INVESTMENT POLICY OF NEPAL INVESTMENT BANK LIMITED AND NEPAL SBI BANK LIMITED

A THESIS

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Recommendation

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DECLARATION

I here declare that the work reported in this thesis entitled **"Investment policy of Nepal Investment Bank Limited and NBI Bank Limited**" submitted to Nepal Commerce Campus, Faculty of Management, Tribhuvan University is my original work done in the form of partial fulfillment of the requirement of the Master's Degree in Business Studies (M.B.S) under the supervision of Prof. Dr. Sushil Bhakta Mathema and thesis supervisor Mr. Dhurba Lal Pandey of Nepal Commerce Campus.

_____

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ABBREVIATIONS

&	=	And
BOK	=	Bank of Kathmandu
C.V.	=	Coefficients of variation
GDP	=	Gross Domestic Product
Govt.	=	Government
HBL	=	Himal Bank Ltd
Ltd.	=	Limited
NIBL	=	Nepal Investment Bank Ltd
NRB	=	Nepal Rastra Bank
P.E.	=	Probable Error
r	=	Coefficient of correlation
Rs.	=	Rupees
S.D.	=	Standard deviations
SBI	=	State Bank of India
TU	=	Tribhuvan University
US	=	United States
SRI	=	Socially Responsible Investment

CHAPTER - I

INTRODUCTION

1.1 Background of the Study

We all have heard the word investment because it has become a household word and popular among the people from all walks of life. The word “Investment” sounds very good and attractive that is why every individual in the world is interested in it. Funds used to get additional income are called investment. It is done to increase the value of property or to get extra income. It is the sacrifice of current currencies and resources for the sake of future currencies and resources. An investment is one of the decisions of financial function that involves the decision of capital to establish commercial or industrial venture. In other words, it involves commitment of funds into long-term assets that would yield benefits in coming future period.

The word ‘investment’ denotes the investment of income, saving or other collected funds. Investment is possible only when there is adequate saving. If all the incomes are consumed now for fulfilling basic needs, then there is nothing to investment. Therefore, both the saving and investment are interrelated. A distinction is often made between investments and saving, saving is defined as foregone consumption; investment is restricted to real investment of the sort that increases national output in the futures. It is always true that all people want to invest their money in the most profitable opportunities for good return, but there is always risk associated with it.

Francis (1983) states, "Investing involves making a current commitment of funds in order to obtain an uncertain future return. It is a risky business that demands information. To process information effectively and select the best investment requires goals that are clear cut and realistic. In simple term investment is making a current commitment of funds that is expected to generate additional money in future. Nevertheless, in the broadest sense it means the sacrifice of current rupees for future rupees that take place at present and certain time.”

Similarly, Sharpe (1986) defines “Investment in the actual sense refers to the sacrifice of current dollars for future dollars". Investment involves two attributes, time and risk. The sacrifice takes place in the present and is certain. The reward comes later, if at all and the magnitude of which is uncertain. In some cases, the element of time predominates (for example, call option on common stock). In yet others, both time and risk play a dominant role (for example, share of common stock).

Therefore, it can be said that investment is concerned with the management of the investor's wealth. Funds to be invested come from trade assets already owned, borrowed money, and saving or foregone consumption. By foregoing consumption today and investing the saving, investors expect to enhance their future consumption possibilities, i.e. they are invested to increase wealth.

Investors also seek to manage their wealth effectively by obtaining the most profit while protecting it from inflation, taxes and other factors. Thus investment policies are the strategies of finding out the answers of where to invest? How much to invest? When to invest? However, there are no specific rules regarding investment policy of a bank and thus it has to keep increasing the safety and liquidity of its resources to meet the potential demand of its customers. Since the objective of profitability conflicts with those of safety and liquidity, the wise investment policy is to strike a judicious balance between them. Therefore, a bank has to lay down its investment policy in such a manner to ensure the safety and liquidity of its funds and at the same time maximizing its profits.

Investment Policy

Banking is the business of collecting and safeguarding money as deposits and lending of fund. The study seeks first and like some other to examine the relative importance of investment policy in marketing and financing decisions and seconds, to assess the case for differentiating investment packages. It is also presented the result of an empirical survey into the investment policies pursued. In concept, the empirical study is similar to easier studies.

Most of Nepalese commercial banks have not formulated their investment policy in an organized manner. They simply seems to be relying the instructions and guidelines by Nepal Rastra Bank. It seems that they do not have clear view of their investment policy. Commercial banks seem to have prompted to invest their funds in limited areas for higher profit.

In financial sectors where old firms are more in need of external finance are of disproportionately larger size if they are in countries whose banking sector is more concentrated. The theoretical priors suggesting that market power gives banks an implicit equity stake in the firms with whom they have already established long lasting relationships. The evidence also seems to imply that bank market power may represent a financial barrier to entry in nonfinancial industries.

Investment policy is the proper management of any fund or wealth to maximize value or to obtain this high or favorable return with law risk considering the protection of Invest forms the inflation and other possible harms. Banks are disbursing their money as investment in trade business and industry. Due to the grown on banking sector in Nepal and huge competition, investment are comparatively losses. Therefore, Banks should be following the principle of investment for profit. An investment policy should ensure maximum profit and minimum Risk. Investment policy determines the investor's objective and the amount of its investable wealth because there is possible relation between risk and return for sensible investment strategies.

Banking sector specially commercial bank play a vital role in the Process of canalizing the available resources in the needed Sectors. Financial system contacts two component i.e. depositary financial institution and non-depository financial institution. Commercial banks, development banks are depositary financial institution whereas employed providence fund, insurance companies etc are non depositary financial institutions all the economic activities are directly or indirectly channeled through banks. Banks accept money as a deposit from public and invest it in form of loan and advances. Financial institutions act as an intermediary role between the persons who lend and who borrow. Bank pools the scattered fund and mobilizes them in productive sector .bank came into existence mainly with the objective of collecting

the idle Fund, mobiles them into productive sector and causing an overall economic development. The bankers have the responsibility of safeguarding the interest and deposited amount of depositor. The word CAMELS can be used to judge the soundness of bank. It stands for

C: Capital Adequacy

A: Asset Quality

M: Management Quality

E: Earning

L: Liquidity

S: Sensitivity for Risk

NRB Directives (Circular No: 08/067) for Investment Policy

1. **Investment on priority sector:-**

NRB has pointed priority sector as agriculture sector, cottage and small industry sector, service oriented sector, corporative sector etc. In which the commercial bank must invest 10% of their total deposits. The provision totally based on the objectives for uplifting life style of people in remote and village area.

2. Investment on Co-operative sector (Deprived sector)

Co-operative institutions, rural development banks etc which are licensed by NRB are also to be compulsory invest by commercial bank. In certain ratio determined to joint-venture Banks as per such regulation. JVB's has invested 3% of total outstanding credit of for co-operative sector.

1.2 Methodology

Till date there are 32 major commercial banks operating in Nepal. Among them two sample banks have been taken to conduct the study. A brief description of sample banks viz. Nepal Investment Bank Ltd and Nepal SBI Bank Limited has been presented below.

a) <u>Nepal investment Bank Limited</u>

Nepal Investment Bank Ltd. (NIBL) previously Nepal Indosuez Bank ltd. was established in 1986 as joint venture between Nepal and French partners. The name of the bank was changed to Nepal Investment Bank ltd. upon approval

of the bank's annual general meeting, Nepal Rastra Bank and company registers office. The share holding structure comprises:

- A group of companies holding 50% of capital
- Rastriya Banijiya Bank holding 15% of the capital
- Rastriya Beema Sansthan holding 15% of the capital
- The general public holding 20% of the capital

Nepal investment bank provides a wider range of retail services:

- Deposits, loans and lockers
- Mobile bill payment, utility payment
- E-banking, alert services
- Mobile (sms), banking (vas)
- Credit cards and Debit cards
- Domestic remittance

b) Nepal SBI Bank Limited

Nepal SBI Bank Limited was established in 7th July, 1993, under the company Act. It is a foreign joint venture bank and the foreign partner is State Bank of India, holding the 55% of equity share of Nepal SBI Bank Limited, is managing the Bank under joint venture and technical services agreement signed between it and Nepalese promoters. There are 50 branches of Nepal SBI Bank Limited at present in operation. Authorized capital and paid-up capital of Nepal SBI Bank Limited is Rs.20000 million and Rs.874.5 million respectively. Fifty five percent of the total share capital of the Bank is held by the SBI, fifteen percent is held by the Employees Provident Fund and thirty percent is held by the general public. Nepal SBI Ltd provides following products and services.

- Deposit Products
- Loans
- Remittance
- Card Services
- Internet Banking

Investment policies of the banks are necessary for the economic development of the country in this context is the heart of the financial system. Investment policy plays a vital role in each and every organization. But especially for the commercial bank and other financial institutions the sound knowledge of investment policy is the must because this subject is relevant for all surrounding that mobilize funds in different sectors in view of return. The sound policies help commercial banks maximize quality and quantity of investment and there by achieve the own objective of profit maximization and social welfare.

The present study has sought to answer the following research questions about the selected commercial banks:

- What is the relationship between investment and loans and advances with total deposits and total net profit?
- Does the investment decision affect the total earning of the bank?
- Are the available funds properly utilized?
- What are the trends of their deposits, loans and advances, investment and net profits?

1.3 Objectives of the Study

The main objective of this study is to assess the investment policy of Nepal Investment Bank Ltd and Nepal SBI Bank Ltd. The specific objectives of this study are as follows.

1. To analyze relationship between loans and advances and investment with total deposits and total net profit of sample commercial bank (Nepal Investment Bank and Nepal SBI Bank).
2. To find out the investment policy and decision that affects the total earning of the bank.
3. To analyze the liquidity, assets management efficiency, profitability and growth of Nepal Investment Bank ltd. in comparison to that of Nepal SBI Bank.
4. To analyze the trend of investment, deposit, loan and advances and net profit of sample commercial banks

1.4 Significance of the Study

A sound investment policy of a bank is such that its funds are distributed on different types of assets with good profitability on the one hand and provide maximum safety and security to the depositors and banks on the other hand. So the investment policy of commercial banks should be in accordance with the spirit of the economic advancement of the people and also called it as the life-blood of any financial institution because only deposit collection carries no meaning, there should a proper policy of investment also. If it is utilized in a proper investment then only better return and sustainability is possible. Therefore, to this significance on account this study on behalf of the firm's investment policy and its relationship is justified as a specified subject matter.

Nepal is one of the least developed countries with poorest economic condition of the world. As the financial services industry becomes more complex, the financial information is more difficult to understand. Quality governance is impossible without effective analysis and evaluation of financial information. In the context of Nepal, there are less availability of research work, articles and journals in investment policy of commercial banks and their financial institutions. The study will certainly help to the management of the concerned banks to improve their performance and would help them to take corrective actions. Thus, this study lies mainly in filling a research gap on the study of investment policy of commercial banks. The study is basically confined to reviewing the investment policy of commercial banks in the five years periods.

This study is expected to definitely provide a useful feedback to the policy makers of commercial banks of Nepal and also to the government and the NRB in formulating appropriate strategies for the improvement in the financial performance. This study is also expected to be beneficial for the related persons in the field of investment and institution. And also help to find out the causes of failure and success of the bank by using the various financial and statistical tools. This research reports helps to gain and share some practical knowledge of banking and management of the commercial banks in the perspective of improving financial performance.

Similarly, depositors can take decision to deposit on their money, also useful to more people and organization such as trade creditors, investors, academicians, general public, stockbrokers etc. It will prove to be an important value for the entire individual interested in commerce and banking field.

The investment policies generally seem to be guided by the philosophy of "be less risky and high liquid". Therefore, all banks and financial institutions tap the same market for their investment of funds, which is really a risky as well as less profitable affair. They have to redesign their investment policy and strategy to explore new markets for investment. Effective utilization of fund is possible only through the formulation and implementation of sound investment policy and strategy.

1.5 Limitations of the Study

The limitations of the study are as follows:

1. The scope of the study is limited within the frame work of investment policy only
2. The study intends to explore only five years analysis i.e. from fiscal year 2007/08 to 2011/12 and its comparative study. So, it does not cover the elements of previous years.
3. Since the study is fully based on the secondary data collected from various sources, their relevancy will depend upon the authenticity of the previous data. So, employee's perception is not in participated in the study.
4. Only two commercial banks are selected for the study, which are NIBL and NSBL
5. This study deals with limited financial and statistical tools. Hence, the drawbacks and weakness of those tools are the limitations of the study as well.

1.6 Organization of the Study

This study has been presented in the following order;

Chapter - I: Introduction

This is the very first segment of the study. This chapter consists of general background of the study, focus of study, statement of the problem, objectives of the

study, significance of the study, limitations of the study and organization of the study. A brief profile of sample companies has also been given.

Chapter - II: Review of Literature

The second chapter, Review of Literature, reviews of available relevant studies. It includes the conceptual review and review of the related books, journals and the published and unpublished research works as well as thesis in separate segments to show what types of studies were made in this field and what conclusions were drawn by the previous researchers.

Chapter - III: Research Methodology

The chapter contains research design, sources of data, population and sample, method of data collection and analysis. Various financial and statistical tools are defined which have been used in the analysis of data.

Chapter - IV: Data Presentation and Analysis

This chapter is the heart of study which consists of presentation and analysis of data and major findings of the study. Analysis has been done as per described in chapter 3 and the calculated results have been presented in a tabulated form and graphical presentation has also been made along with the interpretation of the calculated figures.

Chapter - V: Summary, Conclusions and Recommendations

The fifth and last chapter lists the summary and conclusions, and offers recommendations and suggestions based on the analysis and interpretation of the data. Bibliography and appendices are also included at the end.

CHAPTER-II

REVIEW OF LITERATURE

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

This chapter helps to take adequate feedback to broaden the information base and inputs to my study. Conceptual framework given by different authors, research scholars, etc in this chapters are reviewed from the research papers, annual reports, articles etc., which are arrange into the following order.

2.1 Conceptual Review

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

Charles P. Jones (1999) has defined that, “Investment as the commitment of funds to one or, more assets that will be held over some future time period. Investment concerned with the management of an investor wealth, which is the sum of current income and present value of all future income.”

James B. Baxley expresses his views as "Investment policy fixed responsibilities for the investment dispositions of the bank's assets in term of allocation funds for investment and loan and establishing responsibility for day to day manage of those assets."

Jack Clark Francis (1991) states that, "Default risk arises because firms may eventually bankrupt. Some default risk is not diversifiable because it is systematically related to the business cycle, which affects almost all investments. However, some default risk may be diversified away in a portfolio of independent investments."

Frank K. Reilly (1986) define investment in the words, "An investment may be defined the current commitment of funds for a period of time to derive a future flow of funds that will b compensate the investing until for the time, the funds are committed, for the expected rate of inflation and also for the uncertainty involved on the future flow of funds."

William J. Sharpe and Alexander J. Gordon (1996) has defined investment in this way, "Investment in its broadest sense, means the sacrifice of certain present value for (possible uncertain) future value."

2.1.1 Brief concept of Commercial Banks, Investment Policy and its Importance to the Commercial Banks

Today banking is an industry in change – it is continuously becoming something new–offering new services, adopting new technologies. In spite of its changes, it probably is and always will remain a service industry. Bank involved in a service industry is dedicated to overall financial activities of the economy; they offer a wide range of financial services such as: currency exchange, discounting commercial notes and making business loans, offering savings deposits, safekeeping of valuables and certification of value, supporting government activities with credit, offering demand deposits, offering trust services, granting consumer loans, financial advising, cash management, offering equipment leasing, making venture capital loans, selling insurance services, selling retirement plans. However among these, the primary function of banks today is to produce and sell financial services demanded by the

public. One of the most vital of those services is granting loans, particularly loans used to support business investment. Yet not all bank funds can be allocated to loans because: many loans are illiquid; it is among the riskiest bank asset – carrying the highest borrower default rate of any form of bank credit; all loan income is taxable. For all these reasons, banks have to learn to devote a significant portion of their asset portfolio to another major category of earning asset: investment in securities like government bonds and notes, corporate bonds and notes, other form of debt securities and other stock permitted by law. These holdings perform a number of vital functions in bank asset portfolios- providing income, liquidity, diversification to reduce risk, and the sheltering of at least some portion of bank earnings from taxation. Hence to have a well-managed bank asset portfolio a bank must have its investment policy.

For any bank, one of the important steps to take in the investment planning process is the creation of the Investment policy statement. An investment policy statement defines your goals and sets the guidelines for the investment activity, and some even consider it their business plan for making critical decisions. Most importantly it provides discipline. The investment policy statement can be broken down into these following sections:

- Definition of goals and objectives
- Statement of parties' responsibilities
- Risk and return parameters
- Asset allocation detail
- Screening criteria
- Investment due application and monitoring procedures
- Account review and rebalancing guidelines
- Fee and expenses considerations

The investment policy should specifically list how to distribute the investments – also known as the asset allocation which should be very specific. It should also include a provision detailing when to rebalance the portfolio, i.e. reworking the portfolio to the original asset allocation. A lot of time and effort should be given in creating an investment policy – because when constructed and followed properly, it provides the discipline to the investment process (source: Donald Trone of the Foundation for Fiduciary Studies).

A bank may decide to embark on aggressive, liberal or a conservative investment policy. The type to be adopted will depend on the bank's objective, income and the level of the bank's present and expected risk exposure. For instance, a bank that is already much exposed to liquidity risks in loans and other assets will definitely pursue a conservative investment policy. Preferably, investment policy should be in writing. This will help to ensure uniformity and consistency in its application. However, it should be flexible enough to give room for the use of initiatives, and for easy room for the use of initiatives, and for easy adaptation to changes in the environment.

Geoffrey, (2002) in his article *'The Philosophy Of Investment: a Post Keynesian Perspective'* has focused on the role of uncertainty in investment decision as a central concern of Post Keynesian economics. Working from the contributions of J.M. Keynes, this paper develops the philosophical basis for such an investment strategy.
He explained that the formulation and selection of a security investment strategy raises substantive philosophical questions. From a post Keynesian perspective this philosophical questions flow naturally from the role that uncertainty plays in the investment process. Faced with an infinite number of possible future outcomes, individuals are driven to use conventions to take actions. Where investment decisions are concerned, the efficient markets hypothesis is one such convention. This convention maintains that, at any point in time, security prices accurately reflect the" long-term prospective yield" on that security. Yet, conventions depend on the institutional, social, and historical context, and, at any given time, belief in the efficient markets convention can be weak, leading to violent fluctuations in security prices that are far greater than justified by the actual changes in the underlying fundamentals. Although the Post Keynesian approach has accurately identified the macro economic problems this instability poses, substantially less attention has been given to the difficulties this instability creates for security investment strategies.

He concluded that it was not possible to identify a security investment strategy for Post Keynesians. The philosophical approach that underlies the analysis of uncertainty also admits a range of possible investment strategies. In effect, because the future is unknowable, it is not possible to know how to optimally select securities

that have payoffs that depend on future outcomes. It is possible to dodge the uncertainty by selecting investments for which the payoff has a high degree of certainty. It is also possible to seek out the gains associated with the highly uncertain path that involves entering the" game of Old Maid" and attempting to surf the waves of pessimism and optimism. Uncertainty can also be used as a blind to rationalize the selection of investments with socially desirable objectives. After some reflection, this lack of a coherent Post Keynesian security investment strategy is not too surprising. After all, Post Keynesian economics is predicated on the notion of "situated freedom". To attempt to impose an investment ideology, similar to what is currently being done by the modern portfolio theorists would be contrary to the philosophical essence of the Post Keynesian approach.

Shrestha (1998) in her article, *"Lending Operation Of Commercial Banks Of Nepal And Its Impact On GDP"* has presented the objectives to make and analysis of contribution of commercial banks lending to the Gross Domestic Product (GDP) of Nepal. She has set hypothesis that there has been positive impact of lending of commercial banks to the GDP. In research methodology, she has considered GDP as the dependent variable and various sectors of lending viz. Agriculture, Industrial, Commercial, Service and general and social sectors as independent variables. A multiple regression technique has been applied to analyze the contribution.

The multiple analyses have shown that all the variables except service sector lending have positive impact on GDP. Thus, in conclusion she has accepted the hypothesis i.e., there has been positive in GDP by lending of commercial banks in various sectors of economy, except service sector investment. Likewise, Dr. Shrestha has analyzed the financial performance of commercial banks using both descriptive and diagnostic approach. In her study, she has concluded the following points:

- The structures of commercial banks shows that bank invest on the average 75% of their total deposit on the government securities and the resources.
- The analysis of resources position of commercial banks showed quit high percentage of deposit as cash reserve.
- Return ratio of all the banks show that most of the time foreign banks have higher risk of Nepalese banks.

- The debt equity ratios of commercial banks are more than 100% in the most of the period under study period. It led to conclude that the commercial banks are highly leveraged and highly risk. Joint venture banks had higher capital adequacy ratio but has been dealing every day.

2.1.2 Purpose/Components of an Investment Policy and its Process

The investment policy statement should be the basic building block in an intentional investment process. The Investment policy development process provides crucial education for the client and is a key communication step, helping each party to understand the other's perspective and goals. The Investment policy is the document that guides the advisor as future decisions are made; it serves as a guidepost against which the reality of what has happened can be measured against the rules and procedures and benchmarks that were agreed to. Finally, it serves to create a purposeful decision-making process in rational times, to guide clients through the inevitable rough periods when emotions may cause them to make less than optimal decisions.

- **Basic purpose of an Investment Policy**

The investment policy statement serves four basic purposes:

- Identifying objectives - to establish clear, reasonable and definable expectations, risk and return objectives, and guidelines for the investment of the assets.
- Defining the asset allocation policy - to set forth a structure and identify the investment asset classes that will achieve a diversified portfolio, as well as to determine how those assets are to be best allocated to help achieve the investor's objectives.
- Establishing management procedures - to provide a guide for selecting, monitoring and evaluating the performance of those charged with managing and investing the assets, and making changes as appropriate.
- Determining communication procedures - to provide a concise method of communicating the process and objectives among all parties involved with the investments and to assign responsibility for implementation.

Two cautions are worth repeating: (1) if you are going to create an investment policy statement, it is only useful if it is in writing; and (2) if you have an Investment policy,

it is essential that you follow it. Worse than not having an investment policy statement is to have one and ignore it.

Components of an Investment Policy

There is no one right way to construct an Investment policy, although advisors who use a consistent structure each time will find the process of writing an Investment policy much less arduous and time-consuming. Our approach is to categorize the common components of a complete investment policy statement into seven parts:

- Introduction-purpose of the Investment policy and an explanation of why the investments are being structured as suggested
- Key factual and account information and summary of investor circumstances
- Investment objectives, time horizon and risk attitudes
- Permissible asset classes, constraints and restrictions
- The asset allocation
- Selection, monitoring and control procedures
- Signatures

Each advisor will approach each of these parts differently and each client's Investment Policy will require a certain degree of individualization. At the same time, having a template to provide consistency in structure from one client to the next can help save time as well as improve the output.

- **Steps of a proper Investment Process**

Investment process describes how an investor should go about making investment decision with regard to how to invest (analysis), how much to invest (Portfolio Construction), and when to invest (timing and diversification) so that optimal portfolio (revision) is formed to suit investment strategy (objective).

A thorough and proper investment process has nine steps. Each step relies on many different inputs and will be uniquely determined based on the advisor's sophistication, his or her biases and preferences (Source*:* Norman M. Boone, CFP, and Linda S.

Lubitz, CFP, are co-authors of the forthcoming book Creating an Investment Policy Statement-Guidelines & Templates. They have their respective financial planning firms in San Francisco, California, and Miami, Florida).

Step-I: - Identify Goals

Step-II: - Identify the target rate of return

Step-III: - Knowing the Time Horizon

Step-IV: - Understanding the client's risk tolerance

Step-V: - Identification of asset classes and Investment vehicles

Step-VI: - Design the asset allocation

Step-VII: - Write the investment policy statement

Step-VIII: - Select the Investments

Step-IX: - Monitoring, Managing and Reporting

2.2 Empirical Reviews

In this section, attempt has been made to review some relevant articles and journals in different economic and finance.

Pradhan and Yadav, (2007) have explained in their article *"Saving The Source Of Investment",* that saving is income not consumed. It is one the important and perhaps the chief sources of Investment. In developing countries about 45% of the incremental saving is invested domestically, while in developed countries about 75% of the incremental saving is invested domestically. This suggests that capital is more mobile in developing countries than in developed countries. Saving are of great significance in a country's development.

While saving results in high economic growth rate, rapid development leads in turn high savings. Nepal's saving rate is lower as to other developing countries, however, even to achieve 5 to 6 percent economic growth rate, more than 25 percent annual Investment of GDP is considered necessary. As the country's current domestic saving are about 14% the economic resources are short by nearly 11% in proportion of the GDP. The situation is such that huge portion of Investment has still to be made with external resources. The amount of saving of a typical household in Nepal is small because of the people have limited opportunities for Investment. They prefer to spend

saving on commodities rather than on financial assets. This restricts the process of financial intermediation, which might otherwise bring benefits such as reduction of Investment risk and increase in liquidity. When capital is highly mobile international, saving from aboard can also finance the Investment needed at home. When capital is not mobile internationally, saving form abroad will limit investment at home.
Wherever there is Investment there must be Capital formation. The development of an economy requires expansion of productive activities, which in turn is the result of the capital formation, which is the capital stock of the country. The change in the capital stock of the country is known as Investment.

Shrestha (2006), has presented a short scenario of investment management in his article *"Portfolio Management In Commercial Bank, Theory And Practice"*. He has stressed in the following issues, 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 funds 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 an individual as well as for institutional investors. Large investors would like to select a best mix of investment assets and subject to the following aspects.

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

In the view of these aspects, investor's are expected to develop the following strategy.

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

Sharma (2006) in his article *'Banking The Future On Competition'* has explained that the commercial banks are establishing and operating mostly in urban areas. From his

studies he found that: - Commercial banks are establishing and providing their service in urban area only. They don't have interest to establish in rural areas. Only the branch of Nepal Bank Ltd and Rastriya Banijya Bank Ltd. are running in those sectors.

- They have maximum tax concession.
- They don't properly analyze the credit system.

He found that due to the lack of Investment avenues, banks are tempted to invest without proper credit appraisal and personal guarantee, whose negatives side effects would show colors only after four or five years.

Nicolla, (2004) in his article *'Real Effects Of Bank Competition'* has analyzes the effect of bank deregulation and bank concentration on the market structure of non-financial sector. The research has been focused on the analysis of the mechanisms through which finance affects growth: what are the specific characteristics of financial market that seem to be associated with lower or higher growth prospects? For example, does it matter whether banks are privately or government owned, or whether there is higher or lower protection for financial contracts, or whether banks are in a more or less competitive environment? And related to this, just what aspects of firms and industries are impacted by finance so that it eventually translates into more economic growth? This paper focuses on addressing precisely this last question, and it is the natural continuation of a research agenda in which the role of banking market structure on the market structure of industrial sectors. This study estimates the effect of bank concentration and bank deregulation on the market structure of nonfinancial industries, using a panel of both EU and non-EU member countries.

He have analyzed challenging the customary view that a lack of competition in the banking industry is unequivocally detrimental to social welfare and have suggested that concentration of market power may in fact enhance the role of banks as information producers in their lending activity and their willingness to establish close lending relationships with their client firms. In EU countries deregulation of banking industry removed important barriers to entry in banking markets, thus contribute to enhance the overall level of bank competition. The EU banking markets have become

more competitive and this seems to have been translated into easier entry and less concentration in nonfinancial industries as compared to non – EU countries.

The results show that sectors where old firms are more in need of external finance are of disproportionately larger size if they are in countries whose banking sector is more concentrated. This result is consistent with theoretical priors suggesting that market power gives banks an implicit equity stake in the firms with whom they have already established long lasting relationships. The evidence also seems to imply that bank market power may represent a financial barrier to entry in nonfinancial industries.

This analysis exposes a potential link between characteristics of the banking industry and firms' conduct in other industrial sectors. For example, depending on market structure, firms may have different pricing strategies for their products or different incentives for technology adoption. Therefore, regulation that directly affects the market structure of the banking industry will also have effects, perhaps undesirable, down the line in non-financial product markets. These considerations point to novel directions of analysis of the impact of banking market structure on social welfare.

Waring and Lewer, (2004) in their article *'The Impact of Socially Responsible Investment on Human Resource Management'* assumed a major role of socially responsible investment in global equity markets. They argued that the continued growth in investors seeking to align their ethical concerns with their investment strategies may influence the way in which the employment relationship is managed in publicly-listed corporations.

They indicated that in last few decades an astounding escalation in "socially responsible" or "ethical" investment in advanced capitalist countries. In the United States for instance, $US2.16 trillion in 1999 was invested in socially responsible share funds and trusts, representing 13 percent of all US funds, up from $US 1.185 trillion in 1997. Significant growth was also experienced in the United Kingdom with the value of funds in socially responsible investments rising by 327 percent between 1994 and 1998 to be worth some $US3.65 billion and was estimated in 2001 to be worth some $ US 327 billion. In Germany, just over $US2.2 billion is invested ethically. In

the much smaller markets of Australia and Canada, ethically managed funds have also experienced accelerated growth in recent years. While most ethically managed equity funds are primarily concerned with environmental and health issues, socially responsible investing is increasingly concerned with the human resource management reputation of corporations. One of the largest Australian SRI funds, Australian Ethical Investment Ltd, states in its charter that the fund will seek out investments that encourage "the development of workers participation in the ownership and control of their work organizations and places" In this article we argue that the global rise of socially responsible investment, together with the activism of union-based pension funds, may have significant repercussions for human resource management practices in publicly listed firms. He contends that the expansion of such investment may alter the range of human resource management (HRM) choices and pose a significant challenge to the dominant neo liberal orthodoxy in contemporary HRM.

They have concluded that the power of SRI though is contingent on its continued growth, and this in turn is dependent on securing investor confidence in SRI. For investors, the question "will it pay?" is fundamental to the investment decision. For regular investors the question has a single financial dimension which is evaluated through the calculus of the investment decision. However, for investors who wish to act according to their social conscience, "will it pay?" moves beyond the question of financial returns to consider the social utility of a particular investment. Determining the social utility of an investment though is a difficult task, SRI funds managers' use screening techniques to identify the relative social utility of investment choices whilst excluding others from their portfolios. Yet, as demonstrated, these remain relatively unsophisticated devices (especially in the case of labor related screens) which do little to enhance investor confidence that their SRI will deliver strong social returns. This article has established one set of alternative screening criteria for labor screens based discussion of the "good firm" however; the central theme that emerges from this discussion is the need to improve screening techniques to enhance investor confidence.

2.3 Review of Thesis

A number of researchers who conducted their research study on the investment policy of commercial banks. The following are the review of those studies:

Joshi (2005) conducted a study on *"Investment Policy Of Commercial Banks In Nepal: A Comparative Study Of Everest Bank Limited With NABIL Bank Limited And Bank Of Kathmandu"* with the objectives that are as follows:

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

The secondary data were used to conduct the study. The research findings of the study were:

- The liquidity position of the EBL was better than NABIL and BOK. EBL had the highest cash and bank balance to total deposits and cash and bank balance to current assets ratio. NABIL had the lowest liquidity position.
- EBL had good deposit collection and made enough investment on Government Securities, but it maintained a moderate investment policy on loans and advances.
- From the analysis of assets management or activity ratio, it was concluded that EBL was average, or in between NABIL and BOK. The total investment of EBL was in between the other two banks. In the study, loans and advances to total deposit was higher in BOK, but total investment to total deposit was higher in NABIL.
- Investment on shares and debentures to total working fund ratio was higher in BOK. However, the coefficient of variation was higher in EBL.
- In analysis of profitability, total interest earned to total outside assets of EBL is lowest at all. However, overall analysis of profitability ratios showed that EBL was an average in comparison to other compared banks i.e., NABIL and BOK.

- From the viewpoint of risk ratio, EBL had higher capital risk ratio, but average of credit risk ratio of NABIL and BOK.

Regmi (2006) conducted *"A Comparative Study On Investment Policy Of Everest Bank And Himalayan Bank Limited"* with the objectives as given below:

- To find out the relationship between total investments, deposits, loans and advances, net profit and assets and compare them.
- To evaluate the liquidity, asset management, efficiency, profitability and risk portion of EBL and HBL.
- To analyze the deposit utilization trend and its projection for five years of HBL and EBL
- To provide package of a workable suggestions and possible guidelines to improve investment policies.

The study was carried out the basis of secondary data. The research findings of the study were:

- The liquidity position of EBL was comparatively better than HBL. EBL had the highest cash and bank balance to total deposit ratio, cash and bank balance to current assets ratio than that of HBL.
- Both EBL and HBL had almost same pattern of investment on government securities, but fluctuating ratios showed the unstable policy of investment.
- EBL has higher loan and advances to current assets ratio and successful in deposit collection as well. The assets management ratios of both banks are satisfactory.
- Both bank EBL and HBL had provided its most portion of deposit as loan and advances. Moreover, EBL had invested its more portions as loan and advances, in case of investment in other sectors, HBL had adopted diversified investment policy. EBL invested its working fund in government securities and other companies share and debentures than that of HBL; So HBL was less effective in comparison to EBL.
- In profitability analysis, HBL had maintained high profit margin regarding profitability position. HBL was more successful to generate income through

loan and advances and operating income and it had earned more from total outside assets and total working fund.

- From the study, it was concluded that profitability of HBL was better than that of EBL.
- From the risk point of view, HBL had borne lower liquidity risk and credit risk in comparison to EBL regarding various aspects of banking activities. It could be said that HBL had followed a stable liquidity policy justified by lower coefficient of variation.

Shrestha (2007) conducted a study on *"A Comparative Analysis on Investment Performance of Commercial Banks in Nepal"* with the following objectives:

- To analyze the investment activities and fund mobilization with respect to fund based on-balance sheet transactions and fee based off-balance sheet transactions
- To study the asset utilization system, profitability and risk position of commercial banks under study
- To assess the deposit utilization trends and its projection for the future
- To evaluate the growth ratios of loan and advance and total investment and respective growth rate of total deposit and net profit
- To appraise the suggestion on the basis of findings for further growth of the banks under study.

The study was conducted on the basis of secondary data. The research findings of the study were as follows:

- The liquidity position of NIBL was stronger than NABIL and NIBL. At the same time, liquidity position of NIBL was highly fluctuating, which showed that NIBL bore higher risk than other two banks.
- NIBL had the least investment in Government Securities, which considered the least risky asset.
- From the analysis of assets, management ratio of NIBL in comparison to NABIL and NIBL was more successful regarding asset management and deposit mobilization.
- NIBL's investment on shares and debentures was high in comparison to the other two banks but its performance regarding total investment has been very poor.

- In the profitability analysis, none of the three banks' profitability position was clearly better. However, NABIL was slightly better profitability. Therefore, their profitability ratios were in moderate position.
- From the risk point of view, NABIL and NIBL were facing higher risk than NIBL, but the risk level of all three banks seemed almost the same.
- From the analysis of growth ratios, NIBL's collection of deposit, granting of loans and advances and net profit were better but in terms of investment, NIBL is better.
- The coefficient of correlation analysis between different variables of NABIL, NIBL and NIBL revealed that NABIL was weaker regarding mobilization of deposits as loans and advances and NIBL was performing extremely well regarding earning profits from outside assets.
- From the trend analysis study, it was found that all banks were mobilizing their total deposits into loans and advances in increasing trend, which was the indication of efficient mobilization.

Dhakal (2008) conducted a study on *"Investment Policy Of Commercial Banks In Nepal"* with the objectives that are as follows:

- To find out the relationships between total investments, loan and advances, deposit, net profit and outside assets.
- To identify the investment priority sectors of sampled commercial banks.
- To assess the impact of investment on profitability.
- To analyze and forecast the trend and structure of deposit utilization and its projection for five years of commercial banks.
- To provide suggestions and possible guidelines to improve investment policy and its problems.

The study was conducted based on the primary and secondary data. The research findings of the study were the following:

- The liquidity position of Everest Bank Ltd. (EBL) was comparatively better than that of Nabil Bank Ltd. (NABIL) and Bank of Kathmandu Ltd. (BOK). All the three banks had met the normal standard current asset ratio to meet the short-term obligations of their customers.

- EBL had invested the most in Government Securities, followed by BOK and NABIL. BOK had mobilized a huge sum its funds to earn the profit.
- From the analysis of assets management ratio, EBL was in better position than NABIL and BOK.
- The loans and advances to total deposit ratio, loan and advances to total working fund ratio of EBL lied in between those of NABIL and BOK.
- EBL had invested the highest portion of its total working fund on government securities as compared to NABIL and BOK. Investment on shares and debentures to total working fund ratio was higher in BOK. Overall analysis of profitability ratios showed that EBL was on an average profitable in comparison to other bank i.e. NABIL and BOK.
- The return on loan and advances ratio and return on assets of EBL was lowest of all. The degree of risk was average on EBL. EBL had shown its good performance by increasing earnings by providing loan to clients.
- The trend of the total investment, total deposit, loan and advances and net profit of EBL showed better position than that of NABIL and BOK.

Maharjan (2009) conducted a study on *"Investment Analysis Of Commercial Banks In Nepal (A Case Study Of Nepal Investment Bank, Himalayan Bank, Nepal SBI Bank, Everest Bank And Bank Of Kathmandu"* with the following objectives:

- To study and analyze percentage of Investment made by selected commercial banks in total Investment made by commercial banks.
- To analyze Investment trend and their projection for next five years of selected commercial banks.
- To identify Investment sector of selected commercial banks.
- To study the relationship between Investment and Deposit of the banks.
- To make the suggestion, recommendation of the study.

The study was conducted on the basis secondary data. The research findings of the study were as follows:

- Mean ratio of NIBL's investment to total commercial banks investment is 9.96% which is extremely higher than that of other banks to total commercial banks. The portion of NIBL's investment is increasing every year in the total investment of Commercial banks.

- NSBIBL had invested most of there fund in government securities than other banks. Likewise EBL, BOKL, NIBL and NIBL. NIBL, EBL and NIBL had started to invest in other sector from FY 2062. All the banks had invested fewer funds to share and capital of other company.
- The mean ratio of investment on government securities to total assets ratio of NSBIBL is 20.45% which is higher than other banks NSBI uses most of its fund from deposit on investment and loan and advances and less on share and debentures.
- NIBL has used its maximum fund on share and debenture of other companies than other banks. And the mean ratio of total investment to total assets ratio of NIBL is 24.6% which is greater than other banks. Similarly BOKL has fewer ratios than other banks.
- From the growth ratio analysis, it seems that all the banks are increasing their investment, deposit and loan and advance, whatsoever, the growth ratio of NIBL is highest amongst all in terms of investment, deposit and loan and advance.
- From Multiple regression analysis, in case of NIBL, NIBL, EBL, BOKL and NSBI, profit is highest when investment plus loan and advance is changed, deposit is constant and it is lowest when investment plus loan and advance is constant, deposit is changed except NSBI. In case of NSBI, profit is lowest when deposit is constant , Investment plus loan & advance is changed.
- The test of hypothesis shows that there is significant difference between two mean i.e. investment plus loan and advance to total deposit of NIBL and NIBL, investment plus loan and advance to total deposit of EBL and NSBIBL and investment plus loan and advance to total deposit of EBL and BOKL.
- From correlation analysis, it is clear that total investment and total deposit of all five banks has positive relation.
- Total investment of five banks is also in increasing trend. The estimated investment of NIBL is higher than that of other banks and that of BOKL is less than other banks.

Shrestha (2010) conducted a study on *"Nepal Rastra Bank Guidelines on Investment Policy of Commercial Banks in Nepal (A Case Study of Nepal Investment Bank LTD)"* with objectives presented below:

- To highlight the NRB directives regarding investment policy (loan, advances and investment).
- To analyze the liquidity of NIBL.
- To find out the relationship between total deposit and loan and advances, total deposit and total investment.
- To make the trend value analysis of deposit utilization and its projection for next five years.
- To find out whether NRB guidelines are actually being implemented.

The study was conducted on the basis of secondary data. The main findings of the study were as follows:

- The bank was in good liquidity position to meet the daily cash requirements as it maintained the average cash and bank balance in respect to total deposit.
- The performance of NIBL regarding deposit collection, granting loan and advances and investment was quite satisfactory but did not seem to follow a definite policy.
- NABIL had not efficiently utilized its equity capital; hence, return on equity was not satisfactory because of the lack of around investment policy for mobilization of its equity capital.
- Interest earned to total operating income of NIBL was high. However, bank failed to maintain net profit.
- The analysis of coefficient of correlation showed that there was positive and significant relation between total deposits and loan and advances and current assets and current liabilities and loan loss provision and loans and advances, but there was negative and no significant relationship between outside assets and net profit.
- Trend analysis and projection for next five year of total deposits, loan and advances, investment and net profits were in increasing trend.

Pandit (2011) has conducted on *"Investment Policy Analysis Of Joint Venture Banks With Special Reference To Nepal SBI Bank, Bank Of Kathmandu And Everest Bank Limited"* with the following objectives:

- To evaluate whether the liquidity management assets management, efficiency, profitability position, risk position and investment practices of Nepal SBI Bank, BOK and EBL.
- To find out the relationship between deposit and total investment, deposit and loan and advances and net profit and outside assets.

The study used secondary data for its conduction. The research findings of the study were as follows:

- Liquidity position of SBI Bank was slightly good as compared to BOK and EBL. However, the liquidity positions of the banks under study were not so satisfactory. Therefore, banks should improve their liquidity position to meet their current obligations.
- The study of assets management ratio showed that SBI Bank was not in a better position regarding its on balance sheet activities.
- The profitability position of SBI was not as good as of other banks. Risk ratio of BOK was the highest and the capital risk ratio of EBL was the highest of all. It indicated that BOK and EBL must be careful about risk.
- Growth ratio of SBI and BOK had not successful to increase their source of funds. EBL had succeeded to maintain its higher growth rate of total deposit.
- Trend analysis of total deposits, loan and advances, total investment and net profit and projection of the next 5 years of SBI, BOK and EBL revealed that SBI had increasing trend values in total deposit, total investment and loan and advances of BOK and EBL had an increasing trend value of all types of trend analysis.

Basnet (2012) conducted a study on *"Investment Policy Of Commercial Bank (A Comparative Study Of Nabil Bank Ltd & Himalayan Bank Ltd.)*with the objectives that are as follow:

- To examine the fund mobilization fund and investment policy of NIBL and NABIL selected for the study.
- To assess the liquidity, profitability, risk positions in asset management of these commercial Banks.
- To evaluate the growth ratios of loan and advances, total investment with respect to growth rates of total deposits and net profit of these banks.

- To find out the relationship between the banks' total deposits and loans and advances, total deposit and total investment and total outside assets and net profit.
- To examine, interpret and forecast the trend of their deposits and loan and advances, investment and net profit.

The study was conducted on the basis of primary and secondary data. The research findings of the study were as follows:

- The liquidity position of NIBL is better than NABIL NIBL is more stable and consistent and able to meet the daily cash requirement of their customers.
- NABIL has made lesser investment in government securities as it has injected more funds on other productive sectors.
- NABIL is strong in terms of mobilization of its total deposit as loan and advances when compared to NIBL.
- The mean ratio of total investment to total deposits of NIBL is higher than that of NABIL and variability of NIBL is also lowest which shows stability. NABIL's variability of ratio is highest which indicates high instability in terms of total investment and NIBL's utilization of total deposit, as investment is better than NABIL.
- From the analysis the mean ratio of return on total working fund ratio of NABIL is greater than that of NIBL which shows that NABIL is successful in utilization of its working fund for profit generating activities.
- NABIL has more uniformity on earning return form loan and advances or it has been more successful in maintaining its higher return on loan and advances.
- The mean ratio of total interest earned to total outside assets of NABIL is slightly higher than that of NIBL which shows that it has been successful in earning higher amount of interest on its outside assets in comparison to NIBL.
- NIBL has higher credit risk in comparison to NABIL.
- The mean of capital risk ratio of NABIL is higher than that of NIBL. It indicates that NABIL is successful to attract the deposit and interbank funds, which help to increase the volume of profit.
- NIBL has been successful in collecting deposit over the six year period whereas the performance of NABIL to grant loan and advances is better in compared to NIBL.

- NIBL is successful to take higher investment policy but NABIL has maintained better profit than NIBL.
- The coefficient of correlation analysis between different variables of NABIL and NIBL revealed NIBL has mobilized its deposits in better way for profit generating activities as well as capable to earn net profit mobilizing its outside asset.
- From the trend analysis, it is found that the deposits collection of NIBL is better than the NABIL. The loan and advances of both banks are in fluctuating trend whereas the total investments of both banks are in increasing trend. Similarly, the net profit of NABIL is in fluctuating trend while the net profit of NIBL is in increasing trend.
- By the testing of hypothesis it is found that there is no significance difference between mean ratios of total investment to total deposit , loan and advances to total deposits, investment on government securities to current assets ratios , loan and advances to current assets ratio and total interest earned to total outside ratio of NABIL and NIBL while there is a significance difference between mean ratios of total investment to total deposit of NABIL and NIBL.
- On the analyzing the primary data collected from the respondents regarding the investment policy of the banks, it revealed that the banks follow standard formats while formulating the investment policy of the banks and implementation of the investment policy is higher as they maintain close monitoring and tight control.
- Banks are able to collect the deposits from the public for investment policy. If not, they launch different kinds and types of schemes to attract depositors for acquiring funds.

While reviewing the books and articles and past studies, it is found that banks are not just the storehouse of the country's wealth but are the reservoirs of resources necessary for economic development and employment generation. There are still different obstacles in the effective operation of the commercial banks in Nepal. Therefore these obstacles should be eradicated for the economic development of Nepal.

The review of above relevant literature helps to better understand the Investment policy of Commercial banks and its main drawbacks and problems. On the basis of feedback derived from the literature review further analysis of the study had been under track.

2.4 Research Gap

Previous researchers analyzed an investment policy by using secondary source of information in terms of investment practices or lending practices. But actually speaking, Investment Policy can be determined by various factors. Among of them, banking environment and management quality in term of investment may be the strong determinant for investment policy. In present context, these are the heart issue in Nepalese commercial banks like NIBL and NSBIL. An investment policy statement is an important document that will develop "blueprint" for managing organization's assets, establish long-term objectives, provide a disciplined process and guide through difficult market.

The purpose of the research work is quite different from the studies made by the above researches (related to commercial bank). This study focuses in effectiveness in investment. Policy analysis of Nepal SBI Bank & NIBL Bank Ltd. banking comprehensive manner considering the major items. Different financial & statistical tools have been used in this study. Among them, ratio analysis, regression analysis is the strong financial tools. This study is a little bit different from previous studies. It may be one of them research study of investment policy in few research work with reference to Nepal SBI bank & NIBL Bank. This study tires to indicate the effectiveness of investment policy of concerned banks.

CHAPTER - III

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. In order to achieve the objective of the study, certain method of research has to be used. Research methodology describes the methods and process applied in the entire subject of the study. This chapter is, therefore, devoted to describe the methods used for carrying out the research and attempts to have an insight into the Investments policy adopted by Nepal Investment Bank Ltd. and Nepal SBI Bank. The following methodology has been followed to conduct the present study.

3.2 Research Design

A research design is purely and simply the framework or plan for a study that guides the collection and analysis of data. Research design is the plan, structure and strategy of investigation conceived so as to obtain answer to research question and to control variances. A true research design is basically concerned with various steps to collect the data for analysis and draw a relevant conclusion. It is the arrangement of conditions for collection and analysis of data that aims to combine relevance to the research purpose with economy in procedure.

To achieve the objective of the study, descriptive and analytical research design has been used. Some financial and statistical tools have been applied to examine facts and description techniques have been adopted to evaluate investments policy of Nepal Investment Bank and Nepal SBI Bank Ltd.

3.3 Population and Sample

Since new commercial banks are being incorporated every year, the number of commercial banks in Nepal has been increasing previous year and now NRB has been stopped licensing. However, there are 31 commercial banks functioning all over the country at present as population samples. Although there are 31 commercial banks

operating in Nepal at present, only two banks, Nepal investment Bank Ltd. and Nepal SBI Bank have been selected for the study as sample related to investments performance have been comparatively.

3.4 Nature and Sources of Data

Mainly, the study is conducted on the basis of the secondary data. The data required for the analysis are directly obtained from the balance sheet and the P/L account of the concerned bank's annual reports. Supplementary data and information are collected from the number of institutions and regulating authorities like NRB, Economic Survey and national planning commission etc. All the secondary data are compiled, processed and tabulated in the time series as per the need and objectives.

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

3.5 Data Presentation and Analysis Techniques

The data presentation and analysis are focal part of the study. A number of financial and statistical tools are used to analyze the collected data and to achieve the objectives of the study. The analysis of the data has been done according to pattern of data available. Because of limited time and resources, simple analytical statistical tools such as graph, percentage, Karl Pearson's coefficient of correlation, regression analysis and the technique of least square are adopted in this study. In the same way, some useful financial tools such as ratio analysis and trend analysis have also been used for financial analysis. The data extracted from annual reports, financial statements and other available information are processed and tabulated in various tables and charts under different headings according to their nature.

3.6 Tools for Analysis

Financial as well as the statistical tools are used to make the analysis more convenient, reliable and authentic. Their ratios, percentages, mean, standard deviations and coefficients of variations are then calculated and presented in the tables. To study the relationship between two or more variables, correlation

coefficients are also calculated. Likewise, trend analysis is also used to know the trend of various ratios. Following are the brief introductions of the financial and statistical tools used in this study.

3.6.1 Financial Tools

- Financial ratios have been calculated to ascertain the financial condition of the firm. Financial tools have been used to examine the financial strength and weakness of bank. It is the relationship between financial variables contained in the financial statements (i.e., balance sheet, profit and loss account and income statements). There are several financial to spot out the financial strength and weakness of the firm. There are several financial tools, which could be applied in order to analyze the investment policy of commercials banks. The financial tools used in this study are as follows:
- Liquidity Ratio
- Assets Management Ratio
- Profitability Ratio
- Growth Ratio

3.6.2 Statistical Tools

Statistical tools help to find out the trends of financial position of the bank and to analyze the relationship between variables that helps banks to make appropriate investment policy regarding to profit maximization and deposit collection, fund utilization through providing loan and advances or investment on other companies. In this study, statistical tools such as coefficient of correlation between different variables, trend analysis of important variables have been used for analyzing and interpreting the financial data. The basis of statistical analysis related to this study is discussed below:

A. Arithmetic Mean

The mean or average value is a single value within the range of the data that is used to represent all the values in the series. Since an average is somewhere within the range of the data, it is also called a measure of central value. Average value is obtained by

adding together all the terms and by dividing this total by the number of items. The formula is given below:

$$\overline{X} = \frac{\sum X}{N}$$

Where,

$\overline{X}$ = Arithmetic average

$\sum X$ = Sum of values of all items, and

N = Number of term

B. Standard Deviation

The standard deviation is the measure that is most often used to describe variability in data distributions. It can be thought of as a rough measure of the average amount by which observations deviate on either side of the mean. Denoted by Greek letter σ {read as sigma}, standard deviation is extremely useful for judging the representatives of the mean.

Standard deviation is represented as: S.D. (σ) = $\frac{\sqrt{\sum \left(X - \overline{X}\right)^2}}{\sqrt{N}}$

Where,

$\overline{X}$ = Arithmetic average

σ = Standard deviation

N = Number of items

C. Coefficient of Correlation Analysis (r)

"Correlation it is the statistical tools that we can use to describes the degree to which one variable in linearly related to another." (Richard I Levin and David S. Rubin, Statistics for managements (New Delhi: Prentice Hall of India Pvt. Ltd. 1991; 505). The coefficient of correlation measures the degree of relationship between two sets of sigma. Among the various methods of finding out coefficients of correlation, Karl Pearson's method is applied in the study. The result of co-efficient of correlation is always between +1 or -1. When r= +1, it means there is perfect relationship between two variables and vice versa. When r=0. It means there is no relationship between two variables.

The Pearson's formula is: -

$$r = \frac{\sum XY}{\sqrt{\sum X^2}\sqrt{\sum Y^2}}$$

D. Trend Analysis (The Least-Square Method)

Trend analysis describes the average relationship between two series where the one series relates to time and other series to the value of a variable. It generally shows that the line of best-fit or straight line is obtained or not. The line of the best fir describes the change in a given series accompanying a unit change in time. In other words, it gives that best possible mean value of dependent variable for a given value of independent variable.

For the calculation of the "line of best fit" following equations should be kept in mind.

$Y_c = a + bx$

Where,

Yc = the estimated value of 'Y' for given value of x obtained from the line of regression of Y on x.

a = "Y-intercept" or mean of 'Y' value.

b = Slope of trend line or rate of change.

x = the variable in times series analysis represents time.

There are two normal equations estimating for 'a' and 'b' are;

$\Sigma Y = na + b\Sigma x$..... (i)

$\Sigma XY = a\Sigma x + b\Sigma x^2$……. (ii)

Since, $\Sigma x = 0$

Then the above equation becomes,

$$a = \frac{Y}{n}$$

and

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

The term best fit interpreted in accordance with the principle of least square which consist in minimizing the sum of the square residual or errors of estimate i.e. the deviations between the given observed value of the variables and their corresponding estimated values as given by the line of best fit.

The following trend value analyses for the next five years i.e. till 2013 have been used in this study.

i. Trend analysis of total deposit
ii. Trend analysis of loan and advances
iii. Trend analysis of total investment
iv. Trend analysis of net profit

CHAPTER- IV

DATA PRESENTATION AND ANALYSIS

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

4.1.1 Analysis of Investment Sectors

The investment of sample banks i.e. NIBL and NSBI in different sectors such as Nepal government Treasury bill, Nepal government security, local licensed institution, foreign banks and corporate share have been presented in the following tables and analyzed accordingly.

Table 4.1 Investments Pattern of Investment Bank Ltd

	Nepal govt. t. bills	%	Nepal govt. security	%	Local licensed institution	%	Foreign banks	%	Corporate shares	%
2007/08	3256	50.21	-	-	-	-	3194	49.25	35	0.54
2008/09	3155	45.86	-	-	-	-	3665	53.27	60	0.87
2009/10	2531	34.19	-	-	-	-	4808	64.95	64	0.86
2010/11	3912	46.86	-	-	370	4.43	4000	47.91	67	0.8
2011/12	3565	53.24	-	-	362	5.41	2696	40.26	73	1.09

(*Source: Annual report of sampled commercial Banks)*

Calculation of Mean, Standard deviation and Co- Variance.

Sector/ Year	(X_1)	$(x_1 - \bar{x}_1)^2$	(X_2)	$(x_2 - \bar{x}_2)^2$	(X_3)	$(x_3 - \bar{x}_3)^2$	(X_4)	$(x_4 - \bar{x}_4)^2$	(X_5)	$(x_5 - \bar{x}_5)^2$
2007/08	50.21	17.14	-	-	-	3.881	49.25	3.5344	0.54	0.0841
2008/09	45.86	0.044	-	-	-	3.881	53.27	4.5796	0.87	0.0016
2009/10	34.19	141.13	-	-	-	3.881	64.95	190.9924	0.86	0.0009
2010/11	46.86	0.62	-	-	4.43	6.0516	47.91	10.3684	0.80	0.0009
2009/11	53.24	51.41	-	-	5.41	11.8336	40.26	118.1569	1.09	0.0676
$\sum$	**230.36**	**210.344**	**-**	**-**	**9.84**	**29.5282**	**255.64**	**327.6317**	**4.16**	**0.1551**
Mean ($\bar{X}$)	**46.07**		**-**		**1.97**		**51.13**		**0.83**	
S.D. (σ)	**42.0688**		**-**		**5.91**		**65.5263**		**0.0310**	
C.V	**0.9131**		**-**		**2.99**		**1.2815**		**0.0373**	

(Source: Annual report of sampled commercial Banks)

Where,

$$\bar{X} = \frac{\Sigma x}{N} \qquad \sigma = \frac{\Sigma(x - \bar{x})^2}{N} \qquad C.V. = \frac{\sigma}{X}$$

Table 4.2 Investments Pattern of Nepal SBI Bank Ltd

F/Y	Nepal govt. t. bills	%	Nepal govt. securities	%	Local licensed institutions	%	Foreign banks	%	Corporate shares	%
2007/08	2227	83.78	118	4.44	-	-	281	10.57	32	1.2
2008/09	2763	89.42	273	8.83	-	-	21	0.68	33	1.07
2009/10	2934	22.08	373	2.81	-	-	9947	74.86	33	0.25
2010/11	3721	22.89	593	3.65	51	3.65	11905	73.23	37	0.23
2011/12	4682	24.76	893	4.72	-	-	13296	70.31	40	0.21

(Source: Annual report of sampled commercial Banks)

Calculation of Mean, Standard deviation and Co- Variance.

Sector/ Year	(X_1)	$(x_1 - \overline{x}_1)^2$	(X_2)	$(x_2 - \overline{x}_2)^2$	(X_3)	$(x_3 - \overline{x}_3)^2$	$(X 4)$	$(x_4 - \overline{x}_4)^2$	(X_5)	$(x_5 - \overline{x}_5)^2$
2007/08	83.78	1238.61	4.44	0.2025	-	0.5329	10.57	1250.32	1.2	0.3696
2008/09	89.42	1667.41	8.83	15.5236	-	0.5329	0.68	2047.56	1.07	0.2284
2009/10	22.08	702.56	2.81	4.3264	-	0.5329	74.86	836.94	0.25	0.1169
2010/11	22.89	660.28	3.65	1.5376	3.65	8.5264	73.23	745.29	0.23	0.1310
2011/12	24.76	567.67	4.72	0.0289	-	0.5329	70.31	594.38	0.21	0.1459
$\sum$	**242.93**	**4836.56**	**24.45**	**21.619**	**3.65**	**11.1909**	**229.65**	**5474.49**	**2.96**	**0.9918**
Mean ($\overline{X}$)	**48.586**		**4.89**		**0.73**		**45.93**		**0.592**	
S.D. (σ)	**969.27**		**4.3238**		**2.2382**		**1094.89**		**0.1983**	
C.V	**19.39**		**0.88**		**3.066**		**23.83**		**0.33**	

(Source: Annual report of sampled commercial Banks)

Where,

$$\overline{X} = \frac{\Sigma x}{N} \qquad \sigma = \frac{\Sigma(x - \overline{x})^2}{N} \qquad C.V. = \frac{\sigma}{X}$$

Table 4.1 represents the investments pattern of NIBL whereas table no. 4.2 explains the investments pattern of NSBI. Similarly, the mean ratios, standard deviation and covariance of investments in Nepal government Treasury bills, Nepal government security, local licensed institutions, foreign banks, and corporate shares investments from fiscal year 2006/7 to fiscal year 2011/12 have also been calculated and presented in the above tables. The government Treasury bills NIBL is in fluctuating trend whereas comparison to NSBI. NIBL has not been investment in Nepal government securities while NIBL has invested more in other sectors regardless Nepal government securities. As per table no. 4.1, NIBL has invested Rs. 3256 million in Nepal government treasury bills , Rs. 3194 million in foreign banks, and Rs.35 million in corporate shares in the year 2007/08.

When analyzing the investment pattern of NSBI, it revealed that it gave the highest priority to the investment Nepal Government Securities followed by other investments, and shares and debentures during the period of the study. The table shows that the bank has invested maximum amount in Nepal government treasury bills of its total investment. The share in Nepal government treasury bills are in

increasing trend over the study period starting from Rs. 2227 million in the year 2007/08 and ending up to Rs. 4682 million in the year 2011/12 marking highest.

4.2 Financial Analysis

4.2.1 Analysis of Liquidity Position

Liquidity position of a bank can be identified with the help of liquidity ratios. Liquidity ratios measure the ability of the firm to meet its current obligations. Difference between current assets and current liabilities is known as working capital, which provides liquidity in business organizations. A commercial bank must maintain a fair liquidity position to satisfy the credit needs of the community, to meet demands for deposit withdrawals, pay matured obligations in time and convert non-cash into cash to satisfy immediate needs without loss to the bank and without consequential impact on long-run profitability of the bank.

Current Ratio

The calculation of current ratio is based on a simple comparison between current assets and current liabilities. This is the broad measure of liquidity of the bank. The standard of current ratio for banking companies is 2:1, which means the bank has to maintain total currents double of its total current liabilities. Current ratios of NIBL and NSBI, and their means, standard deviations and coefficients of variation during the period of study between 2006/2007 and 2010/2011 are presented in Table 4.3.

Table 4.3 Current Ratio of NIBL and NSBI

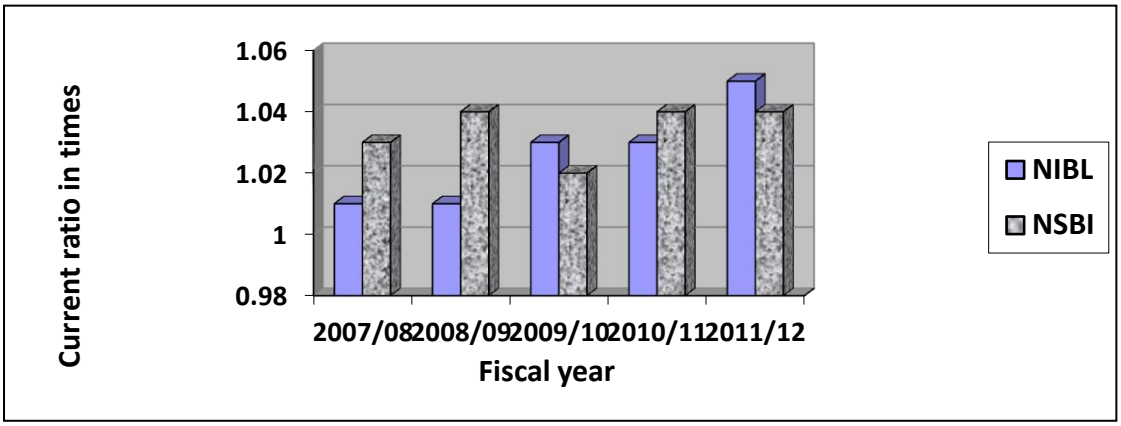
(in times)

Banks	Fiscal Year					Mean	S.D.	C.V. %
	2007/08	2008/09	2009/10	2010/11	2011/12			
NIBL	1.01	1.01	1.03	1.03	1.05	1.026	0.015	0.10
NSBI	1.03	1.04	1.02	1.04	1.04	1.034	0.008	0.77

(Source: Annual report of sampled commercial Banks)

Figure 4.3

Current Ratio of NIBL and NSBI



In the above table, current ratios from fiscal year 2007/08 to 2011/12 of NIBL and NSBI are presented. Similarly, a figure is also presented for a quick view of trend of current ratio. The above table reveals that the total current assets of both banks exceed the total current liabilities. This indicates both banks are capable of discharging their current obligations during the study period.

Current ratio of NIBL shows a increasing trend and NSBI is fluctuating. The current ratio of NSBI has similar in the year of 2007/08, 2008/09 and later starting to increased. Both the banks have maintained the currents ratio higher than the standard of 1:1 in all the fiscal years. NIBL has maintained a higher ratio in comparison to NSBI. Both have maintained the same level of SD. The CV of NIBL is comparatively lower than that of NSBI. It shows that the current ratios of NIBL are more homogeneous than that of NSBI.

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

The ratio between the cash and bank balance and total deposits measures the ability of bank to meet the banks immediate funds to cover their current margin, call margin and saving deposits. Higher the ratio, the greater will be the ability to meet sudden demand of deposit. However, a very high ratio is not desirable since banks have to pay interest on deposits. This will also maximize the cost of fund to the bank. The total deposits include current, saving and fixed deposits as well as call money deposits

and certificate of deposits. Table 4.4 shows the cash and bank balance to total deposits ratio of NIBL and NSBI.

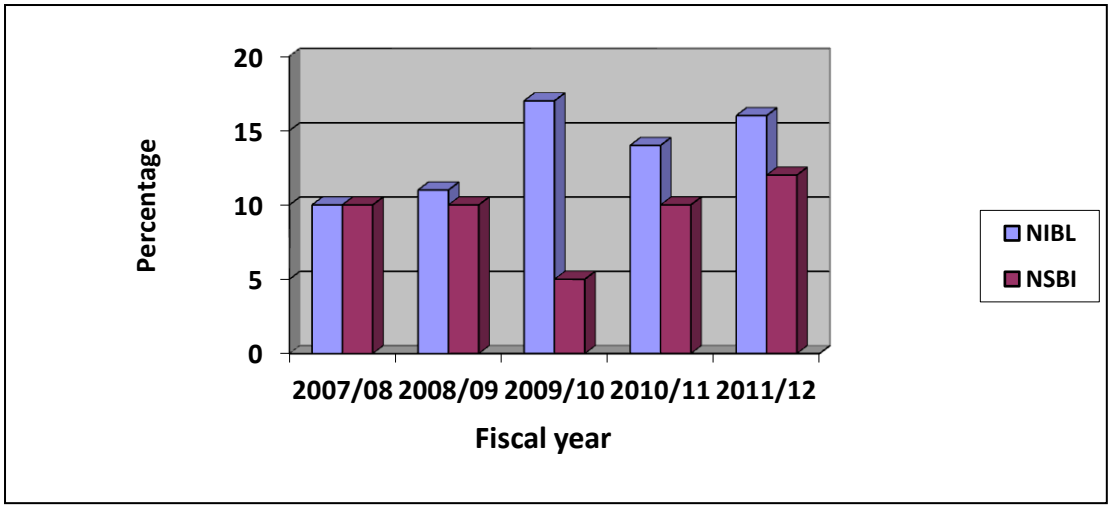
Table 4.4 Cash and Bank Balance to Total Deposit Ratio of NIBL and NSBI (%)

Banks	Fiscal Year					Mean	S.D.	C.V. %
	2007/08	2008/09	2009/10	2010/11	2011/12			
NIBL	10	11	17	14	16	13.60	2.73	0.20
NSBI	10	10	5	10	12	9.40	2.29	0.24

(Source: Source: Annual report of sampled commercial Banks)

Figure 4.4

Cash and Bank Balance to Total Deposit Ratio of NIBL and NSBI



Cash reserve ratio of NIBL reveals a decreasing trend. It shows that the bank is able to efficiently utilize its resources in the later periods. However, it also can't be neglected that the bank is heading towards the operational risks. The ratio of NSBI is showing a fluctuating trend. The CRR is decreased in the second year while showing an increase in the third year and again declining in the fourth year. The CRR of NIBL is found tremendously declining over the study period with higher operational risks in comparison to NSBI. It also shows that NIBL is well capable of utilizing the available resources to maximum extent and operating in high riskier way in meeting the demand of depositors at any point of time.

NSBI has maintained a higher cash reserve ratio than of NIBL. This states a better liquidity position of the bank than that of NIBL. The co-efficient of variance of NSBI is lower than that of NIBL, which shows that the ratios of NSBI are more stable and constant than that of NSBI and NIBL has less cash reserves.

Cash and Bank Balance to Current Assets Ratio

This ratio shows the banks' liquidity position in terms of the most liquid assets i.e. cash and bank balance. A high cash and bank balance to current ratio indicates high proportion of the most liquid assets in total current assets. This further indicates the banks' ability to meet daily cash payments for the requirement of their depositors. However, much higher of this ratio is not preferred as the bank has to pay interest on deposits and will increase the cost of fund that might impair their profitability. Likewise, lower of this ratio is detrimental to the bank, as the bank will have hard times to make the payments against the cheques are presented by customers. Therefore, bank has to strike a balance of cash and bank balance, which is just adequate for the customers demand against deposit when required, and less interest payable against the cash deposit.

Table 4.5 shows the cash and bank balance to total current assets of NIBL and NSBI, and their means, standard deviations and coefficient of variation during FY 2007/08 to 2011/12.

Table 4.5 Cash and Bank Balance to Current Assets Ratio of NIBL and NSBI (%)

Banks	Fiscal Year					Mean	S.D.	C.V. %
	2007/08	2008/09	2009/10	2010/11	2011/12			
NIBL	9.2	9.9	15.4	12.2	14.3	12.2	2.41	0.20
NSBI	8.3	8	5	9.2	10.8	8.26	1.90	0.23

(Source: Annual report of sampled commercial Banks)

Figure 4.5

Cash and Bank Balance to Current Assets Ratio of NIBL and NSBI

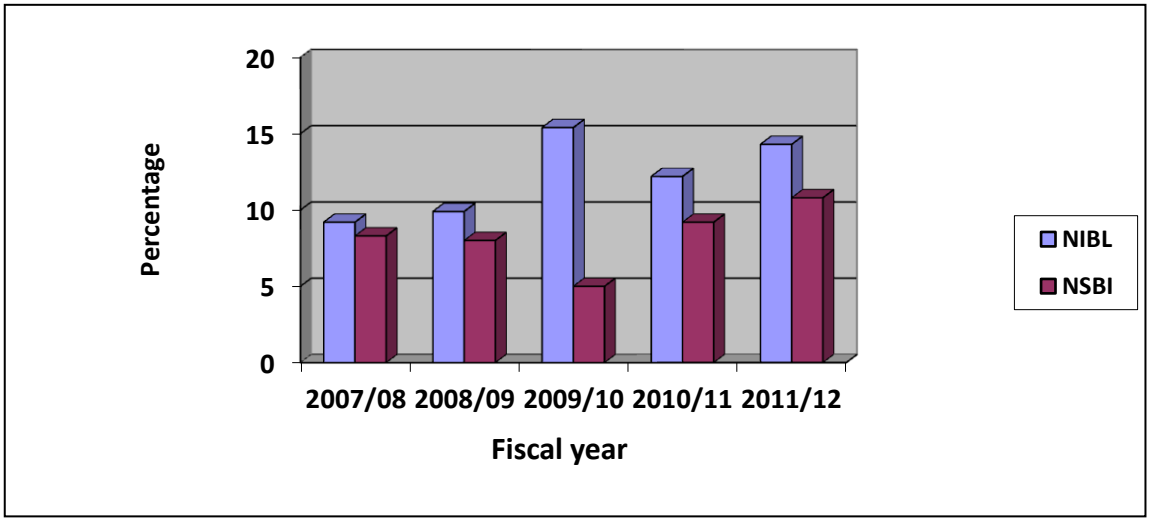


Table 4.5 represents the cash and bank balance to current assets ratio of NIBL and NSBI from fiscal year 2007/08 to 2011/12 and the figure shows the trend of the ratio over the fiscal years.

The cash and bank balance to current assets ratio of both the banks are better as they show their ability to manage the deposit withdrawal from the customers. The ratio of NIBL is increasing while that of NSBI is fluctuating. The ratio of NIBL on an average is higher than that of NSBI, which indicates that the liquidity position of NIBL is better in this regard. The coefficient of variance of NIBL i.e. 20% is also lower than NSBI i.e. 23%. This shows that the position of NIBL is more stable and consistent than NSBI.

The cash and bank balance to current assets ratio of both the banks are more or less consistent; however, NSBI has maintained a higher ratio, which depicts that the bank is capable to make quick payments of its deposits. But it doesn't necessarily mean that it has mobilized its fund in profitable sector. On contrary, NIBL may have mobilized its fund more productively.

4.2.2 Analysis of Assets Management

Assets management is another important aspect of a commercial bank's investment policies. Unless its assets are properly and judiciously managed, it cannot have the full benefits of its investment policies. In order to assess the effectiveness of the assets management of the selected commercial joint venture banks, a number of ratios have been calculated and presented below.

Loan and Advance to Total Deposit Ratio

This ratio measures the extent to which the banks are successful to mobilize their total deposits on loan and advances for profit generation. Therefore, the higher the ratio, the better is the mobilization of total deposits in terms of loan and advances. However, higher the ratio the better only from the point of view of liquidity, as the loans and advances are not as liquid as cash and bank balance.

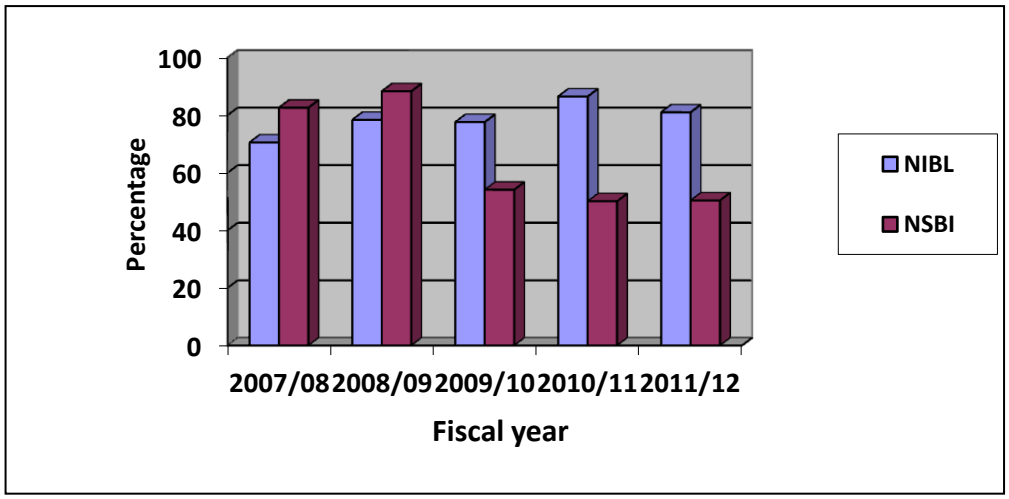
Table 4.6 Loan and Advances to Total Deposit Ratio of NIBL and NSBI (%)

Banks	Fiscal Year					Mean	S.D.	C.V. %
	2007/08	2008/09	2009/10	2010/11	2011/12			
NIBL	70.5	78.4	77.6	86.5	81	78.8	5.19	0.07
NSBI	82.6	88.3	54.1	50.1	50.4	65.1	16.77	0.26

(Source: Annual report of sampled commercial Banks)

Figure 4.6

Loan and Advances to Total Deposit Ratio of NIBL and NSBI (%)



The table 4.6 shows the loan and advance to total deposit ratio of NIBL and NSBI of five fiscal years starting from 2007/08 to 2011/12. Similarly, a figure is also presented to show the trend of the ratio. The table shows that there has been a fluctuating trend in the ratio of NIBL and NSBI ranging from 70.5% to 81% and 82.6% to 50.4% respectively. The table also shows that the ratio of loan and advance to total deposit ratio of NIBL is more or less consistent in the third and fourth fiscal year and so is with NSBI in the first two years. NIBL has maintained a higher ratio than NSBI on an average. It reveals that NIBL has utilized more deposit into loan and advance in comparison to NSBI and also shows that NIBL has strong position regarding the mobilization of total deposit on loan and advance and acquiring higher profit as compared to NSBI.

The coefficient of variance of NIBL is 7% which is very low than that of NSBI which is 26%. It depicts that the loan and advance of NIBL is more stable and consistent

than that of NSBI. Maintaining a high ratio in terms of mobilization of deposit is good but it cannot be regarded as good from the point of view of liquidity as the loan and advance is not liquid as cash and bank balance. NIBL might have utilized high portion of deposit in various investments or cash and bank balance.

Total Investments to Total Deposit Ratio

This ratio measures the extent to which the banks are able to mobilize their deposits in investments in various securities and other investments. Higher ratio indicates the success in mobilizing deposits in securities and vice versa. This ratio can be computed by dividing the total investment by total amount of deposits collections. The table 4.7 shows the ratio of total investment to total deposits of NIBL and NSBI from the fiscal year 2007/08 to 2011/12, where total investments include investment on government securities, debentures and bonds, shares in subsidiary companies, shares in other companies and other investments.

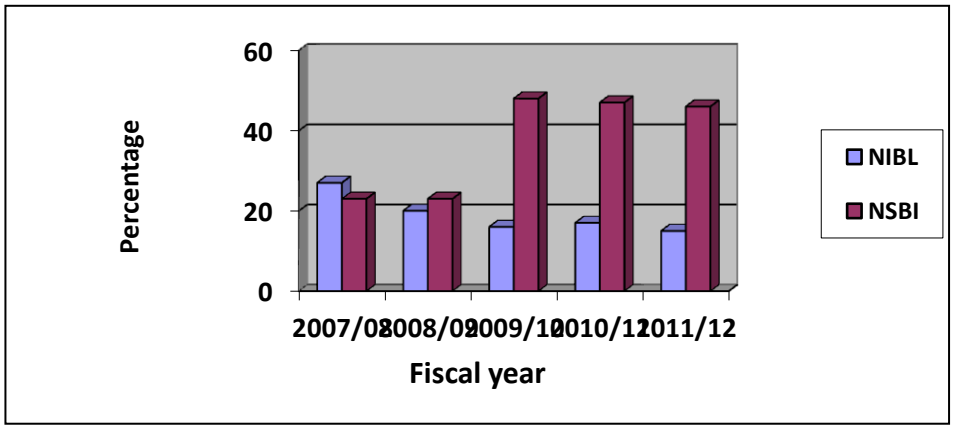
Table 4.7 Total Investments to Total Deposit Ratio of NIBL and NSBI (%)

Banks	Fiscal Year					Mean	S.D.	C.V. %
	2007/08	2008/09	2009/10	2010/11	2011/12			
NIBL	27	20	16	17	15	19	4.34	0.23
NSBI	23	23	48	47	46	37.4	11.77	0.31

(Source: Annual report of sampled commercial Banks)

Figure 4.7

Total Investments to Total Deposit Ratio of NIBL and NSBI



In the above table, total investments in to total deposit ratio of NIBL and NSBI are presented and a figure is also presented to show a trend of the calculated ratio. The table 4.7 shows total investment to total deposit ratio of NIBL and NSBI of five fiscal

years starting from 2007/08 to 2011/12. Similarly, a figure is also presented to show the trend of the ratio.

The ratio of investment to total deposit of both the banks are fluctuating, however, the ratio of NIBL is higher than that of NSBI. NIBL has maintained highest ratio in the year 2007/08 whereas the highest ratio of NSBI is in the year 2009/10 which is 48%. Considering the average, NSBI has higher average than NIBL which shows that NSBI has invested higher amount of the total deposits in securities and shares than NIBL. NIBL has lower percentage of total deposit in securities and shares which indicates that the bank is able to invest in more profitable sectors besides investing in lower return sector. The coefficient of variance of NIBL is lower than that of NSBI which depicts the consistency of the bank in maintaining the ratio throughout the period.

Loan Loss Ratio

The loan loss ratio is used to define the quality of banks' assets and how well it protects itself from losses caused by problematic loans Loan loss ratio can be computed by dividing loan loss provision by loan and advances. Loan loss provision is a non-cash expense for banks to account for future losses on loan defaults. . The higher this ratio is, the better the bank is handling itself in regards to loans.

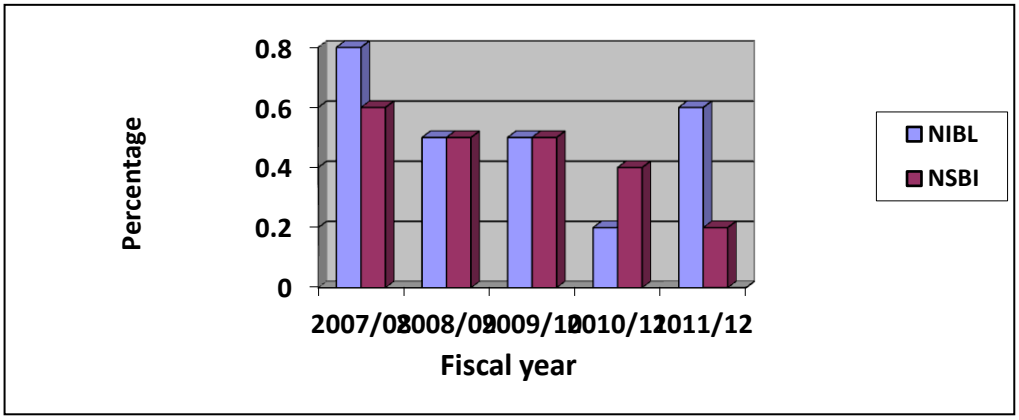
Table 4.8 Loan Loss Ratio of NIBL and NSBI (%)

Banks	Fiscal Year					Mean	S.D.	C.V. %
	2007/08	2008/09	2009/10	2010/11	2011/12			
NIBL	0.8	0.5	0.5	0.2	0.6	0.52	0.19	0.37
NSBI	0.6	0.5	0.5	0.4	0.2	0.44	0.14	0.31

(Source: Annual report of sampled commercial Banks)

Figure 4.8

Loan Loss Ratio of NIBL and NSBI



The above table represents the loan loss ratio of NIBL and NSBI of five fiscal years starting from 2007/08 to 2011/12 and the figure shows the trend of loan loss ratio.

As per the above table, the loan loss ratios of both the banks show a fluctuating trend. The ratio of NIBL in the first year is 8% and decreased in the second year then again a decline in the third, fourth and fifth year, and 2% being the lowest. Similarly, the ratio of NSBI is highest in the first year with 6% and lowest in the fifth year. The ratio of NSBI is lower than NIBL on an average. It states that the position of NSBI is stronger than NIBL in this regard. The coefficient of variance of loan loss ratio of NSBI is 31% which is lower than that of NIBL of 37% which reveals that the loan loss ratio of NSBI are more consistent. It can be concluded that the performance of NIBL in terms of recovery of loan is weaker in comparison to NSBI due to higher loan loss ratio. Similarly, NIBL doesn't have stability in making provision for loan loss throughout the study period while NSBI is more stable in making provision for loan loss.

4.2.3 Analysis of Profitability Position

Profit is the difference between total revenue and total expenses over a period of time. Profit is the end result of a commercial bank operations and it will have no future of it if it fails to make sufficient profits. Therefore, one of the important objectives of the commercial bank is to earn profits, as all stakeholders such as stockholders, management, and creditors of the bank expect the bank has to earn reasonable return. In addition, the bank's efficiency is also measured in terms of its profit and profitability. In order to measure the profitability of the selected banks, profitability ratios have be calculated and analyzed, as they indicate the banks have won public acceptance of their service even in an intense competitive situation and earned profits. In this study, the profitability ratios are computed on the basis of profits of banks vis-à-vis their investment. To measure and analyze of profitability of NSBI and NIBL following ratios have been computed and presented

Return on Loan and Advance Ratio

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

Table 4.9 shows the return on loans and advances of NIBL and NSBI during the fiscal year 2007/08 and 2011/12. Mostly loans and advances include loan cash credit, overdraft, bills purchased and discounted.

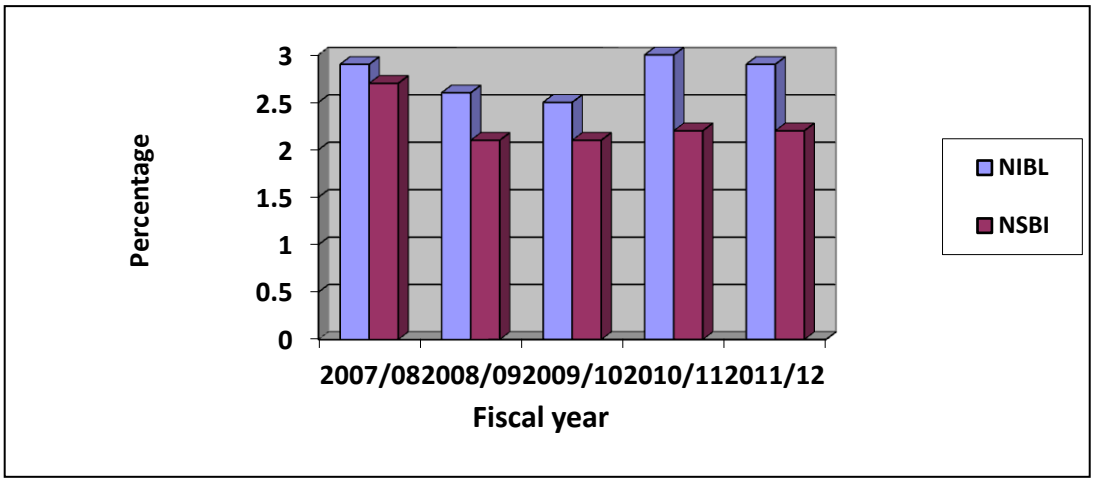
Table 4.9 Return on Loan and Advance Ratio of NIBL and NSBI (%)

Banks	Fiscal Year					Mean	S.D.	C.V. %
	2007/08	2008/09	2009/10	2010/11	2011/12			
NIBL	2.9	2.6	2.5	3	2.9	2.78	0.19	0.07
NSBI	2.7	2.1	2.1	2.2	2.2	2.26	0.23	0.10

(Source: Annual report of sampled commercial Banks)

Figure 4.9

Return on Loan and Advance Ratio of NIBL and NSBI



The above table represents the return on loan and advance ratio of NIBL and NSBI from fiscal year 2007/08 to 2011/12. Similarly, figure no.4.9 indicates the trend of this ratio over the mentioned period. The ratios of both the banks are fluctuating while NIBL has higher return on loan and advance ratio than NSBI. The ratio of NIBL has decreased from fiscal year 2007/08 to 2008/09 and 2009/10 with a slight decrease in 2009/10 i.e. from 2.50% and again an increase in the last year maintaining a ratio of 2.90%. The ratios of NSBI have decreased from 2.7% to 2.1% in the second year. Then, it has gained a rise in the third and fourth year, 2.2% being the highest. The ratio of NIBL is higher than that of NSBI and the coefficient of variance of NIBL is lower than that of NSBI. It depicts that the return on loan and advances of NIBL are more consistent throughout the study period than NSBI, however, the ratios of both the banks are not satisfactory.

Return on Total Assets Ratio

This ratio measures the profit earning capacity by utilizing available resources of banks. In the present study, this ratio is calculated and analyzed to measure the profitability of all financial resources invested in the bank's assets. A high ratio usually indicates the efficiency and utilization of its overall resources, and vice versa. This ratio is computed by dividing net profit by total assets.

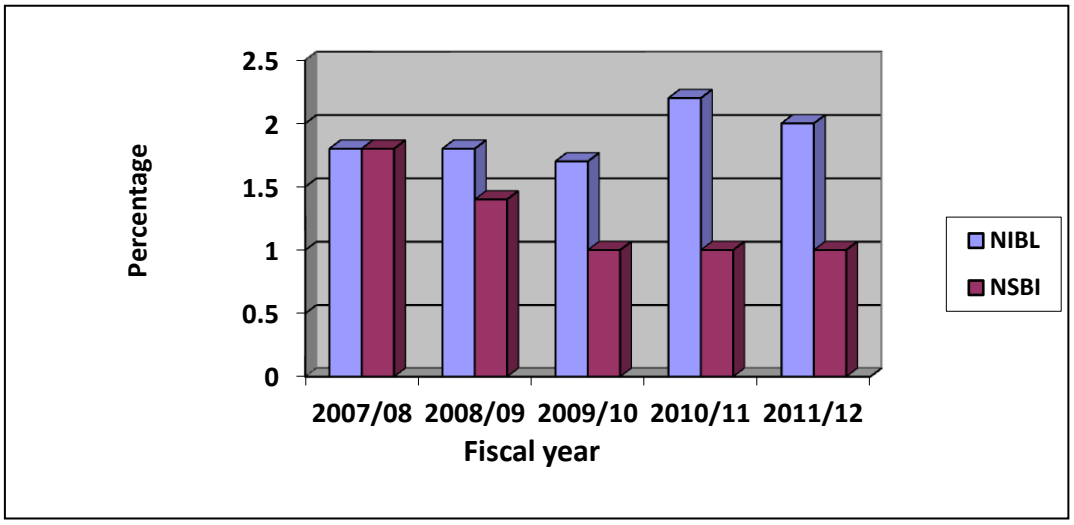
Table 4.10 Return on Total Assets Ratio of NIBL and NSBI (%)

Banks	Fiscal Year					Mean	S.D.	C.V. %
	2007/08	2008/09	2009/10	2010/11	2011/12			
NIBL	1.8	1.8	1.7	2.2	2	1.90	0.18	0.09
NSBI	1.8	1.4	1	1	1	1.24	0.32	0.26

(Source: Annual report of sampled commercial Banks)

Figure 4.10

Return on Total Assets Ratio of NIBL and NSBI



The ratios of NIBL show an increasing trend while the ratios of NSBI are a bit fluctuating than NIBL. The ratio of NIBL has decreased from 1.8% to 1.8% and 1.7% in the second and third year respectively. It has a slight decline in the third year by 0.1% and again maintained up to 0.5% in the year 2010/11. Similarly, the ratio of NSBI has decreased from 1.8% to 1.4% in the second year and again decreased up to 1% in the third year. The ratio has been highest in the year 2007/08 i.e. 1.8% and again declined by 0.40% in the year 2008/09.

On an average, the return on total assets ratio of NSBI is higher than NIBL which indicates that the position of bank is good to some extent in this regard. Considering the coefficient of variance, NSBI's is 26% which is higher than NIBL of 9%. This states that NIBL has been able to maintain a stable and consistent return on total assets in comparison to NSBI.

Total Interest Earned to Total Operating Income Ratio

This ratio measures the capacity of the firms for earning interest on total operating income. Total operating income is the difference between operating revenues and operating expenses. Total interest earned comprises total interest income from loans, advance, cash credit, overdraft, government securities, inter bank and other investments. This ratio is calculated by dividing total interest earned by total operating income.

The following table shows the total interest earned to total operating income ratio of NIBL and NSBI of five fiscal years starting from 2007/08 to 2007/11. The figure below shows the trend of the ratio over the same fiscal years.

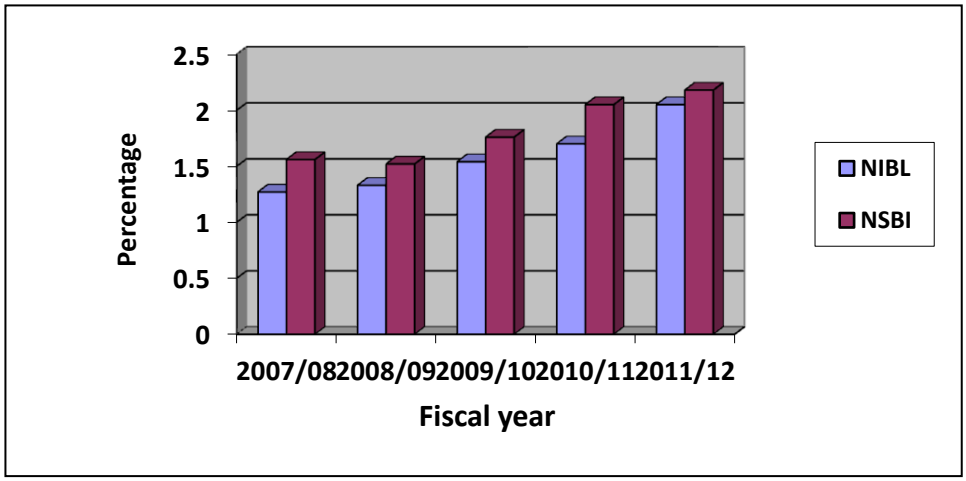
Table 4.11 Total Interest Earned to Total Operating Income Ratio of NIBL and NSBI (%)

Banks	Fiscal Year					Mean	S.D.	C.V. %
	2007/08	2008/09	2009/10	2010/11	2011/12			
NIBL	1.27	1.33	1.54	1.70	2.05	1.58	0.28	0.18
NSBI	1.56	1.52	1.76	2.05	2.18	1.81	0.26	0.14

(Source: Annual report of sampled commercial Banks)

Figure 4.11

Total Interest Earned to Total Operating Income Ratio of NIBL and NSBI



The ratio of NSBI shows an increasing trend from the fiscal year 2007/08 to 2008/09 from 1.56% to 1.52% but it has slightly declined in the year 2008/09 resulting up to 1.52% in the year 2009/10. It has again rose up to 2.05% in the fourth year resulting a decline in the year 2008/09. The average ratio of NIBL is 158%, which is lower than NSBI. The coefficient of variance ratio of NIBL is comparatively higher than NSBI. This indicates that the total interest earned to total operating income ratio of NIBL is highly variable. The ratio of NSBI is stable and consistent. It is also clear that NSBI has better position regarding the mobilization of interest bearing assets. However, the magnitude of interest income in total income of both the banks is high i.e. more than 70%, though the investment has more risk.

Total Interest Paid to Total Deposit Ratio

This ratio measures the percentage of total interest expenses and its interest on fixed deposits, call deposits, saving deposits and interest on borrowing. A high ratio indicates higher interest expenses on total deposits and vice versa. This ratio is computed by dividing total interest paid to total deposit.

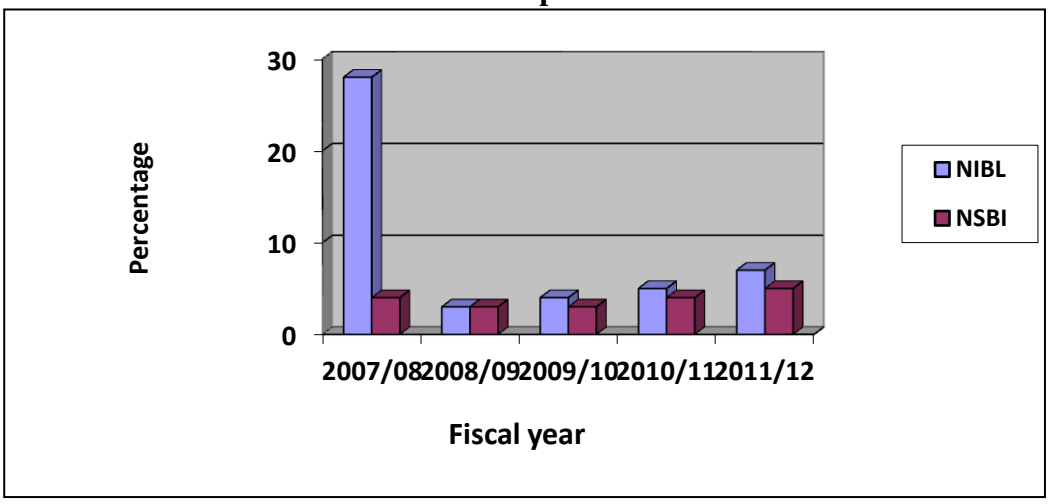
Table 4.12Total Interest Paid to Total Deposit Ratio of NIBL and NSBI (%)

Banks	Fiscal Year					Mean	S.D.	C.V. %
	2007/08	2008/09	2009/10	2010/11	2011/12			
NIBL	28	3	4	5	7	9.4	9.39	1.00
NSBI	4	3	3	4	5	3.8	0.75	0.20

(Source: Annual report of sampled commercial Banks))

Figure 4.12

Total Interest Paid to Total Deposit Ratio of NIBL and NSBI



The above table shows the total interest paid to total deposit ratio of NIBL and NSBI from 2007/08 to 2007/11. The figure 4.12 shows the trend of the ratio over the same fiscal years. The ratios of NIBL show an increasing trend in its ratios whereas the ratios of NSBI are fluctuating in the whole period. The ratio of NIBL has decreased from 28% in the fiscal year 2007/08 to 3% in the fiscal year 2008/09. In the same manner, the ratio of NSBI has decreased from 4% to 3% from the fiscal year 2007/08 to 2008/09. In the year 2009/10, it has again risen to 1% and 1% in the year 2010/11. But in the year 2008/09, it has declined to 1%. The average ratio of NSBI is lower than NIBL which means that NSBI has paid lower interest on total deposits than NIBL which shows the position of NSBI is good in comparison to NIBL. The CV ratio of NIBL is greater than NSBI which shows the stability of the bank in paying interest on total deposit.

4.2.4 Growth Analysis

A firm seeks not only to survive by generating profits, but also to achieve growth. A growing firm is, therefore, regarded as a successful firm in the end. Therefore, in order to assess the success or potential for achieving success in the end, it is essential to analyze the growth that the bank has achieved in terms of deposits it has received, loans and advances it has provided, investments it has made, and its profitability. Here those growth ratios are analyzed and interpreted which are directly related to the fund mobilization and Investment management of a commercial bank. The high ratio generally indicated better performance of a bank and vice-versa.

Growth Ratio of Total Deposit

The bank collects its deposit from public. The growth ratio of deposits represent whether the banks had been able to increase its deposit collection or not.

Table 4.13 Growth Ratio of Total Deposit of NIBL and NSBI in Rupees

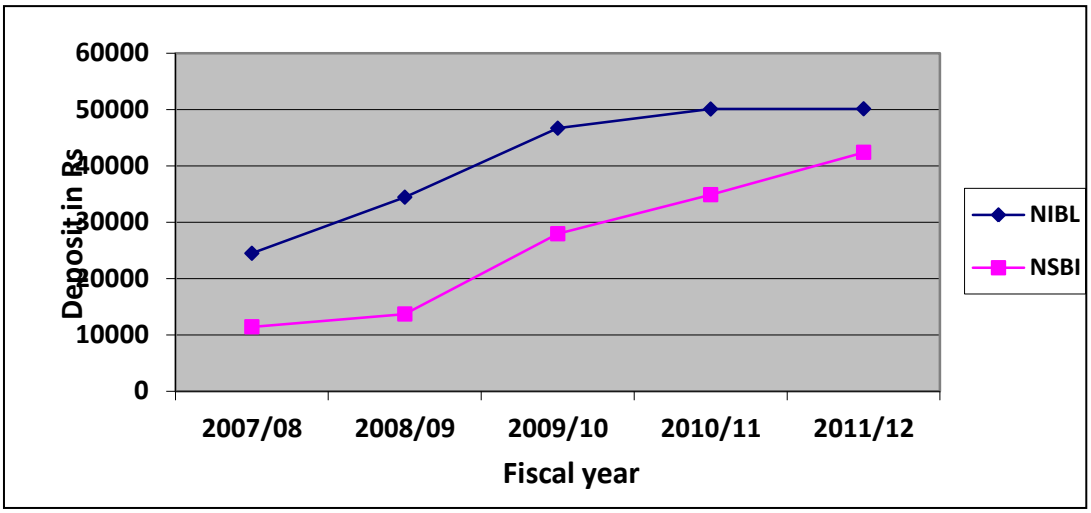
(Rs. In 'millions')

Banks	Fiscal Year					Growth Ratio (%)
	2007/08	2008/09	2009/10	2010/11	2011/12	
NIBL	24489	34452	46698	50095	50138	29.95
NSBI	11445	13715	27957	34896	42415	38.75

(Source: Annual report of sampled commercial Banks)

Figure4.13

Growth Ratio of Total Deposits of NIBL and NSBI in Rupees



Growth ratio of total deposit of NIBL and NSBI from fiscal year 2007/08 to 2011/12 is presented in the above tables. Similarly, a graph is also prepared to perceive the growth rate of total deposits of both banks.

The growth ratio of NIBL in the five years is 29.95% which is lower than the growth rate of NSBI i.e. 38.75%. It indicates that the performance of NSBI to collect deposit is much better year by year in comparison to NIBL. As per the above chart, the growth ratio of both NIBL and NSBI is in increasing trend; however, the growth ratio of NIBL is lesser than NSBI.

Growth Ratio of Loan and Advance

Loan and Advances growth ratio shows whether the banks are increasing its loan and advances or decreasing.

Table 4.14 Growth Ratio of Loan and Advance of NIBL and NSBI in Rupees

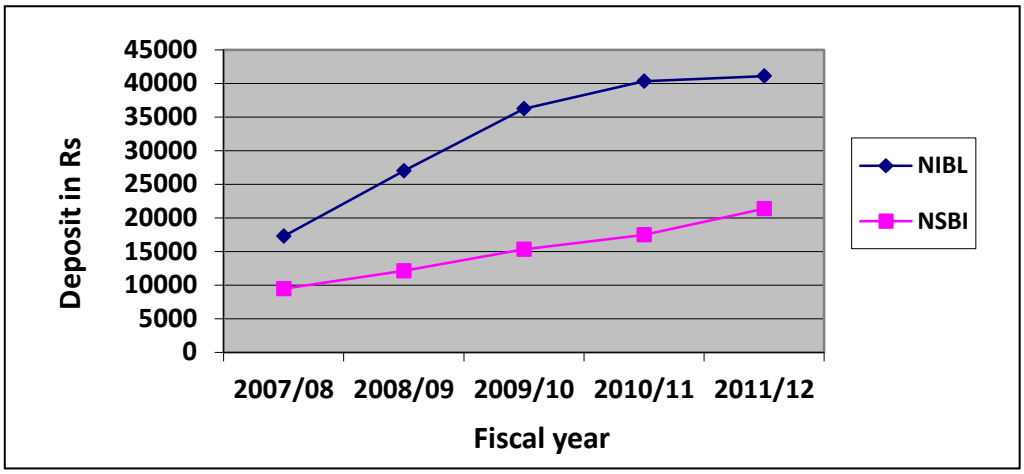
(Rs. In 'millions')

Banks	Fiscal Year					Growth Ratio (%)
	2007/08	2008/09	2009/10	2010/11	2011/12	
NIBL	17286	26997	36241	40318	41096	24.17
NSBI	9461	12114	15318	17481	21366	22.59

(Source: Annual report of sampled commercial Banks)

Figure 4.14

Growth Ratio of Loan and Advance of NIBL and NSBI in Rupees



In the above table, growth ratio of loan and advances of NIBL and NSBI is presented from fiscal year 2007/08 to 2011/12. Similarly, a graph is also prepared to observe the growth rate of loan and advances of both banks. The above tables figure out that the growth ratio of loan and an advance of NIBL is greater than NSBI. The growth ratio of NIBL is 24.17% whereas that of NSBI is 22.59%. This depicts that the state of NIBL to grant loan and advances good as NSBI; however, the trend is increasing for both the banks.

Growth Ratio of Total Investment

This ratio shows whether the sample bank increased the Total Investment or decreased the Investment.

Table 4.15 Growth Ratio of Total Investments of NIBL and NSBI in Rupees

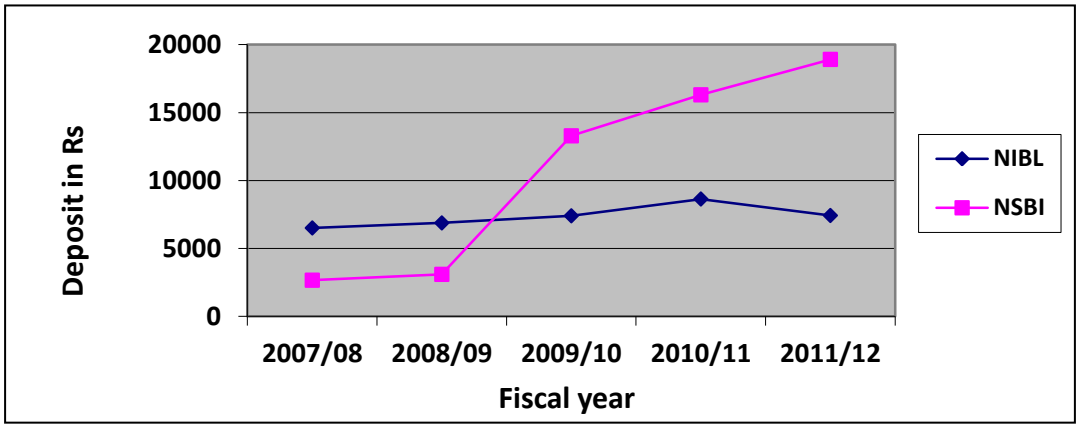
(Rs. In '000')

Banks	Fiscal Year					Growth Ratio (%)
	2007/08	2008/09	2009/10	2010/11	2011/12	
NIBL	6506	6874	7399	8636	7423	3.36
NSBI	2659	3089	13286	16305	18911	63.30

(*Source: Annual report of sampled commercial Banks)*

Figure 4.15

Total Investments



In the above table, growth ratio total investment of NIBL and NSBI is presented from the fiscal year 2007/08 to 2011/12. Similarly, a graph is also prepared to perceive the growth of the ratio.

The above tables show that the growth ratio of total investments of NSBI is higher than that of NIBL. The ratio of NIBL is 3.36% whereas that of NSBI is 63.30%. The growth ratio of both banks is fluctuating as it is clearly shown in the above figure. Both banks should try to improve the growth rate in an increasing trend in order to increase the net profit.

Growth Ratio of Net Profit

This ratio shows whether the sample bank increased or decreased the net profit over the period of study.

Table 4.16 Growth Ratio of Net Profit of NIBL and NSBI in Rupees

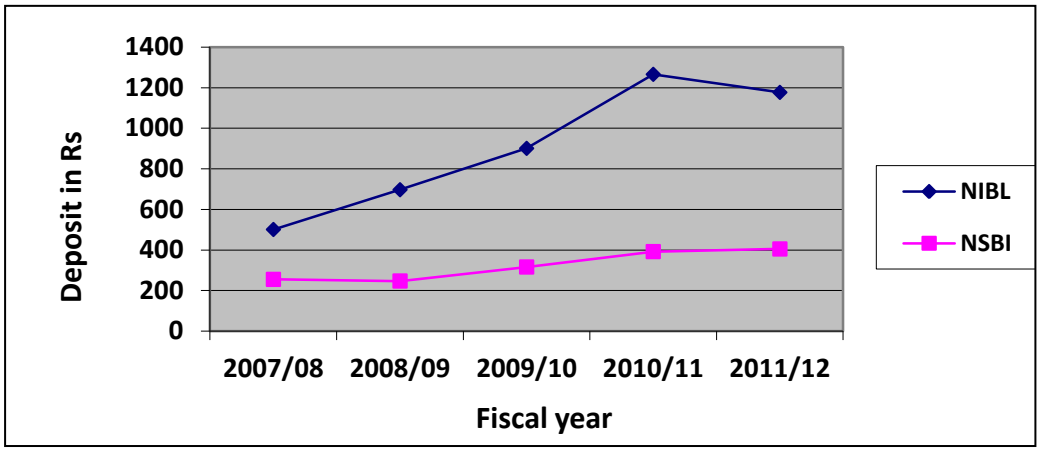
(Rs. In 'millions')

Banks	Fiscal Year					Growth Ratio (%)
	2007/08	2008/09	2009/10	2010/11	2011/12	
NIBL	501	697	901	1266	1177	23.80
NSBI	255	247	316	392	405	12.26

(*Source: Annual report of sampled commercial Banks)*

Figure 4.16

Net Profit



Growth ratio of Net profit of NIBL and NSBI from fiscal year 2007/08 to 2011/12 is presented in the above tables. Similarly, a graph is also prepared to perceive the growth rate of net profit of both banks**.**

The above tables figure out that the growth ratio of net profit of NIBL is greater than NSBI. The growth ratio of NIBL is 23.80% whereas that of NSBI is 12.26%. The growth ratio of NIBL satisfactory even the rate is increasing. NSBI has a worse position than NIBL comparing the growth ratio of net profit. This NIBL's state of increasing net profit is far better than that of NSBI over the study period.

4.3 Statistical Analysis

Statistical tools help to find out the trend of financial position of the bank and to analyze the relationship between variables that helps banks to make appropriate investment policy regarding to profit maximization and deposit collection, fund mobilization through providing loan and advances or investment on other company. In this study, statistical tools such as coefficient of correlation between different variable and also hypothesis test have been used for analyzing and interpreting the financial data.

4.3.1 Correlation Analysis

Correlation analysis means the relationship between two variables where the changes in known as coordination. The degree of relationship between the variables under

consideration is measured through the correlation analysis. It is the technique used in measuring the closeness of the relationship between the variables. To measure the correlation between the total deposits and total investments, co-efficient of determination is calculated in the study.

Correlation between Total Deposits and Total Investments

The co-efficient between total deposit and total investment measures the degree of relation between the respective variables. In the correlation analysis, total deposit is independent variable while the total investment is a dependent variable.

Table 4.17 Correlation between Total deposit and Total Investment of NIBL and NSBI

Banks	Correlation (r)	r^2	P.E (r)	6 P.E.	Relationship
NIBL	0.81	0.66	0.103	0.6153	Insignificant
NSBI	0.99	0.98	0.0060	0.0362	Insignificant

(*Source: Annual report of sampled commercial Banks)*

In the above table, we can see that the correlation coefficient between total deposits and total investment of NIBL and NSBI are 0.81 and 0.99 respectively. So, there is positively perfect correlation between total deposit and total investment of both the banks. In order to measure the degree of change on dependent variable (investment) due to a change on independent variable (deposit), value of co-efficient of determination is calculated. The value of co-efficient of determination of NIBL is 0.81 which means 81% Investment is depend on deposit and 19% investment decision depends on other variables. Similarly, the value of co-efficient of determination of NSBI is 0.99 which means 99% Investment is depend on deposit and rest investment decision depends on other variables.

Similarly, probable error (P.E.) is 0.103 and 0.0060 of NIBL and NSBI respectively and 6 P.E. is 0.6153 and 0.0362 of NIBL and NSBI respectively. Since r is less than 6 P.E, the relationship between these two variables is insignificant.

Correlation between Loan and Advances and Net Profit

The coefficient of correlation between loan and advances and net profit measures the degree of relationship between these two variables. In this analysis, loan and advances is independent variable (X) and net profit is dependent variable(Y).

Table 4.18 Correlation between Loan and Advances and Net Profit of NIBL and NSBI

Banks	Correlation (r)	r^2	P.E (r)	6 P.E.	Relationship
NIBL	0.96	0.92	0.0241	0.1448	Insignificant
NSBI	0.97	0.93	0.0211	0.1267	Insignificant

In the above table, we can see that the correlation coefficient between loan and advances and net profit of NIBL and NSBI are 0.96 and 0.97 respectively. So, there is positively perfect correlation between loan and advances and net profit of both the banks. In order to measure the degree of change on dependent variable (net profit) due to a change on independent variable (loan and advances), value of co-efficient of determination is calculated. The value of co-efficient of determination of NIBL is 0.96 which means 96% net profit is depend on loan and advances and 4% depends on other variables. Similarly, the value of co-efficient of determination of NSBI is 0.97 which means 97% net profit is depend on loan and advances and 3% depends on other variables.

Similarly, probable error (P.E.) is 0.0241 and 0.0211 of NIBL and NSBI respectively and 6 P.E. is 0.1448 and 0.1267 of NIBL and NSBI respectively. Since r is less than 6 P.E, the relationship between these two variables is insignificant.

Correlation between Total Deposits and Net Profit

The coefficient of correlation between total deposits and net profit measures the degree of relationship between these two variables. In this analysis, a total deposit is independent variable (X) and net profit is dependent variable(Y).

Table 4.19 Correlation between Total Deposits and Net Profit of NIBL and NSBI

Banks	Correlation (r)	r^2	P.E (r)	6 P.E.	Relationship
NIBL	0.9581	0.9180	0.0247	0.1485	Insignificant
NSBI	0.8464	0.7164	0.8555	0.5133	Significant

In the above table, we can see that the correlation coefficient between total deposit and net profit of NIBL and NSBI are 0.9581 and 0.8464 respectively. So, there is positive correlation between total deposits and net profit of both the banks. In order to measure the degree of change on dependent variable (net profit) due to a change on

independent variable (total deposits), value of co-efficient of determination is calculated. On the basis of co-efficient of determination, it is found that when there is a change in total deposits, it brings 91.80% change in net profit of NIBL due to total deposit and rest due to other variables. Similarly, when there is a change in total deposits, it brings 71.64% change in net profit of NSBI due to total deposit and 28.36% due to other variables.

Similarly, probable error (P.E.) is 0.0247 and 0.8555 of NIBL and NSBI respectively and 6 P.E. is 0.1485 and 0.5133 of NIBL and NSBI respectively. Since r of NIBL is less than 6 P.E, the relationship between these two variables is insignificant while the relationship between the two variables of NSBI is significant as the r > 6 P.

Correlation between Total Investments and Net Profit

The coefficient of correlation between total investments and net profit measures the degree of relationship between these two variables. In this analysis, total investment is independent variable (X) and net profit is dependent variable(Y).

Table 4.20 Correlation between Total Investments and Net Profit of NIBL and NSBI

Banks	Correlation (r)	r^2	P.E (r)	6 P.E.	Relationship
NIBL	0.8227	0.6769	0.0975	0.5848	Insignificant
NSBI	0.2644	0.0699	0.2806	1.6833	Insignificant

In the above table, we can see that the correlation coefficient between total investment and net profit of NIBL and NSBI are 0.8227 and 0.2644 respectively. So, there is positive correlation between total investment and net profit of both the banks. In order to measure the degree of change on dependent variable (net profit) due to a change on independent variable (investment), value of co-efficient of determination is calculated. On the basis of co-efficient of determination, it is found that when there is a change in total investment, it brings 67.69% change in net profit of NIBL due to total investment an.32.31% due to other variables. Similarly, it is found that when there is a change in total investment, it brings 6.99% change in net profit of NSBI due to total investment and rest due to other variables.

Similarly, probable error (P.E.) is 0.0975 and 0.2806 of NIBL and NSBI respectively and 6 P.E. is 0.5848 and 1.6833 of NIBL and NSBI respectively. Since r is less than 6 P.E, the relationship between these two variables is insignificant.

Correlation between Total Investments and Loan and Advance

The coefficient of correlation between total investments and loan and advance measures the degree of relationship between these two variables. In this analysis, total investment is independent variable (X) and loan and advance is dependent variable(Y).

Table 4.21 Correlation between Total Investments and Loan and Advance of NIBL and NSBI

Banks	Correlation (r)	r^2	P.E (r)	6 P.E.	Relationship
NIBL	0.8229	0.6772	0.0974	0.5843	Insignificant
NSBI	0.5017	0.2527	0.2257	1.3544	Insignificant

In the above table, we can see that the correlation coefficient between total investment and loan and advance of NIBL and NSBI are 0.8229 and 0.5017 respectively. So, there is positive correlation between total investment and loan and advance of both the banks. In order to measure the degree of change on dependent variable (loan and advance) due to a change on independent variable (investment), value of co-efficient of determination is calculated. On the basis of co-efficient of determination, it is found that when there is a change in total investment, it brings 82.29% change in loan and advance of NIBL due to total investment and.17.71% due to other variables. Similarly, it is found that when there is a change in total investment, it brings 50.17% change in loan and advance of NSBI due to total investment and rest due to other variables.

Similarly, probable error (P.E.) is 0.0974 and 0.2257 of NIBL and NSBI respectively and 6 P.E. is 0.5843 and 1.3544 of NIBL and NSBI respectively. Since r is less than 6 P.E, the relationship between these two variables is insignificant.

Correlation between Total Deposits and Loan and Advance

The coefficient of correlation between total deposits and loan and advance measures the degree of relationship between these two variables. In this analysis, a total deposit is independent variable (X) and loan and advance is dependent variable(Y).

Table 4.22 Correlation between Total Deposits and Loan and Advance of NIBL and NSBI

Banks	Correlation (r)	r^2	P.E (r)	6 P.E.	Relationship
NIBL	0.9748	0.9502	0.015	0.0901	Insignificant
NSBI	0.9645	0.9303	0.021	0.1261	Insignificant

In the above table, we can see that the correlation coefficient between total deposit and loan and advance of NIBL and NSBI are 0.9748 and 0.9645 respectively. So, there is positive correlation between total deposits and loan and advance of both the banks. In order to measure the degree of change on dependent variable (loan and advance) due to a change on independent variable (total deposits), value of co-efficient of determination is calculated. On the basis of co-efficient of determination, it is found that when there is a change in total deposits, it brings 97.48% change in net profit of NIBL due to total deposit and rest due to other variables. Similarly, when there is a change in total deposits, it brings 96.45% change in net profit of NSBI due to total deposit and 3.55% due to other variables.

Similarly, probable error (P.E.) is 0.015 and 0.021 of NIBL and NSBI respectively and 6 P.E. is 0.0901 and 0.1261 of NIBL and NSBI respectively. Since r of both banks is less than 6 P.E, the relationship between these two variables of both banks is insignificant.

4.3.2 Trend Analysis

In this section, an attempt has been made to analyze and interpret the trend of deposits, loans and advances, investments and net profits of NIBL and NSBI to forecast them for next five years period. The following trend value analysis has been used in the study.

Trend Analysis of Total Deposits

Under this topic an attempt is made to analyze the trend of deposits of NIBL and NSBI and forecast the trend for next 5 years. The following table shows the trend values of total deposits of NIBL and NSBI for five years from FY 2003/04 to 2008/09 and forecasted the same till FY 2012/2013.

Table 4.23 Trend Values of Total Deposits of NIBL and NSBI

(Rs. in millions)

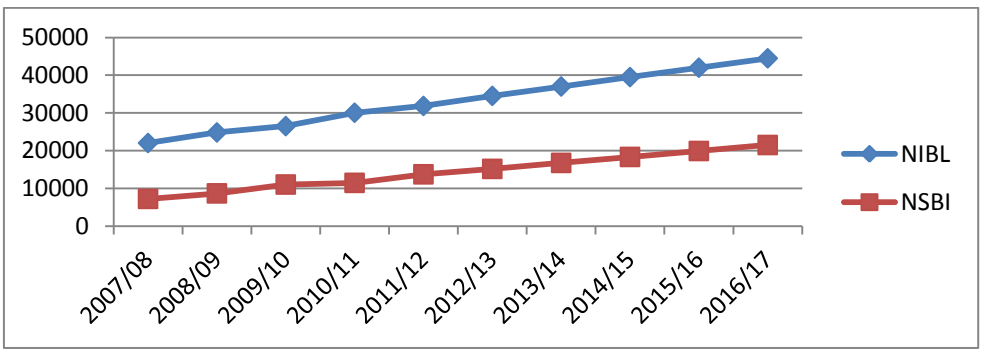
Fiscal Year	Trend Values NIBL	Trend Values NSBI
2007/08	22010	7198
2008/09	24814	8655
2009/10	26491	11002
2010/11	30048	11445
2011/12	31843	13715
2012/13	34511.2	15150.2
2013/14	37001.2	16732.6
2014/15	39491.2	18315
2015/16	41981.2	19897.4
2016/17	44471.2	21479.8

(Source: Annual report of sampled commercial Banks)

When analyzing the above table, it is clear that the total deposits of NIBL and NSBI are in increasing trend. Other things remaining constant, the total deposits of NIBL and NSBI in FY 2016/17 will be Rs. 44471.2 and Rs. 21479.8 respectively. From the above trend analysis, it is found that the deposits collection position of NIBL is better than NSBI.

Figure 4.23

Trend Values of Total Deposits of NIBL and NSBI



Trend Analysis of Total Investments

Under this topic an attempt is made to analyze the trend of investments of NIBL and NSBI and forecast the trend for next 5 years. The following table shows the trend values of total investments of NIBL and NSBI for five years from FY 2007/08 to 2011/12 and forecasted the same till FY 2016/17.

Table 4.24 Trend Values of Total Investments of NIBL and NSBI

(Rs. in million)

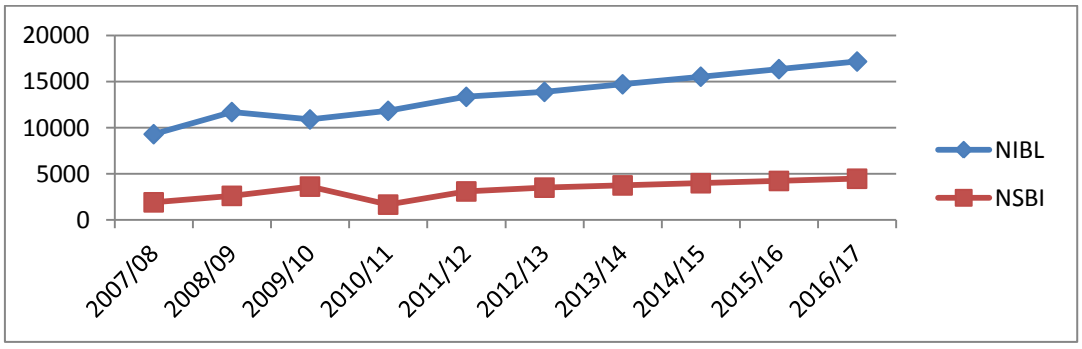
Fiscal Year	Trend Values NIBL	Trend Values NSBI
2007/08	9292	1908
2008/09	11692	2608
2009/10	10889	3611
2010/11	11823	2659
2011/12	13340	3089
2012/13	13875.3	3498.9
2013/14	14698	3740.2
2014/15	15520.7	3981.5
2015/16	16343.4	4222.8
2016/17	17166.1	4464.1

(*Source: Annual report of sampled commercial Banks)*

When analyzing the above table, it is clear that the total investments of both NIBL and NSBI are in fluctuating trend. Other things remaining constant, the total investments of NIBL and NSBI in FY 2016/17 will be Rs. 17166.1and Rs. 4464.1 respectively. From the above trend analysis, it is found that the total investments position of NIBL is better than NSBI.

Figure 4.24

Trend values of Total Investments of NIBL and NSBI



Trend Analysis of Loan and Advances

Under this topic an attempt is made to analyze the trend of loan and advances of NIBL and NSBI and forecast the trend for next 5 years. The following table shows the trend values of loan and advances of NIBL and NSBI for five years from FY 2007/08 to 2011/12 and forecasted the same till FY 2016/17.

Table 4.25 Trend Values of Total Loans and Advances of NIBL and NSBI

(Rs. in million)

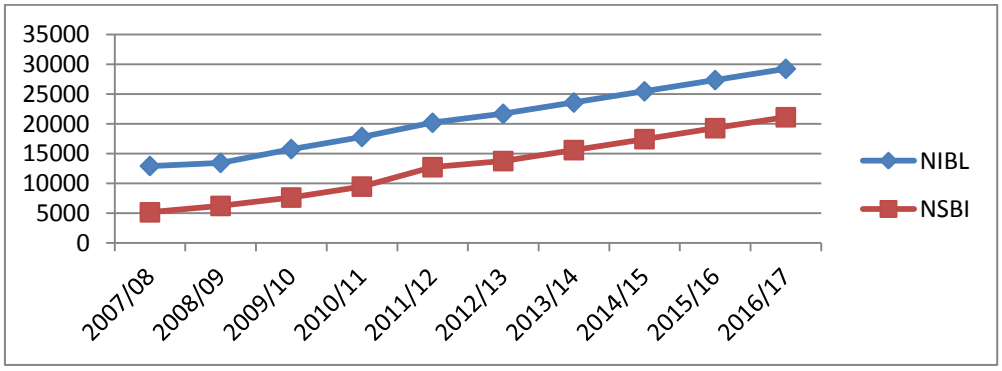
Fiscal Year	Trend Values NIBL	Trend Values NSBI
2007/08	12920	5144
2008/09	13451	6214
2009/10	15762	7627
2010/11	17794	9460
2011/12	20180	12714
2012/13	21680.3	13747.6
2013/14	23566.6	15586.2
2014/15	25452.9	17424.8
2015/16	27339.2	19263.4
2016/17	29225.5	21102

(*Source: Annual report of sampled commercial Banks)*

When analyzing the above table, it is clear that the loan and advances of both NIBL and NSBI are in increasing trend. Other things remaining constant, the loan and advances of NIBL and NSBI in FY 2016/17 will be Rs. 29225.5and Rs. 21102 respectively. From the above trend analysis, it is found of NIBL has mobilized loan and advances well than NSBI.

Figure 4.25

Trend values of Total Loans and Advances of NIBL and NSBI



Trend Analysis of Net Profit

Under this topic an attempt is made to analyze the trend of net profit of NIBL and NSBI and forecast the trend for next 5 years. The following table shows the trend values of net profit of NIBL and NSBI for five years from FY 2007/08 to 2011/12 and forecasted the same till FY 2016/17

Table 4.26 Trend Values of Net Profit of NIBL and NSBI

(Rs. in million)

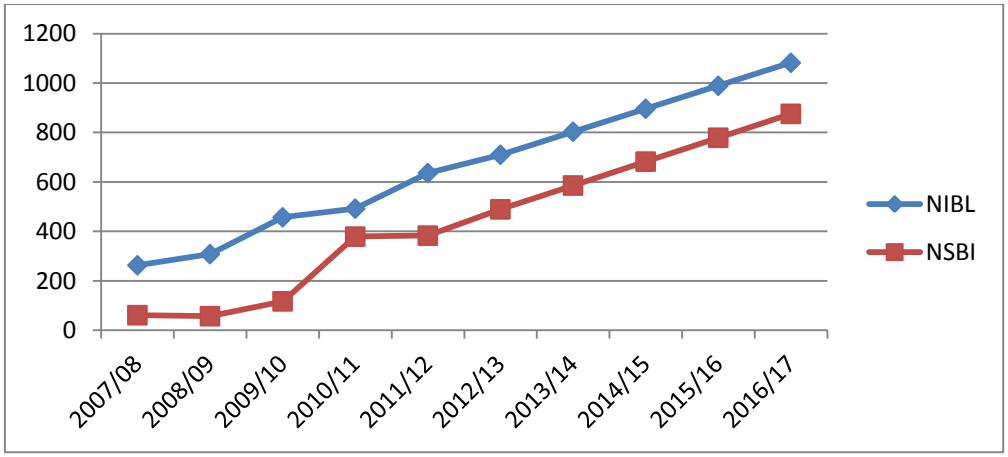
Fiscal Year	Trend Values NIBL	Trend Values NSBI
2007/08	263	61
2008/09	308	57
2009/10	457	117
2010/11	492	379
2011/12	636	383
2012/13	710.2	489.2
2013/14	803.2	585.8
2014/15	896.2	682.4
2015/16	989.2	779
2016/17	1082.2	875.6

(*Source: Annual report of sampled commercial Banks)*

When analyzing the above table, it is clear that the net profits of both NIBL and NSBI are in increasing trend. Other things remaining constant, the net profit of NIBL and NSBI in FY 2016/17 will be Rs. 1082.2 and Rs. 875.6 respectively. From the above trend analysis, it is found of NIBL is in better position in terms of net profit than NSBI.

Figure 4.26

Trend values of Net Profit of NIBL and NSBI



4.4 Major Findings

Present study successfully explored the result to meet the stated objects of the study and found meaningful. Investment of NIBL and NSBI reveals that NIBL has invested its major portion in other investments such as foreign banks, local banks, etc whereas NSBI has invested maximum percentage in HMG securities. Investment of NIBL is lower than NSBI in shares, debentures and bonds. Both the banks have not invested in Nepal Rastra Bank Bonds over the study period.

The major findings of this study are as summarized as follows:

- The mean currents ratio of NIBL is lower than NSBI (NIBL <NSBI). It means that NIBL has maintained lower liquidity whereas NSBI has maintained higher liquidity and higher risks in comparison to NIBL. Likewise, cash reserve ratio of NSBI is greater than NIBL, NSBI possesses higher ability to meet its deposits than that of NIBL.
- The average ratio of cash and bank balance to current assets ratio of NIBL is greater than NSBI which indicates that NIBL is in a better position to maintain its cash and bank balance to meet its daily requirements to make the payments on customers deposit withdrawals. But current assets of NIBL are lower than NSBI and the variability of NSBI is higher than NIBL. It states the poor position of NIBL in investment on government securities but more consistent in its investment than NSBI.
- The mean ratio of loan and advances to total deposit of NIBL is greater than NSBI but the consistency in the ratio is lower than that of NSBI. It concludes that NIBL has strong position regarding the mobilization of total deposit on loan and advance than NSBI. And The ratio of investment to total deposit of NIBL is greater than NSBI whereas the ratios of NSBI are more variable than NIBL. This shows that NIBL has invested higher amount of the total deposits in securities and shares than NSBI. The ratio of investment to total deposit of NIBL is greater than NSBI whereas the ratios of NSBI are more variable than NIBL. This shows that NIBL has invested higher amount of the total deposits in securities and shares than NSBI.
- NSBI has maintained a higher ratio of loan loss in comparison to NIBL. It can be concluded that the performance of NSBI in terms of recovery of loan is weaker in comparison to NIBL due to higher loan loss ratio. The mean ratio of return on loan and advance of NIBL is greater than NSBI and the return on loan and advances of NIBL are more consistent than NSBI.

- The mean ratio of return on loan and advance of NIBL is greater than NSBI and the return on loan and advances of NIBL are more consistent than NSBI. And the return on total assets ratio of NSBI is greater than NIBL on an average, which indicates that the position of bank is better than NIBL; however, NIBL has been able to maintain a stable and consistent return on total assets in comparison to NSBI.
- The average ratio of return on equity of NIBL is greater than NSBI while the coefficient of variance of ratio of NSBI is higher than that of NIBL. NIBL has higher return ratio which indicates that the bank has efficiently utilized its equity capital and is more consistent in the utilization of its equity capital than NSBI.
- The mean ratio of total interest earned to total outside assets of NSBI is greater than NIBL which depicts that NSBI has better position with respect to the income earned from total outside assets. But the condition of NIBL is more stable than NSBI.
- The ratio of total interest earned to total operating income of NIBL is lower as well as highly variable than NSBI. It is clear that NSBI has better and stable position regarding the mobilization of interest bearing assets than NIBL. However, the magnitude of interest income in total income of both the banks is high i.e. more than 70%, though the investment has more risk than fee based activities.
- The average ratio of total interest paid to total deposit ratio of NSBI is greater than NIBL which means that NSBI has paid higher interest on total deposits than NIBL. This reveals that the position of NSBI is not so good in comparison to NIBL but there is stability of the bank in paying interest on total deposit.
- The mean credit risk ratio and the CV ratio of NSBI is higher than NIBL which means that NSBI has higher credit risk in comparison to NIBL as well as unstable credit policy in comparison to NIBL.
- The average capital risk ratio of NSBI is slightly higher than that of NIBL which indicates that NIBL has slightly higher capital risks than NSBI. The degree of capital risk in NIBL is also slightly riskier than NSBI.

- The growth ratio of NSBI is higher than that of NIBL. The growth ratio of total deposits of NIBL is 29.95% whereas of NSBI is 38.75% which indicates that the performance of NSBI to collect deposit is much better year by year in comparison to NIBL. The growth ratio of loan and an advance of NIBL is greater than NSBI. The growth ratio of NIBL is 24.17% whereas that of NSBI is 22.59%. This depicts that the state of NIBL to grant loan and advances is as good as NSBI; however, analysis shows that the trend is increasing for both the banks. Likewise, The growth ratio of total investments of NSBI > NIBL. The ratio of NIBL is 3.30% whereas that of NSBI is 63.30%. The growth ratio of both banks is fluctuating. But the growth ratio of net profit of NIBL is greater than NSBI. The growth ratio of NIBL is 23.80% whereas that of NSBI is 12.26%. NSBI has a worse position of increasing net profit and much satisfying growth ratio than NIBL over the study period
- Coefficient of correlation analysis between total deposits and total investments of NIBL and NSBI shows that there is positively perfect correlation between total deposit and total investment of both NIBL and NSBI. When there is a change in total deposit, it brings 19% change in total investment of NIBL and 1% change in total investment of NSBI. The relationship between these two variables is insignificant. When there is a change in loan and advances, it brings 4% change in net profit of NIBL and 3% change in net profit of NSBI. In this analysis also, r is less than 6 P.E which shows that the relationship between these two variables is insignificant, likewise, NIBL and NSBI shows that there is positive correlation between total deposits and net profit of both the banks. When there is a change in total deposits, it brings 91.80% change in net profit of NIBL and 71.64% change in net profit of NSBI. The relationship between these two variables of NIBL is insignificant while the relationship between the two variables of NSBI is significant as the r is greater than 6 P.E.
- Coefficient of correlation analysis between NIBL and NSBI shows that there is positive correlation between total investment and net profit of both the banks. On the basis of co-efficient of determination, it is found that when there is a change in total investment, it brings 67.69% change in net profit of NIBL and 6.99% change in net profit of NSBI. The relationship between these two variables is insignificant.

- Coefficient of correlation analysis between NIBL and NSBI shows that there is positive correlation between total investment and loan and advance of both the banks. On the basis of co-efficient of determination, it is found that when there is a change in total investment, it brings 82.29% change in loan and advance of NIBL and 50.17% change in loan and advance of NSBI. The relationship between these two variables is insignificant. Same as, On the basis of co-efficient of determination, it is found that when there is a change in total deposit, it brings 97.48% change in net profit of NIBL and 96.45% change in net profit of NSBI. The relationship between these two variables is insignificant.
- From the trend analysis, it is clear that the total deposits of NIBL and NSBI are in increasing trend, however, it is found that the deposits collection position of NIBL is better than NSBI. The trend of total investments of both NIBL and NSBI are in fluctuating trend. From the trend analysis, it is found that the total investments position of NIBL is better than NSBI.
- The loan and advances of both NIBL and NSBI are in increasing trend. From the trend analysis, it is found of NIBL has mobilized loan and advances well than NSBI. And also, the trend of net profits of both NIBL and NSBI are increasing, however, it is found that NIBL is in better position in terms of net profit than NSBI.

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary of the study, conclusions derived from the analysis of data and their interpretation and recommendations offered for the improvement of the investment policies of the banks under study. Thus, the chapter is divided into three sections. The first section of this chapter focuses on summarizing the whole study; the second section draws conclusions from the analysis of data and interpretation of the results thereof; and the third section offers recommendations for improvement of the investment policy of the concerned bank.

5.1 Summary

A sound investment policy is very essential in a nation's economy for economical as well as financial growth of a country Commercial banks play an important role for the economic development of the country as they provide finance for the development of industry, trade and business by investing the saving collected as deposits from public. They render their various services to the customers facilitating their economic and their social life. They are the most important ingredients for integrated and speedy development of a country. So, nowadays-financial institutions are viewed as catalyst in the process of the economic growth and effective mobilization of domestic resources. Investment operation of commercial banks is a risky affair. It is the most important factor for the shareholders and bank management. For this, commercial banks have to pay due consideration while formulating their investment policy. A healthy development of any commercial bank depends upon its investment policy. The word investment conceptualized the investment of income, saving or other collected fund. It is a well known fact that an investment is only possible where there is adequate saving. If all the incomes and saving are consumed to the problem of hand and mouth and to other basic needs, then there is no existence of investment. So both saving and investment are interrelated. It is concerned with the management of an investor's wealth, which is the sum of current income and present values of all future incomes to be invested come form assets already owned borrowed money and saving or foregoes consumption by the investors. The main objective of their investment is to

secure financial benefit in future. Anyway the goal of investment is the maximization of owners' economic welfare.

Chapter one is introduction chapter. It incorporates that several banks have been established in the country within short period of time, stable, strong and appropriate investment policy has not been followed by the commercial banks to sufficient return. They have not been able to utilize their funds more effectively and productively. Thus, proper utilization of the resources has become more relevant and current issue for the banks. The directions and guidance provided by Nepal Rastra Bank mare the major policy statements for the Nepalese commercial banks. However, a long term and published policy about their operation is not found even in the joint venture banks. Commercial bank in current year, present a new picture, a picture of innovation practice of wider horizon and new enterprises. The most remarkable diversification of banking function is increasing participation in medium and-long term financial industries and other sector. Therefore, they are not only financial institutions of finance agriculture and industry and other economic activities, but are more than financial institution in the sense that they help saving create deposits and make the subsequent distribution of such accumulated funds. The primary objective of these joint venture banks is always to earn profit by investing or granting loan and advances to people associated with trade, business and industry, etc. That means they are required to mobilize their sources properly to acquire profit. How well a bank manages its investment has a great deal to do with the economic health of the country because the bank loans support the growth of new business and trade empowering the economic activities of the country. The income and profit of the bank depends upon its lending procedure, lending policy and investment of its fund in different securities. The greater the credit created by the bank, the higher will be the profitability. A sound lending and investment policy is not significant for the promotion of commercial savings of a backward country like Nepal.

Chapter two introduced that the main concentration of the study is to diagnose the investment policy of NSBI and NIBL to suggest measures to improve the investment policy of the banks. An effort has been made to analyze investment trend, deposit trend, loan and advances and net profit and their projection of ten years Nepal

Investment Bank and Nepal SBI Bank and also to identify investment sector of Nepal Investment Bank and Nepal SBI Bank .Similarly, an attempt has also been made to evaluate the liquidity, assets management efficiency, profitability and risk position and growth of Nepal Investment Bank in comparison to that of Nepal SBI Bank as well as to study the relationship between investments, deposits, loan and advances and net profit of the banks.

Chapter three is introduction chapter. It incorporates the study is based on the secondary data from FY 2003/2004 to 2007/2008. The data required for the analysis are directly obtained from the balance sheet and the P/L account of the concerned bank's annual reports. Likewise, various data and information are collected from the economic journals, periodicals, bulletins, magazines and other published and unpublished reports and documents as well as the websites of concerned banks.

Two joint venture banks Nepal Investment Bank Limited and Nepal SBI Bank have been taken for the conduction of study among 26 commercials banks. Nepal Investment Bank was established in 1986 a joint venture between Nepalese and Credit Agricole Indosuez .The Nepalese investors bought all the shares of French company i.e. 50% in 2001. From then the Nepalese investors have raised this bank one of the must trusted and popular bank in the country. Till date it has 41 branches scattered through out the company giving modern banking services of international class from 10 am to 7 pm evening . Nepal SBI is the first Indo-Nepal joint venture in the financial sector sponsored by the three institutional promoters, namely State Bank of India,(Having 55% ownership and rest is held by a local promoters) Employees provident fund (Having 15% ownership) and Agriculture Bank of Nepal (having 30% ownership) through out a memorandum of understanding signed on 17th July 1992. Nepal SBI Bank was established in July 1993. It has 50 branches, 6 extension counters, 2 Regional office and the corporate office. Both banks have many common products such as deposit, loan, remittance, card services, internet banking etc.

Chapter four introduced that financial as well as statistical tools have been deployed in order to analyze and interpret the data and information. Under financial analysis, various financial ratios related to the investment function of commercial banks i.e.

liquidity ratio, assets management ratio, activity ratio, profitability ratio, risk ratio and growth ratio have been analyzed and interpreted. Under statistical analysis, some relevant tools i.e. mean, standard deviation, coefficient of correlation, coefficient of determination, trend analysis have been used for the analysis and interpretation of data. This analysis gives clear picture of the performance of the bank with regard to its investment operation.

5.2 Conclusions

After study and analysis of given data it is concluded that NSBI has invested maximum percentage in government securities while NIBL has invested its major portion in other investments such as foreign banks, local banks, etc. .NSBI started to invest in other sectors since fiscal year 2005/06.Investment of NIBL is lower than NSBI in shares, debentures and bonds. Both the banks have not invested in Nepal Rastra Bank Bonds over the study period. Considering liquidity ratios, the mean currents ratio of NIBL is higher than NSBI. Similarly, NSBI has maintained a higher average in cash reserve, cash and bank balance to current assets and investment on government securities to current assets. NSBI is in a better position to maintain its cash and bank balance and investing in government securities while the position of NIBL is more consistent in maintaining the ratios than NSBI.

While analyzing the assets management ratios, it was found that NSBI has strong position regarding the mobilization of total deposit on loan and advance than NIBL. The mean ratio of total deposit to loan and advances of NSBI is lower as well as highly variable than that of NIBL It was also found that NIBL has invested higher amount of the total deposits in securities and shares than NSBI while the performance of NSBI in terms of recovery of loan is weaker in comparison to NIBL due to higher loan loss ratio. The mean ratio of return on loan and advance of NIBL is higher than that of NSBI. The position of NSBI is better than NIBL in earning good return on total assets; however, NIBL has been able to maintain a stable and consistent return on total assets in comparison to NSBI.NIBL is efficient and more consistent in the utilization of its equity capital than NSBI. NSBI has better position with respect to the income earned from total outside assets and also it has better and stable position

regarding the mobilization of interest bearing assets than NIBL but it has paid higher interest on total deposits than NIBL.

When a firm wants to bear risk, the profitability and effectiveness of the firm increase. As per the analysis of risk ratio, NSBI has higher credit risk as well as unstable credit policy in comparison to NIBL and the degree of capital risk in NIBL is also slightly riskier than NSBI.

From the trend analysis, it is concluded that clear that the trend of total deposits, loan and advances and net profit of NIBL are increasing whereas the trend of total investments have been fluctuating .Similarly, the trend of total investments of NSBI has also been fluctuating while the trend of total deposits, loan and advances and net profit are following an increasing trend. It is also found that the deposits collection position, total investments position and net profit position of NIBL is better than NSBI. NIBL has also mobilized the loan and advances better than NSBI.

From the statistical analysis of financial data of both the banks, it is found that there is positive correlation between the total deposits and total investments, loan and advances and net profit, total deposits and net profit, total investment and net profit, total investment and loan and advance as well as total deposit and loan and advance of both NIBL and NSBI. NIBL's 91.80% investment is dependent on deposit and 8.20% investment decision depends on other variables and NSBI's 71.64% investment is dependent on deposit The relationship between these two variables of both banks is insignificant. NIBL's 91.64% net profit is depending on loan and advances and 8.36% depends on other variables. NSBI's 81.92% net profit is depending on loan and advances and 18.08% depends on other variables. The relationship between these two variables of both banks is insignificant. Similarly, when there is a change in total deposits, it brings 91.80% change in net profit of NIBL due to total deposit and rest due to other variables and when there is a change in total deposits, it brings 71.64% change in net profit of NSBI due to total deposit and 28.36% due to other variables. The relationship between these two variables of NIBL is insignificant while the relationship between the two variables of NSBI is significant. NIBL's 67.69% change in net profit is due to total investment an.32.31% due to other variables and NSBI's

6.99% change in net profit of NSBI due to total investment only. The relationship between these two variables of both banks is insignificant. Likewise, when there is a change in total investment, it brings 67.72% change in loan and advance of NIBL due to total investment and.32.28% due to other variables. Similarly, it is found that when there is a change in total investment, it brings 50.17% change in loan and advances of NSBI due to total investment and rest due to other variables. The relationship between these two variables of both banks is insignificant. In the same way, NIBL's 97.48% change in net profit is due to total deposit and rest due to other variables and NSBI's 96.45% change in net profit is due to total deposit and 3.55% due to other variables. The relationship between these two variables of both banks is insignificant.

5.3 Recommendations

On the basis of analysis, findings and conclusion, following recommendations can be made.

1. It is found from the study that NIBL is not investing much in government securities as compared to NSBI. Government securities are the safest medium of investment and are free of risk as well as liquid which can be easily sold in the market. Therefore, NIBL is recommended to draw attention to increase investment in government securities which helps to utilize funds into income generating assets as well as minimizes risk and also help to maintain optimal level of liquidity.
2. Liquidity position of NSBI is not good as compared to NIBL. Hence, the bank is advised to increase its liquidity position as liquidity position is used to judge the ability of bank to meet its short-term liabilities that are likely to mature in the short period.
3. It is recommended to NIBL to improve the efficiency in utilizing the deposits in loan and advances for generating the profit. NSBI should try to maintain the current position.
4. Negligence in administering the assets could be the cause of liquidity crisis in the bank and one of the major reasons for failure. Since the performance of NSBI in terms of recovery of loan is weaker in comparison to NIBL, it is suggested that the bank should pay more attention while granting loan and advance.

5. Return on equity ratio of NSBI is in fluctuating trend over the study period which is not a good financial indicator. It indicates that the bank is not properly managed and hence it should find out the reasons behind it.
6. Both banks should try to improve the growth rate of total investments in an increasing trend in order to increase the net profit.
7. In the light of growth competition in the banking sectors, the business of the banks should be customer oriented. It should focus not only towards big clients but also towards small clients.
8. The banks should involve in different kinds of social and community development activities. It should make corporate social responsibility its integral objective in this growing competition among the banks.
9. Both banks are recommended to formulate and implement sound and effective financial and non-financial strategies to minimize their operational expenses to meet the required level of profitability.
10. The banks should fulfill some social obligations by extending their resources to rural areas and promoting the development of poor and disadvantaged group. In order to do so, they should open their branches in the remote areas with the objective of providing cheaper banking services. The minimum amount to open an account and interest rate for credits should be reduced.
11. Both banks should maintain a sound portfolio management to attain maximum yield with minimum risk.

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APPENDIX – I

Calculation of Mean, Standard deviation and Co- Variance.

Sector/ Year	**(X_1)**	**($x_1 - \overline{x}_1)^2$**	**(X_2)**	**($x_2 - \overline{x}_2)^2$**	**(X_3)**	**($x_3 - \overline{x}_3)^2$**	**(X_4)**	**($x_4 - \overline{x}_4)^2$**	**(X_5)**	**($x_5 - \overline{x}_5)^2$**
2006/07	50.21	17.14	-	-	-	3.881	49.25	3.5344	0.54	0.0841
2007/08	45.86	0.044	-	-	-	3.881	53.27	4.5796	0.87	0.0016
2008/09	34.19	141.13	-	-	-	3.881	64.95	190.9924	0.86	0.0009
2009/10	46.86	0.62	-	-	4.43	6.0516	47.91	10.3684	0.80	0.0009
2009/11	53.24	51.41	-	-	5.41	11.8336	40.26	118.1569	1.09	0.0676
$\sum$	**230.36**	**210.344**	**-**	**-**	**9.84**	**29.52**	**255.64**	**327.6317**	**4.16**	**0.1551**
Mean ($\overline{X}$)	**46.07**		**-**	**-**	**1.97**		**51.13**		**0.83**	
S.D. (σ)	**42.0688**		**-**	**-**	**3.5770**		**65.5263**		**0.0310**	
C.V	**0.9131**		**-**	**-**	**1.8157**		**1.2815**		**0.0373**	

Where,

$\overline{X} = \frac{\Sigma x}{N}$ $\qquad \sigma = \frac{\Sigma(x - \overline{x})^2}{N}$ $\qquad$ C.V. $= \frac{\sigma}{\overline{X}} \times 100$ **%**

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

= 46.07

$$\text{Standard Deviation } (\sigma) = \frac{\Sigma(x - \overline{x})^2}{N}$$

= 42.0688

$$\text{C.V} = \frac{\sigma}{\overline{X}} \times 100 \text{ \%}$$

=0.9131

=91.31%

APPENDIX – II

Calculation of Mean, Standard deviation and Co- Variance.

Sector/ Year	(X_1)	$(x_1 - \overline{x}_1)^2$	(X_2)	$(x_2 - \overline{x}_2)^2$	(X_3)	$(x_3 - \overline{x}_3)^2$	(X_4)	$(x_4 - \overline{x}_4)^2$	(X_5)	$(x_5 - \overline{x}_5)^2$
2006/07	83.78	1238.62	4.44	0.2025	-	0.5329	10.57	1250.32	1.2	0.3696
2007/08	89.42	1667.42	8.83	15.5236	-	0.5329	0.68	2047.56	1.07	0.2284
2008/09	22.08	702.57	2.81	4.3264	-	0.5329	74.86	836.94	0.25	0.1169
2009/10	22.89	660.28	3.65	1.5376	3.65	8.5264	73.23	745.29	0.23	0.1310
2009/11	24.76	567.68	4.72	0.0289	-	0.5329	70.31	594.38	0.21	0.1459
$\sum$	**242.93**	**4836.56**	**24.45**	**21.619**	**3.65**	**11.1909**	**229.65**	**5474.49**	**2.96**	**0.9918**
Mean ($\overline{X}$)	**48.586**		**4.89**		**0.73**		**45.93**		**0.592**	
S.D. (σ)	**967.31**		**4.3238**		**2.2382**		**1094.89**		**0.1983**	
C.V	**19.91**		**0.88**		**3.066**		**23.83**		**0.33**	

Where,

$$\overline{X} = \frac{\Sigma x}{N} \qquad \sigma = \frac{\Sigma(x - \overline{x})^2}{N} \qquad \text{C.V.} = \frac{\sigma}{\overline{X}} \times 100\ \%$$

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{48.586}$$

$$\text{Standard Deviation } (\sigma) = \frac{\Sigma(x - \overline{x})^2}{N}$$

$$= \mathbf{969.27}$$

$$\text{C.V} = \frac{\sigma}{\overline{X}} \times 100\ \%$$

$$= 19.91$$

$$= \mathbf{1991\%}$$

APPENDIX – III

Calculation of S.D. and C.V. of NABIL Bank Ltd.

year	No. of card holder	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	1.01	-0.016	0.000256
2007/08	1.01	-0.016	0.000256
2008/09	1.03	0.004	0.000016
2009/10	1.03	0.004	0.000016
2010/11	1.05	0.024	0.000576
Total	5.13	Total	0.00112

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{1.026}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X-\bar{X})^2}{N}}$$

$$= \mathbf{0.015}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.00109}$$

$$\mathbf{= 0.109\%}$$

Calculation of S.D. and C.V. of NSBI Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	1.03	-0.004	0.000016
2007/08	1.04	0.006	0.000036
2008/09	1.02	-0.014	0.000196
2009/10	1.04	0.006	0.000036
2010/11	1.04	0.006	0.000036
Total	5.17	Total	0.000032

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{1.034}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X-\bar{X})^2}{N}}$$

$$= \mathbf{0.008}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{=0.0077}$$

$$\mathbf{= 0.77\%}$$

APPENDIX – IV

Calculation of S.D. and C.V. of NABIL Bank Ltd.

year	No. of card holder	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	10	-3.6	12.96
2007/08	11	-2.6	6.76
2008/09	17	3.4	11.56
2009/10	14	0.4	0.16
2010/11	16	2.4	5.76
Total	68	Total	37.2

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{13.60}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X-\bar{X})^2}{N}}$$

$$= \mathbf{2.73}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.2007}$$

$$\mathbf{=20.70\%}$$

Calculation of S.D. and C.V. of NSBI Bank Ltd.

year	No. of card holder	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	10	0.6	0.36
2007/08	10	0.6	0.36
2008/09	5	-4.4	19.36
2009/10	10	0.6	0.36
2010/11	12	2.4	5.76
Total	47	Total	26.2

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{9.40}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X-\bar{X})^2}{N}}$$

$$= \mathbf{2.79}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.24}$$

$$\mathbf{=24\%}$$

APPENDIX – V

Calculation of S.D. and C.V. of NABIL Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	9.2	-3	9
2007/08	9.9	-2.3	5.29
2008/09	15.4	3.2	10.24
2009/10	12.2	-	-
2010/11	14.3	2.1	4.41
Total	61	Total	28.94

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{12.2}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X-\bar{X})^2}{N}}$$

$$= \mathbf{2.41}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.205}$$

$$\mathbf{=20.70\%}$$

Calculation of S.D. and C.V. of NSBI Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	8.3	0.07	0.0049
2007/08	8	-0.26	0.0676
2008/09	5	-3.26	10.6276
2009/10	9.2	0.94	0.8836
2010/11	10.8	2.54	6.4516
Total	41.3	Total	18.0353

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{8.26}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X-\bar{X})^2}{N}}$$

$$= \mathbf{1.90}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.23002}$$

$$\mathbf{=23.002\%}$$

APPENDIX – VI

Calculation of S.D. and C.V. of NABIL Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	70.5	-8.3	68.89
2007/08	78.4	-0.4	0.16
2008/09	77.6	-1.2	1.44
2009/10	86.5	7.7	59.29
2010/11	81	2.2	4.84
Total	394	Total	134.62

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{78.8}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$$= \mathbf{5.19}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.07}$$

$$\mathbf{=7\%}$$

Calculation of S.D. and C.V. of NSBI Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	82.6	17.5	306.25
2007/08	88.3	23.2	538.24
2008/09	54.1	-11	121
2009/10	50.1	-15	225
2010/11	50.4	-14.7	216.09
Total	325.5	Total	1406.58

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{65.1}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$$= \mathbf{16.77}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.26}$$

$$\mathbf{=26\%}$$

APPENDIX – VII

Calculation of S.D. and C.V. of NABIL Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	27	8	64
2007/08	20	1	1
2008/09	16	-3	9
2009/10	17	-2	4
2010/11	15	-4	16
Total	95	Total	94

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{19}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X-\bar{X})^2}{N}}$$

$$= \mathbf{4.34}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.23}$$

$$\mathbf{=23\%}$$

Calculation of S.D. and C.V. of NSBI Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	23	-14.4	207.36
2007/08	23	-14.4	207.36
2008/09	48	10.6	112.36
2009/10	47	9.6	92.16
2010/11	46	8.6	73.96
Total	187	Total	693.2

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{37.4}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X-\bar{X})^2}{N}}$$

$$= \mathbf{11.77}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.31}$$

$$\mathbf{=31\%}$$

APPENDIX – VIII

Calculation of S.D. and C.V. of NABIL Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	0.8	0.3	0.09
2007/08	0.5	-	-
2008/09	0.5	-	-
2009/10	0.2	-0.3	0.09
2010/11	0.6	0.1	0.01
Total	2.6	Total	0.19

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{0.52}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$$= \mathbf{0.19}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.37}$$

$$\mathbf{=37\%}$$

Calculation of S.D. and C.V. of NSBI Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	0.6	0.16	0.0256
2007/08	0.5	0.06	0.0036
2008/09	0.5	0.06	0.0036
2009/10	0.4	-0.04	0.0016
2010/11	0.2	-0.24	0.0576
Total	2.2	Total	0.092

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{0.44}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$$= \mathbf{0.14}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.31}$$

$$\mathbf{=31\%}$$

APPENDIX – IX

Calculation of S.D. and C.V. of NABIL Bank Ltd.

year	**X**	**X-$\bar{X}$**	**(X-$\bar{X}$)^2**
2006/07	2.9	0.12	0.0144
2007/08	2.6	-0.18	0.0324
2008/09	2.5	-0.28	0.0784
2009/10	3	0.22	0.0484
2010/11	2.9	0.12	0.0144
Total	13.9	Total	0.188

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{2.78}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$$= \mathbf{0.19}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.07}$$

$$\mathbf{=7\%}$$

Calculation of S.D. and C.V. of NSBI Bank Ltd.

year	**X**	**X-$\bar{X}$**	**(X-$\bar{X}$)^2**
2006/07	2.7	0.44	0.1936
2007/08	2.1	-0.16	0.0256
2008/09	2.1	-0.16	0.0256
2009/10	2.2	-0.06	0.0036
2010/11	2.2	-0.06	0.0036
Total	11.3	Total	0.256

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{2.26}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$$= \mathbf{0.23}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.10}$$

$$\mathbf{=10\%}$$

APPENDIX – X

Calculation of S.D. and C.V. of NABIL Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	1.8	-0.10	0.01
2007/08	1.8	-0.10	0.01
2008/09	1.7	-0.20	0.04
2009/10	2.2	0.3	0.09
2010/11	2	0.10	0.01
Total	9.5	Total	0.16

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{1.90}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$$= \mathbf{0.18}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.09}$$

$$\mathbf{=9\%}$$

Calculation of S.D. and C.V. of NSBI Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	1.8	0.56	0.3136
2007/08	1.4	0.16	0.0256
2008/09	1	-0.24	0.9576
2009/10	1	-0.24	0.0576
2010/11	1	-0.24	0.0576
Total	6.2	Total	0.512

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{1.24}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$$= \mathbf{0.32}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.26}$$

$$\mathbf{=26\%}$$

APPENDIX – XI

Calculation of S.D. and C.V. of NABIL Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	1.27	-0.31	0.0961
2007/08	1.33	-0.25	0.0625
2008/09	1.54	-0.04	0.0016
2009/10	1.70	0.12	0.0144
2010/11	2.05	0.47	0.2209
Total	7.89	Total	0.3955

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{1.58}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$$= \mathbf{0.28}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.18}$$

$$\mathbf{=18\%}$$

Calculation of S.D. and C.V. of NSBI Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	1.56	-0.25	0.0625
2007/08	1.52	-0.29	0.0841
2008/09	1.76	-0.05	0.0025
2009/10	2.05	0.24	0.0576
2010/11	2.18	0.37	0.1369
Total	9.07	Total	0.3436

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{1.81}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(X-\bar{X})^2}{N}}$$

$$= \mathbf{0.26}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.14}$$

$$\mathbf{=14\%}$$

APPENDIX – XII

Calculation of S.D. and C.V. of NABIL Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	28	18.6	345.96
2007/08	3	-6.4	40.96
2008/09	4	-5.4	29.16
2009/10	5	-4.4	19.36
2010/11	7	-2.4	5.76
Total	47	Total	441.2

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{9.4}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X-\bar{X})^2}{N}}$$

$$= \mathbf{9.39}$$

$$\text{C.V} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 1.00}$$

$$\mathbf{=1\%}$$

Calculation of S.D. and C.V. of NSBI Bank Ltd.

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2006/07	4	0.2	0.04
2007/08	3	-0.8	0.64
2008/09	3	-0.8	0.64
2009/10	4	0.2	0.04
2010/11	5	1.2	1.44
Total	19	Total	2.8

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

$$= \mathbf{3.8}$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X-\bar{X})^2}{N}}$$

$$= \mathbf{0.75}$$

$$\text{CV} = \frac{\sigma}{\bar{X}} \times 100\ \mathbf{\%}$$

$$\mathbf{= 0.20}$$

$$\mathbf{=20\%}$$