

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background

In the broadest sense investment means the sacrifice of current rupees and resources for the rupees and resources for the sake of future rupees and resources. In other words, it is co-commitment of money and other resources that are expected to generate additional money and resources in the future. Generally investment involves two important things. They are time and risk. The sacrifice takes place in the present and is certain. The rewards come later, if at all, and the magnitude is generally uncertain. Investment is the commitment of current funds in anticipation of receiving a larger future flow of funds the investor hopes to be compensated for forgoing immediate consumption for the effect of inflation, and for taking a risk. Investment or investing is a term with several closely-related meanings in finance and economics. It refers to the accumulation of some kind of asset in hope of getting a future return from it. Investment is the value of machinery, plants and buildings that are bought by firms production purposes.

Investment a means, in finance, the purchase of a financial product or other item of value with on expectation of favorable future returns. In general terms, investment means the use money in the hope of making more money.

Money committed or property acquired for future income ([www.businessdictionary.com](http://www.businessdictionary.com)) investment generally involves real or financial assets. Real investment generally involves some kind of tangible assets such land, machinery or factories, real assets used by a firm ultimately generate income whereas since investment in financial assets means buying securities or other monetary or paper assets. Financial investment involves contracts written on a piece of paper. Common stocks and bonds are financial assets. Real assets are less liquid

than financial assets. Investment involves long term commitment and waiting for a reward. Return, risk and time are the important elements of the investment. The return better known as rewards from investment include both current income & capital gains or losses that arises by the increase or by the decrease of the security price. Risk is inseparable from return. The investment must deal with both the return and the risk. Another important factor in investment is the time. Time period depends upon the attitude of the investors, who follow buy and hold policy. Investment process is concerned with how on investors make decision about what securities to invest in, how extensive this investment should make. The investment process involves the five steps- (1) Setting investment policy (2) Performing security analysis (i) Technical analysis (ii) Fundamental analysis (3) Construction of portfolio (4) Revision of portfolio (5) Evaluation of portfolio performance. Investment decision is very crucial decision among the various decision of finance.

### **Investment Analysis**

Investment is long term commitment and waiting for a reward. An investment involves the sacrifice of current rupees for future rupees so that investor have to be alert about investment of their assets. Investment analysis help them to invest. Investment analysis is an examination of corporate accounting reports to asses the value of company (CRAB). In the process of examining the investment, financial statement should be analyzed. There are three primary and interrelated financial statements. They are namely income statement balance sheet and cash flow statement. The income statement summaries the revenue receipt from the sale of firm goods and the expenses associated with sale for the given period (CRAB). The balance sheet of the company reflects the firms assets and liabilities for a given dates. The balance sheet is the picture of the company at any given point in time, (CRAB).

A study of the likely return from a proposed investment with the objective of evaluating the amount an investor may pay for it, the investment's suitability to that investor, or the feasibility of a proposed real state development. There are various methods of investment analysis, including cash on cash return payback period, internal rate of return, and net present volume. Each provides some measure of the estimated return on an investment based on various assumptions and investment horizons. ([www.answer.com](http://www.answer.com))

Banks which are established to accept and grant loan to the industries, individual and traders with a view to earn profit are known as commercial banks. Commercial banks in Nepal deserve a crucial or vital role for the economic development.

The development of country always measures by the economic indices. Nepalese economy is distinctly different in its character from the regional economics poverty less developed geographical situation, technological backwardness, land locked and dominated by two large economics India and China. Most of the population of the country is in rural areas, where there is no access of banking facilities. From the beginning of the 1970 A.D. some programs were introduced focused to poverty alleviation but did not achieve significant result in that purpose.

Nepal is one of the agro-based economy countries. To aid in the development of the country development in the field of industrial sector is of crucial importance. Hence investment on both agriculture and industrial sector is needed. To make investment, saving must be collected from the different sectors. For this purpose various banks & financial institutions are established on different sector like commercial, industrial and development etc. on both urban and remote areas. They collect deposits from different sectors and make huge amount then invest in various sectors.

The established financial system in Nepal has more history, the introduction of modern banking activities and system had been traced back to year 1937 is first promulgated during. A government institution called Tejarath Adda at the period of Ranodhip Singh who is called the father of modern banking, was established. The Tejarath Adda helped public by provided credit at 5% interest rate on the security of gold and silver ornaments and mobilized the resources.

At the developing process of financial institution to help the growing economic activities the need of banking has been increasingly realized and established a system. In 1994 B.S. the first bank of Nepal. Nepal Bank Limited was established. Nepal Rastra Bank was established as a central bank of Nepal in 2013 B.S. The second commercial bank is Rastriya Banijya Bank established 2022 B.S. in full ownership of the government. Agriculture development bank was established 2024 B.S. for providing capital & technical assistancy for the development of agriculture sector in Nepal. The Nepalese government kept on liabalizing the economical policies as a result various bank were established in public and private sector in joint venture for capital & support for the economic development of country (2065 B.S.)

As per statistical data of Nepal Rastra Bank 26 commercial banks, 59 development banks, 78 finance companies, 46 co-operatives performing limited banking transactions. After then, implementation of the liberal economic policy, foreign and private internal investment has increased and currently many banks have come into existence one after another.

## **1.2 Profile of Sampled Bank**

In this chapter it has been discussed about the profiles of concerned banks. These profiles are related to the established objectives development, capital structure, investment policy & sector and the facilities granted by the concerned banks.

### **Himalayan Bank Ltd. (HBL)**

Himalayan Bank Ltd. Is a joint venture bank with Habib Bank Ltd. Pakistan was established 1992, under the company Act 1964. The main objective of the bank is to carryout the bank activities under the bank Act. 1974. Habib Bank Pakistan has manage 20% share capital, Nepali promotes have 80% share capital and the bank has altogether 15 branches. It's authorized equity capital is 1000 million, issued equity capital is 650 million & paid up equity capital 429 million. It is taken share ownership from foreign institution 20% other licensed institution 14% general 51% & public 15%.

### **Nepal SBI Bank Ltd.**

Nepal SBI Bank Ltd. Was established in 1993 under the company Act 1964 as a fifth joint venture bank in Nepal. This is a joint venture of the state bank of India and Nepal promoters. The bank is managed by state bank of India under the joint venture and technical services agreement signed between it and Nepali promoters. The Nepal's promoters are employees provident fund and agriculture Development bank Nepal. The state bank of India is holding 50.2% equity. The head office of the bank is in Hattisar, Kathmandu. There are 19 branch offices (including extension company) of Nepal SBI Bank it's authorized capital is 1000 million issued capital is 650 million & paid up capital is 6477984 thousand. It is taken share ownership from state bank of India 50.2%, Agriculture Development Bank 5%, Employee provident fund 15%, General Public 29.98%

### **Nabil Bank Limited**

Nabil Bank Ltd. Formerly known as Nepal Arab Bank Ltd. was incorporated 11 May 1984 as the first foreign joint ventures bank in Nepal with the authorized capital of Rs. 100 million. It commenced its operation from 12 July, 1984 with the technical service assistance and 50% share of Dubai Bank Limited and remaining 50% shared among Nepal industrial development, Rastriya Beema Santhan, Nepal Stock Exchange Limited and Nepalese general public. The head office of NABIL is

in Kathmandu. The main objective of this bank is to collect deposit, provide loan and provide modern banking services to the public. The promoters and the shareholding pattern of Nabil Bank Ltd. are NB (international) limited 50%, Nepal industrial Development Corporation 10%, Rastriya Beema Sansthan 9.67%, Nepal Stock exchange 0.33, General Public 30%, share capital of NABIL Bank Ltd. (end of Aasar 2064) is authorized capital 500 million, issued capital 491654400, paid up capital 49165.44.

### **Standard Chartered Bank Ltd. (SCBL)**

Standard Chartered Bank Ltd. a subsidiary of standard Chartered group is Nepal largest international bank and has completed 23 years of operation in January 2007 the bank was established in 1987 (2043 B.S.) as a third joint venture bank in Nepal under the company act 1964 with authorized capital of Rs. 100 million issued capital of Rs. 50 million and paid up capital of Rs. 30 million its head office located in Naya Baneshwor, Kathmandu. Since July 2001, it's name changed from Nepal Grindlays Bank Ltd. to Standard Chartered Bank Limited. The promoters and shareholding pattern of its is foreign institution 75% and general public 25% share capital of Nepal SCBL (end of Aasar 2064) is taken from authorized capital Rs. 1000 million, issued capital Rs. 500 million paid up capital Rs. 413254800.

### **Machhapuchhre Bank Limited (MBL)**

Machhapuchhre Bank Limited was registered in 1998 as the first regional commercial bank to start banking business from the western region of Nepal with its head office in Pokhara. Today with a paid up capital of above 820 million rupees. It is one of the full fledged commercial bank operating in Nepal and it ranks in the topmost among the private commercial banks. It is rewarded by ISO 9001-2000. It is the pioneer in introducing the latest technology in the banking industry in the country. It is the first bank in Nepal to introduce centralized banking software named BLOBUS BANKING SYSTEM developed by Temenous N, Switzerland. Currently it is using the latest version of BLOBUS, referred as T-24 Banking

system to its valued customers. It is taken share ownership (End of the Aasar 2063) from industrial 74.86% & other institution 25.14%.

### **1.3 Focus of the study**

The main focus of the study is to highlight the investment policies of five commercial banks namely, Nabil Bank Ltd., SBI bank Ltd., Standard Chartered Bank Ltd., Himalayan Bank Ltd., Machhapuchchre bank Ltd. Expecting that they study on bridge the gap between deposit and investment policies. Past, present as well as future analysis are carried out. The study would provide information the management of the banks that would help them to corrective action. For this, different tools of analysis are use and preserve remedial measure to improve the investment policies of five banks.

### **1.4 Statement of the Problem**

In Nepal, after the economic liberalization many joint venture banks have emerged. Currently establishment of joint venture banks in various numbers have drastically made changes over the financial system of Nepal. Though the flow of money in the market is high still they are not fully utilize in absence of better investible project. Increasing trend of banking institution brought into existence of such idle moneys utilization to a great extent. Most of the existing commercial banks are making profit and has been satisfying their share holders. Thus this has attracted the potential customers to power their money into banks, as they are very few sectors to make a profitable investment and the potential investor are always reluctant to risk. That is the reason commercial banks have a lot of deposits but very low interest. Lake of sound investment policy is another reason for a commercial bank not to properly utilizing its deposits that is making loan and advances or lending for a profitable project. Existence of this kind of kind of condition will lead the commercial bank to the position liquidation. They are facing much difficulty in

mobilizing their deposits on the profitable investment which leads them to achieve not sufficient return from the investment and satisfy their shareholders.

Many studies are completed on the investment analysis and related topic in the national international era as well. The joint venture banks are to manage invest in different sectors. Although the joint venture banks have manage to perform better than the local commercial banks within short span of time. They have been facing highly competition against one another the interest rate of the banks have been decrease and mobilized resources are mostly idle. Commercial banks of Nepal also have failed to fulfill the growing need of customers. They are operating in traditional ways and failed to meet customer's expectation of fast service. Commercial banks in Nepal are expected to mobilize the passive funds towards trade and commerce to provide economic assistance to entrepreneurs and to create saving habits in public. Activities of commercial banks are fulfilling the growing need of funds required for development of country. There is high competition among joint venture banks and other commercial banks. Due to decreasing interest rate the depositor are discourages. In view of these problems this study is directed towards the following research problem:

- ) How is the liquidity position of the different banks
- ) What is the relationship between investment and loans and advances with total deposits and total net profit ?
- ) How is the effectiveness of fund mobilization and applied investment policy ?
- ) What is the effect of the investment decision to the total earning of the bank ?
- ) How is the proper utilization of the available fund ?
- ) What are the associated risk return with the investment in the financial assets ?
- ) How is the relationship of investment with the financial variables like liquidity, profitability, tax provision and interest paid according to the correlation analysis ?
- ) What is the investment criteria of the commercial banks in Nepal ?



- ) What is the proportion of the non-performing assets of the bank ?
- ) What is the growth trend of the investment and its associated factors in different commercial banks in Nepal ?
- ) What are tools and technique for evaluate performance ?
- ) Based on the problem how those banks evaluate investment risk ?

### **1.5 Objective of the Study**

The main objective of this study is to analyze investment policy of commercial banks. Other specific objectives are as follows:-

- ) To examine the liquidity positives of selected banks.
- ) To examine the profitability of selected banks
- ) To examine the assets management of selected banks.
- ) To examine the criteria of the investment of Nepalese commercial banks.
- ) To examine the relationship of different variables like:- correlation coefficient between total deposit and loan & advance, correlation coefficient between profitability & liquidity of selected banks.

### **1.6 Significance of the Study**

It is fact that the banks affect the economic condition of whole country in the absence of study and research it is difficulty to know what is the exact economic condition and how to take decision about it.

For provided exact information & data to concern institution, bank, shareholders, persons and also get information for take decision for various ways. The proper mobilization of domestic resources becomes indispensable for any developing country aspiring for a sustainable economic development. There is no doubt that JVBs have vital role in the mobilization and utilization of scattered resources of a nation. NABIL, HBL, MBL, SBI Bank Ltd, SCBL are pioneering JVBs of country. The prosperity of the five JVBs will naturally have a positive impact on the

economic development of the country and vice-versa. In conclusion the importance of the study focuses at the following points.

- ) It will be helpful to concern financial institutions.
- ) It will be valuable property for decision making
- ) It will be benefited to lenders and borrowers of the banks.
- ) Other concerned parties who interested of these banks
- ) It will be benefited to customers of those banks.
- ) It provides various information & data to required persons, readers, shareholders, decision-makers, traders, investors, economic planners etc.

By the above points it helps to study all economic condition of nation.

### **1.7 Limitation of the Study**

In the context of Nepal problem is major problem for study. There is a considerable place a arguing about its accuracy and reliability. This research has been conducted to fulfill the requirement for the Master Degree of Business Studies (MBS). It is, therefore, an action oriented research. It does not focus much on fundamentals issues. Although this research will be helpful to know the economic condition of nation but it is not covered whole sector due to lack of resources, finance & time constraints etc. It has covered mini data of only investment policy of concern bank absence of current data information & other required resources it can't fulfill every aspects of country. There are many limitations, which weaken generalization eg. Period taken and other variables. Generally the limitations of this study are as follows:-

- ) For completion of the study the researcher have boundary.
- ) Required data & information may not be able to collect by different sources due to the lack of resources.
- ) The collected data and information from different sources covered by only 5 years.

- ) The analysis is mainly based on the secondary data therefore reliability of the result depends upon the data.
- ) Out of various banks of finance institutions, only HBL, SBI, NABIL, SCBL, MBL banks are taken as sample.

### **1.8 Organization of the Study**

This study has been divided into five chapters, each devoted to some aspects of the study of the investment analysis of commercial banks (Five banks). The titles of each of the chapter are as follows:-

- Chapter One** – Introduction
- Chapter Two** – Review of Literature
- Chapter Three** – Research Methodology
- Chapter Four** – Data Presentation and Analysis
- Chapter Five** – Summary, Conclusion and Recommendation

**Chapter One** – This chapter deals with the general background of study with the subject matter of study. This chapter includes profile of concern bank, statement of the problem, objective of the study, significance of the study, limitation of the study, function of the bank, focus of the study, organization of the study.

**Chapter Two** – This chapter's titled review of literature. Conceptual framework, characteristics of good investment policy, investment portfolio management & portfolio theory, capital assets pricing model, portfolio management, review of books, review of previous thesis, review of articles, concluding remarks have been stated.

**Chapter Three** – This chapter deals, research design, sources of data, population & sample, method of analysis, data collection method, limitation of the methodology.

**Chapter Four** – This chapter deals with systematic presentation and analysis of data. Various financial and statistical tools & techniques have been used to analysis and interpret the data. This chapter is the key chapter for the present study. This is the analyzing chapter concern with the analysis of different financial ratios related to the investment policy. It also presents the results relating to investment analysis.

**Chapter Five** – Lastly, this chapter includes summary of the whole study and state main finding along with various suggestions and recommendations for improving future performance of the banks and conclusion drawn from the study.

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

# CHAPTER TWO

## REVIEW OF LITERATURE

Review of literature means reviewing research studies or other relevant preparation in the related area of the study. So that all past studies, their conclusions and deficiencies may be known and further research can be conducted (Pant: 2003). This chapter high lights upon the literature that have already been conducted by some thesis researchers in this particular topic of commercial banks. It means prior to this study, various students regarding various aspects of banking have conducted several thesis works. Likewise, different persons regarding commercial banks and their activities, on, journals, booklets, magazines etc. have expressed numerous views and opinions. The review of literature has been described in four sections. Section 1: presents a discussion of the conceptual framework. Section: includes the review of empirical work. Section 3: describes about the review of Nepalese study and finally. Section 4: includes concluding remarks of above three sections.

### **2.1 The conceptual Framework**

An investment involves the sacrifice of current rupees for future rupees. The sacrifice takes place in the present and certain. The reward comes later and is uncertain. According to F. Amling “investment may be defined as the purchase by an individual or institutional investor of a financial or real asset that produces a return proportional to the risk assumed over some future investment period.”

According to Donald E. Fisher and Ronald J. Jordan “An investment is a commitment of funds made in the expectation of some positive rate of return. If the investment is properly undertaken, the return will be commensurate with the risk the investor assumes”. Investment, in its broadest sense, means the sacrifice of current dollars for future dollars. Two different attributes are generally involved:

time and risk. The sacrifice takes place in the present and is certain. The reward comes later if at all and the magnitude is generally uncertain. (William F. Sharpe)

***Return, Risk, Time elements are involved in investment.***

**Return:** Investors may buy and sell financial assets in order to earn returns on them. The return better known as reward from investment includes both current income and capital gains or losses that arise by the increase or decrease of the security price.

**Risk:** Risk is inseparable from return. Risk is quantity in term of statistical terms. The investment process must be considered in terms of both aspects risk and return.

**Time:** another important factor in investment is the time, which offers several different sources of action. The time period depends on the attitude of the investors who follows a buy and hold policy.

An investment is a commitment of money that is expected to generate additional money. Every investment entails some degree of risk, it requires a present certain sacrifice for future uncertain benefits. There are various ways to select the investments that will provide the maximum future return at an acceptable level of risk. It examine such marketable financial instruments as common stools, preferred stocks, bonds, put options, call options, combination options. (Jack Clark Francis)

Investment generally involves real assets or financial assets. Real assets represent actual tangible assets that may be seen felt, held or collected. For examples building, automobiles, machinery, factories and textbooks. A financial asset represents a financial claim on an asset that is usually documented by some from of legal representation.

Analysis is the detail study or examination of something in order to understand about it.

## **2.2 Characteristics of Good Investment Policy**

There are some of the main characteristics of good investment policy, which are as follows:-

2.2.1 Liquidity

2.2.2 Profitability

2.2.3 Safety and security

2.2.4 Suitability

2.2.5 Diversification

### **2.2.1 Liquidity**

Liquidity refers to the capacity of the bank to pay cash against deposits. Having confidence that the bank will repay their money wherever it is needed people deposits money at the bank in different accounts. In order to maintain the confidence to the depositors, bank must be prepared with sufficient degree of liquidity of its assets. Once the confidence is lost in view of depositors, they may withdraw all their deposits within a brief period without giving any chance the bank to manage. So, to maintain the confidence of the depositors, the bank must keep this point while investing its excess fund in different securities or at the time of investing as that it can meet the readily demands for cash made by customers

### **2.2.2 Profitability**

Bank should invest their fund where they earn maximum profit. Banks built up their capital accept deposits from depositors and issued of share and debenture from shareholders who contribute interest and dividend. The profit of banks mainly depend on the interest rate, volume of loan, time period and nature of investment in different securities.

### **2.2.3 Safety and Security**

While investing its funds the bank should recognize those person who are speculative businessman, who may be bankrupt at once and who may earn million

in a minute also. The bank must not finance its fund to those people at all. Only commercial durable, marketable and high market valued securities should be accepted. The bank should never invest its fund in those securities that are too volatile since a little difference may cause the great loss.

#### **2.2.4 Suitability**

Bank should know that why a customer needs loan or it is for appropriate purpose or not. If the borrower misuses the loan granted by bank, he will never be able to repay the loan which poses heavy bad debts to bank. In order to avoid such a situation, advances should be allowed to selected and suitable borrowers and necessary all detailed information about the scheme of project or activities should be demanded and it should be examined before investing. Suitability is one of the important factors for investment.

#### **2.2.5 Diversification**

Diversification of loan helps to sustain loss to the law of averages because if securities of a company are deprived, there may be appreciation in the securities of other companies. This can minimize the loss. So in order to minimize risk a bank must diversify its investment on different sectors.

### **2.3 Investment Portfolio Management and Portfolio Theory**

A portfolio is a combination of investment assets. The portfolio is the holding of securities and investment in financial assets i.e. bond, stock, portfolio management is related to efficient portfolio investment in financial assets.

Harry M. Markowitz developed portfolio theory which appeared in the journal of 1952. Portfolio theory allows investors to estimate both the expected risk and returns as measured statistically for their investment portfolios. ([www.riskglossary.com](http://www.riskglossary.com))



Markowitz described how to combine assets into efficiently diversified portfolios. It was his positions that a portfolios risk could be reduced and the expected return could be improved if investment having dissimilar price movements were combined.

An investors will choose his or her optimal portfolio from the set of portfolios that

- 1) Offer maximum expected return for varying level of risk.
- 2) Offer minimum risk for varying levels of expected return. (William F. Sharpe)

## **2.4 Review of Previous Thesis**

**Pant, (1996)** in his thesis paper “A study of Banks deposits and its utilization” has tried to make an attempt to highlight the discrepancy between resource collection and its utilization. Further he is trying to trace the availability of funds in the banks to invest. After going through the detailed study of the above areas he got to conclusion that banks are being failure in resource utilization the reasons there on is due to their lending confirmed for short-term only. So, he recommended that banks should give emphasis on long term lending too, for sound utilization of the deposits.

**Pradhan, (1980)** in his thesis “A study on investment policy of Nepal Bank Ltd.” has concluded that to maintain sound relationship between deposits and loan and advances. In his 6 year’s period study he conclude that loan and advances as well as deposits are increasing by the pace of each year, however their increasing is not in a proportionate manner, Immense increase in the deposits and led to little increase in loans and advances without its lengthy process and also suggested for extending banking transaction towards rural sectors of the kingdom Mr. Khadka in his thesis, “A study on investment policy of NABIL in comparison to other joint venture banks of Nepal.” (Khadka, 1998) has suggested that JVBs to careful in increasing profit in real sense to maintain the confidence of shareholders depositors and customers. He has strongly recommended NABIL to utilize its risks assets and shareholders fund to gain highest profit margin and reduce its expenses and collect

cheaper fund for more profitability. He has recommended investing its fund in different sectors of investment and administering various deposits schemes to collect fund such as cumulative deposits scheme etc. He has recommended that to be success in competitive banking environment, deposit's money should be utilized as loans and advances, since, the target item of the bank in assets side is loan and advances, negligence in administering this asset could be the main course of a liquidity crisis in the bank and one of the main reason of a bank failure.

**Ojha, (1997)** in her thesis paper “A study on priority Sector investment in banks” (Ojha, 1997) that the banks are unable to meet the requirement of 12% lending in priority sectors as set under NRB directives. As her 5 years study period she has further found that low interest rate in priority sector but increasing trend of overdue and its misutilization. She has pointed out to give more emphasis on the improvement of sound supervision, evaluation of borrower's paying capacity and reduction of overdue through integrated program of priority sector loan as main recommendation of the research.

**Yadav, (2002)** has done analysis of saving, investment and capital market and its various determinator of Nepalese enterprise by using the properties of portfolio formed on saving investments and capital formation. This study has examined the relationship between saving investment and capital formation through regression analysis taking 39 enterprises from the fiscal years 1995/1996 to 1999/2000. His study has revealed positive relationship between saving and GDP. Investment and GDP, capital formation and GDP and these variables has positive relation with tax revenues, foreign and exports.

**Chetry, (2003)** is thesis paper “Portfolio theory in financial institution of Nepal” Chetry found three objectives by researching in this thesis. Studying the portfolio theory in financial institution of Nepal Chetry found that the portfolio risk of 15 financial institution were diversified. Second he found that the portfolio risk of 15

financial institution were less than the average risk of the average risk of the fifteen financial institution in Nepal and the third he found the relationship between risk and return was negative for insurance and finance company whereas banking industry shows positive relationship between risk and return.

**Pandey, (2006)** in her thesis paper “Investment analysis of the commercial Banks in Nepal.” The researcher objectives are listed below:-

- 1) Mobilization of six banks deposits on loan and advances.
- 2) Liquidity ratio of the six banks.
- 3) The assets of six banks one efficiently utilize.
- 4) To develop alternative investment strategies for selecting a better portfolio which will ensure a trade-off risk and return.
- 5) Investment has positive relation with the probability and the negative relation with the tax paid.

**Singh, (2007)** in her thesis paper “Investment policy of commercial banks in Nepal.” In this thesis she has been use SCBL, NABIL and HBL with comparative study under 5 years study period from 2000 to 2004. Major finding derived from the analysis by using different financial tools and statistical tools.

Current ratio cash and bank balance to total deposit ratio cash and bank balance to current assets ratio, investment on government securities to total assets ratio etc. has been analyzed. Mobilization of three bank total working fund on loan and advance.

## **2.5 Review of Articles**

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

**Pradhan, (1991)**, in this article “Nepal ma Baniya Bank Upalabdhhi Tatha Chunauti”, concluded some major issue in local banks in comparison of recently established joint venture banks. The study deals with the whole banking system of Nepal in respect of their performance and profitability. Some of his finding, relevant to this study is given as-

- ) The deposit collection rate of local banks is very poor in comparisons to joint venture banks.
- ) The patterns of deposit are also different between these banks. The ratio of current deposit in local banks is 9.34% only where the same as the joint venture banks is 52.5%. But the fixed deposit ratio is very high in local banks.

**Shrestha, (1998)** in this article, “Portfolio management in Bank Theory and practices” In case of investors having lower income portfolio management may be limited to small saving incomes. But, on the other hand, portfolio management means to invest fund in various schemes of mutual funds like deposits, shares and debentures for the investors with surplus income. Therefore, portfolio management becomes very important both for individual as well as institutional investors would like to select a best mix of investment assets.

**R. Sharma, (1998)** in his article “Nepal, co-existing or Crowding out” pointed out that it would be definitely unwise for Nepal not to let the JVBs to operate in the country and not to take advantage of them as additional means of resources mobilization as well as harbinger of new era in banking. But it will certainly be unfortunate for the country to develop the JVBs at the cost of domestic banks. So far, one should admit frankly no differential treatment has been extended to the domestic and JVBs at least from the government’s side which is commendable. If the government keeps on the attention of treating the domestic and JVBs equally deposit the letter’s bargaining strength and if the JVBs also show their alacrity to come forward to share the trials and tribulations of this poor country, both types of banks will

coalesce and coexist complementing each other and contributing to the nation's accelerated development. On the country, if the JVBs use their strength against treading into the cumbersome path of development along with the domestic banks and the government they will eventually crowd out the domestic banks from the more profitable urban areas and lucrative urban sectors unless reined by the determination of the government.

**Ghimire, (1999)** has mentioned in his article "*Banijya Bank haru Prathamikta chhetra ma lagani garna bhanda harjana tirna tayar.*" That most of banks of Nepal are ready to pay the penalty in spite of investing in rural, priority sector, poverty stricken and deprived in spite of investing in rural, priority sector, poverty stricken and deprived areas. In the directives of Nepal Rastra Bank it is clearly mentioned and directed that all the banks (Under NRB) should invest 12% of its total investment to the priority sectors. Out of this 12%, they should invest 3% to the lower level class of countrymen. However those banks are unable to meet the requirement of NRB.

**Scort Harrington and Greg Niehaus (2003)** "Risk management and insurance Review." Risk management refers to the management of so-called pure risks, eg, losses from property damage liability suits and worker injuries. These risk typically are managed through a combination of loss control (efforts to reduce the likelihood or magnitude of losses) and loss financing through internal retentions or the purchase of insurance.

**Regmi, (2046 B.S.)** has indicated in his article "Aarthik Mimangsa" has concludes that all the commercial banks were found problematic due to the combinations of various factors. But problems with credit have become common in majority of the cases. Credit management could not be seen sufficiently robust to prevent poor lending practices excessive loan concentration, excessive risk taking and overriding existing policy and procedures. As result quality of assets started to deteriorate,

profitability ratio reduced, liquidity crunched, capital position deteriorated and finally turned to problematic.

“In business the purchase by a producer of a physical good, such as durable equipment or inventory, in the hope of improving future business called investment.” ([www.google.com](http://www.google.com), 2009)

“In finance, the purchase of financial product or other item of value with an expectation of favourable future returns. In general terms investment means the use money in the hope of making more money.” ([www.google.com](http://www.google.com), 2009)

“Investment analysis is examination and assessment of economic and market trends, earnings prospects, earnings ratios, and various other indicators and factors to determined suitable investment strategies.” ([www.google.com](http://www.google.com), 2009)

“Investment analysis is in the accounting and auditing, investing and statistics, mathematics and analysis subjects.” ([www.google.com](http://www.google.com), 2009)

## **2.6 Concluding Remarks**

Through the past researches the thesis got a bundle of helps and ideas to get success in the motto of study, most of the investment objective is to increase systematically the individual wealth. An investors get return as their face level of risk. Investment is long term commitment and waiting for reward. An investment involves the sacrifice of current rupees for future rupees. The sacrifice takes place in the present and is certain. The reward comes later and is uncertain. It is very important to understand the various determinants of investment and its behaviour in the course of development.

Researcher explained and presented the portfolio theory, lending in priority sector, analysis of saving, investment and capital market and its various determinations. During the trend analysis some researcher had presented only comparing few banks,

comparison with two or maximum three, which not sufficient to compare in an overall macro level most of the empirical studies are however devoted in testing econometric model and ratio analysis the overall picture that involves from the empirical literature is that the bank should focus on the efficient utilization of resources and that after the liberalization policies banks has been expanded.

The general conclusion that. Emerges above the studies is that investment cannot be determined by single factor, and only profit does not reveal the financial performance of any organizations. On the other hand, in the empirical literature consideration attention has been paid to analyze the investment and its associated financial factors. Financial performance should be judged on the basis of profit along with discharging responsibilities like deposit mobilization, resource mobilization, employment generation. Service to client and so on finding in general has revealed strong positive association between the investment and its determinants and the policy like liberalization and globalization.

Nepal has also followed a policy of liberalization privatization and globalization. Considering the above mentioned studies in the context of Nepal, it has now become necessary to find out whether these findings are still valid. Thus this study of investment analysis of commercial banks in Nepal may be very rewarding.

Previous researchers have presented investment analysis of few banks but I have taken 5 banks most of the researchers have failed through analysis. They did not predict any assumption, which are meaningful during the analysis.

In this thesis overall macro banking condition is revealed and placed some of the assumptions which are important for the banks.

In my view, this research is more comparative illustrative and descriptive than done before. As this research includes secondary data for further analysis, which is more practical formal and scientific. The bank selection in this research is limited within

two banks only. It has involved atleast five. In spite of there are many obstacles of getting information and primary data from the banks due to security awareness and therefore much information are based from their annual reports brochure newsletters and data available in website. A deep consideration is being made to select the banks for investment analysis. Out of twenty six commercial banks in Nepal, the study covers only five of them, due to incalculability of required data and time constraint.

Most of the researchers have applied the financial tools on surface or in aggregate so these researchers could not reach to the depth of the study. They did not predict any assumption, which are meaningful during the analysis. But this study has been tried to full x-ray the investment analysis of five joint venture commercial banks by applying various financial as well as statistical tools and techniques in effective manner along with well trained and experienced lectures idea. So I think this research becomes successful research to fulfill the gap between this research and previous researches.



# **CHAPTER THREE**

## **RESEARCH METHODOLOGY**

Research is a common refers to a search for knowledge. According to P.V. Young “Research may be defined as the systematic method of discovering new facts or verifying old facts, their sequences, interrelationships casual explanation and the natural laws which govern them.”

Research methodology is a way to systematically solve the research problem. In it we study the various steps that are generally adopted by a researcher, studying this research problem among with the logical behind them. Research methodology is the process of arriving at the solution of the problem through planned and systematic dealing with collection, analysis and interpretation of facts and figures “Research methodology refers to the various sequential steps to be adopted by the researcher in studying a problem with certain object in view” (Kothari 1989). Research methodology describes the methods and processes applied in the entire aspect of the study. Thus, it is a way to solve the research problem systematically and it considers the logic behind the methods used in the context of research study and explains why particular method or technique is used.

Good and proper methodology is needed to carry out study works smoothly and to visualize all the works clearly. Main aim of, this research is to evaluate and analysis of investment of five selected banks. This chapter contains the discussed about the methods and processes that has been used for the study and analysis of the investment strategy of given banks. This chapter highlights the research design, source of data, population and sample, method of data analysis used in this study for the investment analysis of commercial banks.

### **3.1 Research Design**

A research design is the arrangement of conditions for collecting and analysis of data. It is the plan, structure and research question and to control variances are obtained. According to cook, “A research design is the arrangement of condition for collecting and analysis of data in a manner that aims to combine relevance to the research purpose with economy is procedure.” Likewise according to Wolff and Pant “The research design services as a frame work for the study guiding the collection and analysis of the data.

In order to complete the research work, a well the out research design is necessary which makes the study easy and fulfills the objectives of the study. As the purpose of this research is to make a investment analysis of five commercial banks it has been designed in a correlation format. Several relative variables were assessed to make an analysis of their relative investment status and standing. Descriptive as well as analytical research will be applied in this study to clarify the situation through presentation and analysis of various data. Descriptive research design has been utilized for conceptualizing and analytical research design for investment analysis of different banks and analyze the relationship with the capital assets pricing model and other different variables.

Therefore, the study is based on the descriptive and analytical research design.

### **3.2 Nature and Source of Data**

#### **1) Secondary Data**

Data collection is the blood of any research. The present study is mainly based on the secondary data relating to the financial statement as they are readily available at the banks concerned. Other necessary secondary data are obtained from the different sources. So the major sources of secondary data for this study are as follows:-

) Annual reports of various banks

- ) Reports of NRB
- ) NEPSE reports
- ) Websites of related bank

All the secondary data are compiled, processed and tabulated in the time as per need and objective. Questionnaire and interview also conducted if adequate information are not available form secondary data.

### 3.3 Population and Sample

A small portion taken from the lot to know the characteristic of the universe (population) is called sample. For example a physician takes a little amount of blood for blood testing a customer takes a handful of rice from a sack to know the characteristic of the lot. According to good Hatt “A sample as the name implies is the smaller representation of a large whole. “Whole portion is taken to know the character is called population.

Twenty-six (26) commercial banks operating in Nepal and five commercial banks namely NABIL Bank, SBI Bank, HBL, SCBL, MBL are taken as a sample of the study on the basis of judgment sampling.

*The list of licensed commercial banks in Nepal is as follows:-*

| S.N | Name of Bank                 | Head Office               | Operating Date | Paid Up capital (Rs.) |
|-----|------------------------------|---------------------------|----------------|-----------------------|
| 1   | Nepal Bank Limited           | Dharmapath,<br>Kathmandu  | 1994/07/30     | 3408                  |
| 2   | Rastriya Banijya Bank        | Sinhadarbar,<br>Kathmandu | 2022/10/10     | 11723                 |
| 3   | Agriculture Development Bank | Ramshahpath,<br>Kathmandu | 2024/10/07     | 107775                |

|    |  |                               |            |       |
|----|--|-------------------------------|------------|-------|
| 4  | Nabil Bank Ltd.                            | Kantipath,<br>Kathmandu       | 2041/03/29 | 14491 |
| 5  | Nepal Investment Bank Ltd.                 | Darbarmarg, Ktm.              | 2042/11/26 | 24071 |
| 6  | Standard Chartered Bank<br>Ltd.            | Nayabaneswor, Ktm.            | 2043/10/16 | 13985 |
| 7  | Himalayan Bank Ltd.                        | Thamel, Kathmandu             | 2049/10/05 | 16000 |
| 8  | Nepal SBI Bank Ltd.                        | Hattisar, Kathmandu           | 2050/03/23 | 8745  |
| 9  | Nepal Bangladesh Bank<br>Ltd.              | Nayabaneswor, Ktm.            | 2051/2/23  | 18603 |
| 10 | Everest Bank Ltd.                          | Lajimpat,<br>Kathamndu        | 2051/07/01 | 8305  |
| 11 | Bank of Kathmandu Ltd.                     | Kamaladi,<br>Kathamndu        | 2051/11/28 | 11822 |
| 12 | Nepal Credit and<br>Commerce Bank Ltd.     | Siddharthanagar,<br>Rupandehi | 2053/06/28 | 13996 |
| 13 | Lumbini Bank Ltd.                          | Narayangadh,<br>Chitwan       | 2055/04/01 | 12880 |
| 14 | Nepal Industrial &<br>Commercial Bank Ltd. | Biratnagar, Morang            | 2055/04/05 | 13918 |
| 15 | Machhapuchhre Bank Ltd.                    | Prithichowk,<br>Pokhara       | 2057/06/17 | 17000 |
| 16 | Kumari Bank Ltd.                           | Putalisadak,<br>Kathamndu     | 2057/12/1  | 33049 |
| 17 | Laxmi Bank Ltd.                            | Adarshnagar, Parsa            | 2058/12/21 | 15337 |
| 18 | Siddhartha Bank Ltd.                       | Kamaladi, Kat.                | 2059/09/09 | 12300 |
| 19 | Global Bank Ltd.                           | Birgunj, Parsa                | 2063/09/18 | 13251 |
| 20 | Citizens Bank International<br>Ltd.        | Kamaladi,<br>Kathamndu        | 2064/01/07 | 11591 |

|    |                                 |                           |            |       |
|----|---------------------------------|---------------------------|------------|-------|
| 21 | Prime Bank Ltd.                 | Nayasadak,<br>Kathamndu   | 2064/06/07 | 11938 |
| 22 | Sunrise bank Ltd.               | Gairidhara,<br>Kathamndu  | 2064/06/25 | 14194 |
| 23 | Bank of Asia Nepal Ltd.         | Tripureswor,<br>Kathamndu | 2064/06/25 | 10532 |
| 24 | Development Credit Bank<br>Ltd. | Kamaladi,<br>Kathamndu    | 2065/02/12 | 16553 |
| 25 | N.M.B Bank Ltd.                 | Babarmahal,<br>Kathamndu  | 2065/2/20  | 14300 |
| 26 | Kist Bank Limited               | Anamnagar,<br>Kathamndu   | 2066/01/22 | 20000 |

*Source: [www.nrb.com.np](http://www.nrb.com.np)*

There are many joint venture banks established in Nepal. Taking all those banks for the study will make job tedious too large because all this things may be this report cannot meet the objective of study. So to avoid all those problems, this study is done taking only five (5) banks as the research sample they are as follows:-

(1) Himalayan bank Limited (2) Nepal SBI Bank Ltd. (3) Nabil Bank Ltd. (4) Standard Chartered Bank Ltd. (5) Machhapuchhre Bank Ltd.

### **3.4 Method of Data Analysis**

Various statistical tools and financial tools as well are used in order to analyze and interpret the collected data. It has been arranged in a proper form presentation analysis of the collected data is the core of the research work. Collected raw data was first present in the systemic manner in tabular form was analyze by applying different statistical and financial tools to achieve the research objectives. Under financial tools differential ratios.

In this study various financial, statistical tools have been used to achieve of study. The analysis of data is according to available of data. The various tools applied in this study are presented as follows:

### **3.4.1 Financial Tools**

Financial tool is used to analysis financial strength and weakness of bank for these purpose financial tools like ratio analysis has been used. A ratio simply one number expressed in term of another and such it expresses in term of percentage proportion and as coefficient. It is a way of comparing and investigating the relationship between different pieces of financial information.

#### **Ratio Analysis**

Ratio is the mathematical relationship between two accounting figures. According Kathari 1984 “Ratio analysis is a part of the whole process of analysis of financial statement of any business or industrial concern especially to take output and credit decisions.” Therefore, ratio analysis is comparing a firm’s financial performance and status to that other firm’s or to itself of different time. Qualitative judgment of a firm can be done with the help of ratio analysis.

There are many ratios to compare of firm’s financial performance and status but have only those ratios have been covered which are related to investment operation of the bank, this study contains following ratios.

#### **3.4.1.1 Liquidity Ratio**

Liquidity ratios are used to judge the ability of banks to meet its short term liabilities that are likely to mature in the short period. It is measurement of speed with which a bank’s assets can be converted into cash to meet deposit withdrawal and other current obligations the assets that can be converted into cash quickly without having to reduce the asset’s price very much is liquid asset. “The liquidity

ratio measure the ability of a firm to meet its short term obligation and reflect the short term financial strength/solving of firm.” (Khan and Jain, 2000, 4:3)

Liquidity ratios are used to assess the ability of a bank to meet its short term obligation. These ratios make comparison between short term resource and short term obligation banks must maintain adequate liquidity ratio should neither be inadequate nor high. If the liquidity ratio of the bank is not enough, it will result in bad credit ratios less creditors, confidence, eventually may lead to the bankruptcy. If the company has high degree of liquidity funds, it will be unnecessarily tied up in current assets. Thus the bank should be maintaining proper balance between inadequate liquidity and unnecessary liquidity for the survival and for avoiding the risk of insolvency. For the study purpose, the following probability ratios have been calculated:

**a) Current Ratio:**

This ratio shows the bank's short term solvency. It shows the relationship between current assets and current liabilities. This ratio is computed as:

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

Current assets include cash and bank balance money at call or short notice, loan and advances, investment of government securities and other interest receivables overdrafts, bill purchased and discounted and miscellaneous current assets.

Similarly, current liabilities include deposits and other short-term loan, bill payable, tax, provision staff bonus, dividend payables and other miscellaneous current liabilities.

The accepted standard of current ratio is 2:1 but accurate standard depends on circumstances in case of seasonal business ratio and the nature of business.

**b) Cash and Bank Balance to Total Deposit Ratio**

It is also called the cash reserve ratio. Cash and bank balance are the most liquid current assets. This ratio measures the percentage of most liquid fund with the bank to make immediate payment to the depositor. This ratio is computed by dividing cash and bank balance by total deposit.

This can be presented as:

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

Hence, cash and bank balance includes cash in hand foreign cash on hand, cheque and other cash item, balance with domestic banks and balance held in foreign banks. The total deposit encompasses current deposits saving deposits fixed deposits, money at call or short notice and other deposits.

**c) Cash and Bank Balance to Current Assets Ratio**

This ratio measures the proportion of most liquid assets i.e cash and balance among the total current assets of bank. Higher ratio shows the bank ability to meet demand for cash. This ratio is computed by dividing cash and bank balance by current assets. This can be stated as,

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

**d) Investment of Government Securities to Current Assets Ratio**

This ratio is calculated to find out the percentage of current, assets invested in government securities i.e. treasury bills and development bonds. This ratio is computed by dividing investment on government securities by current assets, we can state it as,

$$\text{Investment of Government Securities to Current Assets Ratio} = \frac{\text{Investment on government Securities}}{\text{Total Current Assets}}$$



Here, investment on government securities includes treasury bills and development bonds etc.

#### **3.4.1.2 Assets Management Ratio**

Assets Management ratio measures how efficiently the bank manager the resources as its command. “Activity ratios are employed to evaluate the efficiency with the firm manages and utilizes its assets.” (I.M. Pandey, 1991:125)

This ratio measures the efficiency of the bank to manage its assets in profitable and satisfactory manner. A commercial banks must be able to manage to its assets properly to earn high profit to profit to satisfy its customer and for its own existence.

Through the following ratios the efficiency of the banks to manage its assets in profitable and satisfactory manner will be examined.

##### **a) Loan and Advances to Total Deposit Ratio**

This ratio is calculated to find out how successfully the banks are utilizing their total deposits on loans and advances for profit generating propose. Higher ratio implies the better utilization of total deposits. This can be obtained by dividing loan and advances by total deposits, which can be stated as,

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

##### **b) Total Investment to Total Deposit Ratio**

Investment is one of the major credits created to earn income. This implies the utilization of firm’s deposit on investment in government securities and shares debentures of other companies and bank High ratio indicates that bank’s success in utilization of deposits and vice-versa. This ratio can be obtained by dividing total investment by total deposit. This can be mentioned as,

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

The numerator consists of investment on government securities, investment on debenture and bonds shares in other companies and other investment.

**c) Loan and Advances to Total Working Fund Ratio**

Loan and advances is the major component in the total working fund (Total Assets, which indicates the ability of commercial bank are successful in mobilizing their loan and advances on working fund ratio for the purpose of income generation commercial banks should be alert in mobilizing total working fund. High ratio indicates the better mobilization of fund as loan and advances and vice-versa. This ratio is calculated by using the following formula:

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

Here, the denominator includes all assets as of on balance sheet items. In other words this includes current assets, net fixed assets loans for development banks and other miscellaneous assets but excludes off balance sheet items like letter of credit letter of guarantee etc.

**d) Investment on Shares and debenture to Total Working Fund Ratio**

This ratio shows the bank's investment in shares and debenture of subsidiary and other companies. Now a days, commercial banks are interested to invest its fund not only in loan and advances but also to government securities, bonds and shares and debenture issued by different types of companies as well. The ratio of investment on shares and debentures to total working fund reveal that weather the banks are successful or not in mobilizing their total assets on shares and debentures of other companies to generate income. A high ratio indicates more portion of working fund in invested in the shares and debenture and vice-versa. This ratio can be divided by

dividing investment on shares and debenture by total working fund, which can be mentioned as,

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

The numerator includes investment on debentures bonds and shares of other companies.

#### **e) Loan Loss Ratio**

This ratio shows the possibility of loan default of a bank. It indicates how efficiently it manages its loan advances and makes effort for loan recovery. Higher ratio implies higher portion of non-performing loan portfolio. Dividing loan loss provision from total loan and advances derives this ratio. This can be stated as:

$$\text{Loan Loss Ratio} = \frac{\text{Total Loss provision}}{\text{Total Loan and Advances}}$$

Here the numerator indicates the amount of provision for possible loss.

#### **f) Non-Performing Assets( NPA)**

A loan not recovered within the given time from in the form of interest servicing or principal repayment is called non-performing loan (NPL) for any organization is like a developing concern for a human body, which will collapse the whole organization, when the NPL begins in two digits then the problems begins to start. So the management always should be aware to lower it in the single figure, this NPL can be calculated as below:

$$\text{NPL to total Loan and Advances} = \frac{\text{Non-Performing Loan}}{\text{Total Loan and Advances}}$$

### **3.4.2 Profitability Ratio**

“Profitability ratio is a group of ratio that shows the combined effects of liquidity, assets management and dept on operating results.” (Brigham and Houston)

Profit is the differences between revenue and expenses over a period of time. Every commercial bank has the ultimate objective to earn profit. So every activity is concern towards the profit. No bank or financial institution can service without profit. So profit is the indicator of efficient operation of bank. The banks acquire the profit by providing different types of services to the customers or by making investment in different sectors. So sufficient profit is must to have good liquidity, grab investment opportunity, expand banking transactions, finance government in need of development fund, meet fixed internal obligation for a bank and over come the future contingencies. So profitability ratio measures the efficiency of bank.

The profitability ratio are designed to provide the answer to questions such as:-

1. Is the profit earned by the firm adequate ?
2. What rate of return does it represent ?
3. What is the rate of profit for various division and segments of the firm ?
4. What is the earning per share ?
5. What amount was paid in dividend ?
6. What is the rate of return to equity holders ?

Profitability of a business concern may be measured in two ways: profitability in relation to sales and profitability in relation to investment. The profitability ratios are popularly known as return on investment. In this section some profitability ratios have been calculated which are as follows:

**(a) Return on Total Assets Ratio**

This ratio established the relationship between net profit and total assets. The objective of computing this ratio is to fund out how efficiently the total assets have been used by the management.

Higher the ratio indicates the higher efficiency in the utilization of total assets and vice-versa. Lower ratio implies that low utilization of bank assets and over use of higher interest bearing amount of debt and vice-versa. In this study, return on total

assets is examined to measure the profitability of all the financial resources in bank assets and calculated by applying the following-

$$\text{Return on Total Assets Ratio} = \frac{\text{NPAT}}{\text{Total Assets}}$$

Where,

NPAT = Net Profit after tax

NPAT represents the total profit earned after deducting tax and total assets represent all type of assets owned by the firm.

### **(b) Return on Capital Employed Ratio**

A relation between net profit and capital employed is known as return on capital employed ratios. It shows whether the amount of capital employed has been properly used or not. The objective of computing this ratio is to find out how efficiently the long term funds supplied by the creditors and share holders have been used. This ratio shows the efficiency of the firm on the utilization of total capital. A higher ratio is an indication of the better utilization of capital employed and vice-versa. Hence, higher ratio is preferable. It can be calculated by using the following formula-

$$\text{Return on Capital Employed Ratio} = \frac{\text{NPAT} + \text{Interest}}{\text{Total Capital Employed}}$$

Where,

NPAT = Net profit after tax,

Capital employed: It refers to long term fund supplied by the long-term creditors and share holders.

Return: It means net profit after tax plus interest expenses.

Capital employed: share capital + Resource and fund + Debenture & Bonds + Borrowing

**(c) Return on Total Deposit Ratio**

This ratio measures the degree on NPAT carried by using total deposits. Net profit to total deposit ratio measures the return on deposits. Generally, higher ratio signifies better utilization of deposits and vice-versa. It is calculated by using following formula-

$$\text{Return on Total Deposit Ratio} = \frac{\text{NPAT}}{\text{Total Deposit}}$$

Where,

NPAT = Net Profit after tax

Total deposits means those total amount deposited in various accounts i.e. current, saving, fixed and other deposit.

**(d) Return on Equity (ROE)**

Equity capital of any bank is its owned capital. The prime objective of any bank is wealth maximization or in other words to earn high profit and thereby, maximizing return on its equity capital.

ROE is the measuring role of the profitability of bank. It reflects the extent to which the bank has been successful to mobilize or utilize its equity capital. A high ratio indicates higher success to mobilize its owned capital (equity) and vice-versa. This ratio is calculated by dividing net profit by total equity capital including paid by equity capital. P/L A/C, various reserves, general loan less provision etc. it is calculated by using following formula-

$$\text{Return on Equity} = \frac{\text{NPAT}}{\text{Equity}}$$

### 3.4.3 Statistical Tools

One of the most important tasks before bankers, business man and economist these days is to make, estimate for the future. Statistical analysis is based on the statistical data, which are called observed or recorded at successive interval of time. It is used to know about the past data and with the help of it we can know about the future one. In this chapter some major and important statistical tools which are related funds mobilizing policy of commercial like coefficient of correlation between different variable common trend analysis of deposit utilization and its projection as well as statistical to achieve the objectives of this study are used and analyzed and studied which are present as follows:

#### 3.4.3.1 Coefficient of Correlation Analysis

Correlation is a statistical tool is that measure the relationship between two variables (i.e. one dependent variable and other one is independent variable). It shows the degree and direction of such relationship. There are many mathematical methods of measuring correlation. The Karl Plarson's method popularly known as Plarson coefficient of correlation. Under this topic, Karl Plarson's coefficient or correlation has been used to find out the relationship deposit and loan & advances. It is most widely used method in pradice. It is denoted by the symbol "r". The purpose of computing correlation is to justigy whether the deposit are significantly used in proper or not and whether there is any relationship those two variables.

In this study, correlation coefficient is calculated to measures the relationship between deposit and loan & advances of SCBL, NABIL, MBL, NSBI, HBL.

$$r = \frac{\rho \phi_{xy} Z\phi_x \phi_y}{\sqrt{\rho \phi_x^2 Z(\phi_x)^2} \cdot \sqrt{\rho \phi_y^2 Z(\phi_y)^2}}$$

Where,

N = number of fairs of x and y observed

x = values of x variable

y = values of y variable

$\sum xy$  = Sum of product of variable x and y

r = Karl Plarsons coefficient of correlation

The value of coefficient of correlation as obtained by the above formula are always lying between -1 to +1

- \* When r = +1 there is perfect positive correlation
- \* When r = -1 there is perfect negative correlation
- \* When r = 0 there is perfect no correlation
- \* When r lies between 0.7 to 0.999 (or -0.7 to 0.999) there is a high degree of positive (or negative) correlation.
- \* Where r lies between 0.5 to 0.699, there is a moderate degree of correlation.
- \* When r is less than 0.5 there is low degree of correlation.

However, in practice such value of r as +1, -1 and 0 rare:

### 3.4.3.2 Test of Significance (Probable error)

The probable error of the coefficient of correlation helps in interpreting its value. It helps to determine the reliability of the value of the coefficient that is obtained as follows:

$$\text{Per} = 0.6745 \frac{\sum Zr^2}{\sqrt{N}}$$

**Where,**

r = coefficient of correlation

N = number of pair of observation

PE = probable error

1. if the value of r is less than the probable error than there is no evidence of correlation i.e. the value is not significant
2. if the value of r is more than six times the probable error the coefficient of correlation is practically certain i.e. the value of r is significant.
3. coefficient of correlation is expected to be within the range of  $\pm$  Per



Symbolically limit of population correlation =  $r \pm PE$

By using the above formula coefficient of correlation between total deposit (independent value  $x$ ) and loan & advances (Dependent variable  $y$ ) and probable error of the sample banks are calculated as follows:

**a) Mean**

“A mean of a set of observations is the sum of all the observations divided by the number of observations. Mean is known as the arithmetic average.” (B.C. Bajracharya 2065 102) IN such cases all the items are equally important mean of  $X_1, X_2, \dots, X_n$  are given observation. The arithmetic mean is usually denoted by  $\bar{X}$  as given by

$$\bar{X} = \frac{X_1 + X_2 + X_3 + \dots + X_n}{n}$$

$$= \frac{\sum x}{n}$$

Where,

- N = no of observation
- $\sum x$  = Sum of the observation
- $\bar{X}$  = Mean

**b) Standard Deviation**

Standard Deviation (S.D.) is defined as the positive square root of the mean of the square of the deviation taken from the arithmetic mean.” (B.C. Bajracharya 2065: 177)

S.D. is a number of summarizes how far away from the data values typically are. It is denoted by  $\sigma$ , If  $X$  be the variate values and  $\bar{X}$  their arithmetic mean, then the standard deviation ( $\sigma$ ) is given by.

$$\sigma = \sqrt{\frac{\sum (x - \bar{X})^2}{n}}$$

or

$$\sqrt{\frac{\sum \phi x^2}{n} - \left(\frac{\sum \phi x}{x}\right)^2}$$

Where,

n – no of observation

### c) Coefficient of Variation (C.V.)

The coefficient of variation is the standard deviation divided by the average and summarizes the relative variability in the data as a percentage of the average for comparing the variability of two distributions we compute the coefficient of variation. A distribution with smaller C.V. is said to be more homogenous or uniform or less variable than other and the series with greater C.V. is said to be more homogenous or more variables than others. It is a relative measure which is useful in comparing the amount of variation in data group with different means.

The formula for coefficient of variation

$$CV = \frac{S.D}{X} | 100$$

Where,

S.D. = Standard Deviation

x = Arithmetic Mean

It is independent of unit so two distributions can bitterly be compared with the help of C.V. for their variability.

### d) Measures of Correlation

Two variables are said to have ‘correlation’, when they are so related that the change in the value of one variable is accompanied by the change in the value of the other. (B.C. Bajracharya) Correlation refers to the degree of relationship, between two variables. It measures the relationship (co-variation) between the variables.

There are several methods under correlation analysis. This study has used Karl Pearson's coefficient of correlation. It is simply denoted by 'r' the main purpose of correlation analysis is to know the degree and direction of the relationship between the variable. If two variable vary in the same direction i.e. if increase (or decrease) in the value of other variable, then two variables are said to be have positive correlation. If the value of 'r' is +1 there is perfect positive correlation, if the value of 'r' is -1 there is perfect negative correlation and if the value of 'r' is 0 there is co-variation (ie no relationship) between the variable. The actual practice, perfect correlation is hardly found. In the present study, the correlation between deposit and loan & advances has been examined by applying the following formula:

Coefficient of a correlation between deposit and loan & advances

$$r_{xy} = \frac{\rho \phi_{xy} Z(\phi_x) \phi_y}{\sqrt{\rho \phi_x^2 Z(\phi_x)^2} \sqrt{\rho \phi_y^2 Z(\phi_y)^2}}$$

or

$$r_{xy} = \frac{\phi_{xy}}{\sqrt{\phi_x^2} \cdot \sqrt{\phi_y^2}}$$

Where r is between 0.7 to 0.999 there is high degree of correlation between the variable. If the value of r is less than 0.5 there is low degree of correlation and when the value of r is more than 0.5 less than 0.7 is called moderate degree of correlation between the variables.

# **CHAPTER FOUR**

## **PRESENTATION AND ANALYSIS OF DATA**

### **4.1 Introduction**

This chapter is the main content of the study. The main objective of this study is to examine the existing position of investment analysis of HBL, NSBI, SCBL, NABIL, MBL on the basis of the analysis and diagnosis of the collected data. In this chapter different type of analysis which is related with investment analysis, such as financial analysis, statistical analysis and major finding of the study are presented. So on balance sheet and profit and loss account from the year ended 2004 to 2008 of HBL, NSBI, SCBL, NABIL, MBL according to G.B Giles “Data analysis is the relationship and differences supporting or conflicting with original or new should be subjected to statistical test of to determine with what validity data can serve to indicate any conclusion.”

### **4.2 Financial Analysis**

Financial analysis means “A general term referring to the process of extracting and studying information in a financial statement for the use in management decision making financial analysis typically involves the use of ratios, comparison with prior periods and with the budget and the other such procedures” (B.N., Anuja, p. 120)

The objective of this chapter is to study evaluate and analyze those major finance performances which are mainly related to the investment management and fund mobilization of NABIL, HBL, NSBI, SCBL, MBL. It is notable that all types of financial ratios are not studies under this chapter. Only those ratios are calculated and analyzed which are very important to evaluate find of a commercial banks.

### **4.2.1 Ratio Analysis**

Ratio analysis is one of the most commonly used techniques and most powerful tools of financial analysis. According to C.R. Kothari “Ratio Analysis is a powerful tool of financial analysis that through it the economic and financial portion of a business unit can be fully x-rayed” (C.R. Kothari, P. 187)

An arithmetical relationship between two figures is known as ratio. It is calculated by dividing one item with another ratio simply means one number expressed in terms of another ratio analysis is a technique and interpreting financial statement to evaluate the financial performance of organization. It provides a way to examine different account parameters, which reflects the norms of business operation. Ratios are calculated and compared with relevant firm's diverge ratio or specific standards such as past ratios of the same firm or not operating results are at satisfactory level. The important ratios that are studied for this purpose are given below.

#### **4.2.1.1 Liquidity Ratio**

Liquidity ratios are used to judge the ability of bank to meet its short term obligations that are likely to mature in the short-term period commercial banks maintain satisfactory liquidity position to meet the credit need of the community. Demand for the deposit with drawals pay maturity in time and convert non cash assets into cash to satisfy immediate need without loss to loan and consequent impact on long run profit.

Liquidity ratio is the comparison between the short-term obligation and short-term resources available to meet these obligations. This ratio reflects the short-term financial strengths and weakness of the bank. A bank must maintain adequate liquidity. This ratio should neither be inadequate nor high. If the liquidity ratio of the bank is not enough, it will result in bad credit ratings, less creditors confidence, eventually may lead to the bankruptcy. If the bank has high degree of liquidity funds. It will unnecessarily be tied up in current assets. Thus, the bank endeavor to

maintain proper balance between inadequate liquidity and unnecessary liquidity for the survival and for avoiding the risk of insolvency.

**(i) Current Ratio**

The current ratio indicates bank's liquidity and short-term debt paying ability. It shows the relationship between current assets and current liabilities. It is calculated by dividing the current asset by current liabilities. Thus,

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

Current assets are those asset, which can be converted into cash within short period or time. Normally, not exceeding one-year. Cash and bank balance, money at call and short notice, investment in government securities, sundry debtors, bills receivable, loan advance and bill purchase, invent prepared expanses, accrued income and miscellaneous are example of current assets.

Similarly, current liabilities are those obligation which are payable with a short period, normally not more than one year. Current liabilities include bank overdrafts deposit and other short-term loan, bills payable tax provision, staff bonus, proposed dividend out standing expenses, pre-received income etc.

Generally the current assets of the company should be twice than current obligation to be technically solvent. For many types of business 2:1 is considered to be an adequate or ideal standard of current ratio. If the current ratio of the bank less than 2:1, the solvency position of the bank is not good. The cash not be available to pay current liabilities. If the ratio is more than 2:1 that means company may have an excessive investment in the current assets that do not produce return.

**Table No. 4.1**

**Current Ratio of Selected Commercial Banks**

*(Rs. In Million)*

| Year  | SCBL          |                |                  | NABIL         |                |                  | MBL           |                |                  | NSBI          |                |                  | HBL           |                |                  |
|---|---------------|----------------|------------------|---------------|----------------|------------------|---------------|----------------|------------------|---------------|----------------|------------------|---------------|----------------|------------------|
|   | Current Asset | C. Liabilities | Ratio (in Times) | Current Asset | C. Liabilities | Ratio (in Times) | Current Asset | C. Liabilities | Ratio (in Times) | Current Asset | C. Liabilities | Ratio (in Times) | Current Asset | C. Liabilities | Ratio (in Times) |
| 2003/04   | 20093.72      | 22086.21       | 0.91             | 14244.40      | 15153.01       | 0.94             | 3203.13       | 2833.55        | 1.13             | 8348.27       | 7807.57        | 1.07             | 18233.1       | 23390.89       | 0.78             |
| 2004/05   | 19322.69      | 20250.50       | 0.95             | 14971.8       | 15420.82       | 0.97             | 6017.93       | 5805.82        | 1.04             | 9869.78       | 9266.62        | 1.06             | 20899.43      | 258            | 0.81             |
| 2005/06   | 21463.37      | 23952.71       | 0.90             | 18133.81      | 20353.56       | 0.89             | 8078.53       | 8135.13        | 1.07             | 12925.57      | 11843.2        | 1.09             | 23174.85      | 27694.19       | 0.84             |
| 2006/07   | 22025.81      | 26420.09       | 0.83             | 22829.54      | 25095.30       | 0.91             | 10220.88      | 9983.06        | 1.02             | 13486.25      | 12525          | 1.08             | 25866.95      | 31372.64       | 0.82             |
| 2007/08   | 27453.32      | 30781.41       | 0.89             | 29289.47      | 34595.8        | 0.85             | 11346.46      | 11587.46       | 0.98             | 17013.89      | 15751.7        | 1.09             | 29062.42      | 33662.54       | 0.86             |
| Mean = $\frac{\sum x}{n}$                         | Mean          |                | 0.90             |               |                | 0.912            |               |                | 1.05             |               |                | 1.08             |               |                | 0.82             |
| =   | S.D           |                | 0.0076           |               |                | 0.03             |               |                | 1.05             |               |                | 0.01             |               |                | 0.03             |
| $\frac{\text{total of ratio}}{\text{no of year}}$ | C.V.          |                | 0.84%            |               |                | 3.3%             |               |                | 4.8%             |               |                | 1.1%             |               |                | 3.7%             |

Source: Annual reports from 2003/04 to 2007/08 of all five banks

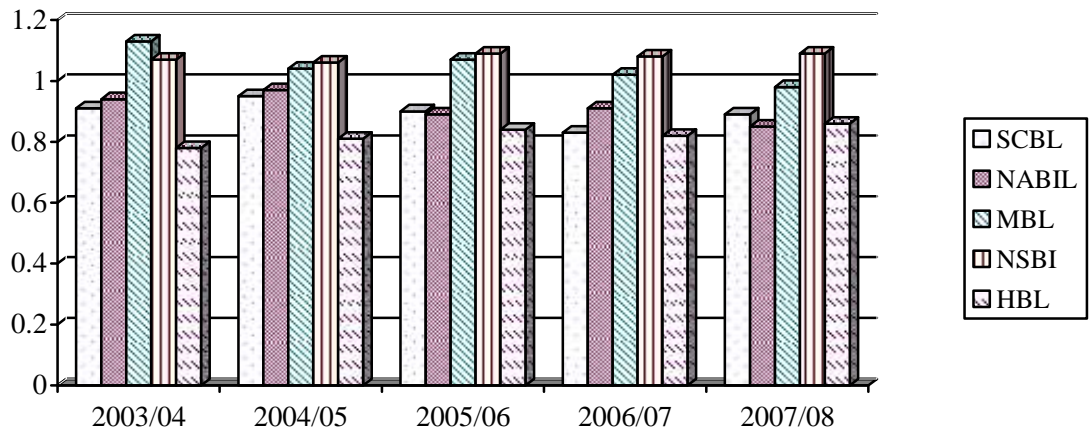
Table 4.1 shows that the current ratio of the sample banks are below the standard ie. 2:1. The ratio of SCBL has ranged between 0.83 times to 0.95 times, where as these rang between 0.85 time to 0.97 times in NABIL. Similarly the ratio of HBL has ranged between 0.98 times to 1.13 times whereas these range between 1.06 times to 1.09 times, the ratio of HBL not ranged between 0.78 times, to 0.86 times. The SCBL provides more consistency in its current ratio because the CV is lower than other banks. The CV of MBL is highest in current ratio with 48% and it is followed by HBL with 3.7% NABIL with 3.3%, NSBI with 1.1% and SCBL with 0.84% respectively. This means that the current ratio of MBL does not reflect consistency.

The current ratio of the sample banks is less than the standard. This means that the banks liquidity position is not good. The NSBI's ratio is little constant in comparison with others but not in ideal standard. The sample banks must try to secure a current ratio 2:1. However, it cannot be concluded that the liquidity position is poor because the ratio is only the ratio of quantity and not a test of quantity. The other reason is that there is not classification done between the different types of current assets.

One of the major reasons for the lower current ratio may be due to declining value or utilizing the funds for some profit generating projects the banks to maintain their liquidity position, they should perform revaluation of the currents assets or cut the investments in such projects.



**Figure 4.1**  
**Current Ratio of Selected Commercial Bank**



From figure no. 4.1 concluded that current ratio of each banks are fluctuating. NABIL's ratio is little constant in comparison with others but not in an ideal standard. Though MBL had the highest current ratio in FY 2003/04 among others but we can not determine it is on satisfactory level because existing FY was its current year and certainly in next FY its ratio also decreased drastically even up to the dangerous.

**(ii) Cash and bank balance to total deposit Ratio**

Cash and bank balance to total deposit ratio indicates the ability of the banks to manage fund immediately when the depositors calls for withdrawal. The ratio between the cash and bank and total deposit measures the ability of a bank to meet the unanticipated call on all types of deposit, higher the ratio greater will be the ability to meet the sudden demand of deposit. But very high ratio is not desirable since bank his to pay interest on deposit.

It is calculated in order to see the position of cash and bank balance to make the payment of deposits when demanded. This ratio is calculated by dividing cash and banks balance by total deposits as follows:

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

Here, cash and bank balance include total cash in hand and total cash at banks. The total deposit encompasses current saving fixed call, margin deposit and other deposits. A high ratio indicates the greatest ability to meet their deposits and vice-versa. Moreover, too high ratio is unfit as capital will be tied up and opportunity cost will be higher.

**Table No. 4.2**

***Cash & Bank Balance to Total Deposit Ratio of Selected Commercial Bank***

*(Rs. In Million)*

| Year    | SCBL                |               |              | NABIL               |               |              | MBL                 |               |              | NSBI                |               |              | HBL                 |               |              |
|---------|---------------------|---------------|--------------|---------------------|---------------|--------------|---------------------|---------------|--------------|---------------------|---------------|--------------|---------------------|---------------|--------------|
|         | Cash & Bank Balance | Total Deposit | Ratio (in %) | Cash & Bank Balance | Total Deposit | Ratio (in %) | Cash & Bank Balance | Total Deposit | Ratio (in %) | Cash & Bank Balance | Total Deposit | Ratio (in %) | Cash & Bank Balance | Total Deposit | Ratio (in %) |
| 2003/04 | 2023.16             | 21161.44      | 9.56         | 970.49              | 14199.03      | 6.87         | 410.75              | 2754.63       | 14.91        | 864.43              | 7198.33       | 12.01        | 2001.18             | 22010.33      | 9.09         |
| 2004/05 | 1111.12             | 19335.09      | 5.75         | 559.38              | 14586.61      | 3.83         | 431.13              | 5586.8        | 13.09        | 723.75              | 8654.77       | 8.36         | 2014.48             | 24814.01      | 8.12         |
| 2005/06 | 1276.24             | 23061.03      | 5.53         | 630.24              | 19347.40      | 3.26         | 813.92              | 7893.3        | 10.31        | 1118.16             | 11002.04      | 10.16        | 1717.35             | 23490.85      | 7.31         |
| 2006/07 | 2021.02             | 24647.02      | 8.2          | 1399.83             | 23342.29      | 6.0          | 1284.08             | 9475.45       | 13.55        | 1122.69             | 11445.29      | 9.81         | 1757.34             | 30048.40      | 5.85         |
| 2007/08 | 2050.24             | 29743.1       | 6.9          | 2071.14             | 1915.05       | 8.37         | 1588.57             | 1102.24       | 14.31        | 1342.96             | 13715.39      | 9.79         | 1448.14             | 31842.79      | 4.55         |
|         | Mean                |               | 7.19         |                     |               | 5.67         |                     |               | 13.23        |                     |               | 10.03        |                     |               | 6.98         |
|         | S.D                 |               | 1.52         |                     |               | 4.25         |                     |               | 12.64        |                     |               | 1.17         |                     |               | 3.61         |
|         | C.V.                |               | 21.14        |                     |               | 74.95        |                     |               | 95.54        |                     |               | 11.67        |                     |               | 51.72        |

*Source: Annual reports from 2003/04 to 2007/08 of all five banks*

The above table no. 4.2 show that the cash and bank balance to total deposit ratio. The ratio of SCBL range between 5.53% to 9.56% and the ratio range of NABIL is between 3.26% to 8.37% similarly, the ratio range of MBL is between 10.31% to 14.91% and ratio range of NSBI is between 8.36% to 12.01% whereas these range between 4.55% to 9.09% in HBL. The cash and bank balance to total deposit of SCBL is decreasing trend from 2003/04 to 2005/06 and then after increasing and decreasing trend. The ratio pattern of NABIL is decreasing from 203/04 to 2005/06 and increasing trend of last two year. In the same way the trend of MBL is decreasing with the exception of last 2 years. The ratio pattern of NSBI is decreasing trend from 2003/04 to 2004/05 and then after increase from 2004/05 to 2005/06 and sidling decreasing in last 2 years. The trend of HBL is decreasing trend from 2003/04 to 2007/08.

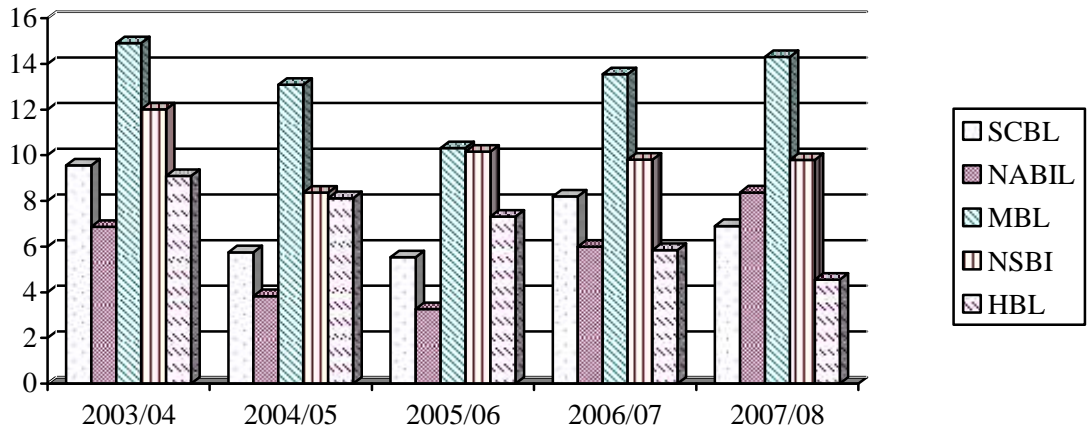
The average ratio of HBL has highest mean for cash serve ratio will 13.23% and it is followed by NSBI will 10.03 and SCBL with 7.19% and HBL with 6.98% and NABIL with 5.67% respectively. But the CV of MBL is highest cash reserve ratio with 95.54 and it is followed by NABIL will 74.95%, HBL with 51.72%, SCBL with 21.14% and NSBI with 11.67% respectively. It means the trend of cash and bank balance to total deposit of MBL is not consistence whereas NSBI reflect more consistent then other banks. Thus, the bank should maintain an appropriative ratio. However there is no standard ratio in this aspect. It depends upon the banks experience and other various factors.

The above ratio shows that NABIL, HBL and SCBL had similar trend of cash reserve ratio. Through they have less amount of CRR than others but able to manage cash liquidity their trends analysis and from them NSBI has high consistency. However, the ratio of MBL is higher but not consistence in cash reserve ratio shows a weak ability to cover its short term deposits in inferior than other. Too high liquidity is not good to banks it can't gain expected profit is it keeps money idle. As very low ratio

can also create adverse effect need to increase the cash and bank balance or to maintain enough margin of safety.

**Figure No. 4.2**

**Graphical Presentation of Cash & Bank Balance to Total Deposit Ratio of Selected Commercial Banks**



From table no. 4.2 graph, it is concluded that NABIL, HBL and SCBL had the similar trend of cash reserve ratio. Through they have less amount of CRR than others but able to the balance so they are able to manage cash liquidity with their trend analysis and from them SCBL has high consistency. However, the ratio of MBL is higher but not consistency in cash reserve ratio shows a weak ability to cover short-term deposit in inferior than other.

**(iii) Cash and Bank Balance to current assets Ratio**

Cash and bank balances to current assets ratio reflects the portion of cash and bank balance in the total current assets. Cash and bank balances are highly liquid assets than other current assets. This portion visualizes higher liquidity position than current ratio. In this ratio we look the banks liquidity capacity on the basis of cash and bank balance that is most liquid assets. So, the high ratio indicates the bank ability to meet the daily cash requirement on their customer deposit. Which cause increase in lost of fund. So, on lower ratio is also very dangerous as the bank may not be able to make payment against the cheque presented by the customer. Therefore, bank has to

balance cash and bank balance to current assets ratio in such a manner that it should have the adequate cash for the customers demand and less interest is required to be paid against the cash deposit. In the present study, cash and bank balance represents total of the local currency, foreign, currencies, cheques in hand and various banks balances in local as well as foreign banks. This ratio is calculated by using the following formula.

$$\frac{\text{Cash and bank Balance to Current Assets}}{\text{Assets}} = \frac{\text{Cash and bank Balance}}{\text{Total Current Assets}}$$

**Table No. 4.3**

***Cash & Bank Balance to Current Assets Ratio of Selected Commercial Bank***

*(Rs. In Million)*

| Year    | SCBL                |                |              | NABIL               |                |              | MBL                 |                |              | NSBI                |                |              | HBL                 |                |              |
|---------|---------------------|----------------|--------------|---------------------|----------------|--------------|---------------------|----------------|--------------|---------------------|----------------|--------------|---------------------|----------------|--------------|
|         | Cash & Bank Balance | Current Assets | Ratio (in %) | Cash & Bank Balance | Current Assets | Ratio (in %) | Cash & Bank Balance | Current Assets | Ratio (in %) | Cash & Bank Balance | Current Assets | Ratio (in %) | Cash & Bank Balance | Current Assets | Ratio (in %) |
| 2003/04 | 2023.16             | 20093.72       | 10.07        | 970.49              | 14244.4        | 6.81         | 410.75              | 3203.13        | 12.82        | 864.43              | 8348.27        | 10.35        | 2001.18             | 18233.1        | 10.98        |
| 2004/05 | 1111.12             | 29332.69       | 5.75         | 559.38              | 14971.80       | 3.74         | 731.13              | 6017.93        | 12.15        | 723.75              | 9869.78        | 7.33         | 2014.48             | 20899.43       | 9.64         |
| 2005/06 | 1276.24             | 21463.37       | 5.95         | 630.24              | 18133.81       | 3.48         | 813.92              | 8678.53        | 9.38         | 1118.16             | 12925.57       | 8.65         | 1717.35             | 23174.85       | 7.41         |
| 2006/07 | 2021.02             | 22025.00       | 9.18         | 1399.83             | 22829.54       | 6.13         | 1284.08             | 10220.88       | 12.56        | 1122.69             | 13486.25       | 8.32         | 1757.34             | 25866.95       | 6.79         |
| 2007/08 | 2050.24             | 27453.32       | 7.47         | 2071.14             | 29289.47       | 9.12         | 1588.57             | 11346.46       | 14.00        | 711.91              | 17013.89       | 4.18         | 1448.14             | 29062.42       | 4.98         |
|         | Mean                |                | 7.662        |                     |                | 5.86         |                     |                | 12.17        |                     |                | 7.77         |                     |                | 7.96         |
|         | S.D                 |                | 1.72         |                     |                | 2.09         |                     |                | 1.53         |                     |                | 2.04         |                     |                | 2.12         |
|         | C.V.                |                | 22.34        |                     |                | 35.67        |                     |                | 12.57        |                     |                | 26.3         |                     |                | 26.63        |

*Source: Annual reports from 2003/04 to 2007/08 of all five banks*

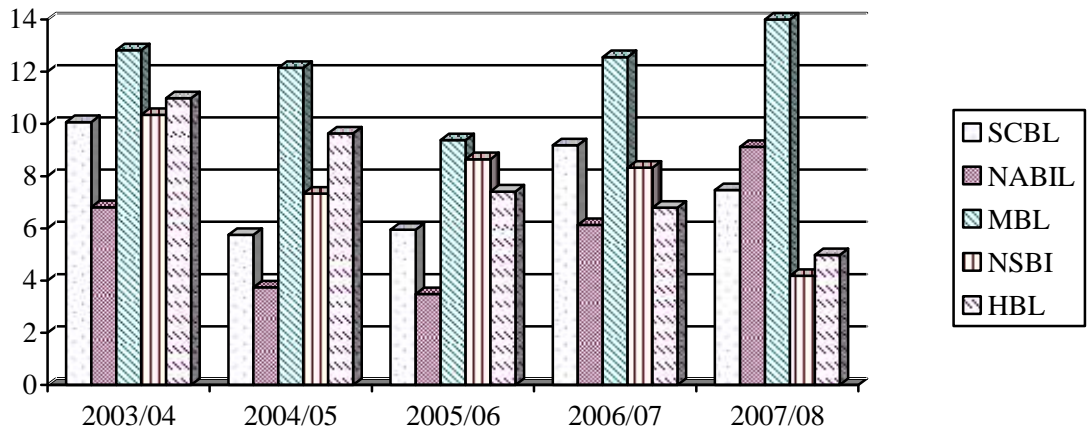
Table no. 4.3 reveal that the cash and bank balance to current assets ratio of five sample banks have been very fluctuated. The ratio range of SCBL is between 5.75% (2004/05) to 10.07% (2003/04). The cash and bank balance to current assets pattern of SCBL has fluctuated. In the same way, the ratio in NABIL is between 3.48% (203/04) to 9.12% (2007/08). The trend of NABIL has decreasing from 2003/04 to 2005/06 then after increasing last two years. Similarly, the ratio range of MBL is between from 9.38% (2005/06) to 14% (2007/08) which is decreasing trend from 2003/04/ to 2005/06 then after increasing from 2006/07 to 2007/08. the ratio ranged of NSBI is between 4.18% (2007/08) to 10.35% (2003/04). It has fluctuating ratios for the year of study period. In cash of HBL, the highest ratio i.e. 10.98% (2003/04) and lower ratio 4.98% (2007/08).

The average cash and bank balance of MBL is highest with 12.17% and it is followed by HBL with 7.96%, NSBIL with 7.77%, SCBI will 7.68% and NABIL with 5.86% respectively. This means that the liquidity position of MBL is highest than other four banks. During the reviewed to period MBL has lowest coefficient of variation (C.V.) with 12.57% and it is followed by SCBL 2.34%, NSBI with 26.3%, HBL with 26.65% and NABIL with 35.67% respectively. Therefore, NABIL has utilized its fund more efficiently but not consistently where as MBL has utilized its fund more consistently than other sample banks. Generally, properly balance of cash and bank balance is better for banks. In this table one of the major reason for lower cash and bank balance to current assets ratio in NABIL is the lower amount of cash in hand and cash at bank. Therefore, NABIL have to increase cash and bank balances.



**Figure No. 4.3**

**Graphical Presentation of Cash & Bank Balance to Current Assets Ratio of Selected Commercial Banks**



According to graph no. 4.3 the cash and bank balance of MBL is the highest & NABIL is the lowest. This means that the liquidity position of MBL is highest than other four banks. MBL has utilized its fund more consistently than other sample banks where as NABIL has utilized its fund more efficiently but not consistently.

**(iv) Investment on Government Securities to current assets Ratio**

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

This ratio is computed by dividing investment on government securities by total current assets.

$$\text{Investment on Government securities to current assets ratio} = \frac{\text{Investment on government securities}}{\text{Total current assets}}$$

**Table No. 4.4**

***Investment on Government Securities to Total Current Assets of selected commercial Bank***

*(Rs. In Million)*

| Year    | SCBL             |                |              | NABIL            |                |              | MBL              |                |              | NSBI             |                |              | HBL              |                |              |
|---------|------------------|----------------|--------------|------------------|----------------|--------------|------------------|----------------|--------------|------------------|----------------|--------------|------------------|----------------|--------------|
|         | Govt. Securities | Current Assets | Ratio (in %) | Govt. Securities | Current Assets | Ratio (in %) | Govt. Securities | Current Assets | Ratio (in %) | Govt. Securities | Current Assets | Ratio (in %) | Govt. Securities | Current Assets | Ratio (in %) |
| 2003/04 | 7948.22          | 20093.72       | 39.56        | 3672.63          | 14244.40       | 25.78        | 71.32            | 3203.13        | 2.23         | 1888.03          | 8348.27        | 22.62        | 3431.73          | 18233.1        | 18.82        |
| 2004/05 | 7203.07          | 19322.69       | 37.28        | 2413.94          | 14971.80       | 16.12        | 127.33           | 6017.93        | 2.12         | 2588.14          | 9896.78        | 26.15        | 5469.73          | 20899.43       | 26.17        |
| 2005/06 | 8635.88          | 21463.37       | 40.24        | 2301.46          | 18133.81       | 12.7         | 904.47           | 8678.53        | 10.42        | 3591.77          | 12925.57       | 27.79        | 5144.31          | 23174.85       | 22.2         |
| 2006/07 | 7107.94          | 22025.00       | 32.27        | 4808.35          | 22829.54       | 21.06        | 951.27           | 10220.88       | 9.31         | 2345.58          | 13486.25       | 17.39        | 6454.87          | 25866.95       | 24.95        |
| 2007/08 | 8137.62          | 27453.32       | 29.64        | 4646.88          | 29289.47       | 15.87        | 827.35           | 11346.46       | 7.29         | 3035.55          | 17013.89       | 17.84        | 7471.67          | 29062.42       | 25.71        |
|         | Mean             |                | 35.8         |                  |                | 18.31        |                  |                | 6.27         |                  |                | 22.372       |                  |                | 23.57        |
|         | S.D              |                | 4.16         |                  |                | 4.6          |                  |                | 3.5          |                  |                | 4.23         |                  |                | 2.75         |
|         | C.V.             |                | 11.608       |                  |                | 25.12        |                  |                | 55.735       |                  |                | 18.91        |                  |                | 11.65        |

*Source: Annual reports from 2003/04 to 2007/08 of all five banks*

Above table 4.4 reveals that investment on govt. securities to current assets ratio of five. Selected banks have been increasing trend. The ratio range of SCBL is decreasing first two F.Y then increasing trend of last three F.Y. Its range between 29.64% to 40.24%. The ratio of NABIL is decreasing trend from 2003/04 to 2005/06 with 25.78% to 12.7% and increasing trend from except last year. The ratio of MBL is fluctuated with ratio ranged between 2.12% to 10.42%. Similarly, the ratio ranged of NSBI is increasing trend except last two years. The ratio ranged of HBL is between 18.82% to 26.17%. The investment i.e. 35.8% than other selected banks. HBL 23.57, NSBI with 22.37%, NABIL with 18.37% and MBL 6.27% respectively. It means SCBL is more sensitive in investment in productive sector than HBL, NSBI, NABIL and MBL. In this case, SCBL seems stronger in investing fund in government securities than other selected banks. On the basis of coefficient of variation (C.V.) SCBL with 4.61% seems more consistent and stable them other selected commercial banks. They followed by HBL with 11.65%, NSBI with 18.91%, NABIL with 25.1% and MBL 55.74% respectively are shown in above analysis table.

**Figure No. 4.4**

**Graphical Presentation of Investment on government securities to current asset ratio of selected commercial banks**

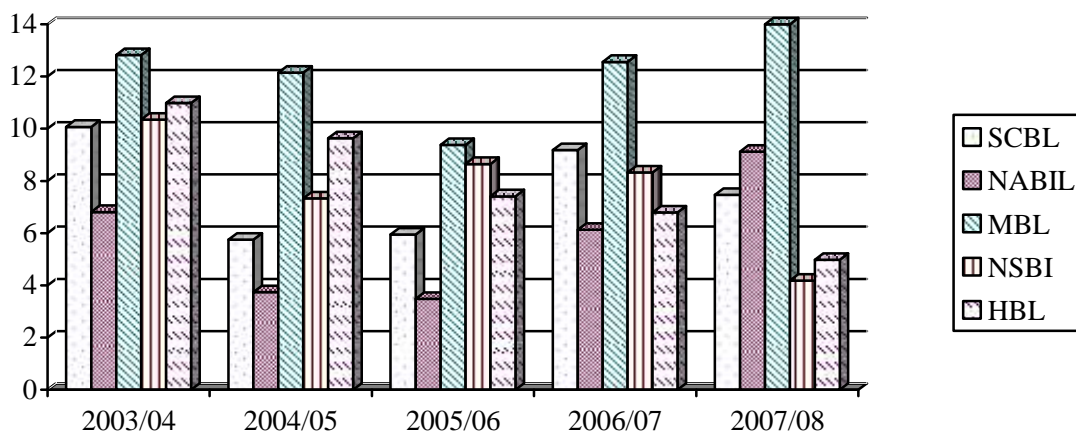


Figure no. 4.4 shows that SCBL has invested more part of current assets in

government securities than other selected bank. Government securities to current ratio of SCBL is 40.24% in FY 2007/08 which is the highest ratio of SCBL among the five years of study period where as MBL has invested low part of current assets in government securities than other selected bank its lowest ratio is 2.12% in FY 2004/05. In this case, SCBL seems stronger in investing fund in government securities.

#### **4.2.1.2 Assets Management 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 the assets management ratio following ratios are calculated and finally the results are interpreted below.

##### **(i) Loan and Advances to total deposit Ratio**

This ratio is found out in order to measure the extent to which the bank are able to mobilize their total deposit on loan and advances.

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

**Table No. 4.5**

***Loan and Advances to Total Deposit Ratio of Selected Commercial Banks***

*(Rs. In Million)*

| Year    | SCBL            |               |              | NABIL           |               |              | MBL             |               |              | NSBI            |               |              | HBL             |               |              |
|---------|-----------------|---------------|--------------|-----------------|---------------|--------------|-----------------|---------------|--------------|-----------------|---------------|--------------|-----------------|---------------|--------------|
|         | Loan & Advances | Total Deposit | Ratio (in %) | Loan & Advances | Total Deposit | Ratio (in %) | Loan & Advances | Total Deposit | Ratio (in %) | Loan & Advances | Total Deposit | Ratio (in %) | Loan & Advances | Total Deposit | Ratio (in %) |
| 2003/04 | 6410.24         | 21161.44      | 30.29        | 8189.99         | 14199.03      | 57.68        | 2493.11         | 2754.63       | 90.51        | 5143.66         | 7198.33       | 71.46        | 11951.87        | 22010.33      | 54.3         |
| 2004/05 | 8143.24         | 19335.09      | 42.12        | 10586.17        | 14586.61      | 72.57        | 5061.43         | 5586.80       | 90.61        | 6213.69         | 8654.77       | 71.79        | 12424.52        | 24814.01      | 50.07        |
| 2005/06 | 8935.42         | 23061.03      | 38.75        | 12922.54        | 19347.40      | 66.8         | 6068.43         | 7893.3        | 76.88        | 7626.71         | 11002.04      | 69.32        | 14642.56        | 23490.85      | 62.33        |
| 2006/07 | 10502.64        | 24647.02      | 42.61        | 15545.78        | 23342.29      | 66.6         | 7129.89         | 9475.45       | 75.25        | 9460.45         | 11445.29      | 82.66        | 16997.1         | 30048.41      | 56.57        |
| 2007/08 | 13718.6         | 29743.1       | 46.12        | 21365.05        | 31915.05      | 66.94        | 8642.32         | 11102.24      | 77.81        | 12113.70        | 13715.39      | 88.32        | 19497.52        | 31842.79      | 61.23        |
|         | Mean            |               | 39.98        |                 |               | 66.12        |                 |               | 82.21        |                 |               | 76.71        |                 |               | 56.9         |
|         | S.D             |               | 5.38         |                 |               | 4.78         |                 |               | 6.86         |                 |               | 7.44         |                 |               | 4.51         |
|         | C.V.            |               | 13.45        |                 |               | 7.23         |                 |               | 8.34         |                 |               | 9.7          |                 |               | 7.93         |

*Source: Annual reports from 2003/04 to 2007/08 of all five banks*

The table 4.5 listed above reveals that SCBL recorded rising and falling trend during the period under study the ratio range of SCBL is between 30.29% (2003/04) to 38.75% (2005/06), NABIL has fluctuated trend. Its ratio range is between 57.68 (2003/04) to 72.57% (2004/05). The ratio range of MBL has shown between 75.25% (2006/07) to 90.6% (2004/05), NSBI has listed between 69.32% (2005/06) to 82.86% (2006/07) whereas this ratio range is between 50.07% (2004/05) to 56.57% (2006/07) in HBL.

During the study period HBL's mean ratio has seemed in the highest position per loan and advances to total deposit ratio with 82.42% and it is followed by NSBI with 76.71%, NABIL 66.12%, HBL with 56.9% and SCBL with 39.98% respectively. It means MBL seems to be good to mobilize its total deposit as loan & advances than other selected commercial banks, likewise, the CV of SCBL is highest with 13.45% and its follower are NSBI with 9.2%, MBL with 8.34%, HBL with 7.93% and NABIL with 7.23% respectively. On the basic of C.V. we can say that SCBL's loan and advances is less consistent then after NSBI, HBL, HBL and NABIL.

Here, MBL operating is low profit earning showed the highest credit ratio (90.6%) indicated less effective mobilization of credit resources. In this contact, SCBL operating is highest earning where it has not mobilized its total deposit in the study period. MBL is taking in aggressive way with fluctuation. It is good to increase the loan & advances to total deposit ratio but should also try to maintain its performance assets.

**Figure No. 4.5**

**Computation of Loan and Advances to Total Deposit Ratio of Selected Commercial Bank**

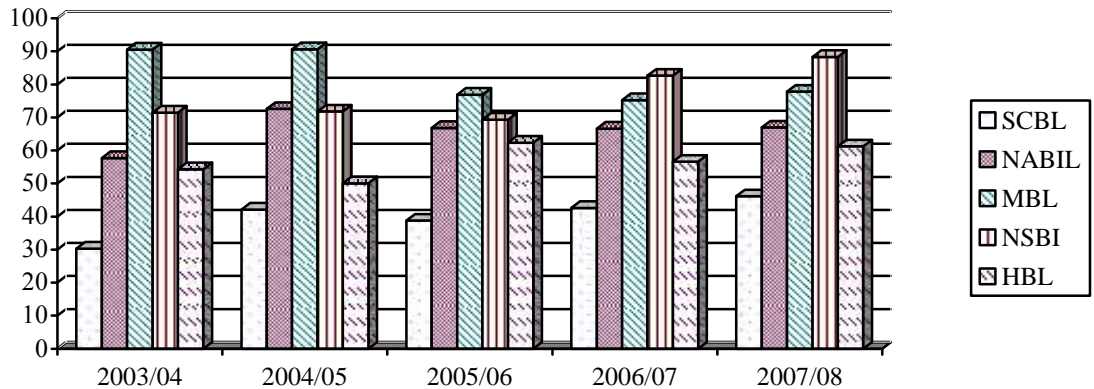


Figure No. 4.5 MBL operating is low profit earning should highest credit ratio (90.6%) indicated less effective mobilization of credit resources. In this context, SCBL operating is highest earning where it has not mobilized its total deposit in this study period. MBL is taking in aggressive way with fluctuating. It is good to increase the loan & advances to total deposit ratio but should also try to maintain its performance assets.

**(ii) Total Investment to Total Deposit Ratio**

A commercial bank mobilize its bank deposit by investing its fund different securities issued by ..out and other financial or non-financial companies. Now, effort has been made to measure the extend to which the banks are successful in mobilizing the total deposits on investment.

In the process of portfolio management of bank assets. Various factors such as availability of fund liquidity requirement central banks norms etc. are to be considered in general. A high ratio is indicators of high success to mobilize the banking fund as investment and vice-versa. We have-

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

**Table No. 4.6**

**Total Investment to Total Deposit Ratio of Selected Commercial Bank**

*(Rs. In Million)*

| Year    | SCBL                |               |              | NABIL               |               |              | MBL                 |               |              | NSBI                |               |              | HBL                 |               |              |
|---------|---------------------|---------------|--------------|---------------------|---------------|--------------|---------------------|---------------|--------------|---------------------|---------------|--------------|---------------------|---------------|--------------|
|         | Total Inv - estment | Total Deposit | Ratio (in %) | Total Inv - estment | Total Deposit | Ratio (in %) | Total Inv - estment | Total Deposit | Ratio (in %) | Total Inv - estment | Total Deposit | Ratio (in %) | Total Inv - estment | Total Deposit | Ratio (in %) |
| 2003/04 | 11360.33            | 21161.44      | 53.68        | 5835.95             | 14199.03      | 41.1         | 274.41              | 2754.63       | 9.96         | 1707.28             | 7198.33       | 23.72        | 9292.10             | 22010.33      | 42.22        |
| 2004/05 | 9702.55             | 19335.09      | 50.18        | 4267.23             | 14586.61      | 29.25        | 468.61              | 5586.80       | 8.39         | 2607.68             | 8654.77       | 30.13        | 11692.34            | 24814.01      | 47.12        |
| 2005/06 | 12838.00            | 23061.03      | 55.67        | 6118.53             | 19347.4       | 31.02        | 1191.37             | 7893.3        | 15.09        | 3610.78             | 11002.04      | 32.82        | 10889.03            | 23490.85      | 46.35        |
| 2006/07 | 13553.23            | 24647.02      | 54.99        | 8945.31             | 23342.29      | 38.32        | 1278.47             | 9475.45       | 13.49        | 4315.53             | 11445.29      | 37.76        | 11822.98            | 30048.41      | 39.35        |
| 2007/08 | 13902.82            | 29743.1       | 46.74        | 9939.77             | 31915.05      | 31.14        | 1443.55             | 11102.21      | 13.00        | 3088.89             | 13715.39      | 22.52        | 13040.18            | 31842.79      | 40.95        |
| Mean    |                     |               | 52.25        |                     |               | 34.29        |                     |               | 11.99        |                     |               | 29.38        |                     |               | 43.2         |
| S.D     |                     |               | 3.34         |                     |               | 4.58         |                     |               | 2.45         |                     |               | 5.67         |                     |               | 3.04         |
| C.V.    |                     |               | 6.4          |                     |               | 7.49         |                     |               | 20.44        |                     |               | 19.3         |                     |               | 7.04         |

*Source: Annual reports from 2003/04 to 2007/08 of all five banks*

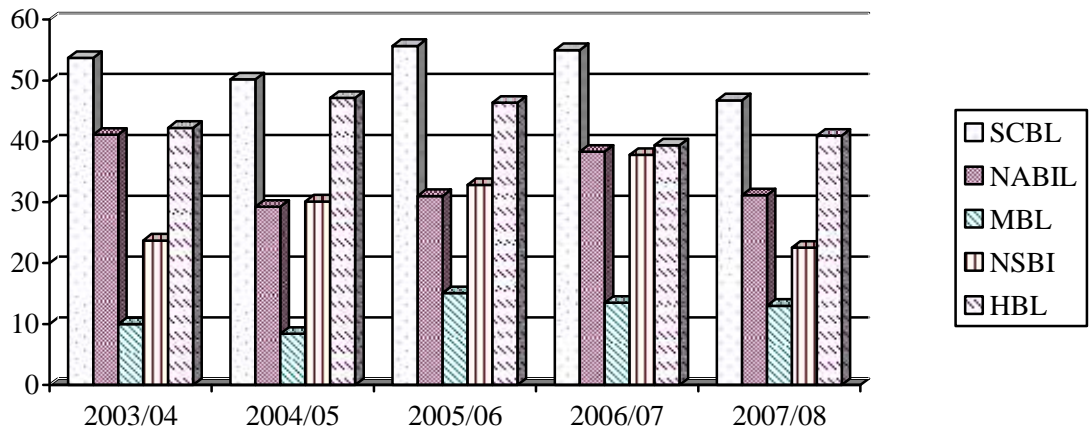


Table no. 4.6 clearly evident total investment to total deposit ratio. Here, during the FY 2003/04 SCBL had relatively the highest of 53.68% followed by HBL 42.22%, NABIL 41.1%, NSBI 23.72% and MBL 9.96% respectively. It measures a high ratio is invested by SCBL utilizing its outsiders fund or total deposits to generate profit. In the context of the FY 2004/05 SCBL had the highest ratio of 50.18% followed by HBL 47.12%, NSBI 30.13%, NABIL 29.25% respectively. In this FY SCBL still had the highest in investment in govt. securities and treasury bills and it is followed by HBL likewise, SCBL again had relatively highest ratio of 55.67% in the FY 2005/06 that is followed by HBL 46.35%, NSBI 32.82%, NABIL 31.62% and MBL 15.09%. IN again showed highest ratio of 54.99% followed by HBL 39.35%, NABIL 38.32%, NSBI 37.76% and 13.49 MBL during the FY 2006/07 SCBL respectively. During the FY 2007/08 SCBL still had the highest consistency ratio in the reviewed period indicate high success in utilization of funds, compare to the ratio we can conclude that MBL bank is unable to investment in the non-risky securities or not needed to invest either.

In the perspective of mean ratio during the reviewed period for total investment to total deposit ratio, SCBL had the highest of 52.25% and its follower are HBL 43.2%, NABIL 34.29%, NSBI 29.38% and MBL 11.99% respectively. During the reviewed period MBL had the highest consistency ratio for total investment to total deposit ratio i.e. coefficient of variation with 20.44% and it is followed by NSBI 19.3%, NABIL 7.49%, HBL 7.04% and SCBL 6.4% respectively

**Figure No. 4.6**

**Graphically Presentation of Total Investment of Total Deposit Ratio of Selected Commercial Banks**



In the above chart it can conclude that SCBL had the highest ratio among others in the reviewed period indicate high success in utilization fund, compose to the ratio we can conclude that MBL bank is unable to investment in the-non-risky. Except the last year NSBI in the increasing rate assets when NABIL & HBL ratio seemed in fluctuating trend.

**(iii) Loan and Advances to Total Working Fund Ratio**

This loan advance to working fund ratio indicates that how much of the working fund is utilized as loans and advances. Loan and advances is major component in the total working fund (total assets) commercial banks must be very careful in mobilizing its total assets as loan and advance in 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 income generation. A high ratio indicates better mobilization of fund on loan and advances and vice-versa.

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

**Table No. 4.7**

***Loan and Advance to Total Working Fund (Total Assets) Ratio***

*(Rs. In Million)*

| Year    | SCBL           |              |              | NABIL          |              |              | MBL            |              |              | NSBI           |              |              | HBL            |              |              |
|---------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|
|         | Loan & Advance | Total Assets | Ratio (in %) | Loan & Advance | Total Assets | Ratio (in %) | Loan & Advance | Total Assets | Ratio (in %) | Loan & Advance | Total Assets | Ratio (in %) | Loan & Advance | Total Assets | Ratio (in %) |
| 2003/04 | 6410.24        | 23642.06     | 27.11        | 8189.99        | 16745.49     | 48.91        | 2493.11        | 3448.63      | 72.29        | 5143.66        | 8440.41      | 60.94        | 11956.87       | 24762.02     | 48.27        |
| 2004/05 | 8143.24        | 21892.58     | 37.2         | 10586.17       | 17186.33     | 61.6         | 5061.43        | 6445.42      | 78.53        | 6213.69        | 9963.02      | 62.37        | 12424.52       | 27418.16     | 45.31        |
| 2005/06 | 8935.42        | 25767.35     | 34.68        | 12922.54       | 22329.97     | 57.87        | 6068.43        | 9069.83      | 66.91        | 7626.74        | 13035.84     | 58.51        | 14642.56       | 29460.39     | 49.7         |
| 2006/07 | 10502.64       | 28596.69     | 36.73        | 15545.78       | 27253.39     | 57.04        | 7129.89        | 10810.33     | 65.95        | 9460.45        | 13901.2      | 68.65        | 16997.1        | 33619.14     | 50.56        |
| 2007/08 | 13718.6        | 33335.79     | 41.15        | 21365.05       | 37132.76     | 57.54        | 8642.32        | 12498.55     | 69.15        | 12113.70       | 17187.45     | 70.48        | 19497.52       | 36175.53     | 53.9         |
| Mean    |                |              | 35.37        |                |              | 56.59        |                |              | 70.56        |                |              | 64.0         |                |              | 49.5         |
| S.D     |                |              | 4.63         |                |              | 4.17         |                |              | 4.54         |                |              | 4.49         |                |              | 2.81         |
| C.V.    |                |              | 13.09        |                |              | 7.37         |                |              | 8.43         |                |              | 7.0          |                |              | 5.67         |

*Source: Annual reports from 2003/04 to 2007/08 of all five banks*

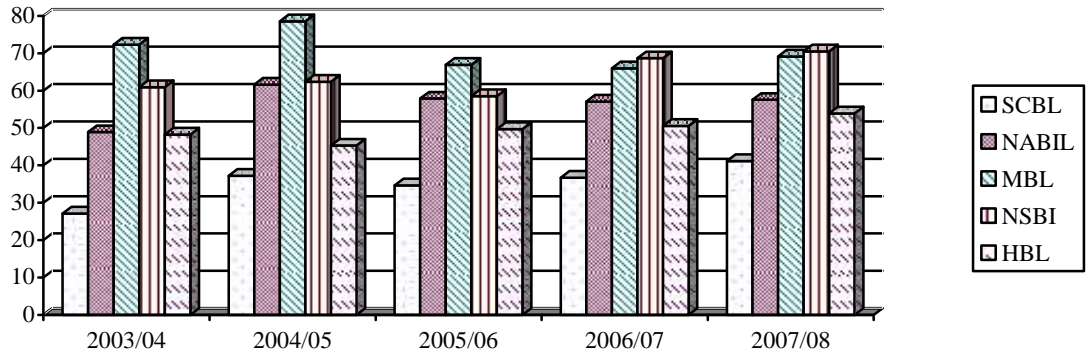
The table 4.7 shows that SCBL's ratio recorded rising and falling except last two yrs. Its ranged between 27.11% to 41.15% whereas NABIL is in fluctuating trend. It maintain the highest ratio in 2004/05 (61.6%) and lowest ratio in FY 2006/07 (57.04%) same way MBL is also fluctuating pattern of ratio. Similarly ratio ranged of NSBI is between 58.51% to 70.48% which is increasing from FY 2003/04 to 2004/05 then decreasing in FY 2005/06 and then after increasing in last 2 years. The ratio range of HBL is increasing trend exception of first 2 years its maintained the highest ratio is 53.9% in FY 2007/08 and lowest ratio is 45.31% in FY 2004/05.

Observing the mean ratio it can be said that MBL has maintained higher ratio i.e. 70.56% and its followed by NSBL with 64%, NABIL with 56.59% HBL with 49.55% and SCBL with 35.37% respectively. This table reveals that MBL is not in weak condition to mobilize its total working funds as loan & advances. However, higher CV of SCBL 13.09% ratio states that its ratio are less consistent than that of NABIL 7.37%, NSBI 7% CV of MBL 6.45% and CV of HBL is 5.67% respectively.

From the above analysis its can be concluded that MBL's fund mobilization in term of loan & advances with respect to total working fund is more satisfactory than other selected commercial bank.

**Figure No. 4.7**

**Graphically Presentation of Loan & Advance to Total Working Fund (Total Assets) Ratio of Selected Commercial Banks**



From the above figure we found that SCBL & NSBL have fluctuated ratio of loan & advance to total working fund. The ratio range of HBL is increasing trend exception of first two years NABIL bank is increasing from FY 2033/04 to 2004/05 then after decreasing except last year, whereas MBL is also fluctuating pattern of ratio.

From the above analysis it can be concluded that MBL bank’s fund mobilization in term of loan & advances with respect to total working fund is more satisfactory then other selected commercial banks.

**(iv) Investment in Shares and Debenture to Total Working Fund Ratio**

Every commercial bank is investing their funds in different sectors. So the banks invest some portion of their fund in share and debenture of other company is less than investment in government securities. Investment on share and debenture to has successful invested its assets on their companies share and debenture. This ratio of investment in shares and debenture.

$$\text{Investment on shares and debenture to total working fund Ratio} = \frac{\text{Total investment on Shares and Debenture}}{\text{Total Working Fund}}$$

**Table No. 4.8**

***Investment on Share and Debenture to Total Working Fund Ratio***

*(Rs. In Million)*

| Year    | SCBL              |              |              | NABIL             |              |              | MBL               |              |              | NSBI              |              |              | HBL               |              |              |
|---------|-------------------|--------------|--------------|-------------------|--------------|--------------|-------------------|--------------|--------------|-------------------|--------------|--------------|-------------------|--------------|--------------|
|         | Share & Debenture | Total Assets | Ratio (in %) | Share & Debenture | Total Assets | Ratio (in %) | Share & Debenture | Total Assets | Ratio (in %) | Share & Debenture | Total Assets | Ratio (in %) | Share & Debenture | Total Assets | Ratio (in %) |
| 2003/04 | 11.2              | 23642.06     | 0.05         | 111.23            | 16745.49     | 0.66         | 8.9               | 3448.63      | 0.26         | 19.54             | 8440.41      | 0.23         | 34.27             | 24762.02     | 0.14         |
| 2004/05 | 13.35             | 21892.58     | 0.061        | 412.92            | 17186.33     | 2.4          | 9.3               | 6445.42      | 0.14         | 19.54             | 9963.02      | 0.2          | 39.91             | 27418.18     | 0.15         |
| 2005/06 | 15.34             | 25767.35     | 0.06         | 76.63             | 22329.97     | 0.34         | 9.3               | 9069.83      | 0.1          | 19.54             | 13035.84     | 0.15         | 38.57             | 29460.39     | 0.13         |
| 2006/07 | 44.94             | 28596.69     | 0.16         | 286.96            | 27253.39     | 1.05         | 9.3               | 10810.33     | 0.09         | 31.94             | 13901.20     | 0.23         | 89.56             | 33619.14     | 0.27         |
| 2007/08 | 114.54            | 33335.79     | 0.34         | 323.24            | 37132.76     | 0.87         | 9.3               | 12498.55     | 0.07         | 32.82             | 17187.45     | 0.19         | 89.56             | 34175.53     | 0.25         |
|         | Mean              |              | 0.134        |                   |              | 1.07         |                   |              | 0.132        |                   |              | 0.2          |                   |              | 0.19         |
|         | S.D               |              | 0.11         |                   |              | 0.71         |                   |              | 0.07         |                   |              | 0.3          |                   |              | 0.06         |
|         | C.V.              |              | 83.84        |                   |              | 66.41        |                   |              | 50.23        |                   |              | 15.0         |                   |              | 30.06        |

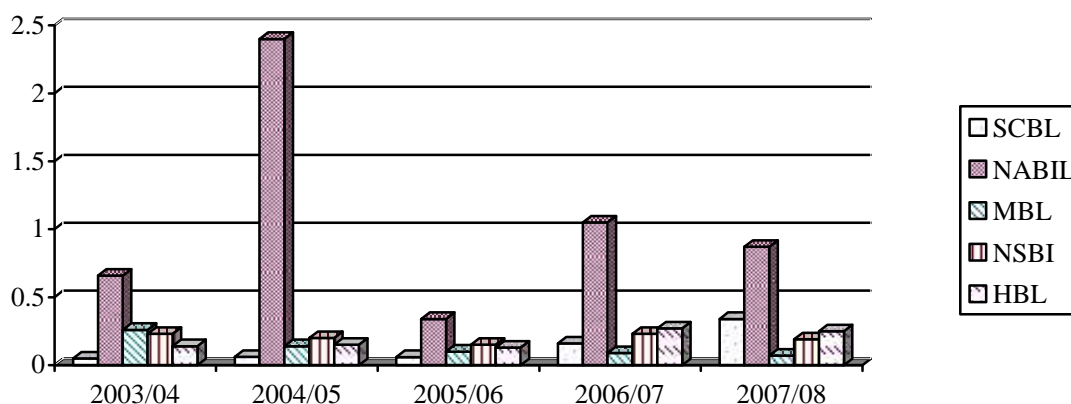
*Source: Annual reports from 2003/04 to 2007/08 of all five banks*

The above table depicts the ratio of investment on share and debenture total working fund of SCBL, NABIL, MBL, NSBI and HBL. Which are very nominal %. The highest % invested during the study period in share and debenture of SCBL is only 0.34% to total working fund in 2007/08, where as NABIL with 2.4% in 2004/05, MBL with 0.26% in 2003/04, NSBI with 0.23% in 2003/04 and HBL with 0.27% in 2006/07 respectively. It shows that all five banks have invested only a small value of fund in share and debenture of other companies. Comparatively the NABIL bank has invested its fund in share and debenture more than NSBI, HBL, SCBL and MBL, they have the mean ratio 0.2%, 0.19%, 0.0134% and 0.132% respectively.

From the analysis coefficient of variation it seems that NSBI is more context stable because its CV (15%0 is lower than other selected commercial bank. NABIL bank is less consistent to invest in share and debenture to total working fund because its highest C.V. with 66.41%.

**Figure No. 4.8**

**Graphically Presentation of Investment on Share & Debenture to Total Working Fund (Total Assets) Ratio**



The above figure reveals the ratio of investment on share & debenture total working fund (Total assets) of SCBL, NABIL, MBL, NSBI & HBL which are very nominal percentage the highest percent invested during the study period. We can found from figure that all five banks have invested only a small value of fund in share &

debenture of other companies. Comparatively the NABIL bank has invested its fund with 2.4% in FY 2004/05 in share and debenture more than NSBI, HBL, SCBL & MBL.

### **Profitability Ratio**

Profitability ratios indicate the degree of success in achieving desired profit. This ratio measures how effectively the company manages its fund to earn profit. The different between total revenues and total expenses over a period is known as profit. It is regarding as the most essential element for commercial banks growth, survival and to compete with competitor. In fact, sufficient profit must be earned to maintain the operation of the company be able to acquire funds from investors for expansion and to contribute towards the goal of the nation. This implies that profit is the measuring rod of companies for the financial performance. Higher the profit ratio, better the financial performance of commercial bank and vice-versa.



**Table No. 4.9**

***Return on Capital Employed Ratio of Selected Commercial Banks***

*(Rs. In Million)*

| Year    | SCBL                     |                  |              | NABIL                    |                  |              | MBL                      |                  |              | NSBI                     |                  |              | HBL                      |                  |              |
|---------|--------------------------|------------------|--------------|--------------------------|------------------|--------------|--------------------------|------------------|--------------|--------------------------|------------------|--------------|--------------------------|------------------|--------------|
|         | NPAT + Interest Expenses | Capital Employed | Ratio (in %) | NPAT + Interest Expenses | Capital Employed | Ratio (in %) | NPAT + Interest Expenses | Capital Employed | Ratio (in %) | NPAT + Interest Expenses | Capital Employed | Ratio (in %) | NPAT + Interest Expenses | Capital Employed | Ratio (in %) |
| 2003/04 | 813.61                   | 1574.04          | 51.69        | 738.26                   | -                | 40.73        | 160.27                   | 656.39           | 24.42        | 316.89                   | 743.8            | 42.6         | 754.6                    | 1983.17          | 38.05        |
| 2004/05 | 793.33                   | 1638.34          | 48.42        | 762.18                   | 2086.80          | 36.52        | 271.9                    | 791.96           | 34.33        | 315.75                   | 1158.64          | 27.25        | 870.24                   | 2047.8           | 42.5         |
| 2005/06 | 961.96                   | 1754.14          | 54.84        | 992.42                   | 2048.2           | 48.45        | 422.66                   | 1062.77          | 39.8         | 451.77                   | 1794.8           | 25.17        | 1106.3                   | 2270.8           | 48.72        |
| 2006/07 | 1104.72                  | 2116.35          | 52.2         | 1229.66                  | 2939.62          | 41.83        | 474.52                   | 1235.80          | 38.4         | 667.17                   | 2178.66          | 30.62        | 1199.33                  | 2571.3           | 46.64        |
| 2007/08 | 1290.65                  | 2492.55          | 51.78        | 1504.9                   | 2677.2           | 56.21        | 492.93                   | 1251.86          | 39.38        | 702.69                   | 3242.13          | 21.07        | 1459.61                  | 3474.1           | 42.01        |
|         | Mean                     |                  | 51.79        |                          |                  | 44.75        |                          |                  | 35.27        |                          |                  | 29.46        |                          |                  | 43.58        |
|         | S.D                      |                  | 2.04         |                          |                  | 6.89         |                          |                  | 5.76         |                          |                  | 7.18         |                          |                  | 3.6          |
|         | C.V.                     |                  | 3.94         |                          |                  | 15.4         |                          |                  | 16.33        |                          |                  | 24.37        |                          |                  | 8.26         |

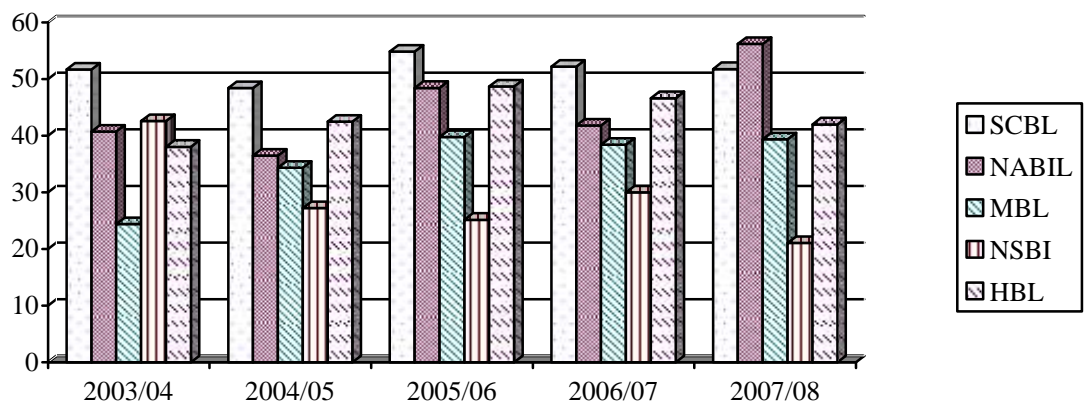
*Source: Annual reports from 2003/04 to 2007/08 of all five banks*

$$S.D. = \sqrt{\frac{\phi(x Z \bar{x})^2}{n}}$$

Table 4.9 explains the average return on capital employed ratio of selected five commercial banks. Mean ratio of SCBL with 51.79%, NABIL with 44.75%, HBL with 43.58% MBL with 35.27% and NSBI with 29.76% respectively. On an average, SCBL is in quite satisfactory level with high mean ratio and consistency where NABIL is also in good position. Though the ratio, seems to be okay of NSBI, the management coming must have to take the situation seriously and must show the initiative recover the condition and make the bank well managed by decreasing interest expense and increasing the net profit.

**Figure No. 4.9**

***Graphically Presentation of Return on Capital Employed of Selected Commercial Bank***



The figure no 4.9 shows that ratio of SCBL is the highest in the FY 2003/04 than other selected bank. Likewise FY 2004/05, 2005/06 and 2006/07 have the highest ratio of SCBL. But in the FY 2007/08 NABIL's ratio is the highest. According to ratio SCBL is better utilized of capital employed and NSBI is low utilization of capital employed because its ratio is lower than other selected banks.

**Table No. 4.10**

**Return on Total Assets Ratio of Selected Commercial Banks**

*(Rs. In Million)*

| Year    | SCBL   |              |              | NABIL  |              |              | MBL   |              |              | NSBI   |              |              | HBL    |              |              |
|---------|--------|--------------|--------------|--------|--------------|--------------|-------|--------------|--------------|--------|--------------|--------------|--------|--------------|--------------|
|         | NPAT   | Total Assets | Ratio (in %) | NPAT   | Total Assets | Ratio (in %) | NPAT  | Total Assets | Ratio (in %) | NPAT   | Total Assets | Ratio (in %) | NPAT   | Total Assets | Ratio (in %) |
| 2003/04 | 537.8  | 23642.06     | 2.27         | 455.31 | 16745.49     | 2.72         | 46.69 | 3448.63      | 1.35         | 60.85  | 8440.41      | 0.72         | 263.05 | 24762.02     | 1.06         |
| 2004/05 | 539.2  | 21893.58     | 2.46         | 518.64 | 17186.33     | 3.02         | 84.87 | 6445.42      | 1.32         | 57.38  | 9963.02      | 0.57         | 308.28 | 27418.16     | 1.12         |
| 2005/06 | 658.76 | 25767.35     | 2.56         | 635.26 | 22329.97     | 2.84         | 133.1 | 9069.83      | 1.47         | 117.00 | 13035.84     | 0.90         | 457.46 | 29460.39     | 1.55         |
| 2006/07 | 691.67 | 28596.69     | 2.42         | 673.96 | 27253.39     | 2.47         | 76.8  | 10810.33     | 7.1          | 254.91 | 13901.2      | 1.83         | 431.92 | 23519.14     | 1.84         |
| 2007/08 | 818.92 | 33335.79     | 2.46         | 746.47 | 37132.76     | 2.01         | 85.01 | 12498.55     | 6.8          | 247.77 | 17187.45     | 1.44         | 635.38 | 36175.53     | 1.76         |
| Mean    |        |              | 2.43         |        |              | 2.61         |       |              | 3.61         |        |              | 1.1          |        |              | 1.47         |
| S.D     |        |              | 1.095        |        |              | 0.35         |       |              | 2.73         |        |              | 1.05         |        |              | 0.32         |
| C.V.    |        |              | 3.91         |        |              | 13.41        |       |              | 75.62        |        |              | 95.45        |        |              | 21.77        |

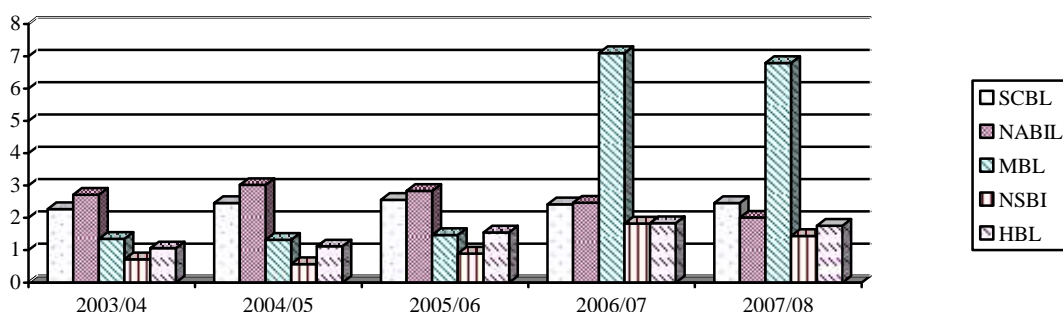
*Source: Annual reports from 2003/04 to 2007/08 of all five banks*

The table 4.10 reveals that return on total assets ratio of SCBL has ranged between 2.27% to 2.56% with increasing trend except the last two year. The ratio of NABIL is increasing trend from 2003/04 (2.72%) to 2004/05 (3.02%) then after decreasing trend from 2005/06 (2.84%) to 2007/08 (2.01%). The ratio of MBL fluctuated between 1.32% (2004/05) to 7.10% (2006/07) over the study period. Similarly, the ratio pattern of NSBI fluctuated between 0.57% to 1.83%. The ratio of HBL has ranged between 1.06% to 1.84% increasing trend except the last year.

During the reviewed period MBL has highest mean ratio for return on total assets with 3.61% and it is followed by NABIL with 2.61%, SCBL with 2.43%, HBL with 1.47%. whereas NSBI with 1.1%. The coefficient of variable of NSBI is the highest then after MBL 75.62%, HBL, NABIL, SCBL respective (i.e. 95.45%>75.62%>21.77%>13.41%>3.91%). It means return on total assets ratio of SCBL is consistent. From the above calculation MBL holds highest mean ratio other selected banks. The mean ratio of NSBI is very low and there is no consistency which shows the bank has no good performance. Hence, the management team of NSBI must have to think better or hire expert to manage the situation. Otherwise, it will take the time to wind up the bank itself whereas the MBL have been able to generate surplus by utilizing the total assets.

**Figure No. 4.10**

***Graphically Presentation of Return on Total Assets Ratio of Selected Commercial Bank***



From the figure no. 4.10 shows that return on total assets of SCBL is increasing trend except of last two years. Similarly NABIL Bank's ratio is increasing trend except of first two years. MBL & NSBI have fluctuated trend. HBL is increasing trend from FY 2003/04 to 2006/07 then decrease in FY 2007/08. During the review period MBL had the highest average ratio, followed by NABIL, SCBL, HBL & NSBI.

**Table No. 4.11**

**Return on Total Deposit Ratio of Selected Commercial Bank**

*(Rs. In Million)*

| Year    | SCBL   |                |              | NABIL  |                |              | MBL    |                |              | NSBI   |                |              | HBL    |                |              |
|---------|--------|----------------|--------------|--------|----------------|--------------|--------|----------------|--------------|--------|----------------|--------------|--------|----------------|--------------|
|         | NPAT   | Total Deposits | Ratio (in %) | NPAT   | Total Deposits | Ratio (in %) | NPAT   | Total Deposits | Ratio (in %) | NPAT   | Total Deposits | Ratio (in %) | NPAT   | Total Deposits | Ratio (in %) |
| 2003/04 | 537.8  | 21161.44       | 2.54         | 455.31 | 14119.03       | 3.22         | 46.69  | 2754.63        | 1.69         | 60.85  | 7198.33        | 0.85         | 263.05 | 22010.33       | 1.2          |
| 2004/05 | 539.3  | 19335.09       | 2.79         | 518.64 | 14586.64       | 3.36         | 84.87  | 5586.80        | 1.52         | 57.38  | 8654.77        | 0.66         | 308.28 | 24818.01       | 1.24         |
| 2005/06 | 658.76 | 23061.03       | 2.86         | 635.26 | 19347.40       | 3.28         | 133.10 | 7893.3         | 1.69         | 117.00 | 11002.04       | 1.06         | 457.46 | 26490.85       | 1.73         |
| 2006/07 | 691.67 | 24647.62       | 2.81         | 673.96 | 23342.29       | 2.89         | 76.80  | 9475.45        | 0.81         | 254.91 | 11445.29       | 2.23         | 431.92 | 30048.41       | 1.44         |
| 2007/08 | 818.92 | 29743.1        | 2.75         | 746.47 | 31915.05       | 2.34         | 85.01  | 11102.24       | 0.77         | 247.77 | 13715.39       | 1.8          | 635.38 | 31842.3        | 1.1          |
|         | Mean   |                | 2.75         |        |                | 3.06         |        |                | 1.3          |        |                | 1.32         |        |                | 1.34         |
|         | S.D    |                | 0.11         |        |                | 0.42         |        |                | 0.42         |        |                | 0.36         |        |                | 0.22         |
|         | C.V.   |                | 4.00         |        |                | 13.73        |        |                | 32.31        |        |                | 27.27        |        |                | 16.42        |

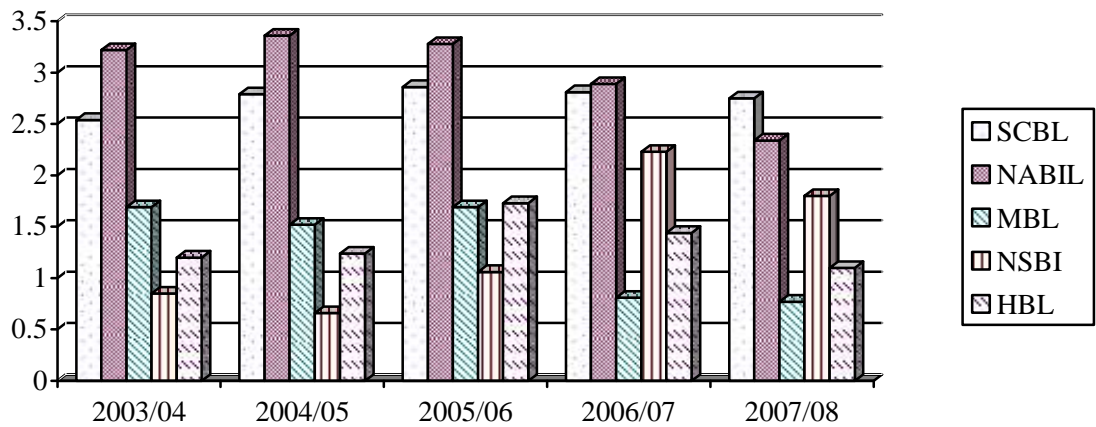
*Source: Annual reports from 2003/04 to 2007/08 of all five banks*

From the above table and figure NABIL holds highest return on total deposit ratio which is 3.06% of the total deposit. SCBL also holds high mean ratio with 2.75%, HBL with 1.34% NSBI with 1.32% whereas, MBL has lower average ratio i.e. 1.30%. However, the coefficient of variation for return on total deposit ratio of MBL is highest i.e. 32.31% Likewise, the CV of NSBI is 27.27%, CV of HBL is 16.42%, CV of NABIL is 13.37% and CV of SCBL is 4% respectively. It means return on total deposit of SCBL is consistent.

By comparing return on total deposit ratio, NABIL has performed better with high mean ratio, whereas SCBL also performed well with high mean ratio, whereas SCBL also performed well with consistently. But MBL has critical situation and it is suggested to do hard labour to maintain this ratio.

**Figure No. 4.11**

**Graphically Presentation of Return on Total Deposit Ratio of Selected Commercial Bank**



From the above graph we can conclude that the trends of the sample bank profit percentage are fluctuating. Among the all banks NABIL & SCBL are in highest ratio that is followed by HBL, HBL & MBL. By comparing return on total deposit ratio NABIL has performed better where as SCBL also performed well with consistently. But MBL has critical situation and it is suggested to do hard labour to maintain this ratio.

**Table No. 4.12**

**Return on Equity (ROE) of Selected Commercial Bank**

*(Rs. In Million)*

| Year    | SCBL   |         |                 | NABIL  |         |                 | MBL    |         |                 | NSBI   |         |                 | HBL    |         |                 |
|---------|--------|---------|-----------------|--------|---------|-----------------|--------|---------|-----------------|--------|---------|-----------------|--------|---------|-----------------|
|         | NPAT   | Equity  | Ratio<br>(in %) | NPAT   | Equity  | Ratio<br>(in %) | NPAT   | Equity  | Ratio<br>(in %) | NPAT   | Equity  | Ratio<br>(in %) | NPAT   | Equity  | Ratio<br>(in %) |
| 2003/04 | 537.8  | 1495.74 | 35.96           | 455.31 | 168.68  | 27.07           | 46.69  | 554.22  | 8.42            | 60.85  | 626.6   | 9.71            | 263.05 | 1324.17 | 19.87           |
| 2004/05 | 539.2  | 1582.42 | 34.07           | 518.64 | 1657.64 | 31.29           | 84.87  | 637.74  | 13.31           | 57.38  | 688.9   | 8.33            | 368.28 | 1541.75 | 20.00           |
| 2005/06 | 658.76 | 1754.14 | 37.55           | 635.26 | 1874.1  | 33.9            | 133.10 | 931.09  | 14.3            | 117.00 | 982.3   | 11.91           | 457.46 | 1766.18 | 25.9            |
| 2006/07 | 691.67 | 2116.35 | 32.68           | 673.96 | 2057.05 | 32.76           | 76.8   | 1007.29 | 7.62            | 254.91 | 1163.28 | 21.91           | 431.92 | 2167.5  | 19.93           |
| 2007/08 | 818.92 | 2492.55 | 32.85           | 746.47 | 2437.2  | 30.63           | 85.01  | 1163.35 | 7.31            | 247.77 | 1414.65 | 17.51           | 635.38 | 2512.98 | 25.28           |
|         | Mean   |         | 34.62           |        |         | 31.13           |        |         | 10.19           |        |         | 13.87           |        |         | 22.2            |
|         | S.D    |         | 1.87            |        |         | 2.33            |        |         | 2.98            |        |         | 5.1             |        |         | 2.78            |
|         | C.V.   |         | 5.4             |        |         | 7.48            |        |         | 29.24           |        |         | 36.77           |        |         | 12.52           |

*Source: Annual reports from 2003/04 to 2007/08 of all five banks*

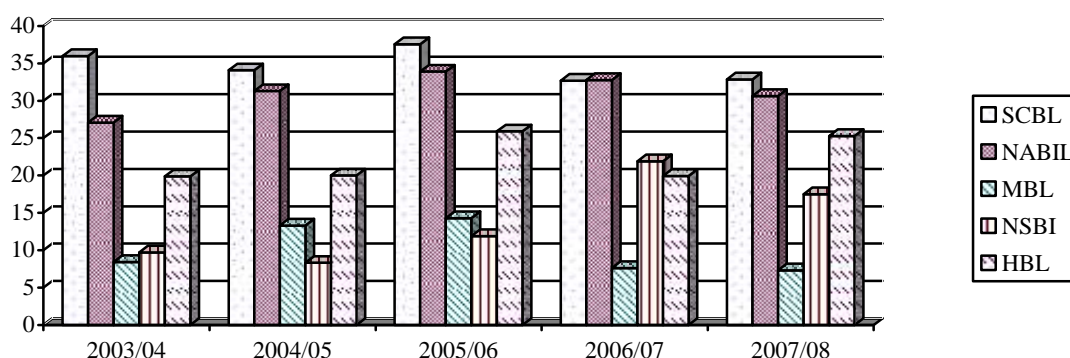


Above listed table reveals that SCBL as well as HBL have fluctuating ratio for the year of study period. In cash of SCBL the highest ratio i.e. 37.55% and lower ratio i.e. 32.68% were recorded in FY 2005/06 and FY 2006/07 respectively. Similarly in the case of HBL the highest ratio 25.9% and lowest i.e. 19.87% were registered in FY 2005/06 and FY 2003/04 respectively. NABIL has increasing trend except last two yrs its highest ratio is 33.9% and lowest ratio is 30.65%. MBL has increasing and decreasing trend of ratio. MBL increasing from 2003/04 to 2005/06 by 8.42% and 14.3% then after decreasing from 2006/07 to 2007/08 by 7.62% and 7.31%. Similarly, NSBI has fluctuated ratio between 21.91% at FY 2006/07 to 8.33% at FY 2004/05.

On the basis of mean ratio, SCBL has highest mean ratio for return on equity with 34.62% and it is followed by NABIL with 31.13%, HBL with 22.2% NSBI with 13.87% and MBL 10.19%. It can be said that SCBL has not been weaker to earn high profit to its shareholders in comparison selected commercial banks. Which can be viewed by the higher mean ratio i.e.  $34.62\% > 31.13\% > 22.2\% > 13.87\% > 10.19\%$ . Likewise, high C.V. among the ratio of NSBI shows its inconsistency in earning the profit and low C.V. among the ratio of SCBL shows its consistency in earning the profit.

**Figure No. 4.12**

**Graphically Presentation of Return on Equity of Selected Commercial Bank**



Return on equity measures the capacity of bank generating profit on its net worth. In the figure no 4.12 reveals SCBL, NSBI & HBL have fluctuating ratio for the year of the study period. Similarly return on equity ratio of NABIL is fluctuated. So it can not be said better position because the ratio is very up and down during study period. MBL Bank's ratio is declining except last two years. The reason for declining ratio may be due to idle deposit. So, it can concluded that most of the banks are not being able to utilize their funds properly in-order to profit maximization.

## Statistical Analysis

### I) Correlation Coefficient of SCBL

Calculation of Karl Pearson's coefficient of correlation between deposit and loan & advances are denoted by x and y respectively.

**Table No. 4.13**

#### *Correlation Coefficient between Total Deposit and Loan & Advances of SCBL*

*(Rs. In Million)*

| Year         | x                                | y                           | x <sup>2</sup>                      | y <sup>2</sup>                       | xy                                 |
|--------------|----------------------------------|-----------------------------|-------------------------------------|--------------------------------------|------------------------------------|
| 2003/04      | 21161.44                         | 6410.24                     | 447806542.9                         | 41091176.86                          | 135649909.1                        |
| 2004/05      | 19335.09                         | 8143.24                     | 373845705.3                         | 66312357.7                           | 157450278.3                        |
| 2005/06      | 23061.03                         | 8935.42                     | 53181104.7                          | 79841730.84                          | 206059988.7                        |
| 2006/07      | 24647.02                         | 10502.64                    | 607475594.9                         | 110305447                            | 258858778.1                        |
| 2007/08      | 29743.10                         | 13718.60                    | 884651997.6                         | 188199986                            | 408033691.7                        |
| <b>Total</b> | $\Sigma x =$<br><b>311794768</b> | $\Sigma y =$ <b>4771014</b> | $\Sigma x^2 =$<br><b>2845590945</b> | $\Sigma y^2 =$<br><b>485750698.1</b> | $\Sigma xy =$<br><b>1166052646</b> |

We have,

Coefficient of correlation

$$r = \frac{\rho \phi_{xy} \Sigma \phi_x \phi_y}{\sqrt{\rho \phi_{x^2} \Sigma (\phi_x)^2} \sqrt{\rho \phi_{y^2} \Sigma (\phi_y)^2}}$$

$$= \frac{5 \mid 1166052646 \mid \Sigma 11794768 \mid 47710.14}{\sqrt{5 \mid 2845590945} \sqrt{5 \mid 485750698.1 \mid \Sigma (47710.14)^2}} (11794768)^2$$

$$= \frac{202962904.5}{17784.811 \mid 12348.928}$$

$$= \frac{202962904.5}{219623350.5}$$

$$R = 0.924$$

The calculation shows that the coefficient of correlation between deposit and loan & advances of SCBL is 0.924. it means that there is a positive and high degree of correlation between them.

$$\text{Computation of probable error of SCBL Per} = 0.6745 \frac{1Zr^2}{\sqrt{N}}$$

$$= 0.6745 \frac{1Z(0.924)^2}{\sqrt{5}}$$

$$= 0.6745 \frac{0.146224}{2.236}$$

$$= 0.0441$$

Since, the value of r is more than six times of probable error. (i.e.  $6 \times 0.0441 < 0.924$ ). It means deposit is significantly used as loan & advances

## **II) Computation of Correlation Coefficient of NABIL**

Calculation of Pearson coefficient of correlation between deposit and loan & advances are denoted by x and y respectively.

**Table No. 4.14**

**Correlation Coefficient between Total deposit and loan & advances of NABIL**

(Rs. In Million)

| Year         | x                         | y                    | x <sup>2</sup>                         | y <sup>2</sup>                         | xy                           |
|--------------|---------------------------|----------------------|--|--|------------------------------|
| 2003/04      | 14199.03                  | 8189.99              | 20162452.9                             | 67075936.2                             | 116289913.7                  |
| 2004/05      | 14586.61                  | 10586.17             | 212769191.3                            | 112066995.3                            | 154416333.2                  |
| 2005/06      | 19347.40                  | 12922.54             | 374321886.8                            | 166992040.1                            | 250017550.4                  |
| 2006/07      | 23342.29                  | 15545.78             | 544862502.4                            | 241671275.8                            | 362874105                    |
| 2007/08      | 31915.05                  | 21365.05             | 1018570417                             | 456465301.5                            | 681866000.7                  |
| <b>Total</b> | <b>∑x =<br/>103390.38</b> | <b>∑y = 68609.53</b> | <b>∑x<sup>2</sup> =<br/>2845590945</b> | <b>∑y<sup>2</sup> =<br/>1044271609</b> | <b>∑xy =<br/>15654639030</b> |

We have,

Coefficient of correlation,

$$\begin{aligned}
 r &= \frac{\rho \phi_{xy} \sum \phi_x \phi_y}{\sqrt{\rho \phi_x^2 \sum (\phi_x)^2} \sqrt{\rho \phi_y^2 \sum (\phi_y)^2}} \\
 &= \frac{5 \mid 1565463903 \sum 103390.38 \mid 68609.53}{\sqrt{5 \mid 2352136450 \sum (103390.38)^2} \sqrt{5 \mid 1044270754 \sum (68609.53)^2}} \\
 &= \frac{733754136.7}{32727.84 \mid 22673.468} \\
 &= \frac{733754136.7}{742053641.6}
 \end{aligned}$$

$$r = 0.989$$

The calculation shows that the coefficient of correlation between deposit and loan & advances of NABIL is 0.989. It means that there is positive and high degree of correlation between them.

Computation of probable error NABIL

$$\text{Per} = 0.6745 \frac{1 \sum r^2}{\sqrt{N}}$$

$$\begin{aligned}
&= 0.6745 \frac{1 Z 0.989^2}{\sqrt{5}} \\
&= 0.6745 \frac{0.022}{2.236} \\
&= 0.6745 \times 0.0984 = 0.066
\end{aligned}$$

$$\text{Probable error of NABIL} = 0.6745 \frac{1 Z r^2}{\sqrt{N}}$$

### III) Computation of correlation coefficient of MBL

Calculation of Pearson coefficient of correlation between deposit and loan & advances and denoted by x and y respectively.

**Table No. 4.15**

#### **Correlation Coefficient between Total Deposit and Loan & Advances of MBL**

(Rs. In Million)

| Year         | x                    | y                    | x <sup>2</sup>                          | y <sup>2</sup>                          | xy                          |
|--------------|----------------------|----------------------|---|---|-----------------------------|
| 2003/04      | 3951.71              | 4178.35              | 15616011.92                             | 17458608.72                             | 16511669.26                 |
| 2004/05      |                      | 5061.43              | 31212334.24                             | 25618073.64                             | 28277197.12                 |
| 2005/06      | 78                   | 6068.43              | 62305289.96                             | 36825842.66                             | 47900363.31                 |
| 2006/07      | 9475.45              | 7129.89              | 89784152.7                              | 50835331.41                             | 67558916.2                  |
| 2007/08      | 1102.24              | 8642.32              | 123259733                               | 74689694.98                             | 95949110.8                  |
| <b>Total</b> | <b>∑x = 38009.57</b> | <b>∑y = 31080.42</b> | <b>∑x<sup>2</sup> =<br/>322177521.8</b> | <b>∑y<sup>2</sup> =<br/>205427551.4</b> | <b>∑xy =<br/>25619756.7</b> |

We have,

Coefficient of correlation,

$$\begin{aligned}
r &= \frac{\rho \phi_{xy} Z \phi_x \phi_y}{\sqrt{\rho \phi_x^2 Z(\phi_x)^2} \sqrt{\rho \phi_y^2 Z(\phi_y)^2}} \\
&= \frac{5 \mid 256197256.7 \mid Z 38009.57 \mid 31080.42}{\sqrt{5 \mid 322177521.8 \mid Z(38009.57)^2} \sqrt{5 \mid 205427551.4 \mid Z(31080.42)^2}} \\
&= \frac{99632883.88}{12890.31 \mid 7819.54}
\end{aligned}$$

$$= \frac{99632883.88}{100796294.7}$$

$$= 0.99$$

The calculation shows that the coefficient of correlation between deposit and loan and advances of MBL is 0.99. It means that there is a positive and high degree correlation between them.

Computation of probable error of MBL

$$\text{Per} = 0.6745 \frac{1 Z r^2}{\sqrt{N}}$$

$$= \frac{1 Z (0.99)^2}{\sqrt{5}}$$

$$= 0.6745 \times 0.0089$$

$$= 0.006$$

Since, the value of r is more than six times probable error (i.e. 6x0.66 less than 0.99) the coefficient of correlation between deposit and loan and advances of MBL is significant.

#### IV) Correlation Coefficient of NSBI

Calculation of Pearson's coefficient of correlation between deposit and loan and advances are denoted by x and y respectively.

**Table No. 4.16**

***Correlation Coefficient between Total Deposit and Loan & Advances of NSBI***

*(Rs. In Million)*

| Year         | x                    | y                    | x <sup>2</sup>                      | y <sup>2</sup>                      | xy                       |
|--------------|----------------------|----------------------|-------------------------------------|-------------------------------------|--------------------------|
| 2003/04      | 7198.33              | 5143.66              | 51815954.79                         | 26457238.2                          | 37025762.09              |
| 2004/05      | 8654.77              | 6213.69              | 74905043.75                         | 38609943.42                         | 53778057.8               |
| 2005/06      | 11002.04             | 7626.74              | 121044884.2                         | 58167163.03                         | 83909698.55              |
| 2006/07      | 11445.29             | 9460.45              | 130994663.2                         | 89500114.2                          | 108277593.8              |
| 2007/08      | 13715.39             | 12113.70             | 188111922.9                         | 146741727.7                         | 166144719.8              |
| <b>Total</b> | <b>ÿx = 52015.82</b> | <b>ÿy = 40558.24</b> | <b>ÿx<sup>2</sup> = 566872468.8</b> | <b>ÿy<sup>2</sup> = 359496186.6</b> | <b>ÿxy = 449135232.0</b> |

We have,

Coefficient of correlation,

$$\begin{aligned}
 r &= \frac{\rho \phi_{xy} Z\phi_x \phi_y}{\sqrt{\rho \phi_x^2 Z(\phi_x)^2} \sqrt{\rho \phi_y^2 Z(\phi_y)^2}} \\
 &= \frac{449135232.0 Z52015.82 \times 40558.24}{\sqrt{5 | 566872468.7 Z(52015.82)^2} \sqrt{5 | 359476186.6 Z(40558.29)^2}} \\
 &= \frac{136006048.6}{11345.34 | 12345.45} \\
 &= \frac{136006048.6}{140063327.7} \\
 &= 0.97
 \end{aligned}$$

The calculation shows that the coefficient of correlation between deposit and loan and advances of NSBI is 0.97. It means that there is a positive and high degree of correlation between them.

Computation of probable error of NSBI

$$\begin{aligned}
 \text{Per} &= 0.6745 \times \frac{1 Z(r)^2}{\sqrt{N}} \\
 &= 0.6745 \times \frac{1 Z(0.97)^2}{\sqrt{5}} \\
 &= 0.6745 \times 0.0591 \\
 &= 0.04
 \end{aligned}$$

Since, the value of r is more the six times the probable error (i.e.  $6 \times 0.04 < 0.97$ ). It means deposit is significantly used as loan and advance.

#### **V) Correlation Coefficient of HBL**

Calculation of Pearson coefficient of correlation between deposit and loan & advances are denoted by x and y respectively.

**Table No. 4.17**

**Correlation Coefficient between Total Deposit and Loan & Advances of HBL**

(Rs. In Million)

| Year         | x                         | y                    | x <sup>2</sup>                            | y <sup>2</sup>                         | xy                          |
|--------------|---------------------------|----------------------|---|--|-----------------------------|
| 2003/04      | 22010.33                  | 11951.87             | 484454626.7                               | 142847196.5                            | 263064602.8                 |
| 2004/05      | 24814.01                  | 12424.52             | 615735092.3                               | 154368697.2                            | 308302163.5                 |
| 2005/06      | 23490.85                  | 14642.56             | 551820033.7                               | 214404563.4                            | 343966180.6                 |
| 2006/07      | 30048.41                  | 16997.1              | 902906943.53                              | 288901408.41                           | 510735829.6                 |
| 2007/08      | 31842.79                  | 19497.52             | 1013963274.98                             | 380153286.15                           | 620855434.8                 |
| <b>Total</b> | <b>ÿx =<br/>132206.39</b> | <b>ÿy = 15513.57</b> | <b>ÿx<sup>2</sup> =<br/>3568879970.00</b> | <b>ÿy<sup>2</sup> =<br/>1180675152</b> | <b>ÿxy =<br/>2046924211</b> |

We have,

Coefficient of correlation,

$$\begin{aligned}
 r &= \frac{\sum \phi_{xy} \sum \phi_x \phi_y}{\sqrt{\sum \phi_x^2 \sum (\phi_x)^2} \sqrt{\sum \phi_y^2 \sum (\phi_y)^2}} \\
 &= \frac{5 \mid 2046924211 \mid \sum 132206.39 \mid 75513.57}{\sqrt{5 \mid 3568879970 \mid \sum (132206.39)^2} \sqrt{5 \mid 1180675152 \mid \sum (75513.57)^2}} \\
 &= \frac{251244569.3}{19127.7323 \mid 14180.14478} \\
 &= \frac{251244569.3}{271234069} \times 0.926
 \end{aligned}$$

The calculation shows that coefficient of correlation between deposit and loan & advances of HBL is 0.93. It means that there is a positive and high degree of correlation between them.

Computation of probable error of HBL

$$\begin{aligned}
 \text{PEr} &= 0.6745 \times \frac{1 \mid Zr^2}{\sqrt{N}} \\
 &= 0.6745 \times \frac{1 \mid Z(0.93)^2}{\sqrt{5}}
 \end{aligned}$$



$$= 0.6745 \times \frac{0.135}{2.236}$$

$$= 0.041$$

Since, the value of r is more than six time probable error ( $6 \times 0.041 < 0.93$ ). It means deposit is significantly used as loan & advances.

### 4.3.2 Correlation Coefficient between Profitability Liquidity of Selected of Five Commercial Banks

Cash & bank balance to total deposit ratio represent as a liquidity ratio which is denoted by x

Return on total assets represent as profitability ratio which is denoted by y

**Table No. 4.18**

**Correlation Coefficient Between Liquidity (x) and Profitability (y) of SCBL**

(Rs. In Percentage)

| Year         | x (in%)           | y (in %)          | x <sup>2</sup>                | y <sup>2</sup>                | xy                 |
|--------------|-------------------|-------------------|-------------------------------|-------------------------------|--------------------|
| 2003/04      | 9.56              | 2.27              | 91.4                          | 5.15                          | 21.70              |
| 2004/05      | 5.75              | 2.46              | 33.12                         | 6.05                          | 14.15              |
| 2005/06      | 5.53              | 2.56              | 30.58                         | 6.55                          | 14.16              |
| 2006/07      | 8.20              | 2.42              | 67.24                         | 5.86                          | 19.84              |
| 2007/08      | 6.9               | 2.46              | 47.61                         | 6.05                          | 16.97              |
| <b>Total</b> | <b>Σx = 35.94</b> | <b>Σy = 12.17</b> | <b>Σx<sup>2</sup> = 69.89</b> | <b>Σy<sup>2</sup> = 29.67</b> | <b>Σxy = 86.82</b> |

We have

Coefficient of correlation (r)

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right) \left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}}$$

$$= \frac{5 | 86.82 - \frac{35.94 | 12.17}{5}}{\sqrt{5 | 269.55 - \frac{(35.94)^2}{5}} \sqrt{5 | 29.66 - \frac{(12.17)^2}{5}}}$$

$$\begin{aligned}
&= \frac{434.1 \sqrt{437.39}}{\sqrt{7349.75} \sqrt{1291.68} \sqrt{148.3} \sqrt{148.11}} \\
&= \frac{3.29}{\sqrt{58.07} \sqrt{0.19}} \\
&= \frac{3.2}{7.62} \times \frac{3.29}{3.33} = 0.9880 \quad = -0.0099
\end{aligned}$$

The calculation shows that the coefficient of correlation between liquidity & profitability of SCBL is -0.0099. It means that is a negative and low degree of correlation between them. When SCBL increase its liquidity position at that time decrease its profit.

**Table No. 4.19**

**Correlation Coefficient between Liquidity (x) and Profitability (y) of NABIL**

(Rs. In Percentage)

| Year         | x (in%)           | y (in %)          | x <sup>2</sup>                 | y <sup>2</sup>                | xy                 |
|--------------|-------------------|-------------------|--------------------------------|-------------------------------|--------------------|
| 2003/04      | 6.87              | 2.72              | 47.2                           | 7.04                          | 18.69              |
| 2004/05      | 3.83              | 3.02              | 14.67                          | 9.12                          | 11.57              |
| 2005/06      | 3.26              | 2.84              | 10.63                          | 8.07                          | 9.26               |
| 2006/07      | 6.0               | 2.47              | 36.00                          | 6.10                          | 14.82              |
| 2007/08      | 8.37              | 2.01              | 70.00                          | 4.04                          | 16.82              |
| <b>Total</b> | <b>Σx = 28.33</b> | <b>Σy = 13.06</b> | <b>Σx<sup>2</sup> = 178.55</b> | <b>Σy<sup>2</sup> = 34.73</b> | <b>Σxy = 71.16</b> |

We have

Co-efficient of correlation (r)

$$\begin{aligned}
r &= \frac{\sum xy - \frac{\sum x \cdot \sum y}{n}}{\sqrt{\sum x^2 - \frac{(\sum x)^2}{n}} \sqrt{\sum y^2 - \frac{(\sum y)^2}{n}}} \\
&= \frac{5 \mid 71.16 - \frac{28.33 \mid 13.06}{5}}{\sqrt{5 \mid 178.55 - \frac{(28.33)^2}{5}} \sqrt{5 \mid 34.73 - \frac{(13.06)^2}{5}}} \\
&= \frac{14.21}{\sqrt{892.75} \sqrt{802.57} \sqrt{173.65} \sqrt{170.56}}
\end{aligned}$$

$$\begin{aligned}
&= \frac{Z14.21}{\sqrt{90.16}\sqrt{3.09}} \\
&= \frac{Z14.21}{9.49 | 1.76} \\
&= \frac{Z14.21}{16.7} \\
&= - 0.851 \\
&- 0.0085
\end{aligned}$$

The calculation shows that the coefficient of correlation between liquidity of NABIL is -0.0085. It means that is a negative and low degree of correlation between them. When NABIL increase its liquidity position at that time decrease its profit.

**Table No. 4.20**

**Correlation Coefficient between Liquidity (x) and Profitability (y) of MBL**

(Rs. In Percentage)

| Year         | x (in%)           | y (in %)          | x <sup>2</sup>                 | y <sup>2</sup>                 | xy                  |
|--------------|-------------------|-------------------|--------------------------------|--------------------------------|---------------------|
| 2003/04      | 14.91             | 1.35              | 222.31                         | 1.82                           | 20.13               |
| 2004/05      | 13.09             | 1.32              | 171.35                         | 1.74                           | 17.28               |
| 2005/06      | 10.31             | 1.47              | 106.3                          | 2.16                           | 15.16               |
| 2006/07      | 13.55             | 7.1               | 183.6                          | 50.41                          | 96.21               |
| 2007/08      | 14.31             | 6.8               | 204.78                         | 46.24                          | 97.31               |
| <b>Total</b> | <b>Σx = 66.17</b> | <b>Σy = 18.04</b> | <b>Σx<sup>2</sup> = 888.33</b> | <b>Σy<sup>2</sup> = 102.38</b> | <b>Σxy = 246.08</b> |

We have

Co-efficient of correlation (r)

$$\begin{aligned}
r &= \frac{\rho \phi_{xy} Z\phi_x \phi_y}{\sqrt{\rho \phi_x^2 Z(\phi_x)^2} \sqrt{\rho y^2 Z(\phi_y)^2}} \\
&= \frac{5 | 246.08 Z66.17 | 18.04}{\sqrt{5 | 888.33 Z(66.17)^2} \sqrt{5 | 102.38 Z(98.04)^2}} \\
&= \frac{1230.4 Z1193.71}{\sqrt{4441.65 Z4378.47} \sqrt{511.9 Z325.44}}
\end{aligned}$$

$$\begin{aligned}
&= \frac{36.69}{\sqrt{63.18}\sqrt{186.46}} \\
&= \frac{36.69}{7.95 \mid 13.66} \\
&= \frac{36.69}{108.597} \\
&= 0.338
\end{aligned}$$

The calculation reveals the correlation of coefficient between liquidity & profitability of MBL is 0.00338. It means that is a positive and low degree of correlation between then. Which shows that liquidity and profitability both are going same way when liquidity increase its profit also will be increase.

$$\begin{aligned}
&= 0.6745 \times 0.447 \\
&= 0.3015
\end{aligned}$$

**Table No. 4.21**

***Correlation Coefficient between Liquidity (x) and Profitability (y) of NSBI***

*(Rs. In Percentage)*

| Year         | x (in%)           | y (in %)         | x <sup>2</sup>                 | y <sup>2</sup>               | xy                 |
|--------------|-------------------|------------------|--------------------------------|------------------------------|--------------------|
| 2003/04      | 12.01             | 0.72             | 144.24                         | 0.52                         | 8.65               |
| 2004/05      | 8.36              | 0.57             | 69.89                          | 0.32                         | 4.77               |
| 2005/06      | 10.16             | 0.9              | 103.23                         | 0.81                         | 9.14               |
| 2006/07      | 9.81              | 1.8              | 96.24                          | 3.24                         | 17.66              |
| 2007/08      | 9.79              | 1.44             | 95.84                          | 2.07                         | 14.10              |
| <b>Total</b> | <b>∑x = 50.13</b> | <b>∑y = 5.43</b> | <b>∑x<sup>2</sup> = 509.44</b> | <b>∑y<sup>2</sup> = 6.97</b> | <b>∑xy = 54.31</b> |

We have

Co-efficient of correlation (r)

$$\begin{aligned}
r &= \frac{\rho \phi_{xy} Z \phi_x \phi_y}{\sqrt{\rho \phi_x^2 Z(\phi_x)^2} \sqrt{\rho y^2 Z(\phi_y)^2}} \\
&= \frac{5 \mid 54.31 Z 50.13 \mid 5.43}{\sqrt{5 \mid 509.44 Z(50.13)^2} \sqrt{5 \mid 6.97 Z(5.43)^2}}
\end{aligned}$$

$$\begin{aligned}
&= \frac{Z0.65}{\sqrt{2547.2} \sqrt{2513.02} \sqrt{34.85} \sqrt{29.48}} \\
&= \frac{Z0.65}{\sqrt{34.18} \sqrt{5.37}} \\
&= \frac{Z0.65}{0.85 \mid 2.32} \\
&= \frac{Z0.65}{13.572} \\
&= 0.0479 \\
&= - 0.0004
\end{aligned}$$

The calculation shows that the correlation of co-efficient between liquidity & profitability of NSBI is -0.0004. it means that is a negative and low degree of correlation between them. When NSBI increase its liquidity position then decrease its profitability position.

**Table No. 4.22**

***Correlation Coefficient between Liquidity (x) and Profitability (y) of HBL***

*(Rs. In Percentage)*

| Year         | x (in%)           | y (in %)         | x <sup>2</sup>                 | y <sup>2</sup>                | xy                 |
|--------------|-------------------|------------------|--------------------------------|-------------------------------|--------------------|
| 2003/04      | 9.09              | 1.06             | 82.63                          | 1.12                          | 9.64               |
| 2004/05      | 8.12              | 1.12             | 65.93                          | 1.25                          | 9.09               |
| 2005/06      | 7.31              | 1.55             | 53.44                          | 2.4                           | 11.33              |
| 2006/07      | 5.85              | 1.84             | 34.22                          | 3.39                          | 10.76              |
| 2007/08      | 4.55              | 1.76             | 20.70                          | 3.10                          | 8.01               |
| <b>Total</b> | <b>∑x = 34.92</b> | <b>∑y = 7.33</b> | <b>∑x<sup>2</sup> = 256.92</b> | <b>∑y<sup>2</sup> = 11.26</b> | <b>∑xy = 48.83</b> |

We have

Co-efficient of correlation (r)

$$\begin{aligned}
r &= \frac{\rho \phi_{xy} \sum \phi_x \phi_y}{\sqrt{\rho \phi_x^2 \sum (\phi_x)^2} \sqrt{\rho y^2 \sum (\phi_y)^2}} \\
&= \frac{5 \mid 48.83 \sum 34.92 \mid 7.33}{\sqrt{5 \mid 256.92 \sum (34.92)} \sqrt{5 \mid 11.26 \sum (7.33)^2}}
\end{aligned}$$

$$\begin{aligned}
&= \frac{Z11.88}{\sqrt{5 \mid 1284.6 \ Z1219.41 \sqrt{56.3 \ Z53.73}}} \\
&= \frac{Z11.88}{\sqrt{65.19 \sqrt{2.57}}} \\
&= \frac{Z11.88}{8.07 \mid 1.6} \\
&= \frac{Z11.88}{12.912} \\
&= -0.92 \\
&= -0.0092
\end{aligned}$$

The calculation reveals that the correlation co-efficient between liquidity and profitability of HBL is -0.0092. It means that is a negative and low degree of correlation between them. When increase its liquidity then profit will be decrease.

#### **4.4 Major Finding of the Study**

This chapter focus on the major findings. Which are derived from the analysis by using different financial tools and statistical tools of SCBL, NABIL, MBL, NSBI and HBL under five years study period from 2003/04 to 2007/08. For data presentation and analysis the whole data has been obtained by secondary sources. As using annual reports of concern banks, having data from the b site. The analysis is performed using different kinds of tools as financial tools and statistical tools. Mainly ratio analysis has been to analysis the financial activities of joint venture banks only those financial analysis has been analyzed which are related with this chapter (investment analysis). Some major finding of financial analysis and statistical analysis and their finding has presented as follows

##### **(a) Liquidity Position**

The study shows that the current ratio of the sample banks are almost fluctuating and below the normal standard 2:1. Which indicate unsatisfactory liquidity position or from the working capital viewpoint, selected banks are following an aggressive

working capital policy. However, NSBI & MBL have slightly higher ratio and maintain constant in comparison of other three selected banks. Comparatively the current assets of the NSBI & MBL only seemed adequate to meet the current liabilities with their current assets whereas SCBL, NABIL & HBL indicates unsatisfactory liquidity position as they are in dangerous limit below than 1:1 ratio.

During the reviewed period SCBL, NABIL, NSBI, HBL have the similar trend of cash & bank balance to total deposit ratio where MBL seems high consistency in comparison. Though they have less amount of cash and bank balance to total deposit ratio than MBL cash and bank balance to total deposit ratio shows that MBL have ability to meet the immediate deposit payment than other selected banks.

Analysis of cash and bank balance to current assets ratio shows that MBL, NSBI & HBL have highest cash and bank balance as current assets than other banks selected for the study in the study period. Similarly HBL & NSBI risk is also high which is shown by the higher standard deviation. Similarly HBL is investing high in government securities because it is risk free. Loan & Advances to total deposit ratio of MBL & NSBI respectively is high than other selected banks. Considering the total investment to total deposit ratio, it can be seen. The ratio of the investment to total deposit ratio of SCBL, HBL & NABIL is also high but the ratio of the NSBI and MBL is very low. Calculating of loan & advance to total working fund (Total assets) ratio shows that MBL, NSBI is high its means these banks are not able to utilize their total assets efficient. NABIL, HBL & SCBL have low ratio which seems that these banks are able to utilize their assets.

NABIL invest more part of its investment in share and debenture is comparative too lower than government securities, so besides giving more priority to investing only on government securities. HABIL is recommended to mobilize its fund in purchasing share and debenture of other companies, financial or no financial companies. This helps to maintain sound portfolio management of the bank. Which will definitely

help to decrease the risk factor, on the other hand it help to decrease the risk factor, on the other hand it help to increase the position of net profit of the bank. NABIL, HBL, SCBL & MBL invest less part of its investment in share and debenture.

### **(b) Profitability Conditions**

In context of return on capital employed of SCBL, HBL & NABIL are commendable. It means that the bank is able to generate higher profit to its capital employed. Though the ratio seems to be okay of MBL & NSBI, but the management comity must have to take the situation by decreasing the interest expenses and increasing the net profit.

Return on total assets of NABIL & SCBL is high and consistent but MBL has fluctuated and HBL & NSBI is low this ratio. So it can concluded that NABIL & SCBL have efficiently properly utilized their fund in order to profit maximization whereas MBL, NSBI & HBL have to maintain its ratio and to do hard work to compete with other banks.

BY Analyzing return on total deposit ratio, NABIL has performed better with high mean ratio whereas SCB also performed well with consistently. However, MBL, NSBI & HBL have critical situation due to low mean ratio and it is suggested to do hard labour to maintain this ratio.

By calculating return on equity of selected commercial banks mean ratio os SCBL then after NABIL is high which show that these banks earn profit from equity. HBL, NSBI & MBL have low mean ratio than SCBL & NABIL it means they earn low profit than other selected commercial banks.

### **(c) Coefficient of Correlation Analysis**

Correlation coefficient between deposit and loan & advance of SCBL, NABIL, MBL, NSBI & HBL shows the positive relationship of deposit and loan & advance. Coefficient of correlation between deposit and loan & advances of SCBL, NABIL,



MBL, NSBI & HBL are 0.924, 0.989, 0.99, 0.97 & 0.926 respectively. It means there is a positive and high degree correlation between them. To test the reliability, it is found that the value of  $r$  is more than 6PE. It reveals that the value of ' $r$ ' is highly significant i.e., loan and advances will go on same direction of total deposit of the sample banks.

**(d) Calculation of coefficient of correlation between profitability with liquidity of selected five commercial banks**

Here listed each bank's variables of profitability ratio that represented through cash & bank balance to total deposit ratio and variable of liquidity ratio represented through return on total assets. The coefficient of correlation between profitability and liquidity.

There is a negative and low degree relationship found between profitability ratio and liquidity ratio. The correlation between profitability and liquidity ratio is -0.0098 of SCBL a low degree of negative correlation.

According to the coefficient of correlation we can conclude that reverse relationship between profitability and liquidity ratio. When banks are keeping more liquidity they earn low profit.

Likewise, there is a negative correlation of -0.0085 a low degree of negative correlation has been found between profitability & liquidity of NABIL. It means increase level of liquidity will drags downward the profitability. Similarly, there is a positive correlation of 0.00338, a low degree of positive correlation has been found between profitability and liquidity ratio and a very low degree of positive relationship between them with 0.00338.

In the same way this evaluation shows that there are negative correlation between profitability & liquidity ratio with -0.0004 which is low degree coefficient of correlation of NSBI bank.

Likewise calculation of coefficient of correlation shows that a negative and low degree relationship found between profitability and liquidity ratio is -0.0092 of HBL.

# **CHAPTER FIVE**

## **SUMMARY, CONCLUSION AND RECOMMENDATION**

This chapter presents summary, conclusion, problem and discrepancies sorted out during the study period and recommendation derived from the analysis and findings of the study. Summary of the study and conclusion has been presented in the first section of the chapter and the second section includes the major findings of the study. The third section includes recommendations derived from the study and finally fourth section includes future avenues. The study was conducted to analyze the investment policy of the commercial banks in Nepal. Similarly the study also tried to explore the affect of the different financial variables in the investment and explain the trend of the different financial indicators of the commercial banks in Nepal during the study period. For this purpose five sample commercial banks were selected for the study based on five years data range from year 2003/04 to 2007/08.

### **5.1 Summary**

One can understand the whole thesis, what it is about by looking this section. In this alternating scenario of encouraging secondary market, it is timely to study the inventions of other factors on investment and implication of the investment in the market. At present the commercial banks are in increasing trend due to the HMG's economic liberalization and open market policy and they are competing for their own existence in this competing environment. Till the end of the fiscal year 2065/066 26 commercial banks are having transaction with different paid up capital.

Shareholders have a high expectation desire and expectation from investment but now a day due to the situation the average investment is in decreasing trend and its growth rate is also decreasing which can be seen in growth r trend of investment in

previous chapter. Investment function is very important function of banks because they are launched for the investment and get expected return. So the study is focused on the analysis of investment in commercial banks in Nepal. During the study various books, articles, thesis have been reviewed in national as well as international context related to the topic of the study. Further various published thesis in the international era as well as non published master degree dissertation related to the study have also been reviewed. To make the study more informative as well as productive various statistical and financial tools have been applied for the data processing procedure collected from the secondary sources.

In this present context of information and technology generation, financial institutions are getting high competition. In the context of Nepal the Nepalese financial system, comprising network of institutions, instruments and markets has made rapid progress and acquired a high degree of width and depth since the financial sector reforms started. With the umbrella Act of Nepal Rastra Bank all the financial institutions i.e. public sector banks, private sector banks, finance companies, foreign sector banks and finance companies turn themselves as rivals. As those reforms have been carried out of the general liberalization of the company. Stiff competitive challenges have already emerged for the private sector bank from other financial sectors. Facilities out of facilities they are providing to the customers, the stronger banks are having stronger while weak bank are declining. So an attempt for evaluating the financial performance of the commercial JVBs has been made in this study on its quantitative grounds. The analysis and assumptions presented in this thesis banks and the researcher could get benefits because financial policies of any concern are directly or indirectly influenced by the financial performance. Thus it is a base for a firm's survival, growth and expansion.

Commercial banks play an important part for economic development of industry, trade and business by investing the saving collected as deposits from public. They

render various services to their customers facilitating their economic and their social life. They are the most important ingredients for integrated and speedy development of a country. Therefore a competitive and reliable banking system is essential to every country to develop.

Investment operation of a commercial bank is very risky one. It is the most important function among the three functions (investing, financing and dividend). For this commercial banks have to pay due consideration while formulating investment policy. A good investment policy attracts both borrowers and lenders which help to increase the volumes and quality of deposits loans and investment.

The major sources of income of a bank are interest income from loans and the investment and fees based on income, loans and advances are stated in the asset side and income from them in the income statement. Most of the banks failures in the world are due to the shrinkage in the value of loans and advances. Hence loan is known as risky asset and investment operation of the commercial bank is very risky one. Risky of non payment of loan is known as credit risk or default risk. The main objective of this study to analyze the investment policy of the commercial banks in Nepal.

## **5.2 Major Findings**

After the observation and analysis of investment analysis of five commercial banks the researcher has been able to draw certain conclusions which is called major finding. The major findings of the study can be depicted as follows:

) From the secondary data analysis it is found from the liquidity point of view that sample banks. Study of investment analysis of commercial banks shows that the current ratio of the sample banks are almost fluctuating and below the normal standard 2:1, which indicate unsatisfactory liquidity position or from the working capital viewpoint, selected banks are following an aggressive working capital

policy. However, NSBI & MBL have slightly higher ratio and maintain constant in comparison of other SCBL, NABIL & MBL. Comparatively the current assets of the NSBI & MBL only seemed adequate to meet the current liabilities with their current assets whereas SCBL, NABIL & HBL indicate unsatisfactory liquidity position as they are in dangerous limit below than 1:1 ratio.

- ) Cash & bank balance to total deposit ratio of MBL is highest. It shows that MBL have ability to meet the immediate deposit payment than other selected banks. SCBL, NABIL, NSBI & HBL have the similar trend of cash and bank balance to total deposit ratio. They have less amount of cash & bank balance to total deposit ratio than MBL.
- ) During the reviewed period cash & bank balance to total assets ratio reveals that MBL, NSBI & HBL have highest cash and bank balance as current assets than other selected banks.
- ) In the study period HBL is investing high in government securities because it is risk free.
- ) Loan & Advance to total deposit ratio of MBL & NSBI respectively high than other selected banks. The highest loan & advances to total deposit ratio indicated less effective mobilization of credit resources. SCBL, NABIL, HBL are effectively mobilize their credit because they have low ratio of loan and advance to total deposit ratio.
- ) In context of total investment to total deposit ratio, SCBL, HBL & NABIL is found highest among others and in increasing rate with passing year. NSBI & MBL have total investment to total deposit ratio is low.

SCBL CV shows a highest consistency ratio than other, which follows by HBL, NABIL, NSBI & MBL respectively. It shows that these banks are interested to invest the higher rate of deposit in the non-risky assets.

Calculated of loan and advance to total working fund (Total Assets) seems that MBL & NSBI is high it means these banks are not able to utilize their total assets efficiently and NABIL, HBL & SCBL have low ratio which seems that these banks are successful to utilize their assets.

NABIL invest more part of its investment in share and debenture is comparative too lower than government securities, so besides giving more priority to investing only one government securities. NABIL is recommended to mobilized its fund in purchasing share and debenture of other companies, financial or no financial companies. This helps maintain sound portfolio management of the bank. Which is definitely help to decrease the risk factor, on the other hand it helps to increase the position of net profit of the bank. NSBI, HBL, SCBL & MBL respectively invest less part of its investment in share and debenture.

- J In the context of return on capital employed of SCBL, HBL & NABIL are commendable. It means that the bank is able to generate higher profit to its capital employed. Though the ratio seems to be okay of MBL & NSBI, but the management committee must have to take the situation by decreasing the interest expenses and increasing the net profit.
- J Return on total assets of NABIL & SCBL is high and consistent but MBL has fluctuated and HBL & NSBI is low this ratio. So it can concluded that NABIL & SCBL have efficiently properly utilized their fund in order to profit maximization whereas MBL, NSBI & HBL have to maintain its ratio and to do hard work to compete with other banks.
- J By analyzing return on total deposit ratio, NABIL has performed better with high mean ratio whereas SCBL also performed good with consistency. However, MBL, NSBI & HBL have critical situation due to low mean ratio and it is suggested to do hard labour to maintain this ratio.
- J By calculating return on equity of selected commercial banks mean ratio of SCBL then after NABIL is high which shows that these banks earn profit from equity.

HBL, NSBI & MBL have low mean ratio than SCBL & NABIL. It means they earn low profit than other selected commercial banks.

- J Correlation coefficient between deposit and loan & advance of SCBL, NABIL, MBL, NSBI & HBL reveals, the positive relationship of deposit and loan & advance coefficient of correlation between deposit and loan & advances of SCBL, NABIL, HBL, NSBI & HBL are 0.924, 0.989, 0.99, 0.97 & 0.926 respectively. It means there is a positive and high degree correlation between them. To test the reliability, it is found that the value of  $r$  is more than 6 PE. It is reveals that the value of 'r' is highly significant i.e. loan and advance will go on same direction of total deposit of the sample banks.
- J There is a negative and low degree relationship found between profitability ratio & liquidity ratio. The correlation between profitability ratio & liquidity ratio is -0.0098 of SCBL, a low degree of negative correlation according to the coefficient of correlation we can conclude that reverse relationship between profitability & liquidity ratio. When banks are keeping more liquidity they earn profit.
- J Likewise, there is a negative correlation of -0.0085, a low degree of negative correlation has been found profitability and liquidity of NABIL. It means increase level of liquidity will drags downward, the profitability.
- J Similarly, there is a positive correlation of 0.00338, low degree of positive correlation has been found between profitability and liquidity ratio of MBL and a very low degree of positive relationship between them with 0.00338.
- J In the same way this evaluation seems that there are negative correlation between profitability and liquidity ratio with -0.0004 which is low degree coefficient of correlation of NSBI bank.
- J Likewise, calculation of coefficient of correlation shows that negative and low degree relationship found between profitability and liquidity ratio is -0.0092 of HBL.



### **5.3 Conclusion**

Researcher found certain conclusions after the observation and analysis of investment analysis of selected commercial banks. After analyzing the different financial ratio, the liquidity position of NSBI & MBL seem in average position in comparison with SCBL, NABIL & HBL. Cash and bank balance to total deposit ratio of MBL is highest than other selected banks. It means MBL have ability to meet the immediate deposit payment than other selected banks. MBL, NSBI & HBL have highest cash and bank balance to total assets ratio than other selected banks. In the study period HBL seems strong position to invest on government securities. Similarly the loan & advance to total deposit ratio of SCBL, NABIL & HBL have lower then MBL & NSBI lower ratio of loan and advance to total deposit ratio means effectively mobilize their credit. MBL & NSBI reveals in weak condition to mobilize its total working fund (total assets) on loan and advance in comparing with other selected banks. In content of total investment to total deposit ratio, SCBL, HBL & NABIL is found highest among others selected banks NSBI, HBL, SCBL & MBL respectively invest less part of its investment in share and debenture but NABIL invest more part of it. In the context of return on capital employed of SCBL, HBL & NABIL are able to generate higher profit to its capital employed. Though the ratio seems to be okay of MBL & NSBI. Return on total assets of NABIL & SCBL is high it means they have efficiently properly utilized their fund in order to profit maximization whereas MBL, NSBI & HBL have to maintain its ratio. By calculating return on total deposit ratio, NABIL has performed better whereas SCBL also performed good but MBL, NSBI & HBL have critical situation due to low mean ratio. By analyzing return on equity of HBL, NSBI & MBL have low mean ratio than SCBL & NABIL low ratio shows earn low profit from equity. Correlation coefficient between deposit and loan & advance of SCBL, NABIL, MBL, NSBI & HBL reveals that positive and high degree correlation between them. Loan and advance will go on same direction of total deposit of the sample banks. There is a negative and low degree relationship found between profitability ratio & liquidity ratio. According to the coefficient of

correlation we can conclude that reverse relationship between profitability & liquidity ratio. When banks are keeping more liquidity they earn profit. Likewise, NABIL, NSBI & HBL have negative and low degree correlation coefficient relationship between profitability and liquidity ratio. But there is a low degree of positive correlation has been found between profitability and liquidity ratio of MBL.

#### **5.4 Recommendation**

The recommendations for future guidelines are presented have in accordance with the observed, major finding and perceived problems. Although, these suggestion may no be adequate and could give negative reflection, but it is hoped that these suggestions will help improving their performance these suggestions may also have repercussion but there is no doubt of these measure to improve the existing condition of the banks in Nepal. The suggestion are explained as follows-

1. A clear and definite investment policy should be formulated for the consistent, stable and satisfied level of investment. Proper investment analysis is must for the enhancement of the nation's economy. Therefore, the government should act in favors of investors and bind the companies by the distinct rules regarding investment analysis.
2. In Nepalese context, most of the investors are investing their funds haphazardly and without analyzing the profit ability of the business. Therefore, there should be such type of body that helps to educate the shareholders about the investment theory i.e. investment has positive relation with the profitability.
3. The current ratio of the sample banks did not meet the standard. The major reasons for the lower current ratio may be due to declining values or utilizing the funds for some profit generating projects. The banks should perform revaluation of their current assets or cut down their investment in some projects.
4. The liquidity of bank may be affected by external as well as internal factors such as the prevailing interest rates, supply and demand position of loan, saving to investment situations, central bank's requirements and position of the financial

market. The cash and bank balance to total deposit of mean in SCBL, HBL & NABIL were lower than that of MBL & NSBI. Hence, it is recommended that SCBL, HBL & NABIL should increase cash and bank balance to meet its deposit demands.

5. SCBL should more serious to improve to efficiency in utilizing the loan advances for generating the profits. Likewise the HBL, NABIL, NSBI & MBL should keep up their assets decentralize and search new area of investment instead of getting aggressive in only the risky area of loan advances.
6. HBL, NABIL, NSBI & MBL are showing aggressive and spontaneously increasing loan & advances facilities so it is suggested to updated its position and strength spontaneously with the increasing new facilities and services provided by their competitors banks and search for new areas for investment.
7. SCBL is more sensitive in investment in productive sector than HBL, NSBI, NABIL and MBL. In this case, SCBL seems stronger in investing fund in government securities than other selected banks.
8. MBL is not used more parts of its assets in loan & advance than SCBL, HBL, NABIL & NSBI besides giving more priority to invest in other sector bank should mobilized its fund on the sound portfolio management and bank is recommended to follow the liberal landing policy in loan & advance. In this way bank can increase the net profit to future.
9. Profit is essential for the survival and growth of the banks and also a psychological impact on the shareholders and investors. It present how the resource of the banks are being utilized for the betterment of the owner's interest but over the study period, the sample banks profitable ratio are not in satisfactory level. If resource hold idles, banks have to bear more cost & result would be lower profit margin. All of the banks recommended more to earn operational profit either by increasing their operational efficiency or by decreasing their operational expenses as far as possible and also concerning that there is inverse relationship of profitable with liquidity ratio.

10. Dividends are the returns paid to stockholders for the use their funds by the company and the reward of risky taken by them. There seems no any clear-cut dividend policy of the banks. Some banks are paying unusually where some have fluctuating pay out ratio. So a suggestion has been forwarded to maintain a minimum standard although what is a minimum standard may a matter of dispute and controversial issue as an ideal dividend payout ratio is based upon shareholder's expectation and growth requirement of the banks.
11. As social institutions living and operating in the society and for the society, commercial banks have social responsibilities. But most of the commercial banks are found to be centralized in the urban areas ignoring the social responsibilities. Therefore these banks are recommended and suggested to expand their banking services in rural areas providing special loans to the deprived and priority sectors.
12. It is suggested that the selected banks should use well-trained personnel. Well-trained personnel will provide better services to the bank and people. This will increase the operating efficiency of the banks.
13. The commercial banks are recommended to formulate and implement some sound and effective financial and non-financial strategies to meet required level of opportunity as well as social responsibility.
14. The banks control their expe.. especially those, which are unnecessary, and a burden for the banks. The bank must formulate a strategy to control expenses using modern banking technology, computer networking, expert advisors and well trained personnel.

Finally, commercial banks are recommended to diversity its business thought creating opportunities to provide foreign employment loans, personal loan and educational loan and so on, which bank is not entertaining at the moment. These loans specified above will definitely boost the economy and create opportunities of the citizens of Nepal. Likewise, most of the commercial banks have national and international links and they can encourage multinational companies to invest

in Nepal, because these companies are unfamiliar with local rule and regulation. Foreign investment will definitely create more employment and will ultimately help the over-all development of the country. And it is found that modern banking technologies followed by JVBs in Nepal are mostly beneficial to high level depositors. So the sample banks are suggested here to make these technologies accessible to their all kind of depositors as far as possible.

### **5.5 Future Avenues**

There are several future avenues for the future searcher in the area of investment analysis of commercial bank in Nepal. Commercial banks are increasing in the Nepalese content. Mainly most of the people have craze of investment toward banking and financial sector. For the economic development of the country the researchers need to study periodically about the investment of commercial bank. Finding of all present researcher can be seen a meaningful and valuable piece of work for academician, practitioners, researchers and investors. All the bankers and businessman can find very important findings from this study so that they can follow new strategy in future but researchers still can further explore many more are relating the investment analysis of commercial banks. But the area, which the study has attempted to explore, is very wide. This study doesn't even cover a small pinch. A wide area has still been neglected where further researcher can concentrate on

There are various areas for the study of investment analysis, which seems to be studies in future.

1. For the future researcher is that the researcher can get greater insight in analyzing the investment by expanding the study period and the number of enterprises.
2. Future efforts can improve upon this work by importing new data in many years and adopting more satisfactory method of estimation.
3. The same topic could be carried forward taking into account the entire available commercial banks listed in Nepal stock exchange.

4. An extension of the present study to test the investment portfolio measure using the different measure like Sharpe's measure and other measures in order to see the investment sector of the banks and suggest them to fragment their investment more efficiently and to minimize the risk.
5. Avenue of research is to survey the opinions of financial executives on investment in Nepal. Finally, a direction of future research is to conduct the household survey on investment in Nepal.

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