected banks to make appropriate investment policy regarding to profit maximization and deposit collection, fund utilization through providing loan and advances or investment on other companies. Among the various methods of finding out coefficient of correlation, Karl Pearson's method is applied. The result of the correlation coefficient is always lies between +1 and -1. When r = +1, it means, there is perfect positive relationship between two variables.

CHAPTER-IV

PRESENTATION AND ANALYSIS OF DATA

In this chapter secondary data are collected, analyzed and evaluated those major financial items, which are mainly related to the comparison of investment management and fund mobilization of NIBL and NABIL. The calculated ratios are statistically analyzed.

4.1 Financial Tools

Financial analysis is the process of identifying strength and weakness of the organization presenting the relationship between the items of balance sheet. Financial ratio related to the investment management and the fund mobilization are presented and discusses to evaluate analyze the performance of two commercial banks; NIBL and NABIL. All these calculations are based on financial statements of concerned banks. The important financial ratios, which are to be calculated for the purpose of this study, are mentioned below.

a) Liquidity ratio
b) Asset Management ratio
c) Profitability ratio
d) Risk ratio
e) Growth ratio

4.1.1 Liquidity Ratio

This ratio measures the firm's ability to meet its maturing short term obligations. Liquidity ratio measures the ability of the firm to meet its current obligations. A commercial bank must maintain its satisfactory liquidity position to meet the credit need of the community. Commercial banks collect the fund from community of commitment of return their money when demand it. So, they must maintain its sufficient liquidity position to fulfill that commitment of return depositor's deposit, withdraw and convert non cash-assets to cash to satisfy immediate needs without any loss to bank and consequent impact on long-run profit. The following ratios are evaluated and interpreted under liquidity ratio. Liquidity position of NIBL and NABIL are comparatively studies through following ratios.

4.1.1.1 Current Ratio

This ratio is computed dividing current assets by current liabilities; indicates the extent to which the claims of short-term creditors are covered by asset expected to cover for cash in the near future. This ratio shows the relationship between cash and other current assets to its current liabilities. The current ratio standard deviation and coefficient of variation of NIBL and NABIL are given in the following tables.

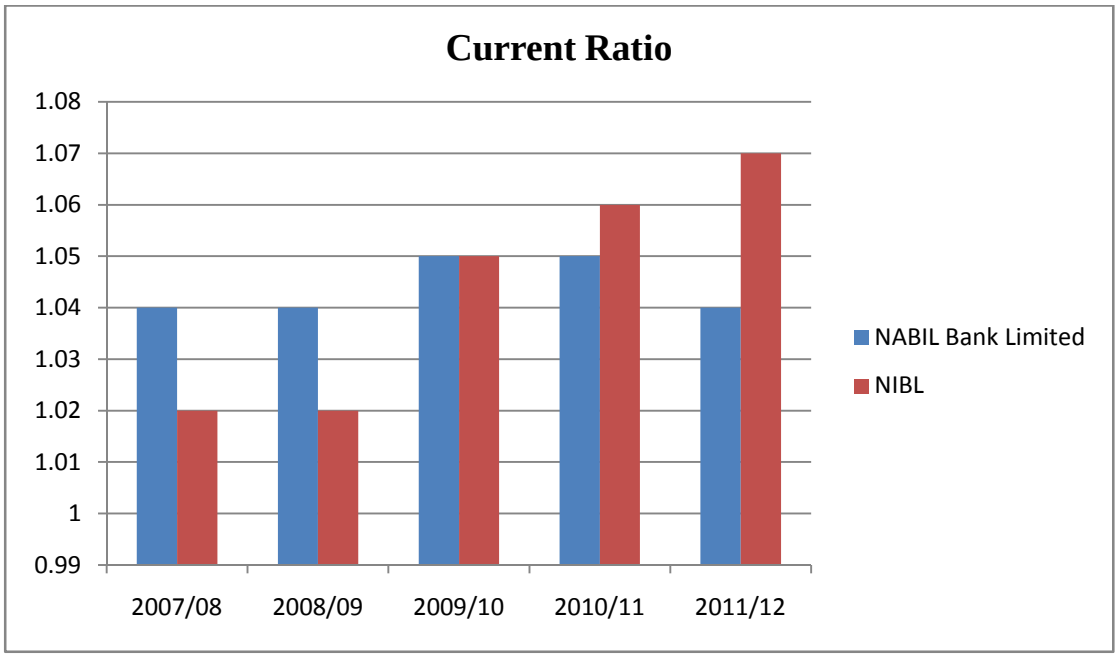
Table: 4.1

Current Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	1.04	1.02
2008/09	1.04	1.02
2009/10	1.05	1.05
2010/11	1.05	1.06
2011/12	1.04	1.07
Total	5.22	5.22
Mean	1.04	1.04
S.D	0.01	0.02
C.V	0.52	2.21

Source: Appendix: A.

Figure: 4.1



From the table 4.1 it is clear that the current assets of NIBL and NABIL are sometime more and sometime less than current liabilities. It indicates that both banks sound ability to meet there payable in short term obligations due to more liabilities. The table shows that in F/Y 2009/10 and 2010/11 of NABIL bank has more current liabilities than current asset.

In average, both NIBL and NABIL have same current ratio i.e. 1.04 = 1.04. It shows that the liquidity position of NABIL and NIBL are same. The co-efficient of variation of variation of NIBL is greater than NABIL i.e. 2.21 > 0.52. It can be said that current ratio of NABIL is more consistent then of NIBL. Mean ratio of both banks NABIL & NIBL is similar 1.04. From the point of view of working capital policy, NIBL has followed the aggressive working capital policy by attracting more current liabilities i.e. current and saving deposits and deploying them into liquid sectors.

4.1.1.2 Cash and bank balance to total deposit ratio

Cash and bank balance consist of cash in hand, foreign cash in hand, cheques and other cash items, balance with domestic banks. These ratio measures the availability of bank's highly liquid or immediate funds to meet it unanticipated calls on all types of deposits. High ratio indicates the greater ability to meet their deposit. The following table shows the cash and bank balance to total deposit ratio of NIBL and NABIL.

Table 4.2

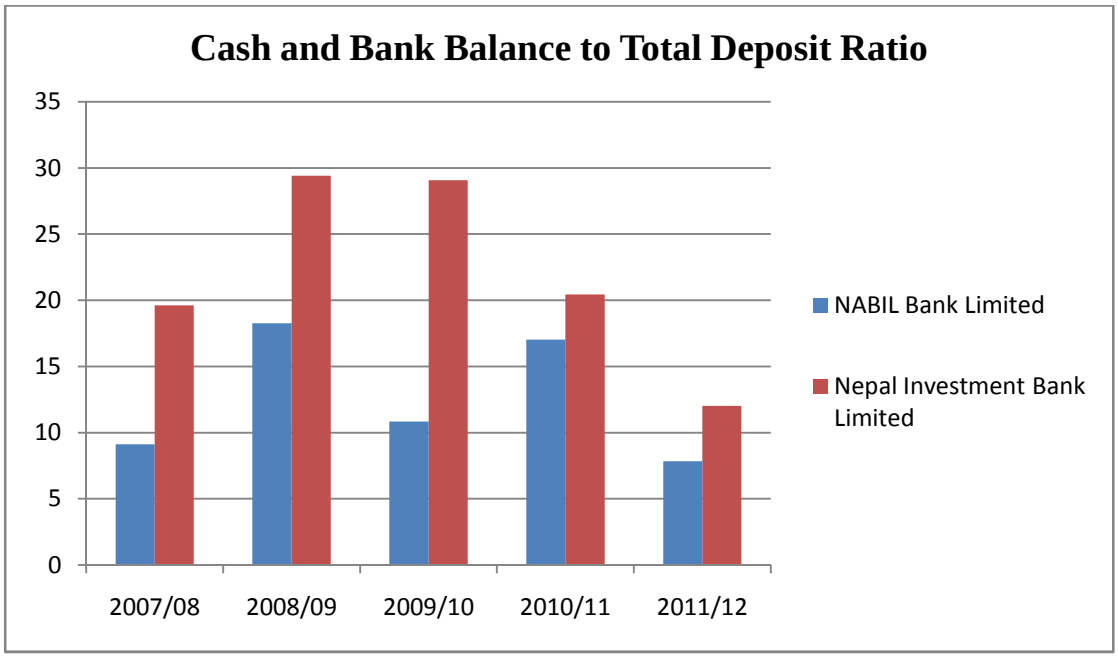
Cash and Bank Balance to Total Deposit Ratio

(In Percentage)

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	9.11	19.62
2008/09	18.25	29.42
2009/10	10.84	29.07
2010/11	17.02	20.44
2011/12	7.83	12.01
Total	63.05	110.56
Mean	12.61	22.11
S.D	4.73	7.30
C.V	37.51	32.99

Source: Appendix: A.

Figure: 4.2



The table no. 4.2 shows that the comparative cash and bank balance to total deposit ratio, which is in fluctuating trend for both NIBL and NABIL. NIBL is higher ratio is 29.42% in F/Y 2008/09 and lower in 12.01% in F/Y 2011/12. Similarly, in case of NABIL, higher ratio is 18.25% in F/Y 2008/09 and lower ratio is 7.83% in F/Y 2011/12. The mean ratio of NABIL is lower than that of NIBL i.e. 22.11% and 12.61% respectively. On the basic of co-efficient of variation it can be conclude that NIBL ratios are consistent than that of NABIL i.e. 32.99% < 37.51%.

NABIL has maintained low ratios, it shows that the same difficulties to meet the demand of its customers on their deposit to pay at any difficulties but it may be earn more due to invested cash to different sectors. All deposit amounts mostly to invest other sectors due to investing opportunity occurs and gain more. Likewise, short-term marketable securities and treasury bills ensuring enough liquidity, which will help the bank to improve its profitability.

4.1.1.3 Cash and Bank Balance to Current Assets Ratio

This ratio examines the banks liquidity capacity on the basis of its most liquid assets i.e. cash and bank balance. This ratio reveals the ability of the bank to make the quick payment of its customer's deposits. A high ratio indicates the sound ability to meet

their daily cash requirement of their customer's deposit. But high ratio is not preferred, as the bank has to pay more interest on deposit and will increases the cost of fund. Bank should be maintained sufficient and appropriate cash reserve properly for the customers demand against deposit when required and less interest is required to be paid against the cash deposit.

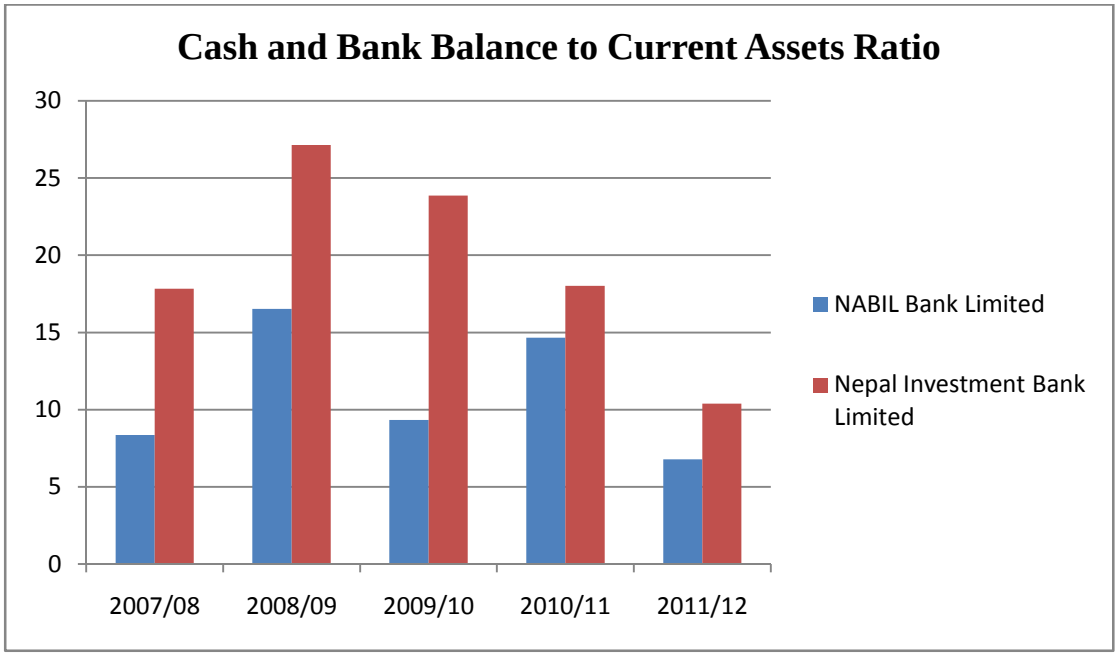
Table: 4.3

Cash and Bank Balance to Current Assets Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	8.36	17.83
2008/09	16.53	27.14
2009/10	9.32	23.87
2010/11	14.66	18.01
2011/12	6.77	10.38
Total	55.64	97.23
Mean	11.13	19.45
S.D	4.23	6.43
C.V	38.01	33.09

Source: Appendix: A.

Figure: 4.3



The table no. 4.3 shows banks ratios are maintained fluctuating trend. NIBL has maximum ratio is 27.14% in F/Y 2008/09 and minimum of F/Y 2011/12 is 10.38%. NABIL has also maximum ratio is 16.53% in F/Y 2008/09 and minimum of F/Y 2011/12 is 6.77%. Observing the same ratio, they were also not maintain their in the same level through the study period. The comparative tables listed above shows that the mean ratio of NABIL lower than that of NIBL i.e. 11.13% < 19.45%. It supports the conclusion that NABIL has been not successful to maintain its higher cash and bank balance to current assets ratio in comparison. However co-efficient of variation of NABIL is 38.01% which is comparatively higher than NIBL bank i.e. 38.01% > 33.09%. Thus it can be conclude that NIBL is high capable for maintained cash and bank balance in comparison to NABIL.

4.1.1.4 Investment on Government Securities to Current Assets Ratio

This ratio examines that portion of commercial banks current banks current assets, which invested on different government securities. More or less, each commercial bank is interested to invest their collected fund on different types of securities issued by govt. in different times to utilize their excess funds and have for other purpose. Though govt. securities are not as liquid as cash balance of a commercial bank, they can be easily sold in the market or they can be converted into cash in other ways.

Table: 4.4

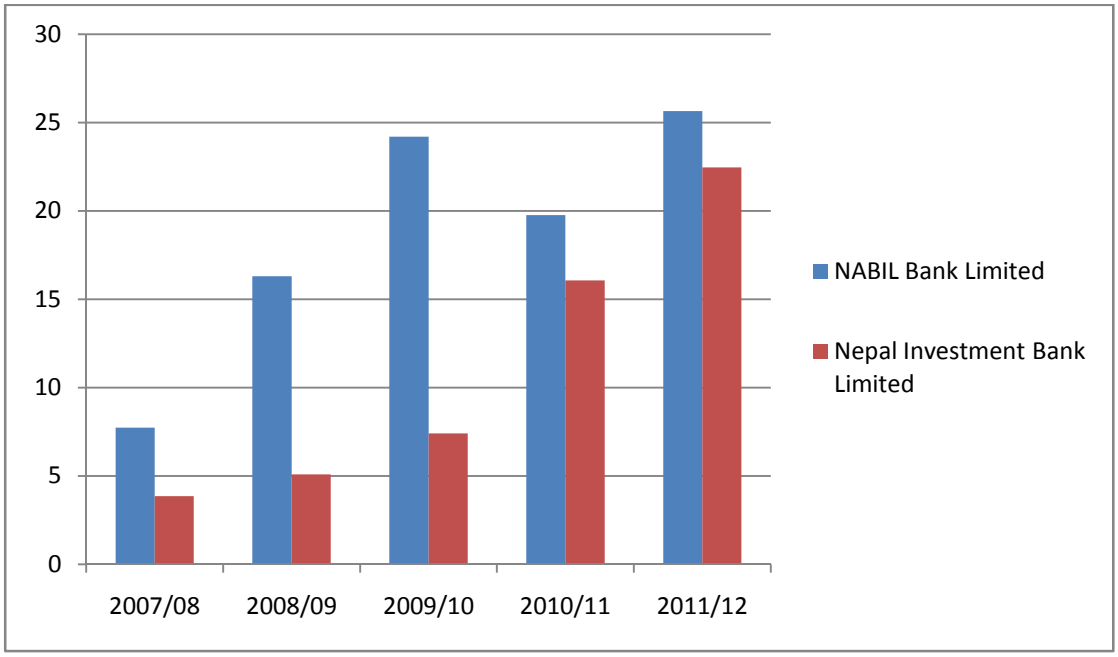
Investment on Government Securities to Current Assets Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	7.73	3.86
2008/09	16.3	5.09
2009/10	24.2	7.41
2010/11	19.77	16.06
2011/12	25.65	22.47
Total	93.65	54.89
Mean	18.73	10.98
S.D	7.17	8.00
C.V	38.30	72.87

Source: Appendix: A.

Figure: 4.4

Investment on Government Securities to Current Assets Ratio



From the table no. 4.4 shows the ratios of banks are fluctuating trend. NIBL has more investment on government securities in F/Y 2011/12 and minimum in F/Y 2007/08 and NABIL has more investment on government securities in F/Y 2011/12 and minimum in F/Y 2007/08. It shows the mean of government securities ratio of NABIL is higher than the NIBL i.e. 18.73% > 10.98%. It means NABIL has invested much portion of current assets than NIBL bank. On the other hand, co-efficient of variation of NABIL is less than NIBL i.e. 38.30% < 72.87%. Which means that the variability's of ratios of NABIL is more consistent and homogenous than of NIBL.

4.1.1.5 Loan and Advances to Current Assets Ratio

A commercial bank should be invested as loan and advance to the customers to make more profit by mobilizing its fund in the best way. It should pay interest on those unutilized deposit funds and may lose some earning if a bank cannot be granted sufficient loan and advances. Loan and advances are also included in the current assets of a commercial bank because generally it provides short-term loan, advance, overdrafts and cash credit. The table below shows that ratio of loan and advance to current assets ratio of NIBL and NABIL.

Table: 4.5

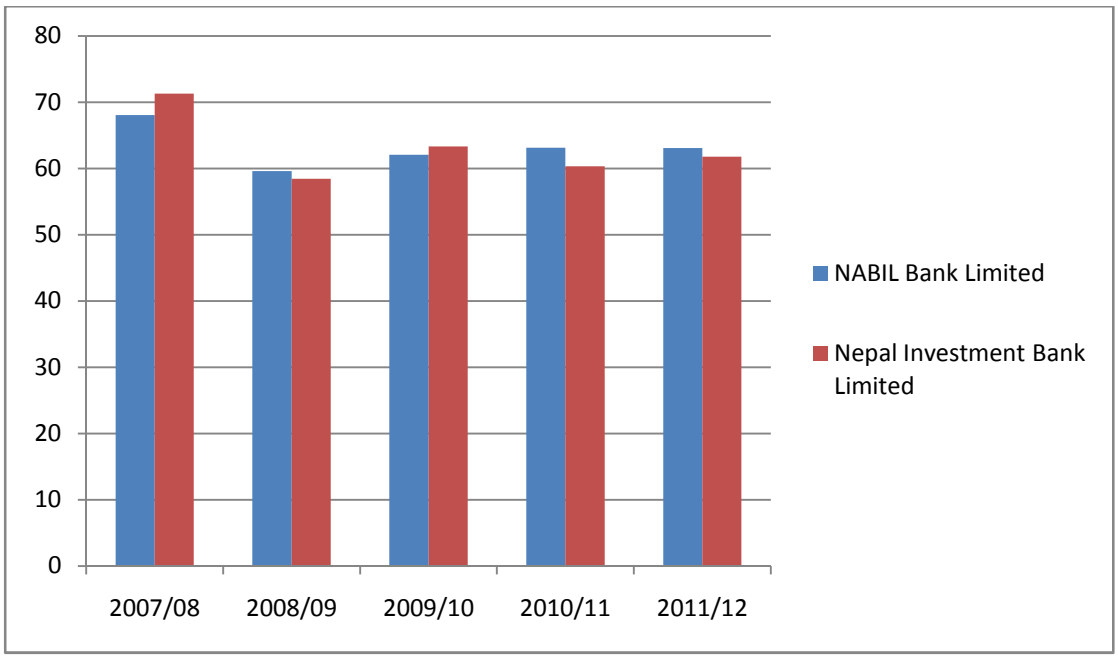
Loan and Advances to Current Assets Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	68.08	71.29
2008/09	59.62	58.45
2009/10	62.09	63.34
2010/11	63.13	60.35
2011/12	63.1	61.77
Total	316.02	315.20
Mean	63.20	63.04
S.D	3.08	4.95
C.V	4.87	7.85

Source: Appendix: A.

Figure: 4.5

Loan and Advances to Current Assets Ratio



From table 4.5 listed above shows that NIBL and NABIL have maintained fluctuated trend on their loan and advance to current assets ratio. In case of NIBL it has recorded highest ratios in F/Y 2007/08 i.e. 71.29% and lowest in F/Y 2008/09 i.e. 58.45% similarly, NABIL maintained highest ratio in F/Y 2007/08 i.e.68.08% and lowest in

F/Y 2008/09 i.e. 59.62%.. While examining the mean ratio, NIBL has maintained i.e. 63.040% which is less than NABIL i.e. 63.0408% < 63.20% and co-efficient of variation ratio is greater than NABIL i.e. 7.85% > 4.87%. In this case, NIBL is poor its fund as loan and advances with respect to current assets in comparison to NABIL. The mean reveals that NIBL loan advances to current are satisfactory level but overall liquidity position of NIBL is not satisfactory than of NABIL.

4.1.2 Asset Management Ratio

A commercial bank must be able to manage its assets very well to earn high profit to satisfy its customers and for its own existence. Assets management ratio measures how efficiently the bank manages the resources its commands. The following ratios measured the assets management ability of the NIBL and NABIL in comparison.

4.1.2.1 Loan and Advance to Total Deposit Ratio

This ratio measures the extent to which the banks are successful to mobilize their total deposit on loan advances. The table below shows the ratio of loan and advances to total deposit ratio of NIBL and NABIL.

Table: 4.6

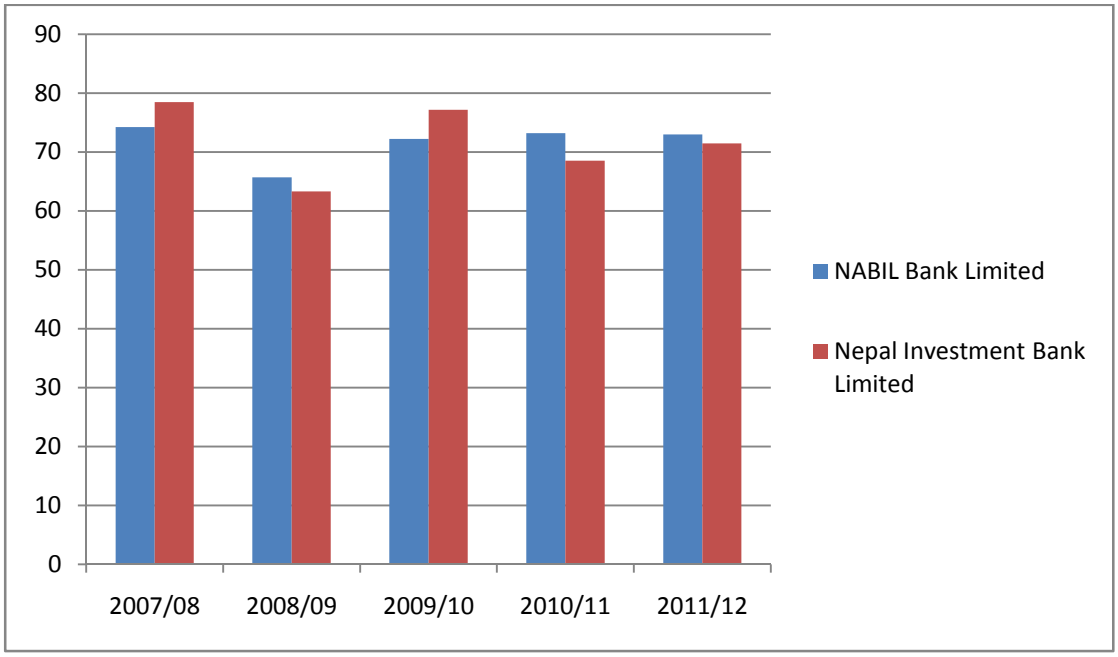
Loan and Advance to Total Deposit Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	74.25	78.47
2008/09	65.71	63.34
2009/10	72.23	77.15
2010/11	73.23	68.51
2011/12	72.97	71.46
Total	358.39	358.93
Mean	71.68	71.79
S.D	3.41	6.24
C.V	4.76	8.69

Source: Appendix: A.

Figure: 4.6

Loan and Advance to Total Deposit Ratio



From table 4.6 listed above shows that NIBL and NABIL have maintained fluctuated trend on their loan and advance to total deposit ratio. In case of NIBL it has recorded highest ratios in F/Y 2007/08 i.e. 78.47% and lowest in F/Y 2008/09 i.e. 63.34%. Similarly NABIL maintained highest ratio in F/Y 2007/08 i.e.74.25% and lowest in F/Y 2008/09 i.e. 65.71%.

In average, the mean ratio of NIBL has maintained i.e. 71.79% which is higher than NABIL i.e. 71.68% < 71.79% and co-efficient of variation ratio is greater than NABIL i.e. 8.69% > 4.76%. It indicates that NIBL maintained fewer consistencies than NABIL.

4.1.2.2 Total Investment to Total Deposit Ratio

A commercial bank may mobilize its deposit by investing its fund in different securities issued by government and other financial or non financial companies. Now an effort has been made to measure the extent to which the bank are successful in mobilizing the total deposit on investment. Total investment includes government securities, share, debenture and other. Below table exhibits this ratio of the NIBL and NABIL.

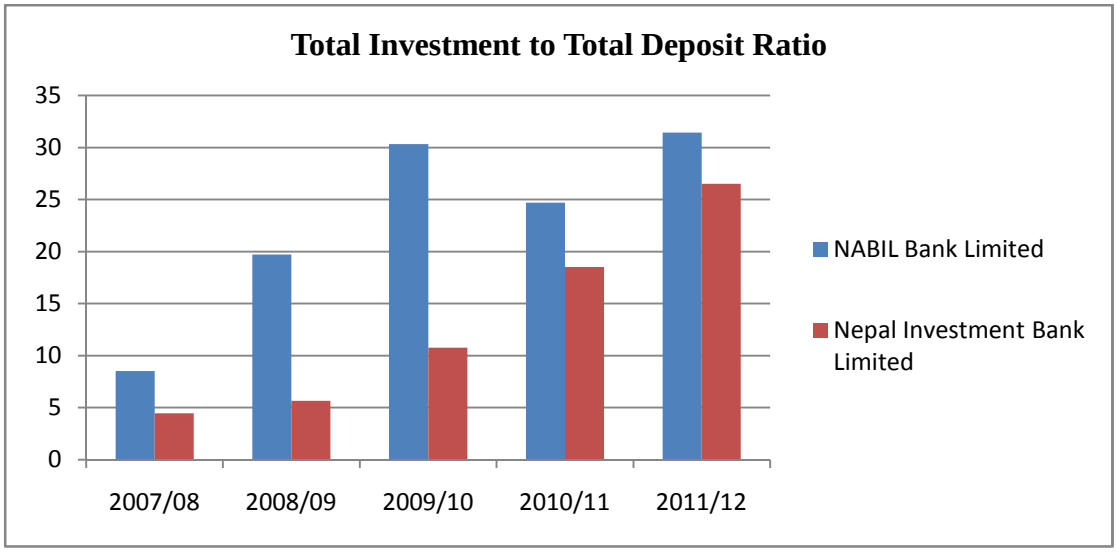
Table: 4.7

Total Investment to Total Deposit Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	8.51	4.45
2008/09	19.71	5.65
2009/10	30.33	10.75
2010/11	24.7	18.51
2011/12	31.44	26.5
Total	114.69	65.86
Mean	22.94	13.17
S.D	9.34	9.28
C.V	40.70	70.47

Source: Appendix: A.

Figure: 4.7



From table 4.7 NABIL have fluctuating trend regarding the ratios. During the study period NABIL has highest ratio in F/Y 2011/12 i.e. 31.44% and lowest ratio in F/Y 2007/08 i.e. 8.51%. NIBL has highest ratio in F/Y 2011/12 i.e. 26.50% and lowest ratio in F/Y 2007/08 i.e. 4.45%. The mean value of NABIL is greater than NIBL i.e. 22.94% > 13.17% and co-efficient of variation less than NIBL i.e. 40.70% < 70.47%. The analysis shows that the average investment policy of NIBL is greater than NABIL.

4.1.2.3 Loan and Advance to Total Working Fund Ratio

This ratio reflects the extent to which the commercial banks are success in mobilizing their assets loan and advances for the purpose of income generation. A high ratio indicates better in mobilization of funds as loan and advances. Total working fund includes current assets, fixed assets and other assets which are a must to run an organization successfully. The table 4.8 exhibits this ratio of the NIBL and NABIL.

Table: 4.8

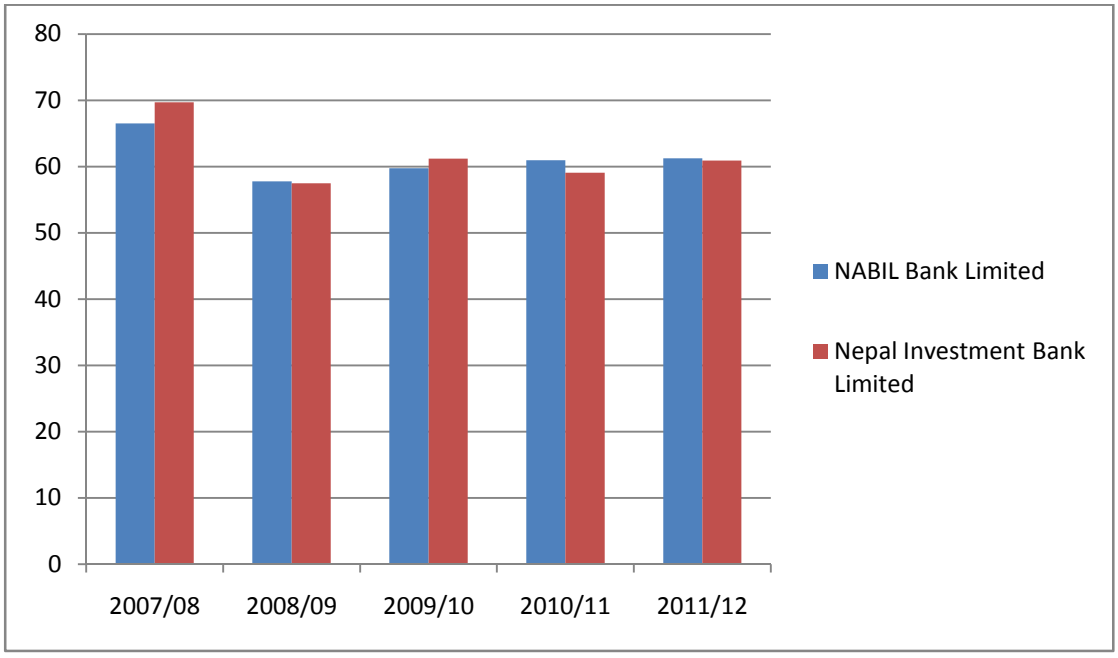
Loan and Advance to Total Working Fund Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	66.54	69.7
2008/09	57.77	57.5
2009/10	59.76	61.23
2010/11	60.96	59.06
2011/12	61.24	60.94
Total	306.27	308.43
Mean	61.25	61.69
S.D	3.26	4.73
C.V	5.32	7.66

Source: Appendix: A.

Figure: 4.8

Loan and Advance to Total Working Fund Ratio



The table 4.8 shows that NIBL ratio is in slightly decreasing trend except for the last of the review period. It has maintained highest ratio of 69.70% in F/Y 2007/08 and lowest ratio of 57.50% in F/Y 2008/09. Whereas, NABIL has this ratio in fluctuating trend, the highest ratio is 66.54% in F/Y 2007/08 and lowest ratio is 57.77% in F/Y 2008/09. On the basis of mean ratio NIBL is greater than NABIL i.e. 61.69% > 61.25% from this it can say that NIBL is strong condition to mobilize its total working fund as loan and advance than NABIL. Co-efficient of variation of NIBL is greater than NABIL i.e. 7.66% > 5.32% from this it can say that NIBL is less consists than NABIL.

4.1.2.4 Investment on Government Securities to Total Working Fund

Government securities are not risky therefore any investor gives first priority to invest in this secured sector and so does a bank. This ratio reveals that the banks are successful in mobilizing their total working fund on different types of govt. securities to maximize the income. The bank should not utilize its all deposits in loan and advances and other from of credit, from securities and liquidity point of view. Therefore commercial banks seem to be interested to utilize their deposit by purchasing government securities. A high ratio indicates better mobilization of fund as investment on government securities. The table below shows the ratio of investment on govt. securities to total working fund of NIBL and NABIL.

Table: 4.9

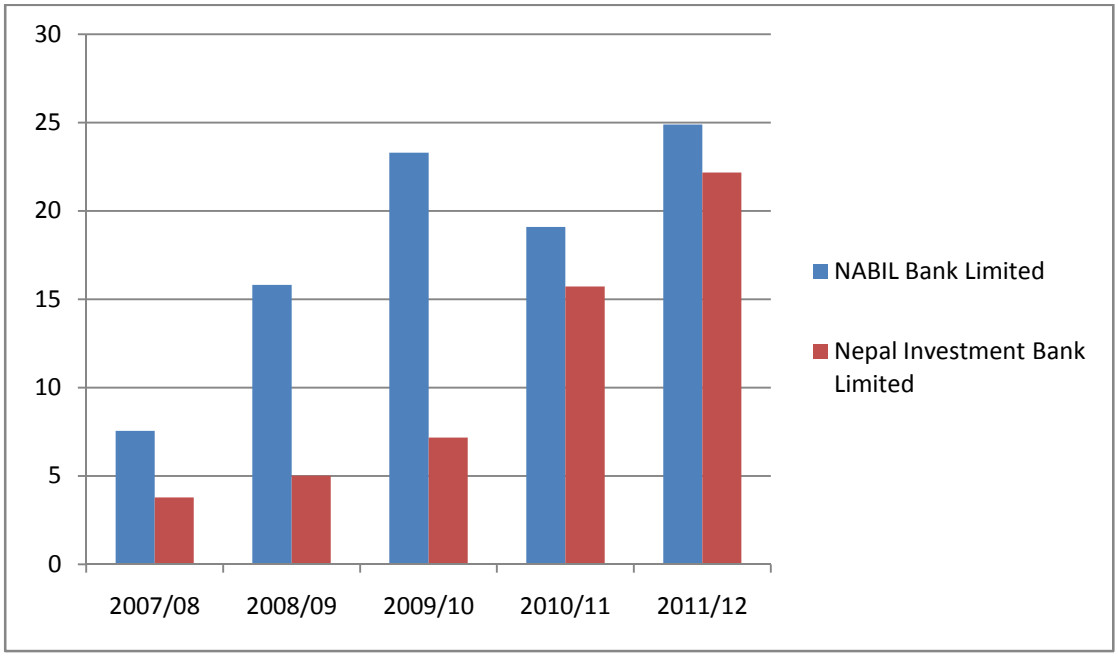
Investment on Government Securities to Total Working Fund

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	7.55	3.78
2008/09	15.82	5.01
2009/10	23.29	7.17
2010/11	19.09	15.72
2011/12	24.9	22.17
Total	90.65	53.85
Mean	18.13	10.77
S.D	6.90	7.90
C.V	38.08	73.33

Source: Appendix: A.

Figure: 4.9

Investment on Government Securities to Total Working Fund



From the table 4.9 it is clearly seen that investment on government securities to working fund ratio of NIBL and NABIL has fluctuated trend. NIBL has highest ratio is 22.17% in F/Y 2011/12 and lowest ratio is 3.78% in F/Y 2007/08. NABIL has highest ratio is 24.90% in F/Y 2011/12 and lowest ratio is 7.55% in F/Y 2007/08. Comparing the mean ratio of investment on government securities to total working fund NIBL seems too weak to mobilize its working fund as investment in government securities than NABIL i.e. 10.77% < 18.13%. Co-efficient of variation of NIBL during study is higher than NABIL i.e. 73.33% > 38.08% that means NIBL is less consistence than NABIL. So from this analysis, it can be conclude that the NIBL has invested less portion of working fund on government securities than NABIL and also NIBL is less homogeneous than NABIL.

4.1.2.5 Investment on Share and Debenture to Total Working Fund Ratio

Investment on share means to purchase shares of other companies and firms that are issued to operate business. And the share-holder may hold either voting right or be a member of board of directors. And the investment on debentures means being a debt holder with fixed interest income but do not hold the voting right generally. Investment on shares and debentures to total working fund ratio reflects the extent to

which the banks are successful to mobilize their total working fund on purchase of share and debentures of other companies to generate income and utilize excess fund. A high ratio indicates more portion of investment on share and debenture out to total working fund.

Table: 4.10

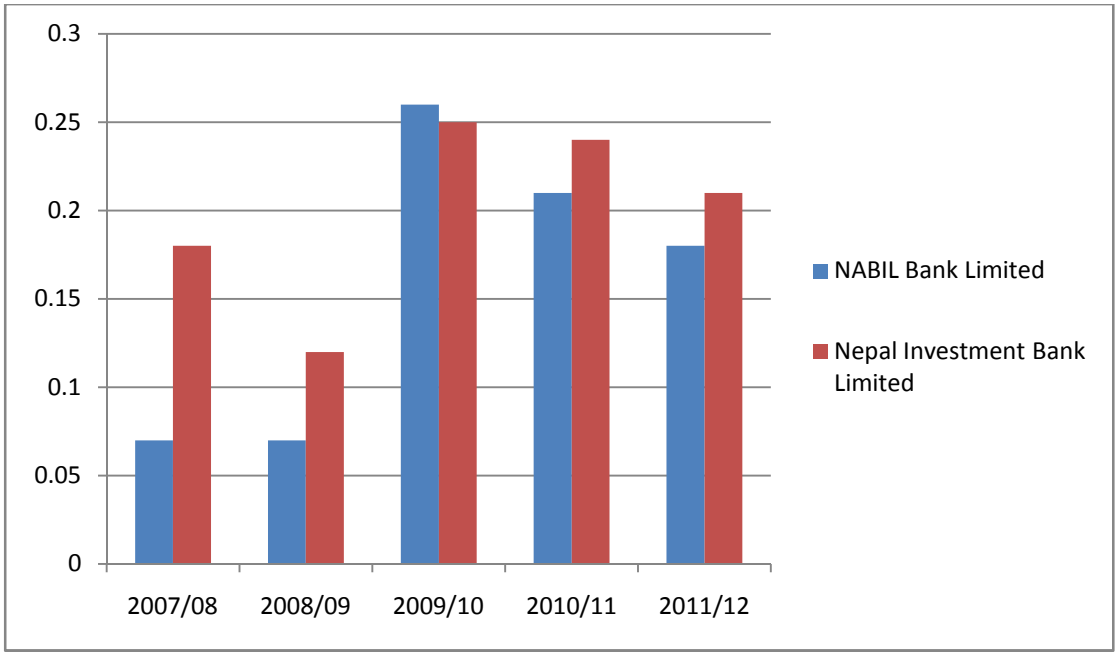
Investment on Share and Debenture to Total Working Fund Ratio

	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	0.07	0.18
2008/09	0.07	0.12
2009/10	0.26	0.25
2010/11	0.21	0.24
2011/12	0.18	0.21
Total	0.79	1.00
Mean	0.16	0.20
S.D	0.09	0.05
C.V	53.96	26.22

Source: Appendix: A.

Figure: 4.10

Investment on Share and Debenture to Working Fund Ratio



From the table 4.10 shows that the both bank have invested nominal percentage of total working fund into shares and debentures of other companies, in all case as the ratio percentage is less than 1%. However in comparing NIBL has invested slightly higher amount on share and debentures of other companies in the study period. Whereas, NIBL has made too low investment ratio is 0.12% in F/Y 2008/09 and highest ratio is 0.25% in F/Y 2009/10. NABIL has highest ratio i.e. 0.26% in F/Y 2009/10 and lowest ratio is 0.07% in F/Y 2007/08 and 2008/09.

On the basis of mean ratio, it can be stated that NIBL has invested higher amount in share and debentures in comparison to NABIL i.e. 0.20% > 0.16%. Moreover co-efficient of variation of NIBL ratio is lower than that of NABIL i.e. 26.22% < 53.96%. It means investment ratio of NIBL is more consistent than that of NABIL. From the above analysis, it is clear that has invested higher percentage of its total assets on shares and debentures of other companies in comparison to NABIL.

4.1.3 Profitability Ratios

The main objective of a commercial bank is to earn profit by providing different types of banking services to its customers. To meet various objective like, maintains good liquidity position, meet fixed internal obligations, overcome the future contingencies, and grab hidden investment opportunities, expand banking transaction in different places, finance govt. in need of development funds etc, a commercial bank have to earn sufficient profit. Here, mainly those major ratios are presented and analyzed through with the effort has been made to measure the profit earning capacity of NIBL and NABIL comparatively.

4.1.3.1 Return on Total Working Fund / Return on Total Assets Ratio

Return on working fund ratio measures the profitability with respect to each financial resources investment of the bank assets if the bank's working fund is well managed and efficiency utilized, return on such assets will be higher. Minimizing taxes within the legal options available will also improved the return.

The following table shows that profitability position with respect to total assets.

Table: 4.11

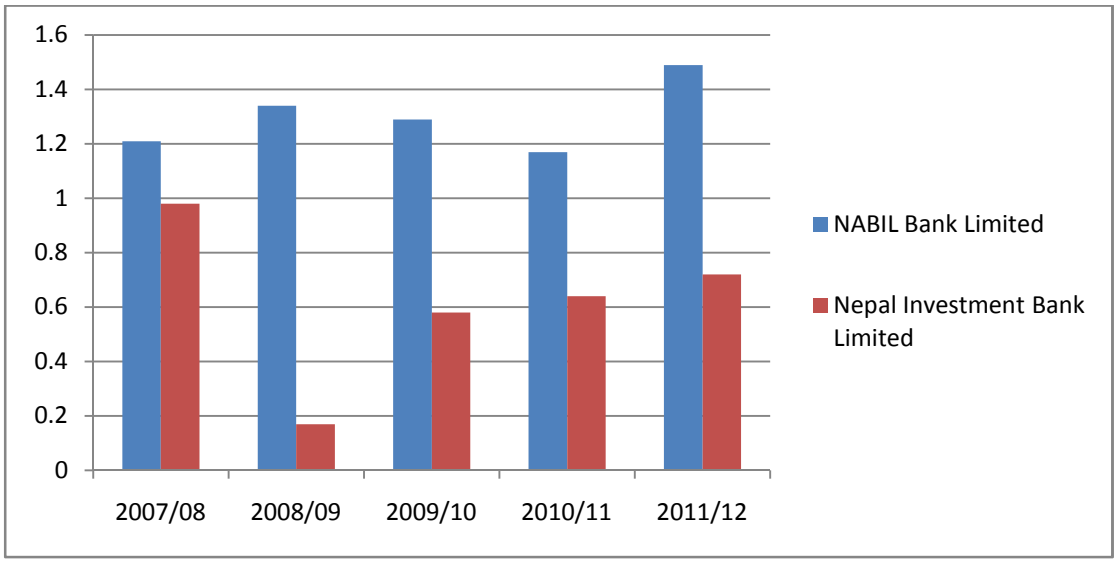
Return on Total Assets Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	1.21	0.98
2008/09	1.34	0.17
2009/10	1.29	0.58
2010/11	1.17	0.64
2011/12	1.49	0.72
Total	6.50	3.09
Mean	1.30	0.62
S.D	0.13	0.29
C.V	9.64	47.46

Source: Appendix: A.

Figure: 4.11

Return on Total Asset Ratio



From the table 4.11 it shows that the profitability of banks is fluctuating trend. NIBL has highest ratio is 0.98% in F/Y 2007/08 and lowest ratio is 0.17% in F/Y 2008/09. NABIL has highest ratio is 1.49% in F/Y 2011/12 and lowest ratio is 1.17% in F/Y 2010/11. When the mean ratios are observed, it shows that NIBL has low return than NABIL i.e. 0.62% < 1.301%. So NABIL is highly efficiency to earn net profit and return as well. On the other hand co-efficient of NIBL is highest than NABIL i.e. 47.46% > 9.64%. From the above analysis it can be said that NABIL is strong position in the earning capacity by utilizing available resources than NIBL.

4.1.3.2 Total Interest Earned to Total outside Assets Ratio

It reflects that the extent to which the bank is successful to earn interest as major income on all the outside assets. Higher the ratio, higher will be the earning power of total outside assets. This is very important ratio as the main asset is the outside assets of a commercial bank. Total outside assets includes loan and advance for commercial banks govt. securities, share, debenture and other. The table below shows total interest earned to total outside assets ratio of NIBL and NABIL.

Table: 4.12

Total Interest Earned to Total Outside Assets Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	10.57	11.63
2008/09	9.85	9.74
2009/10	7.92	8.16
2010/11	7.93	8.28
2011/12	7.81	7.00
Total	44.08	44.81
Mean	8.82	8.96
S.D	1.30	1.78
C.V	14.73	19.87

Source: Appendix: A.

Figure: 4.12

Total Interest Earned to Total Outside Assets Ratio

From the table 4.12 it shows that the ratio of banks is fluctuating trend. NIBL has highest ratio is 11.63% in F/Y 2007/08 and lowest ratio is 7.00% in F/Y 2011/12. NABIL has highest ratio is 10.57% in F/Y 2007/08 and lowest ratio is 7.81% in F/Y 2011/12. On the basis of mean ratio NIBL is greater than NABIL i.e. 8.96% > 8.82%.

Co-efficient of variation of NIBL is greater than NABIL i.e. 19.87% > 14.73%. From the above analysis it can be concluded that NIBL had been succeed in comparison to NABIL in the view point of mean ratio. NIBL is less consistent than NABIL in the view point of C.V.

4.1.3.3 Return on Loan and Advance Ratio

This ratio measures the earning capacity of commercial bank through its mobilized fund as loan and advances. A high ratio indicates greater success to mobilized fund as loan and advances. Loan and advances include loan cash credit, overdraft bills purchases and discounted. The following table shows that return on loan and advances ratio of NIBL and NABIL of this period.

Table: 4.13

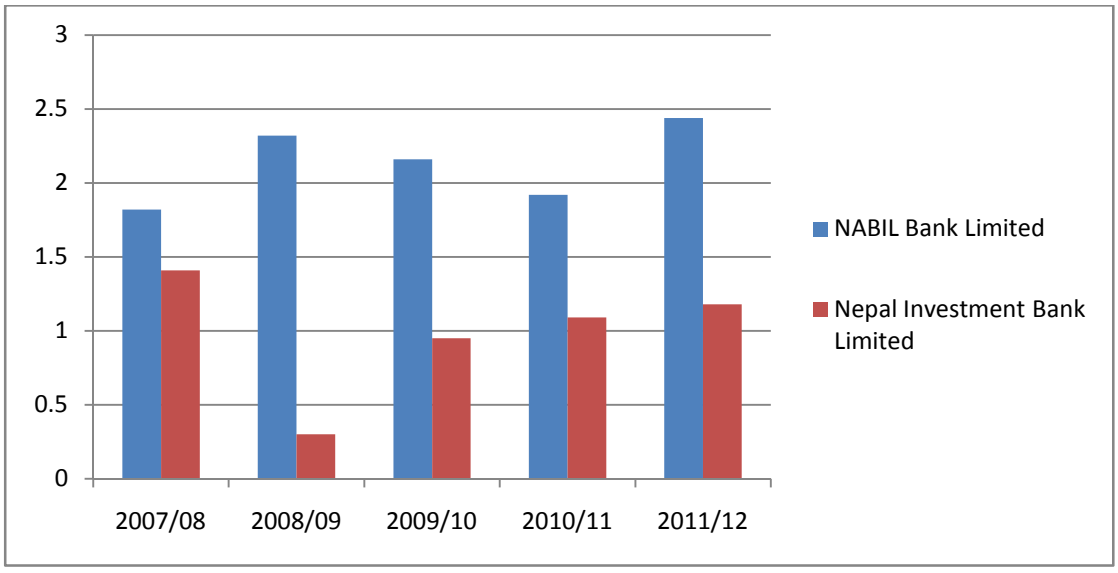
Return on Loan and Advance Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	1.82	1.41
2008/09	2.32	0.3
2009/10	2.16	0.95
2010/11	1.92	1.09
2011/12	2.44	1.18
Total	10.66	4.93
Mean	2.13	0.99
S.D	0.26	0.42
C.V	12.26	42.43

Source: Appendix: A.

Figure: 4.13

Return On Loan and Advance Ratio



From the table 4.13 shows that all bank ratios in the study period have maintained the fluctuating trend. NIBL has highest ratio is 1.41% in F/Y 2007/08and lowest ratio is 0.30% in F/Y 2008/09. NABIL has highest ratio is 2.44% in F/Y 2011/12 and lowest ratio is 1.82% in 2007/08. The mean of the banks, NIBL is less than NABIL i.e. 0.99% < 2.13%. So we can say NABIL is strong to mobilize the fund based on loan and advances to return than NIBL. On the other hand, co-efficient of variation of NIBL is greater than NABIL i.e. 42.43% > 12.26%. Thus we can be concluded that NABIL is less consistent than NIBL.

4.1.3.4 Total Interest Earned to Total Working Fund Ratio

Total interest earned to total working fund ratio reflects the extent to which the banks are successful in mobilizing their total assets to acquire income as interest. This ratio actually reveals the earning capacity of a commercial bank by mobilizing its working fund. Higher the ratio, higher will be the income as interest. The following table shows total interest earned to total working fund ratio of NIBL and NABIL throughout the reviewing period.

Table: 4.14

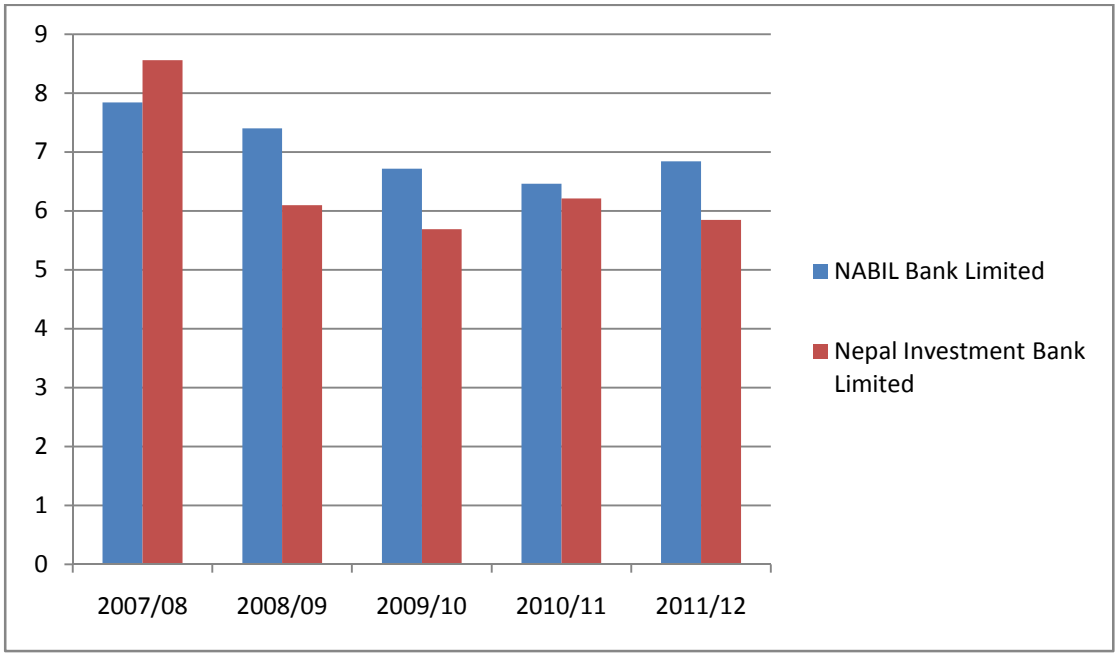
Total Interest Earned to Total Working Fund Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	7.84	8.56
2008/09	7.4	6.1
2009/10	6.72	5.69
2010/11	6.46	6.21
2011/12	6.84	5.85
Total	35.26	32.41
Mean	7.05	6.48
S.D	0.56	1.18
C.V	7.92	18.20

Source: Appendix: A.

Figure: 4.14

Total Interest Earned to Total Working Fund Ratio



The table 4.14 shows that NIBL interest earning ratio is in decreasing trend. Whereas, NIBL has highest ratio is 8.56% in F/Y 2007/08 and lowest ratio is 5.69% in 2009/10. NABIL has highest ratio is 7.84% in F/Y 2007/08 and lowest ratio is 6.46% in 2010/11. On the other hand, mean ratio of NIBL is lowest than NABIL i.e. 6.48% < 7.05%. It indicates that NIBL is lower to generate interest income from the total working fund than NABIL. Similarly, co-efficient of variation between ratios of different five years under the study period, in case NIBL is found to be 18.20% whereas NABIL has 7.92% only. Its earning ratio with respect to total working fund of NIBL is less stable than that of NABIL. Thus it can be concluded that NABIL is able to earn high interest return from the total working fund comparison with NIBL because high ratio is an indicator high earning power of the bank of its total earning fund.

4.1.3.5 Total Interest Paid to Total Working Fund Ratio

Total interest paid is that amount which is paid to the lenders as well as bond-holders. This ratio measures the percentage of total interest paid against the total working fund. A high ratio indicates the higher interest expenses on total working fund. The

following table shows the total interest paid to total working fund ratio of NIBL and NABIL.

Table: 4.15

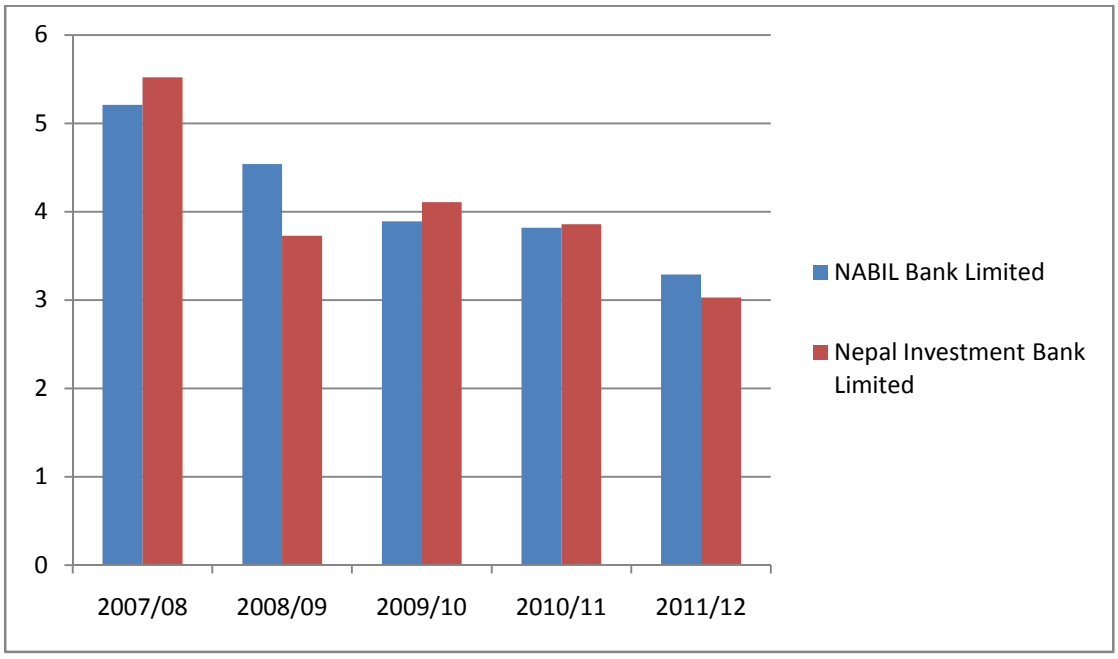
Total Interest Paid to Total Working Fund Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	5.21	5.52
2008/09	4.54	3.73
2009/10	3.89	4.11
2010/11	3.82	3.86
2011/12	3.29	3.03
Total	20.75	20.25
Mean	4.15	4.05
S.D	0.74	0.91
C.V	17.84	22.57

Source: Appendix: A.

Figure: 4.15

Total Interest Paid to Working Fund Ratio



From the table 4.15 it shows that the ratio of NIBL bank is fluctuating trend. NIBL has highest ratio is 5.526% in F/Y 2007/08 and lowest ratio is 3.03% in F/Y 2011/12. NABIL has highest ratio is 5.21% in F/Y 2007/08 and lowest ratio is 3.29% in F/Y

2011/12. Both banks have decreasing trend in the study period. On the basis of mean ratio NIBL is lower than NABIL i.e. 4.05% < 4.15%. It means NABIL is more interest paid on the respect of total working fund than NIBL. Similarly, co-efficient of variation of NIBL is greater than NABIL i.e. 22.57% > 17.84%. So it concludes NIBL is less consistent than NABIL.

4.1.4 Risk Ratio

Bank had to take risk to get return on its investment. The risk taken is satisfied by the increase in profit. So, the banks operating for high profit have to accept the risk and manage it efficiently. A bank has to have the idea of the level of risk that one had needed to bear while investing its funds.

4.1.4.1 Credit Risk Ratio

Bank makes investment by utilizing its collected fund. The credit risk ratio measures the risk behind making investment or granting loan. Actually, the proportion of non-performing assets shows credit risk ratio in total loan and advances of a bank. But unavailability of related data the ratio is calculated with the help of loan and total assets.

The following table presents the credit risk ratio of NIBL and NABIL.

Table: 4.16

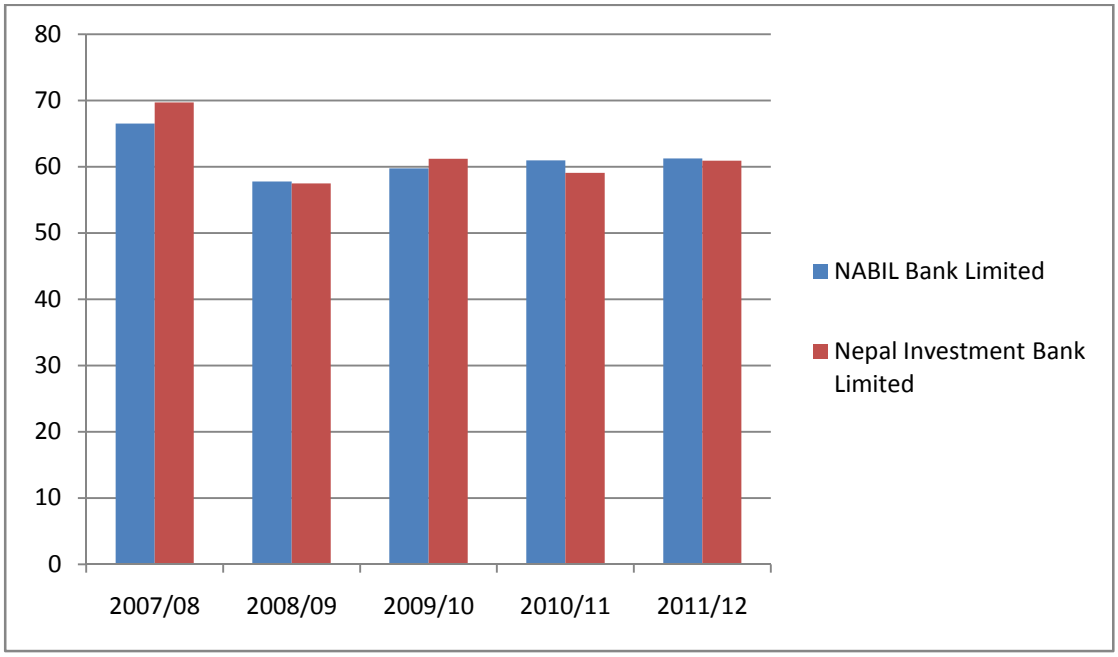
Credit Risk Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	66.54	69.7
2008/09	57.77	57.5
2009/10	59.76	61.23
2010/11	60.96	59.06
2011/12	61.24	60.94
Total	306.27	308.43
Mean	61.25	61.69
S.D	3.26	4.73
C.V	5.32	7.66

Source: Appendix: A.

Figure: 4.16

Credit Risk Ratio



From the table 4.16 it shows that the credit risk ratio of NIBL is fluctuating trend. NIBL has highest ratio is 69.70% in F/Y 2007/08 and lowest ratio is 57.50% in F/Y 2008/09. NABIL has also fluctuating trend in the study period. NABIL has highest ratio is 66.54% in F/Y 2007/08 and lowest ratio is 57.77% in F/Y 2008/09.

When mean ratios are taken it is found that NIBL is greater than NABIL i.e. 61.69% > 61.25%. It means NIBL has higher credit in compare to NABIL. In the case of co-efficient of variation NIBL is greater than NABIL i.e. 7.66% > 5.32%. It means NIBL credit policy is less consistent than that of NABIL. From the above analysis, it can be concluded that the credit risk of NIBL is higher in compare to NABIL.

4.1.4.2 Capital Risk Ratio

The capital risk of a bank indicates that how much assets values may decline before the deposition and other creditors in jeopardized. Therefore a bank must maintain adequate capital in relation to the nature and condition of its assets, its deposit liabilities and other corporate responsibilities. Capital risk measures banks ability to attract deposits and interbank fund. It also determines the level of profit a bank can earn. If a bank choose to make high capital risk, its ROE will be higher. The

following table exhibits the capital risk ratio of NIBL and NABIL during the study period.

Table: 4.17

Capital Risk Ratio

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	5.22	3.37
2008/09	7.35	3.44
2009/10	6.57	9.88
2010/11	6.42	9.51
2011/12	5.35	8.30
Total	30.91	34.50
Mean	6.18	6.90
S.D	0.89	3.24
C.V	14.44	47.01

Source: Appendix: A.

Figure: 4.17

Capital Risk Ratio

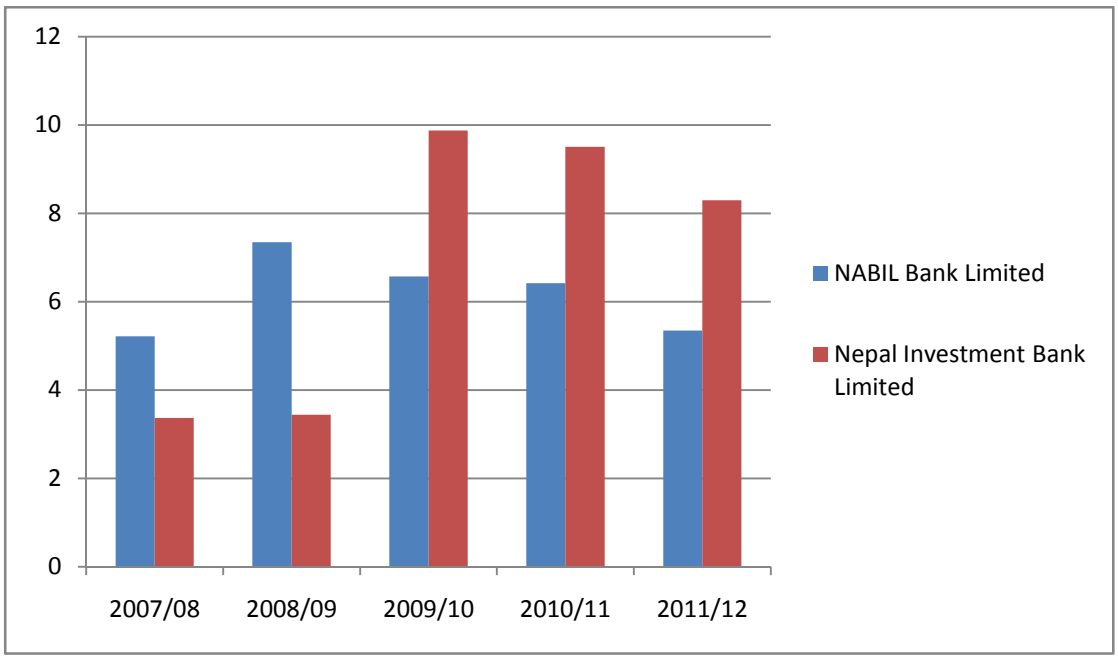


Table 4.17 presents the capital risk ratios of banks which are fluctuating trend. NIBL has highest ratio is 9.88% in F/Y 2009/10 and lowest ratio is 3.37% in F/Y 2007/08. NABIL has highest ratio is 7.35% in F/Y 2008/09 and lowest ratio is 5.22% in F/Y

2007/08. On the basis of mean ratio NIBL is highest that NABIL i.e. 6.90% < 6.18%. On the other hand co-efficient of variation of NIBL is greater than NABIL i.e. 47.01% > 14.44%. It indicates that the capital risk of NIBL is less consistent than NABIL. From the above analysis, it can be concluded that the degree of capital risk in NABIL is greater than NIBL.

4.1.5 Growth Ratios

Growth ratios are analyzed and interpret which are directly related to the fund mobilization and investment of a commercial bank. Growth ratios represent how well the commercial banks are maintaining their economic and financial position.

Higher the ratios better the performance of a bank. Following four topic i.e. growth ratio of total deposit, loan & advances, total investment and net profit, the ratios can be calculating to the compound interest tables.

Table: 4.18

Growth Ratio of Deposits

In Millions

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	3057.42	4535.73
2008/09	4574.51	6612.29
2009/10	5466.61	5572.47
2010/11	6694.96	6522.82
2011/12	8063.9	7198.32
Growth Rate %	27.43	12.23

Source: Appendix: B.

The table 4.18 shows that the growth ratio of NIBL is lower than NABIL i.e. 12.23% < 27.43%. It means that the performance of NIBL to collect lower deposit compared to NABIL.

Table: 4.19

Growth Ratios of Loan and Advances

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	2270.18	3559.41
2008/09	3005.76	4188.41
2009/10	3948.48	4299.25
2010/11	4908.46	4468.72
2011/12	5884.12	5143.66
Growth Rate %	26.88	9.64

Source: Appendix: B.

The table 4.19 shows that the growth ratio of NIBL is lower than NABIL i.e. 9.64% < 26.88%. It means that the performance of NIBL to collect grant loan and advances in compared to NABIL is lower position year by year.

Table: 4.20

Growth Ratio of Total Investment

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	260.11	201.79
2008/09	901.72	373.63
2009/10	1657.87	599.06
2010/11	1653.98	1207.28
2011/12	2535.66	1907.52
Growth Rate %	76.69	75.34

Source: Appendix: B.

The table 4.20 shows that the growth ratio of NIBL is lower than NABIL i.e. 75.34% < 76.69%. It means that the performance of NABIL to invest in compared to NIBL is higher position.

Table; 4.21

Growth Ratio of Net Profit

Year	NABIL Bank Limited	Nepal Investment Bank Limited
2007/08	41.27	50.07
2008/09	69.7	12.51
2009/10	85.33	40.85
2010/11	94.18	48.75
2011/12	143.57	60.85
Growth Rate %	36.56	4.99

Source: Appendix: B.

The table 4.21 shows that the growth ratio of NIBL is lower than NABIL i.e. 4.99% < 36.56%. It means that the performance of NIBL to net profit in compared to NABIL is lower position.

4.2 Statistical Analysis

Under this chapter, some statistical tools such as co-efficient of correlation analysis between different variables, trend analysis of deposit, loan and advances, Investment and net profit are used to achieve the objective of the study.

4.2.1 Coefficient of Correlation Analysis

To find out the relationship between deposit and total investment, deposit and loan and advances and newt profit and total outside assets have been used of Karl Pearson's coefficient of correlation.

4.2.1.1 Coefficient of Correlation between Deposits and Investment

The Coefficient of correlation between deposit and investment is to measure the degree of relationship between two variables. In correlation analysis, deposit is independent variables (X) and total investment is dependent variables (Y). The purpose of computing coefficient correlation is to justify whether the deposits are significantly used in proper way or not.

The table no. 4.22 shows the value of r, r^2 calculated value of t and tabulated value of t between deposits and total investment of NIBL and NABIL for the study period.

Table: 4.22

Correlation between Deposits and Total Investment

Bank	Evaluation criterions		t_{cal}-Value	t_{tab} Value	Conclusion	Result
	R	r^2				
NIBL	0.758	0.575	2.01	3.82	H_0 Accepted	Insignificant
NABIL	0.973	0.947	7.03	3.82	H_0 Rejected	Significant

Source: Appendix: C.

From the above table no. 4.22 is found that the Coefficient of correlation between deposit and investment value 'r' is 0.758 in case of NIBL. It shows positive relationship between these two variables. Similarly, the coefficient of determination in the dependent variables 'r^2' is 0.575it means 57.50% of the variation in the dependent variables (total investment) has been explained by the independent variable (deposit).

In the case of NABIL also, that the Coefficient of correlation between total deposits and total investment is 0.973. It shows the positive relationship between these variables. But considering the value of r^2 is 0.947. It means 94.70% in the dependent variable (investment) has been explained by the independent variable (deposit).

In case of NIBL calculated value of t is smaller than tabulated value of t. Thus null hypothesis is accepted. That is variables are uncorrelated in other words correlation between deposit and total investment of NIBL is insignificant.

In case of NABIL calculated value of t is greater than tabulated value of t. Thus null hypothesis is rejected. That is variables are correlated in other words correlation between deposit and total investment of NABIL is significant.

4.2.1.2 Coefficient of Correlation between Deposit and Loan and Advance

Coefficient of correlation between deposit and loan and advances measures the degree of relationship between these two variables. In the this analysis, deposit is

independent variable (X) and loan and advance are dependent variable (Y) the main objective of computing 'r' between these two variables is to justify whether deposits are significantly uses as loan and advances proper way or not.

The table no. 4.23 shows the value of r, r^2calculated value of t and tabulated value of t between deposits and loan and advances of NIBL and NABIL for the study period.

Table: 4.23

Correlation between Deposit and Loan and Advance

Bank	Evaluation criterions		t_{cal}Value	t_{tab}Value	Conclusion	Result
	r	r^2				
NIBL	0.883	0.780	3.26	3.82	H_0 Accepted	Insignificant
NABIL	0.995	0.990	17.25	3.82	H_0 Rejected	Significant

Source: Appendix: C.

From the above table 4.23, it is found that the coefficient of correlation between deposits and loan and advances of NIBL is 0.883. It shows positive relationship between these two variables. Moreover, when we consider the value of coefficient of determination r^2 is 0.780 and it means 78.00% of the variation in the dependent variable (deposit).

Likewise, in case of NABIL the coefficient of correlation between deposits and loan and advances of NABIL is 0.995. It shows positive relationship between these two variables. Moreover, when we consider the value of coefficient of determination r^2 is 0.990 and it means 99.0% of the variation in the dependent variable (deposit).

In case of NIBL calculated value of t is smaller than tabulated value of t. Thus null hypothesis is accepted. That is variables are uncorrelated in other words correlation between deposit and loan and advance of NIBL is insignificant.

in case of NABIL calculated value of t is greater than tabulated value of t. Thus null hypothesis is rejected. That is variables are correlated in other words correlation between deposit and loan and advance of NABIL bank is significant.

4.2.1.3 Coefficient of Correlation between Outside Assets and Net Profit

To measure and evaluate the coefficient of correlation between these two variables i.e. total outside assets and net profit, Karl Person's Coefficient of correlation has been calculated under this topic. In this analysis, total outside assets is independent variable (X) and net profit is dependent variable (Y). The purpose of computing correlation of Coefficient is to justify whether the net profit is significantly correlated with respective total assets or not.

The table no. 4.24 shows the value of r, r^2 calculated value of t and tabulated value of t between outside assets and net profit of NIBL and NABIL.

Table: 4.24

Correlation between Outside Assets and Net Profit

Bank	Evaluation criterions		t_{cal} Value	t_{tab} Value	Conclusion	Result
	r	r^2				
NIBL	0.501	0.251	1.003	3.82	H_0 Accepted	Insignificant
NABIL	0.976	0.953	7.76	3.82	H_0 Rejected	Significant

Source: Appendix: C.

From the above table no.4.24, it is found that the coefficient of correlation between outside asset and net profit of NIBL is 0.501. It shows positive relationship between these two variables. Moreover, when we consider the value of coefficient of determination r^2 is 0.251 and it means 25.10% of the variation in the dependent variable.

Likewise, in case of NABIL the coefficient of correlation between outside asset and net profit of NABIL is 0.976. It shows positive relationship between these two variables. Moreover, when we consider the value of coefficient of determination r^2 is 0.953 and it means 95.30% of the variation in the dependent variable.

In case of NIBL calculated value of t is smaller than tabulated value of t. Thus null hypothesis is accepted. That is variables are uncorrelated in other words correlation between outside assets and net profit of NIBL is insignificant.

In case of NABIL calculated value of t is greater than tabulated value of t. Thus null hypothesis is rejected. That is variables are correlated in other words correlation between Outside Assets and net profit of NABIL bank is significant.

4.2.1.4 Coefficient of Correlation between Loan and Advance and Net Profit

To measure and evaluate the coefficient of correlation between these two variables i.e. total loan and advance and net profit, Karl Person's Coefficient of correlation has been calculated under this topic. In this analysis, total loan and advance is independent variable (X) and net profit is dependent variable (Y). The purpose of computing correlation of Coefficient is to justify whether the net profit is significantly correlated with respective total assets or not.

The table no. 4.25 shows the value of r, r^2 calculated value of t and tabulated value of t between loan and advance and net profit of NIBL and NABIL.

Table: 4.25

Correlation between Loan and Advance and Net Profit

Bank	Evaluation criterions		t_{cal}Value	t_{tab}Value	Conclusion	Result
	r	r^2				
NIBL	0.343	0.118	0.6325	3.82	H_0 Accepted	Insignificant
NABIL	0.964	0.929	6.28	3.82	H_0 Rejected	Significant

Source: Appendix: C.

From the above table no. 4.25, it is found that the coefficient of correlation between total loan and advance and net profit of NIBL is 0.343. It shows positive relationship between these two variables. Moreover, when we consider the value of coefficient of determination r^2 is 0.118and it means 11.80% of the variation in the dependent variable.

Likewise, in case of NABIL the coefficient of correlation between total loan and advance and net profit of NABIL is 0.964. It shows positive relationship between these two variables. Moreover, when we consider the value of coefficient of

determination r^2 is 0.929 and it means 92.90% of the variation in the dependent variable.

In case of NIBL calculated value of t is lower than tabulated value of t. Thus null hypothesis is accepted. That is variables are correlated in other words correlation between load and advance and net profit of NIBL is insignificant. In case of NABIL calculated value of t is higher than tabulated value of t. Thus null hypothesis is rejected. That is variables are uncorrelated in other words correlation between loan and advance and net profit of NABIL bank is significant.

4.3 Major Finding of the Study

The main findings of the study are derived on the **analysis** of financial data of NIBL and NABIL, which are given below**.** Liquidity ratio the mean current ratio of NIBL is lower than that NABIL and the variability of ratio of NABIL is more consistence than NIBL in comparison.

- The mean ratio of cash and bank balance to total deposit of NIBL is higher than that of NABIL ,NIBL cash and bank balance to total deposit ratio is high consistent than that of NABIL. It states that the liquidity position of NIBL is better than NABIL. The mean cash and bank balance to current assets ratio of NIBL is higher than NABIL. It exhibits the liquidity position of NIBL is better in this regard. The cash and bank balance to current assets ratios of NIBL is more stable and consistent than that of NABIL. The mean ratio of investment on government securities to current assets of NIBL has maintained lower than NABIL.
- 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 advance 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 the total investment to total deposit ratio of NIBL is less consistent than that of NABIL. The mean ratio of loan and advance to working fund of NIBL is greater than that of NABIL. The variability of loan and advance to working fund 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. The variability of the total investment on government securities to total working fund ratio of NIBL is less consistent than that of NABIL. The mean ratio of investment on share and debenture to total working fund of NIBL is greater than that of NABIL. The variability of the investment on share and debenture to total working fund ratio of NIBL is more consistent than that of NABIL.
- Profitability ratios the mean ratio return on total asset of NIBL is lower than that of NABIL. The return on total asset working fund ratio of NIBL is less consistent than that of NABIL. The mean ratio of total interest earned to total outside assets of NIBL is greater than that of NABIL. The total interest earned to total outside assets ratio of NIBL is less consistent than that of NABIL. The mean ratio of return on loan and advance of NIBL is less than that of NABIL. The return on loan and advance ratio of NIBL is less consistent than that of NABIL. The mean ratio of total interest earned to total working fund of NIBL is lower than that of NABIL. The total interest earned to total working fund ratio of NIBL is less consistent than that of NABIL. The mean ratio of total interest paid to total working fund of NIBL is lower than that of NABIL. The total interest paid to total working fund ratio of NABIL is less consistent than that of NIBL.
- From the above findings, it can be conclude that the profitability position of NIBL is not satisfactory. Whereas in some ratios i.e. return on total asset, return on loan and advances of NIBL is maintained lower than that of NABIL. But in cases those ratios of total interest paid to total working fund, total interest earned to total outside assets, NIBL has maintained higher mean ratios than NABIL. So those banks have invested their fund on profitable sectors for

maintain their higher profit margin in future. Risk ratio This risk ratio of NIBL and NABIL shows .

- The mean credit risk ratio of NIBL is greater than that of NABIL. The credit risk ratio of NIBL is less consistent than that of NABIL.NIBL has maintained the mean ratio of capital risk ratio is higher than that of NABIL. The capital risk ratio of NABIL is less consistent than that of NIBL. From the above result it can be concluded that the credit risk ratio of NIBL is highest and the capital risk ratio of NIBL is highest of indicate that NABIL. Growth ratio. Growth ratio of deposit of NIBL is lower i.e. 12.23% in comparison to NABIL. i.e. 27.43%.Likewise, growth ratio of total loan and advance of NIBL is significantly lower that NABIL i.e. 9.64% < 26.88%.Beside these, growth ratio of total investment of NIBL is lower than NABIL i.e. 75.34% < 76.69%.The growth ratio of net profit in case NIBL has been found 4.99% whereas; the same of the NABIL has 36.56% during the study period. From the analysis of above mentioned growth ratios it can be conclude that NIBL has not been more successful to increase in source of funds i.e. deposit and mobilization of i.e. loan and advances.
- 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 and NABIL reveals that. Co-efficient of correlation analysis between deposit and total investment of the both banks has significantly positive values.
- Similarly, the relationship between deposit and Loan and Advances of NIBL and NABIL are significantly positive, however NABIL bank has higher value. The co-efficient of correlation between Outside Assets and Net Profit of NABIL is significantly greater than NIBL showing the correlation between outside asset and net profit of NABIL bank is significant. The relationship between loan and advance and Net profit of both NIBL and NABIL is positive and NABIL with significantly higher value.

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter first concludes the fact-findings base on analytical chapter four where data have been analyzed and interpreted applying different accounting and statistical tools. Under financial analysis, various financial ratios related to the investment function of commercial banks, they are liquidity ratio, profitability ratio, asset management ratio, risk ratio and growth ratio, some relevant statistical are used. They are coefficient of correlation, trend analysis and test of hypothesis.

5.1 Summary

In this study, the financial tools ratio analysis viz. liquidity ratio, asset management ratio, profitability ratios, risk ratios, growth ratios and statistical tools like percentage, mean, standard deviation, coefficient of variation, correlation and trend analysis have been used for the analysis and interpretation of the data. The data which were employed in this research are secondary in nature. They are obtained from annual reports of the concerned banks, likewise, the financial statement of five year from 2007/08 to 2011/12 were selected for the purpose evaluation.

NABIL has invested its more portions of current assets in government securities than NIBL. NABIL has made higher amount of investment on govt. securities this is due to unavailable of other secured and profitable investment sector. Whereas the lower amount of NIBL is invested in government. security. It may be the reason of more investment on other productive sector. The liquidity position of NIBL and NABIL have not found satisfactory. It is therefore, suggested them to improve cash and bank balance to meet current obligations. NIBL's loan and advance to current assets ratio is lower than that NABIL, it is recommended to follow liberal lending policy for enhancement of fund mobilization. The profitability position of those banks is not satisfactory. So those banks have to invest their fund in profitable sectors. From this study it can conclude that NIBL is in better position from interest expenses point of view that NABIL. NABIL seems that it had collected its working funds from more expensive sources in comparison to NIBL.

The risk ratio of NIBL and NABIL have higher, it is suggested that they must careful about risk either risk or capital risk. The growth ratios are analyzed and interpret which are direct related to the fund mobilization and investment of commercial banks. Growth ratio represents how well the commercial banks are maintaining their economic and financial position. Growth ratio NIBL has lower to maintain of deposit, loan and advance and net profit and higher of total investment than that of NABIL. Therefore in total amount factor NABIL improve in three growth ratios than NIBL but in terms of percentage NIBL improve in three growth rates than NABIL.

5.2 Conclusions

From the analysis of coefficient of correlation analysis we can conclude that both NIBL and NABIL have significant positive relationship between deposit and loan advance, deposit and total investment and outside assets and net profit. The trend value of deposits loan and advance, investment net profit shows that continuously increasing trend. We can say that both NIBL and NABIL have followed the policy of maximizing the investment.

Investment policy plays a key role on the development of countries utmost investment. The political insanity, government rules, tax policy treaty with neighbor country, social and economic condition of the country affect investment policy of bank. To keep up the stability with the foreign policy results the improvement of investment policy. Designing good investment policy helps to the improvement of investment policy in the country. As political influence, intervention economic scenario and social, economic scenario of the country is dramatically problem for the detection of designing investment policy of bank.

Government policy affects the investment policy of the company, bank and institution. Government intervention in investment policy is custom tariff initiated by the government policy, VAT refund policy and tax holding policy including duty taxes i.e. export and import directly influences investment policy. Analysis of investment to avoid the risk, risk related investment influence the financial and economic condition of investment. Technical and marketing analyses too reflect the risk measurement. As the investor, the adequate knowledge of investment policy is

required. Major problem for applying the investment policies are integrator of the consumer, changing policy of the country, industrial policy and neighbor country's policy.

5.3 Recommendations

Suggestion helps to take corrective action in their activities in future. On the basis of above analysis and findings of the study, following suggestions can be advances to overcome weakness, inefficiency and satisfactory improvement of the present fund mobilization and investment policy of NIBL as well as NABIL.

- The liquidity position of a NIBL has maintained the ratios of cash and bank balance to total deposit and current assets considerably higher than that of NABIL and recommended to increased cash and bank balance to meet current obligations and loan demand.
- NIBL has made lower investment amount on government securities. Investment on those securities issued by government i.e. Treasury bills, Development bonds, saving certificates are free of risk and highly liquid in nature and such securities yield the low interest rates of particular maturity due to lowest risk in future, it is more better in regard to safety that other means of investment. So, NIBL is strongly recommended to give more importance to invest more funds government securities instead of keeping them idle with this proverb "something is better than nothing."
- NIBL's profitability position is low than that of NABIL. So NIBL is strongly recommended to utilize risky assets and shareholder's fund to gain highest profit margin. Similarly, it should reduce its expenses and should try to collect cheap fund being more profitable. Out of working fund, NABIL has not invested its more fund as total investment in comparison to the other two banks. Though the percentage of invested by those banks have nominal. So, it is recommended to those banks to invest their more funds in different types of companies in different areas.
- Portfolio conditions of NABIL as well NIBL should be examining carefully from time to time and alternation should be made to maintain equilibrium in the portfolio condition as far as possible. So it can be said that all eggs should not

be kept in the basket. The banks should make continuous yielding investment portfolio.

- In the light of growing competition in the banking sector, the business of the bank should be customer oriented. It should strengthen and activate its marketing function, as it is an effective tool of attracting and retaining customers. For this purpose, the banks should develop an “Innovative approach to bank marketing” and formulate new strategic of serving customers in a more convenient and satisfactory way.
- NIBL is operating with limited branch while NABIL has greater network of branches all over country. Therefore NIBL recommended to expand its hands provide banking service and facilities to the rural areas and communities to accelerate the rural areas economic development, through opening new branches in particular areas after making feasibility study and study well about saving and business potentiality of those areas, it is very helpful to bank in tapping the resources of different areas.

BIBLIOGRAPHY

Baidhya, Shakespeare (1997) *Banking management,* Kathmandu: second edition, Monitor Nepal.

Bajracharya, Bodhi B. (2047) *"Monetary Policy of Deposit Mobilization in Nepal" Rastray Banijya Bank*, Kathmandu.

Bhalla, V.K. (1983) *Investment Management, Security Analysis and Portfolio Management*, New Delhi : fifth edition, S. Chand & Co. Ltd.

Cheney, J.M. and Moses, E.A. (1999) *Fundamentals of Investment*, USA: West Publishing Company.

Encyclopedia of Britannica. (1985) *Encyclopedia of Management*, Macmillan London.

Foreign Investment Act 1992, Ministry of Industry, Foreign Investment and Promotion Center, HMG, page no.10

Foreign Investment and Technology Act 1992, Ministry of Law and Justice, Foreign Investment and Promotion Center, HMG, page no.9

Francis, J.C. (1998) *Management of Investment,* New York: Third edition, Harper Callings Publications.

Frank, K. Reilly (1986) *Investment,* Japan: Second Edition the Dryden Press CBS Publishing Japan Ltd.

Gupta, S.C. (1984) *Fundamental Statistic* , Bombay : fifth edition, Himalayan Publishing House.

Jerome, B.C., Edward, D. Z. and Arthur, Z. (1997) *Investment Analysis and Portfolio Management* , USA : Third edition USA print.

Kishi, Dev Lal (1996) *"The Changing Face of the Banking Sector and the HMG/N recent Budgetary Policy" Nepal Bank Patrika*.

NABIL Bank Ltd**,** Annual report of "*NABIL Bank Limited"* from 1999 to 2004.

Nepal Rastra Bank (2010) *"Annual Bank Supervision Report 2009-2010, Nepal Rastra Bank"*

Pandey, I.M. (1999) *Financial Management,* New Delhi: Vikas Publishing House Pvt. Ltd.

Pradhan, Shekhar Bahadur (2053) *"Deposit Mobilization: its problem and prospects" Nepal Bank Patrika*, Kathmandu.

Pyakuryal, Bishowambhar (1987) "*The present changing context of the economy calls for a sustained revitalization of the resource.* Nepalese Economy Review (http://www.ner.com.np)

Radhaswamy, M. and Vasudevan, S.V. (1979) *A Textbook of Banking*: 2nd Edition.

Sharpe, F. W. and Alexander, J. G. (1995) *Investment*, New Delhi : Prentice Hall of India Pvt. Ltd.

Shrestha, Sunity (1995) *Portfolio behaviour of Commercial Bank in Nepal*, Kathmandu: First Edition Baneshwor.

Van Horne, J.C. (1998) *Financial Management and Policy*, New Delhi: Tenth Edition, Prentice Hall of India Pvt. Ltd.

Previous Research Work

Gautam (2012), *"Investment Practice of Commercial Banks in Nepal"* An Unpublished Master Level Thesis Submitted to Faculty of Management, T.U.

Shrestha, (2008), *"Investment Analysis of Commercial Banks" (A comparative study of Nepal Bank Limited and Nepal State Bank of India Limited).*An Unpublished Master Level Thesis Submitted to Faculty of Management, T.U.

Shrestha, (2011), *"Investment Portfolio Analysis of JVB's"*. An Unpublished Master Level Thesis Submitted to Faculty of Management, T.U.

Thapa, (2010), *"Investment Policy of commercial Banks in Nepal."* An Unpublished Master Level Thesis Submitted to Faculty of Management, T.U.

Yadav, (2009), "*A comparative Financial Performance of Joint Venture Banks in Nepal."* An Unpublished Master Level Thesis Submitted to Faculty of Management, T.U.

Websites:

www.nepalstock.com

www.nrb.org.np

www.worldbank.org.np

www.cbs.gov.np

www.nibl.com.np

www.nabilbank.com

Appendixes

Appendix –A Calculation of Ratios

Current ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Current Assets	4992.66	7166.11	6787.45	7404.57	8327.17	
Current Liabilities	4880.51	7043.64	6459.41	6882.43	7808.30	**Total**
Ratios (X)	1.02	1.02	1.05	1.06	1.05	**5.22**
$(X-\bar{x})$	(0.02)	(0.02)	0.01	0.02	0.01	**-**
$(X-\bar{x})^2$	0.0004	0.0004	0.0001	0.0004	0.0001	**0.0014**

Mean $(\bar{x})$ = $\sum \frac{X}{n}$ = $\sum \frac{5.22}{5}$ = 1.04

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{0.0014}{5-1}}$ = $\sqrt{0.00035}$ = 0.02

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{0.02}{1.04} \times 100\%$ = 2.21%

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Current Assets	3334.59	5049.85	6359.66	7774.84	9325.63	
Current Liabilities	3204.27	4874.79	6063.87	7415.23	8928.25	**Total**
Ratios (X)	1.04	1.04	1.05	1.05	1.04	**5.22**
$(X-\bar{x})$	(0.00)	(0.00)	0.01	0.01	(0.00)	**-**
$(X-\bar{x})^2$	0.0000	0.0000	0.0000	0.0000	0.0000	**0.0001**

Mean $(\bar{x})$ = $\sum \frac{X}{n}$ = $\sum \frac{5.22}{5}$ = 1.04

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{0.0001}{5-1}}$ = $\sqrt{0.00003}$ = 0.01

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{0.01}{1.04}$ × 100% = 0.52%

Cash and bank balance to total deposit ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Cash and bank bs	890.02	1945.14	1619.96	1333.53	864.42	
Total deposit	4535.73	6612.29	5572.47	6522.82	7198.32	**Total**
Ratios (X)	19.62	29.42	29.07	20.44	12.01	**110.56**
(X-$\bar{x}$)	(2.49)	7.31	6.96	(1.67)	(10.10)	**-**
(X-$\bar{x}$)^2	6.2101	53.4069	48.4138	2.7956	102.0504	**212.8767**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{110.56}{5}$ = 22.11

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{212.8767}{5-1}}$ = $\sqrt{53.2192}$ = 7.30

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{7.30}{22.11} \times 100\%$ = 32.99 %

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Cash and bank bs	278.61	834.99	592.76	1139.57	631.8	
Total deposit	3057.42	4574.51	5466.61	6694.96	8063.90	**Total**
Ratios (X)	9.11	18.25	10.84	17.02	7.83	**63.05**
(X-$\bar{x}$)	(3.50)	5.64	(1.77)	4.41	(4.78)	**-**
(X-$\bar{x}$)^2	12.2500	31.8096	3.1329	19.4481	22.8484	**89.4890**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{63.05}{5}$ = 12.61

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{89.4890}{5-1}}$ = $\sqrt{22.3723}$ = 4.73

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{4.73}{12.61} \times 100\%$ = 37.51%

Cash and bank balance to current asset ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Cash and bank bs	890.02	1945.14	1619.96	1333.53	864.42	
Current assets	4992.66	7166.11	6787.45	7404.57	8327.17	**Total**
Ratios (X)	17.83	27.14	23.87	18.01	10.38	**97.23**
(X-$\bar{x}$)	(1.62)	7.69	4.42	(1.44)	(9.07)	**-**
(X-$\bar{x}$)^2	2.6115	59.1976	19.5718	2.0621	82.1924	**165.6353**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{97.23}{5}$ = 19.45

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{165.6353}{5-1}}$ = $\sqrt{41.4088}$ = 6.43

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{6.43}{19.45} \times 100\%$ = 33.09%

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Cash and bank bs	278.61	834.99	592.76	1139.57	631.80	
Current assets	3334.59	5049.85	6359.66	7774.84	9325.63	**Total**
Ratios (X)	8.36	16.53	9.32	14.66	6.77	**55.64**
(X-$\bar{x}$)	(2.77)	5.40	(1.81)	3.53	(4.36)	**-**
(X-$\bar{x}$)^2	7.6618	29.1816	3.2689	12.4750	18.9922	**71.5795**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{55.64}{5}$ = 11.13

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{71.5795}{5-1}}$ = $\sqrt{17.8949}$ = 4.23

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{4.23}{11.13} \times 100\%$ = 38.01%

Investment on government securities to current assets ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Investment on gov.sec	192.85	364.69	503.17	1189.39	1871.45	
Current assets	4992.66	7166.11	6787.45	7404.57	8327.17	**Total**
Ratios (X)	3.86	5.09	7.41	16.06	22.47	**54.89**
(X-$\bar{x}$)	(7.12)	(5.89)	(3.57)	5.08	11.49	**-**
(X-$\bar{x}$)^2	50.6659	34.6685	12.7306	25.8267	132.0661	**255.9579**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{54.89}{5}$ = 10.98

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{255.9579}{5-1}}$ = $\sqrt{63.9895}$ = 8

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{8}{10.98}$ × 100% = 72.87%

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Investment on gov.sec	257.61	823	1538.9	1537.3	2392.1	
Current assets	3334.59	5049.85	6359.66	7774.84	9325.63	**Total**
Ratios (X)	7.73	16.30	24.20	19.77	25.65	**93.65**
(X-$\bar{x}$)	(11.00)	(2.43)	5.47	1.04	6.92	**-**
(X-$\bar{x}$)^2	121.0000	5.9049	29.9209	1.0816	47.8864	**205.7938**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{93.65}{5}$ = 18.73

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{205.7938}{5-1}}$ = $\sqrt{51.4485}$ = 7.17

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{7.17}{18.73}$ × 100% = 38.3 %

Loan and advance current assets ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Loan and advance	3559.41	4188.41	4299.25	4468.72	5143.66	
Current assets	4992.66	7166.11	6787.45	7404.57	8327.17	**Total**
Ratios (X)	71.29	58.45	63.34	60.35	61.77	**315.20**
(X-$\bar{x}$)	8.25	(4.59)	0.30	(2.69)	(1.27)	**0.00**
(X-$\bar{x}$)^2	68.0625	21.0681	0.0900	7.2361	1.6129	**98.0696**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{315.20}{5}$ = 63.04

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{98.0696}{5-1}}$ = $\sqrt{24.5174}$ = 4.95

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{4.95}{63.04}$ × 100% = 7.85 %

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Loan and advance	2270.18	3005.76	3948.48	4908.46	5884.12	
Current assets	3334.59	5049.85	6359.66	7774.84	9325.63	**Total**
Ratios (X)	68.08	59.62	62.09	63.13	63.10	**316.02**
(X-$\bar{x}$)	4.90	(3.66)	(1.09)	(0.05)	(0.08)	**(0.00)**
(X-$\bar{x}$)^2	23.7754	12.8451	1.2410	0.0055	0.0108	**37.8777**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{316.02}{5}$ = 63.20

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{37.8777}{5-1}}$ = $\sqrt{9.4694}$ = 3.08

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{3.08}{63.20}$ × 100% = 4.87%

Loan and advance to total deposit ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Loan and advance	3559.41	4188.41	4299.25	4468.72	5143.66	
Total deposit	4535.73	6612.29	5572.47	6522.82	7198.32	**Total**
Ratios (X)	78.47	63.34	77.15	68.51	71.46	**358.93**
(X-$\bar{x}$)	6.68	(8.45)	5.36	(3.28)	(0.33)	**-**
(X-$\bar{x}$)^2	44.6759	71.3349	28.7725	10.7322	0.1063	**155.6217**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{358.93}{5}$ = 71.79

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{155.6217}{5-1}}$ = $\sqrt{38.9054}$ = 6.24

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{6.24}{71.79}$ × 100% = 8.69 %

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Loan and advance	2270.18	3005.76	3948.48	4908.46	5884.12	
Total deposit	3057.42	4574.51	5466.61	6694.96	8063.90	**Total**
Ratios (X)	74.25	65.71	72.23	73.23	72.97	**358.39**
(X-$\bar{x}$)	2.57	(5.97)	0.55	1.55	1.29	**0.00**
(X-$\bar{x}$)^2	6.6152	35.6170	0.3047	2.4087	1.6693	**46.6149**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{358.39}{5}$ = 71.68

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{46.6149.}{5-1}}$ = $\sqrt{11.6537}$ = 3.41

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{3.41}{71.68}$ × 100% = 4.76%

Total investment to total deposit ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Total Investment	201.79	373.63	599.06	1207.28	1907.52	
Total deposit	4535.73	6612.29	5572.47	6522.82	7198.32	**Total**
Ratios (X)	4.45	5.65	10.75	18.51	26.50	**65.86**
(X-$\bar{x}$)	(8.72)	(7.52)	(2.42)	5.34	13.33	**-**
(X-$\bar{x}$)^2	76.0733	56.5805	5.8661	28.4942	177.6356	**344.6497**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{65.86}{5}$ = 13.17

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{344.6497}{5-1}}$ = $\sqrt{86.1624}$ = 9.28

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{9.28}{13.17}$ × 100% = 70.47%

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Total Investment	260.11	901.72	1657.87	1653.98	2535.66	
Total deposit	3057.42	4574.51	5466.61	6694.96	8063.90	**Total**
Ratios (X)	8.51	19.71	30.33	24.70	31.44	**114.69**
(X-$\bar{x}$)	(14.43)	(3.23)	7.39	1.76	8.50	**-**
(X-$\bar{x}$)^2	208.1672	10.4200	54.6417	3.1046	72.2840	**348.6175**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{114.69}{5}$ = 22.94

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{348.6175}{5-1}}$ = $\sqrt{87.1544}$ = 9.34

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{9.34}{22.94}$ × 100% = 40.70 %

Loan and advance to total working fund ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Loan and advance	3559.41	4188.41	4299.25	4468.72	5143.66	
Total working fund	5106.57	7284.79	7021.14	7566.33	8440.40	**Total**
Ratios (X)	69.70	57.50	61.23	59.06	60.94	**308.43**
(X-$\bar{x}$)	8.01	(4.19)	(0.46)	(2.63)	(0.75)	**-**
(X-$\bar{x}$)^2	64.2242	17.5226	0.2079	6.8959	0.5565	**89.4071**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{308.43}{5}$ = 61.69

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{89.4071}{5-1}}$ = $\sqrt{22.3518}$ = 4.73

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{4.73}{61.69} \times 100\%$ = 7.66 %

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Loan and advance	2270.18	3005.76	3948.48	4908.46	5884.12	
Total working fund	3411.7	5202.58	6607.18	8052.21	9608.57	**Total**
Ratios (X)	66.54	57.77	59.76	60.96	61.24	**306.27**
(X-$\bar{x}$)	5.29	(3.48)	(1.49)	(0.29)	(0.01)	**0.00**
(X-$\bar{x}$)^2	27.9418	12.1383	2.2320	0.0864	0.0002	**42.3987**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{306.27}{5}$ = 61.25

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{42.3987}{5-1}}$ = $\sqrt{10.5779}$ = 3.26

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{3.26}{61.25} \times 100\%$ = 5.32 %

Investment on govt. securities to total working fund ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Investment on gov.sec	192.85	364.69	503.17	1189.39	1871.45	
Total working fund	5106.57	7284.79	7021.14	7566.33	8440.40	**Total**
Ratios (X)	3.78	5.01	7.17	15.72	22.17	**53.85**
$(X-\bar{x})$	(6.99)	(5.76)	(3.60)	4.95	11.40	**-**
$(X-\bar{x})^2$	48.8601	33.1776	12.9600	24.5025	129.9600	**249.4602**

Mean $(\bar{x})$ = $\sum \frac{X}{n}$ = $\sum \frac{53.85}{5}$ = 10.77

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{249.4602}{5-1}}$ = $\sqrt{62.3651}$ = 7.90

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{7.90}{10.77} \times 100\%$ = 73.33%

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Investment on gov.sec	257.61	823	1538.9	1537.3	2392.1	
Total working fund	3411.7	5202.58	6607.18	8052.21	9608.57	**Total**
Ratios (X)	7.55	15.82	23.29	19.09	24.90	**90.65**
$(X-\bar{x})$	(10.58)	(2.31)	5.16	0.96	6.77	**(0.00)**
$(X-\bar{x})^2$	111.9364	5.3361	26.6256	0.9216	45.8329	**190.6526**

Mean $(\bar{x})$ = $\sum \frac{X}{n}$ = $\sum \frac{90.65}{5}$ = 18.13

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{190.6526}{5-1}}$ = $\sqrt{47.6632}$ = 6.90

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{6.90}{18.30} \times 100\%$ = 38.08%

Investment on share and debenture to total working fund ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Inv.on share and debenture	8.94	8.94	17.89	17.89	17.89	
Total working fund	5106.57	7284.79	7021.14	7566.33	8440.40	**Total**
Ratios (X)	0.18	0.12	0.25	0.24	0.21	**1.00**
(X-$\bar{x}$)	(0.02)	(0.08)	0.05	0.04	0.01	**(0.00)**
(X-$\bar{x}$)^2	0.0004	0.0064	0.0025	0.0016	0.0001	**0.0110**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{1}{5}$ = 0.20

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{0.011}{5-1}}$ = $\sqrt{0.0028}$ = 0.05

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{0.05}{0.20}$ × 100% = 26.22%

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Inv.on share and debenture	2.5	3.7	17.11	17.11	17.11	
Total working fund	3411.7	5202.58	6607.18	8052.21	9608.57	**Total**
Ratios (X)	0.07	0.07	0.26	0.21	0.18	**0.79**
(X-$\bar{x}$)	(0.09)	(0.09)	0.10	0.05	0.02	**-**
(X-$\bar{x}$)^2	0.0077	0.0077	0.0104	0.0027	0.0005	**0.0291**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{0.79}{5}$ = 0.16

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{0.0291}{5-1}}$ = $\sqrt{0.0073}$ = 0.09

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{0.09}{0.16}$ × 100% = 53.96%

Return to total working fund ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Net profit	50.07	12.51	40.85	48.75	60.85	
Total working fund	5106.57	7284.79	7021.14	7566.33	8440.40	**Total**
Ratios (X)	0.98	0.17	0.58	0.64	0.72	**3.09**
(X-$\bar{x}$)	0.36	(0.45)	(0.04)	0.02	0.10	**-**
(X-$\bar{x}$)^2	0.1310	0.2007	0.0014	0.0005	0.0104	**0.3441**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{3.09}{5}$ = 0.62

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{0.3441}{5-1}}$ = $\sqrt{0.0860}$ = 0.29

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{0.29}{0.62}$ × 100%= 47.46%

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Net profit	41.27	69.7	85.33	94.18	143.57	
Total working fund	3411.7	5202.58	6607.18	8052.21	9608.57	**Total**
Ratios (X)	1.21	1.34	1.29	1.17	1.49	**6.50**
(X-$\bar{x}$)	(0.09)	0.04	(0.01)	(0.13)	0.19	**(0.00)**
(X-$\bar{x}$)^2	0.0081	0.0016	0.0001	0.0169	0.0361	**0.0628**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{6.50}{5}$ = 1.30

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{0.0628}{5-1}}$ = $\sqrt{0.0157}$ = 0.13

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{0.13}{1.30}$ × 100% = 9.64%

Total interest earned to total outside assets ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Total interest earned	437.32	444.56	399.63	469.74	493.60	
Total outside assets	3761.2	4562.05	4898.31	5675.99	7051.18	**Total**
Ratios (X)	11.63	9.74	8.16	8.28	7.00	**44.81**
(X-$\bar{x}$)	2.67	0.78	(0.80)	(0.68)	(1.96)	**0.00**
(X-$\bar{x}$)^2	7.1182	0.6053	0.6432	0.4651	3.8494	**12.6813**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{44.81}{5}$ = 8.96

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{12.6813}{5-1}}$ = $\sqrt{3.1703}$ = 1.78

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{1.78}{8.96}$ × 100% = 19.87%

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Total interest earned	267.44	385.02	443.82	520.17	657.25	
Total outside assets	2530.29	3907.48	5606.35	6562.44	8419.78	**Total**
Ratios (X)	10.57	9.85	7.92	7.93	7.81	**44.08**
(X-$\bar{x}$)	1.75	1.03	(0.90)	(0.89)	(1.01)	**(0.00)**
(X-$\bar{x}$)^2	3.0765	1.0692	0.8028	0.7850	1.0120	**6.7455**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{44.08}{5}$ = 8.82

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{6.7455}{5-1}}$ = $\sqrt{1.6864}$ = 1.30

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{1.30}{8.82}$ × 100% = 14.73%

Return on loan and advance ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Net profit	50.07	12.51	40.85	48.75	60.85	
Loan and advance	3559.41	4188.41	4299.25	4468.72	5143.66	**Total**
Ratios (X)	1.41	0.30	0.95	1.09	1.18	**4.93**
(X-$\bar{x}$)	0.42	(0.69)	(0.04)	0.10	0.19	**-**
(X-$\bar{x}$)^2	0.1798	0.4706	0.0013	0.0108	0.0376	**0.7001**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{4.93}{5}$ = 0.99

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{0.7001}{5-1}}$ = $\sqrt{.1750}$ = 0.42

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{0.42}{0.99}$ × 100% = 42.43%

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Net profit	41.27	69.7	85.33	94.18	143.57	
Loan and advance	2270.18	3005.76	3948.48	4908.46	5884.12	**Total**
Ratios (X)	1.82	2.32	2.16	1.92	2.44	**10.66**
(X-$\bar{x}$)	(0.31)	0.19	0.03	(0.21)	0.31	**0.00**
(X-$\bar{x}$)^2	0.0973	0.0353	0.0008	0.0449	0.0949	**0.2733**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{10.66}{5}$ = 2.13

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{0.2733}{5-1}}$ = $\sqrt{0.0683}$ = 0.26

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{0.26}{2.13}$ × 100% = 12.26%

Total interest earned to total working fund ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Total interest earned	437.32	444.56	399.63	469.74	493.60	
Total working fund	5106.57	7284.79	7021.14	7566.33	8440.40	**Total**
Ratios (X)	8.56	6.10	5.69	6.21	5.85	**32.41**
(X-$\bar{x}$)	2.08	(0.38)	(0.79)	(0.27)	(0.63)	**(0.00)**
(X-$\bar{x}$)^2	4.3181	0.1459	0.6273	0.0740	0.3994	**5.5647**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{32.41}{5}$ = 6.48

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{5.5647}{5-1}}$ = $\sqrt{1.3912}$ = 1.18

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{1.18}{6.48}$ × 100% = 18.20%

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Total interest earned	267.44	385.02	443.82	520.17	657.25	
Total working fund	3411.7	5202.58	6607.18	8052.21	9608.57	**Total**
Ratios (X)	7.84	7.40	6.72	6.46	6.84	**35.26**
(X-$\bar{x}$)	0.79	0.35	(0.33)	(0.59)	(0.21)	**(0.00)**
(X-$\bar{x}$)^2	0.6209	0.1211	0.1102	0.3505	0.0449	**1.2477**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{35.26}{5}$ = 7.05

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{1.2477}{5-1}}$ = $\sqrt{0.3119}$ = 0.56

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{0.56}{7.05}$ × 100% = 7.92%

Total interest paid to total working fund ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Total interest paid	281.66	271.8	288.58	291.82	255.92	
Total working fund	5106.57	7284.79	7021.14	7566.33	8440.40	**Total**
Ratios (X)	5.52	3.73	4.11	3.86	3.03	**20.25**
(X-$\bar{x}$)	1.47	(0.32)	0.06	(0.19)	(1.02)	**-**
(X-$\bar{x}$)^2	2.1609	0.1024	0.0036	0.0361	1.0404	**3.3434**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{20.25}{5}$ = 4.05

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{3.3434.}{5-1}}$ = $\sqrt{0.8359}$ = 0.91

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{0.91}{4.05}$ × 100% = 22.57%

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Total interest paid	177.89	236.14	257.05	307.64	316.37	
Total working fund	3411.7	5202.58	6607.18	8052.21	9608.57	**Total**
Ratios (X)	5.21	4.54	3.89	3.82	3.29	**20.75**
(X-$\bar{x}$)	1.06	0.39	(0.26)	(0.33)	(0.86)	**(0.00)**
(X-$\bar{x}$)^2	1.1236	0.1521	0.0676	0.1089	0.7396	**2.1918**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{20.75}{5}$ = 4.15

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{2.1918}{5-1}}$ = $\sqrt{0.548}$ = 0.74

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{0.74}{4.15}$ × 100% = 17.84%

Credit risk ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Loan and advance	3559.41	4188.41	4299.25	4468.72	5143.66	
Total assets	5106.57	7284.79	7021.14	7566.33	8440.40	**Total**
Ratios (X)	69.70	57.50	61.23	59.06	60.94	**308.43**
(X-$\bar{x}$)	8.01	(4.19)	(0.46)	(2.63)	(0.75)	**-**
(X-$\bar{x}$)^2	64.2242	17.5226	0.2079	6.8959	0.5565	**89.4071**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{308.43}{5}$ = 61.69

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{89.4071}{5-1}}$ = $\sqrt{22.3518}$ = 4.73

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{4.73}{61.69}$ × 100% = 7.66%

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Loan and advance	2270.18	3005.76	3948.48	4908.46	5884.12	
Total assets	3411.7	5202.58	6607.18	8052.21	9608.57	**Total**
Ratios (X)	66.54	57.77	59.76	60.96	61.24	**306.27**
(X-$\bar{x}$)	5.29	(3.48)	(1.49)	(0.29)	(0.01)	**0.00**
(X-$\bar{x}$)^2	27.9418	12.1383	2.2320	0.0864	0.0002	**42.3987**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{306.27}{5}$ = 61.25

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{42.3987}{5-1}}$ = $\sqrt{10.5997}$ = 3.26

C.V. = $\frac{\delta}{\bar{x}}$ × 100% = $\frac{3.26}{61.25}$ × 100% = 5.23%

Capital risk ratio

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Share capital	119.95	143.94	424.89	425.16	426.87	
Risk weight assets	3559.41	4188.41	4299.25	4468.72	5143.66	**Total**
Ratios (X)	3.37	3.44	9.88	9.51	8.30	**34.50**
(X-$\bar{x}$)	(3.53)	(3.46)	2.98	2.61	1.40	**-**
(X-$\bar{x}$)^2	12.4609	11.9716	8.8804	6.8121	1.9600	**42.0850**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{34.50}{5}$ = 6.90

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{42.085}{5-1}}$ = $\sqrt{10.5213}$ = 3.24

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{3.24}{6.90} \times 100\%$ = 47.01%

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	
Share capital	118.42	220.86	259.32	315.00	315.00	
Risk weight assets	2270.18	3005.76	3948.48	4908.46	5884.12	**Total**
Ratios (X)	5.22	7.35	6.57	6.42	5.35	**30.91**
(X-$\bar{x}$)	(0.96)	1.17	0.39	0.24	(0.83)	**(0.00)**
(X-$\bar{x}$)^2	0.9254	1.3642	0.1505	0.0566	0.6922	**3.1891**

Mean ($\bar{x}$) = $\sum \frac{X}{n}$ = $\sum \frac{30.91}{5}$ = 6.18

S.D.(δ) = $\sqrt{\frac{\sum(x-\bar{X})^2}{n-1}}$ = $\sqrt{\frac{3.1819}{5-1}}$ = $\sqrt{0.7973}$ = 0.89

C.V. = $\frac{\delta}{\bar{x}} \times 100\%$ = $\frac{0.89}{6.18} \times 100\%$ = 14.44%

Appendix – B: Calculation of Growth Rate

Calculation of Growth Rate of Total Deposit for NIBL		**Calculation of Growth Rate of Total Deposit for NABIL**	
D_n = total deposit in the nth year		D_n = total deposit in the nth year	
D_o = total deposit in the initial year.		D_o = total deposit in the initial year.	
g = growth rate		g = growth rate	
n = 5		n = 5	
Now, we have		Now, we have	
D_n	$= D_o (1+g)^{n-1}$	D_n	$= D_o (1+g)^{n-1}$
or, $D_{09/10}$	$= D_{05/06} (1+g)^{5-1}$	or, $D_{09/10}$	$= D_{05/06} (1+g)^{5-1}$
or, 7198.321	$= 4535.73 (1+g)^{5-1}$	or, 8063.9	$= 3057.42(1+g)^{5-1}$
or, $(1+g)^4$	$= 7198.321/4535.75$	or, $(1+g)^4$	$= 8063.9/3057.42$
or, 1+g	$= (1.587)^{1/4}$	or, 1+g	$= (2.637)^{1/4}$
or, 1+g	= 1.1223	or, 1+g	= 1.2743
or, g	= 1.1223 - 1	or, g	= 1.2743 - 1
or, g	= 0.1223 × 100%	or, g	= 0.2743 × 100%
∴ g	= 12.23%	∴ g	= 27.43%

Calculation of Growth Rate of Investment for NIBL		**Calculation of Growth Rate of Investment for NABIL**	
D_n = total investment in the nth year		D_n = total investment in the nth year	
D_o = total investment in the initial year.		D_o = total investment in the initial year.	
g = growth rate		g = growth rate	
n = 5		n = 5	
Now, we have		Now, we have	
D_n	$= D_o (1+g)^{n-1}$	D_n	$= D_o (1+g)^{n-1}$
or, $D_{09/10}$	$= D_{05/06} (1+g)^{5-1}$	or, $D_{09/10}$	$= D_{05/06} (1+g)^{5-1}$
or, 1907.52	$= 201.79 (1+g)^{5-1}$	or, 2535.66	$= 260.11(1+g)^{5-1}$
or, $(1+g)^4$	$= 1907.52/201.79$	or, $(1+g)^4$	$= 2535.66/260.11.42$
or, 1+g	$= (9.453)^{1/4}$	or, 1+g	$= (9.748)^{1/4}$
or, 1+g	= 1.7534	or, 1+g	= 1.7669
or, g	= 1.7534 - 1	or, g	= 1.7669 - 1
or, g	= 0.7534 × 100%	or, g	= 0.7669 × 100%
∴ g	= 75.34%	∴ g	= 76.69%

Calculation of Growth Rate of Loan and Advance for NIBL	**Calculation of Growth Rate of Loan and Advance for NABIL**
D_n = total loan and advance in the nth year	D_n = total loan and advance in the nth year
D_o = total loan and advance in the initial year.	D_o = total loan and advance in the initial year.
g = growth rate	g = growth rate
n = 5	n = 5
Now, we have	Now, we have
$D_n = D_o (1+g)^{n-1}$	$D_n = D_o (1+g)^{n-1}$
or, $D_{09/10} = D_{05/06} (1+g)^{5-1}$	or, $D_{09/10} = D_{05/06} (1+g)^{5-1}$
or, $5143.66 = 3559.41 (1+g)^{5-1}$	or, $5884.12 = 2270.18(1+g)^{5-1}$
or, $(1+g)^4 = 5143.66/3559.41$	or, $(1+g)^4 = 5884.12/2270.18$
or, $1+g = (1.445)^{1/4}$	or, $1+g = (2.591)^{1/4}$
or, 1+g = 1.0964	or, 1+g = 1.2688
or, g = 1.0964 - 1	or, g = 1.2688 - 1
or, g = 0.0964 × 100%	or, g = 0.2688 × 100%
∴ g = 9.64%	∴ g = 26.88%

Calculation of Growth Rate of Net Profit for NIBL	**Calculation of Growth Rate of Net Profit for NABIL**
D_n = total net profit in the nth year	D_n = total net profit in the nth year
D_o = total net profit in the initial year.	D_o = total net profit in the initial year.
g = growth rate	g = growth rate
n = 5	n = 5
Now, we have	Now, we have
$D_n = D_o (1+g)^{n-1}$	$D_n = D_o (1+g)^{n-1}$
or, $D_{09/10} = D_{05/06} (1+g)^{5-1}$	or, $D_{09/10} = D_{05/06} (1+g)^{5-1}$
or, $143.57 = 41.27 (1+g)^{5-1}$	or, $60.85 = 50.07(1+g)^{5-1}$
or, $(1+g)^4 = 143.57/41.27$	or, $(1+g)^4 = 60.85/50.07$
or, $1+g = (3.478)^{1/4}$	or, $1+g = (1.215)^{1/4}$
or, 1+g = 1.3656	or, 1+g = 1.0499
or, g = 1.3656 - 1	or, g = 1.0499 - 1
or, g = 0.3656 × 100%	or, g = 0.0499 × 100%
∴ g = 36.56%	∴ g = 4.99%

Appendix –C: Calculation of Correlations and Testing of Hypothesis
For Table 4.22

NIBL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	Total
Investment **(X)**	201.79	373.63	599.06	1207.28	1907.52	**4289.28**
Deposit **(Y)**	4535.73	6612.29	5572.47	6522.82	7198.32	**30441.63**
X^2	40719.2041	139599.3769	358872.8836	1457524.998	3638632.55	**5635349.013**
Y^2	20572846.63	43722379.04	31052421.9	42547180.75	51815810.82	**189710639.2**
XY	915264.9567	2470549.913	3338243.878	7874870.13	13730939.37	**28329868.24**

$$\rho = \frac{n\sum XY - \sum X \times \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2}\sqrt{n\sum Y^2 - (\sum Y)^2}} = \frac{5 \times 28329868.24 - 4289.28 \times 30441.63}{\sqrt{5 \times 5635349.013 - 4289.28^2}\sqrt{5 \times 189710639.2 - 30441.63^2}} = 0.758$$

Null Hypothesis (H_0) : $\rho = 0$ i.e. variables are not correlated.
Alternative Hypothesis (H_1) : $\rho \neq 0$ i.e. variables are correlated.
Test Statistics: $t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.758}{\sqrt{1-0.758^2}} \times \sqrt{5-2} = 2.01$
Level of Significance: 5%
Degree of Freedom: n-2 = 5-2 =3
Critical Value: $t_{tab\ @5\%,\ 3d.f.} = 3.82$
Decision: Since calculated value of t is smaller than tabulated value of t. Thus null hypothesis is accepted. That is variables are uncorrelated

NABIL BANK

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	Total
Investment **(X)**	260.11	901.72	1657.87	1653.98	2535.66	**7009.34**
Deposit **(Y)**	3057.42	4574.51	5466.61	6694.96	8063.9	**27857.4**
X^2	67657.2121	813098.9584	2748532.937	2735649.84	6429571.636	**12794510.58**
Y^2	9347817.056	20926141.74	29883824.89	44822489.4	65026483.21	**170006756.3**
XY	795265.5162	4124927.157	9062928.721	11073329.94	20447308.67	**45503760.01**

$$\rho = \frac{n\sum XY - \sum X \times \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2}\sqrt{n\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 45503760.01 - 7009.34 \times 27857.4}{\sqrt{5 \times 12794510.68 - 7009.34^2}\sqrt{5 \times 170006756.3 - 27857.4^2}} = 0.973$$

Null Hypothesis (H_0) : $\rho = 0$ i.e. variables are not correlated.
Alternative Hypothesis (H_1) : $\rho \neq 0$ i.e. variables are correlated.
Test Statistics: $t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.973}{\sqrt{1-0.973^2}} \times \sqrt{5-2} = 7.03$
Level of Significance: 5%
Degree of Freedom: n-2 = 5-2 =3
Critical Value: $t_{tab\ @5\%,\ 3d.f.} = 3.82$
Decision: Since calculated value of t is greater than tabulated value of t. Thus null hypothesis is rejected. That is variables are correlated.

For Table 4.23

For NIBL

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	Total
Deposit **(X)**	4535.73	6612.29	5572.47	6522.82	7198.32	**30441.63**
Loan **(Y)**	3559.41	4188.41	4299.25	4468.72	5143.66	**21659.45**
X^2	20572846.63	43722379.04	31052421.9	42547180.75	51815810.82	**189710639.2**
Y^2	12669399.55	17542778.33	18483550.56	19969458.44	26457238.2	**95122425.07**
XY	16144522.72	27694981.56	23957441.65	29148656.19	37025710.65	**133971312.8**

$$\rho = \frac{n\sum XY - \sum X \times \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2}\sqrt{n\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 133971312.8 - 30441.63 \times 21659.45}{\sqrt{5 \times 189710639.2 - 30441.63^2}\sqrt{5 \times 95122425.07 - 21659.45^2}} = 0.883$$

Null Hypothesis (H_0) : $\rho = 0$ i.e. variables are not correlated.
Alternative Hypothesis (H_1) : $\rho \neq 0$ i.e. variables are correlated.
Test Statistics: $t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.883}{\sqrt{1-0.883^2}} \times \sqrt{5-2} = 3.26$
Level of Significance: 5%
Degree of Freedom: n-2 = 5-2 =3
Critical Value: $t_{tab\ @5\%,\ 3d.f.} = 3.82$
Decision: Since calculated value of t is smaller than tabulated value of t. Thus null hypothesis is accepted. That is variables are uncorrelated.

For NABIL

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	Total
Deposit **(X)**	3057.42	4574.51	5466.61	6694.96	8063.9	**27857.4**
Loan **(Y)**	2270.18	3005.76	3948.48	4908.46	5884.12	**20017**
X^2	9347817.056	20926141.74	29883824.89	44822489.4	65026483.21	**170006756.3**
Y^2	5153717.232	9034593.178	15590494.31	24092979.57	34622868.17	**88494652.47**
XY	6940893.736	13749879.18	21584800.25	32861943.36	47448955.27	**122586471.8**

$$\rho = \frac{n\sum XY - \sum X \times \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2}\sqrt{n\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 122586471.8 - 27857.4 \times 20017}{\sqrt{5 \times 170006756.3 - 27857.4^2}\sqrt{5 \times 88494652.47 - 20017^2}} = 0.995$$

Null Hypothesis (H_0) : $\rho = 0$ i.e. variables are not correlated.
Alternative Hypothesis (H_1) : $\rho \neq 0$ i.e. variables are correlated.
Test Statistics: $t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.995}{\sqrt{1-0.995^2}} \times \sqrt{5-2} = 17.25$
Level of Significance: 5%
Degree of Freedom: n-2 = 5-2 =3
Critical Value: $t_{tab\ @5\%,\ 3d.f.} = 3.82$
Decision: Since calculated value of t is greater than tabulated value of t. Thus null hypothesis is rejected. That is variables are correlated.

For Table 4.24

For NIBL

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	Total
Outside Assets **(X)**	3761.2	4562.05	4898.31	5675.99	7051.18	**25948.73**
Net Profit **(Y)**	50.07	12.51	40.85	48.75	60.85	**213.03**
X^2	14146625.44	20812300.2	23993440.86	32216862.48	49719139.39	**140888368.4**
Y^2	2507.0049	156.5001	1668.7225	2376.5625	3702.7225	**10411.5125**
XY	188323.284	57071.2455	200095.9635	276704.5125	429064.303	**1151259.309**

$$\rho = \frac{n\sum XY - \sum X \times \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2}\sqrt{n\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 1151259.309 - 25948.73 \times 213.03}{\sqrt{5 \times 140888368.4 - 25948.73^2}\sqrt{5 \times 10411.5125 - 213.03^2}} = 0.501$$

Null Hypothesis (H_0) : $\rho = 0$ i.e. variables are not correlated.
Alternative Hypothesis (H_1) : $\rho \neq 0$ i.e. variables are correlated.
Test Statistics: $t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.501}{\sqrt{1-0.501^2}} \times \sqrt{5-2} = 1.003$
Level of Significance: 5%
Degree of Freedom: n-2 = 5-2 =3
Critical Value: $t_{tab\ @5\%,\ 3d.f.} = 3.82$
Decision: Since calculated value of t is smaller than tabulated value of t. Thus null hypothesis is accepted. That is variables are uncorrelated.

For NABIL

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	Total
Outside Assets **(X)**	2530.29	3907.48	5606.35	6562.44	8419.78	**27026.34**
Net Profit **(Y)**	41.27	69.7	85.33	94.18	143.57	**434.05**
X^2	6402367.484	15268399.95	31431160.32	43065618.75	70892695.25	**167060241.8**
Y^2	1703.2129	4858.09	7281.2089	8869.8724	20612.3449	**43324.7291**
XY	104425.0683	272351.356	478389.8455	618050.5992	1208827.815	**2682044.684**

$$\rho = \frac{n\sum XY - \sum X \times \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2}\sqrt{n\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 2682044.684 - 27026.34 \times 434.05}{\sqrt{5 \times 167060241.8 - 27026.34^2}\sqrt{5 \times 43324.7291 - 434.05^2}} = 0.976$$

Null Hypothesis (H_0) : $\rho = 0$ i.e. variables are not correlated.
Alternative Hypothesis (H_1) : $\rho \neq 0$ i.e. variables are correlated.
Test Statistics: $t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.976}{\sqrt{1-0.976^2}} \times \sqrt{5-2} = 7.76$
Level of Significance: 5%
Degree of Freedom: n-2 = 5-2 =3
Critical Value: $t_{tab\ @5\%,\ 3d.f.} = 3.82$
Decision: Since calculated value of t is greater than tabulated value of t. Thus null hypothesis is rejected. That is variables are correlated.

For Table 4.25

For NIBL

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	Total
Loan **(X)**	3559.41	4188.41	4299.25	4468.72	5143.66	**21659.45**
Net Profit **(Y)**	50.07	12.51	40.85	48.75	60.85	**213.03**
X^2	12669399.55	17542778.33	18483550.56	19969458.44	26457238.2	**95122425.07**
Y^2	2507.0049	156.5001	1668.7225	2376.5625	3702.7225	**10411.5125**
XY	178219.6587	52397.0091	175624.3625	217850.1	312991.711	**937082.8413**

$$\rho = \frac{n\sum XY - \sum X \times \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2}\sqrt{n\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 937082.8413 - 21659.45 \times 213.03}{\sqrt{5 \times 95122425.07 - 21659.45^2}\sqrt{5 \times 10411.5125 - 213.03^2}} = 0.343$$

Null Hypothesis (H_0) : $\rho = 0$ i.e. variables are not correlated.
Alternative Hypothesis (H_1) : $\rho \neq 0$ i.e. variables are correlated.
Test Statistics: $t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.343}{\sqrt{1-0.343^2}} \times \sqrt{5-2} = 0.6325$
Level of Significance: 5%
Degree of Freedom: n-2 = 5-2 =3
Critical Value: $t_{tab\ @5\%,\ 3d.f.} = 3.82$
Decision: Since calculated value of t is smaller than tabulated value of t. Thus null hypothesis is accepted. That is variables are uncorrelated.

For NABIL

Rs. in million

Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12	Total
Loan **(X)**	2270.18	3005.76	3948.48	4908.46	5884.12	20017
Net Profit **(Y)**	41.27	69.7	85.33	94.18	143.57	434.05
X^2	5153717.232	9034593.178	15590494.31	24092979.57	34622868.17	88494652.47
Y^2	1703.2129	4858.09	7281.2089	8869.8724	20612.3449	43324.7291
XY	93690.3286	209501.472	336923.7984	462278.7628	844783.1084	1947177.47

$$\rho = \frac{n\sum XY - \sum X \times \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2}\sqrt{n\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 1947177.47 - 20017 \times 434.05}{\sqrt{5 \times 88494652.47 - 20017^2}\sqrt{5 \times 43324.7291 - 434.05^2}} = 0.964$$

Null Hypothesis (H_0) : $\rho = 0$ i.e. variables are not correlated.
Alternative Hypothesis (H_1) : $\rho \neq 0$ i.e. variables are correlated.
Test Statistics: $t_{cal} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.964}{\sqrt{1-0.964^2}} \times \sqrt{5-2} = 6.28$
Level of Significance: 5%
Degree of Freedom: n-2 = 5-2 =3
Critical Value: $t_{tab\ @5\%,\ 3d.f.} = 3.82$
Decision: Since calculated value of t is greater than tabulated value of t. Thus null hypothesis is rejected. That is variables are correlated.

Appendix -D

(i) Calculation of the Trend of Total Deposit of NIBL Bank

(Rs. in Millions)

Year (X)	Total Deposit (Y)	X= (X-2009/10)	X^2	XY	Y = a+ bx
2007/08	4535.73	-2	4	-9071.46	5041.184
2008/09	6612.29	-1	1	-6612.29	5564.755
2009/10	5572.47	0	0	0	6088.326
2010/11	6522.82	1	1	6522.82	6611.897
2011/12	7198.32	2	4	14396.64	7135.468
Total	∑Y=**30441.63**	∑X=0	$X^{2=}10$	∑XY=**5235.71**	

Calculation of a, b value

We know,

The straight line trend is given by the following formula:

$Y = a + bx$……..(i)

Where,

Y = Values of total deposit

a = Total deposit

b= Rate of change of total deposit

X = Year

$$a = \frac{\Sigma y}{n} \qquad b = \frac{\Sigma xy}{\Sigma x^2}$$

$$a = \frac{30441.63}{5}$$

$a = 6088.326$

$$b = \frac{5235.71}{10}$$

$b = 523.571,$

Put the value of a and b in equation (i)

If x = 2012/13

Then, $y = 6088.326+523.571\times3$

$= 7659.039$

Similarly,

If X = 2013/14

Then, $Y = 6088.326+523.571\times4$

$= 8182.61$

(ii) Calculation of the Trend of Total Deposits of NABIL Bank

(Rs. in Millions)

Year (X)	Total Deposit (Y)	X= (X-2009/10)	X^2	XY	Y = a+ bx
2007/08	3057.43	-2	4	-6114.86	3144.804
2008/09	4574.51	-1	1	-4574.51	4358.143
2009/10	5466.61	0	0	0	5571.482
2010/11	6694.96	1	1	6694.96	6784.821
2011/12	8063.9	2	4	16127.8	7998.16
Total	∑Y=**27857.41**	∑X=0	$\sum X^{2=}10$	∑XY=**12133.39**	9211.499

Calculation of a, b value

We know,

The straight line trend is given by the following formula:

$Y = a + bx$……..(i)

Where,

Y = Values of total deposit

a = Total deposit

b= Rate of change of total deposit

X = Year

$$a = \frac{\Sigma y}{n} \qquad b = \frac{\Sigma xy}{\Sigma x^2}$$

$$a = \frac{27857.41}{5}$$

$a = 5571.482$

$$b = \frac{12133.39}{10}$$

$b = 1213.339,$

Put the value of a and b in equation (i)

If x = 2005/2006

Then, y = 5571.482+1213.339×3

= 9211.499

Similarly,

If X = 2006/2007

Then, Y = 5571.482+1213.339×4

= 10424.84

(iii) Calculation of Total Investment Trend of NIBL Bank

(Rs. in Millions)

Year (X)	Total Investment (Y)	X= (X-2009/10)	X^2	XY	Y = a+ bx
2007/08	201.79	-2	4	-403.58	8.834
2008/09	373.63	-1	1	-373.63	433.345
2009/10	599.06	0	0	0	857.856
2010/11	1207.28	1	1	1207.28	1282.367
2011/12	1907.52	2	4	3815.04	1706.878
Total	∑Y=**4289.28**	∑X=0	$\sum X^{2=}10$	∑XY=**4245.11**	2131.389

Calculation of a, b value

We know,

The straight line trend is given by the following formula:

$Y = a + bx$……..(i)

Where,

Y = Values of total Investment

a = Total Investment

b= Rate of change of total Investment

X = Year

$a = \frac{\Sigma y}{n}$ $b = \frac{\Sigma xy}{\Sigma x^2}$

$a = \frac{4289.28}{5}$

$a = 857.858$

$b = \frac{4245.11}{10}$

$b = 424.51,$

Put the value of a and b in equation (i)

If x = 2012/13

Then, $y = 857.858+424.51\times3$

$= 2131.389$

Similarly,

If X = 2013/14

Then, $Y = 857.858+424.51\times4$

$= 2555.90$

(iv) Calculation of Total Investment Trend of NABIL Bank

(Rs. in Millions)

Year (X)	Total Investment (Y)	X= (X-2009/10)	X^2	XY	Y = a+ bx
2007/08	260.11	-2	4	-520.22	341.196
2008/09	901.72	-1	1	-901.72	871.532
2009/10	1657.87	0	0	0	1401.868
2010/11	1653.98	1	1	1653.98	1932.204
2011/12	2535.66	2	4	5071.32	2462.54
Total	∑Y=**7009.34**	∑X=0	$\sum X^{2=}10$	∑XY=**5303.36**	2992.876

Calculation of a, b value

We know,

The straight line trend is given by the following formula:

$Y = a + bx$……..(i)

Where,

Y = Values of total Investment

a = Total Investment

b= Rate of change of total Investment

X = Year

$$a = \frac{\Sigma y}{n} \qquad b = \frac{\Sigma xy}{\Sigma x^2}$$

$$a = \frac{7009.34}{5}$$

$$a = 1401.868$$

$$b = \frac{5303.36}{10}$$

$$b = 530.336,$$

Put the value of a and b in equation (i)

If x = 2012/13

Then, y = 1401.868+530.336×3

= 2992.876

Similarly,

If X = 2013/14

Then, Y = 1401.868+530.336×4

= 3523.212

(v) Calculation of Loan and Advance Trend of NIBL Bank

(Rs. in Millions)

Year (X)	Total Loan and Advance (Y)	X= (X-2009/10)	X^2	XY	Y = a+ bx
2007/08	3559.41	-2	4	-7118.82	3642.128
2008/09	4188.41	-1	1	-4188.41	3987.009
2009/10	4299.25	0	0	0	4331.89
2010/11	4468.72	1	1	4468.72	4676.771
2011/12	5143.66	2	4	10287.32	5021.652
Total	∑Y=**21659.45**	∑X=0	∑$X^{2=}$10	∑XY=**3448.81**	5366.533

Calculation of a, b value

We know,

The straight line trend is given by the following formula:

$Y = a + bx$……..(i)

Where,

Y = Values of Loan and Advance

a = Total Loan and Advance

b= Rate of change of Loan and Advance

X = Year

$$a = \frac{\Sigma y}{n} \qquad b = \frac{\Sigma xy}{\Sigma x^2}$$

$$a = \frac{21659.45}{5}$$

$a = 4331.89$

$$b = \frac{3448.81}{10}$$

$b = 344.881,$

Put the value of a and b in equation (i)

If x = 2012/13

Then, $y = 4331.89+344.881\times3$

$= 5366.533$

Similarly,

If X = 2013/14

Then, $Y = 4331.89+344.881\times4$

$= 5711.414$

(vi) Calculation of Loan and Advance Trend of NABIL Bank

(Rs. in Millions)

Year (X)	Total Loan and Advance (Y)	X= (X-2009/10)	X^2	XY	Y = a+ bx
2007/08	2270.18	-2	4	-4540.36	2177.284
2008/09	3005.76	-1	1	-3005.76	3090.342
2009/10	3948.48	0	0	0	4003.4
2010/11	4908.46	1	1	4908.46	4916.458
2011/12	5884.12	2	4	11768.24	5829.516
Total	∑Y=**20017**	∑X=0	$\sum X^{2=}10$	∑XY=**9130.58**	6742.574

Calculation of a, b value

We know,

The straight line trend is given by the following formula:

$Y = a + bx$……..(i)

Where,

Y = Values of Loan and Advance

a = Total Loan and Advance

b= Rate of change of Loan and Advance

X = Year

$$a = \frac{\Sigma y}{n} \qquad b = \frac{\Sigma xy}{\Sigma x^2}$$

$$a = \frac{20017}{5}$$

$a = 4003.40$

$$b = \frac{9130.58}{10}$$

$b = 913.058,$

Put the value of a and b in equation (i)

If x = 2012/13

Then, $y = 4003.40+913.058\times3$

$= 6742.574$

Similarly,

If X = 2013/14

Then, $Y = 4003.40+913.058\times4$

$= 7655.632$

(vii) Calculation of Net Profit Trend of NIBL Bank

(Rs. in Millions)

Year (X)	Net Profit (Y)	X= (X-2009/10)	X^2	XY	Y = a+ bx
2007/08	50.07	-2	4	-100.14	31.046
2008/09	12.51	-1	1	-12.51	36.826
2009/10	40.85	0	0	0	42.606
2010/11	48.75	1	1	48.75	48.386
2011/12	60.85	2	4	121.7	54.166
Total	∑Y=**213.03**	∑X=0	$\sum X^{2=}10$	∑XY=**57.8**	59.946

Calculation of a, b value

We know,

The straight line trend is given by the following formula:

$Y = a + bx$……..(i)

Where,

Y = Values of Net Profit

a = Total Net Profit

b= Rate of change of Net Profit

X = Year

$$a = \frac{\Sigma y}{n} \qquad b = \frac{\Sigma xy}{\Sigma x^2}$$

$$a = \frac{213.03}{5}$$

$a = 42.606$

$$b = \frac{57.8}{10}$$

$b = 5.78,$

Put the value of a and b in equation (i)

If x = 2012/13

Then, $y = 42.606+5.78\times3$

$= 59.946$

Similarly,

If X = 2013/14

Then, $Y = 42.606+5.78\times4$

$= 65.726$

(viii) Calculation of Net Profit Trend of NABIL Bank

(Rs. in Millions)

Year (X)	Net Profit (Y)	X= (X-2009/10)	X^2	XY	Y = a+ bx
2007/08	41.27	-2	4	-82.54	40.994
2008/09	69.7	-1	1	-69.7	63.902
2009/10	85.33	0	0	0	86.81
2010/11	94.18	1	1	94.18	109.718
2011/12	143.57	2	4	287.14	132.626
Total	∑Y=**434.05**	∑X=0	$\sum X^{2=}10$	∑XY=**229.08**	155.534

Calculation of a, b value

We know,

The straight line trend is given by the following formula:

$Y = a + bx$……..(i)

Where,

Y = Values of Net Profit

a = Total Net Profit

b= Rate of change of Net Profit

X = Year

$$a = \frac{\Sigma y}{n} \qquad b = \frac{\Sigma xy}{\Sigma x^2}$$

$$a = \frac{434.05}{5}$$

$a = 86.81$

$$b = \frac{229.08}{10}$$

$b = 22.908,$

Put the value of a and b in equation (i)

If x = 2012/13

Then, $y = 86.81+22.908\times3$

$= 155.534$

Similarly,```````

If X = 2013/14

Then, $Y = 86.81+22.908\times4$

$= 178.442$