INVESTMENT POLICY
OF
COMMERCIAL BANKS IN NEPAL

(A Comparative Study between Nabil Bank Ltd., Nepal Investment Bank Ltd., Himalayan Bank Ltd. and Nepal SBI Bank Ltd.)

A Thesis

SUBMITTED BY

Kanchan Shrestha
Roll No.: 10/2063
T.U. Registration No: 7-2-463-6-2003

Post Graduate Campus
Biratnagar

SUBMITTED TO

OFFICE OF THE DEAN
FACULTY OF MANAGEMENT

In partial fulfillment of the requirements of the degree of Master of Business Studies [MBS]

Biratnagar
April, 2013

Tribhuvan University

Post Graduate Campus

Biratnagar, Nepal

Ref no: 021-441041, 44**1042**

RECOMMENDATION

This is to certify that the thesis

Submitted by:

Kanchan Shrestha

Entitled:

INVESTMENT POLICYOF

COMMERCIAL BANKS IN NEPAL

(A Comparative Study between Nabil Bank Ltd., Nepal Investment Bank Ltd .,Himalayan Bank Ltd. and Nepal SBI Bank Ltd.)

has been prepared as approved by this department in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.

……...	……	……
Dr.Keshav Prasad Gadtaula	***Prof.Dr.Yadav Raj Koirala***	***Ballav Prasad Poudel***
(Thesis supervisor	***(Head of Research Department)***	***(Reader & Campus Chief)***

Tribhuvan University

Post Graduate Campus

Biratnagar, Nepal

Ref no: 021-441041, 44**1042**

VIVA-VOCE SHEET

We have conducted the viva-voce examination of the thesis presented

By:

Kanchan Shrestha

Entitled:

INVESTMENT POLICY OF COMMERCIAL BANKS IN NEPAL:
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And found the thesis to be original work of the student and written according to the prescribe format of faculty of Management, Tribhuwan University. We recommend the thesis to be accepted as partial fulfillment for the
Degree of Master of Business Studies (M.B.S.)

Viva-voce Committee

Head, Research Department ……

Member (Thesis supervisor) ……

Member (External Expert) ……

Date:.....

DECLARATION

I hereby declare that the work reported in this thesis entitled *"Investment policy of Commercial Bank in Nepal: A comparative study between Nabil Bank Ltd., Nepal Investment Bank Ltd., Himalayan Bank Ltd. & Nepal SBI Bank Ltd."* Submitted to the Post Graduate Campus, Faculty of Management, Tribhuvan University is my original work completed in the form of partial fulfilment of the requirements for the Master of Business Studies (M.B.S.) under the supervision of Dr. Keshav Prasad Gadtaula, Lecturer, Faculty of Management, Tribhuvan University, Post Graduate Campus, Biratnagar.

……..

Kanchan Shrestha
Researcher
Roll No: 10/2063
T.U. Registration No: 7-2-463-6-2003
Post Graduate
Campus

ACKNOWLDGEMENT

This study mainly aims *"Investment policy of Commercial Bank in Nepal: A comparison between Nabil Bank, Nepal Investment Bank, Himalayan Bank & Nepal SBI Bank Ltd."* Different financial and statistical tools are used to measure the strength of the concerning bank. The analysis of bank in terms of liquidity ratio, assets management ration, profitability, risk and performance ration of the banks have also been analyzed.

I owe a deep gratitude to Dr. Keshav Prasad Gadtaula, Lecturer, Faculty of Management, Post Graduate Campus, Biratnagar, Tribhuvan University for his constant encouragement, patient guidance and valuable supervision at every stage of my work. This work would not have been materials in the present from without their incisive observation and intellectual direction in the course of completion.

I would like to express thanks to Prof. Dr. Yadav Raj Koirala, Head of Research Department, Post Graduate Campus, Biratnagar for the necessary guidance in the preparation of this thesis.

I would like to express thanks to all the library and administrative staffs of Post Graduate Campus, Biratnagar for the necessary help in the preparation of this thesis. I must not forget to thank my friends and colleagues for the regular inspiration and support.

I would like to extend my heart-felt gratitude to my family members. They always inspired me to complete my higher study and provided all the necessary logistic supports. The help of my friends are also unforgettable to me. There are other compatriots who have been supportive, directly or indirectly. I thank all of them for their valuable suggestions, continuous encouragement and help through the research work.

Kanchan Shrestha

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ABBREVIATION

ADBL	Agricultural Development Bank Limited
AGM	Annual General Meeting
ATM	Automatic Teller Machine
CB	Commercial Bank
F/Y	Fiscal Year
CENMAC	Central Management Committee
DBL	Dubai Bank Limited
EBIL	Emirates Bank International Limited
EBL	Everest Bank Limited
EPF	Employee Provident Fund
EPS	Earning Per Share
Govt.	Government
IPO	Initial Public Offering
JVB's	Joint Venture Banks
NIBL	Nepal Investment Bank Limited
NRB	Nepal Rastra Bank
NSBI	Nepal SBI Bank Limited
HBL	Himalayan Bank Limited
ROA	Return on Assets
ROE	Return on Equity
S.D.	Standard Deviation
C.V	Coefficient of Variation
e.g.	Example

CHAPTER I
INTRODUCTION

1.1 Background of the Study

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

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

Commercial Banks are those banks who pool together the saving of the community and arrange for their productive due. They supply the financial needs of modern business by various means. They accept deposit from the public on the condition that they are repayable on demand or on short notice. Commercial Banks are

restricted to invest their funds in corporate securities. Their business is confined to financing the short term needs of the trade and industry such as working capital, financing. They can't finance in fixed assets. They grant loans in form of cash credit and overdrafts. Apart from financing, they also render services like collection of bills and cheques, safe keeping of valuables financing advising etc to their customers.

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

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

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

An investment policy has played very important role in the development of the organization. Investment is the implementation of financial management decisions,

which is basically to operate in the financial sector. Investment always involves a certain amount of risk that is there is the chance that an investment will yield not a profit but a loss. A good investment policy attracts both the borrowers and lenders which help to increase the volume and quality of the deposits, loans and investment. The bankers have the responsibilities of safe guarding the interest of the depositors, share holders and the society they are serving.

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

1.2 Evolution of the Bank

The evolution of bank is not a non-phenomenon. There was crude firm of banking evening an ancient Vedic era. The terms banking such as deposits, pledge, policy of loan, interest rates etc can be found in the "Manusiriti". Consequently, commercial banking transaction was received because of revival of commercial and other trading activities in European countries. According to the opinion of great economist Geoffrey Crowther, following community groups are the ancestors of modern banking.

- The Merchant trader
- The goldsmith
- The money Lenders

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

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

as the evidence of receiving valuables, he used to issue a receipt to the depositors.

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

Finally, moneylenders in the early ago contributed in the growth of banking to a lager extent. He advances the coins on load by charging interest. As a safe guard he used to keep some money in the reserve. Therefore goldsmith, moneylender became a banker who started performing the two function of and advancing loans.

"The bank of Venice" of Italy was established in 1157 AD as first banking institution in the world. The second banking institution namely, "The Bank of Barcelona" of Spain was established in 1401AD. Its function is to exchange money, receive deposits and discount bill of exchange, both for the citizens and for the foreigner. During 1407 AD. The Bank of Genon was established in 1609 AD. "The Bank of England" was incorporated in 1694AD as a joint stock bank and later on the 1844 AD. It becomes a first central bank in the world.

1.3 Development of Banking Industry in Nepal

Establishment of banking industry in Nepal is very recent. In the ancient times, there are money transactions but were not much regularized due to lack of banking concept among the people and administrators. In the year 1877 AD the government established "Tejarth Adda" which played vital role in the banking development and banking system of Nepal. This institution names "Tejarath Adda" helped general public to provide credit facilities at a very low rate of 5 percent interest rate. "Tejarath Adda" distributed credit facilities to the public especially on the collateral of gold and silver. Several branches were open in different part of the country. Hence the establishment of Trjarath Adda could be regarded as pioneer foundation of banking in Nepal. It was running smoothly for few decades. The main defect of this institution was that there no efforts to expand the services, and no other financial institution has set up. Tejarath Adda

also don't accept any deposits from public on the absence of saving money the Adda faces the financial crisis to provide the credit and other services, after that again several unorganized and money lender are flourishing their credit and services to the general public, the government started to do the trade with India and Tibet. In the year 1936 AD, Udyog Parisad (Industrial Development Board) was been established. In the year 1937 AD Udyog Parisad have reformed its name in to Nepal Bank Limited and formulated the company act. This was the first commercial bank in Nepal. Rastriya Banijiya Bank was established in the year 1965 AD as the second bank of the country. Rastriya Banijiya Bank being the largest commercial bank plays the major role in the economy. The financial shape of the two old banks has a tremendous impact on the economy. The modern banking practice began between the first and second world wars. Nepal Bank Limited was the first commercial bank and was also the first joint venture bank of the government and the private sector. Earlier bank were different from modern commercial banks in many respects. The banks which operated in the past combined central banking function such as issue of currency with commercial banking operation like accepting deposit and financing business.

1.4 Meaning of Commercial Bank

Commercial bank is an institution which accepts deposits, makes business loans& offers related services. Commercial bank also allow for a verities of deposit, accounts, such as checking, saving & time deposit. These institutions are run to make a profit and owned by a group of individuals. Yet some may be members of the Federal Reserve System. While commercial banks offer services to individuals, they are primarily concerned with receiving deposits & lending to business. In short commercial bank is a financial institution that provides services such as an accepting deposit giving business loans. Commercial banks are the major components in the financial system. They work as intermediary between depositors and lenders and facilitate in overall development of the economy of the country and earning profit for the wealth maximization of all its stake holders. Commercial bank came into existence

mainly with the objectives of collecting the idle funds, mobilizing them into productive sector and causing overall economic development. The bankers have the responsibility of safe guarding the interest of the depositors, the share holders and the society they are serving. A sound banking system its important because of the key roles its plays in the economy, intermediation, and transformations, facilitating payments flows, credit allocation and maintaining financial discipline among borrowers. The main objectives of commercial bank is to provide high standards facilities for transfer of funds, financing the business operations & purchase of households, security & adequate return on savings & earn income from these activities to provide optimum return to its shareholders.

According to Nepal Company Act 2031 BS, “A commercial bank refers to such types of bank which deals in money exchange accepting deposits, advancing loans and commercial transaction except specific banking related to co-operative, agriculture, industry and other objectives.”

“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 service.” (Principle of Bank Operations, American Institute of Banking, USA- 1972).

"A bank is one who in the or diary covers of This bus mess recovers money which he repays by honoring chives of persons from which of one whose account it receives it" (Bardford, 453-454)

The operation of commercial bank is one of the economic activities of a country. In terms of income generation activity, it may be compared with any other venture of business. However the banking business is very distinct as compared with any other business. However the banking business is very distinct as compared with any other business. The main function of commercial bank is the accumulation to the temporarily idle money of the general public for trade and commerce. Its main function is to accept deposits, advancing loans,

act as an agency services, exchange and purchase currency, overseas trading services and other services.

Taking an overview of financial institutions providing banking facility in Nepal, there are 32 Commercial Banks, 90 Development Banks, 25 67 Finance companies, Micro Development Banks, 16 co- operative firm, and 34 non-government finance firm licensed by NRB.

Table No. – 2.1

List of Licensed commercial Banks in Nepal

(Rs. in Millions)

S. N	Name	Operation Date(A.D.)	Head Office	Paid Up Capital
1	Nepal Bank Ltd	15/11/1937	Kathmandu	1,772.83
2	Rastriya Banijya Bank	23/01/1966	Kathmandu	1,172.30
3	Nabil Bank Ltd	09/03/1986	Kathmandu	2,435.72
4	Nepal Investment Bank	09/03/1986	Kathmandu	3,012.92
5	Standard Chartered Bank Nepal Ltd	28/02/1987	Kathmandu	1,610.17
6	Himalayan Bank Ltd	18/01/1993	Kathmandu	2,760.00
7	Nepal SBI Bank Ltd	07/07/1993	Kathmandu	2,093.99
8	Nepal Bangladesh Bank Ltd	06/06/1994	Kathmandu	2,009.40
9	Everest Bank Ltd.	18/10/1994	Kathmandu	1,391.64
10	Bank of Kathmandu Ltd.	12/03/1995	Kathmandu	1,604.19
11	Nepal Credit and Commerce Bank Ltd.	14/10/1996	Rupandehi	1,400.00
12	Lumbini Bank Ltd.	17/07/1998	Chitawan	1,430.00
13	Nepal Industrial & Commercial Bank Ltd.	21/07/1998	Biratnagar	1,311.55
14	Machhapuchhre Bank Ltd.	03/10/2000	Pokhara	2,478.79
15	Kumari Bank Ltd.	03/04/2001	Kathmandu	1,603.80
16	Laxmi Bank Ltd	03/04/2002	Birgunj	1,694.08
17	Siddhartha Bank Ltd.	24/12/2002	Kathmandu	1,619.24
18	Agriculture Development Bank Ltd.	21/01/1968	Kathmandu	9,474.30

19	Global IME Bank Ltd.	02/01/2007	Birgunj	2,184.86
20	Citizens Bank International Ltd.	20/04/2007	Kathmandu	2,101.84
21	Prime Commercial Bank Ltd	24/09/2007	Kathmandu	2,245.75
22	Bank of Asia Nepal Ltd.	12/10/2007	Kathmandu	2,000.00
23	Sunrise Bank Ltd.	12/10/2007	Kathmandu	2,015.00
24	Grand Bank Nepal Ltd.	25/05/2008	Kathmandu	2,000.00
25	NMB Bank Ltd	02/06/2008	Kathmandu	2,000.00
26	Kist Bank Ltd.	07/05/2009	Kathmandu	2,000.00
27	Janata Bank Nepal Ltd.	05/04/2010	Kathmandu	2,000.00
28	Mega Bank Nepal Ltd	23/07/2010	Kathmandu	1,631.00
29	Commerz & Trust Bank Nepal Ltd.	20/09/2010	Kathmandu	1,400.00
30	Civil Bank Ltd.	26/11/2010	Kathmandu	1,200.00
31	CenturyCommercial Bank Ltd	10/03/2011	Kathmandu	1,080.00
32	Sanima Bank Ltd.	15/02/2012	Kathmandu	2,016.00

Source: Licensed Commercial Bank in NRB website 2069(As of Poush End).

1.5 Profile of the Sample Bank of the study area.

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

i. 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 kingdom and over 170 reputed correspondent banks across the globe. Dubai Bank Ltd. was the initial joint venture partners with 80% equity investment .The shares owned by Dubai bank Ltd. (DBL) were transferred to Emirates Bank International Ltd. (EBIL) Dubai. Later on EBIL sold its entire stock to National Bank Ltd, Bangladesh (NBLB).

National Bank Ltd. Bangladesh is managing the bank in accordance with the technical services agreement signed between it (NABIL) and the bank on June 1995.

The present configurations consist of:

- National Bank Limited, Bangladesh 50%
- NIDC 10%
- Rastriya Beema Sanstha 9.66%
- Nepal Stock Exchange Ltd. 0.34%
- General Public 30%

At present 49 branches & 79 ATMs of the bank are operating in different parts of the country, over 170 reputed correspondent banks across the globe. Authorized capital and paid up capital of NABIL bank limited are Rs.2100 Million and Rs. 2,435.72 million.

Bank is fully equipped with modern technology which includes ATMs, credit cards, state-of-art, world-renowned software from Infosys Technologies System, Banglore, India, Internet banking system and Tele-banking system.

The following Activities and services are provides by NABIL including normal functions;

- Tele Banking
- Business Banking

- Privilege Banking
- Personal Lending
- Remittance
- Clean Bills
- Credit card facilities
- SWIFT
- Deposit Locker
- Remittance
- ATM
- International Trade and Bank Guarantee.

This Bank is awarded by "Bank of year 2004".

II. Nepal Investment Bank Ltd. (NIBL)

Nepal Investment Bank Ltd. (Nepal Indosuez Bank Ltd) was established on 21st January 1986 as a third joint venture bank under the company Act 1964. Initially, the Bank is manages by Banque Indosuez, Paris in accordance with joint venture and technical services. 50% of the shares of Nepal Indosuez bank ltd held by credit Agricole Indosuez was sold to the Nepalese promoters on April 25, 2002 as per the transaction record of NEPSE. After this divestment of shares by Nepalese Owners, the name of the company was changed to Nepal Investment Bank Ltd by its 15th AGM held on May 31, 2002.

The ownership structure of the shares of NIBL is as follows:

- A group of companies holding 50% of the capital
- Rashtriya Banijya Bank holding 15% of the Capital.
- Rashtriya Beema Sansthan holding the same percentage.
- The remaining 20% being held by the General Public (which means that NIBL is a Company listed on the Nepal Stock Exchange).

Authorized capital of NIBL is Rs.4,000 million and issued and paid up capital is Rs.3,012.92 million. At present 41 branches & 68 ATMs of the bank are operating in different parts of the country.

The following Activities and services are provided by NIBL including normal functions;

- Tele Banking
- Retail Banking
- Corporate Banking
- Trade Finance
- Treasury
- Credit card facilities
- SWIFT
- Deposit Locker
- NTC's Mobile bill payment
- ATM
- International Trade and Bank Guarantee.
- E-Banking

This bank is awarded by Bank of the year 2003, 2005, and 2008.

III. Himalayan Bank Limited (HBL)

Himalayan Bank was established in 1993 in joint venture with Habib Bank Limited of Pakistan. Despite the cut-throat competition in the Nepalese Banking sector, Himalayan Bank has been able to maintain a lead in the primary banking activities- Loans and Deposits.

Legacy of Himalayan lives on in an institution that's known throughout Nepal for its innovative approaches to merchandising and customer service. Products such as Premium Savings Account, HBL Proprietary Card and Millionaire Deposit Scheme besides services such as ATMs and Tele-banking were first introduced by HBL. Other financial institutions in the country have been following their lead by introducing similar products and services. With the highest deposit base and loan

portfolio amongst private sector banks and extending guarantees to correspondent banks covering exposure of other local banks under their credit standing with foreign correspondent banks..

The ownership structure of the shares of HBL is as follows:

- Foreign Ownership (Habib Bank Limited, Pakistan) 20%
- Karmachari Sanchaya Kosh 14%
- Other domestic entities 51%
- General Public 15%

Authorized capital of HBL is Rs.3,000 million and issued and paid up capital is Rs.2,760 million. At present 36 branches & 56 ATMs of the bank are operating in different parts of the country. Besides, HBL has correspondent arrangement with 178 internationally renowned banks HBL has access to the worldwide correspondent network of Habib Bank for fund transfer, letter of credit or any banking business anywhere in the word. Habib Bank is the largest and oldest bank in Pakistan having over 1700 domestic and 65 overseas branches covering all continents and over 1800 correspondents worldwide

The following Activities and services are provided by HBL including normal functions;

- International Banking (LC)
- Small Business Enterprises Loan
- Retail Banking
- Corporate Banking
- Trade Finance
- Treasury
- SWIFT
- Safe Deposit Locker
- Card Services
- International Trade and Bank Guarantee.
- E-Banking

- Himal Remit
- SMS Banking

IV. Nepal SBI Bank Ltd. (NSBL)

Nepal SBI Bank Ltd. (NSBL) is the first Indo-Nepal joint venture in the financial sector sponsored by three institutional promoters, namely State Bank of India (SBI), Employees Provident Fund (EPF) and Agricultural Development Bank Ltd. (ADBL) through a Memorandum of Understanding signed on 17th July 1992. NSBL was incorporated as a public limited company at the Office of the Company registrar on April 28, 1993 under Registration. No. 17-049/50 with an Authorized Capital of Rs.12 Crores and was licensed by Nepal Rastra Bank on July 6, 1993 under license No. NRB/l.Pa./7/2049/50. NSBL commenced operation with effect from July 7, 1993 with one full-fledged office at Durbar Marg, Kathmandu with 18 staff members. The staff strength has since increased

to 351. Under the Banks & Financial Institutions Act, 2063, Nepal Rastra Bank granted fresh license to NSBL classifying it as an "A" class licensed institution on April 26, 2006 under license no. NRB/I.Pra.Ka.7/062/63.

In terms of the Technical Services Agreement concluded between SBI and the Bank, SBI provides management support to the bank through its 3 expatriate officers including Managing Director who is also the CEO of the Bank. A core management team viz. Central Management Committee (CENMAC) consisting of the Managing Director, Chief Operating Officer, Chief Financial Officer and Assistant General Manager(Credit) oversees the overall banking operations in the Bank. ADBL divested its stake in the Bank by selling its entire 5% promoter shares to NSBI on 14th June, 2009. Consequently, the Bank's corporate status has undergone change from its previous status as a Joint-venture Bank to a Foreign Subsidiary Bank of SBI. Presently fifty five percent

of the total share capital of the Bank is held by the SBI, fifteen percent is held by the EPF and thirty percent is held by the general public. Nepal State Bank of India (NSBI) Limited was established in 1993, under the Company Act 1964. This is the joint venture of state Bank of India and Nepalese promoters. The ownership structure of the shares of Nepal SBI Bank Ltd is as follows.

- State Bank of India (SBI) 50%
- Agricultural Development Bank Ltd. (ADB) 5%
- Employees Provident Fund (EPF) 15%
- General Public 30%

At present 59 outlets of the bank including 50 full-fledged branches, 6 extension-counters and 3 administrative offices branches are operating in different parts of the country. The authorized capital and paid up capital of the bank is Rs. 3,000 Million and Rs. 2,093.99 Million respectively.

The following Activities and services are provided by NSBL including normal functions.

- Tele Banking
- Online Banking
- Cards & ATMs
- Remittance
- Credit card facilities
- SWIFT
- Deposit Locker
- International Trade and Bank Guarantee..

1.6 Statement of the Problem

Mushrooming of joint venture banks is the present situation of Nepalese Financial system. The fast growth of such organization has made pro-rata increment in collecting deposits and their investment. They collected adequate

amount from the mass, however they could not find or locate new investment sectors required to mobilize their funds on the changing context of Nepal. Only few commercial banks are getting regular profits. Most of them are unable to satisfy their shareholder's and clients in ascertaining profitability and ensuring their safe deposition. Some banks are incurring losses in early establishment years. It is not that they do not have potential clients or adequate deposits but they cannot find profitable sectors or opportunities to invest the deposit collections. They have always feared high degree of risk and uncertainty. There are various problems in resources mobilization by financial institution in Nepal. The most important problem is poor investment climate prevailing in Nepal due to heavy regulatory procedure uncertain government policy, NRB's directives, unsecured climate etc. Lack of sound investment policy is another reason for a commercial bank not to properly utilizing its deposits that is making loan and advances or lending for a profitable project. This condition will lead the commercial bank to the position of liquidation. Commercial banks invest their funds in limited areas to achieve highest amount of profit. They are found to more interest in investment in less risky and liquid sectors i.e. treasury bills, development bonds and other securities. There is hesitation to invest on long-term projects they are much more safety minded. Therefore, they follow conservative and un-effective investment policy. As with everything in Nepal, every commercial bank has an investment in the same sectors. They are in tourism, garments and in trading as well. They are the major sectors. However, given the current situation of the country, it is not up to them to decide which sector they want to go into. The main factor for success of any organization is the security situation. Once the security situations stabilize, then only commercial banks consider rationally as to where they should to invest and grow. Until then it is a question of moving into sectors as and when things develop. Therefore, security problem is the big problem for every commercial bank to invest their funds in our any sectors. Nepalese commercial banks have not formulated their investment policy in an organized manner. They mainly rely upon the instruction and guidelines of Nepal Rastra Bank. They don't have clear view towards investment policy. Furthermore, the implementation of policy is not in an effective way. Lack of farsightedness in policy formulation

and absence of strong commitment towards its proper implementation has caused many problems to commercial banks. The problems specially related to investment functions of the commercial banks have been present briefly as under.

- Whose investment policy is more effective and efficient between NABIL, NIBL, HBL & NSBI Bank Ltd?
- Whose investment strategy successful to utilize its available fund in comparison to NABIL, NIBL, HBL & NSBI Bank Ltd?
- Are they maintaining sufficient liquidity, profitability and risk position?
- What is the relationship of investment on loan and advances with total deposits and total net profit?
- Does the investment decision affect the total earnings of the commercial bank?

1.7 Objectives of the Study

- To examine the investment policy of the NABIL, NIBL, HBL & NSBI Bank Ltd
- To examine the utilization of available fund of NABIL, NIBL, HBL & NSBI Bank Ltd
- To evaluate the liquidity, profitability and risk position of NABIL, NIBL, HBL & NSBI Bank Ltd
- To analyze relationship between deposits loan and advances, investment, net profit and compare them between NABIL, NIBL, HBL & NSBI Bank Ltd.
- To make a comparative study on fund mobilization & investment policy on NABIL, NIBL, HBL & NSBI Bank Ltd.

1.8 Significance of the Study

The focus of the study is to highlight the investment policies of commercial banks expecting that the study can be bridge the gap between deposits and

investment policies. On the other hand, the study would provide information to management of the bank that would help them to take collective action. Further from the study, the shareholders would get information to make decision while making investment on shares of various banks. In the context of Nepal, there is less availability of research work. As it is a well known fact that the success and prosperity of the bank relies heavily upon the successful investment of collected resource to the important sectors of economy. Successful formulation and effective implementation of investment policy is the prime requisite for the successful performance of commercial banks. There are various problems in effective investment of commercial banks of Nepal, which affect their performance to the great extent. CBs performance does not seem so satisfactory in terms of utilizing its resource efficiently in productive sectors. Hence, the main significance of this study of investment portfolio analysis of Nepalese commercial banks is to help how to minimize risk on investment and maximize return through portfolio analysis. Similarly, the study of commercial banks investment trend, risk return pattern, portfolio management, credit management and effect on investment decision on earning will strive to disclose the internal weakness of the banks and furnish the ideas for improvement. Therefore, the researcher has undertaken this study to analyze the existing investment portfolio of Nepalese commercial banks, point out the various weaknesses of defects inherent in it, and provide package of suggestions for its improvement.

1.9 Limitations of the Study

This study is simply a partial study for the fulfillment of MBS degree, which has to be finished within limited period. Hence, this study is not far from several limitations of its own kind, which weaken the heart of the study. Some of such limitations are as follows.

- The study is mainly based on secondary data collected from different sources such as annual report, journals, and bulletins available from the concern banks & Nepal Rastra Bank, newspapers, articles & website.

- The study period will be covered by only five fiscal years i.e. from 2007/2008 to 2011/ 2012.
- Out of the numerous affecting factors, this study concentrates only on those factors, which are related with investment policy, and available in the form required for analyzing the different issues.
- The study has been limited to the investment policy of NABIL, NIBL, HBL & NSBI Bank Ltd among all the 32 Commercial Banks.
- Only few financial & statistical techniques have been used for the analysis of the data.

1.10 Organization of the Study

The whole study has been divided into five chapters. The titles of each chapter are as follows:

First is introduction chapter, which includes introductory matters, which describes the introduction, focus of the study, statement of the problem, theoretical framework, and objectives of the study, limitation of the study and organization of overall study.

Second chapter deals with the review of literatures in the field of the study being conducted. One contains conceptual framework and the other section contains the review of related studies.

Third chapter explains the research methodology employed to conduct the study, tools, and techniques used in analysis of the data as well. This chapter includes, research design, sources of data, population and samples, method of data analysis, various financial and statistical tools.

Fourth chapter is devoted to the presentation and analysis of data through definite course of research methodology. The main working of this chapter is to

analyze different financial ratios related to the investment and fund mobilization in comparison between NABIL, NIBL, HBL & NSBI Bank Ltd. Major findings of the study are also included in this chapter.

Fifth is the last chapter of the study, which provides summary and conclusion, suggestions and recommendations for improving the future performance of the sample banks.

CHAPTER II

REVIEW OF LITERATURE

Review of Literature is the second stage and ongoing process of research process. That is, when the topic is finalized, the related available materials like as previous research, article or published book, previous thesis in the related field, journals, government publications, business report like as annual report of bank, topics for finding the past studies conclusion and deficiencies and so on have to be reviewed. Review of literature needs to develop new research framework which is based on the past knowledge and experience, from which hypothesis can be developed for testing and minimizes the risk of pursing the dead-ends in research work. There are some steps involved in concluding a literature review. Firstly, search for existing literature in related studies. Secondly, review the literature selected. Thirdly, develop a theoretical framework and conceptual framework.

2.1 Conceptual Framework

2.1.1 Investment

In general sense investment means to pay out money to get more. But in the broadest sense, investment means the sacrifice of current rupees and resources for the sake of future rupees and recourses. It is a commitment of money and other recourses that ate expected to generate additional money and recourses in the future. The commitment takes place in the present and is certain. The rewards come later, if at all and the magnitude is generally uncertain. Therefore, every investment entails some degree of risk. It is commonly known fact that an investment entails some degree of risk. It is commonly known fact that an investment is possible only when there is adequate saving therefore, both saving and investments are interrelated. Investment in the government securities are the securities bank has purchased with the positive intent and ability to hold until maturity. The same are recorded at cost or at cost adjusted for amortization of

premiums or discounts. Investments are valued at of investments having market value less than the cost. Investments in unlisted companies' shares are valued at cost. Premiums are capitalized and amortized from the date of purchase to maturity. All investments are subjected to regular review as required by NRB Directives. Investors also seek to manage their wealth effectively obtaining the most from it, while protecting it from inflation, taxes and factors some scholars have given the actual earning of investment, which are as below:

"Investment is made in assets. Assets in all are of two types real assets (land, building, factures etc.) and financial assets (stock, bond, t-bIn etc.). These two investments are not competitive but complementary. Highly developed institutions for financial greatly facilitate real investment." (Bhattarai, 2004: 142)

Investment is nothing but deploying our saving in manner that ensures safety of our money & provides a sustained return to supplement our regular income (Delhi Stock exchange 2002). The term investment covers a possible where there are a devour saving. If all the income & saving are consumed to solve the problems of hand to month and to other basis needs then there is non existence of in investment are interrelated.

J. K. Francies, "An investment is a commitment of money that I expected to generate additional money. Every investment entail some degree of risk, it requires a present certain sacrifice for a future uncertain sacrifice for a future uncertain benefit." The world Book Encyclopedia, "Investment buy individual, business and government involve a present sacrifice of income to get an expected future, benefit as a result investment raises a nation standard of living."

This definition concludes that investment means use of rupee of amount today expectation of more income in future. It is clear that investment is the utilization of funds with expected additional return in future. The saving done by the investor may be affected by taxes, inflation, depression, labor relation, government action

plan and other social phenomena. Some time we may get negative return also, if wrongly invested without sound knowledge of investment and their related factor. Investment has to undergo various types of risk of business risk. Possibility of being wane in earning power of investment due to competition, uncontrollable costs, change in demand, market risk possibility of strong change in market price and collateral value of securities and real properties, therefore making investment is not sufficient one should follow sound investment policy. From these definitions of different authors about investment clarify that investment means to trade money for expected future stream of payment of benefits that will exceed the current cash outflow which is the benefit to the investors for sacrificing the time and commitment or due to uncertainty and risk factors. Financial institutions must be able to mobilize their deposit collection funds in profitable, secured and marketable sector so that they can earn good return on their investment.

2.1.2 Features of a Sound Lending and Investment Policy

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

Some necessities for sound lending and investment policies which most of the banks must consider can be explained as under:

a) Safety and Security

While selecting the sectors for investing the funds a bank should be very much conscious. It should never invest its funds in those securities, which are too volatile because a little difference may cause a great loss. Similarly, the executive who is bankrupt at once or earns a million in a minute should not be financed at all. The banks invest its funds in legal securities only. The bank should accept that type of securities, which have marketability; ascertain ability, stability & transferability and it also accept those securities, which are commercial, durable and high market prices. For the safety and security in investing funds, the bank can use the investment portfolio tools also.

b) Liquidity

Liquidity generally refers to the cash or any asset that can be converted into cash immediately. Generally, people deposit money at the bank in different account with confidence that the bank will repay their money whenever it is needed. In order to maintain the confidence to the depositors, the bank must always be ready to meet current or short-term obligations when they become due for repayment Liquidity is the capacity of bank to pay cash against deposits. Hence, the liquidity position of a bank is such an important factor.

c) Profitability

Commercial banks invest on those sectors from where more and more return can flow because through maximizing the returns on its investment, bank can maximize its volume of wealth. Hence the investment or granting of loan & advances by them are highly influenced by the profit

margin. Generally, the profit of commercial bank depends upon the interest rate of the bank, volume of loan provided, period of loan and nature of investment on different securities. Profitability is only the term, which always motivated commercial banks to invest his money more and more.

d) Suitability

A banker should always know that why a customer is in need have loan. If a borrower misuse the loan granted by the bank, he will never be able to repay the loan and bank will possess heavy bad debts. Therefore, in order to avoid such circumstances advances should be allowed to select and suitable borrowers and it should demand all the essential detailed information about the scheme of the project. Bank must keep in mind the overall development plans of the nation and the credit policy up the central bank.

e) Diversification

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

f) Purpose of Loan

A loan is that using securities as collateral with proceeds from the loan being used to purchase additional securities. This is very important question for any banker that, why is the customer is in need of loan? If borrower misuses the loan granted by the heavy bad debts? Detailed

information about the scheme of the project or activities should be examined before lending.

g) Tangibility

The ability to as apprehended by the human sense. Many assets have tangibility, including but not limited to, ash, commodities, real estate and personal property. Some more abstract things also have tangibility, at least in certain circumstances, for example, accounts receivable is a tangible asset for accounting purpose. Tangibility explicitly does not include patents, brands or intellectual property. An asset must have tangibility in order to be used as collateral on a loan. One may not use a patent as collateral, but use his/her house. See also tangibility. Though it may be considered that tangible property doesn't yield in income apart from direct satisfaction of possession of property, many times in tangible securities have lost their value due to price level, inflation, a commercial bank should prefer tangible security to intangible one.

h) Legality

Legality is implied warranty that an act, agreement, or a contract strictly adheres for the statutes of a particular jurisdiction. Legal principle is that an accused may not be prosecuted for an act that is not declared a crime in that jurisdiction. Illegal securities will bring our money problems for the investor; a commercial bank must follow the rules and regulation as well as different issued by the Nepal Rastra Bank, Ministry of Finance, Ministry of Law and other concerned authorities.

2.1.3 Sources of Funds for the Investment

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

a) Capital

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

i) Issuing Debentures

ii) General Reserves

iii) Issuing Shares

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

b) General Reserves

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

c) Accumulated profit

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

d) Deposits

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

e) External and internal borrowings

The funds can be collected by borrowings money through different banks or different institution. In a developing country like Nepal, those types of

borrowings are very important. The commercial bank may not have sufficient fund to invest in different sector. In that case, it has to borrow from other bank or other economic institution. Generally, the commercial bank borrows from two sources i.e. external and internal. In general, external borrowing means the borrowing from foreign banks, and foreign government. Internally, the commercial banks borrow mainly from Nepal Rastrya Bank. Therefore, the commercial bank cannot provide loan or investment without the funds. From the above different source of fund, the commercial bank grants loan.

2.1.4 Investment Policy of Commercial Banks

The financial position of a commercial bank is reflected in its balance sheet. The balance sheet is a statement of the assets and liabilities of the bank. The assets of the bank are distributed in accordance with certain guiding principles. These principles underline the investment policy of the bank. They are discussed below:

1. Liquidity:

   In the context of the balance sheet of a bank the term liquidity has two interpretations. First, it refers to the ability of the bank to honour the claims of the depositors. Second, it connotes the ability of the bank to convert its non-cash assets into cash easily and without loss.

   It is a well known fact that a bank deals in funds belonging to the public. Hence, the bank should always be on its guard in handling these funds. The bank should always have enough cash to meet the demands of the depositors. In fact, the success of a bank depends to a considerable extent upon the degree of confidence it can instil in the minds of its depositors. If the depositors lose confidence in the integrity of their bank, the very existence of the bank will be at stake. So, the bank should always be prepared to meet the claims of the depositors by having enough cash. Among the various items on the assets side of the balance sheet, cash on

hand represents the most liquid asset. Next comes cash with other banks and the central bank. The order of liquidity goes on descending.

Liquidity also means the ability of the bank to convert its non-cash assets into cash easily and without loss. The bank cannot have all its assets in the form of cash because each is an idle asset which does not fetch any return to the bank. So some of the assets of the bank, money at call and short notice, bills discounted, etc. could be made liquid easily and without loss.

2. Profitability

A commercial bank by definition is a profit hunting institution. The bank has to earn profit to earn income to pay salaries to the staff, interest to the depositors, dividend to the shareholders and to meet the day-to-day expenditure. Since cash is the least profitable asset to the bank, there is no point in keeping all the assets in the form of cash on hand. The bank has got to earn income. Hence, some of the items on the assets side are profit yielding assets. They include money at call and short notice, bills discounted, investments, loans and advances, etc. Loans and advances, though the least liquid asset, constitute the most profitable asset to the bank. Much of the income of the bank accrues by way of interest charged on loans and advances. But, the bank has to be highly discreet while advancing loans.

3. Safety or Security:

Apart from liquidity and profitability, the bank should look to the principle of safety of its funds also for its smooth working. While advancing loans, it is necessary that the bank should consider the three ‘C’s of credit character, capacity and the collateral of the borrower. The bank cannot afford to invest its funds recklessly without considering the principle of safety. The loans and investments made by the bank should be adequately

secured. For this purpose, the bank should always insist on security of the borrower. Of late, somehow or other the banks have not been paying adequate importance to safety, particularly in India.

4. Diversity:

The bank should invest its funds in such a way as to secure for itself an adequate and permanent return. And while investing its funds, the bank should not keep all its eggs in the same basket. Diversification of investment is necessary to avoid the dangerous consequences of investing in one or two channels. If the bank invest its funds in different types of securities or makes loans and advances to different objectives and enterprises, it shall ensure for itself a regular flow of income.

5. Saleability of Securities:

Further, the bank should invest its funds in such types of securities as can be easily marketed at a time of emergency. The bank cannot afford to invest its funds in very long term securities or those securities which are unsalable. It is necessary for the bank to invest its funds in government or in first class securities or in debentures of reputed firms. It should also advance loans against stocks which can be easily sold.

6. Stability in the Value of Investments:

The bank should invest its funds in those stocks and securities the prices of which are more or less stable. The bank cannot afford to invest its funds in securities, the prices of which are subject to frequent fluctuations.

7. Principles of Tax-Exemption of Investments:

Finally, the investment policy of a bank should be based on the principle of tax exemption of investments. The bank should invest in those government securities which are exempted from income and other taxes. This will help the bank to increase its profits.

2.2 Review of Related Studies

2.2.1 Review of NRB Act in Investment Policy

There is various acts of the study, which those basically involved ion this section, the review of acts framework (environment) under which those basically involved in this section; the review act, environment has significant impact on the commercial banks establishment, their mobilization and utilization of resources. All the commercial banks have to perform to the act, provisions specified in the commercial banks have to conform to the act, previous specified in the commercial Bank Act 2031 (1964 AD) and the rules and regulation to facilitated the smooth running of commercial banks. The preamble of Nepal Bank Act 2031 clearly states the need of commercial banks in Nepal. "In the absence of any bank in Nepal the therefore, with the objective of fulfilling that need by providing services to the people and for the betterment of the country, this law is hereby promulgated for the establishment of the bank its operation."

Central Bank NRB has established a legal framework by formulating various rules and regulation to mobilize or invest the deposit of the bank in different sectors of the different parts of the nation, to prevent them from the financial problems. This directive mush has direct or indirect impact while making decisions. Those regulations are discuss which are formulated by NRB in terms of investment and credit to priority sector, deprived sector, other institution, single borrower limit, CCR. Loan loss provision, capital adequacy ratio, interest spread and productive sector investment. Commercial bank is directly related to the fact that how much find must be collected as paid up capital while establishing the

bank at certain place of the nation, how much fund is needed to expand the branch and counters, but we discuss only those which are related to investment function of the commercial bank. The provisions established by the NRB in the form of prudential norms are as follows:

i. Provision for maintaining Minimum Capital Fund

As per the Unified Directives (Ashar End 2067) issued by NRB, the licensed institutions are instructed to maintain the minimum capital with respect to the minimum capital as under:

Table no. 2.2

Provision for Maintaining Minimum Capital Fund

Institution	Minimum Capital to be maintained as per the Risk Weight Asset	
	Core Capital	Capital
"A" Class	6.0%	10.0%
"B & C" Class	5.5%	11.0%
"D" Class	4.0%	8.0%

Source: NRB Unified Directive 2069

ii. Provision for Investment in Productive Sector

Being a developing country, Nepal needs to develop its infrastructure and other primary productive sectors likes' agricultural, industrial etc. NRB has directed commercial banks to extent at least 40% of its credit productive sector.

iii. Provision for Investment in Priority Sector

NRB has directed commercial banks to extent least 12% of its total outstanding credit to priority sector. Commercial bank's lending to deprived sector is also a part of priority sector which includes credit to agriculture, cottage and small industries, services business (Computer, Tourism) and other business.

iv. Provision for Investment in Deprived Sector

The deprived sector credit limit is determined by NRB from 3% to 4% of the total outstanding credit from bank to bank. Investment in share capital of rural development banks, advances of Rural development banks and other development bank engaged in poverty alleviation programs advances to co-operative, non-government organizations and small farmer co-operative approved by NRB for carrying out banking transaction are included under deprived sector credit program. Commercial banks are required to disburse credit to deprived sector at the following stipulated ratio:

Table no. 2.3

Provision for Investment in Deprived Sector

Institution	Required Deprived Sector lending as% of total outstanding credit
"A" Class	4%
"B" Class	3.5%
"C" Class	3%

Source: www.nrb.org.np

v. Provision Regarding Interest Spread Rate

Previously, NRB had directed the commercial banks to limit its interest rates spread with the maximum of 5% interest rates spread is the difference between the interest charged on loan advances and the interest paid to the depositors. But this policy has been revised by NRB (Unified Directives 2069) stating the spread on deposit and lending to be fixed by the licensed institute themselves.

vi. Provision regarding Capital Adequacy Funds (CAR)

All commercial banks are directed to maintain the minimum capital fund on the basis of risk weighted assets i.e. CAR in the following ratio given below:

Table no. 2.4

Provision Regarding Capital Adequacy Funds (CAR)

Institutions	CAR of their Weighted Assets	
	Core Capital	Supplementary Capital
A, B & C class	6.00%	10.0%

Source: www.nrb.org.np

Where, core capital includes paid up capital, share premium, Non-redeemable preference share, General reserve fund and accumulated loss/ profit. Supplementary capital includes general loans provision, exchange equalization reserve, hybrid capital instruments, subordinated term debt and free reserves.

As per directives, there are two types of the total Risk Weighted Asset. They are:

- Risk weighted on Balance Sheet Assets
- Risk weighted off Balance Sheet Assets

For the purpose of calculation of capital fund, the on- balance sheet assets are divided as follows with assignment of separate risk weight age. Accordingly, for determining the Total risk weighted assets, the amount as exhibited in the balance sheet shall be multiplies by their respective risk weight and then added together.

vii. Provision regarding Blacklisting of Defaulting Borrowers

For maintaining healthily credit and for safeguarding the loans and advances, the NRB has brought forward a concept of obtaining the information of all the borrowers from one roof. For accomplishment of this task, the credit information centre was established under NRB credit information Bylaws, 2059. The main function of credit information centre is to prepare the list of borrowers (i.e. availing loan more that Rs. 25 laks) of different financial institutions that are not paying the dues regularly, make their list. The financial institutions before granting a loan, ask for the information of the borrower bout his creditability from this institution with certain fee. After getting the request from the licensed institute, the CIC sends the confidential report to the concerned institute about the status of the borrower. The CIC itself doesn't black list the borrower, but based on its remarks, the blacklisting is done by NRB. The NRB has classified the defaulters into two category based on their nature. They are:

- Willful Defaulters
- Non- Willful Defaulters

Similarly, there are different conditions where a borrower is blacklisted. They are as follows:

- It the interest or installment or both remains overdue for more than 1year.
- If the loan amount is found to be misused or if the loan amount is found to be invested in the project other than that mentioned by the borrower while obtaining the loan.
- If the security kept as collateral is found to be misused.
- If the borrower is lost or does not come in contact with Bank for one year.

- If the borrower is bankrupted legally.
- If the case is filed against the borrower in the court.
- If the borrower is found to be involved in any fraudulent activities using duplicate cheques/ drafts/ bills/ debit card or any equipments.

viii. Provision regarding classification of loans & advances and non-performing Assets (NPA)

NRB, by its unified directive 2069 (circular no. E. Pra. Nirdesan no. 2/069) has classified the loans and advances into 4class on the basis of the days of overdue period. They are as follows:

a) Pass
b) Sub-standard
c) Doubtful
d) Loss

Pass loans are also called the performing loans whereas sub-standard, doubtful and loss loans are called non performing loans. Pass loans are loans where there is no overdue or the overdue is up to 3 months. In case of the pass loan, the provisioning of 1% shall be made of the principal outstanding. Similarly, in case of sub-standard loan, the overdue is from 3months to 6 months and the provisioning made is 25% of the principal outstanding. When the loans and advances are not paid from six months to one year, it falls into doubtful loan and the provisioning made is 50% of the principal outstanding. Similarly, if overdue period crosses more than one year, it falls in loss category. Here 100% of the principal outstanding shall be provisioned.

For the loans that have been insured in Deposit and Credit guarantee corporation (DICGC), only 25% of the insured percentage shall be

maintained i.e. (0.25% for pass loan, 6.25% for sub-standard, 12.5 for doubtful & 25% for the loss).

For the loans that have been rescheduled or restructured into pass loan, 12.5% of provisioning shall be done. If the payments of principal and interest for the rescheduled or restructured loan are regular for 2years, it can be converted in pass loan. The loan granted to the investors investing in initial public offering (IPO) cannot be rescheduled or restructured.

ix. Housing Credit (Real Estate Credit)

"Financial institution also extends housing credit to their customers. It is different types such as: residential building, commercial complex, construction of warehouse etc. It is given to those who have regular income or can earn revenue from housing project itself. NRB circulated that bank and financial institution to minimize their loan in housing sector up to 25% of total loan".

2.2.2 Journal and Articles

Various articles were published on financial impact, which deals in the context of Nepalese commercial banks and financial sector of Nepal some of the articles are reviewed briefly.

Morris (1990), in his discussion on "Latin American banking system in the 1980's", has concluded that most of the banks concentrated on compliance with central bank rules on reserve requirements, credit allocation (investment decision) and interest rates. While analyzing loan portfolio quality, operating efficiency and soundness of bank investment management has largely been overlooked.

He further adds that mismanagement in financial institutions has involved inadequate and overoptimistic loan appraisal, high risk diversification of loan portfolio and investments, high risk concentration, related parties lending, etc, are major cause of investment and loan that has gone bad.

Bajracharya (1991), has mentioned in his article "monetary policy and deposit" mobilization in Nepal has concluded that the mobilization of domestic saving is one of the monetary policies in Nepal, for this purpose commercial banks stood as the vital and active financial intermediary for generating resource in the form of deposit of the private sector so far providing credit to the investors in different aspect of the economy.

Shrestha (1998),in her article "Lending operation of commercial banks of Nepal and its impact of gross domestic product (GDP)" has presented with the objectives to make an analysis of contribution of commercial banks lending to the gross domestic product (GDP) of Nepal. She has set hypothesis that there has been positive impact of lending of commercial banks to the GDP. In research methodology, she has considered GDP as the dependent variable and various sectors of lending viz. Agriculture, industrial, commercial service and general multiple regression technique has been applied to analyze the contribution.

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

Chopra(1999),in his article, "Role of foreign banks in Nepal" has concluded that the joint venture banks are playing increasingly dynamic and vital role on the economic development of the country that will undoubtedly increase with time.

Pradhan (2003), in his research paper, "role of saving investment and capital formation in economic development – A case of Nepal" has studied about the strong role and impact of saving, investment capital information on economic development of Nepal. This study is based on secondary data only. The necessary data on saving, investment, capital formation and gross domestic product has collected for the period of 1974-75 to 2000-01. the roles and the impact of saving, investment and capital formation on economic development were analyzed by using various regression equation used in this study have been estimated at current prices as well as in real terms with the entire study period divided into different sub period.

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

Mahat (2004), in his article "Efficient Banking" he has accomplished, efficiency of banks can be measured using different parameters. The concept of productivity and profitability can be applied while evaluating efficiency of banks. The term productivity refers to the relationship between the quantity of inputs employed and the quantity of output produced. An increase in productivity means that more output can be produced from the same inputs or the same outputs or the same outputs can be produced from fewer inputs. Interest expenses to interest income ratio shows the efficiency of banks in mobilizing resource at lower coat and

interesting in high yielding asset. In other words, it reflects the efficiency in use of funds.

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

2.2.3 Review of Thesis

Investment policies have been studied by many individuals and carious organizations. These studies have their own statue because of the nature of study, objectives of study, areas of study and other variables which have been sought for, from the specific study. Some of them are related to this study report are considered as reference to this study report. They are:

Subedi (2002), entitled "A comparative Study of Financial Performance of Himalayan Bank Limited and Everest Bank Limited."

The objectives of this study were:

- To examine liquidity position, profitability position, risk ratio of the HBL& EBL.
- To evaluate the relationship between cash and bank lance & total deposit of HBL & EBL.
- To find the variability ration of HBL is more uniform than that of EBL.
- To find out the affecting factors (external / internal) of loan and saving to investment of HBL & EBL.

Research Methodology

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

The major findings of this study were:

- He has concluded that current ratio of EBL is greater than of HBL.
- The liquidity of bank may be affected by external, internal factors such as interest rate, supply, demand position of loan and a saving to investment situation.
- HBL has maintained the ration of cash and bank balance to total deposit considerable lower that EBL.
- Comparatively HBL's profitability ratio like return of the total assets ratio on total deposit is not satisfactory in both banks.
- HBL has lower capital adequacy ratio in comparison to direction issued by NRB.

Pandey (2004) he studied on topic, "Listing Liquidity and Price Formation in Nepal Stock Exchange."

The objectives of this study were:

- To evaluate current status of listing companies in Nepal Stock Exchange.
- To examine share price formation of different listing companies in Nepal Stock Exchange.
- To find out the relationship between the Market per share and Earning per share of listing companies in Nepal Stock Exchange.

Research Methodology

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

The major findings of this study were:

- The companies listing in NEPSE are increasing but the percentage is decreasing.
- The percentage of listing finances companies is found to be highest processing and manufacturing companies in second and bank, insurance, hotels and other sectors covered third and fifth position respectively.
- Lastly, the regression analysis between market price and EPS indicates that the relationship is satisfactory. MPS and DPS are most of the selected companies have negative relationship.

Joshi (2005), in his thesis paper outlined, "Investment policy of commercial banks in Nepal"

The objectives of the study were:

- To make a comparative study on fund mobilization and investment policy of EBL, NABIL & BOKL.
- To evaluate the liquidity position, profitability position of EBL, NABIL & BOKL.
- To find the relationship between the total interest earned to total outside assets of EBL, NABIL & BOKL.
- To evaluate the deposit utilization of sample banks.

Research Methodology

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

The Major Findings of the study were:

- The liquidity position of EBL is found to be the best than other two CB's.
- The analysis of profitability, total interest earned to total outside assets of EBL is the lowest of all.

- EBL is recommended to mobilize its idle cash and bank balance in profitable sector as loan and advances, invest more of its fund in share and debenture.
- Follow the liberal lending policy and invest more percentage of total deposit in loan and advances and similarly, maintain more stability on the investment policy.

Shah (2006) has conducted a research on "Investment Policy of HBL and NSBI Bank Ltd."

The objectives of this study were:

- To evaluate the liquidity position, profitability position & risk position of HBL & NSBI Bank Ltd.
- To examine the fund mobilization position of HBL & NSBI Bank Ltd.
- To see the relationship between the investment & loan and advance of HBL & NSBI bank Ltd.

Research Methodology

The study of the thesis has been taken from secondary data, he used financial tools to examine the investment policy of HBL & NSBI Bank Limited.

The major findings of this study were:

- The major portion of the utilization of the fund for both banks, HBL and Nepal SBI Bank limited is into investment and loan and advances and both of them are in increasing trend.
- The liquidity position of both banks is found to be normal from the view point of current ration.
- HBL is recommended to maintain its liquidity position further stronger view cause of low current ratio.
- Researcher has also found that both banks have not been able to formulate and also the appropriate policy to increase profitability although loan and advances has been increasing.

- The banks are recommended to maintain their net profit by adopting proper policies and considering all the factors which affect profitability of the bank.

Khadka (2007) entitled "Financial Performance Analysis of Everest Bank Limited."

The objectives of this study were:

- To evaluate the financial performance of EBL in terms different kind of ratios.
- To see relationship between deposit and profit investment and profit, deposit and investment of EBL.
- To examine income and expenditure of EBL.

Research Methodology

The study of this thesis has been taken from secondary data as well as primary data; he used the different financial tools like liquidity ratio, profitability ratio, risk ratio, growth ratio to analysis the financial performance of the EBL.

The Major findings of this study were:

- EBL has enough investment in government securities but it does not meet current ratio 2:1 over ten years period.
- Cash and bank balance to current and saving deposit fluctuated over the study period.
- Cash and bank balance to current and saving deposit period ratio of EBL show its liquidity position was weak over the ten years period.
- EPS increase over a ten years period P/E ratio fluctuate analysis showed that its main source of income is interest. Its contribution in total income was then 80%.
- Trend analysis of deposit and profit shows the increasing trend.
- Income of EBL increased over the study period but their stuff expenses was in a range 5.6% these indicate a stuff expenses moderate according to income.

Giri (2008) entitled "A study on investment policy of NABIL bank in comparison to joint venture banks of Nepal."

The objectives of this study were:

- To evaluate the liquidity position, profitability position & risk position of NABIL in comparison to other JVB's.
- To examine the fund mobilization & investment policy through on balance sheet and off balance sheet activities in comparison to NGBL & NSBI Bank Ltd.
- To analysis the deposit mobilization of NABIL in comparison to two banks.
- To analyze the relationship between total deposit & growth rate of profit of NABIL in comparison between two JVB's.

Research Methodology

For the study of this thesis he used secondary data, by the different financial tools like liquidity ratio, profitability ratio, risk ratio, growth ratio he compare NABIL with other JVB's.

The major findings of this study were:

- This study found that liquidity position of NABIL was worse than that of NGBL and had good position than Nepal SBI bank ltd.
- NABIL was comparatively less successful in on balance sheet operations as well as off balance sheet operation than that of other JVB's.
- Profitability position of NABIL was comparatively not better that that of other banks.
- NABIL was more successful in deposit mobilization but failure to maintain high growth rate of profit in compare to NGBL and NSBI.
- He had recommended investing its found in different sector of investment and administering various deposits schemes to collect fund such as deposit

scheme etc. and liberal lending policy and investment policy and investment more percentage of total deposit as loan and advances.

Sherpa (2009) entitled "Investment policy of Joint Venture Bank NABIL & SCBNL)". In this thesis, investment decision is one of the major decision functions of financial management. The main purpose of this study is to assess the investment policy and strategies followed by the NABIL and SCBNL.

The objectives of this study were:

- To evaluate the liquidity, asset management profitability, risk position, liquidity and growth ratios of the banks under study.
- To assess the relationship between total deposits and investment, loan and advances, interest earned and net profit, net profit to outside assets and total working fund, loan and advances to interest paid and compare them.
- To analysis the trend of deposits, investment, net profit and loan and advances for next five years of SCBNL & NABIL.
- To make appropriate recommendation, suggestions on the basis of major findings.

Research Methodology

The study of this thesis has been taken from the secondary data. He used the financial tools and statistical tools to analysis the investment policy between two joint venture banks i.e. NABIL & SCBNL.

The major Findings of the study were:

- The liquidity position of SCBNL is comparatively better than NABIL. It has highest cash and bank balance to current assets. SCBNL is in a better position to meet its daily cash requirement. SCBNL's investment in government securities is better than NABIL.
- From the analysis of asset management ratio it can be concluded that NABIL has been more successful in mobilization of its total deposits and working fund as loan and advances. On the other hand, SCBNL appears to

be stronger in mobilization of total deposits and working funds as investment in risk free government sensitive. NABIL has far better in purchasing shares and debentures of other companies but both have invested marginal amount under this heading.

- In analysis of profitability, SCBNL has more successful in maintaining its higher return on loan and advances and total working fund and outside assets. NABIL has been more successful in mobilization of its funds in internet nearing assets to earn higher internet income then SCBNL.
- Form the risk Ratio analysis, it can be concluded that SCBNL has lower liquidity risk and credit risk than NABIL. NABIL has great exposure to risk its financial operations than SCBNL.
- The growth ratio analysis, it can be concluded that SCBNL has been more successful in increasing its deposits, loan and advances and investment during the study period where as NABIL has been more efficient in terms of increasing its net profit.
- The trend analysis of financial data of both banks it is found that both banks are in increasing trend.

Thapa (2010) "A Comparative study on investment policy of SCBNL & NABIL Bank Ltd." The main objective of the study is to compare investment policy of concern banks and discuss the fund mobilization of sample bank.

The other specific objectives are as follows:

- To measure the relationship among total investment deposit, loan and advances, net profit outside asset of SCBNL & NABIL.
- To analysis the trend of deposit utilization, total investment, net profit, loan and advance of SCBNL & NABIL.
- To evaluate the liquidity, asset management efficiency, profitability, growth position and risk position of SCBNL & NABIL.
- To find out the opinion of the people in context of investment decision, appropriate sector for making investment reason for investing major

portion of deposit in loan and advance, major problems that bank are facing and the policies and guidelines of Nepal Rastra Bank.

- To provide suitable suggestion and recommendations for the improvement of the bank's performance.

Research Methodology

For the study of the thesis, descriptive and analytical research design has been taken. Some financial and statistical tools have been taken to examine facts and descriptive technique has been adopted to evaluate investment performance of SCBNL with comparison to NABIL.

The major findings of the study were:

- The main liquidity position of the SCBNL is higher than that of NABIL. SCBNL is more consistent than NABIL.
- The mean ratio of investment on government securities to current asset of NABIL is lower than that of SCBNL. The variability ratio of SCBNL is less consistent than NABIL.
- The variability of the investment on government securities ratio of NABIL is less consistent.
- During the study period, the mean ratio of credit risk of NABIL is higher than that of SCBNL. It means NABIL has beared more risk in comparison to SCBNL. The credit ratio of NABIL is more consistent than that of SCBNL.
- There is highly positive and significantly correlation between total deposit and total net profit of SCBNL & NABIL.
- The main factors considered while taking investment decision, the profitability is considered as main factor while security, political climate, level of income and government policy is considered as other factors respectively.

CHAPTER III
RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a systematic way of solving the research problem. It refers to the methods that are used for conduction of research or performing research operation. Research Methodology depends on various aspects of the research projects. The variables that determine the research methodology of those particular projects are the size of the project, importance of the project, the objectives of the study, time frame of the project, impact of the project in the aspects of human life etc. Research Methodology can be defined as "A systematic process that is adopted by the researcher in studying a problem with certain objective in view". In another words, research methodology are those methods which are used by the researcher during the course of the studying his/her research problem. The prime objectives of this study are to evaluate analysis and assess the effectiveness on comparative study on investment policy of NABIL Bank, Nepal Investment Bank, Himalayan Bank Ltd. and Nepal SBI Bank Ltd. This chapter attempts to have an insight into the investment policy adopted by NABIL, NIBL, HBL & NSBI Bank Ltd. This will help to evaluate and analyze investment performance of NABIL, NIBL, HBL & NSBI Bank Ltd. After the analysis, a package of suggestion will be offered if need to be improving the performance of banks. To accomplish the goal, the study follows the research methodology described in this chapter.

3.2 Research Design

Research design indicates a plan of action to be carried out in connection with proposed research work. The research design is descriptive and core prescriptive

in this study because the historical secondary data have been mainly deployed for analysis.

Some financial and statistical tools have been applied to examine facts and descriptive techniques have been adopted to evaluate investment performance of NABIL, NIBL, HBL, HBL & NSBI Bank Ltd. Besides very simple questions asked to the concerned personnel's in the course of visiting the bank, this report contains no other primary data. This report is mainly based on secondary data, which include annual reports published by the concerned bank and other publications related to the concerned topic.

3.3 Sources of Data

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

3.4 Population and Sample

There are altogether 32commercial banks functioning all over the kingdom and most of their stocks are traded actively in the stock market. In this study, NABIL,

NIBL, HBL & NSBI Bank Ltd's investment policies have been compared, which are selected from population.

The population is as follows:

1. Nepal Bank Limited
2. Raistrya Banijya Bank Ltd.
3. NABIL Bank Ltd.
4. Nepal Investment Bank Ltd.
5. Standard Chartered Bank Ltd.
6. Himalayan Bank Ltd.
7. Nepal SBI Bank Ltd.
8. Nepal Bangladesh Bank Ltd.
9. Everest Bank Ltd.
10. Bank of Kathmandu Ltd.
11. Nepal Credit and Commercial Bank Ltd.
12. Lumbini Bank Ltd.
13. Nepal Industrial and Commercial Bank Ltd.
14. Machhapuchhre Bank Ltd.
15. Kumari Bank Ltd.
16. Laxmi Bank Ltd.
17. Siddhartha Bank Ltd.
18. Agriculture Development Bank Ltd.
19. Global Bank Ltd.
20. Citizens Bank International Ltd.
21. Prime Commercial Bank Ltd.
22. Bank of Asia Nepal Ltd.
23. Sunrise Bank Ltd.
24. Development Credit Bank Ltd.
25. NMB Bank Ltd.
26. KIST Bank Ltd.
27. Janata Bank Ltd.

28. Commerz and Trust Bank Nepal Ltd.
29. Mega Bank Ltd.
30. Civil Bank Ltd.
31. Century Bank Ltd.
32. Sanima Bank Ltd.

Source: www.nrb.org.np 2013

From these populations NABIL Bank Ltd, Nepal Investment Bank Ltd., Himalayan Bank Ltd. & Nepal SBI Bank Ltd. has been selected and it accounts 13% of the population and its data related to investment policy are comparatively studied.

3.5 Methods of Analysis

For the purpose of the study, data analysis, various financial, accounting and statistical tools are used to make the analysis more effective, convenience, reliable and authentic. The analysis of data will be done according to the pattern of data available because of limited time and resources. Simple analytical statistical tools such as percentage, Karl person's coefficient of correlation, the method of least square and test of hypothesis are used in this study. Similarly some accounting tools such as ratio analysis and trend analysis have also been used for financial analysis.

The various tools applied in this study have been briefly presented as under.

3.5.1 Financial Tools

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

1. Ratio Analysis

Ratio analysis is the relationship between two figures recorded in financial statement. It designed to show the relationship between financial statements at a given point in time and over a period of time. This relationship can be expressed in times and percentage either on one side of the balance sheet or income statement or both sides of balance sheet and income statement.

Ratio employs financial data taken from the company's balance sheet and income statement. A figure left has no meanings to convey but once one figure is related to another it has some meaning to convey. Thus, ratio analysis helps in finding the hidden implication of figure or looking behind the accounting numbers. It helps in standardizing financial information and making financial data at different points in time and over time with other firms. Ratios comprise the principal financial tool since these can be used to answer variety of questions of stakeholders (such as bankers, creditors, investors, government, financial analysis, market markers professional experts, management, etc) regarding the firm's financial health.

Ratio analysis is a tool of scanning the financial statement of the firm. "Ratio means the numerical or quantitative relationship between two items or variables. It can be expressed as percentage fraction or a stated comparison between numbers." Ratio analysis is the relationship between two accounting figures expressed in mathematically. It is computed by dividing one item of relationship with the other. Management itself can use these parameters to improve the organization's performance in future. Because, truly know- how of the strengths and weakness for exploiting maximum benefits and to repair the weaknesses to meet the challenges. Even though there are many ratios, only those financial ratios are

calculated and analyzed which are related in this study. They are as follows:

(A) Liquidity Ratios

Liquidity ratios are important to be the management, shareholders, lenders and creditors because liquidity ration provide a measure of the company's ability to pay its debts. The ratio should provide an indication of whether or not the company has liquidity problems and excess liquidity. A company can be quite profitable but still have liquidity problems. Profitability and liquid ability don't go hand in hand. The ratio should provide an identification of whether or not the company has liquidity problems or excess liquidity.

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

The following ratios are evaluated under liquidity ratios.

(i) Current Ratio

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

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

Here Current Assets includes cash in hand, cash in bank, account receivable, inventory, prepaid expenses, marketable securities etc. and Current Liabilities includes bills payable, interest payable, accrued expenses, short term loans, dividends etc.

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

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

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

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

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

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

iii) Cash and Bank Balance to Current Assets Ratio

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

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

Mathematically it is expressed as,

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

iv) Investment on Government Securities to current Assets Ratio

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

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

Mathematically it is expressed as,

$$\text{Investment on govt. securities to current assets ratio} = \frac{\textit{Investment on Government Securities}}{\textit{Current Assets}}$$

v) Loan and Advances to Current Assets Ratio

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

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

Mathematically it is expressed as,

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

B) Assets Management Ratios (Activity Ratios)

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

The following ratios are used under this asset management ratio.

i) Loan and Advances to Total Deposit Ratio

This ratio is calculated to find out that which banks are able to utilizing their total deposits on loan and advances for profit generating purpose.

This ratio can be obtained by dividing loan and advances by total deposits, which can be states as,

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

ii) Total Investment to Total Deposit Ratio

This ratio implies the utilization of firm's deposit on investment in government securities and share debentures of other companies and bank. This ratio can be calculated by dividing total investment by total deposit. Which can be states as

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

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

iii) Loan and Advances to Working Fund Ratio

Loan and advances indicates the ability of any bank to canalize its deposits in the form of loan and advances to earn high return. This ratio is

computed by dividing loan and advances by total working fund, which can be states as,

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

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

iv) Investment on Government Securities to Total Working Fund Ratio

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

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

$$\text{Investment on Govt. Securities to Total Working Fund Ratio} = \frac{\textit{Interest on Govt Securities}}{\textit{Working Fund Ratio}}$$

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

v) Investment on Shares and Debentures to Total Working Fund Ratio

This ratio shows the banks investment in shares and debenture of the subsidiary and other companies.

This ratio can be computed by dividing investment on shares and debentures by total working fund, which can be states as,

$$\textbf{Investment on Shares \& Debentures to Total Working Fund Ratio} = \frac{\textit{Investment on Shares and Debentures}}{\textit{Working Fund Ratio}}$$

Where, Numerator includes investment on debentures bonds and shares of the other companies.

C) Profitability Ratios

Profitability is the net result of a number of policies and decision. The ratios examined thus far provide some information about the way the firm is operating. Profitability ratios measure the overall performance of the firm by determining the effectiveness and grow over a long period of time. Profit can also be defined as ultimate output of the company. Besides management both creditors and owners are interested in the profitability of the firms as creditors and owners are interested in the profitability of the firms as creditors want to get interest and repayment of principle regularly while owners want to get responsible return on their investment.

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

The following ratios are taken into account under this heading

i) Return on Total Working Fund Ratio

This ratio measures the overall profitability of all working funds i.e. total assets. A firm has to earn satisfactory return on assets or working fund for its survival. This ratio is calculated by dividing net profit by total working fund.

This can be express,

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

ii) Return on Loan & Advances Ratio

This ratio indicates how efficiently the bank has employed its resources in the form of loan and advances. This ratio is computed by dividing net profit by loan & advances.

This can be expressed as,

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

iii) Total Interest Earned to Total outside Assets Ratio

This ratio measures the interest earning capacity of the bank through the efficient utilization of outside assets. Higher ratio implies efficient use of outside assets to earn interest.

This ratio is calculated by dividing total interest earned by total outside assets; this can be expressed as,

$$\text{Total Interest Earned to Total Outside Assets Ratio} = \frac{\textit{Total Interest Earned}}{\textit{Total Outside Assets}}$$

iv) Total Interest Earned to Total Working Fund Ratio

This ratio is calculated to find out the percentage of interest earned to total assets (working fund). Higher ratio implies better performance of the bank its terms of interest earning on its total working fund. This ratio is calculated by dividing total interest earned by total working fund.

This can be expressed as,

$$\text{Total Interest Earned to Total Working Fund Ratio} = \frac{\textit{Total Interest Earned}}{\textit{Total Working Fund}}$$

Where, total interest earned includes, interest on loan, advances and overdrafts, government securities investment debentures and other interbank loans.

v) Total Interest Paid to Total Working Fund Ratio

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

Which, can be expressed as

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

Where, total interest paid includes total expenses on deposits, loan and advances, borrowings and other deposits. & Total working fund consist current assets, net fixed assets, loan for development banks and other miscellaneous assets.

D) Risk Ratios

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

The following ratios are taken into account under this heading.

i) Liquidity Risk Ratio

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

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

ii) Credit Risk Ratio

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

This can be mentioned as,

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

iii) Capital Risk Ratio

The capital risk ratios of a bank indicate how much asset values may decline before the position of depositors and other creditors jeopardize. The capital risk is directly related to the return on equity (ROE). Higher the ratio, low is the capital risk. This ratio is computed by dividing capital (Paid up Capital + Reserves) by risk- weighted assets as computed under BASLE committee's formula.

This can be mentioned as,

$$\text{Capital Risk Ratio} = \frac{\textit{Capital(Paid up+ Reserves)}}{\textit{Risk Weighted Assets}}$$

3.5.2 Statistical Tools

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

A) Trend Analysis

This topic analyzes the trend of loan and advances to total deposit ratio and trend of total investment to total deposit ratio of NABIL, NIBL

HBL& NSBI from 2007/008 to 2010/012 and makes the forecast for the next five years. Under this topic following sub-topic has been presented.

i) Trend analysis of loan and advances to total deposits ratio.

ii) Trend analysis of total investment to total deposit ratio.

B) Co- efficient of Correlation Analysis

This analysis identifies and interprets the relationship between the two or more variables. In the case of highly correlated variables, the effect on one variable may have effect on other correlated variable under this topic; Karl Pearson's co-efficient of correlation has been used to find out the relationship between the following variables.

i. Co-efficient of correlation between deposit and loan & advances.

ii. Co-efficient of correlation between deposit and total investment.

iii. Co- efficient of correlation between total outside assets and net profits.

These tools analyze the relationship between these variables and help the banks to make appropriate policy regarding deposit collection, fund utilization (loan & advances and investments) and maximization of profit.

C) Test of Hypothesis

The objective of this test is to test the significance regarding the parameters of the population on the basis of sample drawn from the population. This test has been conducted on the various ratios related with the banking business. It id an assumption about the population, which may or may not be true, to determine whether it is true or not by taking some sample with followed some procedure is called testing hypothesis. The test of hypothesis discloses the fact whether the difference between the computed statistic and hypothetical parameter is significant.

The Test of hypothesis is:

Null hypothesis (H_0): $\rho = 0$, i.e. there is insignificant correlation ship between total deposit & loan and advance ratio of commercial bank in Nepal.

Alternative hypothesis (H_1): $\rho \neq 0$, i.e. there is correlation between total deposit & loan and advance ratio.

In this topic t statistic is used to find out the test of significance regarding the parameter of the population on the basis of sample drawn from the population.

t-test

To draw a large number of small samples i.e. ($n<32$) and compute the mean for each sample and then plot the frequency distribution of theses mean, the resulting sampling distribution would be t-test. On these study sample are taken only for five years i.e. ($5<32$).

Assumption made for using t-test in this case is that:

a) The parent populations from which samples are drawn are normally distributed.
b) The two samples are random and independent of each other.
c) The population variances are equal and unknown.

Research methodology and the various financial and statistical tools discussed above have been used in the next chapter to analyze and interpret the data regarding the NABIL, NIBL, HBL and NSBI Bank ltd. for the study period from Fiscal year 2007/2008 to 2011/ 2012.

CHAPTER IV
DATA PRESENTATION AND ANALYSIS

4.1 Financial Analysis

This is analytical chapter, where the researcher has analyzed and evaluated those major financial items, which are mainly related to the investment management and fund mobilization of NABIL, NIBL, HBL and NSBI Bank Limited. From the point of view of the fund mobilization and investment policy only those ratios are calculated and analyzed which are very important. The rations are designed and calculated to highlight the relationship between financial items and figures. It is a kind of mathematical relationship and procedure dividing one item by another. All these calculations are based on financial statements of concerned banks. The important and needed financial ratios, which are to be calculated for the purpose of this study, are as follows respectively.

4.1.1 Liquidity Ratios

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, to meet demands for deposits, withdraws, pay maturity obligation in time and convert non-cash assets into cash to satisfy immediate needs without loss to bank and consequent impact in long run profit. In fact analyses of liquidity needs are helpful to the preparation of cash budget and funds flow statement. The following ratios are evaluated and interpreted under liquidity ratio:

(i) Current Ratio

Current ratio indicates the ability of a bank to meet its current obligation. This is the broad measure of liquidity position of the financial institution. The widely accepted standard of current ratio is 2:1 but accurate standard

depends on circumstances in case of banking and seasonal business ratio such as 1:1 etc.

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

Where,

Current assets consist of cash and bank balance, money at call or short-term notice, loan advances investment in government securities and other interest receivable and other miscellaneous current assets where as current liabilities consist of deposits, loan and advances, bills payable, tax provision, staff bonus, dividend payable and miscellaneous current liabilities.

Table No. 4.1

Current Ratio (Times)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	1.043	0.89	0.90	0.91
2008/009	1.068	0.90	0.89	0.93
2009/010	1.070	0.83	0.89	0.92
2010/011	1.074	0.89	0.89	0.93
2011/012	0.904	0.89	0.89	0.93
Total	5.16	4.39	4.46	4.62
Mean	1.03	0.88	0.89	0.92
S.D	0.07	0.03	0.00	0.01
C. V.	0.070	0.031	0.003	0.011

Source : Appendix 1 A

Table no. 4.1 shows the current ratio of all four commercial banks. It is calculated as per Total Mean, Standard Deviation and Coefficient of Variation.

In the case of NABIL, NIBL, HBL & NSBI, the current ratios are on fluctuating trend. In FY 2007/008 NABIL has current ratio of 1.0427, in FY 2007/08 it has 1.0685, in FY 2010/011 it has 1.074 and in FY 2011/012 it has 0.904. NIBL has 0.890 in FY 2007/08, 0.90 in FY 2008/09, 0.83 in FY 2009/010, 0.89 in FY 2010/011 & FY 2011/12. HBL has maintained current ratio of 0.90 in FY

2007/008, 0.89 in FY 2008/009; it has maintained consistency up to FY 2011/12. NSBI has 0.91 in FY 2007/008, it has 0.93 in FY 2008/009, 0.92 in FY 2009/010 and 0.93 in FY 2010/011 & 2011/012.

In average NABIL has maintained higher current ratio than NIBL, HBL & NSBI which states that the liquidity position of NABIL is fair. The coefficient of variation of current ratio of HBL is 0.03%, which is comparatively lower than 7% of NABIL, 3.1% of NIBL and 1.10% of NSBI, it shows the current ratio of HBL is consistent than of NABIL, NIBL & NSBI.

(ii) Cash and Bank Balance to Total Deposit Ration (CRR Ratio)

Cash and bank balance is the most liquid asset. The ratio between the cash and bank balance and total deposit measures the ability of the bank to meet the unanticipated cash and all types of deposits.

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

Where,

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

Table No. 4.2
Cash and Bank Balance to Total Deposit Ration (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	8.37	10.90	4.55	9.79
2008/009	9.03	16.96	4.18	6.81
2009/010	3.02	13.61	10.28	9.86
2010/011	4.90	16.24	7.24	11.50
2011/012	7.79	20.70	13.33	10.33
Total	33.11	78.40	39.58	48.29
Mean	6.62	15.68	7.92	9.66
S.D	2.56	3.69	3.89	1.73
C. V.	0.39	0.24	0.49	0.18

Source : Appendix 1 B

The table no.4.2 shows the total mean, standard deviation and coefficient of variation of cash and bank balance to total deposit of all four commercial banks.
The CRR ratio of NABIL has been increasing trend from FY 2007/008 to FY 2008/009, it was 8.37 in FY 2007/08 and was 9.03 in FY 2008/09. But it was 3.02 in FY 2009/010 and again started increasing trend from FY 2010/011 to 2011/012. The ratio of NIBL has fluctuation trend, it was 10.90 in FY 2007/008, 16.96 in FY 2008/009, 13.61 in FY 2010/011 and was 20.70 in FY 2011/012. HBL has also increasing trend of CRR ratio, it was 4.55 in FY 2007/008, 10.28 in FY 2009/010 and was 13.33 in FY 2011/012. NSBI has increasing but fluctuating trend. The ratio of NSBI on FY 2007/008 was 9.79, it was 6.81 in FY 2008/009 and started to increase up to FY 2010/011.

Mean and standard deviation of NIBL are greater than that of other three commercial banks. The CV of NABIL, NIBL, HBL & NSBI are 39%, 24%, 49% and 18% respectively. From the above analysis it can be concluded that NIBL has better maintained of its liquidity that of other three commercial banks.

(iii) Cash and Bank Balance to Current Assets Ratio

This ratio shows the banks liquidity capacity on the basis of cash and bank balance that is the most liquid asset. So this ratio visualizes higher liquidity position than current ratio.

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

Where,

Cash and bank balance represent total of local currency, foreign currencies, cheques in hand and various bank balances in local as well as foreign banks where

as the current assets consists of cash and bank balance, money at call, short term notice, loan and advances, investment in government securities and other interest receivable and others miscellaneous current assets.

Table 4.3

Cash and Bank Balance to Current Assets Ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	7.43	9.91	4.09	7.87
2008/009	7.81	15.24	3.77	6.21
2009/010	2.73	12.13	9.28	9.15
2010/011	4.26	14.22	6.51	10.68
2011/012	6.86	18.24	11.99	9.61
Total	29.08	69.75	35.64	43.51
Mean	5.82	13.95	7.13	8.70
S.D	2.22	3.16	3.51	1.72
C. V.	0.38	0.23	0.49	0.20

Source : Appendix 1 C

Table no.4.3 shows the total mean, standard deviation and C.V. of cash and bank balance to current assets ratio of commercial banks. Current asset ratio of all four banks is better as they show the ability to manage the deposit withdrawals from the customers.

It shows that of NABIL is in increasing trend from FY 2007/008 to 2008/009 and decreased up to 2.73 again started to increase from FY 2009/010. The ratio of NABIL was 6.86 in FY 2011/012. NIBL cash and bank balance to current assets ratio is in increasing trend, it ranges from 9.91 in FY 2007/008 to 18.2 in FY 2011/012. Cash and bank balance to current assets ratio of HBL is also in increasing trend, it ranges from 4.09 in FY 2007/008 to 11.99 in FY 2011/012. NSBI has fluctuating trend, in FY 2007/008 it has 7.87 and in FY 2008/09 it has 6.21 and it increased up to 10.68 in FY 2010/11& in FY 2011/012 deceases to 9.61 in FY 2011/012.

We can conclude that liquidity position (only cash & bank balance) of NABIL is lesser than that of other three commercial banks. The liquidity position of NIBL is higher than that of NABIL, HBL and NSBI but it has

high consistency than that of NABIL & HBL but lower than that of NSBI. The table also shows that NIBL has efficiently utilized the funds.

(iv) Investment on Government Security to Current Assets Ratio

The government securities are not so much liquid as cash and bank balance. But they can easily sell in the market or they can be converted into cash in other ways. Investment on government securities includes treasury bills and development bonds etc.

$$\text{Investment on government securities current assets ratio} = \frac{\text{Current Assets}}{\text{Investment on government Securities}}$$

Table no. 4.4

Investment on government securities to current assets ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	12.93	8.32	21.08	16.16
2008/009	8.58	4.87	10.98	33.07
2009/010	15.46	7.48	10.72	43.13
2010/011	15.29	7.50	14.07	55.75
2011/012	12.83	9.54	17.27	45.61
Total	65.09	37.71	74.11	193.71
Mean	13.02	7.54	14.82	38.74
S.D	2.78	1.71	4.40	14.98
C. V.	0.21	0.23	0.30	0.39

Source : Appendix 1 D

Table no.4.4 shows the total mean, standard deviation and coefficient of variation of investment on government securities to current assets ratio of four commercial banks.

It shows that investment on government securities to current ratio of NABIL has fluctuating tend. NIBL is decreasing trend on FY 2007/008 and FY 2008/009, it has ratio of 8.32 and 4.87 in these years then it started the increasing trend up FY 2011/12 is 9.54. HBL has the fluctuating trend with ratio of 21.08, 10.98, 10.72,

14.07 and 17.27 in respective years. NSBI has also fluctuating trend, it has 16.16, 33.07, 43.13, 55.75 & 45.61 in respective years.

In overall, the mean ratio of investment on government securities to current assets ratio of NSBI is higher than that of HBL, NABIL & NIBL i.e. 38.74>74.11>65.09 & 37.71. On the other hand coefficient of variation of NABIL is lesser than that of other three banks i.e. 0.21< 0.39, 0.30& 0.23.

It can be concluded that NSBI uses to invest its current assets in government securities more than other three banks and the investment is quite stable than that of other three.

(v) Loan and Advances to Current Assets Ratio

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

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

Table no. 4.5

Loan & advances to current assets ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	59.47	71.23	55.00	70.98
2008/009	63.86	69.76	64.62	49.35
2009/010	62.82	71.78	67.17	46.45
2010/011	66.49	71.78	69.30	46.78
2011/012	66.72	64.35	65.90	45.59
Total	319.34	348.91	321.99	259.15
Mean	63.87	69.78	64.40	51.83
S.D	2.98	3.14	5.53	10.79
C. V.	0.05	0.05	0.09	0.21

Source : Appendix 1 E

Table no. 4.5 shows the total mean, standard deviation and coefficient of variation of loan & advances to current assets ratio of commercial banks. Through this table loan & advances to current assets ratios of the sample CBS are analyzed.

Loan & advances to current assets ratio of NABIL is in increasing trend. Similarly NIBL & HBL has fluctuating trend. Ratio of NIBL started to decrease in FY 2008/009, increase in up to FY 2010/11 and again started to decreasing trend on FY 2011/012. However HBL has increasing trend up to FY 2010/011 of 69.30 and decreased to 65.90 in FY 2011/012. However NSBI has decreasing trend from ratio of 70.98 to 45.59 during the analysis period.

Mean Value of this ratio of NIBL is higher than that of HBL, NABIL & NSBI i.e. 69.78> 64.40>63.87>51.83. However the coefficient of variation of NABIL &NIBL is equal i.e. 0.05 which are lesser than that of HBL &NSBI i.e. 0.05<0.09<0.21.

It can be concluded that NIBL invests more of its current assets as loans & advances than that of other three banks.

4.1.2 Asset Management Ratios (Activity Ratios)

Asset management ratio measures the efficiency of the bank to manage its asset in profitable and satisfactory manner. They indicate the speed with which assets are being converted. Thus these ratios are used to measure the bank's ability to utilize their available resources.

Under this asset management ratio following ratios are studied.

(i) Loan & Advances to Total Deposit Ratio

It shows the relationship between loans & advances to total deposit. The ratio measures the extent to which the banks are successful to mobilize their total deposit on loan & advances.

$$\text{Loan \& advances to total deposit ratio} = \frac{\text{Loan and Advances}}{\text{Total Deposit}}$$

Where,

Loan & advances include loans, advances, cash credit, local and foreign bill purchased and discount. Total deposits include saving, fixed current call at short deposit and others.

Table no.4.6

Loan & advances to total deposit ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	66.94	78.36	61.23	88.32
2008/009	73.87	77.61	71.49	54.12
2009/010	69.63	80.48	74.39	50.09
2010/011	76.53	81.96	77.14	50.37
2011/012	75.78	73.03	73.26	49.01
Total	362.76	391.45	357.51	291.92
Mean	72.55	78.29	71.50	58.38
S.D	4.12	3.41	6.10	16.85
C. V.	0.06	0.04	0.09	0.29

Source : Appendix 2 A

Table no. 4.6 shows the total mean, S.D. and C.V. of loan & advances to total deposit ratio of commercial banks. Contents of the table show the percentage of loan & advances to total deposit ratio position of NABIL, NIBL, HBL & NSBI.

The table shows that the ratio of NABIL has fluctuating trend. It has ratio of 66.94 in FY 2007/008 and increasing trend in FY 2008/09 i.e. 73.87 and decreasing trend in FY 2009/010 i.e. 69.63, it is 75.78 in FY 2011/012. NIBL has slow increasing trend from FY 2008/009 to 2010/011, i.e. highest of 81.93 and then decreasing trend. Similarly HBL has increasing trend up to FY 2009/010 i.e. highest of 74.39 and decreasing trend up to FY 2011/012. However NSBI has decreasing trend i.e. ratio from 88.32 to 49.01.

The mean value of NABIL, NIBL, HBL & NSBI are 75.22, 78.29, 71.50 & 58.38 respectively. It shows that NIBL has been success to maintain the highest ratios

than that of other three banks. The coefficient of variation of NIBL is lower than that of other three banks i.e. 0.04<0.06<0.09<0.29.

From the above table, it shows that NIBL has strong position regarding the mobilisation of total deposit on loan & advances. The C.V of NIBL is also less than that of other three banks, which indicate that loans & advances of NIBL is stable and consistent than that of other three commercial banks.

(ii) Total Investment to Total Deposit Ratio

A commercial bank mobilizes its deposit by investing its fund in different securities issued by government and other financial or non-financial companies. This ratio measures the extent to which the banks are able to mobilize their deposit on investment in various securities.

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

Where,

Total investment consists of investment on government securities, investment on debenture and bonds, share in subsidiary companies, shares in other companies and other investment.

Table no.4.7

Total investment to total deposit ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	31.14	19.95	41.89	22.52
2008/009	28.99	15.85	25.12	47.52
2009/010	29.50	17.24	22.45	46.73
2010/011	26.32	14.81	21.43	44.59
2011/012	25.64	18.31	21.02	45.87
Total	141.59	86.15	131.91	207.22
Mean	28.32	17.23	26.38	41.44
S.D	2.29	2.02	8.82	10.63
C. V.	0.08	0.12	0.33	0.26

Source : Appendix 2 B

Table no. 4.7 shows the total mean, standard deviation & coefficient of variation of total investment to total deposit ratio of selected commercial banks.

The above table shows that NABIL has decreasing trend which has decreased up to 25.64 in FY 2011/012 from 31.14 of FY 2007/008. NIBL has ratio of fluctuating trend, which has 19.95 in FY 2007/008, it decreased in FY 2008/09 i.e. 15.85, increase in FY 2009/010 i.e. 17.24, again decrease in FY 2010/11 i.e. 14.81 and again increase up to 18.31 in FY 2011/012. However HBL has decreasing trend throughout the analysis period i.e. from 41.89 in FY 2007/008 to 21.02 in FY 2011/012. NSBI has also fluctuating trend which has increased up 47.52 in FY 2008/009 and decrease from FY 2009/010 on fluctuating trend i.e. 46.73, 44.59 & 45.87 respectively of FY 2009/010 to FY 2011/012.

The mean value of NSBI is higher than that of NABIL, HBL &NIBL i.e. 41.44>28.32>26.38>17.23. But NABIL has lower coefficient of variation of than that of other three banks i.e. 0.08<0.12<0.33<0.26 respectively.

From the above analysis, it is clear that NSBI has been success to better utilization of deposit to investment than other three banks however NABIL has higher consistency to investments in securities than other banks. In conclusion, NSBI has better investment policy.

(iii) Loan and Advances to Total Working Fund Ratio

The commercial bank must be very careful in mobilizing its total asset as loan & advances in appropriate level to generate profit. This ratio reflects the extent to which the commercial banks are success in mobilizing their assets on loan & advances for the purpose of income generating. A high ratio indicates better in mobilization of funds as loan and advances and vice versa.

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

Where,

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

Table no. 4.8

Loan and advances to total working fund ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	57.54	69.45	53.90	70.48
2008/009	62.89	68.37	63.05	48.94
2009/010	61.88	70.36	65.50	45.94
2010/011	65.42	70.42	67.54	46.36
2011/012	65.77	63.32	64.32	45.03
Total	313.50	341.92	314.31	256.75
Mean	62.70	68.38	62.86	51.35
S.D	3.32	2.95	5.28	10.79
C. V.	0.05	0.04	0.08	0.21

Source : Appendix 2C

Table no. 4.8 shows the total mean, standard deviation and coefficient of variation of loan and advances to total working fund ratio of selected four commercial banks.

It shows that the loan & advances to working fund ratio of NABIL has fluctuating tend, in FY 2007/008 it has 57.74, in FY 2008/009 it has 62.89, again decrease up to 61.88 in FY 2009/010 and started increasing trend from FY 2010/011. NIBL has increasing trend up to FY 2010/011 i.e. 70.42 from 69.45 that of FY 2007/08, it decreased to 63.34 in FY 2011/11. Similarly HBL has also increasing trend up to FY 2010/011 i.e.67.54 and it decreased to 64.32 in FY 2011/012. However NSBI has decreasing trend, in FY 2007/08 it has 70.48 which started decreasing in FY 2008/09 & 2009/010 i.e. 45.94 in FY 2009/10, it increased to 46.36 in FY 2010/011 and again decreased in FY 2011/012.

Here mean value of NIBL is higher than that of HBL, NABIL &NSBI i.e. 68.38>62.86>62.70>51.35 but coefficient of variation of NSBI is higher than that of other three commercial banks.

From the analysis it can be concluded that NIBL has success to better mobilization of funds as loans & advanced for purpose of income generation. HBL mobilize the fund less than NIBL & NABIL but greater than NSBI.

(iv) Investments on Government Securities to Total Working Fund Ratio

To some extend commercial bank seems to utilize its fund by purchasing government securities. Government securities are a safe medium of investment though it is not liquid as cash and bank balance. This ratio is very important to know the extent to which the banks are successful in mobilizing their total fund on different type of government securities to maximize its income.

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

Where,

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

Table no. 4.9

Investment on government securities to total working fund ratio

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	12.51	8.12	20.65	9.40
2008/009	8.45	4.78	10.71	10.70
2009/010	15.23	7.33	10.45	11.34
2010/011	15.04	7.36	13.71	12.10
2011/012	12.65	9.38	16.85	7.86
Total	63.88	36.97	72.38	51.38
Mean	12.78	7.39	14.48	10.28
S.D	2.74	1.68	4.32	1.68
C. V.	0.21	0.23	0.30	0.16

Source : Appendix 2D

Table no. 4.9 shows the total mean, standard deviation and coefficient of variation of Investment on government securities to total working fund ratio of commercial banks.

The above shows that investment on government securities to total working fund ratio of NABIL has fluctuating trend, in FY 2007/008 it was 12.51 but it decreased in following year i.e. 8.45 in FY 2008/009, again it increase in FY 2009/10 to 15.23, it was 15.04 in FY 2010/011 and 12.65 in FY 2011/012. The ratio of NIBL has also fluctuating trend, which was 8.12 in FY 2007/008, decrease in FY 2008/009 to 4.78, increase up FY 2011/012 i.e. 79.38. Similarly HBL & NSBI has also fluctuating trend, the highest of HBL is in FY 2007/008 i.e. 20.65 and the highest of NSBI is on FY 2010/011 i.e. 12.10.

Mean Ratio of HBL has higher than that of NABIL, NSBI & NIBL i.e. 14.48>12.78>10.28>7.39. However, the coefficient of variation of NSBI is lower than that of others i.e. 0.16<0.21<0.23<0.30.

It has found that HBL has higher mean ratio of investment on government securities. It indicates that HBL has success to better mobilising the funds as investment on government securities.

(v) Investment on Shares and Debenture to Total Working Fund Ratio

There has been two types of investment i.e., investment on government securities and investment on shares & debenture. Investment on shares and debentures to total working fund ratio reflects the extent on which the banks are successful to mobilize their total assets on purchase of shares and debentures of other companies to generate incomes and utilize their excess fund.

$$\text{Investment on Shares \& Debentures to Total Working Fund Ratio} = \frac{\text{Investment on Shares and Debentures}}{\text{Working Fund Ratio}}$$

Where,

Investment on shares and debentures includes investment on debentures bonds and share of the other companies.

Table no. 4.10

Investment on shares and Debentures to total working fund ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	0.87	0.14	0.25	0.19
2008/009	0.81	0.12	0.24	0.11
2009/010	0.67	0.11	0.18	0.10
2010/011	1.62	0.12	0.19	0.09
2011/012	1.32	0.26	0.16	0.05
Total	5.28	0.75	1.02	0.53
Mean	1.06	0.15	0.20	0.11
S.D	0.40	0.06	0.04	0.05
C. V.	0.38	0.42	0.18	0.48

Source : Appendix 2E

Table no.4.10 shows the total mean, standard deviation and coefficient of variation of investment on shares and debentures to total working fund ratio.

The table shows that investment on shares and debentures to total working fund ratio of NABIL has fluctuating trend. It has 0.87 in FY 2007/008, but decreased in FY 2008/009 i.e. 0.81, then increases up to FY 2010/011 i.e. 1.62 and again decrease in FY 2011/012 i.e. 1.32. NSBI has decreasing trend; in FY 2007/008 it has 0.19 whereas in FY 2011/012 it has 0.05.

The mean value of NABIL is higher than that of HBL, NIBL & NSBI i.e. 1.06>0.20>0.15>0.11. The coefficient of variation of NABIL, NIBL, HBL & NSBI are 0.38, 0.42, 0.18 & 0.48 respectively.

The analysis shows that NABIL has invested more of its working fund in share and debentures in comparison of other there commercial banks. Its coefficient of variation is also higher than that of other three banks which indicate that it is less

consistent than other banks. We can conclude that NIBL's invest in shares and debenture seems to be consistent.

4.1.3 Profitability Ratios

Profitability ratios are very helpful to measure the overall efficiency of operation of financial institutions. Here, profitability ratios are calculated and evaluated in terms of the relationship between net profit and assets. Higher the profit ratio shows that higher the efficiency of a bank.

The following profitability ratios are taken into account under this heading.

(i) Return on Total Working Fund Ratio

This ratio measures the profit earning capacity by utilizing available resources i.e. total asset. Return will be higher if the banks working fund is well managed and efficiency utilized. Maximizing taxes within the legal options available will also improve the return.

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

Where,

Net profit includes the profit that is left to the internal equities offer all costs, charge and expenses.

Table 4.11
Return on Total Working Fund Ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	2.01	1.79	1.76	1.44
2008/009	2.35	1.70	1.91	1.02
2009/010	2.18	2.21	1.19	1.03
2010/011	2.30	2.02	1.91	1.01
2011/012	2.69	1.58	1.76	0.83
Total	11.53	9.30	8.54	5.33
Mean	2.31	1.86	1.71	1.07
S.D	0.25	0.25	0.30	0.23
C. V.	0.11	0.14	0.17	0.21

Source : Appendix 3A

The table no.4.11 shows the total mean, standard deviation and coefficient of variation of return on total working fund ratio of all four commercial banks.

The above table shows that return on total working fund ratio of NABIL has increasing trend in FY 2007/008 and 2008/009 i.e. 2.01 & 2.35, then decrease in FY 2009/010 i.e.2.18 then it started to increase and reached up to 2.69 in FY 2011/012. In case of NIBL, it has decreasing tend in FY 2007/008 & 2008/009 i.e. 1.79 & 1.70, which increased in FY 2009/010 i.e. 2.21 and again started to decrease and reached to 1.58 in FY 2011/012. The ratio of HBL has fluctuating trend with consistency. However NSBI has decreasing trend, it has 1.44 in FY 2007/008 and 0.83 in FY 2011/012.

Mean ratio of NABIL is higher than that of NIBL, HBL & NSBI i.e. 2.31>1.86>1.07>1.07. Similarly NSBI has higher consistency in comparison of HBL, NIBL & NABIL i.e. 0.21>0.17>0.14>0.11.

From the analysis it is found that NABIL has success to maintain higher ratio in return on working fund. The coefficient of variation NSBI is less than that of other three banks which indicate that the return on working fund ratio of NSBI is stable and consistence.

(ii) Return on Loans & Advances Ratio

It measures the earning capacity of a commercial banks on its deposits mobilized on loan & advances. Higher the ratio greater will be the return and vice versa.

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

Where,

Loan & Advances includes loan cash credit, overdraft bills purchased and discounted.

Table No. 4.12

Return on Loan & Advances Ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	3.49	3.26	2.58	2.05
2008/009	3.74	3.04	2.49	2.09
2009/010	3.53	1.82	3.14	2.24
2010/011	3.52	2.83	2.86	2.17
2011/012	4.09	2.74	2.50	1.84
Total	18.37	13.69	13.56	10.39
Mean	3.67	2.74	2.71	2.08
S.D	0.25	0.55	0.28	0.15
C. V.	0.07	0.20	0.10	0.07

Source : Appendix 3 B

The table no 4.12 shows the total mean, standard deviation and coefficient of variation of return on loan & advances ratio of commercial banks.

The above table shows that return on loan & advances ratio of NABIL at first increases from 3.49 to 3.74 in FY 2007/008 & 2008/009 respectively. After that it stated to decrease and reached to 3.53 in FY 2010/011 and again increased to 4.09 in FY 2011/012. NIBL has decreasing trend up to FY 2009/010 i.e. 1.82 which increased to 2.83 in FY 2010/011 and again decreased to 2.74 in FY 2011/012. The ratios of HBL at first was 2.58 in FY 2007/008, was 2.49 in FY 2008/009, it increased in FY 2009/010 to 3.14 and started decreasing from the following year which was 2.50 in FY 2011/012. NSBI's ratio was on increasing trend up to FY 2009/010 i.e. 2.24 which was 2.05 in FY 2007/008, however it started to decreasing trend from 2010/011 and reached to 1.84 in FY 2011/012.

Mean ratio of NABIL is higher than that of other three banks i.e. 3.67>2.74>2.71>2.08.Coeficient of variation of NABIL is lesser than that of NIBL & HBL but equal to that of NSBI. The C.V. of NABIL, NIBL, HBL and NSBI are 0.07, 0.20, .010 and 0.07 respectively.

From the analysis it is found that NABIL has comparatively higher return than others. It concluded that NABIL has been success to earn high return on its loan & advances. It indicates that invest policy of NABIL is effective than other three banks. The C.V of NABIL is also lower than that of other banks; it shows that NABIL has consistency in return than other three banks.

(iii) 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 asset of a commercial bank.

$$\text{Total Interest Earned to Total Outside Assets Ratio} = \frac{\text{Total Interest Earned}}{\text{Total Outside Assets}}$$

Where,

Total outside assets includes loan & advances, investment on government securities, share and debentures and other all types of investment.

Table No. 4.13

Total Interest Earned to Total Outside Assets Ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	6.32	6.48	5.98	6.38
2008/009	7.28	7.49	6.99	5.14
2009/010	8.81	9.51	8.64	6.72
2010/011	10.28	11.96	10.73	7.71
2011/012	11.04	11.49	10.50	7.45
Total	43.73	46.92	42.84	33.40
Mean	8.75	9.38	8.57	6.68
S.D	1.98	2.40	2.10	1.01
C. V.	0.23	0.26	0.24	0.15

Source : Appendix 3 C

The table no.4.13 shows the total mean, standard deviation & coefficient of variation of total interest earned to total outside assets ratio of commercial banks.

The table shows the ratio of total interest earned to total outside asset of NABIL has increasing trend which were 6.32, 7.28, 8.81, 10.28 & 11.04 from FY 2007/008 to FY 2011/012. Similarly NIBL has also increasing trend which was 6.48 in FY 2007/008, 9.51 in FY 2009/010 and 11.49 in FY 2011/012. HBL has also the increasing trend which was 5.98 in FY 2007/008, but it decreased to 10.50 in FY 2011/012 from that of 10.73 in FY 2010/011. NSBI has decreasing trend at first i.e. 6.38 and 5.14 in FY 2007/008 & 2008/009 respectively, which started to increase from FY 2009/010 and reached to 7.71 in FY 2010/011 and again decreased to 7.45 in FY 2011/012.

The mean ratio of NIBL is higher than that of other three banks, i.e. 9.38>8.75>8.57>6.68. The C.V of NIBL is also higher than that of others, The C.V. of NABIL, NIBL, HBL and NSBI are 0.23, 0.26, 0.24 & 0.15 respectively.

From the analysis, it can be concluded that NIBL have better position with respect to the income earned from total outside assets in comparison of other banks.

(iv) Total Interest Earned to Total Working Fund Ratio

It reflects the extent to which the banks are successful in mobilizing their total assets to generate high income as interest. This ratio actually reveals the earning capacity of a commercial bank by mobilizing its working fund: A high ratio is indicator of high earning power of the bank on its total working fund and vice versa.

$$\text{Total Interest Earned to Total Working Fund Ratio} = \frac{\text{Total Interest Earned}}{\text{Total Working Fund}}$$

Table no.4.14

Total Interest Earned to Total Working Fund Ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	5.33	5.64	5.43	5.65
2008/009	6.38	6.16	5.96	4.72
2009/010	7.76	8.12	7.37	5.97
2010/011	9.04	9.94	9.26	6.74
2011/012	9.72	9.10	8.69	6.49
Total	38.22	38.97	36.70	29.56
Mean	7.64	7.79	7.34	5.91
S.D	1.82	1.85	1.66	0.79
C. V.	0.24	0.24	0.23	0.13

Source : Appendix 3 D

Table no. 4.14 shows the total mean, standard deviation & coefficient of variation of total interest earned to total working fund ratio of NABIL, NIBL, HBL and Nepal SBI Bank.

The table shows that total interest earned to total working fund ratio of NABIL is in increasing trend, which are 5.33, 6.38, 7.76, 9.04 & 9.72 respectively from FY 2007/008 to FY 2011/012. Similarly NIBL has also increasing trend up to 2010/011 which was 5.64 in FY 2007/008 and 9.94 in FY 2010/011 but it decreased slightly on FY 2011/012 i.e. 9.10. HBL has also the increasing trend as of NIBL, it was 5.43 in FY 2007/008 and 9.26 in FY 2010/011 but it decreased to 8.69 in FY 2011/012. NSBI has fluctuating trend, at first in FY 2007/008 it was 5.65 which decreased to 4.72 in following year and started to increasing trend up to FY 2010/11 which reached to 6.74 and again decreased to 6.49 in FY 2011/012.

The mean ratio of NIBL is higher than that of NABIL, HBL &NSBI i.e. 7.79>7.64>7.34>5.91. The C.V. of both NABIL & NIBL are equal i.e. 0.24 but higher than that of HBL & NSBI.

From the analysis, it can be concluded that NIBL has been successful in mobilising their total assets to generate high income as interest. It means total interest earned to total working fund ratio of NIBL is stable.

(v) Total Interest Paid to Total Working Fund Ratio

Total interest paid to total working fund ratio measure the percentage of total interest paid against the total working fund. A high ratio indicates the higher interest expenses on total working fund and vice-versa.

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

Where,

Total interest paid includes total expenses on deposit liabilities, loan & advances (borrowing) and other deposits.

Table No. 4.15

Total Interest Paid to Total Working Fund Ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	2.04	2.55	2.28	2.65
2008/009	2.63	3.18	2.38	2.67
2009/010	3.76	4.46	3.64	3.79
2010/011	5.08	6.20	5.17	4.55
2011/012	4.98	5.80	5.18	4.77
Total	18.50	22.20	18.64	18.43
Mean	3.70	4.44	3.73	3.69
S.D	1.37	1.59	1.42	1.01
C. V.	0.37	0.36	0.38	0.27

Source : Appendix 3 E

The table no. 4.15 shows that the total mean, standard deviation and coefficient of variance of total interest paid to total working fund ratio.

The table shows that the total interest paid to total working fund ratio of NABIL is in increasing trend, which are 2.04, 2.63, 3.76 & 5.08 respectively from FY 2007/008 to FY 2010/011, but it decreased to 4.98 in FY 2011/012. Similarly NIBL has also increasing trend up to FY 2010/011 i.e. 6.20 than that of 2.55 in FY 2007/008, which decreased to 5.80 in FY 2011/012. The ratio of HBL has increasing trend which increased up to 5.18 FY 2010/011 from 2.28 in FY 2007/008. NSBI has increasing trend which increased up to 4.77 in FY 2011/012 from 2.65 that of FY 2.65.

Mean ratio of NSBI is lower than that of other three banks. The mean rations are 3.70, 4.44, 3.73 and 3.69 respectively of NABIL, NIBL, HBL & NSBI. This means NSBI has paid lower interest in comparison of other banks. That means it is paying less interest against its working fund.

4.1.4 Risk Ratios

The possibility of risk makes banks investment a challenging task. Bank has to take risk to get return on investment. It increases effectiveness and profitability of the bank. If a bank expects high return on its investment it has to accept the risk and manage it efficiently.

Through following ratios, effort has been made to measure the level of risk.

(i) Liquidity Risk Ratio

The liquidity risk ratio measures the level of risk associated with the liquid assets i.e. cash, bank balance that are kept in the bank for the purpose of satisfying the depositor's demand for cash. Higher the ratio, lower the liquidity risks.

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

Table No. 4.16

Liquidity Risk Ratios (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	8.37	10.90	4.55	9.79
2008/009	9.03	16.96	4.18	6.81
2009/010	3.02	13.61	10.28	9.86
2010/011	4.90	16.24	7.24	11.50
2011/012	7.79	20.70	13.33	10.33
Total	33.11	78.40	39.58	48.29
Mean	6.62	15.68	7.92	9.66
S.D	2.56	3.69	3.89	1.73
C. V.	0.39	0.24	0.49	0.18

Source : Appendix 4 A

The table no. 4.16 shows the mean, standard deviation and coefficient of variation of liquidity risk ratio of commercial banks. Figure in the table shows the percentage of liquidity risk ratio of NABIL, NIBL, HBL & Nepal SBI Bank.

In the above table liquidity ratios of the commercial banks are in fluctuating trend. NABIL has 8.37 in FY 2007/008, it increased to 9.03 in FY 2008/009 and decreased to 3.02 in FY 2009/010 and started to increase from the following year. It reached to 7.79 in FY 2011/012. NIBL has 10.90, 16.96, 13.61, 16.24 & 20.70 in FY 2007/008 to 2011/012. HBL has fluctuating trend of ratio, it has 4.55, 4.18, 10.28, 7.24, & 13.33 from FY 2007/008 to 2011/012. At first NSBI has ratio of 9.79 in FY 2007/008 but it decreases to 6.81 in FY 2008/009. After that it started to increase and reached to 11.50 in FY 2010/011, which again decreased in FY 2011/012 to 10.33.

In observation of mean ratios, it is found that NIBL has higher than that of NSBI, HBL & NABIL i.e. 15.68>9.66>7.92>6.62. Which Indicate NIBL's liquidity risk is lower and NABIL liquidity risk is higher than other three banks. According to coefficient of variation, NSBI has lower C.V. than other three commercial banks which indicate that it's liquidity is consistent than other three banks.

(ii) Credit Risk Ratio

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

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

Table No 4.17

Credit Risk Ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	57.54	69.45	53.90	70.48
2008/009	62.89	68.37	63.05	48.94
2009/010	61.88	70.36	65.50	45.94
2010/011	65.42	70.42	67.54	46.36
2011/012	65.77	63.32	64.32	45.03
Total	313.50	341.91	314.31	256.75
Mean	62.70	68.38	62.86	51.35
S.D	3.32	2.95	5.28	10.79
C. V.	0.05	0.04	0.08	0.21

Source : Appendix 4 B

The table no.4.17 shows that the total mean, standard deviation & coefficient of variation of credit risk ratio of selected four commercial banks.

The table shows that the credit risk ratios of NABIL has increasing trend, it has 57.54, 62.89, 61.88, 65.42 & 65.77 from FY 2007/008 to FY 2011/012. NIBL has ratio of 64.95 in FY 2007/008, which decreased in FY 2008/009 to 68.37 and increased up to 7.042 in FY 2010/11 and decreased in FY 2011/012 i.e. 63.32. HBL has increasing trend up to FY 2010/011 i.e. 67.54 from FY 2007/008 i.e. 53.90, it decreased to 64.32 in FY 2011/022. NSBI's ratio is decreasing but fluctuating trend, it has 70.48 in FY 2007/008, and started to decrease up to FY

2009/010 i.e. 46.94, it increased to 46.36 in FY 2010/011 and again decreased to 45.03 in FY 2011/012.

Mean ratio of NSBI is lower than NIBL, HBL &NABIL i.e. 68.38<62.82<62.7<51.35. And coefficient of variation of NIBL is lower than that of other three banks. It indicates that NIBL has stable credit policy and consistency than other three banks.

(iii) Capital Risk Ratio

Capital ratio measures bank ability to attract deposits and interbank funds. It also determine the level of profit, a bank can earn if a bank chooses to take high capital risk. The capital risk is directly related to return on equity.

$$\text{Capital Risk Ratio} = \frac{\text{Capital (Paid up capital + Reserves)}}{\text{Risk Weighted Assets}}$$

(Only loan and advances is taken as risk weighted assets)

Table No. 4.18

Capital Risk Ratio (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	12.53	13.84	17.30	13.33
2008/009	12.43	13.68	14.60	12.64
2009/010	12.81	13.98	14.08	15.16
2010/011	12.80	15.11	14.24	14.41
2011/012	13.85	17.05	14.68	14.53
Total	64.42	73.66	74.90	70.07
Mean	12.88	14.73	14.98	14.01
S.D	0.56	1.41	1.32	1.01
C. V.	0.04	0.10	0.09	0.07

Source : Appendix 4 C

The table no.4.18 shows the total mean, standard deviation & coefficient of variance of capital risk ratio of selected four commercial banks.

In the above table capital risk ratio of NABIL has fluctuating trend from FY 2007/008 to 2011/012 i.e. 12.53, 12.43, 12.81, 12.81 & 13.85 respectively. But in case of NIBL, it has increasing trend i.e. 13.84, 13.68, 13.98, 15.11 & 17.05 from FY 2007/008 to 2011/012. HBL has 17.30 in FY 2007/008, which decreased up to 14.08 in FY 2009/010 and increased from following year and reached to 14.68 in FY 2011/012. Similarly NSBI has also fluctuating trend i.e. 13.33, 12.64, 15.15, 14.41 & 14.53 respectively from FY 2007/008 to 2011/012.

If the mean ratios are observed, NABIL has lesser than that of other three banks. Similarly coefficient of variation of NABIL is also lower than that of NSBI, HBL & NIBL i.e. 0.04<0.07<0.09<0.10. It is concluded that NABIL bank is more stable and consistent than other three banks.

4.2 Statistical Tools

4.2.1 Trend Analysis

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

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

(i) Trend analysis of loan & advances to total deposit ratio of NABIL, NIBL, HBL & NSBI Bank Ltd.

Calculate the trend values of loan and advances to total deposits ratio of NABIL, NIBL HBL and NSBI for 5 years from 2007/008 to 2011/012 and forecast for next 5 years from 2012/013 to 2016/017. The following table 4.19 shows the trend value of loan & advanced to total deposit ratio for ten years for the NABIL, NIBL, HBL and NSBI.

Table 4.19

Trend Analysis of Loan & Advances to Total Deposit Ratio

NABIL, NIBL, HBL & NSBI Bank Ltd (%)

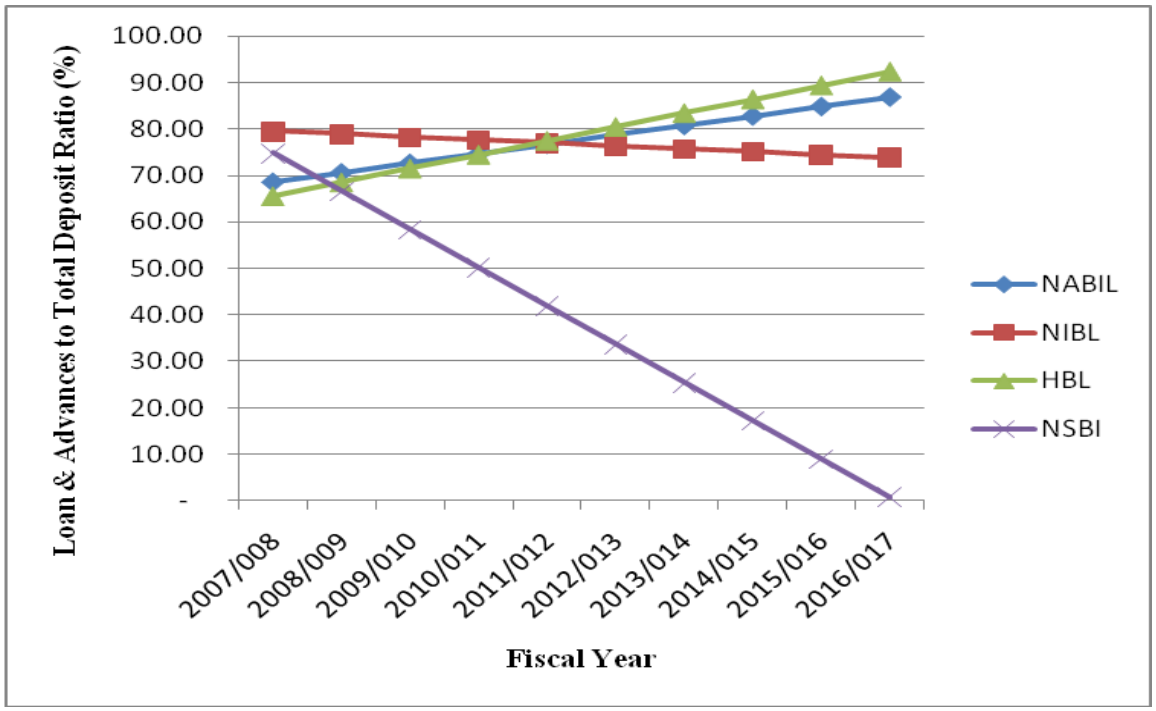
Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	68.48	79.55	65.56	74.86
2008/009	70.52	78.92	68.53	66.62
2009/010	72.55	78.29	71.50	58.38
2010/011	74.58	77.66	74.47	50.15
2011/012	76.62	77.03	77.44	41.91
2012/013	78.65	76.40	80.42	33.67
2013/014	80.69	75.76	83.39	25.43
2014/015	82.72	75.13	86.36	17.20
2015/016	84.75	74.50	89.33	8.96
2016/017	86.79	73.87	92.30	0.72

Source : Appendix 5A

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

Figure 4.1

Trend Analysis of Loan & Advances to total deposit ratio of NABIL, NIBL, HBL& NSBI



Source : Table n. 4.19

From the table no.4.19 it has been shows that the ratio of loan & advances to total deposits of NABIL and HBL are in increasing trend but NIBL and NSBI bank is in decreasing trend. However NIBL has slow decreasing trend as compared to NSBI. If our assumption are applied the ratio of loan & advances to total deposits of NSBI in 2016/17 will be 0.72% which is the lowest than other bank. Similarly ratio of NABIL, NIBL and HBL in 2016/17 will be 86.79%, 73.87% and 92.30% respectively.

From figure 4.19 shows that trend of loan & advances to total deposit ratio of NABIL &HBL are in increasing trend and NIBL & NSBI has decreasing trend. If our assumption is applied the ratio of loan & advances to total deposits of NABIL will be 86.79 % in FY 2016/017, NIBL's ratio in FY 2016/017 will be 73.87%,

and HBL's ratio in FY 2016/17 will be 92.30% which is higher than other banks. On the other side, NSBI's ratio will be 0.72% in FY 2016/017 which is lower than others.

From the analysis it can be concluded that HBL's increasing trend ratio has greater increasing ratio than other three banks. It means HBL may be able to better utilize its total deposits on loan and advances for profit generating purpose.

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

Calculate the trend values of total investment to total deposits ratio of NABIL, NIBL, HBL and NSBI for 5 years from 2007/0085 to 2011/012 and forecast for next 5 years from 2012/13 to 2016/017. The following table no.4.20 shows the trend value of total investments to total deposits ratio of NABIL, NIBL, HBL and NSBI bank.

Table 4.20

Trend analysis of total investment to total deposit ratio of NABIL, NIBL, HBL & NSBI Bank (%)

Fiscal Year	NABIL	NIBL	HBL	NSBI
2007/008	31.052	18.10	35.47	32.69
2008/009	29.685	17.66	30.93	37.07
2009/010	28.318	17.23	26.38	41.45
2010/011	26.951	16.80	21.84	45.82
2011/012	25.584	16.37	17.30	50.20
2012/013	24.22	15.94	12.75	54.58
2013/014	22.85	15.50	8.21	58.95
2014/015	21.48	15.07	3.67	63.33
2015/016	20.12	14.64	(0.88)	67.71
2016/017	18.75	14.21	(5.42)	72.09

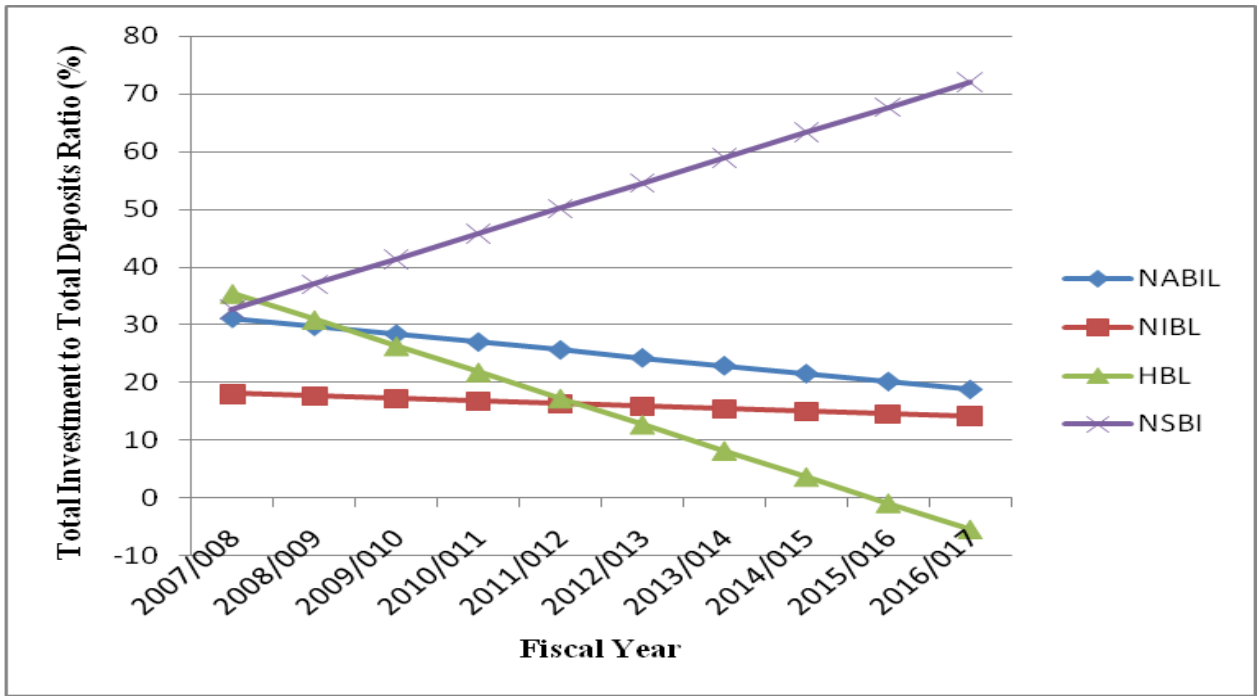
Source : Appendix 5B

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

Figure 4.2

Trend analysis of total investment to total deposit ratio of

NABIL, NIBL, HBL & NSBI Bank



Source: Table 4.20

From the table no.24 shows that the ratio of total investment to total deposit ratio of NABIL, NIBL& HBL has decreasing trend but NSBI bank has increasing trend. If our assumption is applied the ratio of total investment to total deposit of NABIL in 2016/017 will be 18.75% & NIBL's ratio in 2016/017 will be 14.21% which is lower than NABIL & NSBI. Similarly ratio of NSBI in 2016/017 will be 72.09% which is higher than other banks. However HBL's ratio will be negative to (5.42) % in FY 2016/017.

From the analysis it can be concluded that NSBI's increasing trend ratio has greater increasing ratio than other three banks, it means NSBI may use relatively large portion of deposit towards investment in different sectors. Above analysis also reveals that NABIL, NIBL, HBL and NSBI use the skill and attention

towards the potential sector of the investment. However HBL has to improve its decreasing trend of deposit utilisation on investments.

4.2.1 Coefficient of Correlation Analysis & Test of Hypothesis

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

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

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

Table 4.21

Co-efficient of correlation between deposits and loan & advances & test of hypothesis

Evaluation criteria	R	r^2	tcal	ttab	Result
NABIL	0.99	0.9801	12.1529	3.182	Significant
NIBL	0.96	0.9216	5.9386	3.182	Significant
HBL	0.96	0.9216	5.9386	3.182	Significant
NSBI	0.98	0.9604	8.5299	3.182	Significant

Source : Appendix 6A

From the table no. 4.21 shows that r, r_2, & test of hypothesis between deposit and loan and advances of NABIL, NIBL, HBL and NSBI for the period of 2007/008 to 2011/012.

It is found that the co-efficient of correlation (r) between deposit and loan & advances of NABIL, NIBL, HBL & NSBI are 0.99, 0.96, 0.96 and 0.98 respectively of NABIL, NIBL, HBL & NSBI. It shows the highly positive relation between these two variables. However co-efficient of determination i.e. r^2 it indicates that in case of NABIL 0.9801 of the variation in the dependent variable i.e. loan & advances has been explained by the independent variables i.e. deposit. In case if NIBL & HBL 0.9216 and in case of NSBI 0.9604 of dependent variable has been explained by the independent variable. Moreover considering the hypothesis all selected banks have significant relationship between deposit and loan & advances. It reveals that all four banks are successful in mobilizing their deposits and loan & advances. NABIL has the highest value of 'r' that indicated better position of its mobilization of deposit and loan & advances in comparison of NIBL, HBL & NSBI.

(ii) Co-efficient of correlation between deposits and total investment & test of hypothesis

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

Table 4.22

Co-efficient of correlation between deposits and total investment & test of hypothesis

Evaluation criteria	r	r^2	t-cal	t-tabu	Result
NABIL	0.96	0.9216	8.5299	3.182	Significant
NIBL	0.81	0.6561	2.3926	3.182	Insignificant
HBL	(0.37)	0.1369	(0.6894)	3.182	Insignificant
NSBI	0.99	0.9801	12.1529	3.182	Significant

Source: Appendix 6B

The table no. 4.22 shows that, the value of r, r2, & test of hypothesis between deposit and total investment of NABIL, NIBL, HBL and NSBI Bank Limited for the study period 2007/008 to 2011/012.

It is found that the co-efficient of correlation (r) between deposits and total investments is 0.96, 0.81 & 0.99 respectively of NABIL, NIBL & NSBI. However, it is (0.37) in case of HBL. It shows that NABIL, NIBL & NSBI has positive relationship between deposit and total investment however HBL has negative relationship. Moreover when we consider the value of coefficient of determination (r^2) it is 0.9216 of NABIL which means 92.14% of variation in the dependent variable is explained by the independent variable. The value of coefficient of determination of NIBL, HBL & NSBI is 0.6561, .1369 & 0.9801 respectively. Moreover considering the test of hypothesis there is significant relationship between deposit & total investments of NABIL & NSBI but there is insignificant relationship between deposit & total investment of NIBL &HBL.

The relationship is significant and value of r^2 shows highest percent of dependent variable which has been explained by independent variable. Above analysis indicate that NSBI has been successful in maximizing the investment of their deposit in comparison of other three banks as it have highest value of r^2 than NABIL, NIBL &HBL.

(iii) Co-efficient of correlation between outside assets and net profit & test of hypothesis

Coefficient of correlation between outside asset and net profit measures degree of relationship between these two variables. The purpose of computing these analysis is to find out whether net profit is significantly correlated with respect to total assets or not. In this analysis outside asset is independent variable (x) and net profit is independent variable (y).

Table 4.23

Co-efficient of correlation between outside assets and net profit & test of hypothesis

Evaluation criteria	r	r^2	t-cal	t-tabu	Result
NABIL	0.97	0.9409	7.1770	3.182	Significant
NIBL	0.84	0.7056	2.6815	3.182	Insignificant
HBL	0.74	0.5476	1.9057	3.182	Insignificant
NSBI	0.97	0.9409	7.1770	3.182	Significant

Source : Appendix 6C

The table no.27 shows the value of r, r_2, between outside assets and net profit of NABIL, NIBL, HBL & NSBI Bank Limited for the study period 2007/008 to 2011/012.

From the above table, it is found that the co-efficient of correlation between outside assets and net profit of NABIL, NIBL, HBL &NSBI are 0.97, 0.81, 0.74 & 0.97 respectively. It shows the positive relationship between these two variables. Moreover when we consider the value of coefficient of determination (r^2) it is 0.9409 of NABIL which means 94.09% of variation in the dependent variable is explained by the independent variable. The value of coefficient of determination of NIBL, HBL & NSBI is 0.7056, 0.5746 & 0.9409 respectively. Moreover considering the test of hypothesis there is significant relationship between outside assets and net profit of NABIL & NSBI but there is no significant relationship outside assets and net profit of NIBL &HBL which reveals that NABIL & NSBI are capable to earn net profit by mobilizing its total outside assets.

The value of r^2 of NABIL & NSBI shows high percentage in dependent variable which has been explained by the independent variable. NIBL and HBL have insignificant relationship between mobilization of funds and returns.

4.3 Major Findings of the Study

The main findings of the study are derived on the analysis of financial date of NABIL, NIBL, HBL and NSBI is given below.

1. Liquidity Ratio

   The liquidity positions of NABIL, NIBL & NSBI Bank Ltd are comparatively study and it reveals that

   - From the analysis of current ratio, NABIL has maintained higher current ratio than NIBL, HBL & NSBI which states that the liquidity position of NABIL is fair. The coefficient of variation of HBL is comparatively lower among other banks, it shows the current ratio of HBL is consistent than of NABIL, NIBL & NSBI.
   - The mean ratio of cash and bank balance to total deposit ratio of NIBL is higher than other three banks; it means liquidity position of NIBL is in better position. But the ratio of NABIL is lowest among others, which states that the liquidity position of NABIL is not better. NABIL has better to maintain its liquidity position.
   - The mean ratio of cash and bank balance to current assets ratio NIBL is higher than that of NABIL, HBL & NSBI. NSBI has high level of consistency than that of other three banks. NIBL & NSBI has utilized its funds more efficiently.
   - The mean ratio of investment on government securities to current asset of NSBI is higher than that of NABIL, NIBL & HBL. It states that NABI uses to invest its current assets in government securities more than that of other three compared banks.
   - The mean ratio of loan& advanced to current assets of NIBL is higher than NABIL, HBL & NSBI. But has lower consistency than other banks.

The above result shows that the liquidity position of NIBL is comparatively higher than NABIL, HBL &NSBI. It has higher cash and bank balance to current assets ratio and loan & advances to total ratio. NSBI has highest investment on government securities to current to current assets ratio.

2. Assets Management Ratios

The assets management ratio of NABIL, NIBL, HBL & NSBI shows that :

- The mean ratio of loan & advances to total deposit of NIBL is higher than that of NABIL, HBL & NSBI. It shows that NIBL has been success to maintain the highest ratios than that of other three banks. The coefficient of variation of NIBL is lower than that of other three banks.
- The mean ratio of total investment to total deposit of NSBI is higher than that of NABIL, HBL &NIBL. But NABIL has lower coefficient of variation of than that of other three banks. It can be concluded that NSBI has been success to better utilization of deposit to investment than other three banks with better investment policy.
- The mean ratio of loan & advances to total working fund ratio of NIBL is higher than that of HBL, NABIL &NSBI. It can be concluded that NIBL has success to better mobilization of funds as loans & advanced for purpose of income generation.
- The mean ratio of investment on government securities to total working fund of HBL has higher than that of NABIL, NSBI & NIBL. It indicates that HBL has success to better mobilising the funds as investment on government securities.
- The mean ratio of investment on shares & debentures to total working fund of NABIL is higher than that of other three

commercial banks. It can be concluded that NIBL's invest in shares and debenture seems to be consistent.

From the above analysis, it can be conclude that NIBL has higher loan & advances to total deposit ratio. NSBI has highest investment policy towards investment to total deposit. However HBL has highest investment policy towards investment on government securities.

3. Profitability Ratios

From the analysis of profitability ratio of NABIL, NIBL and NSBI it shows that:

- The mean ratio of return on total working fund ratio of NABIL is greater than that of NIBL, HBL & NSBI and it is more consistent.
- The mean ratio of return on loan & advances of NABIL is greater than that of other selected three banks. It has also consistency in return than other three banks.
- The mean ratio of total interest earned to total outside assets of NIBL is greater than that of NABIL, HBL &NSBI. It indicates that NIBL has better position with respect to the income earned from total outside assets in comparison of other three banks.
- The mean ratio of total interest earned to total working fund of NIBL is greater than that of NABIL, HBL & NSBI. It can be concluded that NIBL has been successful in mobilising their total assets to generate high income as interest.
- The mean ratio of total interest paid to total working fund of NSBI is lower than that of NABIL, NIBL & HBL. That means it is paying less interest against its working fund.

From the above findings it can be concluded that NABIL has higher return on working fund and loan & advances. NIBL is able to earn high from total outside assets and working fund compared to other three banks. But total interest paid to

total working fund of NSBI is lower To earn high in the future the banks must maintain its high profit.

4. Risk Ratios

The risk ratios of NABIL, NIBL and NSBI Bank Limited reveal that:

- The mean ratio of liquidity risk of NIBL is higher than that of NSBI, HBL & NABIL. The ratio of NIBL is more consistent than NABIL, HBL & NSBI.
- The mean ratio of credit risk ratio of NSBI is lower than NIBL, HBL &NABIL. NIBL has fewer variables or stable credit policy and more consistency than other three banks.
- The mean ratio capital risk ratio of NABIL has lesser than that of other three banks. It is more stable and consistent than other three banks.

From the above findings it can be concluded that NIBL has risk ratios. NIBL, HBL & NSBI should maintain risk against credit to earn high profit.

5. Coefficient of correlation analysis

Co-efficient of correlation analysis between different variables of NABIL, NIBL, HBL & NSBI shows that:

- Coefficient of correlation between deposits and loans and advances of all four banks are highly positive relation between these two variables. NABIL has highest value of co-efficient of correlation between deposit and loan & advances than that of other three banks. This indicates that NABIL's position is better in mobilization of deposit as loan & advances in comparison of NIBL, HBL & NSBI.
- Co-efficient of correlation between deposit and total investment of NSBI is higher than that of NABIL, NIBL & HBL. It indicates the

positive relationship between these two variables. NSBI is able to mobilize its deposit as investment.

- Co-efficient of correlation between outside assets and net profit of NABIL & NSBI are higher than NIBL & HBL. It reveals that NABIL & NSBI are not capable to earn net profit by mobilizing it's total outside assets.

From the above findings, it can be concluded that there is significant relationship between deposits and loans& advances and total investments but negative relationship between outside assets and net profit of NABIL & NSBI.

6. Test of Hypothesis

By analyzing the test of significance difference regarding the parameter of the population, it has been found that:

- There is significant relationship between deposit and loan & advance of all selected banks. It reveals that all four banks are successful in mobilizing their deposits and loan & advances.
- There is insignificant relationship between deposit & total investment of NIBL &HBL but there is significant relationship between deposit & total investments of NABIL & NSBI.
- There is significant relationship between outside assets and net profit of NABIL & NSBI but there is insignificant relationship outside assets and net profit of NIBL & HBL.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

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

Having completed the basic analysis required for the study, the researcher must point out the mistakes and error and also correct them by giving suitable suggestions for further improvement. Therefore, this summarized and recommended tasks of the researcher of the study would be meaningful to the top management of the bank to initiate the action and achieve the desired result.

5.1 Summary

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

The economic growth was very slow in earlier year; it has caught its full selling with the restoration democracy in the country. At present, overall economic

growth rate still decline year by year. Reasons behind this decline are insecure situation faced by industry, decrease in the tourist arrival, drop in the production and export of carpet, garment and pashmina industry and political situation. The evolution of the organized financial system in Nepal has more recent history than in other countries of the world. In Nepalese context, the history of banking is not more than six decade. After the announcement of liberal and free market economic based policy Nepalese banks and financial sectors have greater network and access to national and international markets. Commercial banks plays a vital role which deals with other people's money and stimulate saving by mobilized idle resources to those sectors where have investment opportunities. Modern bank provides various services to their customer in view of facilitating their economic and social life.

The objective of the commercial banks is always to earn more profit by investing or granting loan and advances into profitable, secured and marketable sector. But commercial bank should be careful while performing the credit creation function; the banks should never invest its funds in those securities, which are too many fluctuations. And commercial banks must follow the rules and regulations as well as different directions issued by central banks and ministry of finance while mobilization the funds or the commercial banks should invest its funds only those securities, which are legal.

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

'NABIL Bank Ltd' – NABIL bank limited was the first joint venture commercial banks incorporated in 1984 by joint investment of Dubai bank limited and Nepalese promoters. This bank is awarded by "Bank of year 2004".

'Nepal Investment bank Ltd' – Nepal Investment bank was the third joint venture bank established in 1986 under the company act 1964 by joint investment of

Banque Indosues and Nepalese promoters. This bank is awarded by "Bank of the Year 2003, 2005, 2008 & 2010".

'Himalayan Bank Ltd'- Himalayan Bank Limited was established in 1993 in joint venture with Habib Bank Limited of Pakistan and Nepalese promoters.

'Nepal State Bank of India Ltd (NSBI)' – Nepal SBI bank was established in 1963 under the company act 1964 by joint investment of state bank of India and Nepalese promoters.

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

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

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

obtained from annual reports of concerned banks, likewise, the financial statement of five years i.e. 2007/008 to 2011/012 was selected for the purpose evaluation.

5.2. Conclusion of Major Finding

The major findings of the study are:

1. The liquidity position of NIBL is comparatively higher than NABIL, HBL &NSBI. It has higher cash and bank balance to current assets ratio and loan & advances to total ratio. NSBI has highest investment on government securities to current to current assets ratio.

2. From the view point of assets management ratios, NIBL has higher loan & advances to total deposit ratio. NSBI has highest investment policy towards investment to total deposit. However HBL has highest investment policy towards investment on government securities

3. In analysis of profitability, return on working fund and loan & advances of NABIL is higher. NIBL is able to earn high from total outside assets and working fund compared to other three banks. But total interest paid to total working fund of NSBI is lower.

4. From the viewpoint of risk ratio, NIBL has high liquidity risk, NSBI has low capital risk and NABIL has less capital risk as compared to other three banks.

5. Through the trend analysis of loan & advances to total deposit ratio HBL has increasing trend than NABIL, NIBL & NSBI. It shows that HBL may be able to better utilize its total deposits on loan and advances for profit generating purpose.

6. Through the trend analysis of of total investment to total deposit ratio, NSBI has higher increasing trend than NABIL, NIBL & HBL. It shows that NSBI may use relatively large portion of deposit towards investment in different sectors. However HBL has to improve its decreasing trend of deposit utilisation on investments in future.

7. Co-efficient of correlation between deposit and loan & advances of all selected banks has significant relationship; there is significant relationship between deposit & total investment and of NABIL & NSBI. It shows that they are better position in mobilizing deposit, loans & advances and maximizing their investment.

8. Through the analysis and findings we can summarize that NIBL's investment policy is better in every sector and profitability ratio is also good. Similarly, trend of loan & advances and total investment to total deposits shows that NABIL position is in better.

9. NSBI bank has better investment policy trend of loan & advances and total investment to total deposits than NIBL bank. HBL has highest investment policy towards investment on government securities. However, NABIL bank has good liquidity position and risk ratio.

5.3 Recommendations

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

- A commercial bank must maintain its satisfactory liquidity position to meet the credit need of the community; however, external as well as

internal factors affect the liquidity position of banks. As NIBL has maintained the ratio of cash and bank balance to total deposits and current assts considerably lower than NABIL, HBL & NSBI Bank Ltd. NIBL is recommended to increase cash and bank balance to make the immediate payment to the depositor and to meet the demand of loan & advances. NIBL have to increase the investment in government securities. NSBI have to maintain the ratio of loan and advances to current ratio. HBL has to maintain its liquidity to meet its current obligations.

- To get success in competitive banking environment, depositor's money must be utilized as loan and advances. The largest item of the bank in the asset side is loan and advances. If it is neglected, then it could be the main cause of liquidity crisis in the bank. NSBI's loan & advances to total deposit ratio and loan & advances to total working fund ratio is lower than NABIL, NIBL & HBL. To overcome this situation NSBI is strongly recommended to follow liberal lending policy and invest more and more percentage of total deposit and total working fund in loan & advances. HBL's investment on government securities is lower than NABIL, NIBL & NSBI. HBL is recommended to increase its investment in government securities to maximize its income as government securities are a safe medium of investment. NSBI is recommended to invest its fund in purchase of shares and debentures of other financial and non-financial companies. As investment on other's company's securities provide high income than government securities. This also helps to maintain the sound portfolio of the banks.

- Profitability is the main indicator of the financial performance of cash and every business organization. In this study, profitability ratio is good from the angle of return but it is seen that NSBI cannot earn higher interest through the outside assets and working fund. So NSBI is recommended to

increase its interest earned in outside assets and working fund by investing more & more funds in loan & advances and different types of securities. Because higher interest earning capacity of the bank implies better performance of the bank.

- If a bank expects high return on its investment it has to accept the risk, it increases effectiveness and profitability of the bank. The risk taken by NABIL, from the angle of capital risk is an average whereas liquidity risk and credit risk is lower than that of other two banks and its consistency are highly volatile which may result higher loss. The bank should not take high risk, NABIL should carefully analyze in above risk to achieve higher returns.

- Co-efficient of correlation analysis interprets the relationship between the two or more variables, co-efficient of correlation between deposit and total investments of NABIL & NSBI are positive. It shows that they has been successful in maximizing the investment of their deposit. The co-efficient of correlation between outside assets and net profit of NABIL & NSBI are positive, it shows that there is positive relationship between these two variables. It reveals that NABIL & NSBI are capable to earn net profit by mobilizing its total outside assets. In future also both banks should innovate new strategy and changing its current policy for more and more utilizing its outside assets to earn more profit. NSBI & HBL recommend mobilizing outside assets to earn more profit.

- In order to collection much funds, NABIL, NIBL, HBL & NSBI Bank Ltd are suggested not to be surrounded and limited only big clients i.e. multinational companies, large industries, manufacturer companies, NGO's and INGO's etc, it should be give emphasis to the lower level people, urban areas people also. NABIL, NIBL, HBL & NSBI must

expand its services to rural as well as urban areas of the country, not only in capital. NRB and HMG/N have also encouraged the joint venture banks to expand banking services in rural area and communities without making unfavourable impact in their profit. Therefore NABIL, NIBL, HBL & NSBI are recommended to expand its branches and provide banking services and facilities to the rural areas and communities to accelerate and the rural areas economic development through opening new branches in particular areas.

- In the light of growing competition in the banking sector, the business of the bank should be customer oriented. The bank is recommended to adopt new technology and services. Marketing is an effective tool to attract customer, so it should be strong and active. Different marketing technique like advertisement through paper media, electronic media etc. The bank should involve in different kind of social and community development activities. The bank has been able to provide more personalized services and a better environment for its customer, it is an effective tool to attract and retain the customers.

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Appendix-1

Liquidity Ratio

A. Current Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Total Current Assets	35,928.33	43,206.41	51,370.70	57,206.35	62,362.88
Total Current Liabilities	34,455.56	40,437.16	48,015.48	53,274.92	69,017.90
Ratio (Times)	1.0427	1.0685	1.0699	1.0738	0.9036
NIBL					
Total Current Assets	37,903.21	51,950.05	56,169.17	57,248.38	64,699.79
Total Current Liabilities	42,610.09	57,968.64	62,940.81	64,566.59	72,856.17
Ratio (Times)	0.88954	0.89618	0.89241	0.88666	0.88805
HBL					
Total Current Assets	35,449.46	38,368.14	41,655.25	45,548.71	53,059.06
Total Current Liabilities	39,548.52	42,940.21	46,656.33	51,231.68	59,496.44
Ratio (Times)	0.8964	0.8935	0.8928	0.8891	0.8918
Nepal SBI Bank					
Total Current Assets	17,067.22	30,663.10	37,629.43	45,671.23	57,343.79
Total Current Liabilities	18,802.09	32,829.29	40,698.23	49,167.53	61,857.17
Ratio (Times)	0.9077	0.9340	0.9246	0.9289	0.9270

B. Cash and Bank Balance to Total Deposit Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Cash & Bank Balance	2,671.14	3,372.51	1,400.10	2,436.55	4,275.82
Total Deposit	31,915.05	37,348.26	46,341	49,696.11	54,905.68
Ratio (%)	8.37	9.03	3.02	4.90	7.79
NIBL					
Cash & Bank Balance	3,754.94	7,918.00	6,815.89	8,140.37	11,803.75
Total Deposit	34,451.73	46,698.10	50,094.73	50,138.12	57,010.60
Ratio (%)	10.90	16.96	13.61	16.24	20.70
HBL					
Cash & Bank Balance	1,448.14	1,448.14	3,866.49	2,964.65	6,362.30
Total Deposit	31,842.79	34,681.35	37,611.20	40,920.63	47,730.99
Ratio (%)	4.55	4.18	10.28	7.24	13.33

Nepal SBI Bank					
Cash & Bank Balance	1,342.96	1,903.91	3,441.26	4,877.83	5,508.38
Total Deposit	13,715.39	27,957.22	34,896.42	42,415.44	53,337.26
Ratio (%)	9.79	6.81	9.86	11.50	10.33

C. Cash and Bank Balance to Current Assets Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Cash & Bank Balance	2,671.14	3,372.51	1,400.10	2,436.55	4,275.82
Current Assets	35,928.33	43,206.41	51,370.70	57,206.35	62,362.88
Ratio (%)	7.43	7.81	2.73	4.26	6.86
NIBL					
Cash & Bank Balance	3,754.94	7,918.00	6,815.89	8,140.37	11,803.75
Current Assets	37,903.21	51,950.05	56,169.17	57,248.38	64,699.79
Ratio (%)	9.91	15.24	12.13	14.22	18.24
HBL					
Cash & Bank Balance	1,448.14	1,448.14	3,866.49	2,964.65	6,362.30
Current Assets	35,449.46	38,368.14	41,655.25	45,548.71	53,059.06
Ratio (%)	4.09	3.77	9.28	6.51	11.99
Nepal SBI Bank					
Cash & Bank Balance	1,342.96	1,903.91	3,441.26	4,877.83	5,508.38
Current Assets	17,067.22	30,663.10	37,629.43	45,671.23	57,343.79
Ratio (%)	7.87	6.21	9.15	10.68	9.61

D. Investment on Government Securities to Current Assets Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Investment on Government Securities	4,646.88	3,706.10	7,941.56	8,745.23	7,999.98
Current Assets	35,928.33	43,206.41	51,370.70	57,206.35	62,362.88
Ratio (%)	12.93	8.58	15.46	15.29	12.83
NIBL					
Investment on Government Securities	3,155.00	2,531.30	4,201.85	4,294.60	6,169.49

Current Assets	37,903.21	51,950.05	56,169.17	57,248.38	64,699.79
Ratio (%)	8.32	4.87	7.48	7.50	9.54
HBL					
Investment on Government Securities	7,471.67	4,212.30	4,465.37	6,407.36	9,162.22
Current Assets	35,449.46	38,368.14	41,655.25	45,548.71	53,059.06
Ratio (%)	21.08	10.98	10.72	14.07	17.27
Nepal SBI Bank					
Investment on Government Securities	1,615.69	3,306.57	4,313.32	5,574.84	4,560.71
Current Assets	17,067.22	30,663.10	37,629.43	45,671.23	57,343.79
Ratio (%)	16.16	33.07	43.13	55.75	45.61

E. Loan & Advances to Current Assets Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Loan & Advances	21,365.05	27,589.93	32,268.87	38,034.10	41,605.68
Current Assets	35,928.33	43,206.41	51,370.70	57,206.35	62,362.88
Ratio (%)	59.47	63.86	62.82	66.49	66.72
NIBL					
Loan & Advances	26,996.65	36,241.21	40,318.31	41,095.51	41,637.00
Current Assets	37,903.21	51,950.05	56,169.17	57,248.38	64,699.79
Ratio (%)	71.23	69.76	71.78	71.78	64.35
HBL					
Loan & Advances	19,497.52	24,793.16	27,980.63	31,566.98	34,965.43
Current Assets	35,449.46	38,368.14	41,655.25	45,548.71	53,059.06
Ratio (%)	55.00	64.62	67.17	69.30	65.90
Nepal SBI Bank					
Loan & Advances	12,113.70	15,131.75	17,480.55	21,365.77	26,142.09
Current Assets	17,067.22	30,663.10	37,629.43	45,671.23	57,343.79
Ratio (%)	70.98	49.35	46.45	46.78	45.59

Appendix-2

Asset Management Ratio (Activity Ratio)

A. Loan & Advances to Total Deposit Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Loan & Advances	21,365.05	27,589.93	32,268.87	38,034.10	41,605.68
Total Deposit	31,915.05	37,348.26	46,341	49,696.11	54,905.68
Ratio (%)	66.94	73.87	69.63	76.53	75.78
NIBL					
Loan & Advances	26,996.65	36,241.21	40,318.31	41,095.51	41,637.00
Total Deposit	34,451.73	46,698.10	50,094.73	50,138.12	57,010.60
Ratio (%)	78.36	77.61	80.48	81.96	73.03
HBL					
Loan & Advances	19,497.52	24,793.16	27,980.63	31,566.98	34,965.43
Total Deposit	31,842.79	34,681.35	37,611.20	40,920.63	47,730.99
Ratio (%)	61.23	71.49	74.39	77.14	73.26
Nepal SBI Bank					
Loan & Advances	12,113.70	15,131.75	17,480.55	21,365.77	26,142.09
Total Deposit	13,715.39	27,957.22	34,896.42	42,415.44	53,337.26
Ratio (%)	88.32	54.12	50.09	50.37	49.01

B. Total Investment to Total Deposit Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Total Investment	9,939.77	10,826.38	13,670.92	13,081.21	14,076.85
Total Deposit	31,915.05	37,348.26	46,341	49,696.11	54,905.68
Ratio (%)	31.14	28.99	29.50	26.32	25.64
NIBL					
Total Investment	6,874.02	7,399.81	8,635.53	7,423.11	10,438.49
Total Deposit	34,451.73	46,698.10	50,094.73	50,138.12	57,010.60
Ratio (%)	19.95	15.85	17.24	14.81	18.31
HBL					
Total Investment	13,340.18	8,710.69	8,444.91	8,769.94	10,031.58
Total Deposit	31,842.79	34,681.35	37,611.20	40,920.63	47,730.99
Ratio (%)	41.89	25.12	22.45	21.43	21.02

Nepal SBI Bank					
Total Investment	3,088.89	13,286.18	16,305.63	18,911.02	24,463.45
Total Deposit	13,715.39	27,957.22	34,896.42	42,415.44	53,337.26
Ratio (%)	22.52	47.52	46.73	44.59	45.87

C. Loan & Advances to Working Fund Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Loan & Advances	21,365.05	27,589.93	32,268.87	38,034.10	41,605.68
Total Working Fund	37,132.76	43,867.40	52,150.24	58,141.44	63,257.37
Ratio (%)	57.54	62.89	61.88	65.42	65.77
NIBL					
Loan & Advances	26,996.65	36,241.21	40,318.31	41,095.51	41,637.00
Total Working Fund	38,873.31	53,010.80	57,305.41	58,356.83	65,756.23
Ratio (%)	69.45	68.37	70.36	70.42	63.32
HBL					
Loan & Advances	19,497.52	24,793.16	27,980.63	31,566.98	34,965.43
Total Working Fund	36,175.53	39,320.33	42,717.12	46,736.20	54,364.43
Ratio (%)	53.90	63.05	65.50	67.54	64.32
Nepal SBI Bank					
Loan & Advances	12,113.70	15,131.75	17,480.55	21,365.77	26,142.09
Total Working Fund	17,187.45	30,916.68	38,047.68	46,088.23	58,059.71
Ratio (%)	70.48	48.94	45.94	46.36	45.03

D. Investment on Govt. Securities to Working Fund Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Investment on Govt. Securities	4,646.88	3,706.10	7,941.56	8,745.23	7,999.98
Total Working Fund	37,132.76	43,867.40	52,150.24	58,141.44	63,257.37
Ratio (%)	12.51	8.45	15.23	15.04	12.65
NIBL					
Investment on Govt. Securities	3,155.00	2,531.30	4,201.85	4,294.60	6,169.49
Total Working Fund	38,873.31	53,010.80	57,305.41	58,356.83	65,756.23
Ratio (%)	8.12	4.78	7.33	7.36	9.38

HBL					
Investment on Govt. Securities	7,471.67	4,212.30	4,465.37	6,407.36	9,162.22
Total Working Fund	36,175.53	39,320.33	42,717.12	46,736.20	54,364.43
Ratio (%)	20.65	10.71	10.45	13.71	16.85
Nepal SBI Bank					
Investment on Govt. Securities	1,615.69	3,306.57	4,313.32	5,574.84	4,560.71
Total Working Fund	17,187.45	30,916.68	38,047.68	46,088.23	58,059.71
Ratio (%)	9.40	10.70	11.34	12.10	7.86

E. Investment on Shares and Debentures to Working Fund Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Investment on Shares and Debentures	323.24	354.93	346.86	940.95	834.75
Total Working Fund	37,132.76	43,867.40	52,150.24	58,141.44	63,257.37
Ratio (%)	0.87	0.81	0.67	1.62	1.32
NIBL					
Investment on Shares and Debentures	54.55	60.97	63.35	70.96	171.86
Total Working Fund	38,873.31	53,010.80	57,305.41	58,356.83	65,756.23
Ratio (%)	0.14	0.12	0.11	0.12	0.26
HBL					
Investment on Shares and Debentures	89.56	93.88	78.88	88.79	88.79
Total Working Fund	36,175.53	39,320.33	42,717.12	46,736.20	54,364.43
Ratio (%)	0.25	0.24	0.18	0.19	0.16
Nepal SBI Bank					
Investment on Shares and Debentures	32.82	32.95	37.02	39.65	30.70
Total Working Fund	17,187.45	30,916.68	38,047.68	46,088.23	58,059.71
Ratio (%)	0.19	0.11	0.10	0.09	0.05

Appendix-3

Profitability Ratio

A. Return on Total Working Fund Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Net Profit	746.47	1,031.05	1,139.10	1,337.75	1,700.38
Total Working Fund	37,132.76	43,867.40	52,150.24	58,141.44	63,257.37
Ratio (%)	2.01	2.35	2.18	2.30	2.69
NIBL					
Net Profit	696.73	900.62	1,265.95	1,176.64	1,039.28
Total Working Fund	38,873.31	53,010.80	57,305.41	58,356.83	65,756.23
Ratio (%)	1.79	1.70	2.21	2.02	1.58
HBL					
Net Profit	635.87	752.83	508.80	893.12	958.64
Total Working Fund	36,175.53	39,320.33	42,717.12	46,736.20	54,364.43
Ratio (%)	1.76	1.91	1.19	1.91	1.76
Nepal SBI Bank					
Net Profit	247.77	316.37	391.74	464.56	480.11
Total Working Fund	17,187.45	30,916.68	38,047.68	46,088.23	58,059.71
Ratio (%)	1.44	1.02	1.03	1.01	0.83

B. Return on Loan & Advances Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Net Profit	746.47	1,031.05	1,139.10	1,337.75	1,700.38
Loan & Advances	21,365.05	27,589.93	32,268.87	38,034.10	41,605.68
Ratio (%)	3.49	3.74	3.53	3.52	4.09
HBL					
Net Profit	635.87	752.83	508.80	893.12	958.64
Loan & Advances	19,497.52	24,793.16	27,980.63	31,566.98	34,965.43
Ratio (%)	3.26	3.04	1.82	2.83	2.74
NIBL					
Net Profit	696.73	900.62	1,265.95	1,176.64	1,039.28
Loan & Advances	26,996.65	36,241.21	40,318.31	41,095.51	41,637.00
Ratio (%)	2.58	2.49	3.14	2.86	2.50

Nepal SBI Bank					
Net Profit	247.77	316.37	391.74	464.56	480.11
Loan & Advances	12,113.70	15,131.75	17,480.55	21,365.77	26,142.09
Ratio (%)	2.05	2.09	2.24	2.17	1.84

C. Total Interest Earned to Total Outside Assets Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Total Interest Earned	1,978.70	2,798.49	4,047.73	5,254.03	6,145.75
Total Outside Assets	31,304.82	38,416.31	45,939.79	51,115.30	55,682.53
Ratio (%)	6.32	7.28	8.81	10.28	11.04
NIBL					
Total Interest Earned	2,194.28	3,267.94	4,653.52	5,803.44	5,982.64
Total Outside Assets	33,870.68	43,641.02	48,953.84	48,518.62	52,075.49
Ratio (%)	6.48	7.49	9.51	11.96	11.49
HBL					
Total Interest Earned	1,963.65	2,342.20	3,148.61	4,326.14	4,724.89
Total Outside Assets	32,837.70	33,503.85	36,425.54	40,336.92	44,997.01
Ratio (%)	5.98	6.99	8.64	10.73	10.50
Nepal SBI Bank					
Total Interest Earned	970.51	1,460.45	2,269.70	3,104.23	3,769.48
Total Outside Assets	15,202.59	28,417.93	33,786.18	40,276.79	50,605.55
Ratio (%)	6.38	5.14	6.72	7.71	7.45

D. Total Interest Earned to Total Working Fund Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Total Interest Earned	1,978.70	2,798.49	4,047.73	5,254.03	6,145.75
Total Working Fund	37,132.76	43,867.40	52,150.24	58,141.44	63,257.37
Ratio (%)	5.33	6.38	7.76	9.04	9.72
NIBL					
Total Interest Earned	2,194.28	3,267.94	4,653.52	5,803.44	5,982.64
Total Working Fund	38,873.31	53,010.80	57,305.41	58,356.83	65,756.23
Ratio (%)	5.64	6.16	8.12	9.94	9.10
HBL					

Net Profit	1,963.65	2,342.20	3,148.61	4,326.14	4,724.89
Total Working Fund	36,175.53	39,320.33	42,717.12	46,736.20	54,364.43
Ratio (%)	5.43	5.96	7.37	9.26	8.69
Nepal SBI Bank					
Total Interest Earned	970.51	1,460.45	2,269.70	3,104.23	3,769.48
Total Working Fund	17,187.45	30,916.68	38,047.68	46,088.23	58,059.71
Ratio (%)	5.65	4.72	5.97	6.74	6.49

E. Total Interest Paid to Total Working Fund Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Total Interest Paid	758.44	1,153.28	1,960.11	2,955.43	3,152.94
Total Working Fund	37,132.76	43,867.40	52,150.24	58,141.44	63,257.37
Ratio (%)	2.04	2.63	3.76	5.08	4.98
NIBL					
Total Interest Paid	992.16	1,686.97	2,553.85	3,620.34	3,814.41
Total Working Fund	38,873.31	53,010.80	57,305.41	58,356.83	65,756.23
Ratio (%)	2.55	3.18	4.46	6.20	5.80
HBL					
Total Interest Paid	823.74	934.78	1,553.53	2,414.81	2,816.44
Total Working Fund	36,175.53	39,320.33	42,717.12	46,736.20	54,364.43
Ratio (%)	2.28	2.38	3.64	5.17	5.18
Nepal SBI Bank					
Total Interest Paid	454.92	824.70	1,443.69	2,096.04	2,770.80
Total Working Fund	17,187.45	30,916.68	38,047.68	46,088.23	58,059.71
Ratio (%)	2.65	2.67	3.79	4.55	4.77

Appendix-4

Risk Ratios

A. Liquidity Risk Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Cash & Bank Balance	2,671.14	3,372.51	1,400.10	2,436.55	4,275.82
Total Deposit	31,915.05	37,348.26	46,340.70	49,696.11	54,905.68
Ratio (%)	8.37	9.03	3.02	4.90	7.79
NIBL					
Cash & Bank Balance	3,754.94	7,918.00	6,815.89	8,140.37	11,803.75
Total Deposit	34,451.73	46,698.10	50,094.73	50,138.12	57,010.60
Ratio (%)	10.90	16.96	13.61	16.24	20.70
HBL					
Cash & Bank Balance	1,448.14	1,448.14	3,866.49	2,964.65	6,362.30
Total Deposit	31,842.79	34,681.35	37,611.20	40,920.63	47,730.99
Ratio (%)	4.55	4.18	10.28	7.24	13.33
Nepal SBI Bank					
Cash & Bank Balance	1,342.96	1,903.91	3,441.26	4,877.83	5,508.38
Total Deposit	13,715.39	27,957.22	34,896.42	42,415.44	53,337.26
Ratio (%)	9.79	6.81	9.86	11.50	10.33

B. Credit Risk Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Total Loan & Advances	21,365.05	27,589.93	32,268.87	38,034.10	41,605.68
Total Assets	37,132.76	43,867.40	52,150.24	58,141.44	63,257.37
Ratio (%)	57.54	62.89	61.88	65.42	65.77
NIBL					
Total Loan & Advances	26,996.65	36,241.21	40,318.31	41,095.51	41,637.00
Total Assets	38,873.31	53,010.80	57,305.41	58,356.83	65,756.23
Ratio (%)	69.45	68.37	70.36	70.42	63.32
HBL					
Total Loan & Advances	19,497.52	24,793.16	27,980.63	31,566.98	34,965.43
Total Assets	36,175.53	39,320.33	42,717.12	46,736.20	54,364.43
Ratio (%)	53.90	63.05	65.50	67.54	64.32

Nepal SBI Bank					
Total Loan & Advances	12,113.70	15,131.75	17,480.55	21,365.77	26,142.09
Total Assets	17,187.45	30,916.68	38,047.68	46,088.23	58,059.71
Ratio (%)	70.48	48.94	45.94	46.36	45.03

C. Capital Risk Ratio

Particulars	Fiscal Year				
	2007/008	2008/009	2009/010	2010/011	2011/012
NABIL Bank					
Capital	2,677.20	3,430.24	4,134.75	4,866.52	5,760.52
Risk Weighted Assets	21,365.05	27,589.93	32,268.87	38,034.10	41,605.68
Ratio (%)	12.53	12.43	12.81	12.80	13.85
NIBL					
Capital	3,736.79	4,957.84	5,635.39	6,209.76	7,099.94
Risk Weighted Assets	26,996.65	36,241.21	40,318.31	41,095.51	41,637.00
Ratio (%)	13.84	13.68	13.98	15.11	17.05
HBL					
Capital	3,372.99	3,619.88	3,939.21	4,495.48	5,132.01
Risk Weighted Assets	19,497.52	24,793.16	27,980.63	31,566.98	34,965.43
Ratio (%)	17.30	14.60	14.08	14.24	14.68
Nepal SBI Bank					
Capital	1,614.64	1,912.61	2,650.55	3,079.29	3,797.46
Risk Weighted Assets	12,113.70	15,131.75	17,480.55	21,365.77	26,142.09
Ratio (%)	13.33	12.64	15.16	14.41	14.53

Appendix – 5

A. Trend Analysis of Loan & Advances to Total Deposit of NABIL, NIBL, HBL & NSBI

i) Calculation of trend values of loan & advances to total deposit ratio of NABIL

FISCAL YR (t)	RATIO (Y)	X= t-2010	X^2	XY	$Y_c = a+bx$
2007/008	66.94	-2	4	(133.88)	68.482
2008/009	73.87	-1	1	(73.87)	70.516
2009/010	69.63	0	0	-	72.55
2010/011	76.53	1	1	76.53	74.584
2011/012	75.78	2	4	151.56	76.618
	$\sum Y = 362.75$		$\sum X^2 = 10$	$\sum XY = 20.34$	

Here, let the straight line trend equation $Y_c = a+bx$

Where, Y = Annual Ratio in Percentage

Now,

$$a = \frac{\sum Y}{N} = \frac{362.75}{5} = 72.55$$

$$b = \frac{\sum XY}{\sum X2} = \frac{20.34}{10} = 2.03$$

Projected Trend Value of Loan and Advance to Total Deposit Ratio of NABIL for next five year

Fiscal Year	X= t-2010	$Y_c = a+bx$
2012/013	3	78.65
2013/014	4	80.686
2014/015	5	82.72
2015/016	6	84.754
2016/017	7	86.788

ii) Calculation of trend values of loan & advances to total deposit ratio of NIBL

FISCAL YR (t)	RATIO (Y)	X= t-2010	X^2	XY	Yc = a+bx
2007/008	78.36	-2	4	(156.72)	79.55
2008/009	77.61	-1	1	(77.61)	78.92
2009/010	80.48	0	0	-	78.29
2010/011	81.96	1	1	81.96	77.66
2011/012	73.03	2	4	146.06	77.03
	$\sum Y = 391.44$		$\sum X^2 = 10$	$\sum XY = -6.31$	

Here, let the straight line trend equation $Y_c = a+bx$

Where, Y = Annual Ratio in Percentage

Now,

$$a = \frac{\sum Y}{N} = \frac{391.44}{5} = 78.29$$

$$b = \frac{\sum XY}{\sum X2} = \frac{-6.31}{10} = -0.63$$

Projected Trend Value of Loan and Advance to Total Deposit Ratio of NIBL for next five year

Fiscal Year	X= t-2010	Y_c = a+bx
2012/013	3	76.40
2013/014	4	75.76
2014/015	5	75.13
2015/016	6	74.50
2016/017	7	73.87

iii) Calculation of trend values of loan & advances to total deposit ratio of HBL

FISCAL YR (t)	RATIO (Y)	X= t-2010	X^2	XY	Yc = a+bx
2007/008	61.23	-2	4	(122.46)	65.56
2008/009	71.49	-1	1	(71.49)	68.53
2009/010	74.39	0	0	-	71.50
2010/011	77.14	1	1	77.14	74.47
2011/012	73.26	2	4	146.52	77.44
	$\sum Y$ = 357.51		$\sum X^2$ = 10	$\sum XY$ = 29.71	

Here, let the straight line trend equation Yc = a + bx

Where, Y = Annual Ratio in Percentage

Now,

$$a = \frac{\sum Y}{N} = \frac{357.71}{5} = 71.5$$

$$b = \frac{\sum XY}{\sum X2} = \frac{29.71}{10} = 2.97$$

Projected Trend Value of Loan and Advance to Total Deposit Ratio of HBL for next five year

Fiscal Year	X= t-2010	Yc = a+bx
2012/013	3	80.42
2013/014	4	83.39
2014/015	5	86.36

2015/016	6	89.33
2016/017	7	92.30

iv) Calculation of trend values of loan & advances to total deposit ratio of NSBI

FISCAL YR (t)	RATIO (Y)	X= t-2010	X^2	XY	Yc = a+bx
2007/008	88.32	-2	4	(176.64)	74.86
2008/009	54.12	-1	1	(54.12)	66.62
2009/010	50.09	0	0	-	58.38
2010/011	50.37	1	1	50.37	50.15
2011/012	49.01	2	4	98.02	41.91
	$\sum Y$= 291.91		$\sum X^2$ = 10	$\sum XY$ = (82.37)	

Here, let the straight line trend equation Yc = a+bx

Where, Y = Annual Ratio in Percentage

Now,

$$a = \frac{\sum Y}{N} = \frac{291.91}{5} = 53.38$$

$$b = \frac{\sum XY}{\sum X2} = \frac{-82.371}{10} = -8.24$$

Projected Trend Value of Loan and Advance to Total Deposit Ratio of NABIL for next five year

Fiscal Year	X= t-2010	Yc = a+bx
2012/013	3	33.67
2013/014	4	25.43
2014/015	5	17.20
2015/016	6	8.96
2016/017	7	0.72

B. Trend Analysis of Total Investment to Total Deposit ratio of NABIL, NIBL, HBL & NSBI

i) Calculation of trend values of total investment to total deposit ratio of NABIL

FISCAL YR (t)	RATIO (Y)	X= t-2010	X^2	XY	Yc = a+bx
2007/008	31.14	-2	4	(62.28)	31.052
2008/009	28.99	-1	1	(28.99)	29.685
2009/010	29.5	0	0	-	28.318
2010/011	26.32	1	1	26.32	26.951
2011/012	25.64	2	4	51.28	25.584
	$\sum Y$= 141.59		$\sum X^2$ =10	$\sum XY$ = (13.67)	

Here, let the straight line trend equation $Y_c = a+bx$

Where, Y = Annual Ratio in Percentage

Now,

$$a = \frac{\sum Y}{N} = \frac{141.59}{5} = 28.32$$

$$b = \frac{\sum XY}{\sum X2} = \frac{-13.67}{10} = -1.37$$

Projected Trend Value Total Investment to Total Deposit Ratio of NABIL for next five year

Fiscal Year	X= t-2010	Yc = a+bx
2012/013	3	24.22
2013/014	4	22.85
2014/015	5	21.483
2015/016	6	20.116
2016/017	7	18.749

ii) Calculation of trend values of total investment to total deposit ratio of NIBL

FISCAL YR (t)	RATIO (Y)	X= t-2010	X^2	XY	Yc = a+bx
2007/008	19.95	-2	4	(39.90)	18.10
2008/009	15.85	-1	1	(15.85)	17.66
2009/010	17.24	0	0	-	17.23
2010/011	14.81	1	1	14.81	16.80
2011/012	18.31	2	4	36.62	16.37
	$\sum Y$= 86.16		$\sum X^2$ =10	$\sum XY$ = (4.32)	

Here, let the straight line trend equation $Y_c = a+bx$

Where, Y = Annual Ratio in Percentage

Now,

$$a = \frac{\sum Y}{N} = \frac{86.16}{5} = 17.23$$

$$b = \frac{\sum XY}{\sum X2} = \frac{-4.32}{10} = -0.43$$

Projected Trend Value of Loan and Advance to Total Deposit Ratio of NIBL for next five year

Fiscal Year	X= t-2010	Yc = a+bx
2012/013	3	15.94
2013/014	4	15.50
2014/015	5	15.07
2015/016	6	14.64
2016/017	7	14.21

iii) Calculation of trend values of loan & advances to total deposit ratio of HBL

FISCAL YR (t)	RATIO (Y)	X= t-2010	X^2	XY	Yc = a+bx
2007/008	41.89	-2	4	(83.78)	35.47
2008/009	25.12	-1	1	(25.12)	30.93
2009/010	22.45	0	0	-	26.38
2010/011	21.43	1	1	21.43	21.84
2011/012	21.02	2	4	42.04	17.30
	$\sum Y$= 131.91		$\sum X^2$ =10	$\sum XY$ = (45.43)	

Here, let the straight line trend equation Yc = a + bx

Where, Y = Annual Ratio in Percentage

Now,

$$a = \frac{\sum Y}{N} = \frac{131.91}{5} = 17.23$$

$$b = \frac{\sum XY}{\sum X2} = \frac{-45.43}{10} = -4.54$$

Projected Trend Value of Loan and Advance to Total Deposit Ratio of HBL for next five year

Fiscal Year	X= t-2010	Yc = a+bx
2012/013	3	12.75
2013/014	4	8.21
2014/015	5	3.67
2015/016	6	(0.88)
2016/017	7	(5.42)

iv) Calculation of trend values of loan & advances to total deposit ratio of NSBI

FISCAL YR (t)	RATIO (Y)	X= t-2010	X^2	XY	Yc = a+bx
2007/008	22.52	-2	4	(45.04)	32.69
2008/009	47.52	-1	1	(47.52)	37.07
2009/010	46.73	0	0	-	41.45
2010/011	44.59	1	1	44.59	45.82
2011/012	45.87	2	4	91.74	50.20
	$\sum Y$= 207.23		$\sum X^2$ =10	$\sum XY$ = 43.77	

Here, let the straight line trend equation Yc = a+bx

Where, Y = Annual Ratio in Percentage

Now,

$$a = \frac{\sum Y}{N} = \frac{207.23}{5} = 41.45$$

$$b = \frac{\sum XY}{\sum X2} = \frac{43.77}{10} = 4.38$$

Projected Trend Value of Loan and Advance to Total Deposit Ratio of NABIL for next five year

Fiscal Year	X= t-2010	Yc = a+bx
2012/013	3	54.58
2013/014	4	58.95
2014/015	5	63.33
2015/016	6	67.71
2016/017	7	72.09

Appendix – 6

A) Co-efficient of correlation & test of hypothesis between Deposits and Loan & Advances of NABIL, NIBL, HBL & NSBI.

i) Calculation of Co-efficient of Correlation & Test of Hypothesis between Deposits and Loan & Advance of NABIL Bank

F/Y	Deposits (X)	Loans & Advances (Y)	$x = X - \bar{X}$	X^2	$y = Y - \bar{Y}$	Y^2	xy
2007/008	31,915.05	21365.05	(12,126.11)	147,042,543.73	(10807.68)	116,805,860.52	131,055,068.02
2008/009	37,348.26	27589.93	(6,692.90)	44,794,910.41	(4582.80)	21,002,019.18	30,672,195.35
2009/010	46,340.70	32268.87	2,299.54	5,287,884.21	96.14	9,243.67	221,086.97
2010/011	49,696.11	38034.1	5,654.95	31,978,459.50	5861.37	34,355,705.17	33,145,776.90
2011/012	54,905.68	41605.68	10,864.52	118,037,794.83	9432.95	88,980,621.17	102,484,517.39
Total	$\sum X$ =	$\sum Y$ =	$\sum x$ =	$\sum X^2$ =	$\sum y$ =	$\sum y^2$ =	$\sum xy$ =

	220,205.80	160,863.63	0.00	347,141,592.69	-0.02	261,153,449.70	297,578,644.64
Mean	44,041.16	32,172.73					

Now,

Coefficient of Correlation (r) = $\frac{\sum xy}{\sqrt{\sum x2}\sqrt{\sum y2}}$

$$= \frac{194419872.54}{16579.64\ X\ 12230.98}$$

$$= 0.99$$

$$r^2 = 0.9801$$

For the Test of Hypothesis

Setting of hypothesis

Null hypothesis (Ho): $\rho = 0$ i.e. there is insignificant correlation ship between deposit and loan & advance ratio of NABIL Bank Ltd.

Alternative Hypothesis (H1): $\rho \neq 0$ i.e. there is correlation between deposit and loan & advance ratio of NABIL Bank Ltd.

The test statistic under Ho is,

$$t = \frac{r}{\sqrt{1-r^2}}\ X\ \sqrt{n-2}$$

$$= \frac{0.99}{\sqrt{1-0.9801}}\ X\ \sqrt{5-2}$$

$$= 12.1529$$

The calculated value of $t = 12.1529$

The tabulated value of t (two tailed test) at 5% value of (n-2) d.f. i.e. 3 d.f. is 3.182.

Decision:-

Since the calculated value of t i.e. 12.1529 is more than that of its tabulated value i.e. 3.182 at 5% level of significance for two tailed test. Null hypothesis is rejected, i.e. there

is correlation between deposit and loan & advance of NABIL Bank Ltd.

ii) Calculation of Co-efficient of Correlation & Test of Hypothesis between Deposits and Loan & Advance of NIBL

F/Y	Deposits (X)	Loans & Advances (Y)	$x = X - \bar{X}$	X^2	$y = Y - \bar{Y}$	Y^2	xy
2007/008	34,451.73	26996.65	(13,226.93)	174,951,571.41	(10261.09)	105289885.9	135,722,625.20
2008/009	46,698.10	36241.21	(980.56)	961,490.07	(1016.53)	1033325.109	996,760.67
2009/010	50,094.73	40318.31	2,416.07	5,837,413.57	3060.57	9367113.209	7,394,573.27
2010/011	50,138.12	41095.51	2,459.46	6,048,963.17	3837.77	14728509.28	9,438,866.99
2011/012	57,010.60	41637	9,331.94	87,085,178.82	4379.26	19177953.18	40,867,046.41
Total	$\Sigma X =$ 238,393.28	$\Sigma Y =$ 186,288.68	$\Sigma x =$ -	$\Sigma X^2 =$ 274,884,617.04	$\Sigma y =$ 0.00	$\Sigma y^2 =$ 149,596,786.67	$\Sigma xy =$ 194,419,872.54
Mean	47,678.66	37,257.74					

Now,

Coefficient of Correlation (r) = $\frac{\sum xy}{\sqrt{\sum x2}\sqrt{\sum y2}}$

$$= \frac{194419872.54}{16579.64\ X\ 12230.98}$$

$$= 0.96$$

$$r^2 = 0.9216$$

For the Test of Hypothesis

Setting of hypothesis

Null hypothesis (Ho): $\rho = 0$ i.e. there is insignificant correlation ship between deposit and loan & advance ratio of NIBL.

Alternative Hypothesis (H1): $\rho \neq 0$ i.e. there is correlation between deposit and loan & advance ratio of NIBL.

The test statistic under Ho is,

$$t = \frac{r}{\sqrt{1-r\,2}}\ X\ \sqrt{n-2}$$

$$= \frac{0.96}{\sqrt{1-0.9216}}\ X\ \sqrt{5-2}$$

$$= 5.9386$$

The calculated value of $t = 5.9386$

The tabulated value of t (two tailed test) at 5% value of (n-2) d.f. i.e. 3 d.f. is 3.182.

Decision:-

Since the calculated value of t i.e. 5.9386 is more than that of its tabulated value i.e. 3.182 at 5% level of significance for two tailed test. Null hypothesis is rejected, i.e. there

is correlation between deposit and loan & advance of NIBL.

iii) Calculation of Co-efficient of Correlation & Test of Hypothesis between Deposits and Loan & Advance of HBL

F/Y	Deposits (X)	Loans & Advances (Y)	$x = X - \overline{X}$	X^2	$y = Y - \overline{Y}$	Y^2	xy
2007/008	31,842.79	19497.52	(6,714.60)	45,085,880.02	(8263.22)	68280870.87	55,484,260.40
2008/009	34,681.35	24793.16	(3,876.04)	15,023,701.59	(2967.58)	8806554.797	11,502,480.22
2009/010	37,611.20	27980.63	(946.19)	895,279.30	219.89	48349.853	(208,054.37)
2010/011	40,920.63	31566.98	2,363.24	5,584,893.84	3806.24	14487432.49	8,995,041.55
2011/012	47,730.99	34965.43	9,173.60	84,154,900.27	7204.69	51907500.36	66,092,893.08
Total	ΣX = 192,786.96	$13\Sigma Y$ = 8,803.72	Σx = -	ΣX^2 = 150,744,655.02	Σy = 0.00	Σy^2 = 143,530,708.37	141,866,620.88
Mean	38,557.39	27,760.74					

Now,

Coefficient of Correlation (r) = $\frac{\sum xy}{\sqrt{\sum x2}\sqrt{\sum y2}}$

$= \frac{141866620.88}{12277.81\ X\ 11980.43}$

$= 0.96$

$r^2 = 0.9216$

For the Test of Hypothesis

Setting of hypothesis

Null hypothesis (Ho): $\rho = 0$ i.e. there is insignificant correlation ship between deposit and loan & advance ratio of HBL.

Alternative Hypothesis (H1): $\rho \neq 0$ i.e. there is correlation between deposit and loan & advance ratio of HBL.

The test statistic under Ho is,

$$t = \frac{r}{\sqrt{1-r^2}} X \sqrt{n-2}$$

$$= \frac{0.96}{\sqrt{1-0.9216}} X \sqrt{5-2}$$

$$= 5.9386$$

The calculated value of $t = 5.9386$

The tabulated value of t (two tailed test) at 5% value of (n-2) d.f. i.e. 3 d.f. is 3.182.

Decision:-

Since the calculated value of t i.e. 5.9386 is more than that of its tabulated value i.e. 3.182 at 5% level of significance for two tailed test. Null hypothesis is rejected, i.e. there is correlation between deposit and loan & advance of HBL.

iv) Calculation of Co-efficient of Correlation & Test of Hypothesis between Deposits and Loan & Advance of NSBI

F/Y	Deposits (X)	Loans & Advances (Y)	$x = X - \overline{X}$	X^2	$y = Y - \overline{Y}$	Y^2	xy
2007/008	13,715.39	12113.7	-20,752.56	430,668,580.53	-6331.07	40082472.67	131,385,926.22
2008/009	27,975.22	15121.75	-6,492.73	42,155,490.91	-3323.02	11042475.21	21,575,471.34
2009/010	34,896.42	17480.55	428.47	183,589.97	-964.22	929724.0653	- 413,144.06
2010/011	42,415.44	21365.77	7,947.49	63,162,660.88	2921.00	8532229.316	23,214,614.08
2011/012	53,337.26	26142.09	18,869.31	356,051,010.83	7697.32	59248704.39	145,243,110.30
Total	ΣX = 172,339.73	ΣY = 92,223.86	Σx = -	ΣX^2 = 892,221,333.12	Σy = -	Σy^2 = 119,835,605.66	Σxy = 321,005,977.88
Mean	34,467.95	18,444.77					

Now,

$$\text{Coefficient of Correlation (r)} = \frac{\Sigma xy}{\sqrt{\Sigma x2}\sqrt{\Sigma y2}}$$

$$= \frac{321005977.88}{29870.07 X 10946.95}$$

$$= 0.98$$

$$r^2 = 0.9604$$

For the Test of Hypothesis

Setting of hypothesis

Null hypothesis (Ho): $\rho = 0$ i.e. there is insignificant correlation ship between deposit and loan & advance ratio of NSBI.

Alternative Hypothesis (H1): $\rho \neq 0$ i.e. there is correlation between deposit and loan & advance ratio of NSBI.

The test statistic under Ho is,

$$t = \frac{r}{\sqrt{1-r^2}} X \sqrt{n-2}$$

$$= \frac{0.98}{\sqrt{1-0.9604}} X \sqrt{5-2}$$

$$= 8.5299$$

The calculated value of $t = 8.5299$

The tabulated value of t (two tailed test) at 5% value of (n-2) d.f. i.e. 3 d.f. is 3.182.

Decision:-

Since the calculated value of t i.e. 8.5299 is more than that of its tabulated value i.e. 3.182 at 5% level of significance for two tailed test. Null hypothesis is rejected, i.e. there

is correlation between deposit and loan & advance of NSBI.

B) Co-efficient of correlation & test of hypothesis between Deposits and Total Investment of NABIL, NIBL, HBL & NSBI

i) Calculation of Co-efficient of Correlation & Test of Hypothesis between Deposits and Total Investment of NABIL Bank

Fiscal Year	Deposits (X)	Total Investments (Y)	$x = X - \overline{X}$	X^2	$y = Y - \overline{Y}$	Y^2	xy
2007/008	31,915.05	9939.77	-12,126.11	147,042,543.73	-2379.26	5660859.114	28,851,119.97
2008/009	37,348.26	10826.38	-6,692.90	44,794,910.41	-1492.65	2227992.081	9,990,130.41
2009/010	46,340.70	13670.92	2,299.54	5,287,884.21	1351.89	1827617.387	3,108,734.33
2010/011	49,696.11	13081.21	5,654.95	31,978,459.50	762.18	580924.4499	4,310,112.41
2011/012	54,905.68	14076.85	10,864.52	118,037,794.83	1757.82	3089945.215	19,097,914.00
Total	$\Sigma X =$ 220,205.80	$\Sigma Y =$ 61,595.13	$\Sigma x =$ 0.00	ΣX^2 =347,141,592.69	$\Sigma X^2 =$ -0.02	$\Sigma y^2 =$ 13,387,338.25	$\Sigma xy =$ 65,358,011.13
Mean	44,041.16	12,319.03					

Now,

Coefficient of Correlation (r) = $\frac{\sum xy}{\sqrt{\sum x2}\sqrt{\sum y2}}$

$$= \frac{65358011.13}{18631.77\ X\ 3658.873}$$

$$= 0.96$$

$$r^2 = 0.9216$$

For the Test of Hypothesis

Setting of hypothesis

Null hypothesis (Ho): $\rho = 0$ i.e. there is insignificant correlation ship between deposit and total investment ratio of NABIL Bank Ltd.

Alternative Hypothesis (H1): $\rho \neq 0$ i.e. there is correlation between deposit and total investment ratio of NABIL Bank Ltd.

The test statistic under Ho is,

$$t = \frac{r}{\sqrt{1-r^2}}\ X\ \sqrt{n-2}$$

$$= \frac{0.96}{\sqrt{1-0.9216}}\ X\ \sqrt{5-2}$$

$$= 8.5299$$

The calculated value of $t = 8.5299$

The tabulated value of t (two tailed test) at 5% value of (n-2) d.f. i.e. 3 d.f. is 3.182.

Decision:-

Since the calculated value of t i.e. 8.5299 is more than that of its tabulated value i.e. 3.182 at 5% level of significance for two tailed test. Null hypothesis is rejected, i.e. there is correlation between deposit and total investment of NABIL Bank Ltd.

ii) Calculation of Co-efficient of Correlation & Test of Hypothesis between Deposits and Total Investment of NIBL

Fiscal Year	Deposits (X)	Total Investments (Y)	$x = X - \overline{X}$	X^2	$y = Y - \overline{Y}$	Y^2	xy
2007/008	34,451.73	6,874.02	(13,226.93)	174,951,571.41	(1280.17)	1638840.35	16,932,740.31
2008/009	46,698.10	7,399.81	(980.56)	961,490.07	(754.38)	569092.2019	739,713.80
2009/010	50,094.73	8,635.53	2,416.07	5,837,413.57	481.34	231686.2702	1,162,948.23

2010/011	50,138.12	7,423.11	2,459.46	6,048,963.17	(731.08)	534480.8907	(1,798,069.86))
2011/012	57,010.60	10,438.49	9,331.94	87,085,178.82	2284.30	5218017.353	21,316,941.02
Total	$\sum X$ = 238,393.28	$\sum Y$ = 40,770.96	$\sum x$ = -	$\sum X^2$ =274,884,617.04	$\sum X^2$ =-	$\sum y^2$ = 8,192,117.07	$\sum xy$ = 38,354,273.49
Mean	47,678.66	8,154.19					

Now,

Coefficient of Correlation (r) = $\frac{\sum xy}{\sqrt{\sum x2}\sqrt{\sum y2}}$

$$= \frac{38354273.49}{16579.64\ X\ 2862.19}$$

$$= 0.81$$

$$r^2 = 0.6561$$

For the Test of Hypothesis

Setting of hypothesis

Null hypothesis (Ho): $\rho = 0$ i.e. there is insignificant correlation ship between deposit and total investment ratio of NIBL.

Alternative Hypothesis (H1): $\rho \neq 0$ i.e. there is correlation between deposit and total investment ratio of NIBL.

The test statistic under Ho is,

$$t = \frac{r}{\sqrt{1-r^2}}\ X\ \sqrt{n-2}$$

$$= \frac{0.81}{\sqrt{1-0.6561}}\ X\ \sqrt{5-2}$$

$$= 5.9386$$

The calculated value of $t = 2.3926$

The tabulated value of t (two tailed test) at 5% value of (n-2) d.f. i.e. 3 d.f. is 3.182.

Decision:-

Since the calculated value of t i.e. 2.3926 is less than that of its tabulated value i.e. 3.182 at 5% level of significance for two tailed test. Null hypothesis is accepted, i.e. there is insignificant correlation ship between deposit and total investment of NIBL.

iii) Calculation of Co-efficient of Correlation & Test of Hypothesis between Deposits and Total Investment of HBL

Fiscal Year	Deposits (X)	Total Investments (Y)	$x = X - \overline{X}$	X^2	$y = Y - \overline{Y}$	Y^2	xy
2007/008	31,842.79	13340.18	(6,714.60)	45,085,880.02	3480.72	12115411.72	(23,371,649.47)
2008/009	34,681.35	8710.69	(3,876.04)	15,023,701.59	(1148.77)	1319672.513	4,452,680.77
2009/010	37,611.20	8444.91	(946.19)	895,279.30	(1414.55)	2000951.703	1,338,435.89
2010/011	40,920.63	8769.94	2,363.24	5,584,893.84	(1089.52)	1187053.83	(2,574,795.07)
2011/012	47,730.99	10031.58	9,173.60	84,154,900.27	172.12	29625.2944	1,578,959.69
Total	ΣX = 192,786.96	ΣY = 49,297.30	Σx = -	ΣX^2 =150,744,655.02	ΣX^2 = (0.00)	Σy^2 = 16,652,715.06	Σxy = (18,576,368.19)
Mean	38,557.39	9,859.46					

Now,

Coefficient of Correlation (r) = $\frac{\sum xy}{\sqrt{\sum x2}\sqrt{\sum y2}}$

$$= \frac{-18576368.199}{12277.81\ X\ 4080.78}$$

$$= (0.37)$$

$$r^2 = 0.1369$$

For the Test of Hypothesis

Setting of hypothesis

Null hypothesis (Ho): $\rho = 0$ i.e. there is insignificant correlation ship between deposit and total investment ratio of HBL.

Alternative Hypothesis (H1): $\rho \neq 0$ i.e. there is correlation between deposit and total investment ratio of HBL.

The test statistic under Ho is,

$$t = \frac{r}{\sqrt{1-r\ 2}}\ X\ \sqrt{n-2}$$

$$= \frac{-0.37}{\sqrt{1-0.1369}} X \sqrt{5-2}$$

$= -0.6894$

The calculated value of $t = -0.6894$

The tabulated value of t (two tailed test) at 5% value of (n-2) d.f. i.e. 3 d.f. is 3.182.

Decision:-

Since the calculated value of t i.e. -0.6894 is less than that of its tabulated value i.e. 3.182 at 5% level of significance for two tailed test. Null hypothesis is accepted, i.e. there is insignificant correlation ship between deposit and total investment of HBL.

iv) Calculation of Co-efficient of Correlation & Test of Hypothesis between Deposits and Total Investment of NSBI

Fiscal Year	Deposits (X)	Total Investments (Y)	$x = X - \overline{X}$	X^2	$y = Y - \overline{Y}$	Y^2	xy
2007/008	13,715.39	3088.89	(20,752.56)	430,668,580.53	(12122.14)	146946375.2	251,565,472.20
2008/009	27,975.22	13286.18	(6,492.73)	42,155,490.91	(1924.85)	3705062.921	12,497,549.61
2009/010	34,896.42	16305.63	428.47	183,589.97	1094.60	1198140.403	469,005.93
2010/011	42,415.44	18911.02	7,947.49	63,162,660.88	3699.99	13689896.4	29,405,616.54
2011/012	53,337.26	24463.45	18,869.31	356,051,010.83	9252.42	85607201.84	174,586,742.76
Total	ΣX = 172,339.73	ΣY = 76,055.17	Σx = -	ΣX^2 =892,221,333.12	ΣX^2 =-	Σy^2 = 251,146,676.72	Σxy = 468,524,387.04
Mean	34,467.95	15,211.03					

Now,

Coefficient of Correlation (r) $= \frac{\sum xy}{\sqrt{\sum x2}\sqrt{\sum y2}}$

$$= \frac{468524387.04}{29870.07\ X\ 15847.61}$$

$= 0.99$

$r^2 = 0.9801$

For the Test of Hypothesis

Setting of hypothesis

Null hypothesis (H_0): $\rho = 0$ i.e. there is insignificant correlation ship between deposit and total investment ratio of NSBI.

Alternative Hypothesis (H1): $\rho \neq 0$ i.e. there is correlation between deposit and total investment ratio of NSBI.

The test statistic under Ho is,

$$t = \frac{r}{\sqrt{1-r^2}} X \sqrt{n-2}$$

$$= \frac{0.97}{\sqrt{1-0.9801}} X \sqrt{5-2}$$

$$= 12.1529$$

The calculated value of $t = 12.1529$

The tabulated value of t (two tailed test) at 5% value of (n-2) d.f. i.e. 3 d.f. is 3.182.

Decision:-

Since the calculated value of t i.e. 12.1529 is more than that of its tabulated value i.e. 3.182 at 5% level of significance for two tailed test. Null hypothesis is rejected, i.e. there is correlation between deposit and total investment of NSBI.

C) Co-efficient of correlation & test of hypothesis between Outside Assets and Net Profit of NABIL, NIBL, HBL & NSBI

i) Calculation of Co-efficient of Correlation & Test of Hypothesis between Outside Assets and Net Profit of NABIL Bank

Fiscal Year	Outside Assets (X)	Net Profit (Y)	$x = X - \overline{X}$	X^2	$y = Y - \overline{Y}$	Y^2	xy
2007/008	31,304.82	746.47	(13,186.93)	173,895,122.82	(444.48)	197562.4704	5,861,326.65
2008/009	38,416.31	1031.05	(6,075.44)	36,910,971.19	(159.90)	25568.01	971,462.86
2009/010	45,939.79	1139.1	1,448.04	2,096,819.84	(51.85)	2688.4225	(75,080.87)
2010/011	51,115.30	1337.75	6,623.55	43,871,414.60	146.80	21550.24	972,337.14
2011/012	55,682.53	1700.38	11,190.78	125,233,557.01	509.43	259518.9249	5,700,919.06
Total	$\Sigma X =$ 222,458.75	$\Sigma Y =$ 5,954.75	$\Sigma x =$ - 0.00	ΣX^2 =382,007,885.47	(0.02)	$\Sigma y^2 =$ 506,888.07	$\Sigma xy =$ 13,430,964.82
Mean	44,491.**75**	1,190.95					

Now,

$$\text{Coefficient of Correlation (r)} = \frac{\Sigma xy}{\sqrt{\Sigma x2}\sqrt{\Sigma y2}}$$

$$= \frac{13430964.82}{19545.02 X 711.96}$$

$= 0.97$

$r^2 = 0.9409$

For the Test of Hypothesis

Setting of hypothesis

Null hypothesis (Ho): $\rho = 0$ i.e. there is insignificant correlation ship between outside assets & net profit ratio of NABIL Bank Ltd.

Alternative Hypothesis (H1): $\rho \neq 0$ i.e. there is correlation between outside assets & net profit ratio of NABIL Bank Ltd.

The test statistic under Ho is,

$$t = \frac{r}{\sqrt{1-r^2}} X \sqrt{n-2}$$

$$= \frac{0.98}{\sqrt{1-0.9409}} X \sqrt{5-2}$$

$= 7.1770$

The calculated value of $t = 7.1770$

The tabulated value of t (two tailed test) at 5% value of (n-2) d.f. i.e. 3 d.f. is 3.182.

Decision:-

Since the calculated value of t i.e. 7.1770 is more than that of its tabulated value i.e. 3.182 at 5% level of significance for two tailed test. Null hypothesis is rejected, i.e. there is correlation between outside assets & net profit of NABIL Bank Ltd.

ii) Calculation of Co-efficient of Correlation & Test of Hypothesis between Outside Assets and Net Profit of NIBL

Fiscal Year	Outside Assets (X)	Net Profit (Y)	$x = X - \overline{X}$	X^2	$y = Y - \overline{Y}$	Y^2	xy
2007/008	33,870.68	696.73	(11,541.25)	133,200,451.56	-319.11	101833.745	3,682,974.45
2008/009	43,641.02	900.62	(1,770.91)	3,136,122.23	-115.22	13276.57018	204,051.33
2009/010	48,953.84	1,265.95	3,541.91	12,545,126.45	250.11	62553.01124	885,852.94
2010/011	48,518.62	1,176.64	3,106.69	9,651,522.76	160.80	25855.35362	499,543.33
2011/012	52,075.49	1,039.28	6,663.56	44,403,031.87	23.44	549.246096	156,167.19
Total	$\Sigma X =$ 227,059.65	$\Sigma Y =$ 5,079.22	$\Sigma x =$ (0.00)	$\Sigma X^2 =$ 202,936,254.87	$\Sigma X^2 =$ (0.00)	$\Sigma y^2 =$ 204,067.93	$\Sigma xy =$ 5,428,589.25
Mean	45,411.93	1,015.84					

Now,

Coefficient of Correlation (r) = $\frac{\sum xy}{\sqrt{\sum x2}\sqrt{\sum y2}}$

$$= \frac{5428589.25}{14245.57\ X\ 451.74}$$

$$= 0.84$$

$$r^2 = 0.7056$$

For the Test of Hypothesis

Setting of hypothesis

Null hypothesis (Ho): $\rho = 0$ i.e. there is insignificant correlation ship between outside assets & net profit ratio of NIBL.

Alternative Hypothesis (H1): $\rho \neq 0$ i.e. there is correlation between d outside assets & net profit ratio of NIBL.

The test statistic under Ho is,

$$t = \frac{r}{\sqrt{1-r^2}}\ X\ \sqrt{n-2}$$

$$= \frac{0.84}{\sqrt{1-0.7056}}\ X\ \sqrt{5-2}$$

$$= 2.6815$$

The calculated value of $t = 2.3926$

The tabulated value of t (two tailed test) at 5% value of (n-2) d.f. i.e. 3 d.f. is 3.182.

Decision:-

Since the calculated value of t i.e. 2.6815 is less than that of its tabulated value i.e. 3.182 at 5% level of significance for two tailed test. Null hypothesis is accepted, i.e. there is insignificant correlation ship between outside assets & net profit of NIBL.

iii) Calculation of Co-efficient of Correlation & Test of Hypothesis between Outside Assets and Net Profit of HBL

Fiscal Year	Outside Assets (X)	Net Profit (Y)	$x = X - \overline{X}$	X^2	$y = Y - \overline{Y}$	Y^2	xy
2007/008	32,837.70	635.87	(4,782.50)	22,872,344.51	(113.98)	12991.89632	545,119.37

2008/009	33,503.85	752.83	(4,116.35)	16,944,370.25	2.98	8.868484	(12,258.50)
2009/010	36,425.54	508.8	(1,194.66)	1,427,222.07	(241.05)	58106.0667	287,976.15
2010/011	40,336.92	893.12	2,716.72	7,380,545.82	143.27	20525.71982	389,218.47
2011/012	44,997.01	958.64	7,376.81	54,417,266.76	208.79	43592.42894	1,540,188.57
Total	ΣX = 188,101.02	ΣY = 3,749.26	Σx = (0.00)	ΣX^2 =103,041,749.42	Σy = -	Σy^2 = 135,224.98	Σxy = 2,750,244.05
Mean	37,620.20	749.85					

Now,

Coefficient of Correlation (r) = $\frac{\Sigma xy}{\sqrt{\Sigma x2}\sqrt{\Sigma y2}}$

$$= \frac{2750244.05}{10150.95\ X\ 367.73}$$

$$= 0.74$$

$$r^2 = 0.5476$$

For the Test of Hypothesis

Setting of hypothesis

Null hypothesis (Ho): $\rho = 0$ i.e. there is insignificant correlation ship between outside assets & net profit ratio of HBL.

Alternative Hypothesis (H1): $\rho \neq 0$ i.e. there is correlation between outside assets & net profit ratio of HBL.

The test statistic under Ho is,

$$t = \frac{r}{\sqrt{1-r^2}}\ X\ \sqrt{n-2}$$

$$= \frac{0.74}{\sqrt{1-0.6726}}\ X\ \sqrt{5-2}$$

$$= 1.9057$$

The calculated value of $t = 1.9057$

The tabulated value of t (two tailed test) at 5% value of (n-2) d.f. i.e. 3 d.f. is 3.182.

Decision:-

Since the calculated value of t i.e. 1.9057 is less than that of its tabulated value i.e. 3.182 at 5% level of significance for two tailed test. Null hypothesis is accepted, i.e. there is insignificant correlation ship between outside assets & net profit of HBL.

iii) Calculation of Co-efficient of Correlation & Test of Hypothesis between Outside Assets and Net Profit of NSBI

Fiscal Year	Outside Assets (X)	Net Profit (Y)	x= X- X'	x2	y= Y-Y'	y2	xy
2007/008	15,202.59	247.77	(18,455.42)	340,602,453.55	(132.34)	17513.8756	2,442,390.02
2008/009	28,418.93	316.37	(5,239.08)	27,447,938.29	(63.74)	4062.7876	333,938.83
2009/010	33,786.18	391.74	128.17	16,428.06	11.63	135.2569	1,490.64
2010/011	40,276.79	464.56	6,618.78	43,808,275.16	84.45	7131.8025	558,956.14
2011/012	50,605.55	480.11	16,947.54	287,219,179.84	100.00	10000	1,694,754.20
Total	Σ X = 168,290.04	Σ Y = 1,900.55	Σ x = - 0.00	ΣX^2 = 699,094,274.91	Σ y = -	Σy^2 = 38,843.72	Σ xy = 5,031,529.83
Mean	33,658.01	380.11					

Now,

Coefficient of Correlation (r) = $\frac{\sum xy}{\sqrt{\sum x2}\sqrt{\sum y2}}$

$= \frac{5031529.83}{26440.4\ X\ 197.09}$

$= 0.97$

$r^2 = 0.9409$

For the Test of Hypothesis

Setting of hypothesis

Null hypothesis (H_0): $\rho = 0$ i.e. there is insignificant correlation ship between deposit and total investment ratio of NSBI.

Alternative Hypothesis (H1): $\rho \neq 0$ i.e. there is correlation between deposit and total investment ratio of NSBI.

The test statistic under Ho is,

$t = \frac{r}{\sqrt{1-r\ 2}}\ X\ \sqrt{n-2}$

$= \frac{0.98}{\sqrt{1-0.9409}}\ X\ \sqrt{5-2}$

$= 7.1770$

The calculated value of $/t/ = 7.1770$

The tabulated value of t (two tailed test) at 5% value of (n-2) d.f. i.e. 3 d.f. is 3.182.

Decision:-

Since the calculated value of t i.e. 7.1770 is more than that of its tabulated value i.e. 3.182 at 5% level of significance for two tailed test. Null hypothesis is rejected, i.e. there is correlation between deposit and total investment of NSBI.