

CHAPTER – I

INTRODUCTION

1.1 Background of the Study

Human activities are normally directed towards the well being of the people. Energy and efforts devoted by people in the society aim at enhancing material benefits to the community. To enable people to enjoy material benefits is possible only when production base is expanded. In other words this requires economic growth. In order to contribute in the process of economic development of the country banking industry has been established and operating to provide the financial resources to the economic activities.

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 channelizing the available resources in the needed sector. It therefore acts as an intermediary between the deficit and surplus groups of the financial resources. Economic development of any country is mainly influenced by the growth of banking industry in that country. Bank is a business establishment that safeguards people' money and uses it to make loans and investments. Banks are the principal source of credit for millions of individuals and families and for many units of government (school district, cities countries etc.) during transaction businesses and consumers make payments from bank-provided checks, debit card or credit card. Hence, bank can be said as a financial intermediary accepting deposits and granting loans offer wildest menu of services of any financial institution.

Banks can also be said as a financial services firms which produces and sells professional management. Their success hinges on their ability to identify the financial services the public demands, produce those services efficiently and sell them at a competitive price. In broadest sense, a bank is a financial intermediary that performs one or more of the following function : safeguards and transfer of funds, lends or facilitates lending guarantees creditworthiness and exchange money . Such institutions as commercial

banks, central banks, trust companies finance companies, life insurers and investment bankers provide these services.

Financial system contains two components viz. non- depository financial institutions. Commercial banks and finance companies are the examples of the depository institutions where as Employee Provident Fund, Development Banks, Development Banks, Insurance Companies, etc. are the examples of non-depository financial institutions.

The concept of bank has been modifying due to the change of times and situations. Many well- known economists, scholars and acts of nations of the world have given definitions regarding banks. Some of the significant definitions are stated as below:

“Banker’s business is to take the debits of other peoples to offer his on in exchange, and thereby create money.”

- G. Crowther

“A commercial bank is dealer in money and it substitutes for money such a check or a bills of exchange , it also provides a variety of financial services ” (The new encyclopedia of Britannica,1985; 600:4).

Similarly, a definition given in encyclopedia that “A bank is a business organization that receives and holds deposits of funds from others and makes loans or extends credits and transfers funds by written orders of deposits” (Grolier Incorporated, 1984:4).

Finally, a bank is an institution, which deals with money by accepting various types of deposit, disbursing loans and rendering other financial services. Financial institution is the backbone of the economic development of the country. Commercial banks plays a vital role in the economic development of the country. Commercial bank helps to utilize the capital and provide loans for the business sector. The role of financial intermediaries is important to the economic development of any country; it is not easy to earn profit for commercial banks. The financial manager should have strategy which helps to maximize the wealth of the organization. The main objectives of Bank are to provide the banking

services to the people in different sectors. The major activities including deposit collection, lending to commercial as well as productive sector, foreign exchange business, remittance, merchant banking, correspondence Banking etc.

1.2 Focus of the study

Investors invest their money in the hope of getting good return. Some of the investor's succeed while others become failure in their goal. Due to many reasons they lose their hard earning just not by analyzing risk and return involve in the investment thus recoverable investment is must because investment policy in the proper management of wealth too generate income. Banks and financial institutions cannot run without sound investment policy. The main focus of the study is to analyze the sound investment policies of the joint venture banks i.e Nabil Bank Ltd in comparisons to Standard Chartered Bank Nepal Ltd , Himalayan Bank Ltd and Kumari Bank Ltd.

Under this annual report of concerned bank are received in order to highlight the brief profile of the bank.

a) Nabil Bank Limited (NABIL)

Nabil Bank Limited, named as Nepal Arab Bank Limited. But it has changed its name from Nepal Arab Bank Limited to Nabil Bank Limited From 1st January 2005.

Nabil Bank Ltd was established in 2041 B.S . This is the first modern bank with latest banking technology. Under a technical services agreement with Dubai Bank Ltd,Dubai ,which was later, merged with Emirates Bank Limited, Dubai.

It provides a full of commercial banking services through its outlets spread across the nation and reputed correspondent banks across the globe.Nabil has continued to extend its network and had given emphasis for its own ossice premise. It had also laid its commitment for the managerial and technical skill development program, in house training at different institutes in India nad the entrepreneurial development program for graduates. Moreover Nabil has good name in the market.

Subscription	% Holding
N.B international limited , Ireland	50.00%
Other Licensed institutions	6.15%
Other Entities	10.00%
General Public	30.00%
Others	3.85%
Total	100%

Source: Annual Report of NABIL 2011/12

Capital Structure of NABIL

Share structure	Amount (RS)
Authorized capital(2,10,00,000 shares @ 100)	2100,000,000
Issued capital (20,29,76,944 shares @100)	20297694,400
Paid up capital (20,76,944 shares @100)	20297694,400

Source: Annual Report of NABIL 2011/12

b) Himalayan Bank Limited (HBL)

Himalyan Bank is joint venture with Habib bank of Pakistan. It started its operation in 2049 B.S with paid up capital of Rs. 60million. This is the first joint venture bank managed by Nepali chief executive. The operation of the bank started from 1993 Feb. Himalayan Bank Ltd does not include government ownership. It has been established to maintain the economic welfare of the general people to facilitate loan for agriculture, industry and commerce to provide the banking services to the country and people. It is the first commercial bank of Nepal with maximum share holding by the Nepalese private sector, Besides commercial activites, the bank also offers industrial and merchant banking. HBL has been operating in high profit for the establishment' period till now. The bank has aimed install more Automated Teller Machines (ATM) and improve its credit card business.HBL is providing any branch banking services from some of its branches. The Himalayan Bank is the only bank in Nepal which issuing Master card.

The bank is also operating a counter in the premise of the Royal Palace. The bank has a very aggressive plan of establishing more branches in different parts of the nation in near future. HBL was access to the world wide correspondent net work of Habib bank for fund transfer, letter of credit or any other banking business anywhere in the world. Himalayan bank has adopting innovative and latest banking technology.

Ownership of HBL

Subscription	% Holding
1.Domestic Ownership	
Other Entities	65%
General Public	15%
2.Foreign Ownership	20%
Total	100%

Source: Annual Report of HBL 2011/12

Capital Structure of HBL

Share structure	Amount(RS)
Authorized capital (30000000 shares @100)	3,000,000,000
Issued capital (20000000 shares @100)	2,000,000,000
Paid up capital (20000000 shares @100)	2,000,000,000

Source: Annual Report of HBL 2011/12

c) Standard Chartered Bank Limited (SCBNL)

Standard Chartered Bank Ltd was established as a joint venture between ANZ Grindlays and Nepal Bank Ltd. This bank is known as standard chartered Bank since July 2004. Standard Chartered Bank Ltd was renamed from Nepal Grind lays Bank Ltd which was established in 1987 A.D as one of the commercial bank of Nepal among many joint venture bank to contribute in commercial sectors of Nepalese economy. The bank providing many of the banking services to its customers through the branches national wide. The bank places a great emphasis on being equipped with the best human resources so as to continue to be leader of the industry. To improve the skills and knowledge of the

staff, the bank continues to provide development programs including on the job training and job rotation.

Ownership of SCBNL

Subscription	%holding
SCBL	75%
Standard Chartered Grind Lay's Ltd. Australia	50%
Standard Chartered, United Nation	25%
Nepalese Public Shareholder	25%
Total	100%

Source: Annual Report of SCBNL 2010/11

Capital Structure of HBL

Share Structure	Amount(RS)
Authorized capital (10000000 shares @100)	1,000,000,000
Issued capital (50000000 shares @100)	5,000,000,000
Paid up capital (3746404 shares @100)	37,46,40,400

Source: Annual Report of SCBNL 2010/11

d) Kumari Bank Limited (KBL)

Kumari bank Limited , came into existence as the fifteenth commercial bank of Nepal by starting its banking operations from Chaitra 21,2057.B.S (April 03,2001) with an objective of providing competitive and modern banking services in the Nepalese financial market. The bank has paid up of Rs. 1,304,935,920.00 of which 70% is contributed from porters and remaining from public.

Kumari bank Ltd has been providing wide- range of modern banking services through 33 points of representations located in various urban and semi urban part of the country , 19 outside and 14 inside the valley. The bank is pioneer in providing some of the latest/ lucrative banking services like E-Banking and SMS Banking Services in Nepal. The bank always focus on building sound technology driven internal system to cater the changing needs of the customers that enhance high comfort and value. The adoption of modern Globus Software, developed by Temenos NV, Switzerland and arrangement of centralized data base system enables customer to make highly secured transactions in any branch regardless of having account with particular branch. Similarly the bank has been providing 365 days banking facilities, extended banking hours till 7 PM in the evening in

the evening, Utility Bill Payment Services, Inward and Outward Remittance services, Online remit services and various other banking services.

Visa Electron Debit Card, which is accessible in entire VISA linked ATMs (including 33 own ATMs) and POS (Point of Sale) terminals both in Nepal and India, has also added convenience to the customers.

The bank has been able to get recognition as an innovative and fast growing institution striving to enhance customer value and satisfaction by backing transparent business practice, professional management, corporate governance and total quality management as the organizational mission.

The key focus of the bank is always center on serving unfulfilled needs of all classes of customers located in various parts of the country by offering modern and competitive banking products and services in their door step. The bank always prioritizes the priorities of the valued customers.

Ownership of KBL

Subscription	%Holding
1.Domestic Ownership	
Other Entities	2.06%
General Public	97.94%
2.Foreign Ownership	
Total	100%

Source: Annual Report of KBL 2011/12

Capital Structure of KBL

Share Structure	Amount(RS)
Authorized capital (16000000 shares @100)	1,600,000,000
Issued capital (14850000 shares @100)	1,485,000,000
Paid up capital (14850000 shares @100)	1,485,000,000

Source: Annual Report of SCBL 2011/12

1.3 Statement of Problem

In our country we see unequal distribution of income which is the main causes of less mobilization of money which thus creates less saving, inadequate capital formation and insufficient investment. The numbers of joint venture banks as well as financial institutions have been set up at a rapid rate after the adoption of economic liberalization policy of the Government of Nepal. However in today's context, where the commercial banks are mushrooming, the competition among them has been a tough job, where it collects lots of deposits with comparatively low investment opportunities.

Lack of sound knowledge about the financial risk, business risk and other risk leads to more unsecured loan and investment-which compels the bank towards liquidation and bankruptcy. Therefore appropriate investment policy is the essence of all the joint venture banks, commercial banks and other financial institutions to deal with the cutthroat competition.

Moreover, this study will analyze the relationship of investment policy and the deposit mobilization and the profit position of the banks.

- How efficient/reasonable are the commercial banks in Nepal- in accordance to their investment policy?
- What is the standard form of the investment policy the commercial banks should have? And whether the banks today are following the rule or not, if not why?
- What is the effect of the investment decision on the Total profit and GDP thereby?
- What are the views and ideas of the financial executives and customers regarding the knowledge on the various aspects of the investment policy adopted by the commercial banks today?
- What is the relationship between the various important variables like deposit, loan and advances, total investments and the net profit of the selected banks?

1.4 Objectives of the Study

The major objectives of the study will be examine, identify analyze study and evaluate the investment policy and the fund mobilization of the commercial banks in Nepal; and as

the sample for the study we take selected commercial banks of Nepal- in the analysis using the different financial and statistical tools.

The specific objectives are as follows.

- To evaluate and analyze the investment policy of the commercial banks in Nepal.
- To evaluate the liquidity, assets management, profitability, risk position, and growth ratios of the banks under study.
- To analyze the trends of the most influential items to the investment policy of the bank(i.e. total deposit, loan & advances and net profit; under which we conduct various activities)
- To provide suggestion, guidelines and appropriate recommendation on the basic of major findings.

1.5 Significance of the Study

The present study is to find out the investment policy and practice of the joint venture banks in Nepal. Any bank can perform its lending behavior only when it has sufficient amount to lend it. So first, it should be able to collect sufficient amount in the form of deposits from different sectors.

Investment policy is one of the essential and the main functions where the whole banking business is related thus, the study on the major joint venture banks and especially in their lending and investment policies carry a great significance to the shareholders of banks, to the banking professionals, to the students and teachers of banking and commerce. It is expected that this will provide some relevant finding, which help the bankers, professionals and interested reader too.

1.6 Limitation of the Study

In the context of Nepal, data availability is the major problem for any purpose_ that may be because of the poor document handling management or due to the wretched response from the concerned people when asked for any information.

This study is simply a partial requirement of MBS program, and the limitation faced while doing this study areas follows:

- The study is mainly based on the secondary data (i.e. published financial documents such as balance sheet, profit and loss account, related books, journals and magazines) so the result of all the analysis depends upon the information provides by the banks.
- The sample taken for the study may not represent the whole population of the commercial banks in Nepal.
- The study will analyze the data and information of five years. A consolidate trends for five years will not be sufficient for the research accurate projection.
- The data are modified as per the study.
- Lastly, the times factor is the major limitation of the study, as this has to be completed within a short period of time.

1.7 Organization of the Study

The whole study comprised of the five different consecutive parts as mentioned below:

Chapter I: Introduction

This chapter comprises of general background, focus of the study, brief profile of the banks under study, significance of the study, objectives of the study, limitation of the study and organization of the study.

Chapter II: Review of the Literature

This part deals with the reviewing of the various literatures, definition and concept of investment policy. This also consists of the review of the related, journals, articles and review of books concerned to investment policy.

Chapter III: Research Methodology

This part consist of the research design, total population and sample of the study, nature and sources of the data, data collection procedures and the analytical tools and techniques used in the study.

Chapter IV: Presentation and Analysis of Data:

This part constitutes the tabular and graphical representation of the collected data, their interpretation and analysis using various financial as statistical tools. Apart from it, summary of the major findings are also presented at the chapter.

Chapter V: Summary, Conclusion and Recommendation

This chapter contains the summary of the whole study and relevant conclusions were drawn based on the study. A suitable set of recommendation were made at the end of the chapter.

Finally an extensive appendices and bibliography are presented at the end of the study.

CHAPTER – II

REVIEW OF LITERATURE

This chapter includes the review of previous studies and the conceptual framework on the topic and its related areas. This chapter has already highlighted upon the commercial banks growth and performance on terms of their investment operation. Now in this chapter the focus has been made on the review of literature relevant to the investment policy of commercial banks. Every possible effort has been made to grasp knowledge and information that is available from libraries, document collection centers, other information managing bureaus, internet and concerned commercial banks (i.e. NABIL, SCBNL, HBL and KBL). During the study, several thesis works has been carried out by the previous students.

2.1 Theoretical Framework

The books are such types of institutions, which deals in money and substitute for money. They deal with credit and credit instruments. Goods circulation of credit is very much important for the bank. The weak decision in mobilizing funds and fluctuation of flow of credit is harmful to the bank and economy as a whole. Hence, the decisions pertaining to the investment of funds and is the factor of survival and extinction of banks.

William J. Sharpe and Alexander J. Gordon has defined investment in this way, “Investment in its broadest sense, means the sacrifice of certain present value for (possible uncertain) future value.”

Frank K. Reilly define investment in the words, “An investment may be defined the current commitment of funds for a period of time to derive a future flow of fund that will compensate the investing until for the time, the funds are committed, for the expected rate inflation and also for the uncertainty involved on the future flows of funds.”

James B. Baxley expresses his views as “ Investment policy fixed responsibilities for the investment disposition of the banks assets in term of allocation funds for investment and loan and establishing responsibility for day to day manage of those assets.”

Jack Clark Francis states that, “Default risk arises because firms may eventually bankrupt. Some default risk is not diversifiable because it is systematically related to the business cycle, which affects almost all investment.”

Charles P. Jones has defined that, “Investment as the commitment of funds to one or, more assets that will be held over some future time period. Investment concerned with the management of an investor wealth, which is the sum of current income and present value of all future.”

Shakespeare Baidhya has given his view an sound investment policy. He has said that “A sound investment policy of a bank is such that its fund are distributed in different types of assets with good possibility on the one hand provides maximum safely and security to the depositors and banks on other hand. Moreover, risk in banking sector tens to be concentrate in the loan portfolio. When a bank gets into serious financial trouble, its problem usually spring from significant amount of loans that have become uncollectible due mismanagement, illegal manipulation of loans, misguided lending policy or un expected economic downturn. Therefore, the banks investment policy must be such that which ensures the sound and prudent in order to protect public funds.”

2.2 Features of a sound Lending and Investment Policy

The commercial banks are inspired with the goals of earning profit. The income and profit of a financial institution depends upon to its lending procedure, lending policy and investment of its fund in different securities. The bank should be able to make clear the policy of its investment by making a deep study on the subjects that which sector would be the trust worthier and dependable to invest the funds collected in the bank. The greater the credit created by the bank higher will be the profitability. A sound lending and investment policy is not only prerequisite for the bank’s profitability but also crucially

significance for the promotion of commercial savings of an underdeveloped and backward country like Nepal.

The factors that banks must consider for sound lending and investment policies are explained as under:

a) Safety and Security

Banks should buy rated securities only. It should abstain from investing its fund in those securities, which are subject to greater depreciation and fluctuation for example common stock, since a little difference may result in a great loss. It must not advance its funds to speculative business, which may earn millions in minute or may become bankrupt the another minute. Since risk is overpriced during recession and under priced during boom banks should invest in medium grade and high- grade securities during recession and boom respectively. Banks should buy securities, which are commercially durable, marketable and high market price. In this regard, “MAST” should be followed while investing.

Where,

M= Marketability

A = Ascertainability

S = Stability

T = Transferability

b) Liquidity

Commercial banks can maximize its volume of wealth through maximization of return on their investment and lending. They must invest their fund in available sectors where they can earn maximum profit. Their return depends upon the interest rate, volume of loan, duration of the loan and nature of investment in different securities.

c) Profitability

Commercial banks can maximize its volume of wealth through maximization of return on their investments and lending. They must invest their fund in available sectors where they

can earn maximum profit. Their return depends upon the interest rate, volume of loan, duration of the loan and nature of investment in different securities.

d) Purpose of Loan

It is very important to be reminded that most of the bank loan failures in the banking world are due to shrinkage in the value of loan and advances. The first substantive question a banker must examine how loan proceeds will be used. If the loan purpose conflicts with commercial policy, such as loan for some speculative purpose not acceptable to the banker such loans should not be processed. If customers misuse their borrowings, there is risk involved in repayment and the bank will incur heavy bad debts. Detailed information about the plan and scheme of project should be collected and examined before borrowing.

e) Diversification

Investment and credit concentrated on same geographical region, same sector of business and few customers increases the risk. Hence the policy should fix a cap on all these aspect. As the saying goes “A bank should not put all its eggs in the same basket”, therefore in order to minimize the risk a bank should diversify its investment in different securities. This diversification or portfolio investment helps to earn good return and at the same time minimize the risk and uncertainty.

f) Legality

A commercial bank must follow the rules and regulations and statutory directives issued by Nepal Rastra Bank, Ministry of Finance and others while issuing securities and mobilizing their funds. In Nepal, NRB restricts financial institution licensed by it to invest in securities of each other.

2.3 Investment Management Functions

Making investment decision is not easy. The total management of investment consist investment decision too. Several steps, processes should be followed for proper decision. The systematic and realistic investment decision needs the following processes (Francis, 1998).

I. Setting Investment Objectives

The major investment objectives is to maximize the earning through investing. For so, the investing sectors, risks, returns etc should be analyzed. As a profit making organization, banks has always set investment objective so as to earn more.

II. Security Analysis

Security accepted, secures the investment to recover. Security with higher liquidity is always advantageous for banks as investors. Similarly, Adequate security against each investment must be kept for investment management.

2.4 Overview on investment Alternatives

There are various alternatives for the banks to invest on, as per the books one as follows :

Table 2.1

Overview on Investment Alternatives

S.N	Investment Alternatives	Varieties of Investment Alternative
1.	Equity securities	a. Common stock b. Preferred stock
2.	Short term securities	a. Negotiable certificates of deposit b. Commercial papers c. Treasury bills d. Acceptances
3.	Long term securities	a. Government securities i. Treasury notes ii. Treasury bonds iii. Saving bonds b. Agency securities c. Corporate bonds d. Municipal securities
4.	Hybrid securities	a. Convertible preferred stock b. Convertible bonds
5.	Derivative securities	a. Options b. Right current others
6.	Real assets	a. Precious metal b. Real estate c. Collectibles
7.	International investment	a. Multinational corporations b. Foreign stocks c. Others
8.	Other investment alternatives	a. Pension funds b. Mutual funds c. Others

Source: NRB Publication, 2004

2.5 Some Important Terms

1. Deposits

The word deposit means the amount in a current, saving or fixed account of a bank or financial institution, which are collected from the customers. The efficiency of the banks depends on its ability to attract deposits. Deposits are collected from the depositors or customers of general public. Therefore, the main source of funds that a bank usually uses for the generation of profit is deposit.

2. Loan and Advances

A bank is always willing to lend as more as possible since they constitute the large part of the revenue. But the banks have to be careful while providing loans and advances since they may turn into bad debts. The commercial bank hardly lends money for a long period of time that can be collected at a short period of time. Banks provides the loan in the various forms, over draft, cash credit, direct loans and discounting bills of exchange. This is the primary source of income and most profitable asset to a bank.

3. Assets

Assets are the important properties of the firm and represent economic resources. All the assets should be measured in monetary term, which help to earn future benefits for organization such as: debtors, marketable securities, bills receivable, goodwill, patents etc. in the firms. There may be tangible and intangible assets as well as fixed and current assets to run the activities properly and smoothly.

4. Liabilities

Liabilities are the amount debt payable in future by the firms or the banks to their creditors. Liabilities represent the obligations to make payments through cash or bank or provide goods and services in future; e.g. creditors, bills payable, wages , salaries payable loan outstanding expenses.

5. Balance Sheet

Balance sheet is a financial statement which is prepared at the end of each accounting year which contains assets, liabilities, share capital. Generally it shows the actual

financial position of the firm or organization. In other hand we can say that it shows especially 3 things;

- Nature and value of assets
- Nature and value of liabilities and
- The position of shareholders' funds.

6. Bond

A bond is the source of long term financing issued by an organization in which the organization or the borrower agrees to pay principal and interest to the lender on specific date. It may be secured i.e. mortgage bond with fixed asset pledged as security or unsecured like debenture bond.

7. Liquidity Position

Liquidity asset are those assets that can be quickly converted into cash. Liquid assets determine the liquidity position of the organization. Higher the liquid assets better the liquidity position. Liquidity position refers to the state of owning things of value that can easily be changed into cash.

8. Shares

The part of capital owned by a shareholder is called shares. Any person can become a member of a company by purchasing the certificates of investment of the company also called shares, and withdraw his/her membership by transferring his/her shares. Shares are a major source of long- term financing.

9. Securities

Securities are the main source of long term financing. They consist of shares and debentures issued by government or any company, which may or may not be redeemable with interest in the future.

10. Off-Balance sheet Transaction

Off - Balance- Sheet transaction covers the contingent liabilities, these activities are not recognized as assets and liabilities in balance sheet. They are letter of credit (LC), bills

purchase, guarantee, commission, bills for collection etc. These activities are very important, as they are good sources of profit to the bank though they have risk.

11. Income Statement

It is a statement, which presents the summary of revenue expenses and net income or net loss of a firm at a given period of time. Thus, it serves as a measure of firm's profitability. Revenues are amounts, which the customers pay to the firm for providing them goods and services. The costs economic resources are called expenses. Net income is the amount by which revenues earned during a period exceeds expenses incurred during that period.

12. Retained Earning

It represents total undistributed earning. It is that portion of firm's earning, which is kept for future use and contingencies. It is also an internal source of financing.

2.6 An Overview on NRB Rules Regarding Investment of A Commercial Bank

Nepal Rastra bank established in 2013 B.S is the central bank of Nepal. It's determining role in economic plans and implementation in the country is major. The main objective of the Nepal Rastra Bank is to manage the economic financial transaction over the country. Systematical allocation management and implementation of economic factors over the state is governed by Nepal Rastra Bank, as a central bank. All the economic plans, programs, policies, strategies, implementations, evaluation made by government are performed under the direction of NRB. So, NRB is bank of government, works for the welfare of nation. Similarly, NRB directs the banks and other financial institutions too Plans, policies, direction rules, regulations from NRB are major subject too run the commercial banks. Every step of the commercial banks is always observed by NRB, as a representative of the Nepalese government. To allocate and mobilize the deposits collected by commercial banks in different sectors of the different areas of the nation, the NRB as a central bank, formulates fundamental rules, regulations, directives, policies etc. in fact, NRB controls over the overall activities made by the commercial banks, as well as establishment or operation or dissolution of banks. For so NRB has formulated

commercial banks Act 2031 for the establishment and operation of commercial banks. Here, the direction, rules, regulations, directed by NRB in term of investment by commercial banks are briefly mentioned below. (sources: NRB rules 2061)

I. Investment on Priority Sector

NRB has pointed priority sector as agriculture sector, cottage and small industry sector, services oriented sector, cooperative sector etc. in which the commercial bank must invest 12% of their total deposits. This provision is totally based on the objective for uplifting lifestyle of people in remote and village area.

II. Investment in Co-operative Sector (Deprived Sector)

The co-operative institution, rural development banks, etc which are licensed by NRB, are also to be compulsory invested by commercial banks in certain ratio determined to each JVBs. As per such regulation, JVB have to invest 3% of total outstanding credit to for co-operative sectors.

III. Establishment of New Commercial Banks

NRB has enhanced liberal policy for establishing new commercial banks in Nepal. For such objectives, NRB has regulated the following directions:

- A minimum of Rs. 500 million of paid up capital is required for opening a new bank inside the Kathmandu valley.
- Similarly, as per the direction by NRB, Rs120 million necessary for starting banking business out of Kathmandu.
- In the same way, Rs 50 million paid up capital are necessary for starting banking business out of Kathmandu.
- Commonly for establishing the commercial bank in rural areas, NRB has directed Rs 30 million as compulsory up capital.
- The investor can invest his/her, its fund up to 10% of the paid up capital of each and 15% of paid capital of all banks in average.

- Basically the commercial bank can be invested maximum up to 70% of total paid up capital, if the bank is promoted by domestic investors, and 30% of paid up capital should be as liquidity margin for repayment for certain deposits.
- For joint venture banks, foreign investors can invest minimum 40% of paid up capital and 501% as maximum. Such bank should manage 30% of paid up capital as floatation for general public.
- Individual, firm or company or groups of company can invest up to 110% of paid up capital.
- Application for the establishment of new banks are to be adopted within the stipulated time fixed by NRB.

IV. Direction for Raising Fund

The commercial banks are directed to raise the capital fund at minimum level of Rs 500 million. For this, commercial banks can include paid up capital and reserve deduction net loss for meeting such requirement.

V. Directive for Single Borrower Credit

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

vi. Regulations for Expansion of Commercial Banks

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

VII. Direction for Extension Counters of Joint Venture Banks

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

VIII. Credit for Shareholders

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

IX. Fluctuation in Interest

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

2.7 Risk Affection on Investment Policy

As already known that, every investment contains some how degree of risk in return of benefits. Sometimes the investor faces big volume of risk with high volume of loss. Risks are uncertainties, which make return from investment changed. Some noticeable risks are as follows.

I. Interest Rate Risk

Interest is the return for certain amount borrowed presently but repaid in future. Interest rate risk is the potential fluctuations in return caused affect the market make the interest changed. This type of risk id depends upon demand and supply of investment in market.

II. Purchasing Power Risk

Purchasing power relates with monetary capacity. It variability in purchasing power occurs, the investor the banks are forced to do more investment for needy returns for their existence. Purchasing power risk is cause of inflation in market.

III. Management Risk

The commercial bank has been facing management risk too, since by themselves as well as the management of policy-makers. Poor decision making leads such kind of risk. Errors made by bad managers definitely affect investment policy.

IV. Liquidity Risk

Liquidity Risk refers the discounts and commission given to other for converting the high priced asset into lower price due to market factors. Basically the banks accept certain security for loan and the value of security also keeps changing time by time. This changing in the value of security as liquidity risk.

V. Default Risk

Default risk is inevitable risk, which can't be ignored, whether the banks is in liquidation or in improvement position. This is variability in return for investment made.

VI. Capability Risk

Bond and preferred stock are one of alternatives of investment. Nepalese bank has also invested in these types of stocks, bonds. The call ability risk is concerned with the time of bonds and preferred stock with provision that allows the issues or investors or banks to call them in for repurchase. The banks some time repurchase the already sold stock using the fund from new issues. Such kind transaction may lead call ability risk.

The all above mentioned risks exist in Nepalese financial markets.

2.8 Review of Research Papers

Nowadays, the field of investment is going on the wide concept. There, many researchers have published their research article about the investment policy in Nepal. In the Nepalese context, there is a need of research in commercial banks and financial institution in order to achieve their goal effectively.

Thapa (1994: 29-37) has expressed his view that the commercial banks including foreign joint venture banks seem to be doing pretty well in mobilizing deposits. Likewise, loans and advances of these banks are also increasing. But compared to the high credit needs particularly by the newly emerging industries, the banks still seem to lack adequate funds. The banks are increasing their lending to non-traditional sectors along with the traditional sectors.

Out of the different commercial banks, Nepal Bank Ltd. and Rastriya Banijya Bank are operating with a nominal profit and also turning towards negative from time to time. Because of non-recovery of accrued interest, the margin between interest income and interest expenses is declining. These banks have not been able to increase their income from commission and discount, through traditional off-balance sheet operations. On the contrary, they have got heavy burden of personnel and administrative overheads. Similarly, due to accumulated overdue and defaulting loans, profit position of these banks has been seriously affected.

On the other hand, the foreign venture banks have been functioning in an extremely efficient way. They are making huge profit year after year and have been distributing large amount of loans and dividends to its employees and shareholders. Because of their effective persuasion for loan recovery, overdue and defaulting loans have been limited resulting in high margins between interest income and interest expenses. Similarly, concentration of these banks to modern off-balance sheet activities and efficient personnel management has added to the maximization of their profits.

At the end of this article, he concludes that by it's very nature of the public sector, the domestic banks couldn't compete with the private sector banks, so only remedy to the problems of these banks, as the government decided, is to hand over the ownership as well as the management of these banks to the private banks.

Shrestha (1993) in her research, *"Investment Planning of Commercial Banks in Nepal"*, has made remarkable efforts to examine the investment planning of commercial banks in

Nepal. On the basis of the study she concludes that bank portfolio (loans and investment) of commercial banks has been influenced by the variable securities rates. Investment planning of commercial banks in Nepal is directly traced to fiscal policy of government and heavy regulatory procedure of the central bank (Nepal Rastra Bank). So the investments are not made in professional manner. Investment planning and operation of commercial banks in Nepal has not been found satisfactory in terms of profitability, liquidity, safety, productivity and social responsibility. To overcome this problem, she has suggested, "commercial banks should take their investment function with proper business attitude and should perform lending and investment operation efficiently with proper analysis of the projects".

Pradhan (1996) in his research "*Financial Management Practices in Nepal*" has studied the major features of financial management in Nepal. To address his issue, a survey of 78 enterprises was carried out by distributing a multiple questionnaire, which contained questions and various aspects of financial management practices in Nepal.

He found that among the several finance function appeared to be working capital management .While the least important one appeared to be maintaining good relations with stockholders. The finding reveals that banks and retained earning are to the two most widely used financing sources. Most enterprises do not borrow from one bank only and they do switch between banks to whichever offers best interest rates. Most enterprises find that banks are flexible in interest rates and covenants. He further found that among the banks loans, bank loans of less than one year are more popular in public sector where as banks loans of 1-5 years are more popular in private sector. In periods of tight money, the majority of private sector enterprises felt that bank will treat all firms equally while public sector does not feel so. Similarly he concluded that the majority of enterprises in trade sector find that banks, interest rate is just right while the majority in non-trade sector find that the same is one higher side.

2.9 Review of Articles / Journals

Bajracharya, (2047) in his article, "*Monetary Policy and Deposit Mobilization in Nepal*" has mentioned the mobilization of domestic saving being one of the prime objectives of the monetary police in Nepal. Moreover, for this purpose commercial banks are the active financial intermediary for generating resources in the form of deposit of the private sector and providing credit to the investors in different sectors of the economy.

Shrestha (2005), in his article, "*Portfolio Management in Commercial Bank Theory and Practice*" has focused on the use of the excess funds in the best and profitable investment. But here the question may arise on how to make any best investment decision- and the answer would be proper portfolio management. Portfolio management basically means to invest funds in various schemes of mutual funds like deposits, shares and debentures for the investors with surplus income. Basically, the wealthy clients having plenty of surplus funds seek to maximize the return on their fund prepared to take certain amount of risk for this. But due to lack of technical expertise they can't make such investment decision of their own. Primarily, there are only two options for saver/investors, i.e. to use funds either for purchase of financial assets like securities or for purchase of financial assets like land, building etc. while selecting the best mix of investment assets there are things to be considered like; higher comparable return with alternative opportunities available according to the risk of investor, good liquidity with adequate safety on investment, capital gains, tax concessions, flexible investment, etc. However, Shrestha states that, in order to get success in portfolio management and customer's confidence, the bank should possess: skilled manpower, strong research and analysis team, Proper management information system.

Sharma (2005) in his article "*Banking the Future on Competition*" has highlighted that majority of commercial banks are being established and have operation in urban areas only. They have shown no open branches in rural areas. The branches on NBL and RBB are only running in those sectors. The commercial banks are charging higher interest rate on lending, they are offered maximum tax concession, they do not properly analyze the credit system.

Karki (2006) in his article on “*Nepalese Financial Sector: Challenges and Some Solution*” has stated that, the financial institutions especially commercial banks have to identify new areas of investment to increase loan and advances in liquidity position. Especially with the rapid growth in the number of banks and financial institutions in today’s world- deposit insurance scheme is a must. The principle reason for introducing such deposit insurance should be one of the social justice rather than economic justification in order to protect the interest of the small depositors.

Bhattarai (2008) has presented an article about the “*Non Performing Assets (NPA) Management*”. According to him, a loan is very easy term for a borrower when he has already taken and for a lender not availed. It is equally difficult for a borrower to avail and for lender to recover. From a banker’s view, it is just like a stone to roll down from the top of the hill while sanctioning, but too difficult to roll back the same stone to the top of the hill while recovering. A loan not recovered within the given time frame either in the form of interest servicing or principal repayment is called non-performing loan (NPL). There are other parameters as well to quantify an NPL. Security not to the extent of loan amount with specified safety margin, value of security not realizable, possession not as per the requirement of bank, conflict of charges are the other reason which causes difficulties while recovering the loan.

According to him NPL for a bank is like a developing cancer in a human body, which will collapse the whole bank if not managed in time. This is an important discipline in banking to prevent whole NPL or avoid situations for a loan to turn into NPL. The loan for a bank is most important to generate revenue for operational expenses as well as to provide return to the shareholder.

When a loan advanced from good money turns into a bad loan the chance of shareholders return as well as survival of a bank stands in a stake. Ailing bank can’t portray its better image in the public. And no bank can operate its business without the deposit from the public. When public start loosing their confidence on the bank and don’t keep their deposit in the bank, that bank will start counting its finger for collapse.

Pradhan (2011) in his article, “*Deposit Mobilization its Problem and Prospects*” points out that deposit is the lifeblood of every financial institution. The latest financial/accounting figures of most bank and financial companies produce a strong feeling that serious review must be with regards to problem and prospect of deposit sectors. Leaving a few joint venture banks other organizations rely heavily on the business deposit and credit disbursement.

Pradhan has highlighted the following problems of deposit mobilization in the Nepalese context.

- Most Nepalese people do not go for institutional saving due to lack of adequate knowledge. They are much used to saving in the form of cash and ornaments. Their half heartedness to deal with institutional system is governed by the lower level of understanding about financial organization process, withdrawal system, availability of deposit facilities and so on.
- Unavailability of institutional services in rural areas.
- Due to lesser office hours of banking system, people prefer holding cash in their personal possession.
- Improper mobilization and improvement of the employment of deposits towards various sectors.

2.10 Review of Thesis

During the study, several thesis works has been carried out by the previous students. Among them some research thesis are found to be relevant for this study. They are presented as follows:

Tandukar (2008) entitled with “*A Study on the Investment Policy of NABIL Bank Ltd. In Comparison to Investment Bank Ltd.*” With the objectives of :

- To analyze the financial position of NABIL and NIBL in terms of deposit collection and investment procedure.
- To evaluate the liquidity, efficiency, risk position and profitability of the selected banks

- To find out empirical relationship between total investment, deposit and loan & advance, net profit and outside assets and compare them.
- To analyze the fund utilization and its projection of NABIL and NIBL for next five years. The study was conducted on the basis on secondary data.

The conclusion of the research study is as follows:

- It is found from the study that the amount of total deposits collected by NABIL bank in each year during 5 years of the study period is higher than that of NIBL. Similarly, investment to total deposit ratio and the amount of total Investment made by NABIL bank for the same period is also higher. Besides total deposit collected and total investment made, total loan and advances of NABIL. Bank is also higher during first three years but afterward it is lower than that of NIBL. It is clear that Investment policy adopted by NABIL bank is sound from profit point of view.
- NABIL bank has given more priority on investment and loan and advances. Hence it has maintained lower liquidity than NIBL. NABIL bank has accepted higher level of interest rate risk rather than credit risk. Overall profitability ratios of NABIL bank show that it has earned higher profit than NIBL. It is clear that NABIL bank has given more emphasis on profit but NIBL has given priority on both profit and liquidity as well.
- The study has found that the total deposit and loan and advances and investment of the selected banks will be increasing trend if other things remain constant. But it is also found that Net profit of the NABIL bank will be in decreasing trend from 2010 onward.
- There is positive relationship between deposits and loan , advances , deposits and investment of the selected bank. The study also found increase in net profit of NABIL bank is not caused by the increases in outside assets as it has negative relationship between outside assets and net profit but in the case of NIBL increase in net profit depends upon increase in outside assets.

Sah (2009) has conducted a research entitled “*Investment Policy of Joint Venture Commercial Banks of Nepal*” with the objectives of:

- To evaluate the liquidity, assets 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 analyze the trend of deposits, investment net profit and loan & advances for next five years of SCBNL and NABIL.
- To make appropriate recommendations, suggestion on the basis of major findings.

The conclusion of the research study is as follows:

- The liquidity position of SCBNL is comparatively better than NABIL. It has the highest cash and bank balance to total deposit, cash and bank balance to current assets. SCBNL is in a better position to meet its daily cash requirement. NABIL has a higher current ratio, which justifies that it is also capable enough to meet its current obligations. SCBNL's means investment in Government securities is better than NABIL.
- 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 fund as investment in risk free government securities. NABIL has fared better in purchasing shares and debentures of other companies, but both the banks have invested marginal amount under this heading.
- SCBNL has been more successful in maintaining its higher return on loan and advances and total working fund. NABIL has been more successful in mobilization of its funds in interest bearing assets to earn higher interest income than SCBNL. SCBNL is in a better position than NABIL from interest payment point view. NABIL has paid higher interest than SCBNL.
- SCBNL has lower liquidity risk and credit risk than NABIL. NABIL has greater exposure to risk in its financial operations than SCBNL.

- SCBNL has been more successful in increasing its deposits, loan and advances and investment during the study period, whereas, NABIL has been more efficient in terms of increasing its net profit.
- There is a significant relationship between deposit and loan and advances, deposits and total investment , outside assets and net profit, deposits and net profit incase of SCBNL, and the relationship is insignificant, deposit and interest earned, loan and advances and interest paid, total assets and net profit. Incase of NABIL, there is a significant relationship between deposits and total loan advances, deposits and investment, deposits and interest earned, whereas the relationship is insignificant between deposit and net profit, deposit and interest earned, loan and advances and interest paid, total assets and net profit, outside assets and net profit.

Joshi (2009) in his thesis entitled “*A Comparative Study of Investment Policy of SCBL & EBL*” has made an endeavor to examine and interpret the Investment policy adopted by SCBNL in comparison to EBL.

The objectives of the research were:

- To compare the investment policy of concerned bank and discuss the fund mobilization of the sample banks.
- To find out empirical relationship between total investment, deposit and loan & advances and net profit and outside assets and compare them.
- To analyze the deposit utilization & projection for next five years of SCBNL and EBL.
- To evaluate comparatively the profitability & risk position liquidity assets management efficiency of SCBNL & EBL.
- To provide a package of possible guidelines to improve investment policy, its problem and way to solve some problems and provide suggestion and recommendation on the basis of the study.

The conclusion of the research study is as follows:

- Both the banks have good deposit collection. EBL has higher but fluctuating liquidity position. It is in a good position to meet daily cash requirement and current obligation.
- SCBNL has successfully maintained and managed its assets towards different income generating activities. SCBNL has invested high portion of total working fund in government securities and share and debentures of other companies.
- The profitability position of SCBNL is comparatively better than EBL.
- The liquidity risk ratio, credit risk ratio of SCBNL is lower than that of EBL.
- SCBNL has not been successful to increase its sources of funds and its mobilization i.e. loans and advances and total investment.

Joshi (2010) in his thesis entitled “*Investment Policy of Commercial Banks in Nepal: A Comparative Study of Everest Bank Limited with Nabil Bank Limited and Bank of Kathmandu*” with objectives of:

- To discuss fund mobilization and investment policy of EBL, NABIL and BOK Ltd.
- To evaluate the liquidity, efficiency and profitability and risk position.
- To evaluate the growth ratios of loan & advances, total investments with other financial variables.
- To analyze the trend of deposits utilization towards total investment with other financial variable.
- To analyze the trend of deposits utilization towards total investment and loan and advances.
- To conduct hypothetical test to find whether there is significant difference between the various important ratios of EBL, NABIL & BOK. The study was conducted on the basis of secondary data.

The conclusion of the research study is as follows:

- The liquidity position of the EBL is comparatively better than NABIL & BOK. EBL has the highest cash and bank balance to total deposits, cash and bank balance to current assets ratio. NABIL has the lowest liquidity position than that of other

two banks. EBL has good deposit collection and has made enough investment on government securities but it has maintained moderate investment policy on loan & advances.

- From the analysis of assets management ratio or activity ratio, it can be concluded that EBL is comparatively average or in between successful in compared to NABIL and BOK. The total investment of EBL is in Between in compared to other banks.
- In the study, loan & advances to total deposit is higher in BOK but total investment to total deposit is higher in NABIL. Investment on shares and debentures to total working fund ratio is higher in BOK. But the coefficient of variation is higher in EBL.
- In analysis of profitability, total interest earned to total outside assets of EBL is lowest at all. But overall analysis of profitability ratios, EBL is average profitable in comparison to other compared banks i.e., NABIL and BOK. From the viewpoint of risk ratio, EBL has higher capital risk ratio but average of credit risk ratio in compared to NABIL and BOK.

Pandit (2011) has conducted a research entitled “*Investment policy Analysis of Joint Venture Bank (with reference to NSBIL, BOKL & EBL)*”

The objectives of the study were as follows:

- To evaluate the liquidity management, asset management efficiency, profitability position, risk position and investment practices of NSBIL, BOKL & EBL.
- To find out the relationship between deposit and total investment, deposit and loan & advances and net profit and outside assets.

The conclusion of the research study is as follows:

- NSBIL has better liquidity position. It is in a good position to meet its daily cash requirement and current obligation. Liquidity position of EBL & BOKL has not been satisfactory.
- NSBIL’s loan and advances to total deposit ratio is lower than EBL & BOKL. It does not seem to follow any definite policy regarding the management of its assets.

- The profitability position of all the banks is not satisfactory. The banks have not adopted sound investment policy in utilizing their surplus funds.
- BOKL & EBL are exposed to high credit risk and capital risk.
- NSBIL & BOKL have not been successful to increase their sources of fund. EBL has been successful in maintaining its higher growth rate of total deposit.
- There is significant relationship between deposits and total investment of BOKL & EBL but the same is not significant in case of NSBIL.

Commercial banks have huge deposit collections. These deposits need to be properly utilized. Effective utilization of collected fund is possible only through implementation of sound investment policy. NABIL & SCBNL are the best examples of JVBs in Nepal that have been able to mobilize the funds in an effective manner and achieved phenomenal growth and profit year after year by formulating and implementing sound investment policy.

2.11 Research Gap

Keeping in view the fact that there is no comparative study on investment policy of NABIL in a comparison to SCBNL, HBL and KBL. The previous researcher have done investigation about the investment policy of other different banks. The concerned banks are the leading joint venture banks of the country having huge market share and their investment activities and significant impact on the national economy. The above-mentioned works deal on gross concept only. To get more accuracy in result, this study has been conducted to focus on both gross and net concept. The researcher has covered five years (2007/08 to 2011/12) to analyze the liquidity position, profitability position, asset management position as well as risk position also of the concerned banks. The study examines recent secondary financial data using coefficient of correlation, regression analysis and trend analysis. The researcher chooses this subject to throw light on investment policy and to suggest the possible measures for the betterment and welfare of the bank. Also he attempts to show the significance to the shareholder, depositors, customers and general public etc.

CHAPTER – III

RESEARCH METHODOLOGY

3.1 Introduction

“Research methodology is the systematic way of solving problems. Research methodology refers to all overall research process which a researcher conducts during his/her study, if all procedures from theoretical foundation to the collection and analysis of data. As most of the data are quantitative, the research is based on the scientific models. It is composed of both parts of technical aspect and logical aspect. On the basis of historical data, research is systematic and organizational effort to investigate a specific problem that needs a solution. This process of investigation involves a series of well thought out activities of gathering, recording and analyzing and interpreting the data with the purpose if finding answer to the problem. Hence, the entire process by which we attempt to solve the problem is called research” (Kothari,1990:21).

The main objective of this research report is to analyze, examine and interpret the lending and investment procedure of private owned commercial banks with the help if various financial statements, statistical tools and non- financial subject matters. As the study intends to show the effectiveness of lending operation in a concern, it requires an appropriate and research methodology.

3.2 Research Design

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

specifies various methods & procedures for acquiring the information including from which sources & by what procedure it is obtained.

3.3 Population and Sample

The Population of this study is the Number of Commercial Banks in Nepal which today are increasing in a growing speed.

Table 3.1
List of Licensed Commercial Banks

S.N.	Name	Head Office	Established Date
1.	Nepal Bank Limited	Kathmandu	1994/7/30
2.	Rastriya Bannijya Bank	Kathmandu	2022/10/10
3.	Agriculture Dev. Bank Ltd.	Kathmandu	2024/10/07
4.	Nabil Bank Limited	Kathmandu	2041/03/29
5.	Nepal investment Bank limited	Kathmandu	2042/11/26
6.	Standard chartered Bank Limited	Kathmandu	2043/10/16
7.	Himalayan Bank limited	Kathmandu	2049/10/5
8.	Nepal SBI Bank Limited	Kathmandu	2050/3/23
9.	Nepal Bangladesh Bank Limited	Kathmandu	2051/2/23
10.	Everest Bank Limited	Kathmandu	2051/7/1
11.	Bank of Kathmandu	Kathmandu	2051/11/28
12.	Nepal credit & Commercial Bank. Ltd.	Siddartha Nagar	2053/6/28
13.	Lumbini Bank Limited	Narayanghat	2055/4/1
14.	Nic Bank	Biratnagar	2055/4/5
15.	Machhapuchchher Bank Ltd.	Pokhara	2057/6/17
16.	Kumari Bank Limited	Kathmandu	2057/12/21
17.	Laxmi Bank Limited	Birgunj	2058/12/21
18.	Siddharth Bank Limited	Kathmandu	2059/9/9
19.	Global Bank Limited	Birgunj	2063/9/18
20.	Citizens Bank International Ltd	Kathmandu	2064/1/7
21.	Prime Commercial Bank Limited	Kathmandu	2064/6/7
22.	Sunrise Bank Limited	Kathmandu	2064/6/25
23.	Bank of Asia Nepal Limited	Kathmandu	2064/6/25
24.	Development Credit Bank Limited	Kathmandu	2065/2/12
25.	NMB Bank Limited	Kathmandu	2065/2/20
26.	Kist Bank Limited	Kathmandu	2066/1/24
27.	Janta Bank Limited	Kathmandu	2066/2/23
28.	Mega Bank	Kathmandu	2067/4/4
29.	Nepal commerz and Trust Bank	Kathmandu	2067/6/4
30.	Civil Bank Limited	Kathmandu	2067/8/10
31.	Century Bank Limited	Kathmandu	2067/10/9
32.	Sanima Bank Limited	Kathmandu	2068/11/3

Source: nrb.org.np

There are 32 commercial banks operating in the country which are the population of this study.

Since, it is not possible to study all of them regarding their investment policy- out of this population, only four banks namely NABIL Bank limited, STANDARD CHARTERED Bank ltd. HIMALAYAN Bank limited, and KUMARI Bank Limited which constitute the 12.50% sample of the study on the basis of financial performance. And the study period taken under consideration for the study of the last five years i.e.2007-2012.

3.4 Nature and Source of Data

The data used in this thesis is secondary type, which have been taken mainly from the published data and financial statements of the sampled banks. Thesis includes annual reports for the last five years and report of each year. Besides these, the following sources of data are also being considered.

- Nepal Rastriya Bank Directives.
- Banking and financial Statistics.
- Previous dissertations.
- Websites related to subject.
- Various publications dealing in the subject matter of the study and various articles published in Newspapers.

3.5 Data Analysis Tools

In this study, only financial and statistical tools are used for the analysis of data that is already stated in the limitation of the study. The procedures of analyzing data are described as follows:

3.5.1 Financial Tools and Techniques

The financial aspects according to the performance basis will be evaluated under certain financial tools. The appropriate financial tools for this study would be various financial ratios- which would be the best to emphasize on the different aspects related to the investment policy of the selected commercial banks.

The financial ratio basically contributes to identify the banks' strength and weakness on its financial facet; by expressing the relationship between the different prospects under its balance sheet and profit and profit and loss account. As we know that, financial ratio basically shows the mathematical relationship between different accounting figures of the financial statement/accounts – which in turn highlights the key aspects of the firm's operation and its financial performance so far.

For the simplicity and comprehensiveness in the calculation of the financial aspects, we have categorized the financial tools into five categories each with a set of calculations.

- Liquidity Ratios
- Asset Management Ratios
- Profitability ratios
- Risk Ratios

I. Liquidity Ratios

The terms Liquidity means the firms' ability to meet the short- term obligations, hence the liquidity ratios are considered to reflect the short- term financial strength of the firm which indicates its solvency as well. The liquidity aspects of a bank deals with the capacity of a bank as in how fast can it convert its asset into cash(these assets largely related to the current assets). Liquidity is a kind of risk which has to maintain to a certain level- lack of liquidity creates problems and high degree of liquidity assets is also a negative marking. Hence, a bank should maintain the balance of its liquidity position to a certain level- since the lack of sufficient liquidity creates image risk to the customers' and creditors; whereas high liquidity also leads to possessing idle assets which hinders the investment aspects of the bank.

Various ratios reflecting the liquidity position of a bank are as follows:

a. Current Ratio

Current ratio measures the mathematical relationship between the current assets and the current liabilities; where current assets include cash balance, bank balance, receivables, debtors, inventory and other which can be converted into cash within a short period of

time (say within a year); whereas current liabilities includes payables, creditors, short-term liability and other short- term debts maturing in one year. Hence, this ratio indicates the availability of current assets in rupees for every one rupee of current liability. Higher the current ratio, higher will be the availability of money per rupees of current liability. The standard current ratio is supposed to be one according what we have studied, i.e. if the ratio is greater than one – it means that the bank has more current assets than its current liabilities against them and vice –versa: and either ways it is not good for any bank.

Mathematically,

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

b. Cash and Bank balance to Total Deposit Ratios

This ratio measures the mathematical relationship between the bank’s cash and bank balance and its total deposit. Where, cash and bank balance is the most liquid fund under the current assets which would include cash on hand, other cash items available, bank balance with other banks etc. Similarly total deposits include current deposits, saving deposits, fixed deposits and other types of deposits. Hence this represents bank’s ability to pay immediate deposit calls to their depositors whenever required. It is not that investment on profit motive should be such that the required cash and bank balance is neglected; thus the consideration of this ratio is equally important.

Mathematically,

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

c. Investment on Government Securities to Current Assets Ratio

This ratio measures the mathematical relationship between the investment on government securities and its current assets. Government securities are one of the safest and profitable investments seen these days. Although they are not as liquid as the cash and bank balance, the ease in converting them into cash in one way or the other makes them

categorized under liquid assets. Hence this Ratio represents the proportion of the investment made by the bank to the government securities.

Mathematically,

Investment on Government securities to Current Ratio

$$= \frac{\text{Investment on Government Securities}}{\text{Current Ratio}}$$

II. Asset Management Ratios

Assets are the profit generating fund of any institution if managed properly. Hence a bank should efficiently utilize its assets to generate extra income and earn interest from the deposit as well to contribute to its profit. Assets management ratio shows how well the financial assets of banks have been utilized, to what extent and where hence it is also known as turnover ratios. These ratios are based on the relationship between the level of activity- which is represented by sales or cost of goods sold, and the levels of different assets. The proper management of the assets leads to the efficiency of a bank's performance which contributes to its profit. The measurement of efficiency of the assets can be determined by various calculations under this ratio like:

a. Loan and Advances to Total Deposit Ratio

This ratio shows the mathematical relationship between the total deposit of a bank and its use as loan and advances. Loan and advances are the major source of income for a bank which highly influences its profit margin. This ratio shows effectively a bank is utilizing its different deposit collected on loan and advances for profit generating motive. Here, greater of this ratio implies that there is better utilization of its deposit under the profit motive.

Mathematically,

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

b. Loan and Advances to Total Working Fund Ratio

This ratio shows the mathematical relationship of the total working fund (total assets) with the loan and advances. Banks use some portion of its total assets as loan and advances to generate interest income- but the bank should be clear on the portion of the total asset which should be used as loans and advances- so that the optimum level utilization of the working fund is done (neither less nor more) .

Hence this ratio portrays how well a bank mobilizes its total assets to generate the income not risking its liquidity ratio as well. Here higher the ratio, better the mobilization of the fund and vice versa.

Mathematically,

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

c. Investment on Shares and Debentures to Total Working Fund Ratio

This ratio shows the mathematical relationship between the total working fund and its use on the investment portfolio of a bank should be diversified for the progress on the assets.

Mathematically,

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

d. Total Investment to Total Deposit Ratio

This shows the mathematical relationship of the total deposit of a bank and its investment. Higher the ratios – higher the effectiveness in the mobilization of its total deposit is seen.

Mathematically,

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

III. Profitability Ratios

Profitability ratios are designed to highlight the end- result of business activities. These ratios are the resultant of the pattern of liquidity ratios, asset management ratios and debt management ratios. Hence higher profitability ratio shows greater efficiency of the bank. Here the profitability aspects of the bank are shows through the calculation of following ratios.

a. Return on Loans and advances

This ratio shows the mathematical relationship between the net profit and loan and advances. Here higher return on loan and advances indicates efficient management of loan and advances and vice- versa.

Mathematically,

$$\text{Return on loan and Advances} = \frac{\text{Net Profit (Loss)}}{\text{Loan and Advances}}$$

b. Return on Total Assets

Return on total asset is also called return on investment because bank generates profit by utilizing its assets in different sectors. However the bank should maintain the optimum level of utilizing its total asset (working fund) so that it generates highest level of profit and maintain its liquidity at the same time. Here higher ratio shows better utilization of its assets in terms of generating profit.

Mathematically,

$$\text{Return on Total Assets} = \frac{\text{Net Profit (Loss)}}{\text{Total Assets}}$$

IV. Risk Ratios

Risk is an inevitable and unavoidable factor in any business. It is the prime factor which makes the business interesting and what pulls the profit. In the brief we can say that the proper management of the risk factor increase s the effectiveness and the profitability of

the bank. Here we have taken those ratios into consideration which is associated with the various operation of the which ultimately influences the bank and its investment policy.

a. Credit Risk Ratio

Credit risk ratio is expressed as the percentage of non- performing loan to the total loan and advances. It deals with the uncertainty that all the loan and advances to be repaid with its interest on it.

Hence the bank should measure the risk in granting loan and advances with the help of credit risk ratio; since this ratio shows the possibility that the loan will not be repaid or the investment made will go default with the consequent loss to the bank.

Mathematically,

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

b. Liquidity Risk Ratio

Investment is an important aspect of any bank - no doubt, but the maintenance of the liquidity cannot be neglected either. Here the liquidity risk is not a marketability risk but a possibility that the bank may go short of its liquid assets. Knowing of this ratio is important because a bank should always be able to have trust with its customers and depositors who are the sources of their funds. Liquidity risk ratio measures the level of risk associated with liquid assets of the bank for the purpose of fulfilling the demand of the depositors on their call. It shows the mathematical relationship between the total deposit of the bank and its most liquid asset – cash and bank balance.

Mathematically,

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

V. Growth Ratios

Growth ratio basically measures the expansion and growth of a bank as in its stand on the financial and economic position in the area of banking. This ratio shows the overall performance of the bank towards success in term of the ratios calculated. Here we have considered the ratios which shows the rate and pace of the growth of the banks in terms of its fund mobilization and investment management.

- Growth Ratio of its Total Deposits
- Growth Ratio of its Loan and Advances
- Growth Ratio of its Investment
- Growth Ratio of its Net Profit

All the above ratios are calculated by dividing the last year's figure by its preceding year's figure and referring it to the compound interest tables. Here higher the ratio - Better the performance of the bank.

3.6 Statistical Tools

Just the financial analysis of the data does not give the answers to the entire question on the bank's performance. Like we know that the decision made by two heads is always better than the decision made by one head; varying analysis done to any research result to a more comprehensive interpretation. Hence here the analysis of the collected data are done with the help of the financial tools as well as the statistical tools so that the combination of these two will give us the comprehensive and clear picture on the performance of the bank on its investment aspects.

The relevant statistical tools used for this research work are as follows:

a. Coefficient of Correlation

This is the mathematical method for measuring the degree of association between varying variables (usually two variables are considered) – which shows the closeness of their relationship. Through this analysis, we can describe the degree to which one variable is linearly related to other variables. Here we have considered studying the relationship of the following variables for the study:

- Deposit and Loan & Advances
- Deposit and Total Investment
- Investment and Net Profit

Mathematically, the coefficient correlation of the above variables can be measured by the following formula,

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

Where,

r= Coefficient of correlation

N= No. of observation of X and Y

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

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

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

The result of coefficient of correlation is always between -1 to +1,

r= +1, it means there is a significant relationship between the two variables

r=-1, it means there is no significant relationship between the two variables

b. Regression Analysis

Regression is the statistical tool with the literal meaning returning back to the average value - with the help of which we estimate the unknown value of any one variable from the known variable. Here we assume that the two variables are closely related and we estimate the value of one variable from the value of another.

The variable whose value is given and known is called independent variable and the variable whose value unknown and to be predicated is called dependent variable.

Hence regression determined the average probable change in one variable based on a certain amount of change in another.

Here the analysis used is simple regression analysis – to describe the average relationship between two variables. Simple – because there is only one dependent variable and linear – because the relationship between the independent and dependent variable is assumed to be linear. The term linear means that an equation of a straight line of the form $Y = a + bx$

Where,

X = Independent variable

Y = Dependent variable

a and b = Constants

The constant a and b are also known as the parameters of the line. The parameter ‘a’ determines the distance of the line directly above or below the origin, while parameter ‘b’ determines the slope of the line i. e the change in Y per units change in X.

Here we have shows the relationship of the variables in the equation from. The algebraic expression of the regression lines are the regression equations and also known as estimating equations.

Regression equation of Y on X determines the variation in the values of Y for given changes in X.

c. Trend Analysis

The topic (trend analysis) analyzes the trend of deposits, loan and advances, net profit of four commercial banks from 2007/2008 to 2011/12 and makes forecast for the next five years from 2016/2017. The following subtopic has been presented under this topic.

- Trend analysis of total deposit.
- Trend analysis of loan and advances.
- Trend analysis of net profit.

CHAPTER - IV

DATA PRESENTATION AND ANALYSIS

4.1 An overview of the Study

The collected data need to be aggregated into a presentable form which portrays the summary of answers to the unanswered part. The collected data should be compiled, analyzed and interpreted carefully before their full meanings and implications can be understood. The collected data are thus transformed into information and this process of transformation of data is the analysis part – which is also the examination and interpretation of data to draw conclusions. The analysis of data consists of organizing, tabulating, performing statistical analysis and drawing inferences, i.e. interpretation. Data analysis and interpretation are so closely related that data analysis is considered as a special aspect of analysis rather than a separate identity.

The general purpose of this chapter is to examine the processes by which the meaning and implications of research data can best be extracted by using various financial tools and statistical tools.

4.2 Analyze the Investment Policy of the Commercial Banks

Investment policy in simple words is the proper management of any fund/wealth to maximize the value of it or to obtain the favorable return with minimal risk considering the protection of the investment from inflation, taxes, and other factors. It ensures efficiency on the allocation of fund achieve the materialistic and economic well-being of the society. Inappropriate or unsuitable investment policy and inadequate knowledge on it usually creates dilemma to the investors on selection of an optimal investment area. Investment policy basically involves the determining of the investors' objectives and the amount of invest – able fund available. Investment is always related with risks and returns. Making money alone cannot be an appropriate objective in itself; the objective should focus on making decent return by recognizing the possible losses. Therefore investment should state in terms of both risk and return. We can say that there is a

positive relation between risk and return for sensible investment strategies, and the investment policy concludes with the identification of the potential categories of financial assets for consideration in the ultimate portfolio.

A good investment policy attracts both borrowers and lenders which enhances the volumes and quality of the deposit, loans and investment. The purpose of the Investment policy is to guide the Foundation in effectively supervising, monitoring and managing its investments.

From the above explanation we can say that investment policy is an important ingredient for the overall economic development. In this regard, the commercial banks also formulate their investment policies which drive to achieve the priority of the commercial sector along with their needs in the whole country's economic development.

4.3 Present Position of liquidity, Asset Management , Profitability and Risk Ratios of the Banks

4.3.1 Analysis of Liquidity Ratios

Liquidity ratio measures the ability of banks to meet the investment purposes. A commercial bank must maintain its satisfactory liquidity position to meet the credit need of the customer also. Banks have to maintain enough liquidity because they have to meet the demand of deposits, withdrawals, pay maturity etc.

Few chosen liquidity ratios suitable for our study purpose on the sample banks from fiscal year 2007/08 to 2011/12 are as follows.

I. Current Ratio

Current Ratio indicates the ability of a bank to meet its current obligation. Standard of current ratio is 2:1 for banking and seasonal business current ratio is 1:1 and so on.

We have,

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

Calculation of Mean, Standard Deviation and Coefficient of Variation Current Ratios

Current Ratios of related banks from the fiscal year 2007/08 to 2011/12 are given below in Table 4.1. Standard Deviation is calculated by using the formula of STDEV, mean is calculated by using the formula of average and CV by $\frac{SD}{Mean} \times 100$.

Table 4.1
Current Ratio (Times)

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	1.10144	1.104443	1.081964	1.122324	1.107284	1.103491	0.014471	1.311347
SCBNL	1.077011	1.087573	1.088242	1.121269	1.129163	1.10065	0.023032	2.092584
HBL	1.060308	1.070788	1.079475	1.08724	1.084824	1.076527	0.011048	1.026324
KBL	1.126446	1.134448	1.140385	1.172864	1.11771	1.138371	0.021085	1.852202

Source: Annexure I

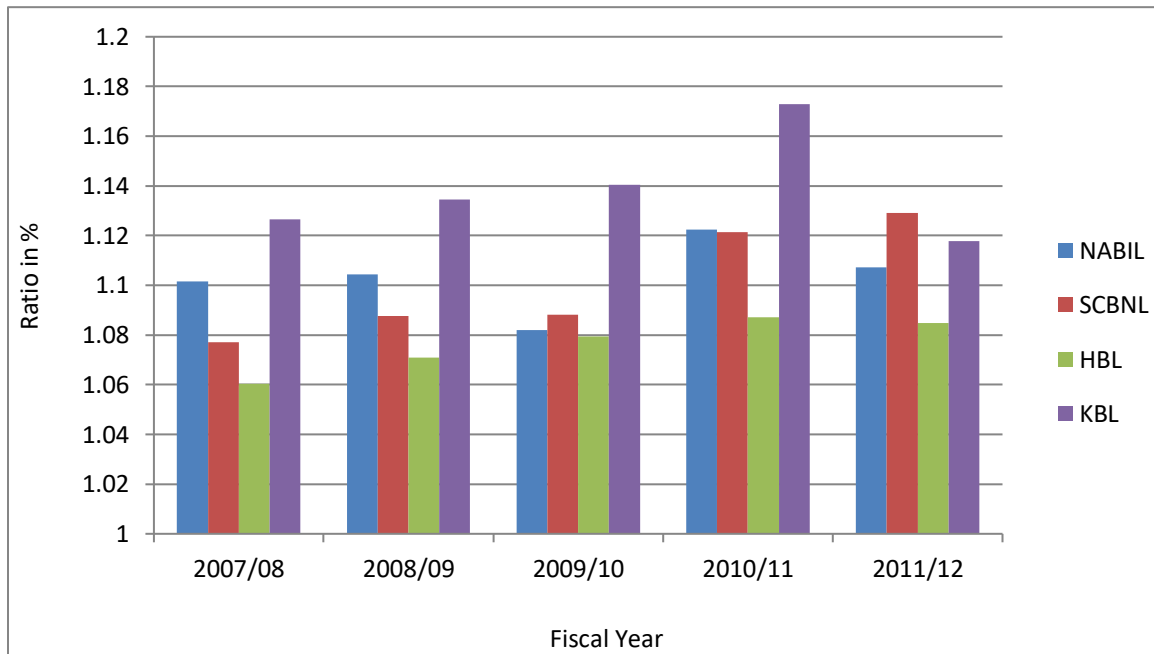
This above table along with its supporting figure shows that the current assets of all the banks exceeds its current liabilities in the study period from 2007/08 to 2011/12– this indicates that all the banks had sound liquidity to meet their short term obligations in the given study period.

The above table 4.1 depicts the current ratio of the selected commercial banks, the mean of CR of NABIL is 1.103491:1, SCBNL is 1.10065:1, HBL is 1.076527:1 as well as KBL is 1.138371:1. This is lesser than the standard current ratio 2:1. The Banks are unable to maintain the current ratio in accordance with standard.

The current ratio of the banks are in fluctuation order with lower than the standard ratio. The mean ratio of KBL is higher than other banks. NABIL and SCBNL have shown their consistency in maintaining their current ratio: as the fluctuating ratios are not significance ones. However the change in their ratios are such that SCBNL shows increasing trend in the fluctuation, whereas NABIL shows increasing trend from 2007/08 to 2008/09. HBL, and KBL banks are also similar in maintaining their liquidity ratios.

Standard Deviation of current ratio of NABIL, SCBNL, HBL, and KBL are 0.014471, 0.023032, 0.011048 and 0.021085 respectively and Coefficient of Variation Ratio is 1.311347, 2.092584, 1.026324 and 1.852202 respectively. This ratio can be presented in the following graph.

Figure 4.1
Current Ratio (Times)



II. Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance is said to be the first defense of every banks. The ratio between cash and the bank balance and total deposit measure the ability of the bank to meet the unanticipated cash and all types of deposits. Higher the ratio, the greater will be the ability to meet sudden demand of deposit. But every high ratio is not desirable since bank to pay interest on deposits. This will also maximize the cost of fund to the bank.

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

Table 4.2
Cash and bank Balance to Total Deposit (Times)

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.073348	0.090299	0.030167	0.049029	0.077708	0.064110	0.024164	37.691981
SCBNL	0.06893	0.087455	0.054836	0.078311	0.177009	0.093308	0.048320	51.785698
HBL	0.045478	0.087901	0.1028	0.072449	0.133294	0.088384	0.032862	37.181489
KBL	0.07307	0.113061	0.156252	0.068792	0.169324	0.116099	0.046216	39.807518

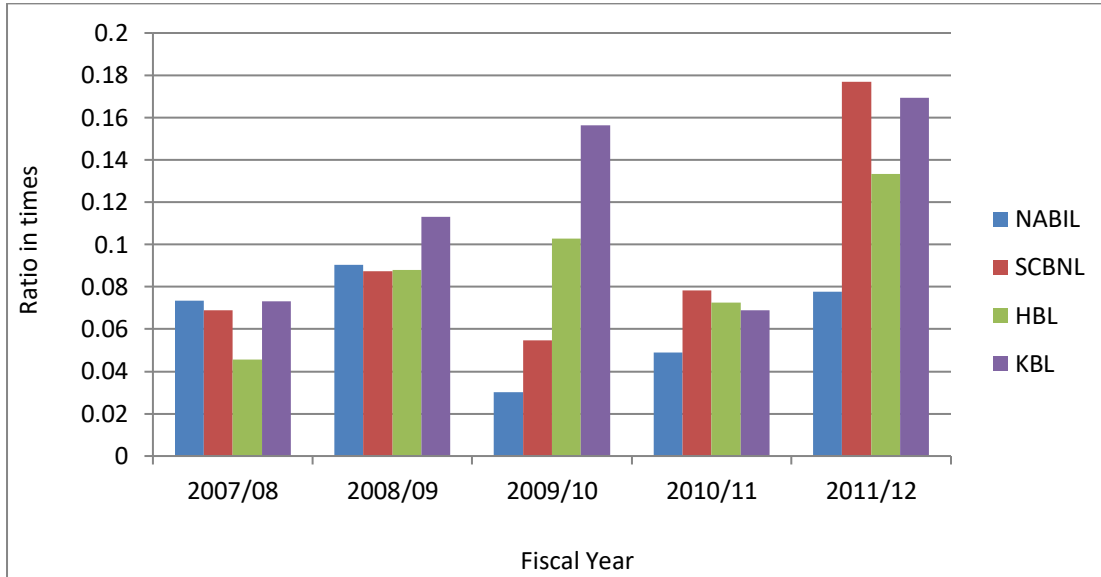
Source: Annexure 2

Above table shows that the cash and bank balance total deposit ratio of NABIL, SCBNL, HBL and KBL has followed fluctuating trend. KBL has increasing trend up to 2009/10 and the fluctuating trend. Similarly, HBL upto 2009/10 increasing trend and then in fluctuating trend.

In average, NABIL has maintained lower cash and bank balance to total deposit ratio than other banks i.e. 0.064110. It states that cash and bank balance in liquidity position of NABIL is lower than other banks. Comparatively NABIL has maintained low ratios, it shows some difficulties to meet the demand of its customers on their deposit to pay at any time but it may be earning more by investing cash to different sectors. But it should ensure to have enough liquid funds to serve its customer

Figure 4.2

Cash and Bank Balance to Total Deposit Ratio



III. Investment on Governmental Securities to Current Assets Ratio (Times)

The commercial banks are interested to invest their funds collected in various government securities issued by government. The government securities are the safest place to make investment. But the government securities are not so much liquid as cash and bank balance. They can be easily sold in the market or they can be converted into cash in other ways. The main purpose of this ratio is to examine that portion of a commercial banks current assets that is invested on different government securities.

Investment on Government Securities to Current Assets Ratio

$$= \frac{\text{Investment on Government Securities}}{\text{Current Ratio}}$$

Table 4.3

Investment on Government Securities to Current Assets

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.129338	0.087528	0.155214	0.152871	0.128384	0.130667	0.027219	20.830914
SCBNL	0.244972	0.250411	0.212783	0.227831	0.189065	0.225012	0.024965	11.095362
HBL	0.179176	0.140669	0.107198	0.14067	0.172679	0.148078	0.028954	19.552877
KBL	0.101575	0.060305	0.085713	0.139015	0.103588	0.098039	0.028714	29.288893

Source: Annexure 3

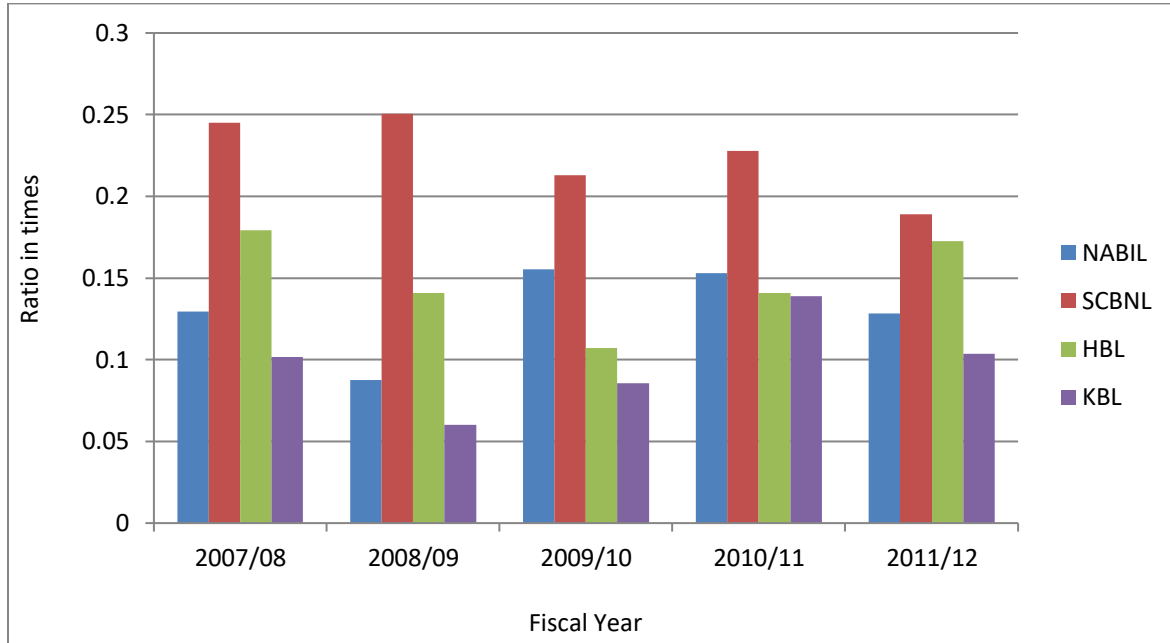
The above table shows that the ratio of NABIL is decreasing trend from FY 2007/08 to 2008/09 and increased in FY 2009/10. In the case of other banks all are in fluctuating trend.

In overall, the mean ratio of investment in government securities to current assets ratio of KBL is lower than that of other bank i.e. 0.0980392 and SCBNL mean ratio and is greater than other i.e., 0.225012. It means KBL had invested its fewer portions of current assets on government securities, than other banks. On the other hand CV is ratios of KBL is greater than that of other i.e. 29.288893, which means the variability's of ratios of KBL is less consistent than that of others.

It can be concluded that KBL has invested its less portion of current assets as government securities than that of other and SCBNL liquidity portion from the point of view of investment on government securities is richer than that of other banks.

Figure 4.3

Investment on Government Securities to Current Assets Ratio (Times)



4.3.2 Analysis of Assets Management Ratios (Activity Ratio)

Assets management ratio measures the efficiency of the bank to manage its assets in profitable and satisfactory manner. A commercial bank must manage its assets properly to earn high profit. Under this chapter following ratios are studied.

I. Loan and Advances to Total Deposit Ratio (Times)

This ratio measures the extent to which the banks are successful to mobilize their total deposit on loan and advances.

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

Table 4.4

Loan and Advance to Total Deposit Ratio

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.669435	0.738721	0.695289	0.765333	0.756141	0.724984	0.041094	5.668316
SCBNL	0.461222	0.381352	0.453545	0.484938	0.544296	0.465070	0.058796	12.642360
HBL	0.633726	0.735829	0.743943	0.771419	0.732552	0.723494	0.052458	7.250680
KBL	0.886929	0.928865	0.847045	0.861052	0.801191	0.865016	0.047353	5.474211

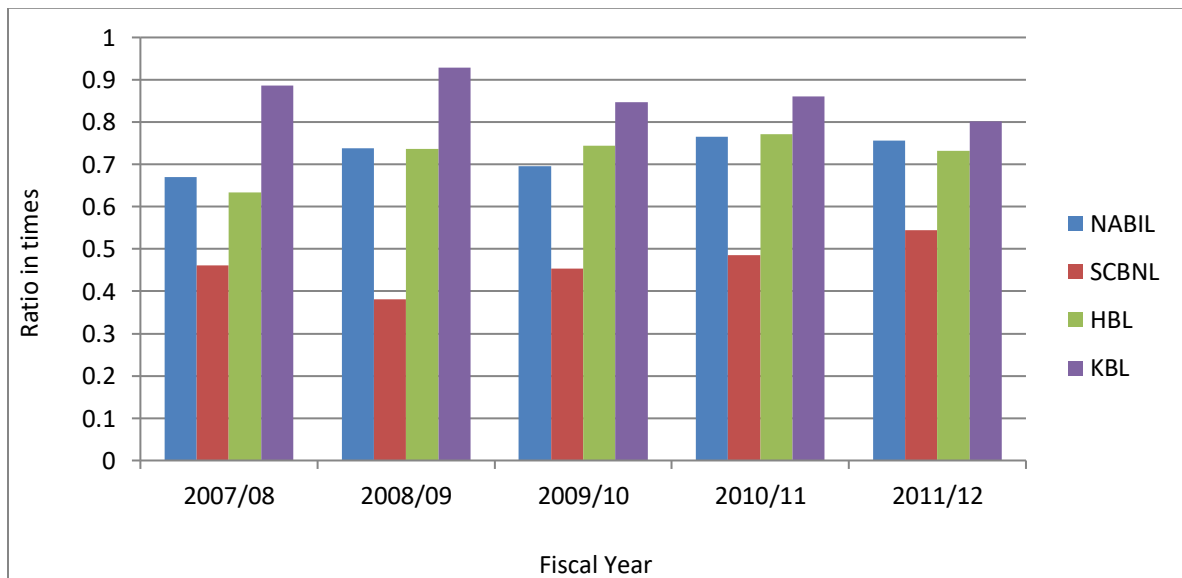
Source: Annexure 4

In the table, all the banks have fluctuating trend regarding the ratios. NABIL has the highest ratios of 0.765333 in the F/Y 2010/11 and the lowest ratio of 0.669435 in the F/Y 2007/08. Accordingly, SCBNL, HBL and KBL has highest ratios is 0.544296, 0.771419 and 0.928865 in fiscal year 2011/12, 2010/11 and 2008/09 respectively. In overall mean ratio of loan and advances to total deposit of KBL is higher than that of other banks and SD of SCBNL is greater than other banks. In other side coefficient of variation of above banks, SCBNL has 12.642360, which is comparatively higher than other bank.

In conclusion, KBL has strong position regarding the mobilization of total deposit on loan and advances and acquiring higher profit in comparison to other. It states that KBL is better in this regard.

Figure 4.4

Loan and Advances to Total Deposit Ratio (Times)



II. Loan and Advances to Total Working Fund Ratio (Times)

Loan and Advances is an important part of total assets (Total Working Fund). Commercial bank must be careful in mobilizing in total assets. As loan and advances is appropriate level to generate profit. This ratio reflects the extent to which the commercial banks are success in mobilizing their assets on loan and advances for the purpose of income generation. A high ratio indicates better in mobilization of funds as loan and vice-versa.

Table 4.5
Loan and Advance to Total Working Fund

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V
NABIL	0.575369	0.628939	0.61875	0.654165	0.658315	0.627108	0.033376	5.322369
SCBNL	0.411527	0.337044	0.396807	0.420613	0.469706	0.407139	0.047789	11.737965
HBL	0.547502	0.637244	0.655021	0.675429	0.643167	0.631673	0.049263	7.798918
KBL	0.754335	0.787188	0.720795	0.713753	0.70089	0.735392	0.035047	4.765853

Source: Annexure 5

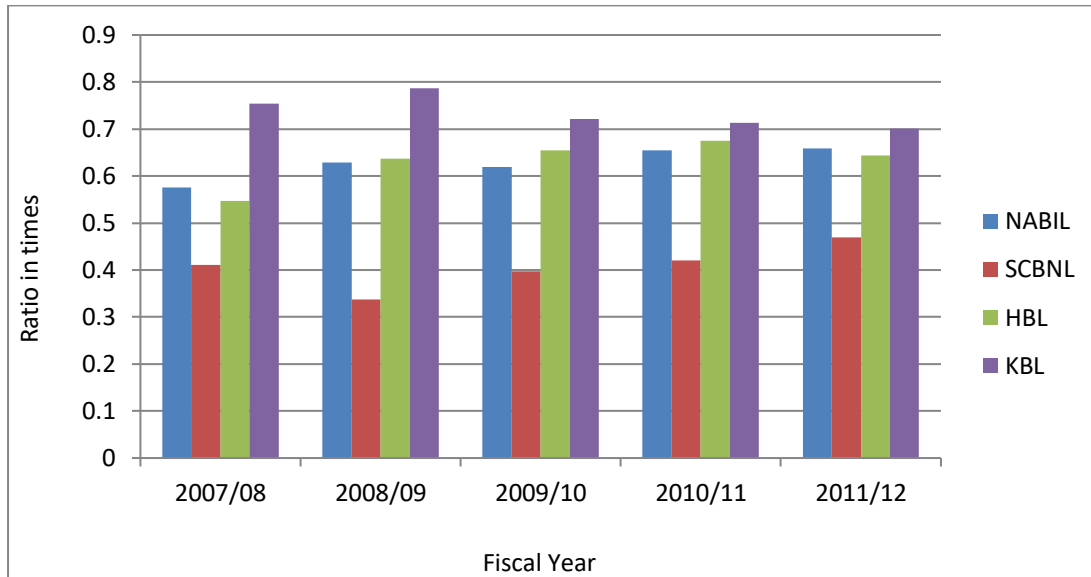
In the above table, all the banks have fluctuating trend regarding ratio. During the study, the mean ratio of KBL is greater than other banks.

On the basis of mean ratios, KBL is in good position and on the basis of SD, HBL has maintained the higher ratio than other banks. So, KBL is in good condition to mobilize its total working fund as loan and advances. Coefficient of Variation of KBL is less than other banks. It indicates more uniform of KBL is comparison to other banks.

Lastly, we can say that KBL's fund mobilization in terms of loan and advances with respect to total working fund is more satisfactory than that of other banks.

Figure 4.5

Loan and Advances to Total Working Fund Ratio (Times)



III. Investment on Shares and Debentures to Total Working Fund Ratio (Times)

Total Investment has been broken down into two parts i.e., investment on governments securities and investment on shares and debentures. Nowadays, commercial banks are interested to invest its fund not only on Government Securities but also in shares and debentures of other different types of companies. During the study period, most of the commercial banks in Nepal have purchased shares of regional development banks. But some of these have purchased the shares of other companies too.

Investment on shares and debentures to total working fund ratio reflects the extent to 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. A high ratio indicates more portion of investment on share and debenture out of total working fund and vice-versa.

Investment on Shares and Debentures to Total Working Fund Ratio

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

Table 4.6
Investment on Shares & Debenture to Total Working Fund

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.008705	0.008091	0.006651	0.006298	0.00623	0.007195	0.001131	15.716241
SCBNL	0.003436	0.002844	0.002871	0.002691	0.002829	0.002934	0.000289	9.850288
HBL	0.00243	0.002344	0.001846	0.00189	0.001633	0.002028	0.000342	16.891231
KBL	0.001213	0.000989	0.00107	0.001143	0.000932	0.001069	0.000113	10.598195

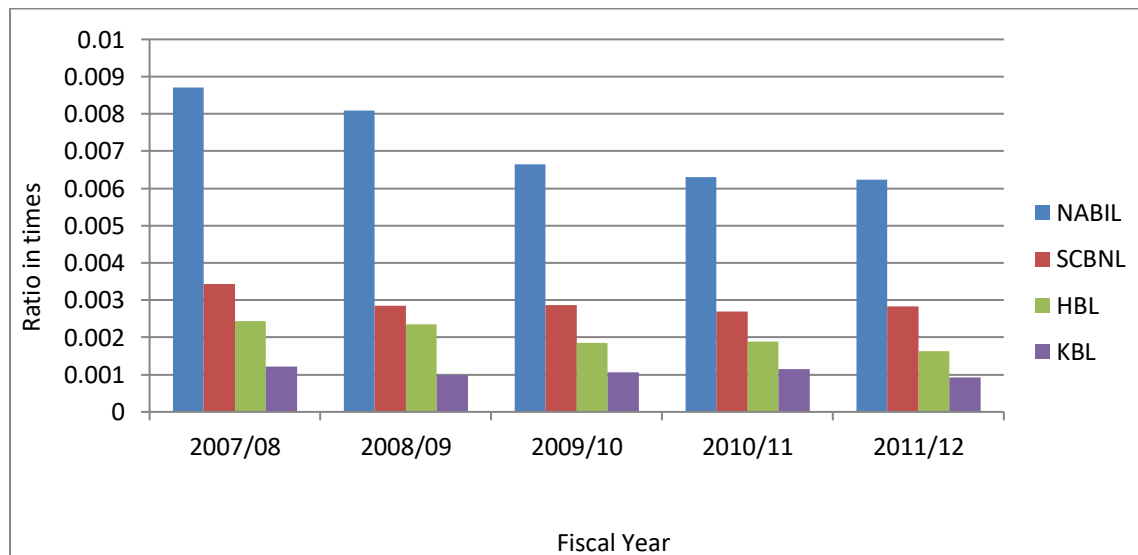
Source : Annexure 6

The above table exhibits that the ratio of NABIL is in decreasing trend up to 2011/12. In case of SCBNL, the ratio is in decreasing trend up to 2010/11 then increasing trend. In case of other banks, they are in fluctuating trend.

On the basis of mean ratios and SD, NABIL has higher investment than other two banks i.e., 0.007195 and 0.001131. Moreover, CV of SCBNL is less than other banks, which states that the position of SCBNL is better in this regard.

It can be concluded that NABIL has invested more portion of its total working fund on shares and debentures than other three banks. And also NABIL is more consistent and homogenous than other banks.

Figure 4.6
Investment on Shares and Debentures to Total Working Fund Ratio (Times)



IV. Total Investment to Total Deposit Ratio (Times)

A commercial bank mobilizes its deposits by investing its fund in different securities issued by government and other financial or non-financial institutions. This ratio measures the extent to which the banks are able to mobilize their deposits on investment in various securities. A high ratio indicates the success in mobilizing in securities and vice-versa.

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

Table 4.7
Total Investment to Total Deposit Ratio

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.382966	0.289876	0.295256	0.263223	0.255451	0.297354	0.050770	17.074027
SCBNL	0.467416	0.564125	0.564127	0.454185	0.359738	0.481918	0.085766	17.796936
HBL	0.418939	0.251164	0.22532	0.214315	0.210169	0.263981	0.088081	33.366539
KBL	0.167429	0.096164	0.131844	0.208028	0.133751	0.147443	0.042220	28.635166

Source : Annexure 7

The above table exhibits that the ratio of NABIL is in decreasing trend up to 2008/09 then fluctuating, SCBNL is in increasing trend up to 2009/10 then in decreasing trend. HBL is in decreasing trend up to 2011/12 in overall study period. In the case of other banks all are in fluctuating trend.

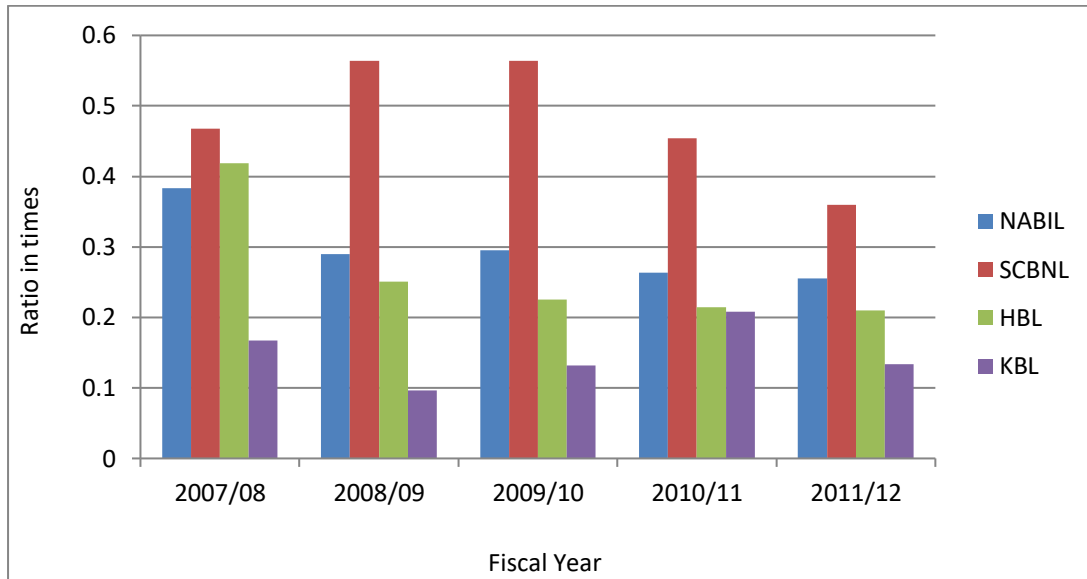
In average KBL has maintained lower mean value i.e., 0.147443 than other banks. SCBNL has maintained the highest mean value of 0.481918. In other hand SD of KBL is less value and HBL has greater value than other banks.

The CV of ratio of HBL is 33.366539 which is higher than other. HBL is more stable than that of other banks. In conclusion, HBL is in weak condition to mobilize its deposits by investing in different sectors is comparison of other banks.

The CV ratio of SCNBL is less than other banks, so SCNBL is in better condition to mobilize its deposit by investing in different sectors in case of other banks.

Figure 4.7

Total Investment to Total Deposit Ratio (Times)



4.3.4 Analysis of Profitability Ratios

Profitability ratios are calculated to measure the efficiency of operation of a firm in terms of profit. Profitability ratios are very much helpful to measure the overall efficiency of operation of financial institutions. In the context of bank, strictly speaking no bank can survive without profit. Profit is the indicator of efficiency in the operation of a bank. The banks acquire profit by providing different services to its customers by making investment of different kinds. Sufficient profit is a must to have good liquidity, grab investment opportunities, expand banking transaction, finance government in need of development fund, overcome the future contingencies and need fixed internal obligation of a bank. Profitability ratios measure the efficiency of bank. Higher the profit ratio shows that higher the efficiency of a bank. Following profitability ratios, which are related with profit and fund mobilization are studied under this heading.

I. Return on Loan and Advance Ratio (Times)

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 (loss) by loan and advances. This can be expressed as,

$$\text{Return on Loan and Advances} = \frac{\text{Net Profit (Loss)}}{\text{Loan and Advances}}$$

Table 4.8
Profitability Ratio

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.034939	0.037371	0.035301	0.035172	0.04077	0.036711	0.002470	6.728865
SCBNL	0.059694	0.074937	0.068049	0.060734	0.059714	0.064626	0.006738	10.427101
HBL	0.031511	0.029501	0.01814	0.028292	0.027417	0.026972	0.005171	19.170340
KBL	0.015433	0.017915	0.021437	0.017177	0.015641	0.017521	0.002423	13.835044

Source : Annexure 8

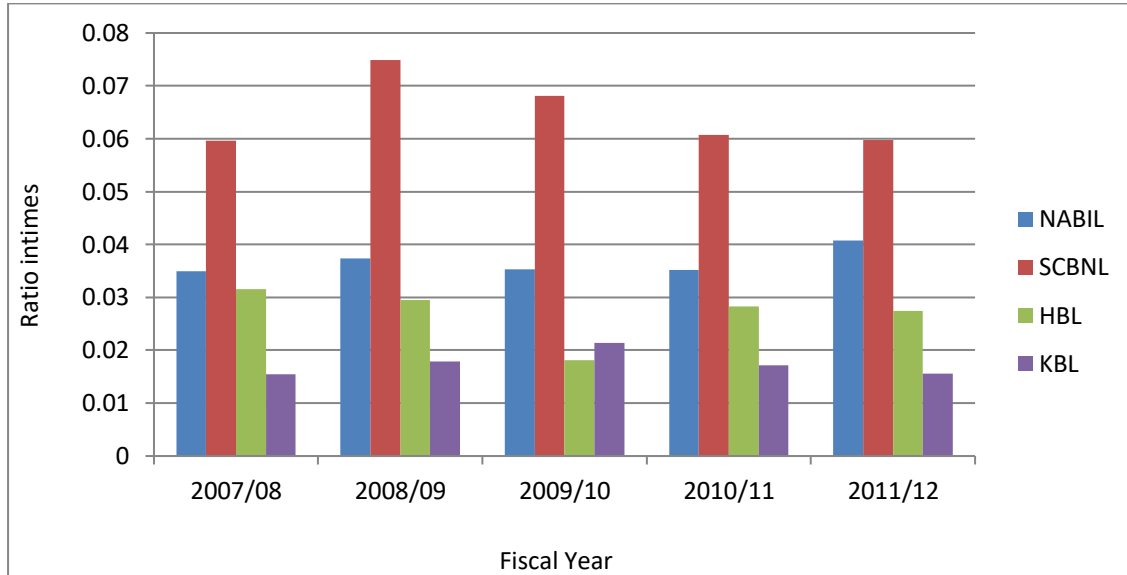
The above table exhibits that the ratio of NABIL has maintained increasing trend up to 2008/09 then decreasing. KBL has increasing trend up to FY 2009/10 then decreasing trend. In case of other banks followed fluctuating trend at the study period.

The mean of the SCNBL is higher i.e., 0.064626 and SD of SCNBL is higher i.e., 0.006738 than other banks. On the other hand, CV of HBL is higher than that of other banks. So, HBL has maintained high return with variability ratios.

From the above analysis, it can be concluded that SCBNL is significantly able to earn high return on its loan and advances in comparison to other banks in point of view of low CV ratio.

Figure 4.8

Return on Loan and Advance Ratio (Times)



4.3.5 Return on Total Assets

Return on total assets ratio measures the overall profitability of all working funds i.e., total assets. It is also known as Return on Assets (ROA). 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 assets. This can be expressed as,

$$\text{ROA} = \frac{\text{Net Profit (Loss)}}{\text{Total Assets}}$$

Here, Net profit includes income left to the internal equities after deducting all costs, charges and expenses.

Table 4.9
Return to Total Assets

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.020102	0.023504	0.021879	0.023008	0.026839	0.023066	0.002481	10.756681
SCBNL	0.024566	0.025257	0.027003	0.025546	0.028048	0.026084	0.001412	5.414834
HBL	0.017252	0.018799	0.011911	0.019109	0.017633	0.016941	0.002916	17.217094
KBL	0.011641	0.014102	0.015452	0.01226	0.010962	0.012883	0.001851	14.368295

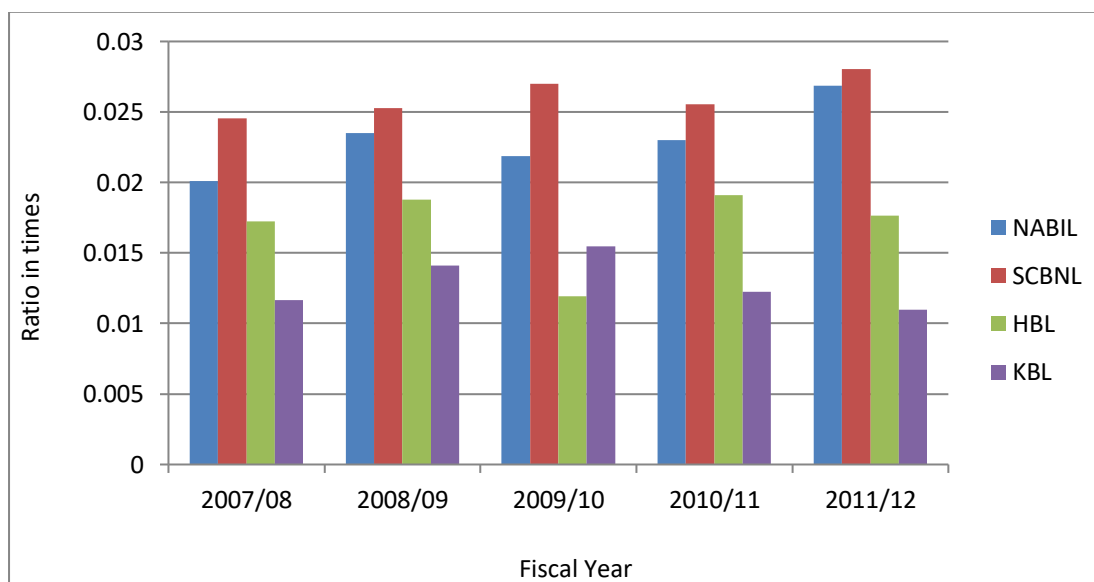
Source : Annexure 9

The above comparative table reveals that all banks has fluctuating trend in study period. NABIL has increasing trend up to 2008/09 then fluctuating trend. HBL has increasing trend up to 2008/09 then decreasing trend.

On the basis of mean ratios of SCBNL is greater than other banks in respect to return on total assets. On the other hand, CV of HBL is higher than that of other banks. So HBL has maintained high return with variability ratios.

From the above analysis, it can be concluded the SCBNL is in strong position in earning high income from its total assets in comparison to other banks.

Figure 4.9
Return on Total Assets



4.3.6 Analysis of Risk Ratios

The possibility of risk makes banks investment a challenging task. Bank has to take risk to get return on investment. The risk taken is compensated by the increase in profit. A bank has to take high if it expects high return on its investment. So, the bank options for high profit, so it has to accept the risk and manage it efficiently. The risk measures the level of risk. The following ratios are studied for the purpose of measuring risk.

I. Credit Risk Ratio

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

This can be stated as,

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

Table 4.10
Credit Risk Ratio

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.575369	0.628939	0.61875	0.654165	0.658315	0.627108	0.033377	5.322369
SCBNL	0.411527	0.337037	0.396807	0.420613	0.469706	0.407138	0.0477924	11.738636
HBL	0.547502	0.637244	0.655214	0.675429	0.643167	0.631711	0.0492865	7.802073
KBL	0.754335	0.787188	0.720795	0.713753	0.70089	0.735392	0.0350477	4.765854

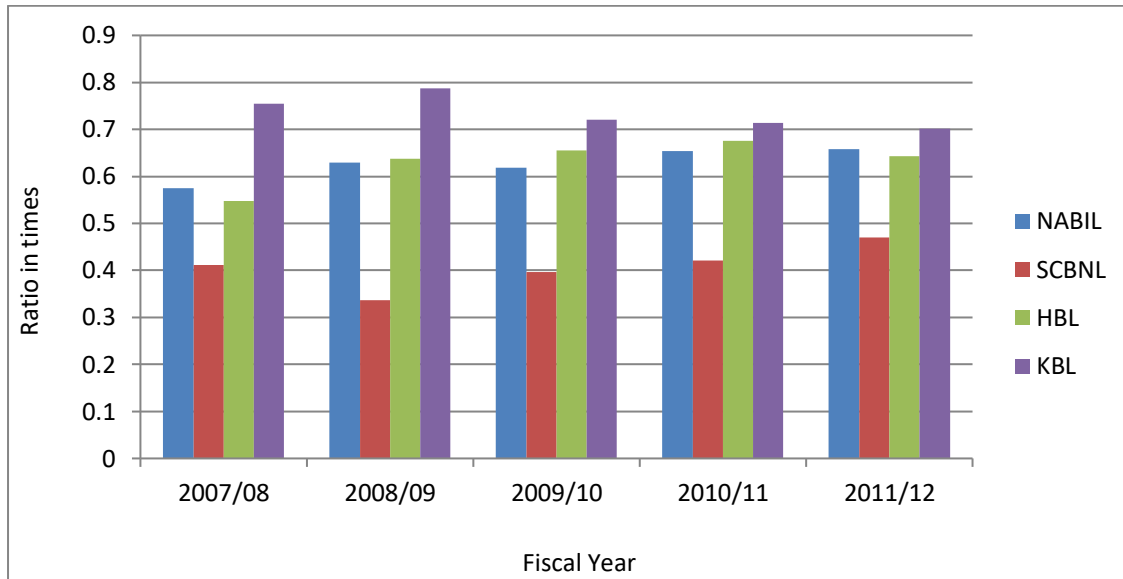
Source : Annexure 10

The above table shows that the credit risk ratio of all banks is in fluctuating trend in study period. In case of HBL is in increasing trend up to 2010/11 period.

The mean ratio of KBL i.e., 0.735392 and SD of HBL i.e.,0.069404 is higher than of other banks. It means credit risk of KBL and HBL is higher than of other banks. The CV ratio of SCBNL is greater than other banks.

From the above analysis it can be concluded that SCBNL’s degree of risk is higher and more variable than other banks.

Figure 4.10
Credit Risk Ratio



II. Liquidity Risk Ratio

The liquidity risk ratio measures the level of risk associated with the liquid assets i.e., cash and 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 liquidity risk. This ratio is calculated by dividing cash and bank balance by total deposits.

This can be expressed as,

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

Table 4.11
Cash and Bank Balance to Total Deposit (Times)

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.073348	0.090299	0.030167	0.049029	0.077708	0.064110	0.024164	37.691981
SCBNL	0.06893	0.087455	0.054836	0.078311	0.177009	0.093308	0.048320	51.785698
HBL	0.045478	0.087901	0.1028	0.072449	0.133294	0.088384	0.032862	37.181489
KBL	0.07307	0.113061	0.156252	0.068792	0.169324	0.116099	0.046216	39.807518

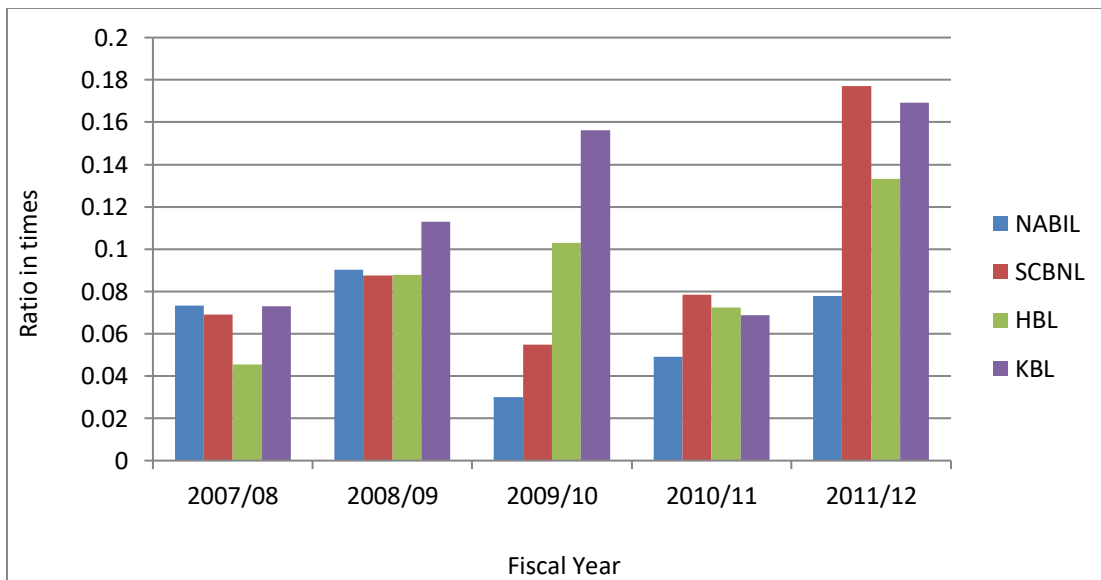
Source : Annexure 11

The above table shows that the liquidity risk ratio HBL is in decreasing trend up to 2007/08 then increasing trend and KBL is in increasing trend up to 2009/10 then fluctuating trend. Other studied banks is in fluctuating trend in study period.

The mean ratio of KBL i.e., 0.116099 and SD of SCBNL i.e., 0.048320 is higher than of other banks. It means liquidity risk ratio of KBL & SCBNL is higher than of other banks. The CV ratio of SCBNL i.e., 51.785698 is greater than other banks.

From the above analysis it can be concluded that SCBNL's degree of risk is higher and more variable than other banks.

Figure 4.11
Liquidity Risk Ratio



4.4 Statistical Tools

Under this heading some statistical tools such as coefficient of correlation analysis between different variables of deposits, loan and advances, investment and net profit are used to achieve the objectives of the study.

4.4.1 Coefficient of Correlation Analysis

Under this chapter, Karl Pearson's coefficient of correlation is used to find out the relationship between deposit and loan and advances and total deposit and loan and total investment, outside assets and net profit.

4.4.1.1 Coefficient of Correlation between Deposit and Loan and Advances

It is already mentioned that investment is dependent upon saving i.e., deposit. Longer the duration of deposit, higher the banker's ability to acquire long term asset. In the other words banker can't invest more, on long term assets if the duration of deposit is short. In this sense it can be said that investment is the function of deposit.

Theoretically, it is assumed that long-term asset yield higher return. It means longer the duration of deposit, higher would be the profitability of the bank. But investment may not be the function of deposit only. Sometimes investment is made from the funds raised from other sources. In such situation investment is not dependent upon deposit only. Coefficient of correlation between deposit and loan and advances measures the degree of relationship between these two variables. In this analysis: deposit is independent variable (X_1) and loan and advances is dependent variable (X_2).

The detail calculations in this regards are done in Annexure and the following table shows the value of r_{xy} , r^2 and PE and 6 PE between deposit and loan and advances of NABIL, SCNBL, HBL and KBL banks during the study period.

Table 4.12
Correlation between Deposit and Total Loan and Advance

Evaluation Criteria				
Bank	r	r²	P.Er	6P.Er
NABIL	0.087931	0.976008	0.007237	0.043422
SCNBL	0.670710	0.449852	0.165949	0.995698
HBL	0.966015	0.933185	0.020154	0.120927
KBL	0.973738	0.948166	0.015635	0.093913

Source: Annexure 23

In the above table, the coefficient of correlation between deposit and loan and advances in case of NABIL is 0.087931. This indicates that there is positive relationship between deposit and loan and advances. The calculated value of (r^2) or coefficient of determination is 0.976008. This means 97.60% of variation of the dependent variables (deposit). When the value of 'r' i.e. 0.087931 is compared with six times the probably error or 6P.Er. i.e. 0.043422, we can say that there is significant relationship between deposits and loan and advances because 'r' is greater than six times P.Er. (i.e. $0.087931 < 0.043422$). The coefficient of correlation 'r' between deposits and loan and advances in case of SCBNL is 0.670710, which gives us an indication of positive correlation between them. Similarly, the value of coefficient of determination (r^2) is found to be 0.449852. This shows that 44.98% variation of dependent variable (deposits). The value of 'r' is lower than six times P.Er. This further shows that the value of 'r' is significant. In other words, there is insignificant relationship between deposit and loan and advances.

In case of HBL and KBL the coefficient of correlation 'r' is 0.966015 and 0.973738. This indicates the positive relationship between these two variables. The calculated value of determination (r^2) is 0.933185 and 0.948166. This means 93.31% and 94.81% of variation of dependent variable.

In case of NABIL the value of (r^2) shows higher percentage of dependency. Which indicates that it is in strong condition to grant loan & advances for mobilizing the

collected deposits in comparison to other three banks. This indicates samples banks are successful to mobilize their deposit in-proper way as loan and advances.

4.4.1.2 Coefficient of Correlation between Deposit and Total Investment

Coefficient of Correlation (r) between deposit and investment measures the degree of relationships between these two variables. Here, deposit is independent variable (x) and total investment is dependent variable (y). The purpose of computing coefficient of correlation between deposit and total investment is to find out whether deposit is significantly used as investment or not.

The table 4.13 shows the value of r, r^2 , P.Er and 6P.Er between deposit and total investment of NABIL, SCNBL, HBL and KBL for the study period of 2007/08 to 2011/12 (details in Annexure).

Table 4.13
Coefficient of Correlation between Deposit and Total Investment

Evaluation Criteria				
Bank	r	r²	P.Er	6P.Er
NABIL	0.779418	0.607493	0.118397	0.710388
SCNBL	0.397447	0.157964	0.253996	1.523979
HBL	-0.370763	0.137465	0.260179	1.561079
KBL	0.477226	0.223035	0.234369	1.406217

Source: Annexure 24

From the above table, banks coefficient of correlation between the deposit and Investment shows high degree of positive relationship except HBL bank.

In case of NABIL and SCNBL it is found that coefficient of correlation between deposit and loan and advances is 0.779418, 0.397447 respectively. And the value of coefficient of determination (r^2), it is 0.607493, 0.157964 respectively of the variation is the dependent variable (investment) has been explained by the independent variable (deposit).

In case of NABIL, considering the value of (r) i.e., 0.779418 and comparing it with 6P.Er i.e., 0.710388 we can find that (r) is greater than the value of 6P.Er. This reveals that the value of r is significant. In other words there is significant relationship between total deposit and Investment in case of NABIL bank. Similarly, incase of SCNBL, the value of (r) i.e., 0.397447 and comparing it with 6 PEr i.e., 1.523979, we can find that (r) is less than the value of 6 PEr. This reveals that the value of r is insignificant.

Incase of HBL, we find that co-efficient of correlation between deposits (independent) and total investment (dependent) value of 'r' is -0.370763. There is perfect negative correlation between total deposit and total investment. However , by the application of coefficient of determination i.e r^2 it indicates HBL to be 1.561079% i.e total investment has been explained by the independent variables i.e deposit more over considering the probable error since the value of r less than 6 P.Er. so, we can say that there is insignificant relationship between total deposit and total investment of them.

Likewise, in the case of KBL, it is found that coefficient of correlation between deposit and Investment is 0.477226. However by application of coefficient of determination (r^2) it indicates that KBL has 0.223035. Moreover considering the probable error, in case of KBL, (r) is lesser than 6 P.Er it can be said that the value of (r) is insignificant i.e, there is insignificant relationship between total deposit and Investment.

Lastly, we can draw the conclusion from the above analysis that in NABIL shows positive relationship between deposits and investment .The relationship is significant and the value of r^2 shows high percent in the dependent variable which has been explained by the dependent variable. This indicates that two banks of them are successful to invest their deposit in proper way. More over, we can further conclude that HBL has negative investment and deposit as well as lower value of r^2 in comparison to other banks. It indicates that HBL is to follow the policy of maximizing the investment of their deposits in comparison to other banks.

4.4.1.3 Coefficient of Correlation between Investment and Net Profit

Coefficient of correlation 'r' between investment and net profit measures the degree of relationship between these two variables. Here, investment is independent variable (x) and net profit is dependent variable (y). The purpose of computing coefficient of correlation between investment and net profit is to find out whether the net profit is significantly correlated with respective total assets or not.

Table 4.14 shows the value of r, r^2 , P.Er, 6 P.Er between investment and net profit of NABIL, SCNBL and KBL for the study period of 2008/09 to 2011/12 (details in Annexure).

Table 4.14
Coefficient of Correlation between Investment and Net Profit

Evaluation Criteria				
Bank	r	r²	P.Er	6P.Er
NABIL	0.655727	0.429978	0.171945	1.031668
SCNBL	0.146795	0.021549	0.295145	1.770872
HBL	-0.114255	0.014255	0.297345	1.784074
KBL	0.095763	0.009170	0.298879	1.793277

Source : Annexure 25

From the above listed table it has been found that the coefficient of correlation of NABIL, SCNBL between total investment (independent) and net profit (dependent) is 0.65727, 0.146795 respectively high degree of positive correlation between these two variables.

On the other hand, considering the value of coefficient of determination of r^2 i.e., 0.429978%, 0.021549% of the variation in the dependent variables (net profit) has been explained by the independent variables (investment) moreover by considering the probable error. We can further say that there is insignificant relationship between investment and net profit of SCNBL because the value of r is less than 6 P.Er but there is no significant relationship between investment and net profit.

Similarly, coefficient of correlation between investment and net profit in case of HBL is found to -0.367848, which indicates negative correlation between these two variables. On the other hand, considering the value of coefficient of determination r^2 i.e., 0.137465 it indicates 13.74% of the variation in the dependent variable i.e., net profit has been explained by the independent variables i.e., investment moreover, considering the probable error since the value of r of HBL is less than 6 P.Er. So we can say that there is no significant relationship between net profit and investment of HBL.

In case of KBL, the value of r i.e., 0.477226 is less than 6 P.Er. So we can say that there is no significant relationship between net profit and investment.

Lastly, coefficient of correlation between investment and net profit in case of NABIL, SCNBL and KBL is found to be, which indicates positive correlation between these two variables. On the other hand, considering the probable error since the value of r of HBL is less than 6 P.Er. So we can say that there is no significant relationship between net profit and investment of HBL.

4.4.2 Regression Analysis

Regression is the estimation of unknown values or prediction of one variable from known values of other variables. Since there are two regression lines, there are also two equations namely the regression equation of Y on X and the regression equation of X on Y. The regression equation of Y on X is used to describe the change in value Y for given change in the value of X whereas the regression equation of X on Y is used to describe the change in the value of X for given variations in the value of Y.

4.4.2.1 Calculation of Regression Equation of Deposit and Net Profit

Net profit is assumed to be dependent (Y) on deposit (D) as follows:

$$Y = a + bX$$

or

$$NP = a + bD$$

Where,

X = Independent variable

Y = Dependent variable

a and b = Constants

Here the constants a and b are also known as the parameters of the line. The parameter 'a' determines the distance of the line directly above or below the origin, while the parameter 'b' determines the slope of the line i.e., the change in Y per unit change in X.

Here, the regression equation of Y on X determines the variation in the values of Y, i.e., net profit for given changes in X, i.e., deposit.

Table 4.15

Regression Analysis between Net Profit (NP) and Deposit (D)

Banks	Regression Equation	Regression Equation	Value of Constant 'a'	Coefficient 'b'
NABIL	NP (Y) on D	$Y = -593.56 + 0.04185D$	-593.56	0.04185
SCNBL		$Y = -144.25 + 0.03341D$	-144.25	0.03341
HBL		$Y = -197.77 + 0.02439D$	-197.77	0.02439
KBL		$Y = -50.061 + 0.01939D$	-50.061	0.01939

Source:

The above table shows in the case of NABIL, SCNBL, HBL and KBL, the regression coefficient 'b' is positive i.e., 0.04185, 0.03341, 0.02439, and 0.01939 respectively which indicates that one million increase in deposit leads to increase in net profit by Rs. 0.04185, Rs. 0.03341, Rs. 0.02439 and Rs. 0.01939 million respectively. The value of a i.e., -593.56, -144.25, -197.77, and -50.061 shows that net profit will be -593.56, -144.25, -197.77, and -50.061 millions when total deposit is zero.

Hence, this regression equation shows that the deposit of any bank affects its net profit to some extent, that relation too is because the deposit collected is invested in varying areas. Investment made effectively leads to effectively lead to effective utilization of the deposit collection which leads to generating profit

4.4.3 The Trends of the Total Deposit, Loan and Advances and Net Profit of the Banks for Next Five Years

This is known as times series analysis. The objectives of this analysis are to analyze the trend of deposit collection, its utilization and net profit of NABIL, SCBNL, HBL and KBL. These topics analyze the trend of deposit, loan and advances and net profit and its projection for next five years on the basis of past performance and records available.

The projections are based on the following assumptions:

- The bank will run in this present i.e. trend will repeat itself.
- Other thing will remain constant or unchanged
- The economy will remain in the present stage.
- Nepal Rastra Bank will not change its guidelines relating to joint venture banks
- The forecast will hold true only when the limitation of least square method is carried out.

4.4.3.1 Analysis of Trend Value of Deposit

The trend value of total deposit of NABIL, SCBNL, HBL and KBL is calculated under This section. An effort has been made to forecast for next five years from mid-July 2012/13 to mid-July 2016/17 on the basis past data of total deposit of Nabil Bank and NIBL from mid-July 2007/08 to mid-July 2011/12.

Table 4.16

Trend Values of Deposit of Nabil, SCBNL, HBL and KBL

Fiscal Year	NABIL	SCBNL	HBL	KBL
2007/08	31915.05	29743.99	31842.79	12780.15
2008/09	37348.26	35350.72	34681.35	15710.92
2009/10	46410.7	35182.72	37611.2	17432.25
2010/11	49696.11	37999.24	40920.61	16986.28
2011/12	55023.69	35965.63	47730.99	21985.19
2012/13	61648.28	39376	49962.1	22884.58
2013/14	67504.79	40885.18	53763.67	24853.12
2014/15	73361.3	42394.36	57565.24	26821.66
2015/16	79217.81	43903.54	61366.81	28790.2
2016/17	85074.32	45412.72	65138.38	30758.74

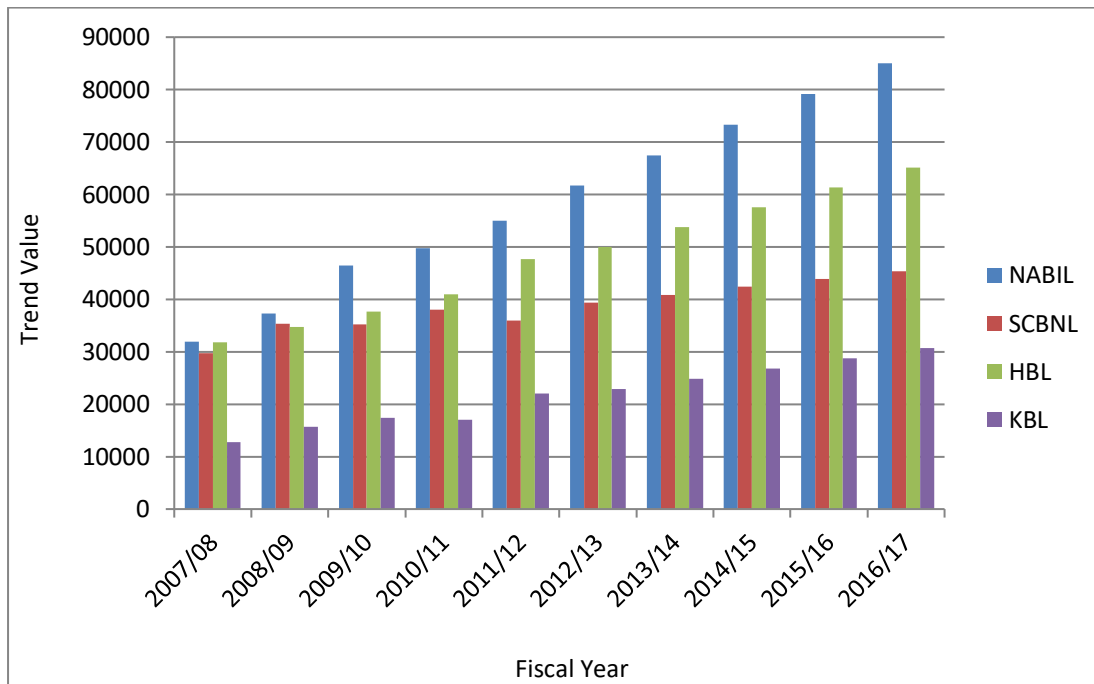
Source: Annual reports and Annexure A1-A4

The above table shows the total deposit of the banks is in increasing trend. If other things 85074.32,45412.72,65138.38 and 30758.74 million respectively in the FY 2016/17.

It is forecasted that NABIL will be more successful to collect more deposit from die market.

Figure 4.16

Trend Values of Deposit of Nabil, SCBNL,HBL and KBL



4.4.3.2 Analysis of Trend Values of Loan and Advances:

Under this topic, the trend values of loan and advances of NABIL,SCBNL,HBL and KBL has been calculated for five years From F/Y 2008/09 to 2011/2012 and the forecast for next two years up to 2016/17.

Table 4.17

Trend Values of Loan and Advances of NABIL, SCBNL, HBL and KBL

Fiscal Year	NABIL	SCBNL	HBL	KBL
2007/08	21365.05	13718.59	20179.61	11335.09
2008/09	27589.93	13679.76	25519.52	14593.34
2009/10	32268.87	15956.95	27980.63	14765.91
2010/11	38034.09	18427.27	31566.98	14626.07
2011/12	41605.68	19575.97	34965.43	17614.35
2012/13	47450.24	21210.38	38728.16	18364.31
2013/14	52542.78	22856.61	42290.07	19623.43
2014/15	57635.32	24502.84	45851.98	20882.55
2015/16	62727.86	26149.07	49413.89	22141.67
2016/17	67820.4	27795.3	52975.8	23400.79

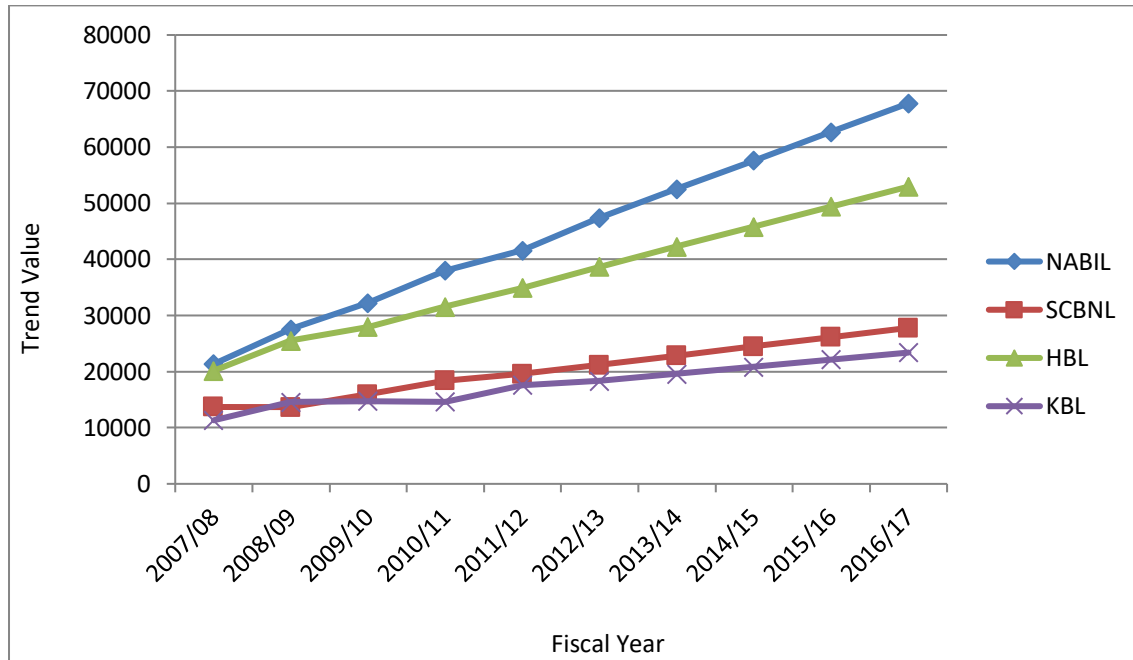
Source: Annual reports and Annexure B1-B4

The above table clearly shows that the loan and advances of all the sample banks are in an increasing trend. Assuming that other thing will remain constant, the loan and advances of NABIL at the end of F/Y 2016/17 is predicted to be Rs. 67820.4 and SCBNL is 27795.3. Similarly, the projection for HBL and KBL at the end of F/Y 2016/17 is Rs 52975.8, 23400.79 million.

From above trend analysis, it is quite clear that a loan advance of NABIL is comparatively higher than SCBNL, HBL and KBL through out the trend projection period. The above trend values of loan and advances of NABIL, SCBNL, HBL and KBL are fitted in the trend line given in figure no.

Figure 4.17

Trend Values of Loan and Advances of NABIL, SCBNL, HBL and KBL



4.4.3.3 Analysis of Trend Values of Net profit

Here, the Trend Values of total investment of concerned banks have calculated for five years and an attempt has been made to forecast the projections for next five years up to 2016/17. The following table shows the trend value if net profit from 2011/12 to 2016/17.

Table 4.18

Trend Values of Net profit of NABIL, SCBNL, HBL and KBL

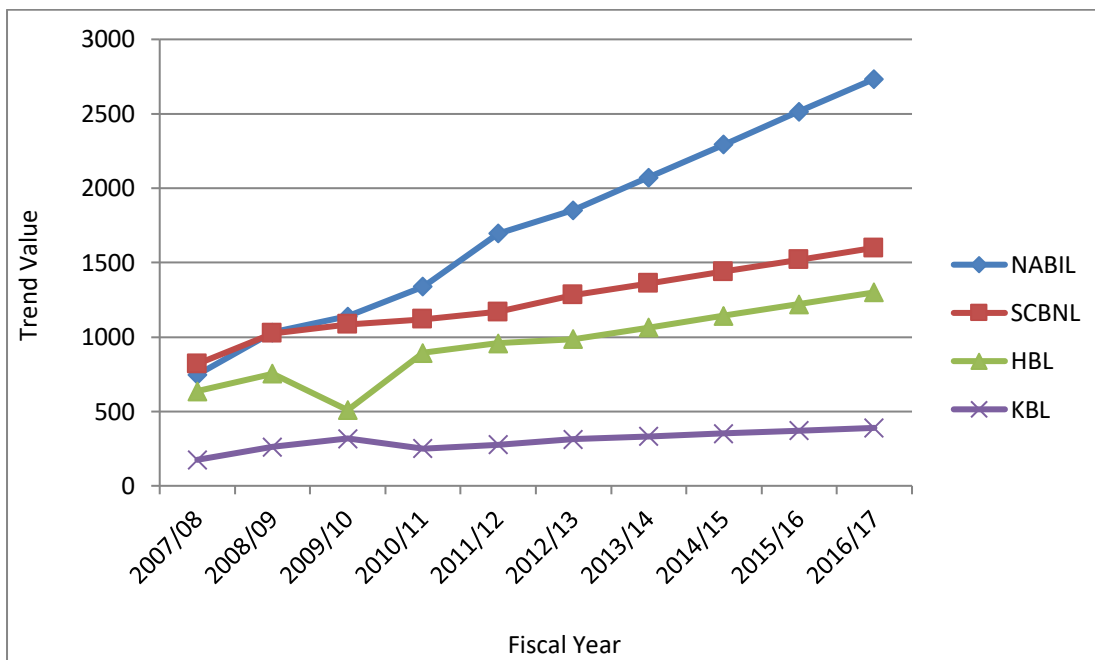
Fiscal Year	NABIL	SCBNL	HBL	KBL
2007/08	746.47	818.92	635.87	174.93
2008/09	1031.05	1025.12	752.84	261.44
2009/10	1139.09	1085.87	508.8	316.54
2010/11	1337.74	1119.17	893.11	251.24
2011/12	1696.28	1168.97	958.64	275.5
2012/13	1852.02	1281.84	985.59	313.08
2013/14	2072.65	1361.25	1064.17	332.17
2014/15	2293.28	1440.66	1142.75	351.26
2015/16	2513.91	1520.07	1221.33	370.35
2016/17	2734.54	1599.48	1299.91	389.44

Source: Annual Reports and Annexure C1-C4

It is clear from the above table that NABIL,SCBNL has increasing trend of net profit. But in the case of HBL and KBL it has fluctuating trend of net profit. The trend value of NABIL will be highest in F/Y 2016/17 i.e Rs 2734.54 million. In case of SCBNL net profit will be Rs 1599.48million. Similarly, HBL and KBL will have net profit Rs 1299.91 & Rs 389.44 million respectively. It can be said they all the banks have followed the policy of maximizing their net profit. The above calculated trends values are fitted in the trend line given in following figure.

Figure 4.18

Trend Values of Net Profit of NABIL, SCBNL, HBL and KBL



4.5 Major Findings of the Study

The main findings of the study are derived on the analysis of financial data of NABIL, SCBNL, HBL, and KBL are given below.

1. Liquidity Ratio

The liquidity position of concerned banks reveals that:

- From the analysis of current ratio the observation shows that the standard current ratio in the practical field is above one. The variations in the current ratio of all banks are insignificant, i.e., less than 0.01.

- The mean ratio of cash and bank balance to total deposits comparatively NABIL has maintained low ratios, it shows some difficulties to meet the demand of its customers on their deposit to pay at any time but it may be earning more by investing cash to different sectors. But it should ensure to have enough liquid funds to serve its customer.
- The mean ratio of investment on government securities to current assets, it can be concluded that KBL has invested its less portion of current assets as government securities than that of other and SCNBL liquidity portion from the point of view of investment on government securities is richer than that of other banks.

2. Assets Management Ratio (Activity Ratio)

The assets management ratio of concerned banks reveals that:

- KBL has strong position regarding the mobilization of total deposit on loan and advances and acquiring the higher profit with compare to other. It states that KBL is better in this regard.
- We can say that KBL's fund mobilization in terms of loan and advances with respect of total working fund is more satisfactory than that of other banks.
- The mean ratio of investment on share and debentures to total working fund of NABIL is higher than other compared banks.
- From the above findings it helps to conclude that NABIL, is comparatively successful in its on balance sheet operation is compared to other banks. It predicts that NABIL has successfully maintained and managed its assets towards different income generating activities.

3. Profitability Ratios

The profitability ratio of concerned banks reveals that:

- It can be concluded that SCBNL is significantly able to earn high return on its loan and advances in comparison of other banks is point of view of average mean.
- From the above findings of profitability ratios, it can be concluded that the SCNBL and NABIL is comparatively in higher position than that of other banks. So, the profit earning capacity of SCNBL and NABIL is high in comparison to other banks.

4. Risk Ratios

The risk ratio of concerned banks reveals that:

- The mean credit risk ratio of KBL is greater than other banks. So, it can be concluded that KBL's degree of risk is higher and more variable than other banks.
- The mean of capital risk ratio of KBL greater than other banks. It can be concluded that KBL's degree of risk is higher and more variable than other banks.

5. Coefficient of Correlation Analysis from the Coefficient of Correlation Analysis between different Variables of NABIL, SCNBL, HBL and KBL, it Reveals that

- KBL has lower correlation between net profit and outside assets as well as value of r^2 in comparison to others. It means KBL is in lower position in its efficiency to get return. HBL has negative correlation between investment and net profit.
- HBL has negative correlation between investment and deposit as well as lower value of r^2 in comparison to other banks. It indicates that NABIL is in average position to follow the policy of maximizing the investment of their deposits in comparison to other compared banks.
- NABIL and KBL higher correlation between deposit and loan and advances as well as higher value of r^2 than those of least banks, which indicates that it is in strong condition to grant loan and advances for mobilizing the collected deposits in comparison to other banks.

6. Calculation of Regression Equation of Deposit and Net Profit

- This regression equation of Deposit and Net Profit shows that any change in the deposit of any bank changes the trend of its net profit. The deposit collected from various sources are the fund used for investment; hence if the investment policy of a bank is effective enough to have attractive investment schemes then this will automatically lead to generation of profit of a bank.
- The deposit collected and net profit has a linear relation is shown from the equation, likewise the relation of investment made and the deposit collected cannot be avoided.

- Though the relation may not be directly proportional but the relation of these three variables: Deposit, Net Profit and Investment can be seen from all the above analysis work.

7. Trend Analysis and Projection for Next Five Years

The trend analysis of deposits, loan and advances and net profit and its projection for next years of NABIL, SCBNL, HBL and KBL reveals that:

- The deposit of all the sample banks is an increasing trend. The total deposit of NABIL is predicted to 85074.32 million at the of F/Y 2016/17. Similarly, the total deposit of SCBNL, HBL and KBL are 45412.72, 65168.38 and 30758.74 million respectively .Out of these banks NABIL is much better than other three banks.
- The loan and advances of all the sample banks have an increasing trend. The total loan and advances of NABIL predicted to be 67820.4 million and that of SCBNL to be 27795.3 million at the end of F/y 2015/16. Similarly, the amount of HBL and KBL is predicted to be 52975.8 and 23400.79 million.
- The net profits of all four banks are in an increasing trend. The net profit of NABIL, SCBNL, HBL and KBL predicted at 2734.54, 1599.48, 1299.91 and 389.44 million respectively by the end of F/Y 2016/17. The position of NABIL with regard to utilization of the fund to earn profit is better than SCBNL, HBL and KBL.

CHAPTER – V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter summarizes the whole study. Summary of the study has been mentioned in the first section. The second section reflects the conclusion drawn from the study. The third part is recommendation, to erase the weakness drawbacks of concerned banks and portfolio investment on the basis of findings and conclusion of the study.

5.1 Summary

Economic development of a country cannot be imagined without the development of commerce and industry. No doubt, banking promotes the development of commerce to its extreme, as banking itself is the part of commerce. Commercial banks play a vital role in the economic development of the country. It occupies an important place in the framework of the every economy. It provides capital for the development of industry, trade, business and other resource deficit sectors by investing the savings collected as deposits. Besides this, commercial banks provide numerous services to their customers in view of facilitating their economic and social life. The accepting of deposits, providing loans to the needy person and organizations are its main functions. The other services performed by banks are payment of subscription, purchase and sale of securities, remittance of money, advisory services, and assistance in foreign trade etc. Hence the Commercial Banks play an important role in the modern economy.

The economic development is possible only when domestic resources are properly mobilized and utilized. Similarly, for integrated and speedy development of the country the competitive banking and financial services should reach every corner of the country. Successful formulation and effective implementation of investment policy is the prime essential for the successful performance of banks and other financial institutions. A good investment policy has a positive impact on economic development of the country and vice versa.

Commercial banks play an important role for economic development of a country as they provide capital for the development of industry trade and business by investing the saving collected as deposits from public joint venture banks are the commercial banks formed by joining the two or more enterprises for the purpose of carrying out specific operation such as investment in trade, business and industry as well as in the form of negotiation between various groups of industries or traders to achieve mutual exchange of goods and services.

Commercial Banks formulate sound investment policies to make it more effective, which eventually contribute to the economic growth of a country.

Commercial banks should be careful while performing the credit creation function. Investment policy should ensure minimum risk and maximum profit from lending, good investment policy ensures maximum of investment to all sector with proper utilization.

Banking in Nepal in true sense started from the establishment of the first commercial bank, Nepal Bank Limited in 1994 B.S. government sector. The establishment of Nepal Rastra Bank, Central bank of Nepal in 2013 B.S. was a significant dimension in the development of banking sector.

When the government adopted liberal and market oriented economic policy since mid – 1980, Nepal allowed foreign banks on joint venture banks to operate in the country after getting the approval from Nepal Rastra Bank.

The study basically deals with the utilization of available fund, relationship of investment loan and advances with total deposit and total Net Profit, Investment decision and liquidity position of concerned banks i.e. NABIL, SCBNL, HBL and KBL.

The objective of the study is to examine and evaluate the investment policy trend of the commercial banks in Nepal and to suggest for its improvement in the investment policy. The study has been constrained by various common limitations.

On the second chapter the focus has been made on the review of literatures relevant to the investment policy of commercial banks for the following areas have been reviewed.

In the study of financial tools ratios analysis viz, liquidity ratio, assets management ratio, profitability ratio, risk ratios are used. The statistical tools like co-efficient of correlation regression have been used for the analysis and interpretation of the data. The data which were employed in this research are secondary in nature. They are obtained from annual reports of the concerned banks, likewise, the financial statement of five years (2007/08 to 2011/12) were selected for the purpose.

5.2 Conclusion

NABIL and SCBNL have shown their consistency in maintaining their current ratio; as the fluctuating ratios are not significant once. However the changes in their ratios are such that SCBNL shows decreasing trend in the fluctuation. Similarly in case of other banks their maintenance in terms of the liquidity is also seen consistent enough without any significant changes.

From the analysis of assets management ratio it can be concluded that KBL has successfully maintained and managed its assets towards different income generating activities. In conclusion, KBL has strong position regarding the mobilization of total deposit on loan and advances and acquiring higher profit with comparison to other. It states that KBL is better in this regard. In over all mean ratio of loan and advances to total deposit of KBL is higher than that of other banks and S.D. of HBL is greater than other banks.

In profitability ratio, the mean of the SCNBL is higher and S.D. of SCBNL is higher than other banks.

It also can be concluded that KBL is significantly able to earn high return on its loan and advances in comparison to other banks in point of view of average mean and low C.V. ratio.

For return on total assets, on the basis of mean ratios and S.D. it can be concluded the SCBNL is in strong position is earning high income from its total assets in comparison to other banks.

From the view point of credit risk ratios, the mean ratio of KBL and S.D. of HBL bank is higher than other banks, it can be concluded the HBL's degree of risk is higher and more variable than other banks.

From the above analysis, the coefficient of correlation between deposit and total investment is higher than other banks. The coefficient of correlation between total deposit and total investment of HBL is negative. So we can say that there is perfect negative correlation between total deposit and total investment. There is insignificant relationship between total deposit and total investment.

The coefficient of correlation between deposit and loan and advance of all banks are highly correlated. So we can say that there is significant relationship between deposit and loan and advance in case of all selected banks.

The coefficient of correlation between investment and net profit SCBNL is higher than other banks. So, we can say that there is perfect positive correlation between investment and net profit. In case of HBL, there is negative correlation between investment and net profit.

5.3 Recommendations

On the basis of various calculations, major findings and in-depth analysis of the risk and return, we can recommend the following suggestions:

- Current ratio of sample banks is not sufficient to achieve standard ratio i.e. 2:1, so it is recommend to all banks to maintain required current ratio. They need to maintain the present mean current ratio for the proper management of their liquidity position.
- The liquidity position of a bank may be affected by external as well as internal factors. The affecting factors may be interest rates, supply as demand position of loan and advances as well as savings, investment situations, central banks

directives, the lending policies, capability of management, strategic planning and funds flow situation. As NABIL has maintained lower cash and banker to total deposit and current assets ratio, NABIL is recommend to increase cash and bank balance to meet current obligations and loan demand.

- To get success in competitive banking environment, depositor's money must be utilized as loan and advances. Negligence in administering these assets could be the main cause of liquidity crisis in the bank and one of the main reasons of bank failure. It has been found from the study that KBL has greater ratios at all, because its large portfolio of fund invested as loan and advances to overcome this situation, so, they are strongly recommended to follow liberal lending policy.
- KBL has not invested its more funds as investment on share and debenture in comparison to other banks. KBL is in weak condition to mobilize its deposits by investing in different sectors in comparison to other banks. Though, the percentage of invested fund by all banks is very nominal. So, it is recommended to all banks to invest their more funds in different types of companies in different areas.
- Portfolio condition of all banks should be examined carefully from time to time and attention should be made to maintain equilibrium in the portfolio condition as far as possible. So it can be said, "all eggs should not be kept in the same basket". The bank should make continuous efforts to explore new competitive and high yielding investment opportunities to optimize their investment portfolio.
- In terms of recovery of loan of HBL is worse in comparison to other banks. The loan loss ratio is comparatively high that makes negative impact on profit. It may be facing a lost of problems on recovering loans. It has large non-performing asset as loan unrecovered. Therefore it is recommended to apply recovery act that would help to realize overdue loan in time.
- Most of the commercial banks have focused their banking services especially to big clients such as multinational companies, large-scale industries, manufactures and exporters of garments and carpet. The minimum level bank balance and the amount needed to open an account in all banks are very high amount. So, small depositors are very far from enjoying the banking facilities provided by such commercial banks. So, all banks should open its doors to the small depositors and entrepreneurs

for promoting and mobilizing small investor's funds and to attract depositors through variety of deposit schemes and facilities like cumulative deposit scheme, prize bonds scheme, gift cheque scheme, recurring deposit scheme (life insurance), monthly interest scheme etc. Recently the collection of fund for Global bank is the good example to support this point.

- The project oriented approach has to be encouraged in lending business of the banks, in which, security is not necessary, risk is high but the project is important from the point of view of national economy. The project should be allowed to make them capable to generate their own funds and to repay loans timely. So, it is recommended to all banks that it should follow project oriented approach for their efficient performances. Because the chance of loan loss can be minimized by the project-oriented approach.
- One of the main objectives to operate commercial banks of Nepal is to boost foreign investments in to the kingdom. However, all these banks don't seem to be successful in this aspect. Therefore, all commercial banks are recommended to activate for increasing foreign investment in Nepal by means of their wide international banking networks.
- Though commercial banks have played important role in the economic development of the country, they are not efficiently playing the role of a merchant bank. So, the commercial banks is suggested to play the role of financial intermediary and merchant banking like underwriting of securities brokers, development of capital market and supportive rule to the security exchange center.
- In the light of growing competition in the banking sector, the business of the bank should be customer oriented. It should strengthen and activate its marketing function, as it is an effective tool of attracting and retaining customers. For this purpose, the banks should develop and "Innovative approach to Bank Marketing and formulate new strategies of serving customers in a more convenient and satisfactory way. Although most of the banks have recently expanded their branches all over the country but some of them do not have branches in the rural areas of the country. Its branches are limited to the urban areas only. Therefore, commercial banks are recommended to open branches in rural areas too to help in economic development

of the country. HMG/N has also encouraged the joint venture banks to expand banking service in rural areas and communities without making unfavorable impact in their profit.

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ANNEXURE

Annex 1

Current Ratio (Times)

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	1.10144	1.104443	1.081964	1.122324	1.107284	1.103491	0.014471	1.311347
SCBNL	1.077011	1.087573	1.088242	1.121269	1.129163	1.10065	0.023032	2.092584
HBL	1.060308	1.070788	1.079475	1.08724	1.084824	1.076527	0.011048	1.026324
KBL	1.126446	1.134448	1.140385	1.172864	1.117709	1.138371	0.021085	1.852202

Annex 2

Cash and Bank Balance to Total Deposit (Times)

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.073348	0.090299	0.030167	0.049029	0.077708	0.064110	0.024164	37.691981
SCBNL	0.06893	0.087455	0.054836	0.078311	0.177009	0.093308	0.048320	51.785698
HBL	0.045478	0.087901	0.1028	0.072449	0.133294	0.088384	0.032863	37.181489
KBL	0.07307	0.113061	0.156252	0.068792	0.169324	0.116099	0.046216	39.807518

Annex 3

Investment on Government Securities to Current Assets

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.129338	0.087528	0.155214	0.152871	0.128384	0.130667	0.0272191	20.830915
SCBNL	0.244972	0.250411	0.212783	0.227831	0.189065	0.225012	0.0249659	11.095362
HBL	0.179176	0.140669	0.107198	0.14067	0.172679	0.148078	0.0289536	19.552877
KBL	0.101575	0.060305	0.085713	0.139015	0.103588	0.098039	0.0287146	29.288893

Annex 4

Loan and Advance to Total Deposit Ratio

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.669435	0.738721	0.695289	0.765333	0.756141	0.724984	0.041094	5.668316
SCBNL	0.461222	0.381352	0.453545	0.484938	0.544296	0.465071	0.058796	12.642361
HBL	0.633726	0.735829	0.743943	0.771419	0.732552	0.723494	0.052458	7.250680
KBL	0.886929	0.928865	0.847045	0.861052	0.801191	0.865016	0.047352	5.474216

Annex 5

Loan and Advance to Total Working Fund

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.575369	0.628939	0.61875	0.654165	0.658315	0.627107	0.033377	5.322369
SCBNL	0.411527	0.337044	0.396807	0.420613	0.469706	0.407139	0.047789	11.737965
HBL	0.547502	0.637244	0.655021	0.675429	0.643167	0.631672	0.049263	7.798918
KBL	0.754335	0.787188	0.720795	0.713753	0.70089	0.735392	0.035047	4.765853

Annex 6

Investment on Shares & Debenture to Total Working Fund

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.008705	0.008091	0.006651	0.006298	0.00623	0.007195	0.001131	15.716241
SCBNL	0.003436	0.002844	0.002871	0.002691	0.002829	0.002934	0.000289	9.850288
HBL	0.00243	0.002344	0.001846	0.00189	0.001633	0.002029	0.000343	16.89123
KBL	0.001213	0.000989	0.00107	0.001143	0.000932	0.001069	0.000113	10.598195

Annex 7

Total Investment to Total Deposit Ratio

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.382966	0.289876	0.295256	0.263223	0.255451	0.297354	0.050770	17.074028
SCBNL	0.467416	0.564125	0.564127	0.454185	0.359738	0.481918	0.085767	17.796936
HBL	0.418939	0.251164	0.22532	0.214315	0.210169	0.263981	0.088081	33.366539
KBL	0.167429	0.096164	0.131844	0.208028	0.133751	0.147443	0.042221	28.635165

Annex 8
Profitability Ratio

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.034939	0.037371	0.035301	0.035172	0.04077	0.036710	0.002470	6.728865
SCBNL	0.059694	0.074937	0.068049	0.060734	0.059714	0.064625	0.006738	10.427101
HBL	0.031511	0.029501	0.01814	0.028292	0.027417	0.026972	0.005171	19.170340
KBL	0.015433	0.017915	0.021437	0.017177	0.015641	0.017520	0.002424	13.835044

Annex 9
Return to Total Assets

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.020102	0.023504	0.021879	0.023008	0.026839	0.023066	0.002481	10.756681
SCBNL	0.024566	0.025257	0.027003	0.025546	0.028048	0.026084	0.001412	5.4148336
HBL	0.017252	0.018799	0.011911	0.019109	0.017633	0.016940	0.002917	17.217095
KBL	0.011641	0.014102	0.015452	0.01226	0.010962	0.012883	0.001851	14.368295

Annex 10
Risk Ratio

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.575369	0.628939	0.61875	0.654165	0.658315	0.627108	0.033377	5.322369
SCBNL	0.411527	0.337037	0.396807	0.420613	0.469706	0.407138	0.047792	11.738637
HBL	0.547502	0.637244	0.655214	0.675429	0.643167	0.631711	0.049286	7.802073
KBL	0.754335	0.787188	0.720795	0.713753	0.70089	0.735392	0.035047	4.765853

Annex 11
Liquidity Risk Ratio

Banks	Fiscal Year							
	2007/08	2008/09	2009/10	2010/11	2011/12	Mean	S.D.	C.V.
NABIL	0.073348	0.090299	0.030167	0.049029	0.077708	0.064110	0.024164	37.691981
SCBNL	0.06893	0.087455	0.054836	0.078311	0.177009	0.093308	0.048320	51.785698
HBL	0.045478	0.087901	0.1028	0.072449	0.133294	0.088384	0.032862	37.181489
KBL	0.07307	0.113061	0.156252	0.068792	0.169324	0.116099	0.046216	39.807518

Annex 12
Current Ratio (Times)

NABIL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Current Assets	35928.33	42341.71	51372.14	57206.35	62322.75
Current Liabilities	33275.05	38252.95	47480.44	50971.29	56275.32
Ratio	1.079738	1.106887	1.081964	1.122324	1.107461
SCBNL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Current Assets	31869.19	39108.59	39521.73	43704.45	41587.42
Current Liabilities	30843.24	37234.99	36843.61	38977.66	36830.31
Ratio	1.033263	1.05318	1.07269	1.121269	1.129163
HBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Current Assets	35486.46	38449.53	41655.25	45548.71	53059.06
Current Liabilities	33468.06	35907.7	38588.44	41893.88	48910.31
Ratio	1.060308	1.070788	1.079475	1.08724	1.084824
KBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Current Assets	14463.09	17910.47	20199.94	20185.51	24854.13
Current Liabilities	12839.58	15787.83	17713.26	17210.44	22236.66
Ratio	1.126446	1.134448	1.140385	1.172864	1.117709

Annex 13

Cash and Bank Balance to Total Deposit Ratio (Times)

NABIL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Cash and Bank Balances	2340.9	3372.51	1400	2436.55	4275.82
Total Deposits	31915.05	37348.26	46410.7	49696.11	55023.69
Ratio	0.073348	0.090299	0.030167	0.049029	0.07770871
SCBNL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Cash and Bank Balances	2050.24	3137.16	1929.31	2975.79	6366.23
Total Deposits	29743.99	35871.72	35182.72	37999.24	35965.63
Ratio	0.06893	0.087455	0.054836	0.078311	0.17700872
HBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Cash and Bank Balances	1448.14	3048.53	3866.49	2964.65	6362.28
Total Deposits	31842.79	34681.35	37611.2	40920.61	47730.99
Ratio	0.045478	0.087901	0.102801	0.072449	0.13329453
KBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Cash and Bank Balances	933.84	1776.29	2723.83	1168.52	3722.62
Total Deposits	12780.15	15710.92	17432.25	16986.28	21985.19
Ratio	0.07307	0.113061	0.156252	0.068792	0.16932399

Annex 14

Investment in Government Securities to Current Assets (Times)

NABIL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Investment in Govt. Sec	4646.88	3706.1	7973.66	8745.22	7999.97
Current Assets	65928.32	42341.71	51372.14	57206.35	
Ratio	0.129338	0.087528	0.155214	0.152871	
SCBNL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Investment in Govt. Sec	8137.62	9998.75	8531.51	9957.26	7862.72
Current Assets	31869.19	39108.59	39521.73	43048.71	
Ratio	0.25344	0.255666	0.215869	0.231302	
HBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Investment in Govt. Sec	26909.9	36562.5	41655.25	45548.71	
Current Assets	0.179176	0.140669	0.107198	0.14067	
Ratio	4821.6	5146.04	4465.37	6407.36	9162.22
KBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Investment in Govt. Sec	1469.09	1080.09	1731.39	2806.1	2574.61
Current Assets	14463.09	17910.47	20199.94	20185.51	
Ratio	0.101575	0.060305	0.085713	0.139015	

Annex 15

Loan and Advance To Total Deposit Ratio (times)

NABIL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Loan and Advances	21365.05	27589.93	32268.87	38034.09	41605.68
Total Deposits	31905.05	37348.26	46410.7	49696.11	55023.69
Ratio	0.665992	0.669435	0.738721	0.695289	0.765333
SCBNL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Loan and Advances	13718.59	13679.76	15956.95	18427.27	19575.97
Total Deposits	29743.99	35871.72	35182.72	37999.24	35965.63
Ratio	0.461222	0.381352	0.453545	0.484938	0.5442966
HBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Loan and Advances	20179.61	25519.52	27980.63	31566.98	34965.43
Total Deposits	31842.79	34681.35	37611.2	40920.63	47730.99
Ratio	0.633726	0.735829	0.743943	0.771419	0.73255195
KBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Loan and Advances	11335.09	14593.34	14765.91	14626.07	17614.35
Total Deposits	12780.15	15710.92	17432.25	16986.28	21985.19
Ratio	0.886929	0.928865	0.847045	0.861052	0.80119162

Annex 16

Loan and advance To Total Working Fund Ratio (Times)

NABIL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Loan and Advances	21365.05	27589.93	32268.87	38034.1	41605.68
Total Working Capital	37132.76	43867.39	52151.68	58141.43	63200.29
Ratio	0.575369	0.628939	0.61875	0.654165	0.6583147
SCBNL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Loan and Advances	13718.59	13679.76	15956.96	18427.27	19575.97
Total Working Capital	33335.79	40587.46	40213.32	43810.52	41677.05
Ratio	0.411527	0.337044	0.396807	0.420613	0.46970623
HBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Loan and Advances	20179.61	25519.52	27980.63	31566.98	34965.43
Total Working Capital	36857.62	40046.49	42717.12	46736.2	54364.43
Ratio	0.547502	0.637244	0.655021	0.675429	0.64316742
KBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Loan and Advances	11335.09	14593.34	14765.91	14626.07	17614.35
Total Working Capital	15026.59	18538.57	20485.58	20491.78	25131.4
Ratio	0.754335	0.787188	0.720795	0.713753	0.70089012

Annex 17

Investment on Shares & Debentures to Total Working Fund

NABIL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Investment on Shrs & Deb	323.23	354.93	346.86	366.2	393.74
Total Working Capital	37132.76	43867.39	52151.68	58141.43	63200.29
Ratio	0.008705	0.008091	0.006651	0.006298	0.00623003
SCBNL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Investment on Shrs & Deb	114.53	115.42	115.45	117.92	117.92
Total Working Capital	33335.79	40587.46	40213.32	43810.52	41677.05
Ratio	0.003436	0.002844	0.002871	0.002691	0.00282937
HBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Investment on Shrs & Deb	89.56	93.88	78.88	88.79	88.79
Total Working Capital	36857.62	40046.49	42717.12	46736.2	54364.43
Ratio	0.00243	0.002344	0.001846	0.001899	0.00163324
KBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Investment on Shrs & Deb	18.22	18.34	21.92	23.42	23.42
Total Working Capital	15026.59	18538.57	20485.58	20491.78	25131.4
Ratio	0.001213	0.000989	0.00107	0.001143.	0.0009319

Annex 18

Total Investment to Total Deposit Ratio (Times)

NABIL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Total Investment	12222.38	10826.38	13703.24	13081.21	14055.85
Total Deposit	31915.05	37348.26	46410.7	49696.11	55023.69
Ratio	0.382966	0.289876	0.295256	0.263223	0.25545088
SCBNL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Total Investment	13092.82	20236.12	19847.51	17258.68	12938.21
Total Deposit	29743.99	35871.72	35182.72	37999.24	35965.63
Ratio	0.467416	0.564125	0.564127	0.454185	0.35973817
HBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Total Investment	13340.18	8710.69	8444.91	8769.94	10031.58
Total Deposit	31842.79	34681.34	37611.2	40920.63	47730.99
Ratio	0.418939	0.251164	0.22532	0.214315	0.21016912
KBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Total Investment	2138.79	1510.83	2298.34	3533.62	2940.55
Total Deposit	12774.28	15710.93	17432.25	16986.28	21985.19
Ratio	0.167429	0.096164	0.131844	0.208028	0.1337514

Annex 19
Profitability Ratio

NABIL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Net Profit	746.47	1031.05	1139.09	1337.74	1696.28
Loan and Advance	21365.05	27589.93	32268	38034.09	41605.68
Ratio	0.034939	0.037371	0.035301	0.035172	0.04077039
SCBNL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Net Profit	818.92	1025.12	1085.87	1119.17	1168.97
Loan and Advance	13718.55	13679.76	15956.95	18427.27	19575.97
Ratio	0.059694	0.074937	0.068049	0.060734	0.05971454
HBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Net Profit	635.87	752.84	508.7	893.11	958.64
Loan and Advance	20179.61	25519.52	27980.63	31566.98	34965.43
Ratio	0.031511	0.029501	0.01814	0.028292	0.02741679
KBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Net Profit	174.93	261.44	316.54	251.24	275.5
Loan and Advance	11335.09	14593.34	14765.91	14626.07	17614.35
Ratio	0.015433	0.017915	0.021437	0.017177	0.01564066

Annex 20

Return on Total Assets

NABIL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Net Profit	746.47	1031.05	1141.05	1337.74	1696.28
Total Assets	37132.76	43867.39	52151.68	58141.43	63200.29
Ratio	0.020102	0.023504	0.021879	0.023008	0.02683975
SCBNL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Net Profit	818.92	1025.12	1085.87	1119.17	1168.97
Total Assets	33335.79	40587.46	40213.32	43810.52	41677.05
Ratio	0.024566	0.025257	0.027003	0.025546	0.02804829
HBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Net Profit	635.87	752.84	508.8	893.11	958.64
Total Assets	36857.62	40046.69	42717.12	46736.2	54364.43
Ratio	0.017252	0.018799	0.011911	0.019109	0.01763359
KBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Net Profit	174.93	261.44	316.54	251.24	275.5
Total Assets	15026.59	18538.57	20485.58	20491.78	25131.4
Ratio	0.011641	0.014102	0.015452	0.01226	0.01096238

Annex 21
Risk Ratio

NABIL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Loan and Advance	21365.05	27589.93	32268.87	38034.1	41605.68
Total Assets	37132.76	43867.39	52151.68	58141.43	63200.29
Ratio	0.575369	0.628939	0.61875	0.654165	0.6583147
SCBNL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Loan and Advance	13718.55	13679.76	15956.96	18427.27	19575.97
Total Assets	33335.79	40587.46	40213.32	43810.52	41677.05
Ratio	0.411527	0.337037	0.396807	0.420613	0.46970623
HBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Loan and Advance	20179.61	25519.52	27980.63	31566.98	34965.43
Total Assets	36857.62	40046.69	42717.12	46736.2	54364.43
Ratio	0.547502	0.637244	0.655214	0.675429	0.64316742
KBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
Loan and Advance	11335.09	14593.34	14765.91	14626.07	17614.35
Total Assets	15026.59	18538.57	20485.58	20491.78	25131.4
Ratio	0.754335	0.787188	0.720795	0.713753	0.70089012

Annexure 22
Liquidity Risk Ratio

NABIL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
cash and bank balance					
Total deposit					
Ratio					
SCBNL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
cash and bank balance					
Total deposit					
Ratio					
HBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
cash and bank balance					
Total deposit					
Ratio					
KBL					
Fiscal Year	2007/08	2008/09	2009/10	2010/11	2011/12
cash and bank balance					
Total deposit					
Ratio					

Annex 23

Coefficient of Correlation between Total Deposit and Loan & Advances

Evaluation Criteria				
Bank	r	r ²	P.Er	6P.Er
NABIL	0.087931	0.976008	0.007237	0.043422
SCBNL	0.670710	0.449852	0.165949	0.995698
HBL	0.966015	0.933185	0.020154	0.120927
KBL	0.973738	0.948166	0.015635	0.093813

Annex 24

Coefficient of Correlation between Total Deposit and Total Investment

Evaluation Criteria				
Bank	r	r ²	P.Er	6P.Er
NABIL	0.779418	0.607493	0.118397	0.710388
SCBNL	0.397447	0.157964	0.253996	1.523979
HBL	-0.370763	0.137465	0.260179	1.561079
KBL	0.477226	0.223035	0.234369	1.406217

Annex 25

Coefficient of Correlation between Investment and Net Profit

Evaluation Criteria				
Bank	r	r ²	P.Er	6P.Er
NABIL	0.655727	0.429978	0.171945	1.031668
SCBNL	0.146795	0.021549	0.295145	1.770872
HBL	-0.114255	0.014255	0.297345	1.784074
KBL	0.095763	0.009170	0.298879	1.793277

Annex 22-I

**Calculation of Correlation of Coefficient between
Total Deposits and Loans & Advances of NABIL Bank Limited**

Fiscal Year	Total Deposit(X₁)	Loan & Advances(X₂)	x₁ = X₁- 44078.76	x₂= X₂- 32172.72	x₁x₂	x₁²	x₂²
2007/08	31915.05	21365.05	-12163.7	-10807.67	131461434	147955889.6	116805817.3
2008/09	37348.26	27589.93	-6730.5	-4582.79	30844504.2	45299657.17	21002000.85
2009/10	46410.7	32268.87	2331.94	96.15	224206.51	5437934.84	9244.05
2010/11	49696.11	38034.09	5617.35	5861.37	32925332.6	31554598.55	34355611.39
2011/12	55023.69	41605.68	10944.9	9432.96	103243024	119791448.9	88980658.9
	44078.76	32172.72			298698501	350039529.1	261153332.5

Here,

n= Number of Year

X₁=Total Deposit

X₂= Loan & Advances

x₁=Mean of Total deposit

x₂=Mean of Loan Advances

$$r = \frac{\sum X_1 - \sum X_2}{\sqrt{(X_1)^2} \cdot \sqrt{(X_2)^2}}$$

$$r = \frac{298698501}{\sqrt{350039529.1} \sqrt{261153332.5}}$$

$$r = 0.987931$$

$$r^2 = 0.976008$$

$$P.Er = 0.007237$$

$$6P.Er = 0.043422$$

Annex 22-II

**Calculation of Correlation of Coefficient between Total Deposits and
Loans & Advances of SCBNL**

Fiscal Year	Deposit (X₁)	Loan & adv (X₂)	x₁ = X₁- 32584.796	x₂= X₂- 14457.04	x₁x₂	x₁²	x₂²
2007/08	29743.99	13718.59	-5104.49	-2553.12	13032365.3	26055818.16	6518411.52
2008/09	35350.82	13679.76	502.34	-2591.95	-1302039.16	252345.47	6718194.43
2009/10	35182.72	15956.95	334.24	-314.76	-105204.7	111716.38	99072.59
2010/11	37999.24	18427.27	3150.76	2155.56	6791658.53	9927288.59	4646447.54
2011/12	35965.63	19575.97	1117.15	3304.26	3691356.29	1248024.12	10918147.4
	34848.48	16271.71			22108136.25	37595192.71	28900273.5

Here,

n= Number of Year

X₁=Total Deposit

X₂= Loan & Advances

x₁= Mean of Total deposit

x₂=Mean of Loan Advances

$$r = \frac{\sum X_1 - \sum X_2}{\sqrt{(X_1)^2} \cdot \sqrt{(X_2)^2}}$$

$$r = \frac{22108136.25}{\sqrt{37595192.71} \sqrt{28900273.46}}$$

$$r = 0.89757$$

$$r^2 = 0.4498523$$

$$P.Er = 0.058629$$

$$6P.Er = 0.351774$$

Annex 22-III

**Calculation of Correlation of Coefficient between Total Deposits
and Loans & Advances of HBL**

Fiscal Year	Deposit(X₁)	Loan & adv (X₂)	x₁ = X₁- 38557.39	x₂= X₂- 28042.43	x₁x₂	x₁²	x₂²
2007/08	31842.79	20179.61	-6714.6	-7862.82	52795718.03	45085853.16	61824001.3
2008/09	34681.34	25519.52	-3876.05	-2522.91	9778940.81	15023763.6	6365095.05
2009/10	37611.2	27980.63	-946.19	-61.80	58478.33	895275.52	3819.73
2010/11	40920.63	31566.98	2363.24	3524.55	8329348.09	5584903.30	12422424.5
2011/12	47730.99	34965.43	9173.6	6922.99	63508796.11	84154936.96	47927873.6
	38557.39	28042.43			134471281.4	150744732.5	128543214

Here,

n= Number of Year

X₁=Total Deposit

X₂= Loan & Advances

x₁= Mean of Total deposit

x₂=Mean of Loan Advances

$$r = \frac{\sum X_1 - \sum X_2}{\sqrt{(X_1)^2} \cdot \sqrt{(X_2)^2}}$$

$$r = \frac{134471281.4}{\sqrt{150744732.5} \cdot \sqrt{128543214.2}}$$

$$r = 0.966015$$

$$r^2 = 0.933185$$

$$P.Er = 0.005943$$

$$6P.Er = 0.035658$$

Annex 22-IV

**Calculation of Correlation of Coefficient between
Total Deposits and Loans & Advances of KBL**

Fiscal Year	Deposit(X₁)	Loan & adv(X₂)	x₁ = X₁- 14692.23	x₂= X₂- 12849.88	x₁x₂	x₁²	x₂²
2007/08	12774.28	11335.09	-4203.51	-3251.86	13669221.43	17669462.69	10574606.5
2008/09	15710.93	14593.34	-1266.86	6.39	-8092.68	1604924.12	40.806544
2009/10	17432.25	14765.91	454.46	178.958	81329.97	206537.53	32025.96
2010/11	16986.28	14626.07	8.49	39.12	332.27	72.148036	1530.22
2011/12	21985.19	17614.35	5007.4	3027.39	15159404.85	25074094.82	9165138.65
	16977.79	14586.95			28902195.84	44555091.31	19773342.1

Here,

n= Number of Year

X₁=Total Deposit

X₂= Loan & Advances

x₁= Mean of Total deposit

x₂=Mean of Loan Advances

$$r = \frac{\sum X_1 - \sum X_2}{\sqrt{(X_1)^2} \cdot \sqrt{(X_2)^2}}$$

$$r = \frac{30218035.85}{\sqrt{34583310.63} \sqrt{27533484.95}}$$

$$r=0.9792690$$

$$r^2 = 0.958968$$

$$P.Er = 0.012377$$

$$6P.Er = 0.074262$$

Annex 23-I

**Calculation of Correlation of Coefficient between Deposit
and Investment of Nabil**

Fiscal Year	Deposit (X₁)	Investment (X₂)	x₁ = X₁- 44078.76	x₂= X₂- 12777.77	x₁x₂	x₁²	x₂²
2007/08	31915.05	12222.38	-12163.7	-555.388	6755579.68	147955889.6	308455.83
2008/09	37348.26	10826.38	-6730.5	-1951.39	13133820.84	45299657.17	3807915.13
2009/10	46410.7	13703.02	2331.94	925.252	2157630.30	5437934.84	856091.26
2010/11	49696.11	13081.21	5617.35	303.442	1704539.312	31554598.55	92077.05
2011/12	55023.69	14055.85	10944.9	1278.082	13988515.47	119791448.9	1633493.6
	44078.76	12777.77			37740085.6	350039529.1	6698032.87

Here,

n= Number of Year

X₁=Total Deposit

X₂= Investment

x₁= Mean of Total deposit

x₂=Mean of Investment

$$r = \frac{\sum X_1 - \sum X_2}{\sqrt{(X_1)^2} \cdot \sqrt{(X_2)^2}}$$

$$r = \frac{37740085.6}{\sqrt{350039529.1} \sqrt{6698032.87}}$$

$$r = 0.779418$$

$$r^2 = 0.607493$$

$$P.Er = 0.079468$$

$$6P.Er = 0.476808$$

Annex 23-II

**Calculation of Correlation of Coefficient between Deposits
and Investment of SCBNL**

Fiscal Year	Deposit (X₁)	Investment(X₂)	x₁ = X₁- 34952.66	x₂= X₂- 16836.67	x₁x₂	x₁²	x₂²
2007/08	29744	13902.82	-5208.66	-2933.85	15281422.59	27130159.83	8607464.09
2008/09	35871.72	20236.12	919.058	3399.45	3124293.56	844667.61	11556273.9
2009/10	35182.72	19847.51	230.058	3010.84	692668.29	52926.68	9065169.55
2010/11	37999.24	17258.68	3046.58	422.01	1285692.47	9281637.51	178094.13
2011/12	35965.63	12938.21	1012.97	-3898.46	-3949013.20	1026104.17	15197974.8
	34952.66	16836.67			16435063.71	38335495.8	44604976.4

Here,

n= Number of Year

X₁=Total Deposit

X₂= Investment

x₁= Mean of Total deposit

x₂=Mean of Investment

$$r = \frac{\sum X_1 - \sum X_2}{\sqrt{(X_1)^2} \cdot \sqrt{(X_2)^2}}$$

$$r = \frac{16435063.71}{\sqrt{383349.8} \sqrt{44604976.44}}$$

$$r = 0.397447$$

$$r^2 = 0.157964$$

$$P.Er = 0.104357$$

$$6P.Er = 0.626142$$

Annex 23-III

Calculation of Correlation of Coefficient between Deposit and Investment of HBL

Fiscal Year	Deposit(X_1)	Investment (X_2)	$x_1 = X_1 - 38557.39$	$x_2 = X_2 - 28042.43$	x_1x_2	x_1^2	x_2^2
2007/08	31842.79	20179.61	-6714.6	-7862.82	52795718.03	45085853.16	61824001.3
2008/09	34681.34	25519.52	-3876.05	-2522.91	9778940.81	15023763.6	6365095.05
2009/10	37611.2	27980.63	-946.19	-61.80	58478.33	895275.52	3819.73
2010/11	40920.63	31566.98	2363.24	3524.55	8329348.09	5584903.30	12422424.5
2011/12	47730.99	34965.43	9173.6	6922.99	63508796.11	84154936.96	47927873.6
	38557.39	28042.43			134471281.4	150744732.5	128543214

Here,

n= Number of Year

X_1 =Total Deposit

X_2 = Investment

x_1 = Mean of Total deposit

x_2 =Mean of Investment

$$r = \frac{\sum X_1 - \sum X_2}{\sqrt{(X_1)^2} \cdot \sqrt{(X_2)^2}}$$

$$r = \frac{-18576356.7}{\sqrt{150744732.5} \cdot \sqrt{1662715.06}}$$

$$r = -0.370763$$

$$r^2 = 0.137465$$

$$P.Er = 0.098103$$

$$6P.Er = 0.588618$$

Annex 23-IV

Calculation of Correlation of Coefficient between Deposit and Investment of KBL

Fiscal Year	Deposit (X₁)	Investment (X₂)	x₁ = X₁- 16977.79	x₂= X₂- 14586.95	x₁x₂	x₁²	x₂²
2007/08	12774.28	11335.09	-4203.51	-3251.86	13669221.43	17669462.69	10574606.5
2008/09	15710.93	14593.34	-1266.86	6.39	-8092.68	1604924.12	40.806544
2009/10	17432.25	14765.91	454.46	178.958	81329.97	206537.53	32025.96
2010/11	16986.28	14626.07	8.49	39.12	332.27	72.148036	1530.22
2011/12	21985.19	17614.35	5007.4	3027.39	15159404.85	25074094.82	9165138.65
	16977.79	14586.95			28902195.84	44555091.31	19773342.1

Here,

n= Number of Year

X₁=Total Deposit

X₂= Loan and Advance

x₁= Mean of Total deposit

x₂=Mean of Loan and Advance

$$r = \frac{\sum X_1 - \sum X_2}{\sqrt{(X_1)^2} \cdot \sqrt{(X_2)^2}}$$

$$r = \frac{28902195.84}{\sqrt{44555091.31} \sqrt{19773342.11}}$$

$$r = 0.973738$$

$$r^2 = 0.9481657$$

$$P.Er = 0.012377$$

$$6P.Er = 0.074262$$

Annex 24-I
Calculation of Coefficient between Investment and
Net Profit of Nabil Bank

Fiscal Year	Investment (X₁)	Net Profit (X₂)	x₁ = X₁- 44078.76	x₂= X₂- 12777.77	x₁x₂	x₁²	x₂²
2007/08	31915.05	12222.38	-12163.7	-555.388	6755579.68	147955889.6	308455.83
2008/09	37348.26	10826.38	-6730.5	-1951.39	13133820.84	45299657.17	3807915.13
2009/10	46410.7	13703.02	2331.94	925.252	2157630.30	5437934.84	856091.26
2010/11	49696.11	13081.21	5617.35	303.442	1704539.312	31554598.55	92077.05
2011/12	55023.69	14055.85	10944.9	1278.082	13988515.47	119791448.9	1633493.6
	44078.76	12777.77			37740085.6	350039529.1	6698032.87

Here,

n= Number of Year

X₁=Investment

X₂= Net Profit

x₁= Mean of Investment

x₂=Mean of Net Profit

$$r = \frac{\sum X_1 - \sum X_2}{\sqrt{(X_1)^2} \cdot \sqrt{(X_2)^2}}$$

$$r = \frac{37740085.6}{\sqrt{350039529} \sqrt{6698032.87}}$$

$$r = 0.779418$$

$$r^2 = 0.607493$$

$$P.Er = 0.079468$$

$$6P.Er = 0.476808$$

Annex 24-II

**Calculation of Coefficient between Investment and
Net Profit of SCBNL**

Fiscal Year	Investment (X₁)	Net Profit(X₂)	x₁ = X₁- 34952.66	x₂= X₂- 16836.67	x₁x₂	x₁²	x₂²
2007/08	29744	13902.82	-5208.66	-2933.85	15281422.59	27130159.83	8607464.09
2008/09	35871.72	20236.12	919.058	3399.45	3124293.56	844667.61	11556273.9
2009/10	35182.72	19847.51	230.058	3010.84	692668.29	52926.68	9065169.55
2010/11	37999.24	17258.68	3046.58	422.01	1285692.47	9281637.51	178094.13
2011/12	35965.63	12938.21	1012.97	-3898.46	-3949013.20	1026104.17	15197974.8
	34952.66	16836.67			16435063.71	38335495.8	44604976.4

Here,

n= Number of Year

X₁=Total Deposit

X₂= Investment

x₁= Mean of Total Deposit

x₂=Mean of Investment

$$r = \frac{\sum X_1 - \sum X_2}{\sqrt{(X_1)^2} \cdot \sqrt{(X_2)^2}}$$

$$r = \frac{16435063.71}{\sqrt{383349.8} \sqrt{44604976.44}}$$

$$r = 0.397447$$

$$r^2 = 0.157964$$

$$P.Er = P.Er = 0.104357$$

$$6P.Er = 0.626142$$

Annex 24-III

**Calculation of Coefficient between Investment and
Net Profit of HBL**

Fiscal Year	Investment (X₁)	Net Profit(X₂)	x₁ = X₁- 38557.39	x₂= X₂- 9859.46	x₁x₂	x₁²	x₂²
2007/08	31842.79	13340.18	-6714.6	3480.72	-23371642.51	45085853.16	12115411.7
2008/09	34681.34	8710.69	-3876.05	-1148.77	4452689.96	15023763.6	1319672.51
2009/10	37611.2	8444.91	-946.19	-1414.55	1338433.06	895275.2	2000951.7
2010/11	40920.63	8769.94	2363.24	-1089.52	-2574797.24	5584903.30	1187053.83
2011/12	47730.99	10031.58	9173.6	172.12	1578960.03	84154936.96	29625.29
	38557.39	9859.46			-18576356.7	150744732.5	16652715.1

Here,

n= Number of Year

X₁=Total Deposit

X₂= Investment

x₁= Mean of Total Deposit

x₂=Mean of Investment

$$r = \frac{\sum X_1 - \sum X_2}{\sqrt{(X_1)^2} \cdot \sqrt{(X_2)^2}}$$

$$r = \frac{-18576356.7}{\sqrt{150744732.5} \sqrt{1662715.06}}$$

$$r = -0.370763$$

$$r^2 = 0.137465$$

$$P.Er = 0.098103$$

$$6P.Er = 0.588618$$

Annex 24-IV

Calculation of Coefficient between Investment and Net Profit of KBL

Fiscal Year	Investment(X₁)	Net Profit(X₂)	x₁ = X₁- 16977.79	x₂= X₂- 2484.43	x₁x₂	x₁²	x₂²
2007/08	12774.28	2138.79	-4203.51	-345.64	1452883	17669462.69	119464.24
2008/09	15710.93	1510.83	-1266.86	-973.59	1233405.93	1604924.12	947889.17
2009/10	17432.25	2298.34	454.464	-186.09	-84569.39	206537.53	34627
2010/11	16986.28	3533.62	8.494	1049.19	8911.85	72.148036	1100808.05
2011/12	21985.19	2940.55	5007.4	456.12	2283997.14	25074094.82	208049.10
	16977.79	2484.43			4894628.54	44555091.31	2410838.57

Here,

n= Number of Year

X₁=Total Deposit

X₂= Investment

x₁= Mean of Total Deposit

x₂=Mean of Investment

$$r = \frac{\sum X_1 - \sum X_2}{\sqrt{(X_1)^2} \cdot \sqrt{(X_2)^2}}$$

$$r = \frac{4894628.54}{\sqrt{44555091.31} \sqrt{2410838.57}}$$

$$r = 0.472266$$

$$r^2 = 0.223035$$

$$P.Er = 0.218967$$

$$6P.Er = 1.313802$$