

Chapter I

Introduction

1.1 General Background

Nepal is a least developed country situated between two well-developed countries like India and China, Nepal is a developing country in the world and has also increasing the trend of economic condition. The development of every country is always measured by its economic indices. Thus, every country has given emphasis on enlistment of its economy. Now a day, financial institutions are viewed as catalyst for the economic growth. The mobilization of domestic resources is one of the very factors in the economic development of a country.

It has been more than four decades ago that Nepal had lunched planned economic policy. But now it is actively trying to achieve the rapid pace of development through liberalization. To attend the rapid of economic development of the country, there should be good business environment for the establishment of corporation in the different sector of economy. Similarly for the proper and efficient utilization of resources it needs its proper plan strategy, which is based upon ground reality. Plan and strategy development huge amount of capital investment is required.

Banks and financial institutions play its significant, role in the economic development of the country, as they are the main source of the capital for most of the investments from one sector to another whether it's big or small. Central bank almost governs all the functions of the financial institutions. Unlike the central bank, commercial bank is the profit oriented financial institutions. Mainstream function of the commercial bank is to mobilize the scattered saving of the public by providing the needy firms, industries and people to get the productive use. Being a profit oriented financial service providing institution, certain interest rate is given to the depositor and certain percent interest is charged by the bank in the loan facilities, which we call as the spread rate.

1.2 Objective of the Study:

Basic objective of the study is to explore the investment policy of commercial banks with respect to Nepal NSBI bank and Nepal Bangladesh Bank Limited. Moreover, the study has specified following objectives.

- a) To analyze the trends of deposit utilization toward total investment and loan and advance.
- b) To analyze the growth ratio of loan and advance and total investment with respect growth rate of total deposit and net profit.
- c) To assess the lending procedures adopted by selected commercial banks.
- d) To evaluate the liquidity, efficiency and profitability positions of banks.
- e) To provide suggestions and recommendations to the concerned authority for improvement.

1.3 Statement of the Problem:

Commercial banks collect lots of deposits where as in the other hand investment opportunities are comparatively very low. Such condition may cause the highly liquid market and can impact the condition of whole country negatively. Due to high competition of financial environment, banks seems to be ready to grant much more loan, advance and other facilities against their client's insufficient deposit. Lack of sound investment policy is another reason for a commercial bank not to properly utilizing its deposit that is making loan and advance or lending for a profitable project. If the funds are wrongly invested without thinking any financial risk, business risk and other related fact, the bank cannot obtain profitable return as well as it should sometimes lose its principal. In this way to answer different questions of Investment policy on commercial banks with comparative analysis is necessary for the study the investment policy on selected commercial banks measuring comparing and analytic are as follows:

- Relationship between investment, loan, and advance with total deposit and total net profit.
- Effectiveness of fund mobilization and applied investment policy.
- Proper utilization of available funds.
- Effect of the investment decision to the total earning of the bank.
- Future strategies to improve better credibility.
- Whether these commercial banks are able to meet obligation.

1.4 Significance of the Study:

This study will keep very important place in Nepalese commercial banking sector. The main strategy of every commercial bank is to establish the better lending position which directly impact on the financial performances of an organization. Besides, it helps to build positive attitude and perception of customer that helps to make the organizational success in term of better transaction better turnover and better profitability.

Most of the earlier researchers focused on financial performance of bank but few researchers focused on Investment policy of bank. From view point of bank, loan is most important and sincere area. As it is being well known fact that commercial banks can affect the economic condition of the whole country the effort is made to highlight the investment policy of banks expecting that the study can be a bridge to gap between deposit and investment successful formulation and effective implementation of investment policy.

1.5 Limitation of the Study:

The scope of the study has limited only in selected commercial bank. However, the study have specified as the following limitation.

- * The study has covered only two commercial bank such as NNSBI and NBBL.
- * The study has covered five years of time period for fisical year 2008 to 2012.
- * The study has mainly based on secondary data.
- * This study has focused on the Investment policy of Nepal NSBI BANK Limited and Nepal Bangladesh Bank Limited.
- * This study has concentrate only on those factors that are related with investment.

1.6 Organization of the Study:

This study includes five chapters such as Introduction, Review of Literature, Research Methodology, Data Presentation and analysis and summary, conclusion and recommendation.

First chapter is introductory chapter. It deals the introduction of this thesis. It consists General background, origin of bank, Historical development of Bank in Nepal, Commercial Banks,

Significance of Study, Objectives of Study, Statements of Problems, and Limitation of the Study and Organization of the study.

Second chapter is concerned with Review of Literature, which deals the study of the past writing, Journals reports etc. This Chapter includes Conceptual Review, Review of articles, review of legislative Provision, Review of Thesis and Research gap.

Third chapter is research methodology, which is applied to collect the data and analyze them in this study. It consists Research design, Source of data, Population and Sampling, Methods of Analysis.

Fourth chapter is Data Presentation and analysis, which is mainly concerned with the analysis of different financial ratios related to the investment policy and fund mobilization of NBBL & NSBI. Further more this chapter is also concerned with the statistical analysis.

Fifth chapter is all about summary, conclusion and recommendations, which explain the major finding. Suggestions to the concerned authority.

1.7 Research Methodology

Research Methodology is a systematic way of solving the research problem. It refers to the methods that are used for conduction of research or performing research operation. Research Methodology depends on various aspects of the research Projects. The variable that determine the research methodology of that particular projects are the size of that project, importance of the project, the objective of the study, time frame of the project, impact of the project in the aspects of the human life etc. Research Methodology can be defined as "A Systematic Process that is adopted by the researchers in studying a problem with certain objective in view." In another words, research methods are those methods, which are used by the researcher during the course of the studying his/her research problem.

This chapter attempts to have an insight into the Investment Policy adopted by NBBL and NSBI. This will help to evaluate and analysis investments performance of NSBI in comparison to the NBBL. The basic objective of this study is to evaluate about the Investment Policy of NBBL and NSBI.

1.7.1 Research design

A research design is the arrangement of conditions for collection and analysis of data that aim to combine relevance to the research purpose with economy in procedure. Research design in the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to objective of this study. To achieve the objective of this study, descriptive and analytical research design has been used.

Some financial and statistical tools have also been applied to examine facts and descriptive techniques have been adopted to evaluate investment performance of NSBI with comparison to NBBL.

1.7.2 Source of Data

The study is conducted on the basic of the secondary data. The data required for the analysis are directly obtained from the balance sheet and P/L a/c of the concerned bank's annual reports. Supplementary data and information are collected from number of institutions and regulating authorities like NRB, Security Board of Nepal (SEBON), Nepal Stock Exchange Ltd. (NEPSE), SDC library, Central Library T.U., 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. Periodically, bulletins and unpublished reports and thesis from various sources.

1.7.3 Population and Sample

The population refers to the industries of the same nature and its services and product in general. Thus, total 32 commercial bank constitutes the population of the data and the bank under study constitutes the sample for the study.

The limitation of the time and unavailability of the relevant data has forced me to make research on the two commercial banks out of 32 Commercial Banks. In this study NSBI Investment Policies have been compared with that average of NBBL, which are selected from population. From this population NBBL and NSBI have been selected as sample and its data related to investment performance are comparatively studied.

1.7.4 Method of Analysis

In this study, various financial, accounting and statistical tools have been used to achieve the objective of the study. The analysis of data will be done according to the pattern of data available. Due to limited time and resources, simple analytical statistical tools such as percentage graph Karl Pearson's coefficient of correlation, regression, the method of least square are used in this study. Likewise, some financial tools such as ratio analysis and trend analysis have also been used for financial analysis. The various tools in this study have been briefly presented as under.

Chapter II

Review of Literature

2.1. Concept:

Investment is concerned with the management of an investor's wealth which is the sum of current income and the present value of all future income funds to be invested come from assets already owned. The investment policy has played a significant role in banking sectors as well as other organization. Sound investment policy encouraged to each and every investor to invest their funds on profitable sectors to achieve high returns. In this chapter, it is discussed on these materials which are related to investment Policy. This unit of the study tries to describe about the conceptual framework is given by different authors, books, articles, Legal Provision and directives, research paper, annual report thesis etc.

2.2 Conceptual Review

Meaning of Investment

An investment is a commitment of money, which is expected, has generated additional money. Every investment entails some degree of risk, it requires a present certain sacrifice for a future uncertain benefits. Investment will provide the maximum future return at an acceptance level of risk that can be select the various opportunities. Investment is concerned with the management of an investor's wealth, which are the sum of current income and the present value of all future income. By forgoing today and investing the savings, investors expect to enhance their future consumption possibilities i.e. they are invested to increase wealth. Investor also seeks to manage their wealth effectively obtaining the most from it, while protecting it from inflation, taxes and factors.

Investment promotes economic growth and contributes to a nation's wealth. When people deposits money in as saving account in a bank. For example, the bank may invest by lending the funds of various business companies. These firms in return may invest the money in new factories and equipment to increase their production. In addition to borrowing from the banks, most companies issue stocks and bonds that they sell to investors to raise capital needed for business expansion.

Government also issue bonds to obtain funds to invest are such projects as construction of dams, roads, and schools etc. All such investment involves a present sacrifice of income to get an expected future benefits. As a result, investment raises a nation's standard of living.

A distinction is often made between investment and savings. Saving is defined as forgone consumption; investment is restricted to 'real' investment of the sort that increases national output in the future.

"An investment is a commitment of money that is accepted to generate additional money. Every investment entails some of risk, it requires a present certain sacrifice for future uncertain benefit" **(Francis, 1991: 150)**

"Investment policy fixes responsibilities for the investment disposition of the bank assets in term if allocation funds for investment and loan and establishing responsibility for day to day management of those assets" **(Bexely 1987:124)**

"The problem of investors is to select the funds which objectives and degree if risk taking most closely match is on situation the one that will accomplish for him what he would wish to do for himself if he could diversify and manage his own holding" **(Encyclopedia Britannica; 2007:488)**

Investment by individual, business and government involves a present sacrifice of income to get on excepted future benefit: as a result investment raises a nation's standard of living" **(The encyclopedia; 1976:232)**

Investment promotes economic growth and contributes to a nation's wealth. When people deposit money on in a saving account in bank. For example, the bank may invest by lending the funds of various business companies. This firm in return, may invest the money in few factories and equipment to increase their production. In addition to borrowing from the bank, most companies issue stock and bonds that they sell to investor to raise capital needed for business expansion. Government also issues bond to obtain funds to invest in such projects as the construction of dam, road and schools. All such investment by individuals, business and government involves a present sacrifice of income get an expected future benefit. As a result, investment raises a nation's standard of living.

In investment decision expenditure and benefit should be measured in cash. In investment analyses, cash flow is more important than accounting profit. It may also be pointed out that the investment decision affects the firm value. The firms' value will increase if investments are profitable and add to the shareholders wealth. Thus, investment should be evaluated on the basic of criteria, which is compatible with the objectives of shareholder's wealth, if it yields in excess of the minimum benefit as per the opportunity cost of capital" **(Pandey; 1999:407)**

From the above definitions, we can conclude that investment means use of rupees of amount today by exception more income in future. If some one invests this fund today, he will financial benefit in future from mobilization of their funds. The value of rupee in future is increased than current value, so the expected change in price during the period and for the uncertainty involve in cash flow. So it is clear investment is the utilization of funds today with expected additional return in future. But return sometimes may be negative also, if wrongly invested sound knowledge of investment and their related factors.

Review of Books

The banks are such types of institutions, which deals in money and substitute for money. They deal with Investment and Investment instruments. Good circulation of Investment is very much important for the bank. Unsteady and unevenly flow of Investment with ad-hock decisions harms the economy and the bank as well. Thus, to collect fund and utilize it in a good investment, is not a joke for such organization. An investment of fund may be the question of life and death for the bank.

S.P. Singh &Singh (1985) expressed his views as, the investment policies of banks are conditioned, to great extent, by the national policy framework, every banker has to apply his own judgment for arriving at a Dividend decision. Keeping of course his banker's Investment policy also in mind.

Frank K. Reilly (1986) in his views, an investment may be defined as the current commitment of funds for a period of time to derive a future flow of funds that will compensate the investing unit for the time the funds are committed, for the expected rate of inflation and also for the uncertainty involved in the future flow of the funds.

James B. Bexley (1987) expressed his views as, investment policy fixes responsibilities for the investment disposition of the banks assets in terms of allocating funds for investment and loan, and establishing responsibility for day to day management of those assets.

Gitman&Jochnk (1990) said in this regard, investment is any vehicle into which funds can be placed with the expectation that will preserve or increase in value and generate positive returns.

Shakespeare Baidya (1997) in his views, a sound investment policy of a bank is such that its funds are distributed in 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, moreover, risk in banking sectors tends to be concentrated in the loan portfolio. When a bank gets into serious financial trouble its problem usually spring from

Significant amounts of loan that became an-collectable due to mismanagement illegal manipulation of loan misguided lending policy or unexpected economic downturn. Therefore, the bank investment policy must be such that it ensures that it is sound and prudent in order to protect public funds.

William F. Sharpe, Gorden T. Alexander and Jeffery V. Baily (1998) says, investment in its broader sense, means the sacrifice of current dollars for future dollars. Two different attributes are generally involved: time and risk. The sacrifice takes places in the present and its magnitude as generally uncertain.

I.M. **Pandey (1999)** expressed his views as, in investment decision expenditure and benefits should be measured in cash. In investment analysis, cash flow is more important than accounting profit. It may also be pointed out of that investment decision affects the firm's value. The firm's value will increase if investments are profitable and add to the shareholders wealth. Thus, investment should be evaluated on the basis of a criterion, which is compatible with the objectives of the shareholder's wealth if it yields benefits it excess to the minimum benefits as per the opportunity cost of capital.

From the above definition, it is clear that an investment means to trade a known rupee amount today for some expected future stream of payments or benefits, that will exceed the current outlay by an amount that will compensate the investor for the time the funds are committed for the expected changes in prices during the period and for the uncertainty involved in expected banks. It is the long-term commitment of bank in the uncertain and risky environment. It is a very challenging task for commercial banks. So a bank has to be very cautions while investing their funds in various sectors. The success of a bank heavily depends upon the proper management of its investible funds.

Investment management of bank is guided by the investment policy adopted by the bank. The investment policy of the bank helps the investment operation of the bank to be efficient and profitable by minimizing the inherent risk. The field of investment is more challenging as it offers relatively greater scope to banker for judgment and discretion in selecting their loan portfolio. But this higher degree of freedom in the field of Investment management is also accompanied by greater risk. Particularly during recent years, the Investment function has become more complex.

A commercial bank must mobilize its deposits and other funds to profitable, secured and marketable sector so that it can earn a handsome profit as well as it should be secured and can be converted into cash whenever needed. Obviously, a firm that is being considered for loans must be analyzed, to find out why the firm needs money, how much money the firm needs and when and how it will be able to repay the loan. Investment policy provides the bank several inputs through which they can handle their investment operation efficiently ensuring the maximum return with minimum exposure to risk, which ultimately leads the bank to the path of success.

Features of a sound lending and Investment Policy: -

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 Investment created by the bank the higher will be the profitability. A sound lending and investment policy is not only prerequisite for banks profitability, but also crucially significant for the promotion of commercial savings of a backward country like Nepal.

Some necessities for sound lending and investment policies, which most of the banks must consider, have given by many authors as under.

1) Safety and Security

The bank should never invest its funds in those securities, which are subject to the much depreciation and fluctuations because a little difference may cause a great loss. It must not invest in funds into speculative businessman who may be bankrupt at once and who may earn millions in a minute also. The bank should accept that type of securities, which are commercial, durable, marketable and high market prices. In the cases "MAST" should be applied for the investment.

Where,

M= Marketability

A= Ascertain ability

S= Stability

T= Transferability

2) Profitability

A commercial bank can maximize its volume of wealth through maximization of return on their investments and lending. So, they invest their funds where they gain maximum profit. The profit of commercial bank depends on interest rate, volume of loan, its time period and nature of investment in different securities.

3) Liquidity

People deposit money at the bank in different account with confidence that the bank will repay their money when they need. To maintain such confidence of the depositors, the bank must keep this point in mind while investing as excess funds in different securities or at the same time of lending. So, that it can meet current or short term obligations when they become due for payment.

4) Purpose of Loan

Why is a customer in need of loan? This is very important question for any banker. If borrower misuses the loan granted by the bank, they can never repay and bank will possess heavy bad debts. Detailed information about the scheme of the project or activities would be examined before lending.

5) Diversification

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

6) Tangibility

Though it may be considered that tangible property doesn't yield an income apart from intangible securities which have lost their value due to price level inflation. A commercial bank should prefer tangible security to intangible one.

7) Legality

Illegal securities will bring out many problems for the investor. A commercial bank must follow the rules and regulation as well as different directions issued by Nepal Rastra Bank, Ministry of Finance, and Ministry of law and other while mobilizing its funds.

8) Suitability

Bank should always know that why a customer's needs loan because if the borrower misuses the loan granted by the bank, he will never be able to repay loan. In order to avoid such circumstances advances should be allowed to select the suitable borrowers and it should demand all the essential detailed information about the scheme of the project in which the bank is lending for. Bank must keep in mind the overall development plans of the nation and the Investment policy of the concerned authority i.e. Central Bank.

2.3 Review of Articles

In this section, effort has been made to examine and review of some related articles in different economic journal, World Bank discussion papers, magazines and other related books.

Ramesh Lal Shrestha : (2045 B.S) in his article, "A study on deposits and Investment of commercial in Nepal" concluded that the Investment deposits ratio would be 51.30 percent, other things remaining the same, in 2008 AD, which was the lowest under the period of review. So he had strongly recommended bank should try to give more Investment entering new field as far as possible. Otherwise, they might not be able to absorb even its expenses.

F. Moursis: (1990) in this article, "Latin America's Banking System in the 1990's" on reserve requirements, Investment allocation and interest. While analyzing loan portfolio quality, operating efficiency and soundness of bank investment has largely been overlooked. The huge losses now found in the bank's portfolio in many developing countries are testimony to the poor quality of this oversight investment function. He further adds that mismanagement in financial institutions has involved inadequate and overoptimistic loan appraisal, tax loan recovery, high risk diversification of handling and investments, high risk concentration, connected and insider lending, loan mismatching. This has led many banks of developing countries to the failure in 1990's.

Kiran Pradhan (1991) in this article "Nepal ma Banijya Bank Upalabdhi tatha Chunanti" concluded some major issue in local banks in comparison to recently established joint venture banks. The study deals with whole banking system of Nepal in respect to their performance and profitability. Some of his findings relevant to this study are given as:

The deposit collection rate of local banks is very poor in comparison JVB'S.

The patterns of deposit are also different between these banks. The ratio of current deposits in local banks is 9.34% only, where the same as the joint venture banks is 52.5%. But the fixed deposit ratio is very high in local banks.

Prabhakar Ghimire (1999) has mentioned in his article "Banijya Bank Haru Prathamikta chhetrama Lagani Garna Bhandha Harja Tirna Tayar. "Most of the banks of Nepal are ready to pay the penalty in spite of investing on rural sector, poverty stricken and deprived areas. In the directives of NRB it is clearly mentioned and directed that all the banks should invest 12% of its

total investments to the priority sectors. Out of this 12%, they should invested 3% to the lower level class of countrymen. However, these banks are unable to meet the requirement of NRB.

In the light of above foreign joint venture banks use to justify that they don't have any network among these areas. So if investment will be made in these areas, operational cost will be very high, which exceeds the penalty. If investment won't be made. That is why they are interested in paying penalty than investing in priority sector.

Sharma Bhaskar (2010) has found the same results that the all commercial banks are establishing and operating in urban areas, in his study, "Banking the future on competition" the achievements are as follows:-

Commercial banks are establishing and providing their services in urban areas only. They do not have interest to establish in rural areas. Only the branch of Nepal Bank Ltd and RastriyaBanijya Bank Ltd are running in those areas.

- Commercial banks are charging higher interest rate on lending.
- They have maximum tax concession.
- They do not properly analyze the Investment system.

According to him, "Due to the lack of investment avenues, banks are tempted to invest without proper Investment appraisal and on personal guarantee, whose negative side effect would show colors only after four or five years." He has further included that private commercial banks have mushroomed only in urban areas where large volume of banking transaction and banking activities are possible.

2.4 Review of legislative provisions

In this section, the review of legislative framework (environment) under which the commercial banks are operating has been discussed. This legislative environment has significant impact on the commercial bank's establishment, their mobilization and utilization of resources. All the commercial banks have no confirmed to the legislative provisions specified in the Commercial Bank Act 2031 B. S. and the rules and regulations formulated to facilitate the smooth running of commercial banks.

The preamble of Nepal Bank Act (1994) clearly states the need of commercial bank in Nepal. In the absence of any bank in Nepal the economic progress of the country was being hampered and causing inconvenience to the people and therefore with the objective of fulfilling that need by providing services to the people and for the betterment of the country, this law is hereby promulgated for the establishment of the bank and its operation.

As mentioned in this act, commercial banks will help in banking business by opening its branches in the different parts of the country under the direction of NRB. The main function of commercial banks established under this act will be exchange of money, to accept deposits and give to commercial and business activities.

NRB rules regarding fund mobilization of commercial bank

To mobilize bank's deposit in different sectors of the different parts of the nation to prevent them from the financial problems, central bank (NRB) may establish a legal framework by formulating various rules and regulations (prudential norms). These directives must have direct or indirect impact while making decision to discuss those rules and regulations which are formulated by NRB in terms of investment and Dividend to priority sector, deprived sector, other institution, single borrower limit, CRR, loan loss provision, capital adequacy relation, interest spread, productive sector investment. A commercial bank is directly related to the fact that how much fund must be collected as paid up capital while being established at a certain place of the nation, how much fund is needed to expand the branch and counters, how much flexible and helpful the NRB rules are also important. But we discuss only those, which are related to investment function of commercial banks. The main provisions, established by NRB in the form of prudential norms in above relevant area are briefly discussed here under.

1. Provision for investment in the deprived sector:

This provision is instructed by government (Minister of finance) and NRB. Some rules, which are formulated by NRB. Some rules, which are formulated by NRB, affect the areas of Dividend and investment extension to the deprived sector by the commercial bank. According to the new provision, with effect from 16 July 2001, investment in shares of rural development banks by commercial banks, which used the deprived sector lending.

According to the new provisions NBL, RBB, NABIL, NSCBL are required to invest 3%, NBBL, NNSBI, EBL are required to invest 2%, Bank of Kathmandu Ltd. is required to invest 1.75%, Nepal Investment Bank Ltd. is required to invest 0.75% while new commercial banks are required to invest 0.25% of their total loans and advances to the deprived sector.

2. Provision for Dividend to the priority sector

NRB requires commercial banks to extend loan and advances, amounting at least to 12% of their total outstanding Investment to the priority sector. Commercial banks Investment to the deprived sector is also a part of priority sector Investment. Under priority sector Investment to agriculture, Investment to the cottage and small industries and Investment to service are counted commercial banks' loan the co-operatives licensed by the NRB is also to be computed as a priority sector Investment from the fiscal year 1995/96 onwards.

3. Provision for the investment in productive sector

Nepal, being a developing country needs to develop infrastructure and other primary productive sectors like agriculture, industry, etc. For this, NRB has directed Commercial banks to extend at least 40% of their total Investment to the productive sectors. Loan is to priority sector, agriculture sector, and industrial sector has to be included in productive sector investment.

4. Provision for the single borrower Investment limit

With the objective of flowering the risk of over concentration of bank loans to a few big borrowers and also to increase the access of small and middle size borrower to the bank loans. NRB directed CBs to set an upper limit on the amount of loan financed to an individual, firm, company or group of companies. According to this CBs are required not to exceed the single borrower limit of 35% in the case of fund-based Investment and 50%, in the case of non-fund based Investment such as the letter of Investment, guarantee, acceptance letter, commitment has been fixed is a proportion of capital funds of banks.

5. Directives to raise capital funds

The commercial banks are allowed to include paid up capital and reserves for meeting the minimum capital requirement but they have to deduct the net loss from such funds if they are in loss. Similarly, the commercial banks are directed to maintain the minimum capital fund on the basis of their risk.

Where, core capital includes paid up capital, share premium non-redeemable preference share, general reserve fund and accumulated loss/profit. Supplementary capital includes general loan loss provision, exchange equalization reserves, asset revaluation reserve, Hybrid capital instrument, subordinated term debt and free reserve.

6. Cash reserve requirement (CRR)

Cash reserve is a nerve centre of the banks, which are transaction, speculative and precaution motives operating impact. To ensure adequate liquidity in the commercial banks, to meet the depositor's demand for cash at any time and to inject the confidence in depositor's regarding the safety of their deposit funds, commercial banks are required to have maximum 8% of current and saving and 6% of fixed deposits in the NRB as primary cash reserve. The commercial banks are further required to have 3% cash of total deposits in their own bank as secondary reserve.

7. Loan classification and Loss Provision

With a view to improving the quality of assets of commercial banks NRB has directed commercial banks to classify their out-standing loan and advances, investment and other assets into six categories. The classification is done in two ways. The loans of more than 1 Lakh are to be classified as debt service charge ratio, repayment situation, financial condition of borrower, management efficiency, quality of collateral. The loans of less than 1 Lakh have to be classified as per maturity period. Loan loss provisioning has affected bank's capability to extend loans and made them risk averse in issuing newer loans, particularly to the private sector and priority sector where the loan default is high.

8. Directives regarding interest rate spread

The interest rate spread, the difference between interest charged on loan and advances and the interest paid to the depositors, has widened significantly in the aftermath of deregulation in interest rates. This has caused lower financial intermediation. Therefore, NRB has required commercial banks to limit interest rate spread between with new calculation method of interest rate spread for a certain period recently.

The review of above relevant literature has no doubt enhanced fundamental understanding and foundation knowledge base, which is prerequisite to make this study meaningful and purposive. Based on feedback divided from the literature review of relevant literature, the choice of research methodology and further analysis in my study would be under better track and to the point to suggest future workable suggestions for commercial banks.

Review of Research Paper

Dr.SunityShrestha (1993) has conducted in her research study on "Investment Planning of Commercial Bank in Nepal"

The research findings of the study are summarized as:

- ❖ The general trend of commercial banks assets holdings ids growing. Deposits have been a major of fund. The excess reserve level of the banks allows ideal money and loss of opportunity. Debt equality ratios are high, greater than 100%.
- ❖ The return ratios are on the average higher for foreign JVBS that for Nepalese bank but return are on the statistically some. Risk taking attitude is higher in foreign JBVS. The total management achievement index is higher in case of for foreign banks in comparison the Nepalese bank.
- ❖ The hypothesis that the commercial banks have nonprofessional style of decision making in investment has been acted. The investment of commercial banks in shares and securities are normal and not found to have strategic decision towards investment in shares and securities. Yield from the securities has been found to be satisfactory.
- ❖ Investment in various economic sectors shows industrial and commercial sector taking higher share of loan till 1990.
- ❖ Investment in various sectors has a positive impact on the national from their respective sectors.
- ❖ Lending in priority sector showed cottage and small industry sector sharing higher loans.
- ❖ The major findings of his study were as follows:
 - ❖ All the selected firms have not successfully been mobilization their deposits but the finance companies have mobilize their deposits smoothly in comparison with JVBS.
- ❖ The profitability position of all finance companies was Betty than of
- ❖ The liquidity position of JVB'S is comparatively better than that of finance Companies.
- ❖ There is significant relationship between deposit and loan and advances of BOKL. Similarly, there is significant relationship between deposit and total investment, total assets and net profit of Kathmandu finance company.
- ❖ The trend value of total deposit, loan and advances, net profit and total investment were in increasing trend.
- ❖ The JVB'S have less interest risk and capital risk in comparison to finance companies.

2.5 Review of Previous Thesis

Before this, several thesis works have been conducted by various students regarding the various aspects of commercial banks such as financial performance, lending policy, investment policy, interest rate structure, resources mobilization and capital structure. Some of them, as supposed to be relevant for the study are presented below.

Raja Ram Khadka (1998) has conducted a study on "A study on the investment policy of Nabil Bank Ltd. in comparison to other Joint Venture Banks of Nepal "

The research findings of the study are as follows:

- ❖ The liquidity position of Nabil Bank Ltd. is comparatively worse than that of other JVBs. Nabil Bank has more portions of current assets as loan and advances but less portion as investment on government securities.
- ❖ Nabil Bank Ltd. is comparatively less successful in one-balance sheet operation as well as off-balance sheet operations than of other JVBs.
- ❖ Profitability position of Nabil Bank Ltd. is comparatively not better than that of other JVBs. The mean ratio on loan and advances of Nabil Bank Ltd. has been found slightly lower than that of other JVBs and the return has been found less homogeneous than that of others JVBs. Similarly the mean ratio of total interest earned to total outside assets of Nabil Bank Ltd. has been found slightly lower than that of others JVBs .
- ❖ Though Nabil Bank Ltd. seems to be more successful to increase its source of funds as well as mobilization of it by increasing loan and advances and total investment. It seems to be failure to maintain its high growth rate of profit in comparison to that of other JVBs (i.e. Nepal grindlays Bank Ltd. and Nepal Indoseuez Bank Ltd.)
- ❖ There is significant relationship between deposit and loan and advances as well as outside assets and net profit but not between deposit and total investment in case of both Nabil Bank Ltd. and other JVBs.

SamikshyaThapa, (2001) has conducted her study entitled " policy of Nepal Bangladesh Bank Ltd. And other Joint Venture Banks (A Comparative Study Of Nepal Arab Bank and NepalGrindlays Bank Ltd.)." The researcher's main intention of the study was to evaluate the

liquidity, assets management efficiency, profitability and risk position of NABIL and NGBL and to examine the fund mobilization and investment policy and NBBL through off balance sheet and on balance sheet activities in comparison to the other two banks.

Through research Ms. Thapa found that the liquidity position of NBBL is comparatively better than that of NABIL and NGBL. The liquidity ratios are moderately fluctuating which means the bank has not properly formulated stable policy. As per her study, NBBL is not in better position regarding its on balance sheet as well as off balance sheet activities in comparison to NABIL and NGBL and it does not seem to follow any definite policy regarding the management of its assets. The profitability position of NBBL is comparatively worse than that of NABIL and NGBL. This means Investment risk ratio of NBBL is higher and more variable than others and interest risk ratio of NBBL is highly higher than NGBL and lower than NABIL and has maintained lowest risk ratio.

The researcher has stated that NBBL, has maintained high growth rates on comparison to other banks through it is not successful to make enough investment and NBBL is successful in increasing its source of funds and its mobilization. The researcher has shown that there is significant relationship between deposits and loan and advances and outside assets and net profit of NBBL, NABIL and NGBL but there is no significant relationship between deposit and investment of NBBL only. The researcher has concluded that the position of NABIL in regards to utilization of the funds to earn is not better to compare to NABIL and NGBL and NBBL has collected funds in comparatively higher cost and is paying 6%-7.5% interest in various deposits after 2009. Further NBBL does not seem to have adequate recovery rate.

IndraBahadurBohara (2010) has conducted thesis research on "a Comparative study on investment Policy on Joint Venture banks and financial companies of Nepal" The major findings are as follows:

- All the selected firms have not successfully been mobilization their deposits but the finance companies have mobilize their deposits smoothly in comparison with JVB'S.
- The profitability position of all finance companies was better than that of JVB'S.
- The liquidity position of all JVB'S is comparatively better than that of finance companies.
- There is significant relationship between deposit and loan and advance of BOKL.

Similarly there is significant relationship between deposits and total investments, total assets and net profit of Kathmandu finance company.

- The JVB'S have less interest risk and capital risk in comparison to finance companies.

SajanaRana (2008) has conducted thesis research on "an investment policy of joint venture banks in Nepal"

The major findings are as follows:

- The mean ratio of investment of government securities to current assets of NB has been found lower than that of the other banks. Whereas, SCBNL has highest mean ratio in comparison with other banks. Likewise, NB's ratios are less homogenous.
- The mean ratio of total investment to total deposit/ ratio of NSBI has lowest than other on the other hand SCBNL has the highest mean ratio. Moreover Everest bank ratios are more consistent.
- Investment on government securities to total financial investment ratios of NB has lowest mean ratio and SBNL has highest meant ratio. NSBI'S ratios are homogenous and NB has less homogenous.
- The mean ratio of investment on shares/debentures to total investment ratios of SCBNL has quite lowest ratio and NB highest. NB less n/homogenous ratio and NABIL has more homogenous ratio.
- The trend value of all JVB'S has an increasing trend. It means if other things remaining same, JVB'S will increase their investment in future.

Jyoti Joshi (2009) has conducted thesis research on "an investment policy of commercial Banks in Nepal."

- The Major findings were as follows:
- It shows that the liquidity position of EBL comparatively better than NABIL and BOK. It has the highest cash and bank balance to total deposit, cash and bank balance to current asset ratio.
- EBL is comparatively average successful in its on balance sheet operation in compared to NABIL and BOK.
- EBL is average profitable in comparison to other compares bank that is NABIL and BOK the bank maintains its high profit margin for the well being in future.

- EBL has moderate risk in between NABIL and BOK regarding various aspects of banking function.
- EBL has maintained high growth ratio on the total deposits loan and advances a net profit but it has positions in investment. It shows that the bank is successful in increasing its source of funds and mobilization.
- There is significant relationship between deposits and loan and advances: deposit and total investment and outside assets and net profit of EBL.
- The trend analysis of deposit, loan and advances, total investment and net profit of JVBs is increasing trend.

MukeshChoudhary (2010) conducted a study on "Investment Policy, a comparative study of Nepal Bangladesh Bank Ltd. & Himalayan Bank Ltd."

The research findings of the study are as follows:

- ❖ The liquidity position of NBBL is comparatively better than that of NBBL.
- ❖ The assets management ratio of NBBL is comparatively better than that of NBBL. And NBBL has the highest proportion of non-performing loan and advance than NBBL.
- ❖ The profitability ratio of NBBL is comparatively better than BBBL due to higher return on loan and advances ratio, return on equity ratio but NBBL failed in total interest earned total outside ratio and total interest earned to total working fund ratio in comparison to NBBL.
- ❖ The degree of risk is high in NBBL due to highest Investment risk and interest rate risk, which shows that NBBL has greater risk in Investment recovery and in interest recovery in comparison to NBBL.
- ❖ The trend of total deposit, total loan and advances, total investment and net profit of NBBL is comparatively better than NBBL. But the main important fact is that the trend of Net Profit of NBBL shows a negative trend.
- ❖ Both banks are not effectively informative to their clients since the large percentage of the people doesn't know the services provided by the banks.
- ❖ The respondents of NBBL selected "they are profit oriented only" as the first option whereas respondents of NBBL selected "they don't want to take the risk" as the first choice.

Mani Kumar Tamang (2010) in his thesis paper, "Investment Policy of standard Chartered Bank Ltd" has concluded as follows: -

- ❖ The SCBNL has satisfactory liquidity position but not best liquidity position. However the overall ratio shows that the bank is able to meet its short-term obligations.

The activity ratios show that the portion of investment of its fund made by SCBNL in risky assets. The bank is trying to avoid the unnecessary risk associated with loan advances and share & debentures of others companies and wants to follow secured investment policy by investing more in government securities.

- The profit earned by the SCBNL is not satisfactory whereas the bank is maximizing its fund on loan and advances & its share holder's wealth, it can be concluded that the increment in the amount of loan and advances as well as shareholder's wealth is not sufficient as per increment on Net Profit.
- From the analysis of growth ratios, it can be concluded that SCBNL has maintained the moderate level growth ratio in all ratios. SCBNL has not successfully collected and utilized its fund collected from customer due to see growth rate of total deposit, loan & advances, total investments and Net Profit.
- The trend value of total deposit, net profit & advances, total investment and net profit are in increasing trend of the bank. It means, if others things remain same; the SCBNL will increase its deposits, investments, loan & advances and net profit in future.

Rabindra poudyal (2010) conducted as study on "*A study on Investment (lending) Policies of Joint Venture Commercial bank with reference to Nepal Bangladesh Bank Limited and Nepal; NSBI Bank Limited.*" The major findings were as follows:

- ❖ The liquidity ratio of NBBL, which indicates, is more stable and consistent than NSBL, which indicates stable policy of NBBL. He concludes that NSBL has not made enough cash and bank balance and it has made negligible amount of investment in governance securities. On the basic of assets management ratio he concluded that NSBL is able to manage its assets to complete in this competitive banking of Investment portfolio both bank has made more investment in private sectors than other sector.
- ❖ On the basic of analysis of lending efficiency of these two-concerned banks, NSBL has better efficiency ratio than that of NBBL. The overall profitability position of NBBL is comparatively better than that of NSBL.

2.6 Research Gap:

NBBL and NSBI are the leading commercial bank of the country having huge market share and their investment activities have significant impact on the national economy. No study has been yet conducted on the topic of NBBL and L. Some comparative studies are previously done but in depth study about the NBBL and NSBI is not found. Therefore this study has been done to analysis the investment policy of NBBL and NSBI. By taking the data of 5 years of banks. The study is completely based on secondary data. The current data has been used in this research will try to show the present investment of NBBL and NSBI. Hence, this study will fulfill the prevailing research gap about in depth analysis of the investment policy of NBBL and NSBI, Which is the major concern of the public shareholders and other stakeholder.

CHAPTER III

Research Methodology

3.1 Introduction

Research Methodology is a systematic way of solving the research problem. It refers to the methods that are used for conduction of research or performing research operation. Research Methodology depends on various aspects of the research Projects. The variable that determine the research methodology of that particular projects are the size of that project, importance of the project, the objective of the study, time frame of the project, impact of the project in the aspects of the human life etc. Research Methodology can be defined as "A Systematic Process that is adopted by the researchers in studying a problem with certain objective in view." In another words, research methods are those methods, which are used by the researcher during the course of the studying his/her research problem.

This chapter attempts to have an insight into the Investment Policy adopted by NBBL and NSBI. This will help to evaluate and analysis investments performance of NSBI in comparison to the NBBL. The basic objective of this study is to evaluate about the Investment Policy of NBBL and NSBI.

3.2 Research design

A research design is the arrangement of conditions for collection and analysis of data that aim to combine relevance to the research purpose with economy in procedure. Research design in the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to objective of this study. To achieve the objective of this study, descriptive and analytical research design has been used.

Some financial and statistical tools have also been applied to examine facts and descriptive techniques have been adopted to evaluate investment performance of NSBI with comparison to NBBL.

3.3 Source of Data

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 P/L a/c of the concerned bank's annual reports. Supplementary data and information are collected from number of institutions and regulating authorities like NRB, Security Board of Nepal (SEBON), Nepal Stock Exchange Ltd. (NEPSE), and SDC library, Central Library T.U., Economic Survey and National Planning Commission etc.

All the secondary data are complied Processed and tabulated in the time series as per the need and objectives. Likewise, various data and information are collected from the Economic Journals. Periodically, bulletins and unpublished reports and thesis from various sources.

3.4 Population and Sample

The population refers to the industries of the same nature and its services and product in general. Thus, Total 32 commercial bank constitutes the population of the data and the bank under study constitutes the sample for the study. The limitation of the time and unavailability of the relevant data has forced me to make research on the two commercial banks out of 32 Commercial Banks. In this study NSBI Investment Policies have been Compared with that average of NBBL, which are selected from population. The population is as follows: -

Table No. 3.1
Lists of Commercial Banks in Nepal

S.N.	Names	Operation Date	Head Office
1.	Nepal Bank Limited.	1937/11/15	Kathmandu.
2.	Rastriya Banijya Bank Limited.	1966/01/23	Kathmandu.
3.	Agricultural Development Bank Limited.	1968/01/02	Kathmandu.
4.	NABIL Bank Limited.	1984/07/16	Kathmandu.
5.	Nepal Investment Bank Limited.	1986/02/27	Kathmandu.
6.	Standard Chartered Bank Nepal Limited.	1987/01/30	Kathmandu.
7.	Himalayan Bank Limited.	1993/01/18	Kathmandu.

8.	Nepal NSBI Bank Limited.	1993/07/07	Kathmandu.
9.	Nepal Bangladesh Bank Limited.	1993/06/05	Kathmandu.
10.	Everest Bank Limited.	1994/10/18	Kathmandu.
11.	Bank of Kathmandu Limited.	1995/03/12	Kathmandu.
12.	Nepal Credit and Commerce Bank Limited.	1996/10/14	Siddharthanagar.
13.	Lumbini Bank Limited.	1998/07/17	Narayangadh.
14.	Nepal Industrial & Commercial Bank Limited.	1998/07/21	Biratnagar.
15.	Machhapuchchhre Bank Limited.	2000/10/03	Pokhara.
16.	Kumari Bank Limited.	2001/04/03	Kathmandu.
17.	Laxmi Bank limited.	2002/04/03	Birgunj.
18.	Siddhartha Bank Limited.	2002/12/24	Kathmandu.
19.	Global Bank Limited.	2007/01/02	Birgunj.
20.	Citizens Bank International Limited.	2007/06/21	Kathmandu.
21.	Prime Bank Limited.	2007/09/24	Kathmandu.
22.	Sunrise Bank Limited.	2007/10/12	Kathmandu.
23.	Bank of Asia Nepal Limited.	2007/10/12	Kathmandu.
24.	Grand Bank Limited.	2008	Kathmandu.
25.	NMB Bank Limited.	2008/06/01	Kathmandu.
26.	Kist Bank Limited.	2009/05/03	Kathmandu.
27.	Janta Bank Limited.	2010/04/05	Kathmandu.
28.	Mega Bank Limited.	2010/07/23	Kathmandu.
29.	Commerz & Trust Bank Nepal Limited.	2010/06/22	Kathmandu
30.	Civil Bank Limited.	2010	Kathmandu
31.	Senchuri Commercial Bank Limited.	2011/03/27	Kathmandu
32.	Sanima Bank Limited.	2011	Kathmandu

Source: www.nrb.org.np

From this population NBBL and NSBI have been selected as sample and its data related to Investment performance are comparatively studied.

3.5 METHODS OF ANALYSIS

In this study, various financial, accounting and statistical tools have been used to achieve the objective of the study. The analysis of data will be done according to the pattern of data available. Due to limited time and resources, simple analytical statistical tools such as percentage graph Karl Pearson's coefficient of correlation, regression, the method of least square are used in this study. Likewise, some financial tools such as ratio analysis and trend analysis have also been used for financial analysis.

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

3.5.1 FINANCIAL TOOLS

Financial tools are used to examine the financial strength and weakness of bank. In this study financial tools like ratio analysis and financial statement analysis have been used.

3.5.1.1 Ratio Analysis

Financial ratio is the mathematical relationship between two accounting figures. "Ratio analysis is a part of the whole process of analysis of financial statements of any business of industrial concern specially to take output and Investment decision." (Kothari. K.C. "Quantitative Techniques," Vikas Publishing House Pvt. Ltd, New Delhi, 1984)

Thus, ratio analysis is used to compare a firm's financial performance and status to that of other firm's or to itself overtime. The qualitative judgment regarding financial performance of a firm can be done with the help of ratio analysis. Even though, there are many ratios, only those ratios have covered in these studies, which are related to the investment operation of the bank. This study contains following ratios.

(A) Liquidity Ratios

Liquidity ratios are used to judge the ability to meet its short-term liabilities that are likely to mature in the short period. From them, much insight can be obtained into present cash solvency of the bank and its ability to remain solvent in the event of adversities. It is the measurement of speed with which a bank's assets can be converted into cash to meet deposit withdrawal and other current obligations.

The following ratios are evaluated under liquidity ratios:

(i) Current Ratio

This ratio shows the banks short-term solvency. It shows the relationship between current assets and current liabilities. Current assets include cash and bank balance, money at call or short notice, loans and advances, investment in government securities and other interest receivables, overdraft, bills purchased and discounted and miscellaneous current assets. Similarly, current liabilities include deposits and other short-term loan, bill payable, tax provision, staff bonus, dividend and miscellaneous current liabilities.

Current ratio is calculated as,

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

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

(ii) Cash and Bank balance to total deposit ratio

Cash and bank balances are the most liquid current assets. The ratio measures the percentage of most liquid fund with the bank to make immediate payment to the Depositors. This ratio is computed by dividing cash and bank balance by total deposit. This can be presented as,

$$\frac{\text{Cash and bank balance}}{\text{Total deposits}}$$

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

(iii) Cash and bank balance to current assets ratio

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

$$\frac{\text{Cash and bank balance}}{\text{Current assets}}$$

(iv) Investment on government securities to current asset ratio

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

$$\frac{\text{Investment on government securities}}{\text{Total current assets}}$$

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

(v) Loan and advances to current assets ratio

Loan and advances to current to assets, which generate income for the bank. Loan and advances to current to Current ratio shows the percentage of loan and advances by current assets. This can be stated as:

$$\frac{\text{Loan and advances}}{\text{Current assets}}$$

The numerator consists of loan, advances, cash Dividend, local and foreign bills purchased and discounted.

(B) Asset management ratio (Activity ratios)

Assets management ratio measures how efficiently the bank manages the assets at as command. It is also called as turnover ratio because they indicate the speed with which assets are being converted or turnover. The following ratios are used under this asset management ratio.

(i) Loan and advances to total deposit ratio

This ratio is calculated to find out, how successfully the bank is utilizing their total deposit on loan and advances for profit generation purpose. Greater ratio implies the better utilization of total deposits. This ratio can be obtained by dividing loan and advances by total deposits, which can be stated as,

$$\frac{\text{Loan and advances}}{\text{Total deposit}}$$

(ii) Total investment to total deposit ratio

Investment is one of the major forms of Dividend created to earn income. This implies the utilization of firm's deposit on investment in government securities and shares debentures of other companies and bank. The ratio can be mentioned as;

$$\frac{\text{Total investment}}{\text{Total deposits}}$$

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

(iii) Loan and advances to total working fund ratio

Loan and advances is the major component in the total working fund (total assets), which indicates the ability of bank to canalize its deposits in the form of loan and advances to earn high return. This is computed by dividing loan and advances by total working fund. This is stated as,

$$\frac{\text{Loan and advances}}{\text{Total working fund}}$$

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

(iv) Investment on government securities to total working fund ratio

This ratio shows that the bank investment on government securities in comparison to the total working fund. This ratio is calculated by dividing investment on government securities by total working fund. This is presented as,

$$\frac{\text{Investment on government securities}}{\text{Total working fund}}$$

(V) Investment on shares and debentures to total working fund ratio

This ratio shows the bank investment in shares and debenture of the subsidiary and other companies. This ratio can be derived by dividing investment on shares and debentures by total working fund, which can be mentioned as,

$$\frac{\text{Investment on shares \& debentures}}{\text{Total working fund}}$$

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

(C) Profitability ratios

Profitability ratios calculated to measure the efficiency of operation of a firm in term of profit. It is the indicator of the financial performance of any institution. This implies that higher the profitability ratio, better the financial performance of the bank and vice Versa. Profitability position can be evaluated through following different way.

(i) Return on the working fund ratio (ROA)

This ratio measures the overall profitability of all working funds i.e. total assets. It is also known as return on assets (ROA). A firm has to earn satisfactory return on assets or working fund for its survival. This ratio is calculated by dividing net profit (loss) by total working fund. This can be mentioned as,

$$\frac{\text{Net profit (loss) Total}}{\text{working fund}}$$

The number indicates the portion of income left to the internal equities after all costs, charges have deducted.

(ii) Return on loan and advances ratio

This ratio indicates how efficiently the bank has employed its resources in the form loan and advances. This ratio is computed by dividing net profit (loss) by loan and advances. This can be expressed as,

$$\frac{\text{Net profit}}{\text{Loan and advances}}$$

(iii) Total interest earned to total working fund

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

$$\frac{\text{Total interest earned}}{\text{Total working fund ratio}}$$

Here, the numerator consists of total interest expenses on deposits, loan and advances, borrowing and other deposits.

(D) Risk ratios

Risk taking is the prime business of bank's investment management. It increases effectiveness and profitability of the bank. These ratios indicate the amount of risk associated with the various operations, which ultimately influences the banks investment policy. The following ratios are evaluated under this topic.

(i) Dividend risk ratio

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

$$\frac{\text{Total loan and advances}}{\text{Total assets}}$$

(ii) Liquidity risk ratio

The Liquidity risk ratio the level of the risk associated with the liquid assets i.e. cash, bank balance that are kept in the bank for the purpose of satisfying the depositor's demand for cash. Higher the ratio, lower is the risk. This ratio is calculated by dividing cash and bank balance by total deposits. This is mentioned as,

$$\frac{\text{Total cash \& bank balance}}{\text{Total deposits}}$$

(E) Growth Ratio

Growth Ratio is directly related to fund mobilization and investment management of commercial banks. It shows how well the bank is maintaining its commercial and economic position. It is computed by dividing last year figure by first year and then referring to the compared interest tables. A higher growth rate indicates better performances of concerned banks and vice versa. To examine and analyze the expansion and growth of the bank business, following growth ratios are calculated.

(i) Growth Ratios of Total Loan and Advances

Loan and advances is the major function of the commercial banking. It is the major activity for the bank for making profit. Growth ratio in loans and advances determines the bank's performance. This ratio can be computed as;

Yearly change of total loan and advances in %

$$\frac{\text{Current year's total loan and advances} - \text{previous year's total loan and advance} \times 100}{\text{Previous year's total loan and advance}}$$

(ii) Growth Ratio of Total Investment

Investment is an integral part of banking. The profitability of the bank depends upon how it invests its deposits. The deposits should be invested in profitable sectors. It determines the proper utilization of its funds. This ratio can be computed as;

Yearly change of total investments in %

$$\frac{\text{Current year's total investments} - \text{Previous year's total investments} \times 100}{\text{Previous year's total investment}}$$

(iii) Growth ratio of total deposit

The main sources for the bank are deposits made by customers, which can be mobilized by investing in different profitable areas for making profit. In order to make sufficient amount for investment, the bank should increase its deposit.

This ratio can be computed as:

Yearly change of total deposit in %

$$\frac{\text{Current year's total deposit} - \text{Previous year's total deposit} \times 100}{\text{Previous year's total deposit}}$$

(iv) Growth Ratio of Net Profit

This ratio reveals the overall performance of the banks.

The ratio can be expressed as below:

Yearly change of net profit in %

$$\frac{\text{Current year's net profit} - \text{Previous year's net profit} \times 100}{\text{Previous year's net profit}}$$

3.5.2 Statistical Analysis

Some important statistical tools are used to achieve the objective of the study. In this study, statistical tools such as mean, trend analysis, standard deviation, and probable error and coefficient of correlation has been used.

3.5.2.1 Arithmetic Mean

Arithmetic mean is an average of a given set of data this is divided by the number of Observation/years. The arithmetic mean (AM) is denoted by \bar{x} .

In general. If x_1, x_2, \dots, x_n is the n observation, then their arithmetic means.

(shrestha and Amatya; 2008:82)

3.5.2.2 Standard Deviation (S.D)

The absolute dispersion is measured by standard deviation. The higher the value of standard deviation, the higher the variability and lower the of standard deviation, lower the variability.

The concept of standard deviation was introduced by Karl Pearson in 1823. It is denoted by small Greek letter σ (read as sigma). Standard deviation is calculated with the help of the following formula.

$$\sigma = \sqrt{\frac{\sum (x_i - \bar{x})^2}{N-1}}$$

Where, \bar{x} = $\frac{\sum x_i}{N}$

3.5.2.3 Coefficient of correlation analysis

Correlation analysis enables us to determine the direction and relationship between two variables. It does not tell anything about cause and effect relationship. Like, if there is a high degree of correlation between two variables, we cannot say which the cause is and which the effect is. "Correlation may be defined as the degree of linear relationship existing between two or more variables. Two variables are said to be correlated when the change in the value of advertisement are associated with the change in sales; similarly, changes in price are accompanied by changes in quantity demanded." (Sthapit&Etal; 2007:362). In this research, Karl Pearson's coefficient is used which can be denoted by 'r'. The value of correlation coefficient always lies between + 1. If the value of r is +1; it says that there is perfect positive correlation between two variables. If the value of r is - 1' it says that there is perfect negative correlation between two variables. But If the value of 'r' is '0', there is no relationship between the two variables. Nearer the value of r to +1, closer will be the relationship between two variables and nearer the value of r to 0, lesser will be the relationship

The value of r can be derived with the help of the following formula;

Where,

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

- r = The coefficient of correlation
- $\sum XY$ = Total population of items in two series
- $\sum X$ = Total of X series
- $\sum Y$ = Total of Y series
- $\sum X^2$ = Total of the square of item in X series
- $\sum Y^2$ = Total of the square of item in Y series
- N = The number of items period

Under this topic, Karl Pearson's correlation coefficient is used to measure the degree of relationship between the following variables:

- a) Coefficient of correlation between total deposit and net profit
- b) Coefficient of correlation between deposit and Total investment
- c) Coefficient of correlation between deposit and Loan & Advances
- d) Coefficient of correlation between Current assets and Current Liabilities

3.5.2.4 Probable Error (PE)

By using probable error, we can measure whether the calculated correlation coefficient is reliable and significant or not. Probable error can be compute by using the following formula:

$$P.E. = 0.6745 \sqrt{1-r^2}$$

Where,

r = correlation of coefficient.

n = number of pairs of observation.

This is used to test whether the correlation between the variables is significant or not in the following ways:

If $r < PE$, it is insignificant, no evidence of correlation
 If $r > PE$, it is significant.

In other than these cases nothing can be concluded.

3.5.2.5 Trend/ Regression Analysis

There most popular and mathematical method of determining trend of time series is the least square method. Here, using this square method, it has been estimated the future trend values of different variable. For the estimation of linear trend line following formula has been used.

$$Y = a + bx$$

Where,

Y=Dependent Variable X=

Independent Variable a=

intercept of the line.

b= Slope of the line (shows the average changes in the value of Y as a result of one unit change in the value of X.

The value of the constant 'a' and 'b' can be determined by solving the following two normal equations:

$$\sum Y = na + bEx$$

$$\sum xy = aax + bEX^2$$

By using this method, trend of following variables is conducted:

1. Trend analysis of the total deposit
2. Trend analysis of loan and advances.
3. Trend analysis of total investment
4. Trend analysis of total net profit

Chapter IV

Data Presentation and Analysis

In this chapter, the collected data have been presented and analyzed to measure the various dimension of the problem of the study and the major findings of the study are presented systematically. The purpose of this chapter is to study, evaluate analyze those major financial and statistical performances, which are mainly related to investment management and fund mobilization of NSBI in comparison to that of NBBL. I mentioned in this first chapter, to study is made basic of analyze the financial and statistical performance with used the secondary data.

4.1 Financial Analysis:

4.1.1 Ratio Analysis

Ratio analysis is a main tool of financial analysis. Financial ratios are the mathematical relationship between two accounting figures. It is used to evaluate a firm's financial performances and status of other firms. The quantitative judgments have gone down regarding financial performances of the firm with the help of ratio analysis. In this study all types of ratios is not done only those ratios that are important from the point of view of the fund mobilization and investment are calculated. These are as follows.

4.1.1.1 Liquidity ratio

Liquidity ratio measures the firm's ability to meet its measuring short term obligations. Current assets and liabilities involve and to maintain more effectible for the short term obligation that is commonly based on within one accounting period. Liquidity ratio measures the ability of the firm to meets its current obligation. A commercial bank must maintain its satisfactory liquidity position to meet the credit need of the community. Demand for the deposits, withdrawals and pay maturity in time and convert non-cash assets into cash to satisfy immediate need without loss to bank and consequent impact or long run profit. Analysis of liquidity needs the preparation of cash budget liquidity ratios by establishing a relationship between cash and other current assets to current obligations, which provide a guide measure of liquidity.

The following ratios are evaluated and interpreted under liquidity ratio:

1. Current ratio:

Current assets are those assets which can be converted into cash within one accounting period. And the current liabilities are those liabilities, which should be paid within the one accounting period. Current ratio indicates the ability of the bank to meet its current obligation. This is the broad measure of liquidity position of the financial institutions. Current ratio occurs by dividing current assets to current liabilities that indicates the ability of a bank to meet its current obligation.

We have,

$$\text{Current ratio} = \frac{\text{total current Assets}}{\text{Total current liabilities}}$$

Where,

Current assets consist of cash and bank balance, money at short call, loan and advances, Investments in government securities for short-term period, and other miscellaneous current assets. Current liabilities consist of deposits, bills Payable, Tax provision, Staff bonus, dividend payable and other miscellaneous current liabilities.

Computation of mean, Standard deviation and co-efficient of variation of current ratio:-

Mean is calculated by using the average, standard deviation is calculated by using formula

$$\text{S.D.} = \frac{\sum [X-X]^2}{N-1}$$

And co-efficient of variation is computed by using

$$\text{c.v.} = \frac{\text{S.D.}}{\text{mean}} \times 100$$

Current ratio of NSBI and NBBL from the fiscal years 2008 to 2012 are given below

Table No.4.1

Current ratio (Timed)

Fiscal Year	Banks	
	NSBI	NBBL
2008	1.12	0.73
2009	1.05	0.77
2010	1.02	0.80
2011	1.08	0.83
2012	1.06	0.85
Mean	1.07	0.80
S.D.	0.04	0.05
C.V. (%)	3.74	6.25

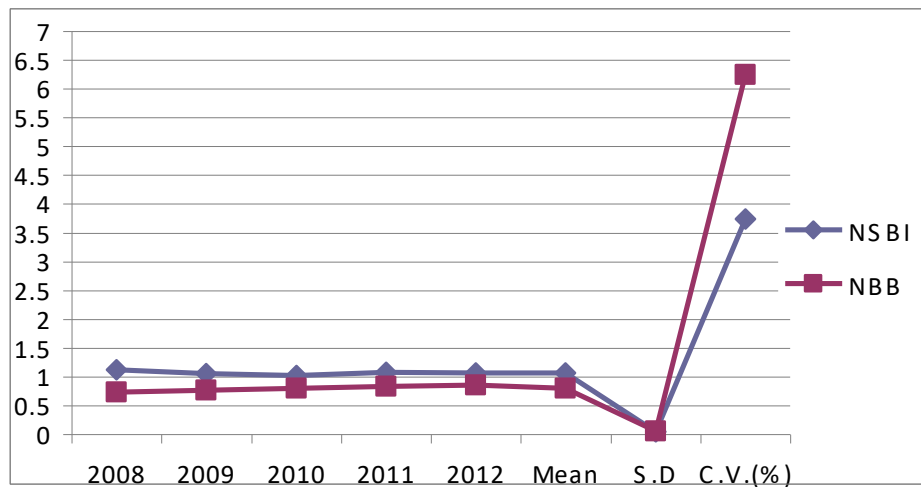
Sourceappendix-1

the above table it is clear that current ratio of NSBI higher than NBBL's current ratio.

This means NSBI is capable to pay their current obligation. The above table shows that the current ratio of NBBL is increasing trend but the NSBI has fluctuating trend during the study period.

Figure No. 4.1

Current ratio (Timed)



In average current ratio of NSBI is higher than NBBL. So, NBBL has not sound liquidity position in compared to NSBI. Likewise, the coefficient of variation (C.V) of NBBL higher than that of NSBI i.e.6.25% > 3.74%. It can be said that current ratio of NBBL is less consistent than that of NSBI.

2. Cash and Bank Balance to Total deposit Ratio:

Cash and bank balance are the most liquid current assets. The ratio between cash and bank balance to total deposit measure the ability of the bank to meet the unanticipated cash and all types of deposits. Higher the ratio the greater will be the ability to meet sudden demand of deposit. But very high ratio is not desirable since bank is to pay interest on deposits.

We have,

Cash and bank Balance to Total deposit Ratio =

$$\frac{\text{Cash and Bank Balance}}{\text{Total deposit}}$$

Where,

Cash and Bank balance includes cash on hand, foreign cash on hand, cheques and others cash items, and balance with domestic banks and balance field in foreign banks. The total deposit encompasses current deposit, saving deposit, fixed deposit, money at short call and other deposits.

Cash and Bank balance to total deposit ratio of NSBI and NBBL from the fiscal year 2008 to 2012 are given below

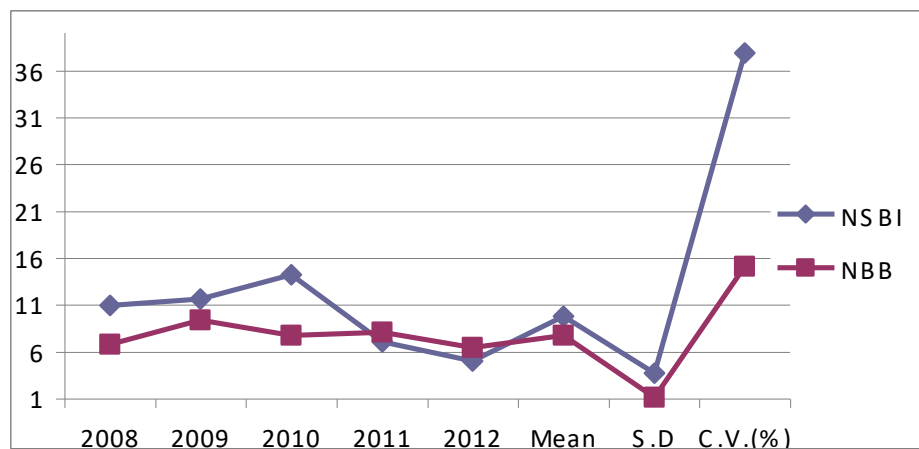
Table No.4.2
Cash and Bank balance to Total deposit Ratio (%)

Fiscal Year	Banks	
	NSBI	NBBL
2008	10.95	6.80
2009	11.61	9.42
2010	14.26	7.77
2011	7.08	8.12
2012	5.01	6.48
Mean	9.78	7.72
S.D.	3.70	1.13
C.V. (%)	37.86	15.10

Source: appendix-2

The above table shows that the comparative cash and bank balance to deposit ratio of NSBI and NBBL are in fluctuating trend. NSBI has highest ratio 14.26 in year 2010 and lowest ratio 5.01 in year 2012 during the study period. Similarly NBBL has highest ratio 9.42 in year 2009 and lowest ratio 6.48% in year 2012.

Figure No. 4.2
Cash and Bank balance to Total deposit Ratio



The mean ratio of NSBI is higher than NBBL i.e. $9.78 > 7.72\%$. The coefficient of variation (C.V.) of NBBL is less than NSBI i.e. $15.10 < 37.86$. So, it indicates that NBBL shows higher consistency than that of NSBI.

Through high ratio indicates its high ability to pay for depositors and to invest the different sector but also very high ratio shows the inefficiency. A high ratio of non-earning cash and bank balance may be unfit, which indicates the banks unavailability to invest its fund in income generation areas.

The above analysis help to conclude that the cash and bank balance of NBBL with respect to deposit is better against the readiness to serve its customer deposit than NSBI. It implies the better liquidity position of NBBL than NSBI from the few point of cash and bank to total deposit.

3. Cash and Bank balance to current Assets Ratio:

This ratio shows the bank liquidity capacity on the basis of cash and bank balance that is most liquid assets. Higher ratio indicates the bank ability to meet the daily cash requirement of their customer deposit and vice versa. But higher is not preferred as the bank has to pay more interest in deposit and will increase the cost of fund. A lower ratio is also very dangerous as the bank may not be able to make payment against the cheques presented by customers.

Therefore, the bank has to maintain the cash and bank balance to current assets ratios in such a manner that it should have the adequate cash for the customers demand against deposit when required and less interest is required to be paid against the cash deposit.

We have,

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

Where,

Cash and bank balance includes cash and hand including foreign cheques; other cash item and balance with domestic banks and abroad. Current assets consist of cash and bank balance, investment in government securities, other interest receivable, money at short call and other miscellaneous current assets. Cash and Bank Balance to current assets ratio of NSBI and NBBL from the fiscal year 2008 to 2012 are given below in table

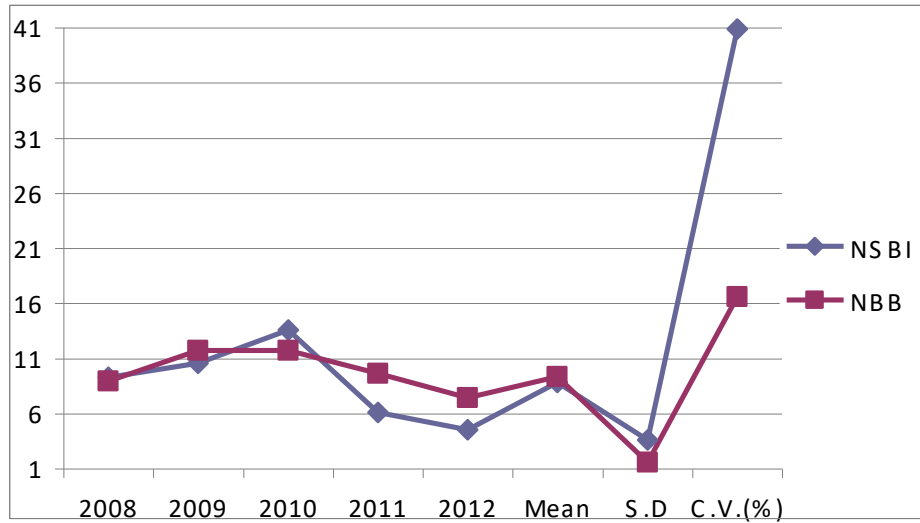
Table No.4.3
Cash and Bank Balance to current Assets Ratio (%)

Fiscal Year	Banks	
	NSBI	NBBL
2008	9.29	8.93
2009	10.57	11.72
2010	13.56	11.72
2011	6.09	9.65
2012	4.51	7.42
Mean	8.80	9.36
S.D.	3.60	1.56
C.V. (%)	40.88	16.62

Sourceappendix-3

From the above table, we can say that cash and bank balance to current assets ratio of NSBI is increasing from the year 2008 to 2010 but then it is decreasing. NBBL has fluctuating ratio during the study period. NSBI has maximum ratio 13.56% in year 2010 and maximum ratio 4.51% in year 2012. Similarly, NBBL has maximum ratio 11.72% in year 2009 and minimum ratio 7.42% in year 2012.

Figure No. 4.3
Cash and Bank Balance to current Assets Ratio



The above table shows that the mean ratio of NBBL is higher than NSBI i.e. 9.36% > 8.80%. In cause of coefficient of variation (C.V.) NBBL is lower than NSBI i.e. 16.62% < 40.88%. This implies that NBBL is more consist than L. So, it can be concluded that capacity for maintained cash and bank balance of NBBL is higher than NSBI.

4. Investment on Government security to current Assets ratio:

The commercial banks are interested to invest their funds in various government securities. The government securities are the risk less investment alternatives. But the government securities are not so much liquid as cash and bank balance. Although they can be easily sold in the market or they can be converted into cash in other way. The main purpose of this ratio is to examine the portion of commercial banks (i.e. NSBI & NBBL) current assets that is invested on different government securities.

We have,

Investment on government security to current Assets ratio

$$= \frac{\text{Investment on government security}}{\text{Current assets}}$$

Where,

Investment on government securities includes treasury bills and development bonds etc, Investments on government securities to current assets ratio of NSBI and NBBL from fiscal year 2008 to 2012 are given below in table

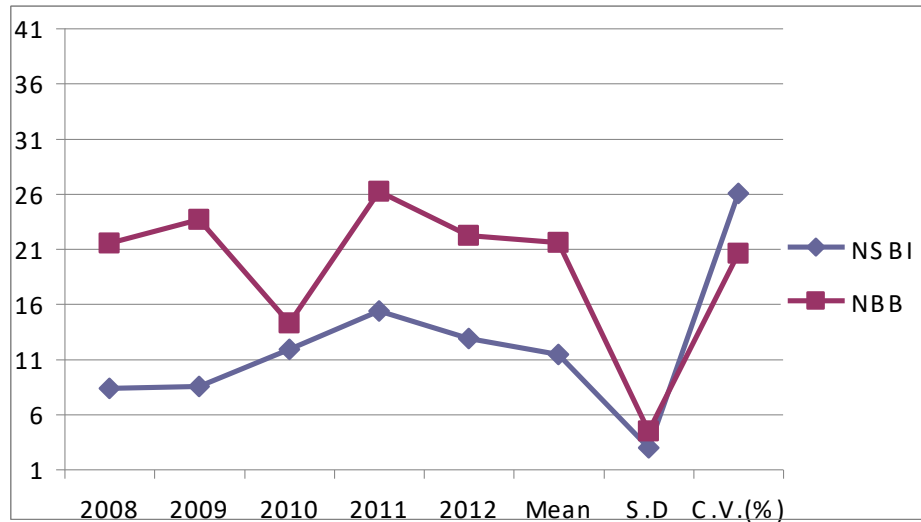
Table No. 4.4
Investment on Government security to current assets Ratio (%)

Fiscal Year	Banks	
	NSBI	NBBL
2008	8.39	21.52
2009	8.54	23.69
2010	11.90	14.30
2011	15.37	26.21
2012	12.91	22.22
Mean	11.42	21.59
S.D.	2.98	4.45
C.V. (%)	26.06	20.61

Source: appendix-4

The above table shows that NSBI Investment on govt. security to current assets ratio is increasing trend except year 2012. M L ratio is fluctuating. The highest ratio of NSBI is 15.37% in year 2011 and the lowest ratio 8.39% in year 2008. Similarly, during the study period, NBBL has highest ratio 26.21% in year 2011 and lowest ratio 14.30% in year 2010.

Figure No. 4.4
Investment on Government security to current assets Ratio



The mean ratio of NSBI is lower than NBBL i.e. 11.42% < 21.5% .On the other hand C.V. of NSBI is higher than NBBL i.e. 26.09 > 20.6%. This indicates that the variability of ratio of NSBI is less consistent than NBBL

It can be concluded that NBBL has invested its more portion of current assets as government securities than that of NSBI. Investment in government securities to current assets ratio of NBBL is higher than of NSBI. Which indicates that the better short term liquidity position if NBBL

5. Loan and advances to current assets Ratio:

Loan and advances are also included in the current assets of commercial banks because generally it provides short-term loan, advances, overdrafts, cash-credit and foreign bill purchased and discounted.

All commercial banks mobilize their collected funds as loan and advances to the customers. If sufficient loan and advances cannot be graded, it should be pay interest on those utilized deposit funds and may be lose some earnings, but high loan and advances may also be harmful to keep the bank in most liquid position because they can only be collected at the time of maturity only. Thus, a bank must maintain its loan and advances in appropriate level to find out portion of current assets, which is granted as loan and advances.

We have,

Loan and advances to current assets

$$\frac{\text{Ratio loan advance}}{\text{Current assets}}$$

Loan and advances to current assets Ratio of NSBI & NBBL from the fiscal year 2006 to 2010 are given in table.

Table No. 4.5

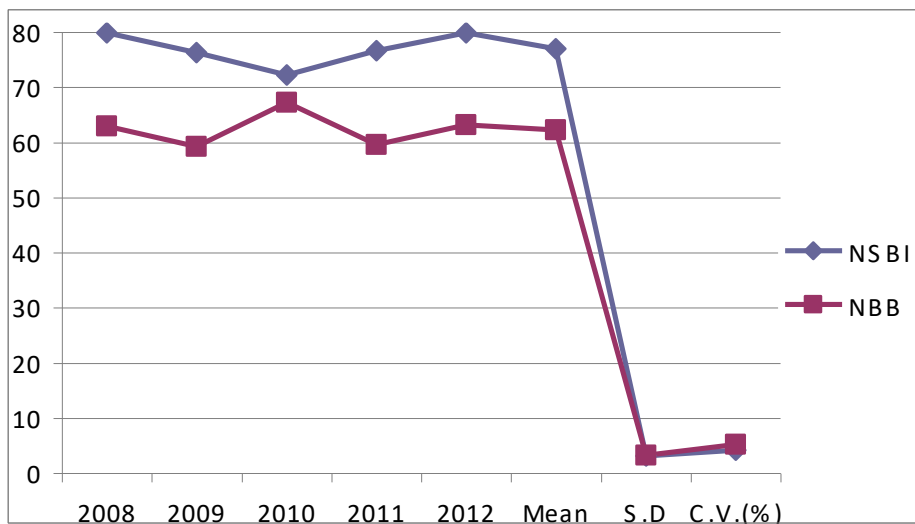
Loan and advances to current assets ratio (%)

Fiscal Year	Banks	
	NSBI	NBBL
2008	79.92	62.93
2009	76.34	59.25
2010	72.19	67.25
2011	76.67	59.54
2012	79.83	63.24
Mean	76.99	62.24
S.D.	3.17	3.26
C.V. (%)	4.12	5.23

Sourceappendix-5

The above table shows that NSBI loan and advances to current ratio is decreasing from year 2008 to 2010 but it is increasing in year 2011 & 2012. But NBBL has fluctuating ratio, the highest ratio of NSBI is 79.92% in year 2012 and lowest ratio is 72.19% in year 2010. NBBL highest ratio is 67.25% in year 2010 and lowest ratio is 59.25% in year 2009.

Figure No. 4.5
Loan and advances to current assets ratio



The average mean ratio of NSBI is higher than NBBL i.e. 76.99% > 62.24%, and coefficient of variation of NBBL is higher than NSBI i.e. 5.23% > 4.21%. It indicates that NBBL is less consistent than that of NSBI.

4.1.1.2 Assets management Ratio (Activity Ratio)

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

1. Loan and advance to total deposit ratio:

This ratio measures the banks success to mobilize their funds in loan and advances for the purpose of income generation. A high ratio indicates the better mobilization of collection deposit and vice versa. But it is known that high ratio may not be better from the liquidity point of view.

We have,

Loan and advance to total ratio

$$= \frac{\text{loan and advances}}{\text{Total deposit}}$$

Loan and advance to total deposit Ratio of NSBI and NBBL from fiscal year 2008 to 2012 are given below in table

Table No. 4.6
Loan and advances to total deposit Ratio (%)

Fiscal Year	Banks	
	NSBI	NBBL
2008	94.21	47.87
2009	83.79	47.61
2010	75.89	57.47
2011	89.08	50.07
2012	88.71	55.27
Mean	86.94	41.66
S.D.	6.91	4.47
C.V. (%)	8.00	8.66

Sourceappendix-6

The above table shows that NSBI has decreasing trend ratio from 2008 to 2010. The ratio of NBBL is in fluctuating trend. NSBI has highest ratio 94.21% in year 2012 and lowest ratio 75.89% in year 2010. The NBBL has highest ratio 57.47% in year 2010 and lowest ratio 47.61% in year 2009.

Figure No. 4.6

Loan and advances to total deposit Ratio



The mean ratio if NSBI is higher than NBBL but the coefficient if variation (C.V) if NSBI maintained lower than NBBL i.e. 8 % < 8.66%. It indicates that NSBI is more consistent than NBBL.

Hence, it can be conclude that NBBL is lower position to mobilize its total deposit as loan and advances in comparison to NSBI.

2. Total Investment to total deposit ratio:

This ratio measures the extent to which the banks are able to mobilize their deposit on investment in various securities in. A high ratio indicates the success to mobilize the banking funds as investment and vice-versa.

We have,

$$\begin{aligned} \text{Total investment to total deposit Ratio} \\ = \frac{\text{Total investment}}{\text{Total deposit}} \end{aligned}$$

Total Investment to total deposit ratio of NSBI and NBBL from the fiscal year 2008 to 2012 are given below in table

Table No. 4.7

Total Investment to total deposit ratio (%)

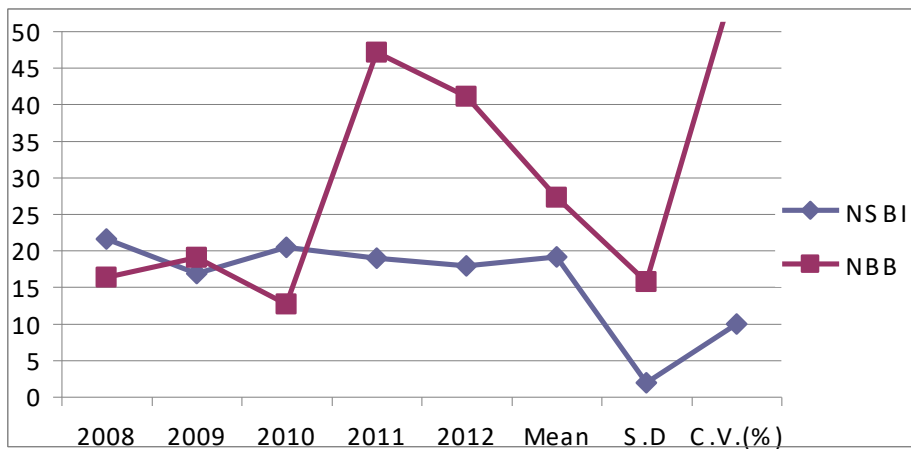
Fiscal Year	Banks	
	NSBI	NBBL
2008	21.61	16.37
2009	16.84	19.04
2010	20.45	12.65
2011	18.99	47.12
2012	17.95	41.10
Mean	19.17	27.26
S.D.	1.91	15.70
C.V. (%)	9.95	57.58

Source: appendix-7

The above table shows that both banks have fluctuating trend of ratio during the study period. The NSBI has highest ratio 21.61% in year 2008 and lowest ratio 16.84% in year 2009. Similarly NBBL has highest ratio 47.12% in year 2011 and lowest ratio 12.65% in year 2010

Figure No. 4.7

Total Investment to total deposit ratio



In average, NSBI has mentioned lower total investment to total deposit ratio than NBBL i.e. 19.17 % < 27.26%. But the coefficient of variation (C.V.) of NSBI is lower than NBBL i.e. 9.95 % < 57.58%. This implies that NSBI is more consistent than NBBL.

3. Loan and Advances to total working fund Ratio:

Loan and advances is an important part of total working fund. Commercial bank must be very careful in mobilizing in total assets. This ratio is success in mobilizing their assets loan and advances for the purpose if income generation. A high ratio indicates better in mobilization of funds as loan and advances and vice-versa.

We have,

$$\text{Loan and advances to total working fund Ratio} = \frac{\text{Loan and advances}}{\text{Total working fund.}}$$

Where,

Total working fund means total assets. It includes current assets, fixed assets, other assets, Investment and Loan and advances etc.

Loan and advances to Total working fund ratio of NSBI and NBBL from the fiscal year 2008 to 2012 are given below in table

Table No. 4.8
Loan and Advances to Total working fund ratio (%)

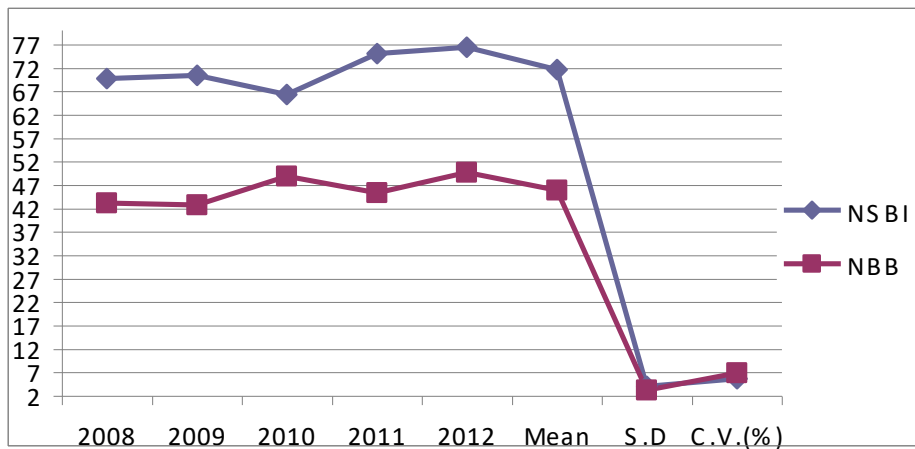
Fiscal Year	Banks	
	NSBI	NBBL
2008	69.79	43.12
2009	70.52	42.82
2010	66.41	48.90
2011	75.05	45.31
2012	76.49	49.70
Mean	71.65	45.97
S.D.	4.10	3.20
C.V. (%)	5.72	6.96

Sourceappendix-8

The above table reveals that both banks have fluctuating trend regarding the ratio. During the study period NSBI has highest ratio 76.49% in year 2012 and lowest ratio 66.41% in year 2010. Similarly NBBL has highest ratio 49.70% in year 2012 and lowest ratio in 42.82% in year 2009.

Figure No. 4.8

Loan and Advances to Total working fund ratio



On the basis of mean ratio NSBI is greater than NBB i.e. 71.65% > 45.97%. This implies that NSBI is in strong condition to mobilize its total working fund as loan and advances than NBB. Coefficient of variation if NSBI is lower than that of NBB i.e. 5.72% < 6.96%. It indicates that NSBI is more consistent than NBB.

5. Investment on Government securities to Total working fund:

A bank mobilize its fund in various ways to some extent commercial bank seems to utilize its fund by purchasing government securities. A government security is a risk free investment. This ratio is very important to know the extent to which the banks are successful in mobilizing their total fund on different types of government securities to generate profit. A high ratio includes better mobilization of funds as invest on government security and vice-versa.

We have,

Investment on government securities to total working fund ratio

$$= \frac{\text{Investment in govt. securities}}{\text{Total working fund.}}$$

Investment in government to total working fund ratio of NSBI & NBB from the fiscal year 2008 to 2012 are given below in Table

Table No.4.9

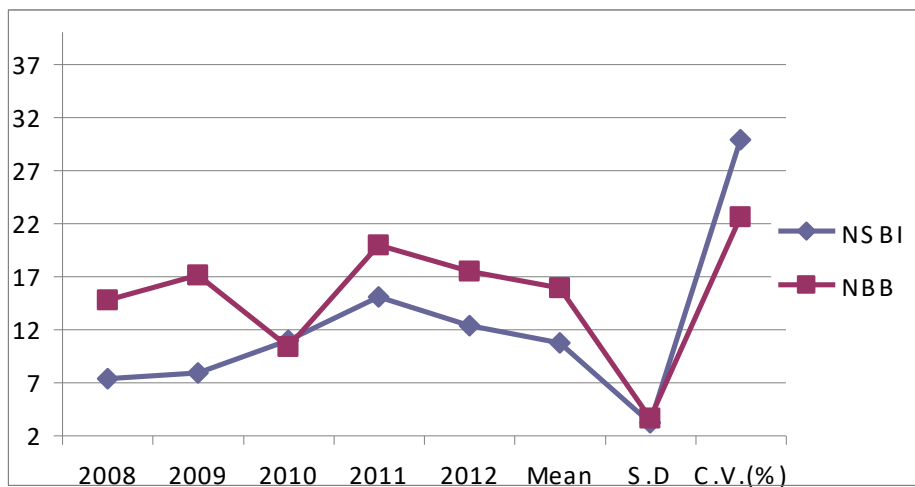
Investment on Government securities to total working fund ratio (%)

Fiscal Year	Banks	
	NSBI	NBBL
2008	7.33	14.74
2009	7.89	17.12
2010	10.95	10.40
2011	15.06	19.95
2012	12.37	17.46
Mean	10.72	15.93
S.D.	3.21	3.60
C.V. (%)	29.91	22.62

Source: appendix-9

Above table shows that the investment on government security to total working fund ratio of NSBI is increasing trend up to year 2011. The ratio of NBBL has fluctuating trend. During the study period the highest ratio of NSBI is 15.06% in year 2011 and lowest ratio is 7.33% in year 2008. Similarly, NBBL has highest ratio 19.95% in year 2011 and lowest ratio is 10.40 in year 2010.

Figure No.4.9
Investment on Government securities to total working fund ratio



In average, NBBL has maintained higher mean ratio than NSBI i.e. 15.93% > 10.72%. This implies that the position of NBBL is better than L. The C.V. of NBBL is lower than NSBI i.e. 22.62 % < 29.91%. That means NBBL is more consistent than NSBI.

5. Investment on share & debenture to Total working fund Ratio:

The total investment has been spilt out into two parts i.e. investment in government securities and investment on share & debenture. During the study period, most of the commercial banks in Nepal have purchased share of regional development bank. But some of these have purchased the shares of other companies too.

Investment on share and debenture to total working fund ratio reflects the extent on which the banks are successful to mobilize their total assets on purchase of share and debenture of other companies to generate incomes and utilize excess fund. A high ratio indicated more portion of investment on share and debenture out of total working fund and vice-versa.

We have,

Investment on share and debentures to Total working funds ratio

$$= \frac{\text{Investment on share \& debenture}}{\text{Total working fund.}}$$

Investment on share & debentures to total working fund ratio of NSBI & NBBL from the fiscal year 2008 to 2012 are given below in table

Table No.4.10
Investment on Share & Debenture to working fund (%)

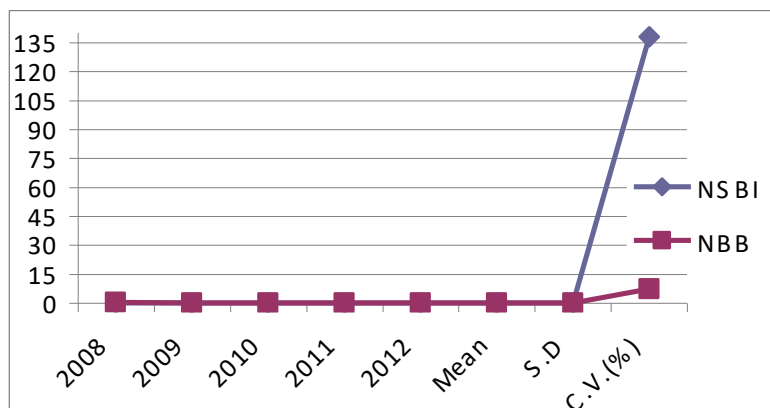
Fiscal Year	Banks	
	NSBI	NBBL
2008	0	0.17
2009	0	0.15
2010	0	0.16
2011	0.0047	0.15
2012	0.0039	0.14
Mean	0.00172	0.154
S.D.	0.0024	0.011
C.V. (%)	137.9	7.40

Source: appendix-10

The above table shows that NSBI has no any investment in share & debentures in year 2008, 2009 and 2010. The ratio of NBBL has fluctuating trend. Both banks have invested nominal percentage of total working fund into share and debentures. NBBL has highest ratio is 0.17% in year 2008 and lowest ratio is 0.14% in year 2012.

Figure No.4.10

Investment on Share & Debenture to working fund



The mean ratio of NSBI is lower than NBB i.e. 0.00172% < 0.154%. This implies that NSBI is less consistent than NBB. Hence it can be concluded that NSBI's investment on share & debentures is less than NBB's investment.

4.1.1.3 Profitability Ratio

The banks acquire profit by providing different services to its customers or by making investment of different kinds. Suffering profit is must to have good liquidity. To grab investment opportunities expand banking transaction, finance government in need of development fund, overcome the future contingencies and need fixed internal obligation for a bank, profitability ratios measures the efficiency of bank.

Profitability ratios calculated to measure the efficiency of operation of firm in term of profit. It is the indicator of the financial performance of any institution. This implies that higher profitability ratios, better the financial performance of the bank and vice-versa. Profitability position can be evaluated through following different ratios.

1. Return on Total working fund ratio:

Return is the result of investment and it measures the profit earning capacity by utilizing available resources i.e. total assets. Return will be higher if the bank working fund is well manage and are efficiently utilized, maximizing taxes within legal options available will also improve the return.

We have,

Return on total working fund Ratio

Net Profit

Total working fund.

Where, net profit includes the profit that is left to internal equities after all costs, charges have deducted.

Return on total working fund Ratio of NSBI and NBBL from the fiscal year 2008 to 2012 are given below in table

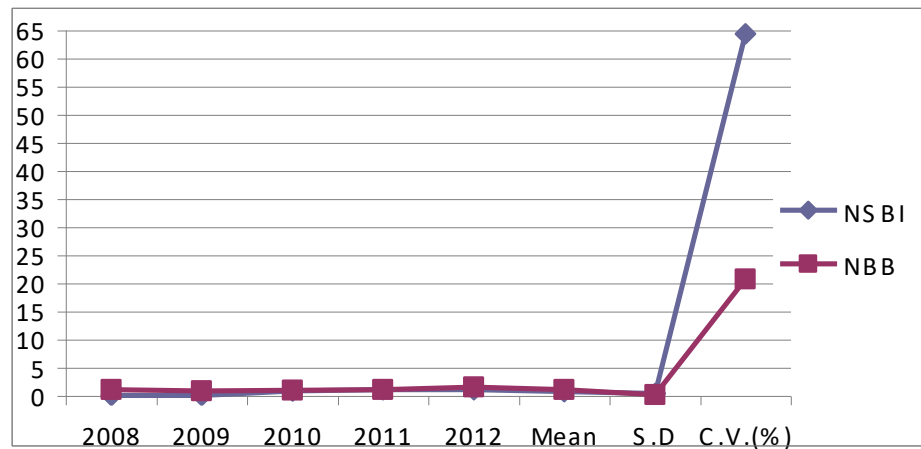
Table No.4.11
Return in total working fund ratio (%)

Fiscal Year	Banks	
		NBBL
2008	0.084	1.14
2009	0.147	0.91
2010	0.886	1.04
2011	1.180	1.12
2012	1.151	1.55
Mean	0.744	1.152
S.D.	0.479	0.240
C.V. (%)	64.41	20.85

Sourceappendix-11

Above table shows that the profitability ratio of NSBI has increasing trend. But NBBL has fluctuating trend. NSBI has highest ratio is 1.18% in year 2011 and lowest ratio is 0.084% in year 2008. NBBL has highest ratio is 1.55% in year 2012 and lowest ratio is 0.91 in year 2009.

Figure No.4.11
Return in total working fund ratio



The mean ratio of NSBI is lower than NBBL i.e. 0.744 % < 1.52. So, NSBI is less efficiency to earn net profit than NBBL. Similarly, co-efficient of variation of NSBI is higher than NBBL i.e. 64.41% > 20.85%. This implies that NSBI ratios are less consistent than NBBL.

From the above figure, it can be said that NBBL is strong position in the earning capacity by utilizing available resources than that of NSBI. NSBI must have to make effort to earn high profit by mobilizing its working assets more efficiently.

2. Return on loan and Advances Ratio:

It measures the earning capacity of commercial banks on its deposits mobilized on loan and advances. Mostly loan and advances include loan, cash credit, overdrafts bills purchased and discounted.

We have,

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

Return on loan and Advances Ratio of NSBI and NBBL from the fiscal year 2008 to 2012 are given below in table

Table No.4.12

Return on loan and Advances Ratio (%)

Fiscal Year	Banks	
	NSBI	NBBL
2008	0.12	2.64
2009	0.59	2.12
2010	1.33	2.13
2011	1.57	2.48
2012	1.50	3.12
Mean	1.022	2.50
S.D.	0.637	0.414
C.V. (%)	62.34	16.56

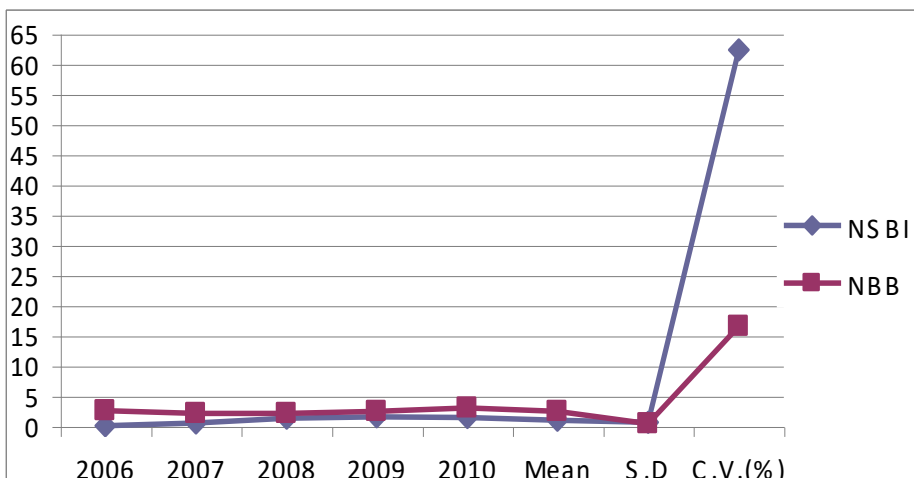
Source: appendix-12

The above table reveals that Return in loan and advances ratio of NSBI is increasing trend. During the study period NBBL has maintained the increasing trend from the year 2009 to 2010. NSBI has highest ratio is 1.57% in year 2011 and lowest ratio is 0.12% in year 2008. NBBL has highest ratio is 3.12% in year 2012 and lowest ratio is 2.12% in year 2009.

On the basis of mean ratio, NSBI is lower than NBBL i.e. 1.022% < 2.50%. But co-efficient of variation of NSBI is higher than NBBL i.e. 62.34% > 16.56%. This implies that NBBL is significantly able to earn high return on its loan and advances in comparison to NSBI. NSBI ratio is less consistent than NBBL.

Figure No.4.12

Return on loan and Advances Ratio



3. Total interest earned to total working fund ratio:

This ratio reflects the extent to which the banks are successful in mobilizing their total assets (working funds) to generate high income as interest. Higher ratio implies better performances of the bank in term of interest earning and vice-versa.

We have,

Total interest earned to Total working fund Ratio =

Total interest earned

Total working fund

Total interest earned to total working fund Ratio of NSBI and NBBL from the fiscal year 2006 to 2010 are given below in table

Table No.4.13

Total interest earned to Total working fund (%)

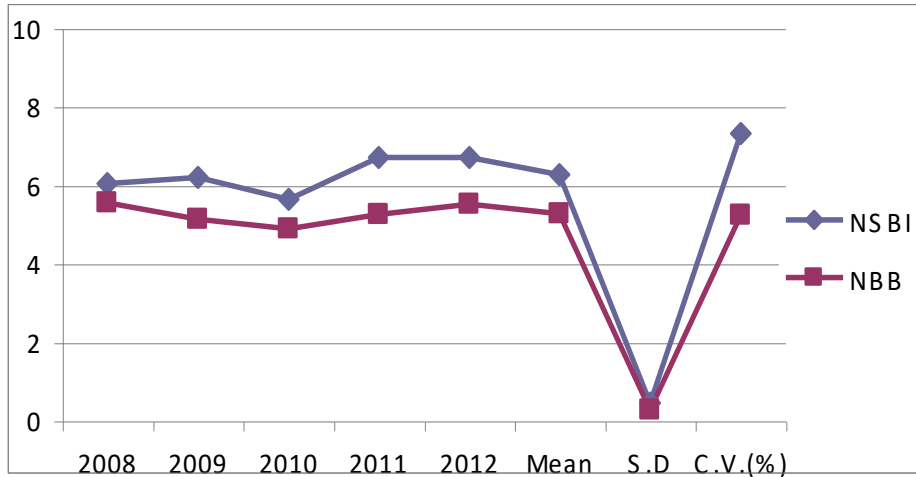
Fiscal Year	Banks	
	NSBI	NBBL
2008	6.05	5.56
2009	6.20	5.14
2010	5.65	4.89
2011	6.72	5.27
2012	6.72	5.52
Mean	6.27	5.28
S.D.	0.46	0.28
C.V. (%)	7.32	5.25

Sourceappendix-13

Above table shows that the banks are fluctuating trend. During the study period, NSBI has highest ratio is 6.72% year 2011 and 2012 and lowest ratio is 5065% in year 2010. Similarly, NBBL highest ratio is 5.56% in year 2008 and lowest ratio is 4.89% in year 2010.

Figure No.13

Total interest earned to Total working fund



The mean ratio of NSBI is higher than NBB i.e. 6.27% > 5.28%. This implies that NSBI is greater to generate interest income from the total working fund than NBB. Similarly, coefficient of variation of NSBI is higher than NBB i.e. 7.32% > 5.25%. This means NSBI is less consistent than NBB.

From the above analysis, it can be said that NSBI is able to earn high interest return from the total working fund in comparison to NBB due to the high ratio is an indicator of high earning power of the bank of its earning fund and vice-versa.

4. Total interest paid to Total working fund Ratio:

This mean measures the percentage of total interest paid against the total working fund. A high ratio indicates the higher interest expenses on total working fund and vice-versa.

We have,

$$\frac{\text{Total interest paid}}{\text{Total working fund}}$$

$$\text{Total working fund}$$

Total interest paid to total working fund Ratio of NSBI and NBB from the fiscal year 2008 to 2012 are given below in table

Table No.4.14

Total interest paid to total working fund Ratio (%)

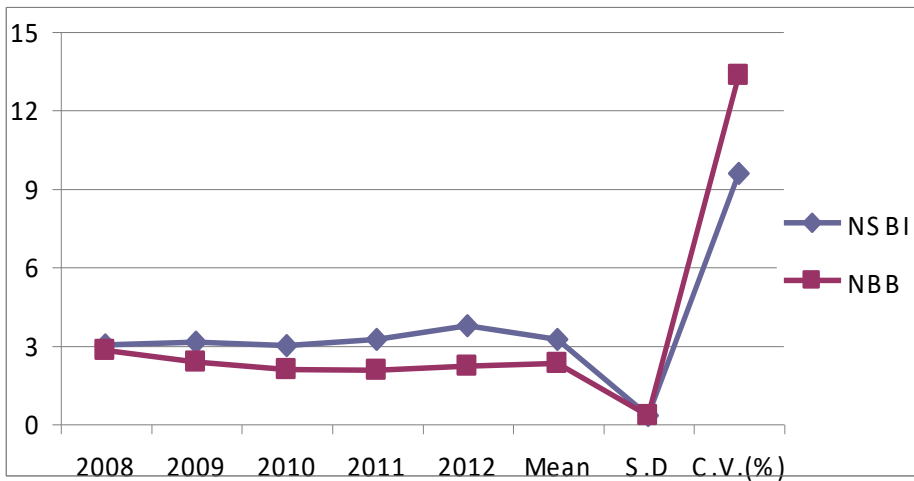
Fiscal Year	Banks	
	NSBI	NBBL
2008	3.02	2.80
2009	3.11	2.37
2010	2.98	2.08
2011	3.23	2.05
2012	3.74	2.20
Mean	3.22	2.30
S.D.	0.3082	0.3065
C.V. (%)	9.57	13.33

Sourceappendix-14

above tables reveals that the interest paid to total working fund ratio of NSBI is increasing trend from year 2010 to 2012 and NBBL has decreasing trend from the year 2012 to 2.05. The NSBI has highest ratio is 3.74% in year 2012 and lowest ratio is 2.08% in year 2010. Similarly, NBBL has highest ratio is 2.80% in year 2008 and lowest ratio is 2.05% in year 2011.

Figure No. 4.14

Total interest paid to total working fund Ratio



The mean ratio if NSBI is higher than that of NBBL i.e. 3.22% > 2.30%. This indicates that the interest paying capacity of NSBI on its fund is higher than that of NBBL. On the other hand, coefficient of variation of NSBI is lower than NBBL i.e. 9.57 % < 13.33%. This implies that NSBI is more consistent than NBBL.

4.1.1.4 Risk Ratio:

The possibility of risk makes banks investment a challenging task. Bank has to get return on investment. The risk taken is compensated by the increase in profit. A bank has to take high risk if it expects high return on its investment. So, the bank's opting for high profit has to accept the risk and manage it efficiently. Through following ratios effort has been made to measure the level of risk.

Credit Risk ratio:

It is very essential for a bank to scrutinize two projects i.e. the risk involved in it to avoid default of non-payment of loan before making investment on them. Bank makes investment by utilizing its collected fund. The risk behind making investment or granting loan or providing is measured by credit risk ratio. Actually credit risk ratio shows the proportion of non-performing assets in total loan and advance of a bank. But due to unavailability of related data. The ratio is calculated with the help of loan and advances and total assets.

We have,

$$\text{Credit risk ratio} = \frac{\text{total loan \& advance}}{\text{total assets}}$$

Credit risk ratio of NSBI and NBBL from the fiscal year 2008 to 2012 is given below in table

Table No. 4.15

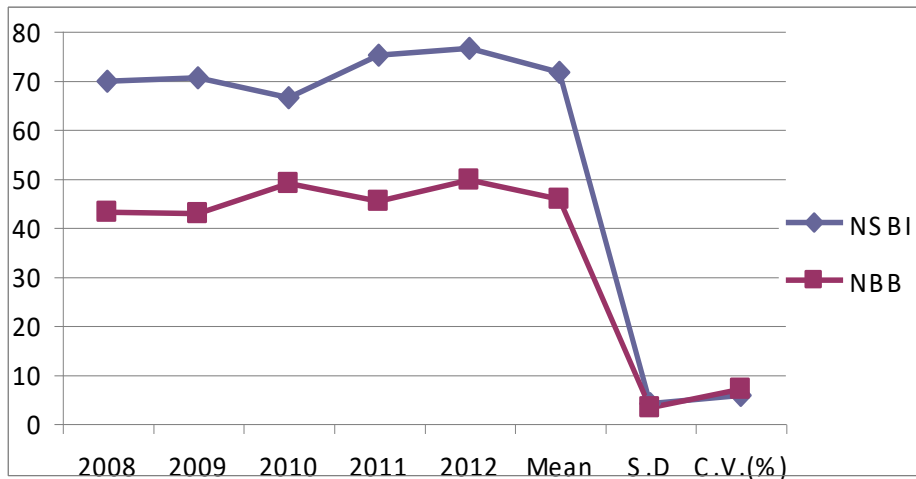
Credit risk ratio (%)

Fiscal Year	Banks	
	NSBI	NBBL
2008	69.79	43.12
2009	70.52	42.82
2010	66.42	48.90
2011	75.08	45.31
2012	76.49	49.70
Mean	71.66	45.79
S.D.	4.10	3.20
C.V. (%)	5.72	6.96

Source: appendix-15

above table shows that the credit risk ratio of both banks has maintained fluctuating trend. NSBI has highest ratio is 76.46% in year 2012 and lowest ratio is 66.42% in 2010. Similarly NBBL has highest ratio is 49.70% and lowest ratio is 42.82% in year 2012 and 2009 respectively.

Figure No. 4.15
Credit risk ratio



On the basis of mean ratio NSBI has higher than NBBL i.e. 71.66% > 45.79%. This indicates that NSBI has higher credit in comprise to NBBL. It means NSBI has sacred more risk on its total assets of loan and advances in comparison to NBBL. The coefficient of variation of NSBI has lower than NBBL i.e. 5.72 % < 6.96%. This credit policy is more consistent than NBBL. Hence it can be said that the credit risk of NSBI is higher in compare to NBBL.

1. Liquidity Risk Ratio

The liquidity Ratio of the bank defines its liquidity need for deposit. The cash and bank balance are the most liquid assets and balance is considered as banks liquidity sources and deposit, as the liquidity needs. The ratio of cash and bank balance to total deposit is the indicator if bank liquidity needed. If funds are kept idle in the form of the cash and bank balance, the risk is low but it will affects the profitability i.e. profit will also be low. When the bank flow loan, its profitability increases and also the risk. Thus higher liquidity ratio indicates less risk and less profitable and vice-versa.

We have,

Liquidity Ratio

Cash and bank balance

Total deposit

Liquidity risk Ratio of NSBI and NBBL from the fiscal year 2008 to 2012 are given below in table.

Table No. 4.16

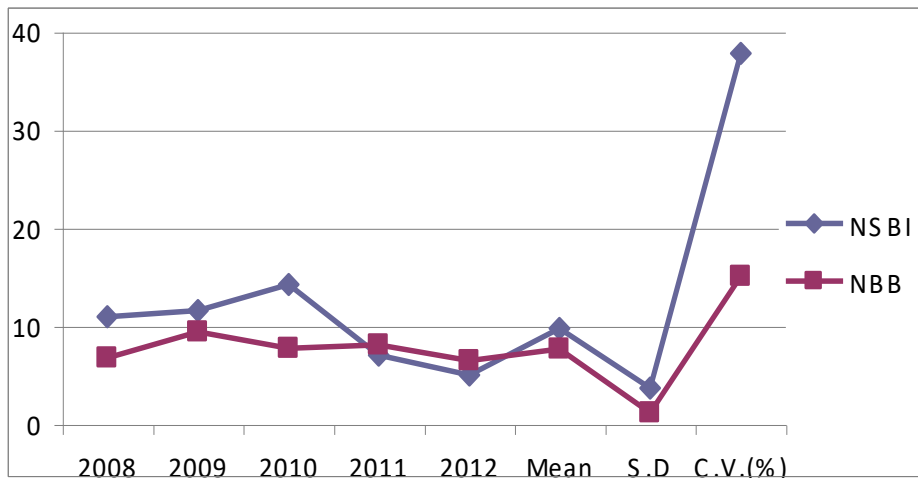
Liquidity risk Ratio (%)

Fiscal Year	Banks	
	NSBI	NBBL
2008	10.95	6.80
2009	11.61	9.42
2010	14.26	7.77
2011	7.08	8.12
2012	5.01	6.48
Mean	9.78	7.72
S.D.	3.70	1.165
C.V. (%)	37.86	15.10

Source appendix-16

Above comparative table shows that the liquidity risk ratios of NSBI has increasing trend from 2008 to 2010. NBBL has maintained a fluctuating trend. NSBI has maximum ratio is 14.26% in year 2010 and minimum ratio is 5.01% in year 2012. NBBL has highest ratio is 9.42% in year 2009 and lowest ratio is 6.48% in year 2012.

Figure No.4.16
Liquidity risk Ratio



On the basis of mean ratio, NSBI has

higher ratio than NBBL i.e. 9.78%>7.72%. Similarly, coefficient of variation of NSBI is also higher than that of NBBL. i.e.37.86%>15.10%. This implies that NSBI is less consisted in comparison to NBBL.

4.1.1.5 Growth Ratio:

The growth ratios are calculated to examine and analysis the expansion and growth of the banking business during the study period. The higher ratios represent the better performance of the bank. Growth ratios are directly related to the fund mobilization and investment decision of the bank. This ratio represents how well the commercial banks are maintaining their economic and financial position. Under this topic four types of growth ratios namely growth ratios of loan and advance, total investment, total deposit, and Net Profit of NSBI and NBBL.

1. Growth ratios of Total Loan and Advance:

Loan and advance is the main source for the bank for generating more profit. Growth ratios in loan and advance reveal the performance of the bank. The following tables shows that the growth ratios of loan and advances,

Table No.4.17

Total loan and advances Ratios

Fiscal year	NSBI		NBBL	
	Loan & advance	%Change	Loan & advance	%Change
2008	1111.56		8913.73	
2009	2105.74	89.44	10001.85	12.21
2010	3649.00	73.29	13081.85	30.79
2011	5584.64	53.05	12424.52	-5.02
2012	6891.86	23.41	14642.56	17.85
Growth Ratio		60%		9.2%

Sourceappendix-17

The above comparative table shows that the growth ratios of total loan and advance of NSBI is higher than NBBL i.e. 60%>9.2%. This means the performance of NSBI to grant Loan and advance in comparison to NBBL is higher.

2. Growth ratio of Total investment:

Investment is done to get more profit. So the profitability of the bank is largely depends upon the investment made by the bank.

Table No.4.18

Growth ratio of Total Investment.

iscal year	NSBI		NBBL	
	Total investment	% Change	Investment	% Change
2008	255.00		3047.75	
2009	423.15	65.94	3998.87	31.21
2010	983.50	132.42	2878.30	-28.02
2011	1190.27	21.02	11692.34	-306.22
2012	1394.95	17.20	10889.03	-6.87
Growth Ratio		57.8		13.21

Sourceappendix-18

The above table shows that the annually % change of both banks are fluctuating trend. But a growth ratio of total investment of **NSBI** is higher than that of NBBL. So the performance of total investment of **NSBI** is better than NBBL.

3. Growth ratios of total deposit:

Deposit collected from customers is the main source for the bank to generate more profit by investing in different sector. For the banks it is very important to increase its deposit to make sufficient amount for investment.

$$= \frac{\text{Current Total Deposit} - \text{Previous Total Deposit}}{\text{Current Total Deposit}} \times 100$$

Table No.4.19
Growth Ratios of total deposit

Fiscal year	NSBI		NBBL	
	Total deposit	% Change	Total deposit	% Change
2008	1179.89		18619.37	
2009	2513.14	113.00	21007.37	12.83
2010	4807.94	91.31	22760.90	8.35
2011	6268.95	30.39	24814.01	9.02
2012	7768.89	23.93	26490.85	6.76
Growth Ratio		52.93		37.48

Sourceappendix-19

The above table comparative table shows that the growth rate of the total deposit of NSBI is increasing trend. But NBBL has maintained fluctuating trend. The growth ratio of total deposit of NSBI is higher than NBBL i.e. 52.93%>37.48%. This implies that performance of NSBI to collect higher deposit is better than NBBL.

4. Growth Ratios of Net Profit:

The growth on Net Profit shows the overall performance of the bank.

Table No.4. 20
Growth Ratios of Net Profit

Fiscal year	NSBI		NBBL	
	Net Profit		Net Profit	
2008	1.34	-	235.02	-
2009	12.47	830.59	212.12	-9.74
2010	48.68	290.38	278.51	31.30
2011	87.88	80.52	308.27	10.68
2012	103.67	17.97	457.45	48.39
Growth Ratio		196.574		18.12

Sourceappendix-20

The above comparative table shows that growth rate of Net Profit of NSBI is in decreasing trend. But NBBL has maintained fluctuating trend. The growth ratio of NSBI is higher than that of NBBL i.e. 196.57%>18.12%. This implies that the overall performance of NSBI is better than NBBL.

4.2 STATISTICAL ANALYSIS

Under this analysis, various types of statistical tools are used to analysis of financial performance. Specially, coefficient of correlation and trend analysis of important variable have been conducted.

4.2.1 Coefficient of correlation

This analysis interprets and identifies the relationship between two of more variables. In the case of highly correlated, the effects on none variable may have effect on other correlated variable.

Under this topic, this study tries to find out relationship between the following variables:

- a) Coefficient of correlation between total deposit and net profit.
- b) Coefficient of correlation between deposit and investment.
- c) Coefficient of correlation between deposit, loan, and advances.
- d) Coefficient of correlation between current assets and current liabilities.

The above analysis tools analyze the relationship between these the relevant variables and helps the bank to make sound policies regarding deposit collection, fund utilization (loan and advances and investment) and profit maximization.

The following formula is used to find out the relationships:

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

Where,

r = the coefficient of correlation

XY= Total population of items in two series

X= Total of X series Y= Total of Y series

X² = Total of the square of item in X series

Y²= Total of the square of item in Y series

N= the number of item period

Interpretation of coefficient (r)

- I. When $r = 1$, there is positively perfect correlation between the two variables.
- II. When $r = -1$, there is negative perfect correlation between the two variables.
- III. When $r = 0$, the variables are uncorrelated
- IV. Nearer the value of r to $+1$, closer will be the relationship between two variables and nearer the value of r to 0 , lesser will be the relationship.

Probable Error of correlation coefficient

Probable error of correlation coefficient is an old for testing the reliability of an observed correlation coefficient. The probable error of correlation coefficient is shortly denoted by P.E. (r). If, 'r' is the correlation coefficient calculated from n pairs of sample observations, then the standard errors (S.E.) of this correlation coefficient is given by

$$S.E. (r) = 1-r^2$$

Then the probable error of r is $P.E. (r) = 0.6745 * S.E. (r)$

$$P.E. = 0.6745 1-r^2$$

It is used in insignificant. So, perhaps there is no evidence of correlation.

- I. If $r < P.E.$, it is insignificant, so, perhaps there is no evidence of correlation
- II. If $r > P.E.$, it is significant

Table No. 4.21

1. Calculation of correlation between total deposits and Net Profit of NSBI.

FY	Total deposit X	Net Profit (Y)	XY	X²	Y²
2008	1179.89	1.34	1581.05	13 92140.41	1.79
2009	2513.14	12.47	31338.86	6315872.66	155.50
2010	4807.94	48.68	234050.52	23116287.04	2369.74
2011	6268.95	87.88	550915.33	39299734.1	7722.89
2012	7768.89	103.67	805400.83	60355651.83	10747.47
Total	22538.81	254.04	1623286.59	130,479,326	20977.40

Source appendix-21

We, have,

$$\begin{aligned} \sum X &= 22538.81 & \sum Y &= 254.04 & \sum X^2 &= 130479326 & \sum Y^2 &= 20977.40 & N &= 5 \\ \sum XY &= 1623286.59 \end{aligned}$$

Correlation Coefficient 'r' can be calculated by using following formula;

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

$$= \frac{5 \times 1623286.59 - 22538.81 \times 254.04}{\sqrt{5 \times 130479326 - (22538.81)^2} \times \sqrt{5 \times 20977.40 - (254.04)^2}}$$

$$= 0.989$$

$$r^2 = 0.978$$

Now,

$$\text{Calculation of Probable error P.E. (r) P.E. (r) = } \frac{0.6745 * 1 - r^2}{\sqrt{5}}$$

$$= \frac{0.6745 * 1 - 0.978}{\sqrt{5}}$$

$$= 0.0066$$

$$\text{Then, significance of relationship } 6 \times (-r) 6 \times 0.006.6 = 0.0398$$

The above calculation shows that the correlation coefficient (r) between total deposit & total Net Profit of the NSBI is 0.989 and probable error time 6 is found to be 0.0398. Since $r > 6 \text{ P.E.}$, r positive and near by 1. So, this implies that there is very strong positive and significance correlation between total deposits & total investment during the study period.

Table No. 4.22

Calculation of correlation between total deposits and Net Profit of NBBL.

FY	Total deposit X	Net Profit (Y)	XY	X²	Y²
2008	18619.37	235.02	4375837.38	346680939.2	55234.40
2009	21007.37	212.12	4456083.32	441309594.3	44994.89
2010	22760.90	278.51	6339138.26	518058568.8	77567.82
2011	24814.01	308.27	7649414.86	615735092.3	95030.39
2012	26490.85	457.45	12118239.33	701765133.7	209260.50
Total	113692.5	1491.37	34938713.16	2623549328	482088.00

Sourceappendix-22

We, have,

N=5

EX = 113692.5, EY = 1491.37, EX² = 2623549328

Ey²= 482088.00

ΣXY= 34938713.16

Correlation Coefficient 'r' can be calculated by using following formula;

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

$$= \frac{5 \times 34938713.16 - 113692.5 \times 1491.37}{\sqrt{5 \times 2623549328 - (113692.5)^2} \times \sqrt{5 \times 482088 - (1491.37)^2}}$$

$$= 0.86$$

$$r^2 = 0.74$$

Now, Calculation of Probable error P.E. $(r) = 0.6745 \cdot \sqrt{1-r^2}$

$$\sqrt{5}$$

$$= 0.078$$

Then, significance of relationship $6 \times (r) = 6 \times 0.078 = 0.47$

The above calculation shows that the correlation coefficient (r) between total deposit & total Net Profit of the NBBL is 0.86 and probable error time 6 is found to be 0.047. Since $r > 6 \text{ P.E.}$, r positive So, it can be concluded that there is very strong positive and significance correlation between total deposits & total investment during the study period.

Table No.4.23

2. Calculation of correlation between total deposits and total investment of NSBI.

FY	Total deposit (X)	Total Investment(Y)	XY	X²	Y²
2008	1179.89	255.00	300871.95	1392140.41	65025
2009	2513.14	423.15	1063435.19	6315872.66	179055.92
2010	4807.94	983.50	4728608.99	23116287.0	967272.25
2011	6268.95	1190.27	7461743.12	39299734.1	1416742.67
2012	7768.89	1394.95	10837213.11	60355651.8	1945885.50
Total	22538.81	4246.87	24391872.36	130479686	457398.35

Source appendix-23

We, have,

$$\begin{aligned}
 N &= 5 & \sum X &= 22538.81 & \sum X^2 &= 130479686 \\
 \sum Y &= 4246.87 & \sum Y^2 &= 457398.35 & \sum XY &= 24391872.36
 \end{aligned}$$

Correlation Coefficient 'r' can be calculated by using following formula;

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

$$= \frac{5 \times 24391872.36 - 22538.81 \times 4246.87}{\sqrt{5 \times 130479686 - (22538.81)^2} \times \sqrt{5 \times 4573981.35 - (4246.87)^2}}$$

=0.99

$r^2 = 0.986$

Now, Calculation of Probable error P.E. (r) =

$$\frac{0.6745 \times (1-r^2)}{\sqrt{5}}$$

=0.0042

Then, significance of relationship $t = \frac{r}{\text{P.E.}} = \frac{0.99}{0.0042} = 235.71$

The above calculation shows that the correlation coefficient (r) between total deposit & total Investment of the NSBI is 0.99 and probable error time t is found to be 235.71. Since $t > t_{table}$, r positive and nearby 1. So, this implies that there is very strong positive and significance correlation between total deposits & total investment during the study period.

Calculation of correlation between total deposit and total Investment of NBBL.

Table No. 4.24

FY	Total deposit (X)	Total Investment (Y)	XY	X²	Y²
2008	18619.37	3047.75	56747184.92	346680939.92	9288780.06
2009	21007.37	3998.87	840057541.67	441309594.3	15990961.28
2010	22760.90	2878.30	65512698.47	518058568.8	8284610.89
2011	24814.01	11692.34	290133841.70	615735092.3	136710814.7
2012	26490.85	10889.03	288459660.40	701765133.7	118570974.3
Total	113692.5	32506.29	784859127.16	2623549328	288846141.2

Source: appendix-24

We have,

$$\begin{aligned}
 N &= 5 \\
 \sum X &= 113692.5 \\
 \sum Y &= 32506.29 \\
 \sum XY &= 784859127.16 \\
 \sum X^2 &= 2623549328 \\
 \sum Y^2 &= 288846141.2
 \end{aligned}$$

Now,
Correlation Coefficient

$$\begin{aligned}
 r &= \frac{N\sum XY - \sum X \sum Y}{\sqrt{N\sum X^2 - (\sum X)^2} \times \sqrt{N\sum Y^2 - (\sum Y)^2}} \\
 &= \frac{5 \times 784859127.16 - 113692.5 \times 32506.29}{\sqrt{5 \times 2623549328 - (113692.5)^2} \times \sqrt{5 \times 28846141.2 - (32506.29)^2}} \\
 &= 0.84 \\
 r^2 &= 0.70
 \end{aligned}$$

Then,

$$\begin{aligned}
 \text{Probable error P.E. (r)} &= \frac{0.6745 \times (1-r^2)}{\sqrt{5}} \\
 &= 0.090
 \end{aligned}$$

Again,

$$\text{Significance of relationship} = 6 \times \text{P.E.} = 6 \times 0.090 = 0.54$$

The above calculation indicates that the correlation coefficient (r) between total deposits & total Investment of NBBL is 0.84 and Probable error time 6 is found to be 0.54. Since $r > 6 \text{ P.E.}$, r is positive. So, it can be said that there is highly positive and significant correlation between total deposit and total investment of NBBL during the study period.

Table No.4. 25

3. Calculation if correlation coefficient between total deposit and loan & advance of NSBI

FY	Total deposit (X)	Loan & advance (Y)	XY	X ²	Y ²
2006	1179.89	1111.56	1311518.53	1392140.41	1235565.64
2007	2513.14	2105.74	5292019.42	6315872.66	4434140.95
2008	4807.94	3649.00	175440173.06	23116287.04	13315201
2009	6268.95	5584.64	35009828.93	39299734.1	31188203.93
2010	7768.89	6891.86	53542102.24	60355651.83	47497734.26
Total	22538.81	19342.8	112699642.2	130479686	97670845.77

Source appendix-25

We have,

$$N=5$$

$$\sum X = 22538.81, \sum X^2 = 130479686,$$

$$\sum Y^2 = 97670845.77$$

$$\sum Y = 19342.8, \sum XY = 112699642.2$$

Now,

Correlation Coefficient

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

$$= \frac{5 \times 112699642.2 - 22538.81 \times 19342.8}{\sqrt{5 \times 130479686 - (22538.81)^2} \times \sqrt{5 \times 97670845.77 - (19342.8)^2}}$$

$$= 0.99$$

$$r^2 = 0.98$$

Then,

$$\begin{aligned} \text{Probable error P.E. (r)} &= \frac{0.6745 \cdot (1-r^2)}{\sqrt{5}} \\ &= 0.0060 \end{aligned}$$

Again,

$$\text{Significance of relationship} = 6 \times \text{P.E.} = 6 \times 0.0060 = 0.036$$

The above calculation shows that the correlation coefficient (r) between total deposits and Loan & advance of NSBI is 0.99 and probable error time 6 is found to be 0.0036, Since $r > \text{P.E. (r)}$ is positive and near by 1. So, it can be concluded that there is very strong positive and significance correlation between total deposit and loan & advance of Loan.

Table No.4. 26

Calculation of correlation coefficient between total deposit and loan & advance of NBBL

FY	Total deposit	Loan & advance	XY	X²	Y²
2008	18619.37	8913.73	165968037	346680939.92	79454582.51
2009	21007.37	10001.85	210112563.6	441309594.3	100037003.4
2010	22760.90	13081.7	297751265.5	518058568.8	171130874.9
2011	24814.01	12424.52	308302163.5	615735092.3	154368697.2
2012	26490.85	14642.56	387893860.6	701765133.7	214404563.4
Total	113692.5	59064.36	1370027890	2623549328	719395721.4

Sourceappendix-26

We have,

$$N=5$$

$$\sum X = 113692.5, \quad \sum Y = 59064.36, \quad \sum XY = 1370027890$$

$$\sum X^2 = 2623549328$$

$$\sum Y^2 = 719395721.4$$

Now,

Correlation Coefficient

$$r = \frac{N\sum XY - \sum X \sum Y}{\sqrt{N\sum X^2 - (\sum X)^2} \times \sqrt{N\sum Y^2 - (\sum Y)^2}}$$
$$= \frac{5 \times 1370027890 - 113692.5 \times 59064.36}{\sqrt{5 \times 2623549328 - (113692.5)^2} \times \sqrt{5 \times 719395721.4 - (59064.36)^2}}$$

=0.94
 $r^2 = 0.88$

Then,

$$\text{Probable error P.E. (r)} = \frac{0.6745 \times (1-r^2)}{\sqrt{5}}$$
$$= 0.0362$$

Again,

$$\text{Significance of relationship} = 6 \times \text{P.E.} = 6 \times 0.0362 = 0.22$$

The above calculation shows that the correlation coefficient (r) between total deposits and Loan & advance of NBBL is 0.94 and 6 P.E. (r) is found to be 0.22. Since $r > 6 \text{ P.E. (r)}$, r is highly positive, so it can be said that there is strong positive and significance correlation between total deposits and loan & advance of NBBL.

Table No. 4.27

4. Calculation of correlation between current assets and current liabilities if NSBI

FY	currnt assets (X)	Current liabilities (Y)	XY	X²	Y²
2008	1390.90	1245.75	1732713.68	1934602.81	1551893.06
2009	2758.23	2622.50	7233458.17	7607832.73	6877506.25
2010	5054.53	4938.43	24961442.59	25548273.52	24388090.86
2011	7284.32	6772.31	49331673.18	53061317.86	45864182.74
2012	8633.60	1825.01	70148391.13	74539048.96	66015787.5
Total	25121.58	23704	153407678.7	162691075.9	144697460.4

Sourceappendix-27

We have,

N=5

$$\sum X = 25121.58, \quad \sum Y = 23704.00, \quad \sum XY = 153407678.7 \quad \sum X^2 = 162691075.9$$

$$\sum Y^2 = 144697460.4$$

Now,

Correlation Coefficient

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

$$= \frac{5 \times 153407678.7 - 25121.58 \times 23704}{\sqrt{5 \times 162691075.9 - (25121.58)^2} \times \sqrt{5 \times 144697460.4 - (23704)^2}}$$

$$= 0.999$$

$$r^2 = 0.998$$

Then,

$$\begin{aligned} \text{Probable error P.E. (r)} &= \frac{0.6745 \cdot (1-r^2)}{\sqrt{5}} \\ &= 0.00060 \end{aligned}$$

Again,

$$\text{Significance of relationship} = 6 \times \text{P.E.} = 6 \times 0.00060 = 0.0036$$

The above calculation shows that the correlation coefficient 'r' between if NSBI is 0.0999 and probable error time 6 is found to be 0.0036, Since $r > 6 \times \text{P.E. (r)}$, r is positive and near by 1. So, it can be concluded that there is highly positive and significance correlation between current assets and current liabilities of NSBI during the study period.

Table No.4.28

5. Calculation of correlation between current assets and current liabilities of NBBL

FY	Current Assets (X)	Current liabilities (Y)	XY	X²	Y²
2008	14165.33	19433.25	275278399.2	201056574	377651205.6
2009	16881.45	21899.93	369702573.3	284983354	479606934
2010	19451.52	24314.4	472952037.9	378361630.3	591190047.4
2011	20867.78	25516.33	532469160.8	435464242.1	651083096.7
2012	23153.10	27334.21	632871697.6	536066039.6	747159036.3
Total	94519.18	118498.12	2283273869	1835531840	2846690320

Sourceappendix-28

We have,

$$N = 5$$

$$\sum X = 94519.18, \quad \sum Y = 118498.12 \quad \sum XY = 2283273869 \quad \sum X^2 = 1835531840$$

$$\sum Y^2 = 2846690320$$

Now,

Correlation Coefficient

$$r = \frac{N\sum XY - \sum X \sum Y}{\sqrt{N\sum X^2 - (\sum X)^2} \times \sqrt{N\sum Y^2 - (\sum Y)^2}}$$
$$= \frac{5 \times 2283273869 - 94519.18 \times 18498.12}{\sqrt{5 \times 1835531840 - (94519.18)^2} \times \sqrt{5 \times 2846690320 - (18498.12)^2}}$$

$$= 0.999$$

$$r^2 = 0.998$$

Then,

$$\text{Probable error P.E. (r) P.E. (r)} = \frac{0.6745 \times (1-r^2)}{\sqrt{5}}$$
$$= 0.00060$$

Again,

$$\text{Significance of relationship} = 6 \times \text{P.E.} = 6 \times 0.00060 = 0.0036$$

The above calculation shows that the correlation coefficient 'r' between if NBBL is 0.9999 and probable error time 6 is found to be 0.0036, Since $r > 6 \times \text{P.E. (r)}$, r is positive and near by 1. So, it can be concluded that there is highly positive and significance correlation between current assets and current liabilities of NBBL during the study period.

4.2.2 Trend Analysis and Projection for Next five Years:

Under this headings, trend analysis of deposit collection its utilization and Net Profit of NSBI and NBBL are studied. To utilize deposits a commercial bank may grant loans and advances and investment is govt. securities and share & debentures of other companies. The objectives of this topic trend of Deposit, Loan & Advances, Total Investment and Net Profit are forecasted for next five years. The projections are based on the following assumptions.

- The forecast will be true only when the limitation of least square method is carried out.
- The main assumption is that other things will remain unchanged.
- The bank will run in present position.
- NRB will not change its guidelines to commercial banks.

4.2.2.1 Trend Analysis of Total deposit:

The following table shows that the trend values of deposit for ten fiscal years from 2004 to 2012 and forecasted trend value for five years from 2009 to 2013.

Table No.4.29

Trend values of total deposit of NSBI & NBBL.

F. Y.	NSBI	NBBL
2004	1121	18828.58
2005	2814	20783.54
2006	4507.76	2273 8.50
2007	6201.14	24693.46
2008	7894.52	26648.42
2009	9587.9	28603.38
2010	11281.28	30558.26
2011	12974.66	32513.30
2012	14668.04	34468.26
2013	16361.42	36423.22

Sourceappendix-29

The above table shows that the total deposits of both banks have the increasing trend. If other things remain same, the total deposits of the NBBL will be Rs.36423.22 million in the year 2013. This is more than double that of NSBI. Similarly the total deposits of NSBI will be also be Rs.16361.42 million in year 2013.

4.2.2.2 Trend Analysis of loan and advances

Under this topic, the trend values of loan and advances for five fiscal year from 2011 to 2011 have been calculated and forecasted for next five years from 2009 to 2013.

The following table shows that trend value of loan and advances for ten years from 2012 to 2013 of NSBI & NBBL. (Details in Appendix-22)

Table No.4.30

Trend values of Loan & Advances deposit of NSBI & NBBL.

F.Y.	NSBI	NBBL
2004	860.66	9036.81
2005	2364.62	10424.84
2006	3868.56	11812.87
2007	5372.51	13200.9
2008	6876.46	14588.93
2009	8380.41	15976.96
2010	9884.36	17364.96
2011	11388.31	18753.02
2012	12892.26	20141.05
2013	14396.21	21529.08

The table reveals that the total loan and advances of both banks have the increasing trend. If other things remain unchanged, the total loan & advances of NBBL will be Rs.21529.08 million in the year 2013. But the loan & advances of NSBI will be only Rs.14396.21 million in years 2013, which is lower than that of NBBL. (i.e. **Rs.** 143 96.21 <21529.08)

4.2.2.3 Trend Analysis of total investments:

The following table shows the trend value of investments for 10 years from 2004 to 2008 and forecasted trend value for next five years from 2009 to 2013 of NSBI & NBBL. (Details in Appendix-23)

Table No. 4.31

Trend values of total Investment of NSBI & NBBL.

F.Y.	NSBI	NBBL
2008	239.97	1826.06
2009	544.67	4163.66
2010	849.37	6501.26
2011	1154.07	8838.86
2012	1459.77	11176.46
2009	1763.47	13514.06
2010	2068.17	15851.66
2011	2372.87	18189.26
2012	2677.57	20526.836

The above table shows that the total investments of both banks have the increasing trend. If other things remain the same, the total investment of NSBI will be Rs.2982.27 million in year 2013. Similarly, the total investment of NBBL will be Rs.22864.46 in year 2013, which is higher than that of NSBI from the above table analysis, it is found that the total investment of NSBI is less thanL. (i.e.2982.27<22864.46)

4.2.2.4 Trend Analysis of Net Profit:

The following table shows that the trend value of Net Profit for five years from 2008 to 2012 and forecasted trend value for next five years from 2009 to 2013 if NSBI & NBBL. (Details in Appendix-24)

Table No. 4.32
Trend values of total deposit of NSBI & NBBL.

F.Y.	NSBI	NBBL
2004	5.39	190.07
2005	22.61	244.17
2006	50.61	298.27
2007	78.61	352.37
2008	106.61	406.47
2009	134.61	460.57
2010	162.61	514.67
2011	190.61	568.77
2012	218.61	622.87
2013	246.61	676.97

The above table shows that the net profit of NSBI & NBBL have increasing trend. If other things remain same, the net profit of NSBI will be Rs.246.61 million in the year 2013. Similarly the net Profit of NBBL will be Rs.676.97 in year 2013, which is higher than NSBI. From the above table trend analysis, it is found that position of NBBL in regard to utilization of the fund to earn profit is better in compared to NSBI.

4.3 Major Findings of the study

The major Findings of the study are derived on the analysis of Financial & statistical data of NSBI & NBBL which are given below:

4.3.1 Liquidity ratio

- ❖ The mean current ratio of NSBI is higher than NBBL. It means NSBI has higher liquidity in compare to NBBL. The current ratio of NSBI is high consistent that that of NBBL.
- ❖ The mean ratio of cash and bank balance to total deposit ratio of NSBI is higher than NBBL. But ratio of NSBI is Less consistent than that of NBBL due to high coefficient of variation.
- ❖ The mean ratio of cash and bank balance to current assets ratio of NSBI is Lower than that of NBBL and also NSBI has less consistent than NBBL due to higher c.v.
- ❖ The mean ratio of investment on government securities to current assets of NSBI is Lower than that of NBBL. The variability of ratio of NSBI is less consistent than NBBL.
- ❖ The mean ratio of Loan and advance to current assets ratio of NSBI is higher than that of NBBL. Coefficient of variation indicates that NSBI is Less consistent that NBBL.

4.3.2 Assets Management ratio :

The assets management ratio of NSBI and NBBL reveals that:

- ❖ The mean ratio of Loan and advance to total deposit of NSBI is higher than that of NBBL. The coefficient of variation of NSBI has maintained lower than that of NBBL which indicates that NSBI is more consistent.
- ❖ The mean ratio of total Investment to total deposit of NSBI is Lower than that of NBBL. The variability of the total of NSBI is more consistent than NBBL.
- ❖ The mean ratio of Loan and advances to total working Fund of NSBI is higher than that of NBBL similarly, NSBI is more consistent than NBBL.
- ❖ The mean ratio of Investment on government securities to total working Fund of NSBI is lower than that of NBBL. The Variability of the Investment on share and debenture ratio of NSBI is lessconsistent.

4.3.3 Profitability Ratios :

The profitability ratio of NSBI and NBBL shows that:

- ❖ The mean ratio return on total working Fund of NSBI is lower than that of NBBL. During the Study period the return on total Working Fund ratio of NSBI is Lessconsistent than that of NBBL.
- ❖ The return on Loan & advance of NSBI is Lower than that of NBBL the is Less consistent than NBBL due to the higher coefficient of variation.
- ❖ The mean ratio during the study period of total interest earned to total working fund of NSBI is slightly higher than that of NBBL. The ratio of NSBI is less consistent than that of NBBL.
- ❖ During the study period, the mean ratio of total interest paid to total working Fund of NSBI is higher than that of NBBL. The total interest paid to total working Fund ratio of NSBI is more consistent than that of NBBL.

4.3.4 Risk Ratio:

The risk ratio of NSBI and NBBL reveals that:

- ❖ During the study period, the mean ratio of credit risk of NSBI is higher than that of NBBL. It means NSBI has bared more risk in comparison to NBBL. The credit risk ratio of NSBI is more consistent than that of NBBL.
- The mean liquidity risk ratio of NSBI is higher than that of NBBL. The liquidity risk ratio of NSBI is less consistent than that of NBBL.

4.3.5 Growth ratio:

From the analysis of growth ratio of NSBI and NBBL shows that :

- ❖ Growth ratio of Loan and advance of NSBI is higher than that of NBBL (i.e.60% > 9.2%). It means the performance of NSBI to grant Loan & advance in comparison to NBBL is higher.
- ❖ The Growth ratio of total investment of NSBI is higher than that of NBBL (I.e.57.8% >13.21%) This implies that NSBI has succeeded on the investment than NBBL.
- ❖ NSBI's growth ratio of total deposit is greater than NBBL (i.e.52.93% >37.48%) It indicates that the prefermance of NSBI to collecting rate of deposit is better than NBBL.
- ❖ The Growth ratio of Net profit of NSBI is much ratio higher than that of NBBL (i.e.196.57% > 18.12%).

From the above analysis it can be said that NSBI has maintained higher Level of growth ratio in total Loan & advance, total investment, total deposits and Net profit. We must say that NSBI is successful in increasing its sources of funds and its mobilization.

4.3.6 Correlation coefficient:

- ❖ The correlation coefficient (r) between total deposit and total profit of NSBI is 0.989 and 6 times probable error is 0.0398 since $r > 6 \text{ P.E.}(r)$ and (r) is positive and near by t. so it is found that there is highly positive and significantly correlative between two variables. Similarly correlation (R) between total deposit and net profit of NBBL is 0.86 and probable error multiplied by 6 is 0.47 since $r > 6 \text{ P.E.}$ And r is positive. So it can be said that there is positive and significant relationship between two variables.
- ❖ The correlation coefficient (r) between total deposit and total investment of NSBI is 0.99 and that correlation of NBBL is 0.84. The probable error times 6 is 0.025 of NSBI and that of NBBL has 0.54. Since correlation (r) is greater than 6.p.e. of NSBI. similarly correlation of (r) is higher than 6.p.e. of NBBL. So it is found that there is positive and significant correlation between two variables of both banks.
- ❖ The correlation coefficient (r) between deposits and Loans & advances of NSBI is 0.99 and probable error times 6 is 0.036 since $r > 6 \text{ p.e.}$ and r is highly positive. Similarly correlation (r) between total deposits and Loan & advances of NBBL is 0.94 and probable error times 6 is 0.22, since $r > 6 \text{ p.e}$ and r is positive. So it can be conclude that there is highly positive and significance correlation between two variables of both banks.
- ❖ The correlation coefficient (r) between current assets and current liabilities of both banks are 0.999 and probable error multiplied by 6 is 0.0036. Since $r > 6 \text{ p.e}$ (r) and r is highly positive. So it is found that there is significantly and highly positively correlated between two variables of both banks.

4.3.7 Trend Analysis

- ❖ The trend analysis of total deposit indicates that the total deposit of both NSBI & NBBL are in increasing trend. From this analysis it is forecasted that the total deposit of NSBI & NBBL will be Rs.16361.42 million and Rs.36423.22 million in year 2013, respectively.
- The trend value of Loan and advances of NSBI & NBBL has found in increasing trend. If other things remaining the same, the Loan and Advances of NSBI & NBBL will be Rs.14396.21 million and Rs.21529.08 million respectively.
- The trend analysis of total investment shows that the total investment of both banks has increasing trend. The total investment of NSBI & NBBL by the year 2013 is projected to be Rs.2982.27 million and Rs.22864.46, respectively.

The trend analysis of the Net Profit of both banks is in increasing trend. Of other things remaining the same, the Net Profit of NSBI & NBBL will be Rs.246.61 & Rs.676.97 million respectively in year 2013.

Chapter- V

Summary, conclusion and Recommendations.

5.1 Summary:

The economic development of a country indicates the overall development of the country. Therefore every country has given emphasis in upliftment of its economy. Nowadays, the financial institutions are viewed as catalyst in the process of economic growth. Commercial banks are the main financial institution, which collect scattered resources as deposit from the general public and mobilize that fund among those who are associated with the economic, commercial and social activities of a country as loan & advances and investment. A sound investment policy of a commercial bank plays a vital role for mobilization of fund and development of country. Investment grandly depends on the saving behaviors of that country. 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 savings on commodities rather than on financial assets. This restricts the process of financial intermediation, which might otherwise bring benefit such as reduction of investment risk and increase in liquidity. Investments depend on development of the capital market also. It provides and allocates funds to firms with profitable investment opportunities and offers an avenue of liquidity for individuals to invest current income or borrow against future income.

Investments in its broader sense, means the sacrifice of current income and present value for future income. The different attributes are generally involved. The sacrifice takes place in the present and its magnitudes are generally uncertain. An investment activity of the country also depends on the development of financial institution, as financial institution is a key for investment. Industrial development is very important for economic development of any country. And there must be investment and productive activities for industrial development.

Investment analysis is done to know and evaluate the investment policy which is currently adapted by NSBI & NSBI. Investment analysis help to identify the bank's current strengths and weakness and to suggest taking action that might enable the bank to take the advantage of its strengths and correct its weakness.

The main objective of the study is to evaluate investment policy of NSBI & NBBL and to suggest measure to improve the investment policy of the bank. This study is mainly

based on secondary data from the year 2008 to 2012. The data have been basically obtained from annual reports and financial statements of related banks, official records, journals and bulletins, various published reports, relevant unpublished master's thesis and different related website.

In this study, the financial tools ratio analysis viz. liquidity ratio, assets management ratio, profitability ratio, risk ratio, growth ratio and statistical tools like mean, standard deviation, co-efficient of variation trend analysis, and correlation co-efficient have been used for the analysis and interpretation of the data. The various ratios show the investment position of the NSBI & NBBL, over the 5 years period. Correlation analysis helps to establish the relationship between two variables, which can be useful to know how one variable affects another.

Similarly, trend analysis is used to find out the trend of some important tool like total deposit, loan & advances, net profit and total investment on the basis of past data of the bank. This can be used to predict the value of these elements in future.

5.2 Conclusion:

- ❖ After analyzing the liquidity ratios, it is found that the liquidity position of NSBI is comparatively better than that of NBBL. NSBI's liquidity position is satisfactory but liquidity position of NBBL is not satisfactory.
- ❖ The assets management ratio (activity ratio) shows that the portion of investment of its fund made by NSBI is lower than that of NBBL. But the portion of loan and advances of its total deposit is higher than that of NBBL. The portion of investment on government security of its total working fund made by NSBI is lower than NBBL. So, it can be concluded that the performance of overall assets management of NSBI is not so good as that of NBBL.
- ❖ The profitability ratio shows that the profitability position of NBBL is better than that of NSBI. From the study it can be concluded that NSBI's profit earning capacity by utilizing available resources is weak than NBBL.
- ❖ The risk ratio implies that during the study period the credit risk ratio of NSBI is higher than that of NBBL. So, it can be concluded NSBI has borne more risk in comparison to NBBL.

- ❖ The analysis of growth ratios shows that the NSBI has maintained the higher level of growth ratios in all ratios. NBBL has not successfully collected and utilized its fund collected from the customer due to see growth rate of total deposit, loan and advances, total investment, and net profit.
- ❖ From the correlation analysis it shows that the correlation coefficient (r) between total deposit and net profit of NSBI is 0.989 and is greater than 6 times of probable error, which reveals that there is very strong positive and significant relationship between total deposit and net profit if NSBI. Similarly, correlation coefficient (r) between total deposit and net profit of NBBL is 0.86 and is greater than 6 times of probable error, which indicates that there is highly positive but lower than that of NSBI and significant relationship between two variables. The correlation coefficient (r) between total deposit and total investment of NSBI & NBBL is 0.986 & 0.70 respectively and 6 times of probable error of both banks are low than correlation so it can be concluded that there is highly positive and significant relationship between two variables of both bank. Similarly, correlation between total deposit & loan & advance of both banks are higher than 6 times of probable error. Hence, there is highly positive & significance relationship between two variables. The correlation between CA & CL of both banks is same and greater than 6 times probable error. So, it can be concluded that there is positive & significant relationship between two variables of both banks. Since, it can be said that the increase and decrease of one variable affects the volume of one another variables.

From the study of trend value, it can be said that the trend value of total deposit, loan and advances, total investment and net profit are in increasing trend. The deposit collection position of NBBL is higher than that L. So, it can be concluded that, if other things remain same, the NSBI & NBBL will increase their deposits, investments, loan & advances and net profit in future.

5.3 Recommendation:

Recommendations are the final output of the whole study. It helps to convey positive information and proper way of improvement to concern banks i.e. NSBI and NBBL and other interest researchers in upcoming days. On the basic of analysis and

conclusion with the findings of the study, following suggestions and recommendation can be advanced to overcome weakness, inefficiency and to improve present fund mobilization and investment policy of NSBI & NBBL.

- The liquidity ratio of both banks is less than normal standards ratio of 2:1. However the ratio 1:2 or above would be considered acceptable but current ratio of NBBL is less than 1:1. So, NBBL is recommended to maintain their liquidity position in normal standards.
- Cash and bank balance to total deposit ratio of both bank is less than the NRB's minimum requirement (i.e. 12% of total deposit liability). So, the both banks are suggested that they should maintain the minimum requirement of cash and bank balance.
- The commercial bank's main source of fund is collection deposit from public who don't need that fund recently. Deposit collection has played a significant role in term of daily activities in the commercial bank. It has found that the growth rate of deposit collection of NBBL is lower than that of NSBI. So, it is recommended to NBBL to collect more amounts as deposit through largely variety of deposit schemes and facilities.
- The NSBI has given more priority to invest its fund in government securities rather than to invest on share and debentures. Though government securities are considered to be risk free but such securities yield the lower interest rate in comparison to the share and debentures. So NSBI is suggested not to give more priority to the government securities and diversify the investment policy on more yield base funds.
- The NSBI is suggested to decrease the total interest expenses which will be better position of banking generate income.
- The NBBL has invested certain amount of its deposit on loan & advance. Loan and advance is main source to generate more profit of the bank. Due to the less investment on loan & advances, the interest income will be less which is major source of income. This can have an adverse effect on the overall profitability of the bank. So the NBBL is suggested that the bank should mobilize its deposits on loan and advances in generating income purpose.
- As a bank of private sector, commercial banks cannot keep their eyes closed from the profit motive. They should be careful to increasing profit in a real sense to maintain the confidence of shareholder, depositors and its all customers NSBI's profitability

position in lower condition than NBBL. So NSBI is recommended to utilize risky assets and shareholder's fund to gain highest profit margin. Similarly, it should reduce its expenses and try to make more profit by proper utilization of deposited money.

- In the light of growing competition in the banking sector, the business of the bank should be customer oriented. Marketing is an effective tool to attract customer so it should be strong and activate. Without effective marketing strategy any organization could be along in the competitive market. Different marketing techniques like advertisement through audio-visual, published website, documentary, etc. are followed. Likewise, draw attentions of customers through new technology, like interne banking service, increase investment through their wide international banking network should be introduced. It is recommended that NBBL & NSBI should develop innovative approach to banks marketing for its wellbeing's and sustainability in the market upgrade the banking facilities so as to cope with the charging environment of the banking business.
- Economic development of the country depends upon the growth of commercial banks. If the service of commercial banks expands all over the country it will collect idle money from different areas and can be utilized for income generation purpose. So, NSBI & NBBL should expand its hands all over rural and urban areas of the country, not only in capital. NRB and HMG/N have also encouraged the joint venture banks to expand banking services in rural areas and communities without making unfavorable impact in their profit. Therefore, NBBL&NSBI are recommended to expand its branches and provide banking service and facilities to the rural areas and communities to accelerate and the rural areas economic development through opening new branches in particular areas after making feasibility study and study well about saving and business potentiality of those areas, it is very helpful to bank in tapping the resources of different areas.

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Websites

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Appendix - 1
Current Ratio of NSBI

(Rs.in million)

FY	Current assets	Current liabilities	Ratio (in times)
2008	1390.90	1245.75	1.12
2009	2758.23	2622.50	1.05
2010	5054.53	4938.43	1.02
2011	7284.32	6772.31	1.08
2012	8633.60	8125.07	1.06

NBBL

FY	C.A	C.L	C.R.
2008	14165.33	19433.25	0.73
2009	16881.45	21899.93	0.77
2010	19451.52	24314.4	0.80
2011	20867.78	25516.33	0.83
2012	23153.10	27334.21	0.85

Appendix -2
Cash and Bank balance to Total deposited of

NSBI

FY	Cash and Bank balance	Total deposit	Ratio (%)
2008	129.15	1179.89	10.95
2009	291.71	2513.14	11.61
2010	685.47	4807.94	14.26
2011	443.37	6268.95	7.08
2012	389.63	7768.89	5.01

NBBL

FY	Cash and Bank balance	Total deposit	Ratio (%)
2008	1264.67	1861.9	6.80
2009	1679.21	21007.37	9.42
2010	1768.70	22760.90	7.77
2011	2014.47	24814.01	8.12
2012	1717.35	26490.85	6.48

Appendix - 3
Cash and bank balance to current assets Ratio of NSBI

(Rs. in million)

FY	Cash and Bank balance	Current assets	Ratio (in%)
2008	129.25	1390.90	9.29
2009	291.71	2758.23	10.57
2010	685.47	5054.53	13.56
2011	443.37	7284.32	6.09
2012	389.63	8633.60	4.51

NBBL

FY	Cash& Bank balance	Current assets	Ratio (in%)
2008	1264.67	14165.33	8.93
2009	1974.21	16881.45	11.72
2010	1768.70	11451.52	9.09
2011	2014.47	20867.78	9.65
2012	1717.35	23153.10	7.42

Appendix - 4
Investment on Government securities to C.A. Ratio.
NSBI

(Rs. In million)

FY	Investment on govt. securities	C.A.	Ratio (%)
2008	116.70	1390.90	8.39
2009	235.63	2758.23	8.54
2010	601.61	5054.53	11.90
2011	1119.99	7284.32	15.37
2012	1114.32	8533.60	12.91

NBBL

FY	Investment on govt. securities	C.A.	Ratio (%)
2008	3047.75	14165.33	21.52
2009	3998.87	16881.45	23.69
2010	2781.7	19451.52	14.30
2011	4569.72	20867.78	26.21
2012	5144.31	23153.10	22.22

Appendix – 5

Loan & advance to current Assets Ratio

NSBI

(Rs. In Million)

FY	Loan & advance	Current Assets	Ratio (%)
2008	1111.56	1390.90	79.92
2009	2105.74	2785.23	76.34
2010	3649.00	5054.53	72.19
2011	5584.64	7284.32	76.67
2012	6891.86	8633.60	79.83

NBBL

FY	Loan & advance	Current Assets	Ratio (%)
2008	8913.73	14165.33	62.93
2009	10001.85	16881.45	59.25
2010	13081.7	19451.52	67.25
2011	12424.52	20867.78	59.54
2012	14642.56	23153.10	63.24

Appendix - 6

Loan and Advance to Total deposit Ratio

NSBI

FY	Loan & advance	Total deposit	Ratio (%)
2008	1111.56	1179.89	94.21
2009	2105.74	2513.14	83.79
2010	3649.00	4807.94	75.89
2011	5584.64	6268.95	89.08
2012	6891.86	7768.89	88.71

NBBL

FY	Loan & advance	Total deposit	Ratio (%)
2008	8913.73	18619.37	47.87
2009	10001.85	21007.37	47.61
2010	13081.7	22760.90	57.47
2011	12424.52	24814.01	50.07
2012	14642.56	26490.85	55.27

Appendix - 7
Total Investment to Total deposit Ratio

NSBI

FY	Total Investment	Total deposit	Ratio (%)
2008	255.00	1179.89	21.61
2009	423.15	2513.14	16.84
2010	983.50	4807.94	20.45
2011	1190.27	6268.95	18.99
2012	1394.95	7768.89	17.95

NBBL

FY	Total Investment	Total deposit	Ratio (%)
2008	3047.75	18619.37	16.37
2009	3998.87	21007.37	19.04
2010	2878.30	22760.90	12.65
2011	11692.34	24814.01	47.12
2012	10889.03	26490.85	41.10

Appendix - 8
Loan and advance to Total Working fund Ratio

NSBI

FY	Loan & advance	Total working fund	Ratio (%)
2008	1111.56	1592.76	69.79
2009	2105.74	2986.17	70.52
2010	3649.00	5494.18	66.41
2011	5584.64	7437.88	75.08
2012	6891.86	9010.28	76.49

NBBL

FY	Loan & advance	fun Total working	Ratio (%)
2008	8913.56	20672.45	43.12
2009	10001.85	23355.23	42.82
2010	13081.7	26751.20	48.90
2011	12424.52	27418.16	45.31
2012	14642.56	29460.04	49.70

Appendix - 9**Investment on govt. security to total working fund ratio****NSBI**

FY	Investment on govt. Security	fun Working fund	Ratio (%)
2008	116.70	1592.67	7.33
2009	235.63	2986.17	7.89
2010	601.61	5494.18	10.95
2011	1119.99	7434.88	15.06
2012	1114.43	9010.28	12.37

NBBL

FY	Investment on govt. Security	Working fund	Ratio (%)
2008	3047.75	20672.45	14.74
2009	3998.87	23355.23	17.12
2010	2781.70	26751.16	10.40
2011	5469.72	27418.16	19.95
2012	5144.31	29460.04	17.46

Appendix - 10
Investment on govt. securities to total Investment Ratio
NSBI

FY	Investment on share & debenture	Working fund	Ratio (%)
2008	0	1592.67	-
2009	0	2986.17	-
2010	0	5494.18	-
2011	0.353	7437.88	0.0047
2012	0.353	9010.28	0.0039

NBBL

FY	Investment on share & debenture	Working fund	Ratio (%)
2008	34.27	20672.45	0.17
2009	34.27	23355.23	0.15
2010	42.80	26751.20	0.16
2011	39.91	27418.16	0.15
2012	39.91	29460.04	0.14

Appendix - 11
Return on the working fund Ratio
NSBI

(Rs. In Million)

FY	Net profit (Loss)	Total working fund	Ratio (%)
2008	1.34	1592.67	0.084
2009	12.47	2986.17	0.147
2010	48.68	5494.18	0.886
2011	87.88	7437.88	1.180
2012	103.67	9010.86	1.50

NBBL

FY	Net profit (Loss) '	Total working fund	Ratio (%)
2008	235.02	20672.45	1.14
2009	212.12	23355.23	0.91
2010	278.51	26751.20	1.04
2011	308.27	27418.16	1.12
2012	457.45	29460.04	1.55

Appendix-12
Return on Loan & advance Ratio

NSBI

FY	Net profit	Loan & advance	Ratio (%)
2008	1.34	1111.56	0.12
2009	12.47	2105.74	0.59
2010	48.68	3649.00	1.33
2011	87.88	5584.64	1.57
2012	103.67	6891.86	1.50

NBBL

FY	Net profit	Loan & advance	Ratio (%)
2008	235.02	8913.73	2.64
2009	212.12	10001.85	2.12
2010	278.51	13081.7	2.13
2011	308.27	12424.52	2.48
2012	457.45	14642.56	3.12

Appendix-13**Total Interest earned to Total Working fund Ratio of NSBI****(Rs.in million)**

F.Y.	Total Interest earned	Working fund	Ratio(%)
2008	96.35	1592.67	6.05
2009	185.09	2986.17	6.20
2010	310.21	5494.18	5.65
2011	499.92	7437.88	6.72
2012	605.53	9010.28	6.72

NBBL

F.Y.	Total Interest earned	Workingfu fund	Ratio(%)
2008	1149.00	20672.45	5.56
2009	1201.23	23355.23	5.14
2010	1308.22	26751.20	4.89
2011	1446.47	27418.16	5.27
2012	1626.47	29460.04	5.52

Appendix-14**Total Interest Paid to Workin^g fund Ratio of NSBI**

F.Y.	Total Interest earned	Working fund	Ratio
2008	48.13	1592.67	3.02
2009	92.94	2986.17	3.11
2010	163.90	5494.18	2.98
2011	240.13	7437.88	3.23
2012	337.05	9010.28	3.74

NBBL

F.Y.	Total Interest earned	Working fund	Ratio
2008	578.13	20672.45	2.80
2009	554.13	23355.23	2.37
2010	557.24	26751.20	2.08
2011	561.96	27418.16	2.05
2012	648.84	29460.04	2.20

Appendix-15**Credit Risk Ratio of NSBI**

F.Y.	Loon & advance	Total assets	Ratio
2008	1111.56	1592.76	69.79
2009	2105.74	2986.17	70.52
2010	3649.00	5494.18	66.42
2011	5584.64	7437.88	75.08
2012	6891.86	9010.28	76.49

NBBL

F.Y.	Loan & advance	Total assets	Ratio
2008	8913.73	20672.45	43.12
2009	10001.85	23355.23	42.82
2010	13081.7	26751.20	48.90
2011	12424.52	27418.16	45.31
2012	14642.56	29460.04	49.70

Appendix: 16 Liquidity Risk Ratio of NSBI

F.Y.	Liquid assets	Total Deposit	Ratio
2008	129.25	1179.89	10.95
2009	291.71	2531.14	11.61
2010	685.47	4807.94	14.26
2011	443.37	6268.95	7.07
2012	389.63	7768.89	5.02

NBBL

F.Y.	Liquid assets	Total Deposit	Ratio
2008	1264.67	18619.37	6.79
2009	1479.21	21007.37	9.42
2010	1768.70	22760.90	7.77
2011	2014.47	24814.01	8.12
2012	1717.35	26490.85	6.48

Growth Calculations:

D_n = Total Deposit in the n th year.

D_0 = Total Deposit in the initial year. G = Growth rate

Now, We have

$$D_n = D_0 (1+g)^{n-1}$$

$$D_{2010} = D_{2006} (1+g)^4$$

Appendix: 17

Calculation for Growth Ratio of Total deposit NSBI

$$7768.89 = 1179.89(1+g)^4$$

$$(1+g) = \frac{7768.89}{1179.89} = 6.60 \therefore g = 560\%$$

$$NBBL \quad 26490.85 = 18619.37(1+g)^{5-1}$$

$$1+g = \sqrt[4]{\frac{26490.85}{18619.37}}$$

$$\therefore g = 0.092 = 9.2\%$$

Appendix-18

Calculation for growth of Total Loan & Advance NSBI

$$6891.86 = 1111.56 (1+g)^{5-1}$$

$$(1+g) = \sqrt[4]{\frac{6891.86}{1111.56}}$$

$$1+g = 1.578$$

$$\therefore g = 0.578 = 57.8\%$$

NBBL

$$14642.56 = 8913.73(1+g)^5$$

$$(1+g) = \sqrt[5]{\frac{14642.56}{8913.73}}$$

$$1+g = 1.1321$$

$$g = 1.1321 - 1$$

$$\therefore g = 0.1321 = 13.21\%$$

Appendix-19

Calculation for growth ratio of total Investment

NSBI

$$1394.95 = 255 (1+g)^1$$
$$(1+g) = \frac{1394.95}{255}$$

$$255 (1+g) = 1394.95$$

$$1+g = 1.578$$

$$\text{or, } g = 1.578 - 1 = 0.578 = 57.8\%$$

NBBL

$$10889.03 = 3047.75 (1+g)^5$$
$$= \frac{10889.03}{3047.75}$$

$$1+g = 1.3718 \quad g = 1.3718 - 1$$

$$\therefore g = 0.3718 = 37.18\%$$

Appendix-20

Calculation of Growth Ratio of Net Profit

NSBI

$$103.67 = 1.34(1+g)^5$$
$$(1+g) = \frac{103.67}{1.34}$$

$$1+g = 2.57$$

$$g = 2.57 - 1 = 1.57 = 157\%$$

NBBL

$$457.45 = 235.02 (1+g)^5$$
$$(1+g) = \frac{457.45}{235.02}$$

$$1+g = 1.946$$

$$g = 1.946 - 1$$

$$\therefore g = 0.946 = 94.6\%$$

Appendix-21

Trend value of Total deposit

NSBI

Year (t)	Total deposit (Y) Rs. in million	X = t-2010	X ²	XY	Y=a+bx
2008	1179.89	-2	4	-2359.78	1121
2009	2513.14	-1	1	-2513.14	2.814
2010	4807.94	0	0	0	4507.76
2011	6268.95	1	1	6268.95	6201.14
2012	7768.89	2	4	15537.78	7894.52
Total	$\Sigma Y = 22538.81$		$\Sigma X^2 = 10$	$\Sigma XY = 16933.81$	

$$n = 5,$$

$$a = \frac{\Sigma Y}{\Sigma n} = \frac{22538.81}{5} = 4507.76$$

$$b = \frac{\Sigma XY}{\Sigma x^2} = \frac{16933.81}{10} = 1693.38$$

Projected trend value of Total deposit (2011-2013)

Year (t)	X = t- 2010	Y = 4507.76 + 1693.38 X
2009	3	9587.9
2010	4	11281.28
2011	5	12974.66
2012	6	14668.04
2013	7	16361.42

NBBL

Year (t)	Total deposit (Y) Rs. in million	X = t-2010	X ²	XY	Y=a+bx
2010	18619.37	-2	4	-37238.74	18828.58
2009	21007.37	-1	1	-21007.37	20783.54
2010	22760.90	0	0	0	22738.5
2011	24810.01	1	1	24814.01	24693.46
2012	26490.85	2	4	52981.70	26648.42
Total	113692.5	0	$\sum X^2 = 10$	$\sum XY = 19549.6$	

Now,

n=5,

$$a = \frac{\sum Y}{n} = \frac{113692.5}{5} = 22738.5$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{19549.6}{10} = 1954.96$$

Projected trend value of Total deposit

Year(t)	X = t-2010	Y = 22738.5 + 1954.96 X
2009	3	28603.38
2010	4	30558.34
2011	5	32513.3
2012	6	34468.26
2013	7	36423.22

Appendix-22
Trend value of Loan & Advances.

NSBI

Ye	Loan & Advance (Y) Rs. in million	X = t-2010	X ²	XY	Y=a+bx
2008	1111.56	-2	4	-2223.12	860.66
2009	2105.74	-1	1	-2105.74	2364.61
2010	3649.00	0	0	0	3868.56
2011	5584.64	1	1	5584.64	5372.51
2012	6891.86	2	4	13783.72	6876.46
Total	$\sum Y = 19342.8$		$\sum X^2 = 10$	$\sum XY = 15039.5$	

Now,

n=5,

$$a = \frac{\sum Y}{n} = \frac{19342.8}{5} = 3868.56$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{15039.5}{10} = 1503.95$$

Projected trend value of Loan & Advance

Year (t)	X = t- 2010	Y = 3868.56 + 1503.95 X
2008	3	8380.41
2009	4	9884.36
2010	5	11388.31
2011	6	12892.26
2012	7	14396.21

NBBL

Year (t)	Loan & Advances (Y) Rs. in million	X = t- 2010	X ²	XY	Y=a+bx
2008	8913.73	-2	4	-17827.46	9036.81
2009	10001.85	-1	1	-10001.85	1042.84
2010	13081.07	0	0	0	11812.87
2011	12424.52	1	1	12424.52	13200.9
2012	14642.56	2	4	29285.12	14588.93
Total	$\sum Y = 59064.36$		$\sum X^2=10$	$\sum XY=13880.33$	

Now, n=5,

$$a = \frac{\sum Y}{n} = \frac{59064.36}{5} = 11812.87$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{13880.33}{10} = 1388.03$$

Projected trend value of Loan & Advance

Year (t)	X = t- 2010	Y = 11812.87 + 1388.03X
2009	3	15976.96
2010	4	17364.99
2011	5	18753.02
2012	6	20141.05
2013	7	21529.08

dix-23
Trend value Analysis of Total Investment Of
NSBI

t	Total investment (Y) Rs in million.	X = t-2010	X ²	XY	Y=a+bx
2008	255	-2	4	-510	239.97
2009	423.15	-1	1	-423.15	544.67
2010	983.15	0	0	0	849.37
2011	1190.27	1	1	1190.27	1154.07
2012	1394.95	2	4	2789.90	1459.77
Total	$\sum Y = 4246.83$		$\sum X^2 = 10$	$\sum XY = 3047.02$	

Now,

n = 5,

$$a = \frac{\sum Y}{n} = \frac{4246.83}{5} = 849.37$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{3047.02}{10} = 304.70$$

Then,

Projected trend value of Total Investment

Year(t)	X=t-2010	Y=849.37+304.70X
2009	3	1763.47
2008	4	2068.17
2010	5	2372.87
2011	6	2677.57
2012	7	2982.27

NBBL

t	Total Investment (Y) Rs. in million	X = t-2010	X ²	XY	Y=a+bx
2008	3047.75	-2	4	-6095.5	1826.06
2009	3998.87	-1	1	-3998.87	4163.66
2010	2878.30	0	0	0	6501.26
2011	11692.03	1	1	11692.34	8838.86
2012	108890.03	2	4	21778.06	11176.46
Total	∑Y = 32506.32	0	∑X ² -10	∑XY 23376.03	

Now,
 $n = 5,$
 $a = \frac{\sum Y}{n} = \frac{32506.32}{5} = 6501.26$
 $b = \frac{\sum XY}{\sum X^2} = \frac{23376.03}{10} = 2337.60$

Appendix-24
Trend value Analysis of Total Net Profit SBI

Ye	Net Profit (Y) Rs. in million	X = t-2010	X ²	XY	Y=a+bx
2008	1.34	-2	4	-2.68	-5.39
2009	12.47	-1	1	-12.47	22.61
2010	48.68	0	0	0	50.61
2011	87.88	1	1	87.88	78.61
2012	103.67	2	4	207.34	106.61
Total	∑Y = 253.04		∑X ² -10	∑XY= 280.07	

Then,

Now,
 $n = 5,$
 $a = \frac{\sum Y}{n} = \frac{253.04}{5} = 50.61$
 $b = \frac{\sum XY}{\sum X^2} = \frac{280.07}{10} = 28.00$

Projected trend value of Total Net Profit

Year (t)	X = t- 2010	Y = 50.61 + 28 X
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2009	3	134.61
2010	4	162.61
2011	5	190.61
2012	6	218.61
2013	7	246.61

NBBL

Y	Net Profit (Y) Rs. in million	X = t-2010	X ²	XY	Y=a+bx
2008	235.02	-2	4	-470.07	190.07
2009	212.12	-1	1	-212.12	244.17
2010	278.51	0	0	0	298.27
2011	308.27	1	1	308.27	252.37
2012	457.45	2	4	914.9	406.47
Total	$\sum Y = 1491.37$		$\sum X^2 = 10$	$\sum XY = 541.01$	

Now, n=5,

$$a = \frac{\sum Y}{n} = \frac{1491.37}{5} = 298.27$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{541.01}{10} = 54.10$$

Then,

Projected trend value of Total Net Profit

Year (t)	X = t- 2010	Y = 298.27 + 54.10 X
2009	3	460.57
2010	4	514.67
2011	5	568.77
2012	6	622.87
2013	7	676.97