

CHAPTER – I

INTRODUCTION

1.1 Background of the Study

Integrated and speedy development of the country is possible only when competitive banking service reaches nook and corners of the country because it is not possible to develop all the sectors by the investment of funds by the government alone. Commercial bank occupies quite an important place in the framework of every economy because it provides capital for the development of industry, trade and business by investing the saving collected as deposits from public. A bank is an institution that deals with money and credit. It accepts deposits from individuals and business institutions and mobilizes the fund to productive sectors. It also provides remittance facility to transfer money from one place to another. Banks are the most important financial institutions in the economy. They are also the lending buyers of bond and cater to the need for financial services to the public and their enterprises. They are also the most important source of short term working capital for business and long-term business loans for new plants and equipments. Therefore, Banks are the principle source of credit for individual, business and government.

Bank is a dealer of money. At present context, bank is not only confined to accepting deposits and disbursing loan but also engaged in different function as remittance, exchange currency, joint venture, under-writing, bank guarantee, discounting bills, facilitating foreign trades through letter of credit (LC) etc.

Nepal is adopting mixed economy where public and private sectors co-exist. Nepal is a developing country. In any economy, the importance of financial sector in general and banking sector in particular cannot be undermined. Banking sector

definitely plays a vital role in the overall development of an economy. The Nepalese banking sector is at an exciting point in its development. The opportunities to enter new business and new markets and to deliver higher levels of customer services are immense. As the Nepalese banks position themselves as financial service providers, banking business is getting refined. Technology is unseating the earlier business process and costumers, behavior is undergoing considerable changes. These have enhanced the forces of competition.

It is said that the banking sector mirrors the large economy. Its linkage to all sectors makes it a proxy for what is happening in the economy as a whole. Indeed, the Nepalese banking sector today has the same sense of excitement and opportunity that is evident in the Nepalese economy. Nepal economic progress is being declined, political stability is not cleared and agriculture production is not sufficient, the number of financial institution is being increased day by day. In the recent time, there are 32 commercial banks, 87 development banks, 80 finance companies, one stock exchange, 24 insurance companies, one employees provident fund, one credit guarantee and deposit insurance corporation and one citizen investment trust and 21 micro-finance institutions in Nepalese financial market. The numbers of co-operatives are uncountable and there are many more financial institutions in pipeline.

Increasing financial institution has no harms for the country. This will help the nation's economic growth. From side of customer also they will get cheapest and best service in the banking field and it is sure that any business activities will help youth and educated unemployment problem will be decreased. But there is a little harder for self banking and financial institutions. All the financial institutions small or large are being involved only in dealing with undifferentiated vanilla banking products. Because of numerous increment of financial institution, the tough competition is raised automatically among them. So the FIS are developing

their skills and products to attract the customers and increasing interest to saver and decreasing interest to creditors.

The primary objective of this joint venture is always to earn profit by investing or granting loan and advances to people associated with trade, business and industry etc that means they are required to mobilize their resources properly to acquire profit. How well a bank manages its investment has a great deal to do with the economic health of the country because the bank loans support the growth of new business and trade empowering the economic activities of the country.

Working capital management is concerned with the management of current assets, current liabilities and the interrelationship than exists between them. In other way, working capital management is concerned with the problem that arises in attempting to manage the current assets and current liabilities.

The important of working capital management is increased in today's financial management world. Basically in the course of taking decision of investment matters, the financial manager need to assess the short term assets management that is called working capital management. Only with analyzing proper facts of working capital their short term funds or assets with become more productive. Hence, the firm performance in terms of success or failure can be drawn with\or without proper manage of working capital. The aim of working capital management is to manage the current assets and current liabilities of the firm to keep at satisfactory level. It helps the organization to operate day to day transaction and operation without any interruption. If the firm does not maintain the satisfactory level of working capital, it is likely to become insolvent and may even be forced into bankruptcy.

1.1.4 Introduction of Nepal SBI Bank Limited (NSBIL)

Nepal SBI Bank was incorporated in Nepal on April 28, 1993 as a public limited company. It commenced operations on July 7, 1993 and is principally engaged in the business of banking, as defined in the banks and financial Institutions Act, 2006. The Bank is listed on Nepal Stock Exchange, Kathmandu.

Nepal SBI Bank (NSBIL) has since expanded into a network of 59 banking and non-banking outlets including 50 full-fledged commercial banking branches, 6 extension counters and 3 administrative offices. A network of 68 online ATMs covering all major cities in Nepal, 24 hours mobile Banking and internet banking services support the delivery for speedier customer service, As on July 16,2011, the bank with a staff complement of 505 employees, had an equity of Rs 2.1 billion and total assets of Rs 46.1 billion, with more than 3,00,000 banking customers.

The Bank has been taking up diverse community service. Initiatives beyond the call of regular banking business to establish itself as a responsible corporate citizen of this great nation. Its aim is to become "the banker to every Nepali".

Shareholders Information

The ordinary shares of Nepal SBI Bank limited (NSBIL) are listed on the Nepal Stock Exchange. The stock exchange symbol of Nepal SBI's share is SBI. Two institutional promoters hold 70 percent of total shares in the bank and rest is distributed among nearly 18,187 general shareholders. State bank of India holds 55% of the total ownership whereas Employee provident fund continue to hold 15% shares.

1.1.5 Introduction of Nepal Investment Bank Limited (NIBL)

Nepal Investment Bank Limited (NIBL) previously Nepal Indosuez Bank Limited, was established on 21st January 1986 as a second commercial joint venture bank with an agreement between Nepalese and French partners under the company act 1964. Initially Banque Indosuez pares managed the bank in accordance with joint venture and technical services. With the decision of credit Agricola Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen of Nepal has acquired on 25th April 2002 the 50 percent shareholding of credit Agricola Indosuez in Nepal Indosuez Bank limited. The name of the bank has been changed to Nepal Investment Bank Limited (NIBL) upon approval of banks 15th Annual General meeting, Nepal Rastra Bank and company Registrars office on 31st may 2002. The present shareholding pattern of NIBL is as follows:

A Group of companies	50%
Rastriya Banijya Bank	15%
Rastriya Beema Sansthan	15%
General public	20%

1.2 Statement of the Problem

Under and over allocation of working capital is harmful to an enterprise to achieve its primary objectives. Therefore, maintaining optimal level of working capital is the crux of the problem as it is strongly related to the tradeoff between risk and return. But it is difficult to point out as to how much working capital needed by a particular business organization. An organization which is not willing to take more financial risks can go for more short-term liquidity. The more of short-term liquidity means more of current assets and less of current liabilities. The less current liabilities implies less short-term financing heading to the lower returns resulting from the use of more high cost long-term financing. So it is very essential to analyze and find out problems and its solutions to make efficient use

of funds for minimizing the risk of loss to attain profit objective. Inadequate investment in working capital threatens the solvency of enterprise as well as affects its growth. On the other hand, excessive investment in working capital yields nothing. Therefore, working capital should be determined in such a way that total cost i.e. cost of liquidity and cost of non-liquidity is minimum. Hence, the goal of working capital management is to manage the firm's current assets and current liabilities in such a way that it should maintain satisfactory level.

NSBIL and NIBL seen well in comparison to other joint venture Banks on the account of their performance and profitability as well. It is the question of the study that whether there is any relationship of working capital management with regard to their performance and profitability among these banks.

So, following are the major problems that have been identified for the purpose of this study.

- How to build the image of Bank through working capital management?
- Which of current assets are more problematic in NSBIL and NIBL?
- How to utilize the liquidity in NSBIL and NIBL?
- What is the management attitude towards risk?
- What are the components of working capital, which affect the operating income of sample banks?
- What lending pattern of loan and advances and other investment will be profitability?

1.3 Objectives of the Study

The main objective of this study is to examine the management of working capital NSBIL and NIBL. The specific objectives of this study are as follows:

- To analyze the current assets and current liabilities and their impact on liquidity and profitability.

- To examine the working capital management of NSBIL and NIBL.
- To assess the liquidity, composition of working capital, assets utilization and profitability.

1.4 Significance of the Study

Working capital is regarded as the life blood and nerve of a business concern and is essential to accommodate the smooth operations of any organizations. Under and over allocation of working capital is harmful to an enterprise to achieve its primary objectives. Inadequate investment in working capital threatens the solvency of enterprise as well as affects its growth. On the other hand excessive investment in working capital yields nothing.

The study has multidimensional significance, which can be divided into four broader headings.

- Its significance to shareholders: the study might be helpful to go deep into the matters as to why working capital management, i.e. liquidity and profitability of their banks. The comparison will help them to identify the productivity of their funds in each of these two banks.
- Its significance to the management: the study might be helpful to go deep into the matters as to why working capital management of their banks is better (or worse) than their competitors.
- Its significance to the outsiders: among outsiders mainly the customers, financing agencies, stock exchanges and stock traders are interested in the performance of banks and the costumers (both depositors and debtors) can identify to which bank they should go. The financial agencies can understand where is more secured and stock exchange, stockbrokers and stock traders can find out the relative worth the stocks of each bank.

- Its significance to the policy makers: policy makers here refer to the government and Nepal Rastra Bank. The study will be helpful to them while formulating the policy regarding commercial banks.

1.5 Limitations of the Study

A research is a full blaze and vast investigation study for the settlement of the problem. It needs full time, adequate money and authentic information. So, these factors are assumed to be limit for this study. Some other limitations are:

- This study is only made for the perspective study of working capital management of NSBIL and NIBL.
- The study covers only the period of last five years i.e. from F/Y 2063/64 to 2067/68.
- This study is mostly based on secondary data. Therefore, the findings of the study solely depend on the reliability of such data.
- The accuracy of this study is based on true response and the data available from management of the banks.
- This study is prepared for the partial fulfillment of Master of Business Studies of Tribhuvan University.

1.6 Organization of the Study

The study has been organized into five chapters. The title of each of these chapters is as follows:

Introduction chapter comprises background of the study, focus of the study, statement of problem, objectives of the study, significance of the study and limitation of the study.

Review of literature chapter comprises conceptual review of the capital structure and review of the past thesis.

Research methodology deals with the method of investigation and includes research design, nature of the data, data collection procedure and tools used.

Data presentation and analysis of data deal with different statistical and the financial tools that used in the analysis of the data.

Last chapter includes the summary, conclusions of the study and recommendation. After all, the bibliography and appendices are included.

CHAPTER - II

REVIEW OF LITERATURE

Conceptual Framework

2.1 Concept of Working Capital Management

Working capital management is defined as the management of all the short term assets used in daily operations; /or transactions of the firm. In other way, working capital management is concerned with the management of current assets, current liabilities and the interrelationship that exists between them. Current assets refer to these assets that can be converted into cash within very short period of time e.g. cash, inventories, accounts receivable, marketable securities etc. Current liabilities are those liabilities that are to be paid within a very short period of time. e.g. accounts payable, bills payable, bank overdraft, outstanding expenses etc. Here very short period of times denotes to period up to one year. Therefore, working capital management is concerned with the problems that arise in attempting to manage the current assets and current liabilities.

The practice of working capital management is increased in today's financial management world. Basically in the course of taking decision of investment matters, the financial manager need to assess the short term assets management that is called working capital management. Only with analyzing proper facts of working capital their short term funds or assets with become more productive. Hence, the firms performance in terms of success or failure can be drawn with/ or without proper manage of working capital. The aim of working capital management is to manage the current assets and liabilities of the firm to keep at satisfactory level. It helps the organization to operate day to day transaction and operation without any interruption. If the firm does not maintain the satisfactory

level of working capital, it is likely to become insolvent and may even be forced into bankruptcy.

Working capital refers to the resources of the firm that are used to conduct operations of day to day work that makes business successful. Without cash, bills cannot be paid, without receivables the firm cannot allow timing different between delivering goods to services and collecting the money to pay for them, without inventories the firm can not engage in production nor can it stock goods to provide immediate deliveries. As a result of the critical nature of current assets the management of working capital is one of the most important are as in determining whether a firm will be successful. The term working capital refers to the current assets of the firm's those items that can be converted into cash with in the year. Net working capital is defined as the difference between current assets and current liabilities (Hampton and Wagner, 1989:34).

The goal of working capital management is to support the long term operation and financial goals of the business. In effect, this involves recognizing the relationship between risk and return. Three elements must have included in analyzing the tradeoff between risk and return when managing working capital. (i) Insolvency: This condition occurs when a firm can no longer pay its bills and must default an obligations and possibility declares bankruptcy. A firm without adequate level of working capital may have to face this risk (ii) Profitability of assets: Different level of current assets will have varied effects on profits. A high level of inventory will require high carrying cost. At the same time, the firm will have a wide range of goods to sell and may be able to generate higher sales and profit. Each decision on the level of cash, receivables and inventory should consider the effects to different level. (iii) Cost of financing: When interest rate are high, its costs more to carry inventory then when rates are low. Large cash balance may not earn the return that is possible if the cash is converted into operating assets. The cost of

debt and the opportunity costs of alternative investments are items to consider. When evaluating working capital level (Hampton and Wagner, 1989:10).

2.2 Types of Working Capital Concept

According to I.M. Pandey, there are two concepts of working capital gross concept and net concept.

- **Gross Concept:-** The gross working capital, simply called as working capital refers to the firm's investment in current assets. Current assets are the assets which can be converted into cash within accounting year (or operating cycle) and include cash, short-term securities, debtors, bill receivable and stocks.
- **Net concept:-** The term net working capital refers to the difference between current assets and liabilities. Current liabilities are those claims of outsiders, which are expected to mature for payment within an accounting year and include creditors, bills payable and outstanding expenses. Net working capital can be positive or negative. A positive net working capital will arise when current assets exceed current liabilities and a negative working capital occurs when current liabilities are in excess of current assets (Pandey, 1991: 796-797).

2.3 Classification of Working Capital

According to I.M. Pandey – 'working capital can be classified into two parts: permanent (fixed) working capital and temporary (fluctuating) working capital.

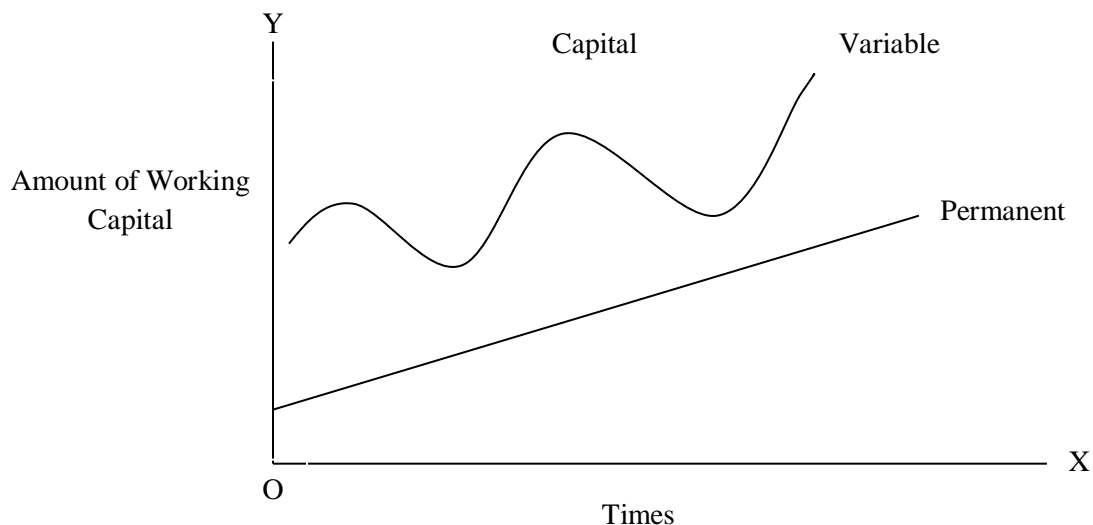
Permanent (Fixed) Working Capital

Permanent working capital refers to that level of current assets, which is required on a continuous basis over the entire year. A manufacturing concern cannot operate regular production and sales functions in the absence of this portion of working capital. Therefore, a manufacturing concern holds certain minimum amount of working capital to ensure uninterrupted production and sales function.

This portion of working capital is directly related to the firm's expansion of operation capacity.

Variable (Fluctuating) Working Capital

Variable working capital represents the portion of working capital, which is required over permanent working capital. Therefore, this portion of working capital depends upon the nature of firm's production, relation between labor and management. The firm's which are seasonal in character in their business need a large amount of capital for holding inventory during the peak period. But as soon as the peak period is over, their working capital becomes idle.



(Source: Pandey, 1995)

2.4 Working Capital Policy

Working capital policy refers to the firm's basic policies regarding target levels for each category of current assets and how current assets will be financed. So first of all, in working capital management, a firm has to determine how much funds should be invested in working capital in gross concept. Every firm can adopt different financing policy according to the financial manager's attitude towards the

risk return trade off. One of the most important decisions in financing current assets.

i. Current Assets Investment Policy

Current assets investment policy refers to the policy regarding the total amount of current assets to be carried to support the given level of sales. There are three alternative current assets investment policies, namely, fat cat, lean and mean and moderate,

a. Fat Cat Policy

This is also known as relaxed current assets investment policy. It is the policy under which relatively large amounts of cash and marketable securities and inventories are carried and sales are stimulated by a liberal credit policy which results in a high level of receivables. This also creates the longer receivable collection period. Thus this policy provides the lowest expected return in investment with lower risk. (Weston and Brigham, 1996:344).

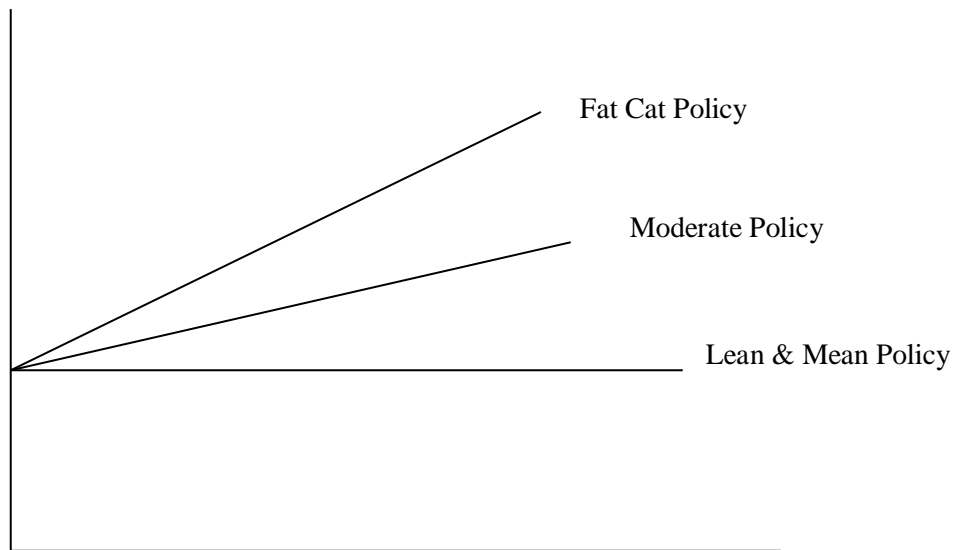
b. Lean and Mean Policy

This is also known as restricted current assets investment policy. This is the policy under which holding of cash and marketable securities, inventories and receivables are minimized. This policy tends to reduce the policy conversion and receivable conversion cycle. Under this policy firm follows a tight credit policy and bears the risk of losing sales (Weston and Brigham, 1996:344).

c. Moderate Policy

It is the policy that is between the relaxed and restrictive policies. In Moderate policy, a firm holds the amount of current assets in between the relaxed and restrictive policies. Both risk and returns are moderate in this policy.

Alternative current Assets Policy



Source: Weston & Brigham, 1996:344

ii. Current Assets Financing Policy

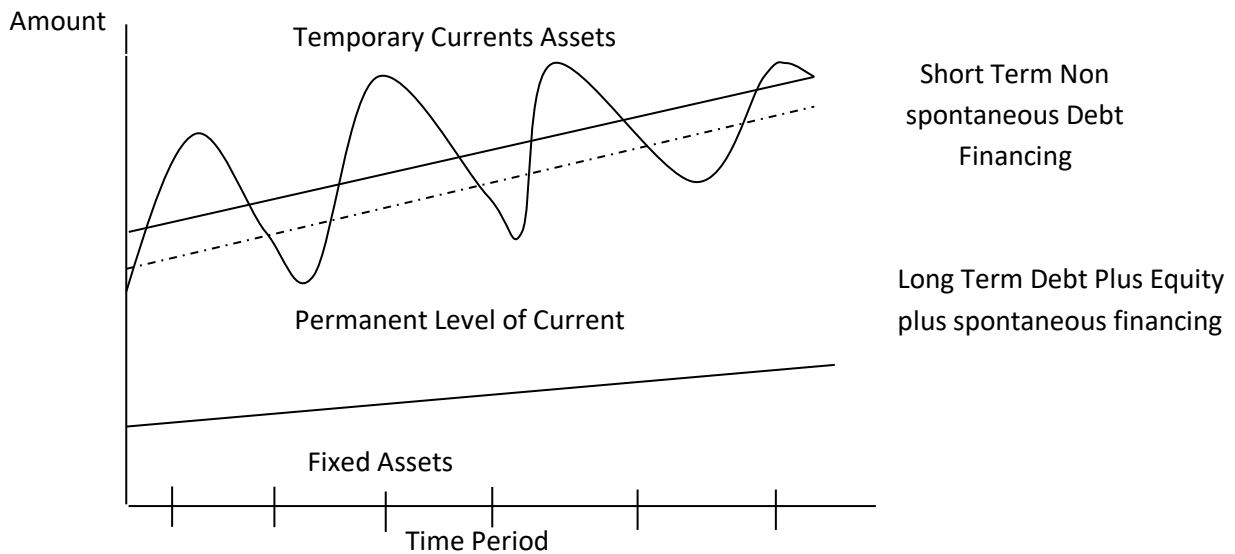
It is the manner in which the permanent and temporary current assets are financed. But cost and risk affect the financing of any assets. Thus, current assets financing policy should clearly outline the sources of financing. There are three types of policies and current assets financing policies.

a. Aggressive Policy

In aggressive policy, all the fixed assets of a firm are financed with long term capital, but some of the firm's permanent current assets are financed with short term, non spontaneous sources of fund (Weston and Brigham, 1996:348). In other words, the firm finances not only temporary current assets but also a part of permanent current assets with short term financing. In general, interest rate increase with time, i.e. the shorter the time, cover the interest rate. It is because lenders are risk averse and risk generally increases with the length of lending period. Thus, under normal circumstances, the firm borrows on a short term financing rather than that from long term financing. On the other side, if the firm finances its permanent current assets by short term financing, then it runs the risk

of renewing the borrowing again and again. This future interest expenses will fluctuate widely, and it may also be difficult for the firm to raise the funds during the stringent credit policy. In conclusion, there is higher risk, higher return and low liquidity position under this policy.

Aggressive Policy

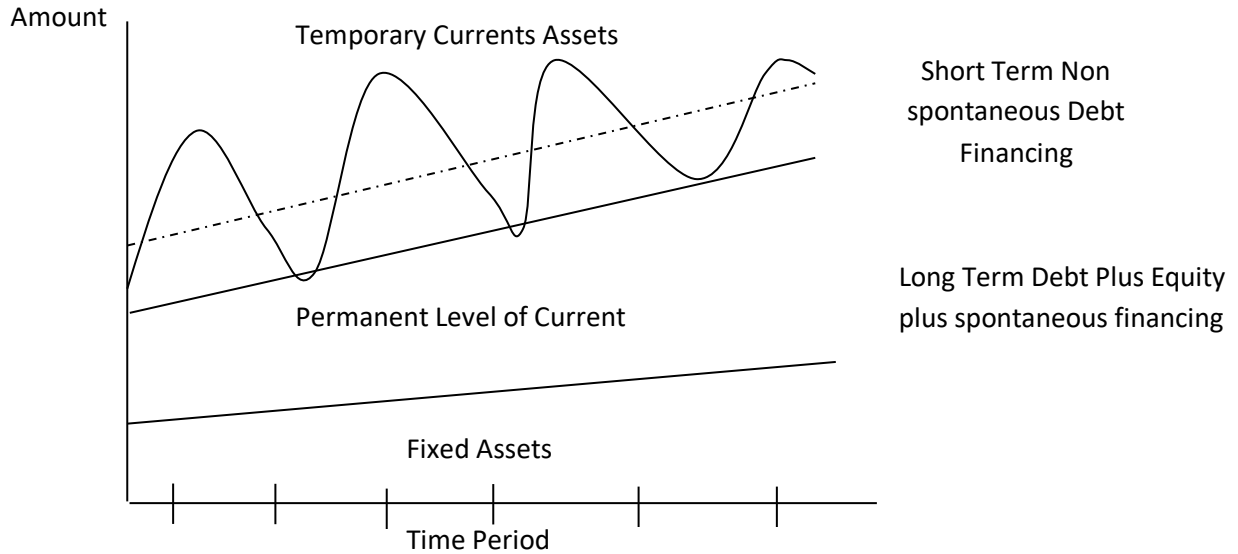


(Source: Western & Brigham, 1996:347)

b. Conservative Policy

In conservative policy, the firm uses long term financing to finance not only fixed assets and permanent current assets, but also part of temporary current assets i.e. with short term financing (Weston and Brigham, 1996:348). It means that the firm depends upon the long term sources for financing needs. This policy leads to high level of current assets with long conversion cycle, low level of current liabilities higher interest cost. The risk and return are lower than that of aggressive one. The risk adverse management follows this policy.

Conservative Policy



Source: Western & Brigham, 1996:348

c. Maturity Matching Policy

It is self- liquidity approach. In this policy, the firm finances the permanent current assets with long term financing and temporary with short term financing. It means that the firm matches the maturity of financing source with an assets useful life. It lies between the aggressive and conservative policies. It leads to neither high nor low level of current assets and current liabilities. It lies in between a low profitability.

2.5 Determinants of Working Capital

All the firms, whether public or private manufacturing or non manufacturing, must have adequate working capital to survive in competitive market. It should have neither too excess nor too inadequate working capital. But, these are no sets of rules or formula to determine the working capital requirement of the firm. It is because of a large number of factors that influence the working capital requirement of the firm. A number of factors affect different firm in different ways. Internal policies and changes in environment also affect the working capital.

Generally, the following factors affect the working capital requirement of the firm (Pandey,1999: 816).

a. Nature and Size of Business

Working capital requirement depends on the nature and size of the business. Bigger firm requires more working capital while a small firm needs less working capital. Trading and financial firm require larger amount of working capital relatively to public utilities, while manufacturing concern lies between these two extremes.

b. Growth and Expansion

This also affects the working capital requirement of a firm. A growing firm needs more working capital than those static ones. However, it is difficult to precisely determine the relationship between the growth and expansion of the firm and working capital needs.

c. Credit Policy

Working capital requirement depends on terms of sales. Different terms may be followed to different customers according to their credit worthiness. If the firm follows the liberal credit policy, then it requires more working capital. Conversely, if firms follow the stringent credit policy, it requires less working capital.

d. Production Policy

If a firm produces seasonal goods, then it sells its product in a certain month of the year. In this situation, it can either confine its production only that period when goods are sold or follow a steady production policy through the year and produce goods at level to meet the peak demand. The former policy does not need more working capital than the latter does.

e. Availability of Credit

Availability of credit facility is another factor that affects the working capital requirement. If the creditors avail a liberal credit terms than the firm will need less working capital and vice versa. In other words, if the firm can get credit facility easily on favorable conditions, it requires less working capital to run the firm smoothly otherwise more working capital is required to operate the firm smoothly.

f. Manufacturing Cycle

Working capital requirement of an enterprise is also influence by the manufacturing or production cycle. It refers to the time involved to make the finished goods from the raw materials. During the process of manufacturing cycle, the larger will be working capital requirement and vice-versa.

g. Profit Margin

The level of profit margin differs from firm to firm. It depends upon the nature and quality of product, marketing management and monopoly power in the market. If the firm deals with the high quality product, has a sound marketing management and has enjoyed monopoly power in the market then it earns quite high profit and vice-versa. Profit is sources of working capital pool by generating more internal funds.

h. Price level Change

Generally, a firm is required to maintain the higher amount of working capital if the price level rises as the same level of current assets needs more funds to the increasing price. In conclusion, the implications of changing price level on working capital position will vary from firm to firm depending on the nature and other relevant consideration of the operation of the concerned firms.

i. Operating Efficiency

Operating efficiency is also the important factor influencing the working capital requirement of the firm. It refers to the efficient utilization of available resources at minimum cost. Thus, a financing manager can contribute to a strong working capital position through operating efficiency. If a firm has strong operating efficiency then it needs less amount of working capital otherwise it requires a large amount of working capital.

j. Level of Taxes

The level of taxes also influences working capital requirement. The amount of taxes to be paid in advance is determined by the prevailing tax regulations. But the firm's profit is not constant or can't be predetermined. Tax liability in a sense of short term liquidity is payable in cash. Therefore, the provision for tax amount is one of the important aspects of working capital planning. If tax liability increases, it needs to increase the working capital and vice-versa.

2.6 Need for Working Capital

We cannot imagine the firm at success without maintaining a proper level of working capital in a firm. If the financing manager fails to maintain the proper level or manages working capital poorly, it leads to drive the firm in an inefficient way as a result the firm is to be incurred loss or damages. Hence working capital is the lifeblood and controlling nerve centre of each and every business organization as without the proper control upon it no business organization can operate smoothly.

Thus, each and every firm needs working capital to meet the following motives:

a. Transaction Motive

Transaction motive requires a firm to hold cash and inventories to facilitate smooth production and sales operations regularly (Pandey, 1999:809).

b. Precautionary Motive

Precautionary motive is the need to hold cash and inventories to guard against the risk of unforeseen and unpredictable change in demand and supply forces and other factors such as strike, failure of important customers, unexpected slowdown in collection of account receivables, cancellation of some other for goods and some other unexpected emergencies. Therefore, the firm needs the working capital to meet contingencies in the future. (Pandey, 1999:809)

c. Speculative Motive

It refers to the desire of a firm to exploit opportunities as an opportunity of purchasing raw materials at reduced price on immediate payment, making investment on lucrative fields, to speculate on interest rates, to make purchase at favorable price and the like. Hence, the firm needs the working capital to meet the speculative motive. (Van Horne and Wachowicz, 1999: 220)

2.7 Need for Working Capital in Banks

Particularly in our research study, banks need to maintain proper working capital for achieving the following objectives;

- To pay to depositors.
- To maintain Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR).
- To satisfy the customer by granting loans promptly.
- To meet the administrative expenses, perform the task as per objectives of banks and run the bank smoothly.
- Get ready for risk and economic fluctuation in future.

2.8 Financing of Working Capital

Financing of working capital is the prime work to even financial manager in the firm to managing or maintaining proper level of working capital. Basically, cost and risk both factors need to be analyze by finance manager in the course of

financing working capital. Generally, three types of financing sources are used by finance manager in the course of financing of working capital.

a. Long Term Financing

It has high liquidity and low profitability. Ordinary share, debenture, preference share, retained earnings and long term debts from financial institutions are the major sources of long term financing.

b. Short Term Financing

A firm can arrange short term credit in advance. The sources of short term financing of working capital are trade credit and bank credit loan arrangement, overdraft, commercial papers.

c. Spontaneous Financing

Spontaneous financing arises from the normal operation of the firm. The two major sources of such financing are trade credit and accrued. Whether trade credit is free of cost or not actually depends upon the terms of trade credit. Financial manager of the firm would like to finance its working capital with spontaneous sources as much as possible. In practical aspect, the real choice of current assets financing is either short term or long term sources. Thus, the financial manager concentrates his power in short term versus long term financing. Hence the financing of working capital depends upon the working capital policy, which is perfectly dominated by the management's attitude towards the risk and return (Pandey, 1999:827).

2.9 Review form Various Books

In this section an attempt has been made to review some books on financial management, which is mainly concerned with management of working capital. Weston and Brigham 1984, in their books "Managerial finance" have given

theoretical insights into working capital management. The bend conceptual findings of their study of management of working capital of any enterprise and naturally to this study as well. They explain, in the beginning, the importance of working capital concept of working capital, financing of working capital, the use of short term versus long term debt, relationship of current assets to fixed assets. In the next chapter they have dealt with the various components of working capitals and their effective management techniques. The components of working capital they have dealt with the cash, marketable securities, receivable and inventory for the efficient management of cash, they have explained the different cash management models. They have also explained the major sources and forms of short term financing such as trade credit, loans from commercial banks and commercial paper.

Van Herne (2000), another well known expert of financial management and write in his book “Financial Management and Policy”, has given the concept of working capital management; it is usually described as involving the administration of these assets namely cash, marketable securities, receivables, inventories and the administrative of current liabilities. It means the working capital management is concerned with the problem that arises in attempting to manage the current assets, the current liabilities and the inter-relationship that exist between them. He has also described the different method for efficient management of cash and marketable securities and various models for balancing cash and marketable securities. For the management of receivable, different credit and collection policies have been described and various principles of inventory have been examined for inventory management and control.

Other well known authors Khan and Jain (1993) have also shed the light on working capital management. According to them working capital management is concerned with the problem that arises in attempting to manage the current assets,

the current liabilities and interrelationship that exist between them. The term current assets refers to these assets which in the ordinary course of burden can be or will be turned into cash within one year without undergoing a diminution in value and without disrupting the operation of the firm. The major current assets are cash, marketable securities accounts receivables and inventory. Current liabilities are these liabilities which are intended at their inception to be paid in the ordinary course of business within a year out of the current assets or earning of the concern. The basic current liabilities are account payable, bills payable, bank overdraft and outstanding expenses. The goal of working capital management is to manage the firm current assets and current liabilities in such a way that a satisfactory level of working capital is maintained. This is so because if the firm cannot maintain to satisfactory level of working capital, it is likely to become insolvent and may be forced into bankruptcy. The current assets should be large enough to cover its current liabilities in order to ensure a reasonable margin of safety. Each of the current assets must manage efficiently in order to maintain the liquidity of the firm while not keeping a too high level of any one of them. Each of the short term sources of financing must be continuously managed to ensure that they are obtained and used in the best possible way. The interaction between current assets and current liabilities is therefore, the main theme of the theory of working capital management.

2.10 Review of Previous Research Work/Thesis

An attempt has been made to review some research work on ‘working capital management’ which have been prepared and submitted to the faculty of management Tribhuvan University.

Agrawal (2005) a student of management finished his research study about working capital management. That study was conducted on *"Working Capital Management of Cigarette Industry in Nepal with Special Reference to Janakpur*

Cigarette Factory (JCF)". The main objectives of his study were to evaluate the performance of management of working capital of JCF, to measure the efficiency of management in utilization of inventory, appraising the efficiency of management in utilization of account receivable, measuring the efficiency of management in the use of cash and evaluating the financial pattern of working capital of the factory.

He has used data from F/Y 2050/51 to 2059/60 of sample banks and used statistical and financial tools for the study.

The Major Findings of his Study

- Short term financial position of the factory is sound from the creditor's point of view.
- The factory's liquid financial position is weak from the creditor's points of view.
- Inventory of the factory has not been managed efficiently.
- Receivable, cash has not been managed efficiently.
- Working capital turnover ratio of the factory marked a fluctuating trend during the period of analysis.
- The current assets of the factory marked an irregular tendency while the current liabilities and net working capital recorded mixed trend.
- On the whole, the performance of working capital management is not satisfactory.

Joshi (2007) has conducted research study on "*A comparative study on working capital management of Everest Bank Limited(EBL) and Nepal SBI Bank Limited(NSBIL)*". The main objective of her study was to examine the management of working capital in EBL and NSBIL. Other specific objective of

this study was to study the current assets, current liabilities and their impact on capital, assets utilization and profitability.

She had analyzed five year published data/ annual report from F/Y 2056/57 to 2060/61 of selected banks and used statistical and financial tools to analyze this study.

The Major Finding of her Research Study

- The average loan and advances, and government securities percentage are higher in EBL than NSBIL.
- The trend value of cash and bank balance, loan and advances are negative and government securities proportion is positive in both EBL and NSBL.
- The Net working capitals of both banks are positive in the study period.
- The current ratios trend values of EBL and NSBIL are decreasing, the average quick ratio of NSBIL is higher than EBL and the cash and bank balance to deposit ratio of NSBIL is also higher than EBL.
- The average trend value of loan and advances to total deposit ratio, loan and advances to fixed deposit ratio, and loan and advances to saving deposit ratio of EBL are better than NSBIL.
- Correlation coefficient loan and advances and total deposit of EBL as well as NSBIL are highly significant, correlation coefficient between investment on government security and total deposits of EBL is highly significant than NSBIL. Similarly, coefficient of correlation between cash and bank balance and current liabilities of both banks are no significant relation.

Duwadi (2008) has conducted research study on "*Comparative analysis of working capital management of Bank of Kathmandu Limited(BOKL) and NABIL Bank Limited(NABIL)*". The main objective of this study is to examine the

working capital management of Bank of Kathmandu Limited and NABIL Bank Limited and the other specific objective of this study are; to analyze the liquidity position, composition of the working capital, assets utilization and profitability position of sample banks and to examine the current assets and current liabilities and their impact on liquidity and profitability.

This study covers the data for five year i.e. from F/Y 2057/58 to 2062/63 of sample banks and used statistical and financial tools for the study.

The Major Finding of her Study

- The average percentage of cash and bank balance and loans, advances and bills purchased were higher for BOKL while the average percentage of money at call and short notice, investments and other current assets were higher for NABIL.
- The average current ratio of BOKL was higher than NABIL. The average quick ratio of NABIL was higher than BOKL.
- The average value of loans and advances to total deposit ratio of BOKL was better than NABIL.
- The average long term debt to net worth ratio of BOKL was higher than NABIL.
- The average interest earned to total assets ratio of NABIL was less than BOKL, the average net profit to total assets ratio and net profit to total deposit ratio of NABIL was higher than BOKL.
- The correlation coefficients on loans and advances and net profit of BOKL and NABIL have positive correlation. And similarly, coefficient of correlation between loans and advances and total deposit of BOKL is relatively higher which shows that BOKL had been better utilizing its total deposits on loans and advances.

Koirala(2010) has conducted a research study entitled “ *A comparative study of working capital management with reference to Standard Chartered Bank Nepal Limited(SCBNL) and Himalayan Bank Limited(HBL)*”. The main objective of this study is to examine the management of working capital of SCBNL and HBL. The other specific objectives of this study are to identify the position of current assets and current liabilities and to analyze the composition of working capital, assets utilization and profitability of sample banks.

This study covers the data for five years i.e. from F/Y 2060/61 to 2064/65 of sample banks and used statistical and financial tools for the study.

The Major Findings of her Study

- The average cash and bank balance and government securities are higher on SCBNL than on HBL and average loan and advance is percentage is higher in HBL in SCBNL.
- The trend value of cash and bank balance is negative in both banks. So as the trend value of loan and advance is positive in SCBNL as well as in HBL. The trend value of government securities is negative in both SCBNL and HBL.
- The net working capital of both SCBNL and HBL are positive in the study period which shows sufficient amount of working capital for operational requirement in the banks.
- Liquidity position or short term solvency of HBL is better than SCBNL in the study period.
- Fixed deposit to total deposit ratios of HBL are higher than that of SCBNL.
- Saving deposits to total deposits ratios SCBNL are higher than that of HBL.
- The turnover positions of SCBNL have fluctuating trend. It shows that HBL has better investment efficiency on loan and advance.

- SCBNL is more efficiency using its working fund of assets to earn higher rate of profit then HBL.
- Correlation between investment on government security and total deposits of HBL is higher significant but in case of SCBNL is not significant.

Basnet (2010) has conducted research study on "*A Study on Working Capital Management of Commercial Banks with reference to Everest Bank Limited (EBL) and Nepal Investment Bank Limited (NIBL)*". The main objective of this study is to examine the management of working capital of sample banks. The other specific objectives of this study are to evaluate the position of current assets, current liabilities and their impact on liquidity position. And to analyze the composition of working capital, assets utilization and profitability.

This study covers the data for five year i.e. from 2061/62 to 2065/66 of selected banks and used financial and statistical tools for the study.

The Major Finding of his Research Study

- The major components of current assets in EBL and NIBL are cash and bank balance, loans and advances and investment on government securities.
- The average current ratio of EBL is higher than NIBL, the average quick ratio of EBL is also higher than NIBL.
- The average value of loans and advances to total deposit ratio, loans and advances to fixed deposit ratio and similarly loans and advances to saving deposit ratio of NIBL is slightly better turnover than EBL and risk is higher in EBL than NIBL.
- Saving deposit to total deposit ratios of EBL are higher than that of NIBL for the study period. And fixed deposit to total deposit ratios of NIBL are higher than that of EBL during the study period.

- The average cash and bank balance and investment on government securities are higher on EBL than on NIBL.
- The net working capital of EBL is positive in the whole study period whereas NIBL is also positive except negative in the year 2061/62 of the study period which shows sufficient amount of working capital for operational requirement in that year.
- The average value of interest earned to total assets ratios and net profit to total assets ratio of NIBL is higher than EBL.
- Coefficient of correlation between cash and bank balance and current liabilities of EBL shows that there is no significant relationship but there is highly significant relationship in NIBL. Coefficient of correlation between loan and advances and net profit of NIBL is relatively higher than EBL.

2.11 Research Gap

There is gap between the present research and the previous research in terms of some objectives, tools for analysis, period of data and more importantly this research is different from previous research on organization i.e. we analysis the Nepal SBI Bank and Nepal Investment Bank Limited. This study has used financial and statistical tool for working capital management. It is mainly concerned with the data of both banks between 2063/64 to 2067/68. This study has been done to study and evaluate to position of current assets and current liabilities and their impact a liquidity position, to analyze the composition of working capital, assets utilization and profitability and ultimately it is concerned with comparing and evaluating the practice of working capital management of both of the respective banks.

CHAPTER - III

RESEARCH METHODOLOGY

3.1 Introduction

Research means to search of study about a phenomenon. The word research is composed of 're' and 'search' where 're' means repeatedly or again and again, and 'search' means to investigate or find. Generally, research is an effort to search new fact, knowledge, and principle in scientific manner (Joshi, 2010:2). It can be defined as a scientific and systematic search for information and specific topic. In fact research is an and of scientific investigation. According to Advanced learner's Dictionary of current English States "research is a careful investigation or inquiry specially through search for new facts in any brands of knowledge." Research is a systematic and organized effort to investigate a specific problem that needs a solution. This process of investigation involves a series of well thought out activities of gathering recording analyzing and interpreting the data with the purpose of findings answer to the problem. Thus the entire process by which we attempt to solve problem or search the answer to questions is called research (Wolff and Pant, 2008:89).

Hence all these methods which are used by the researcher during the course of studying his research problem are termed as research methods. And the research methodology is a way to solve the problem. It may be understood as a science of studying how research is done scientifically (Kothari, 2002:10). So, research methodology is a process of arriving to the solution of problem through planned and systematic dealing with collection, analysis and interpretation of the facts. It is also considered as the path from which researcher can systematically solve the research problem.

3.2 Research Design

A Research design is the arrangement of conditions for collecting and analysis of data in a manner that aims to combine relevance to research purpose with economy in procedure. In fact, the research design is the conceptual structure with in which research is conducted; it constitutes the blue print for the collection, measurement and analysis of data. As such the design includes as outline of what the researcher will do from writing the hypothesis and its operational implications to the final analysis of data (Kothari, 2002:39).

Research design means drawing an outline of planning or among details and in an economic, efficient and relevant manner before the data collecting and data analysis. It is a process of making decisions before the situation arises in whether the decision has to be carried out. It presents a series of guide pots to enable the researcher to progress in the right direction in order to achieve the goal (Joshi, 2010:33).

3.3 Population and Sample

At present 32 commercial banks are operating in Nepal currently and all these commercial banks are population of study. Among them Nepal SBI bank (NSBIL) and Nepal Investment Bank Limited (NIBL) have been selected as sample for the study.

3.4 Nature and Sources of Data

This study is basically conducted on secondary data. Depending on the nature of data and information following sources have been utilizing for the research purpose.

Sources:

- Published annual report of Nepal SBI Bank Limited and Nepal Investment Bank Limited.
- Book, booklets and official records of both banks.
- Concerned website.
- Publication of NRB, economic survey, publication of national planning commission, publication of central bureau of statistics and other related publication.

3.5 Time Covered

This research study covers the time period of five years from F/Y2063/64 to 2067/68.

3.6 Tools and Techniques Used for Data Analysis

This study has been used financial and statistical tools to analyze the gathered data and information.

3.6.1 Financial Tools

Basically financial ratios are used to ascertain the financial performance of both banks. It helps to know about the strength and weakness of the bank in terms of financial matters. Because of time and resource constrain the study focus only limited but important financial ratios like, Liquidity Ratio, Activity or Turnover Ratio and Profitability Ratio. And similarly, net working capital and composition of current assets is also assessed.

3.6.1.1 Liquidity Ratios

Liquidity Ratio is used to measure the firm's ability to meet short-term obligations. This ratio measures the liquidity position and short-term solvency of

the firm indicating the company's ability to meet short-term obligation. The current ratio and quick ratio measure the liquidity of the company (Pradhan, 2000:53).

a. Current Ratio

This ratio measures the availability of current assets for meeting current liabilities in short period of time. Higher current ratio indicates better liquidity position of the firm. Current ratio can be obtained by,

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

Where,

Current Assets: Cash and bank balance, money at call and short note, investment, and loan, advances and bills purchase

Current Liabilities: short term deposit, bills payable, proposed dividend, income tax payable and other liabilities

b. Quick Ratio

This ratio measures the availability of quick or liquid assets for meeting current obligation. An asset is liquid if it can be converted into cash immediately or reasonably soon without a significant loss of value. Quick Ratio can be obtained by,

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

Where,

Quick assets: Cash and bank balance, money at call and short notice and investment in government securities are considered.

c. Cash and Bank Balance to Total Deposit Ratio (Excluding Fixed Deposit)

This ratio measures the ability of banks immediate funds to cover their deposit i.e. current margin, call and saving deposit. This ratio can be obtained by,

Cash and Bank Balance to Total Deposit Ratio

$$= \frac{\text{Cash and Bank Balance}}{\text{Total Deposit(Excluding Fixed Deposit)}}$$

3.6.1.2 Activity or Turnover Ratio

Activity ratios are used to evaluate the efficiency of assets /or resources used in the firm. This ratio indicates how quickly assets are converted into cash.

a. Loan, Advances and Bill Purchase to Total Deposit Ratio

This ratio identify how quickly total deposits are converted into loan, advances and bill purchase to earn profit. A high ratio indicates the better mobilization of collection deposit and vice-versa. This ratio can be obtained by;

Loan, Advances and Bill Purchase to Total Deposit Ratio

$$= \frac{\text{Loan,Advance and Bill Purchase}}{\text{Total Deposit}}$$

b. Loan, Advances and Bill Purchased to Fixed Deposit Ratio

This ratio measures how much amount is used in loans, advances and bill purchase in comparison to fixed deposit. It can be calculated by,

Loan, Advance and Bill Purchased to Fixed Deposit

$$= \frac{\text{Loan,Advance and Bill Purchased}}{\text{Fixed Deposit}}$$

3.6.1.3 Profitability Ratio

Profitability ratio measures the profit earning capacity of firm. It gives idea about how profitable the firm is. Higher the profitability ratio indicates higher profit earning capacity of firm and vice-versa.

a. Interest Earned to Total Assets Ratio

This ratio is used to determine total interest earned from investments over the total assets of a firm. It can be obtained by,

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

b. Net Profit to Total Assets Ratio

This ratio is used in measuring the profitability of all financial resources invested compared to total assets. It can be obtained by,

$$\text{Net Profit to Total Assets Ratio} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

c. Net Profit to Total Deposit Ratio:

This ratio is used to measure the profitability by efficient use of collected deposit. It can be obtained by,

$$\text{Net Profit to Total Deposit Ratio} = \frac{\text{Net Profit}}{\text{Total Deposit}}$$

3.6.2 Statistical Tools

Basically only correlation analysis is used to identify the relation between various variables.

Correlation Coefficient

It is a mathematical method for measuring the intensity, or magnitude of relations between two variable series. It can be obtained by,

$$\text{Correlation Coefficient (r}_{xy}) = \frac{\sum XY}{\sqrt{\sum X^2} \sqrt{\sum Y^2}}$$

Where,

r_{xy} = Correlation coefficient between variable x and y.

$$X = x - \bar{x}$$

$$Y = y - \bar{y}$$

Probable Error (P.E.)

Probable Error is measured for testing the reliability of an observed value of correlation coefficient,

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

Where,

r = observed correlation coefficient

n = sample observation (size)

The reason for taking the factor 0.6745 is that in a normal distribution 50% of the observations lie in the range $\mu \pm 0.6745\sigma$, where μ is the mean and σ is the standard deviation.

CHAPTER - IV

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

Data presentation and analysis is an important stage of the research study. The main purpose of analyzing the data is to change it from an unprocessed form to an understandable presentation. The analysis of data consists of organizing data by tabulating and then placing the data in presentable form by using figures and tables. This is primarily concerned with seeing how efficiently and effectively both of the bank namely Nepal SBI Bank limited (NSBIL) and Nepal Investment Bank Limited (NIBL) is managing their working capital. On that note this chapter comprises to analyzing their statement of affairs by various financial and statistical tools.

4.2 Composition of Working Capital

4.2.1 Composition of Current Assets

The assets that are to carry out day to day operation of the assets are related to current assets. This asset can be converted into cash with in very short period of time. The composition of current assets of Nepal SBI Bank Limited and Nepal Investment Bank Limited are cash and bank balances, money at call and short notice, Investment, and loan, advances and bill purchase.

The following two tables are shows the composition of current assets of Nepal SBI Bank limited and Nepal Investment Bank Limited from F/Y 2063/2064 to 2067/2068.

Table 4.1**Composition of Current Assets of NSBIL**

(Rs. in Million)

Fiscal Year	Cash and Bank Balance	Money at Call and Short Note	Investment	Loans, Advance and Bills Purchase	Total
2063/64	1123	350	2660	9461	13594
2064/65	1343	304	3089	12114	16850
2065/66	1904	-	13286	15132	30322
2066/67	3441	-	16306	17481	37228
2067/68	4878	-	18911	21366	45155

*Source: Annual Report of NSBIL from F/Y2063/64 to 2067/68***Table 4.2****Composition of Current Assets of NIBL**

(Rs. In Million)

Fiscal Year	Cash and Bank Balance	Money At Call and Short Notice	Investment	Loan, Advance and Bills purchase	Total
2063/64	2442	363	6506	17286	26597
2064/65	3755	-	6874	26997	37626
2065/66	7918	-	7400	36241	51559
2066/67	6816	-	8636	40318	55770
2067/68	8140	150	7423	41096	56809

Source: Annual Report of NIBL from F/Y2063/64 to 2067/68

The above tables (Table 4.1 and Table 4.2) show that there is increasing trend in current assets of both of the banks. NIBL has overall more investment in current assets than that of NSBIL during the study period. Loans, advances and bills purchased hold the major share in the composition of current assets for both the banks. The portion of items including in the current assets can be presented by following tables and graphs respectively.

Table 4.3

Percentage Composition of Current Assets of NSBIL

Fiscal Year	Cash and Bank Balance	Money At Call and Short Notice	Investment	Loan, Advance and Bills purchase	Total
2063/64	8.26	2.57	19.57	69.60	100
2064/65	7.97	1.80	18.33	71.90	100
2065/66	6.28	-	43.82	49.90	100
2066/67	9.23	-	43.80	46.97	100
2067/68	10.80	-	41.88	47.32	100
Average	8.51	0.87	33.48	57.14	100

Figure 4.1

Percentage Composition of Current Assets of NSBIL

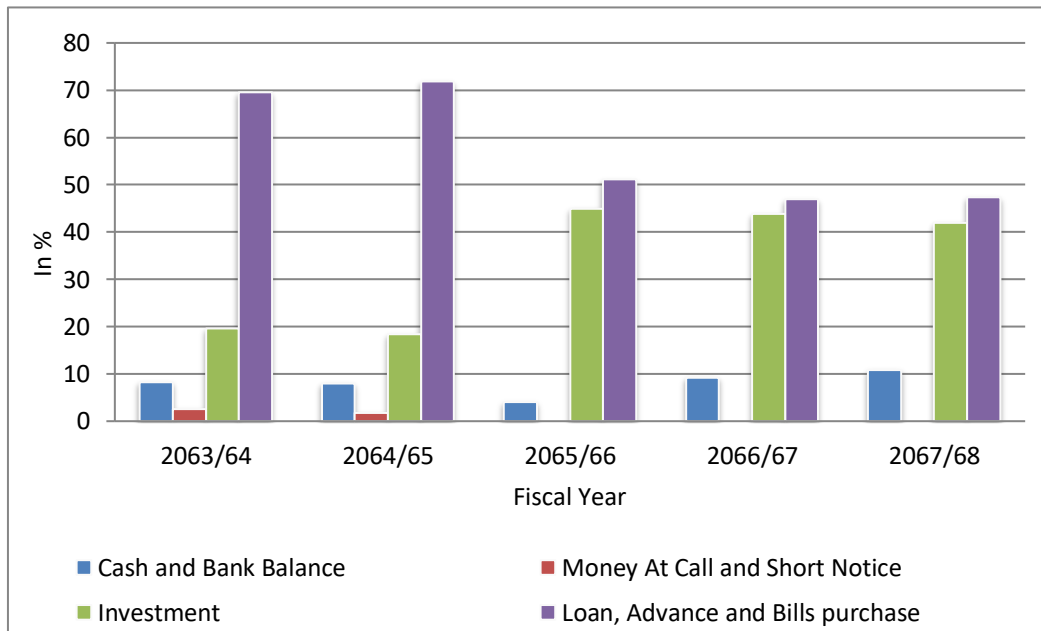


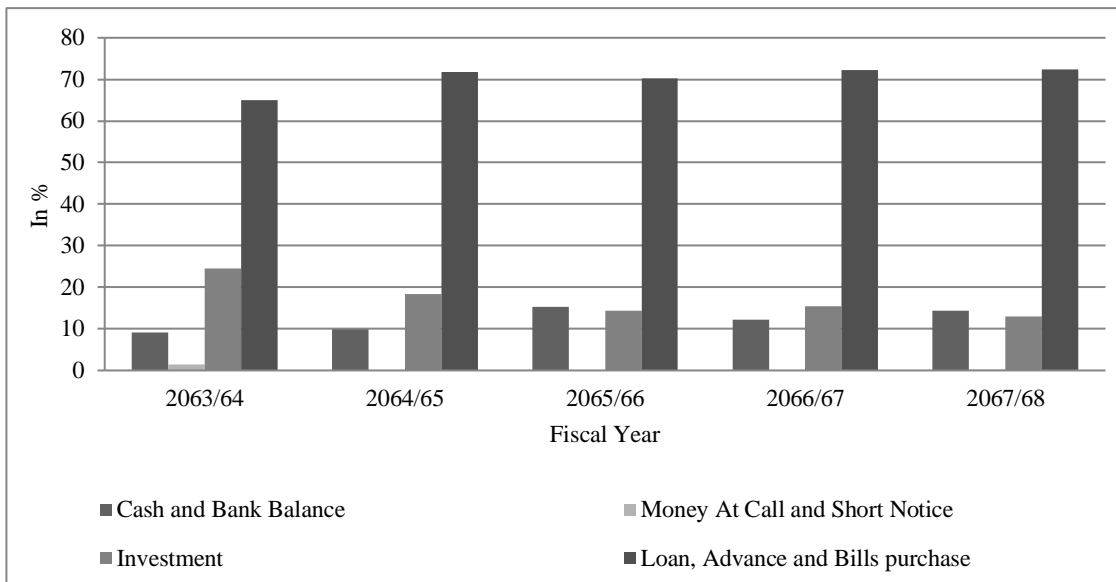
Table 4.4

Percentage Composition of Current Assets of NIBL

Fiscal Year	Cash and Bank Balance	Money At Call and Short Notice	Investment	Loan, Advance and Bills purchase	Total
2063/64	9.17	1.37	24.46	65.00	100
2064/65	9.98	-	18.30	71.72	100
2065/66	15.35	-	14.35	70.30	100
2066/67	12.22	-	15.48	72.30	100
2067/68	14.33	0.26	13.01	72.40	100
Average	12.21	0.33	17.12	70.34	100

Figure 4.2

Percentage Composition of Current Assets of NIBL



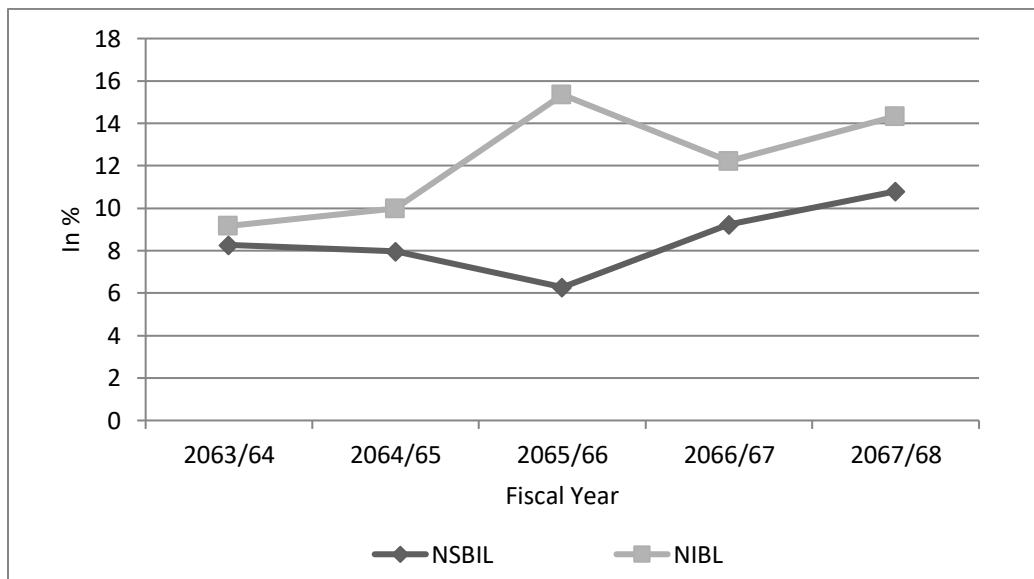
From above table and graphs depict that loans, advances and bills purchased is the major element of current assets of the both banks which plays the vital role in the working capital management of these banks. Similarly, money at call and short notice consume less amounts in current assets in both of the banks.

4.2.2 Actual Trend Analysis of Cash and Bank Balance

Cash and bank balance percentage is fluctuated over the study period of both banks. There is highest 10.80% in the F/Y2067/68 and lowest in F/Y2065/66 by 6.28% and average cash and bank balance percentage of NSBIL is 8.51%. Similarly, there is highest 15.35% in the F/Y2065/66 and lowest in 9.17% in 2063/64 and average cash and bank balance percentage of NIBL is 12.21%. And cash and bank balance percentage of NIBL is always higher than NSBIL in the consideration study periods.

Figure 4.3

Actual Trend Line of Cash and Bank Balance



The above graph depicts that the trend line of NIBL is always higher in the study periods. It shows that NIBL effectively utilized its cash and bank balance to income generating sector and it has sufficient cash and bank balances than NSBIL.

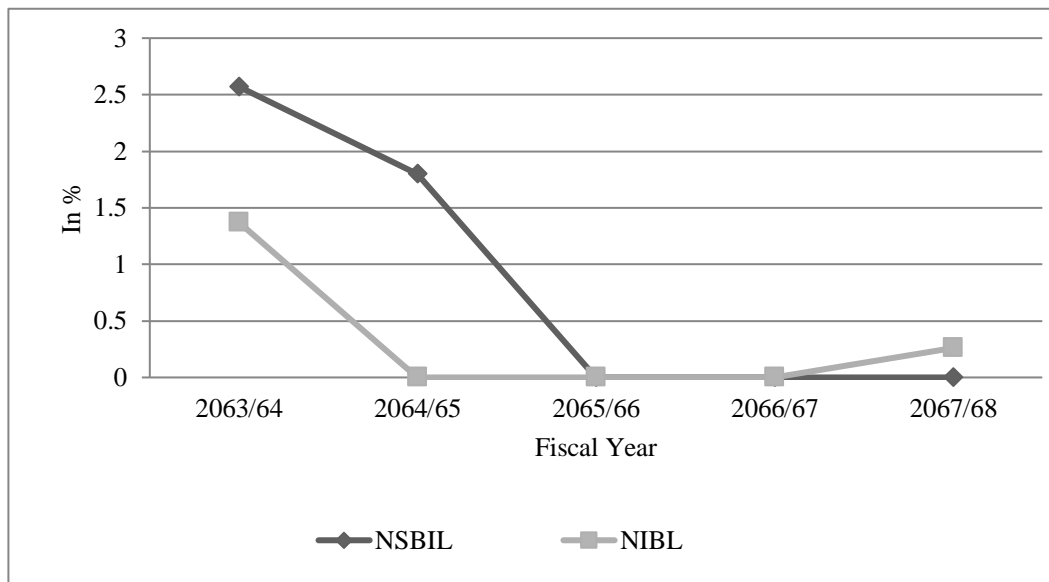
4.2.3 Actual Trend Analysis of Money at Call and Short Notice

Money at call and short notice percentage is decreasing over the study periods of both the banks. There is 2.57% and 1.80% in the F/Y2063/64 and F/Y2064/65 respectively beside these years NSBIL not consume /or create money at call and

short notice in its current assets portfolio and average percentage is 0.87 of NSBIL. Similarly, NIBL also utilized less amount of money at call and short notice. During the study period of five years only two years bank utilized its. In the F/Y2063/64 it was 1.37% and in F/Y2067/68 it was dropped to 0.26% with average 0.33% of the study periods.

Figure 4.4

Actual Trend Analysis of Money at Call and Short Notice



The above graph depicts that NSBIL had more of its percentage share of money at call and short notice as current assets than NIBL.

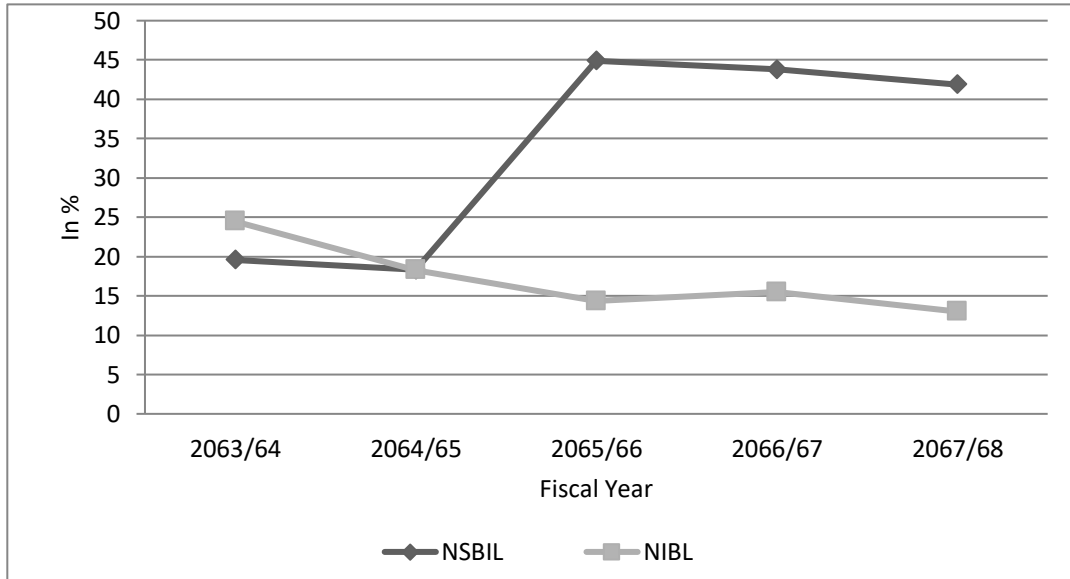
4.2.4. Actual Trend Analysis of Investments

An investment percentage covers second largest portion in the total current assets portfolio of both of the banks during the study periods. An investment of NSBIL is fluctuating over the study period. There is highest 43.82% in the F/Y2065/66 and lowest 18.33% in F/Y2064/65. The average investment in investment of NSBIL is 33.48%. Similarly, in case of NIBL investment is also decreasing over the study period. There is highest 24.46% in F/Y2063/64 and lowest 13.01% in F/Y2067/68.

The average investment of NIBL is 17.12%. The average investment portion of current assets of NSBIL is higher as compared to NIBL.

Figure 4.5

Actual Trend Analysis of Investments



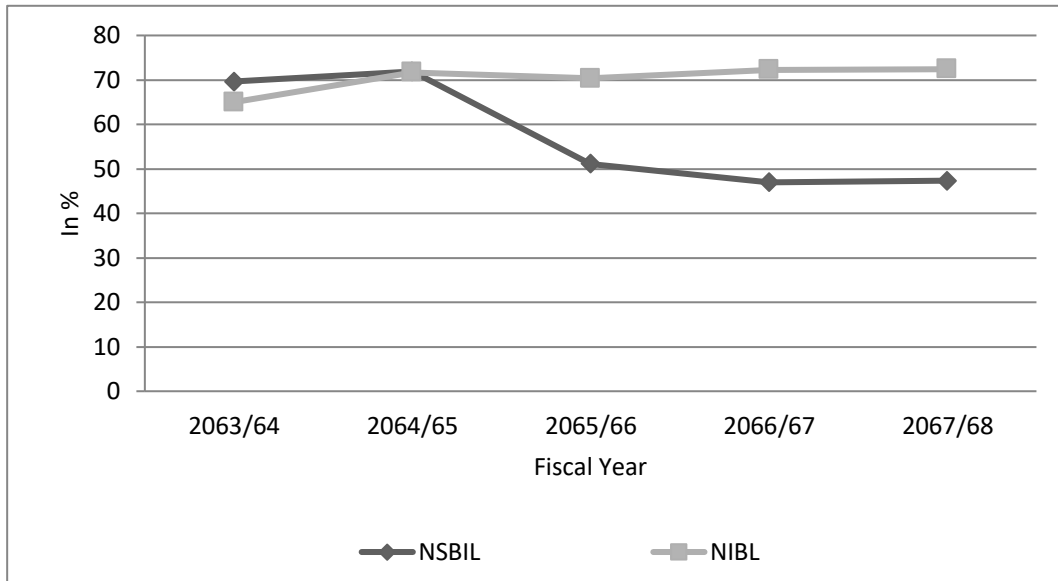
The above graph depicts that the trend line of investment percentage of NSBIL is always higher than that of NIBL except in F/Y2063/64. It shows that investment percentage on total current assets of NSBIL is better than that of NIBL.

4.2.5 Actual Trend Analysis of loan, Advances and Bills Purchased Percentage

Loan, Advances and Bill Purchases hold the major components of current assets of both the banks. It is also follow the fluctuating matters in both banks. In case of NSBIL, it is highest in F/Y2064/65 with 71.90% and lowest 46.97% in F/Y2066/67. The average loan, advances and bill purchased percentage of NSBIL is 57.14% over the study periods. Similarly, loan, advances and bill purchase percentage of NIBL is also fluctuating. There is highest 72.40% in F/Y2067/68 and lowest 65% in F/Y2063/64. The average loan, advances and bills purchased percentage of NIBL is 70.34% over the study periods.

Figure 4.6

Actual Trend Analysis of loan, Advances and Bills Purchased Percentage



The above graph depicts that the trend line of loan, advance and bills purchased of NIBL is higher than that of NSBIL. The above analysis shows that the loan, advances and bill purchased percentage of NIBL is better than NSBIL. This indicates that the greater portion of current assets of NIBL is employed for the income generating purpose.

4.3 Net Working Capital

The term net working capital refers to the difference between current assets and current liabilities. Net working capital can be positive or negative. A positive net working capital will arise when current assets exceed current liabilities and a negative working capital occurs when current liabilities are in excess of current assets. Study consider the current liabilities items are 50% of deposits, bills payable, proposed dividend, income tax liability and other liabilities of both of the bank under study.

Table 4.5
Net Working Capital of NSBIL

(Rs. In Million)

Fiscal Year	Current Assets	Current Liabilities	Net Working Capital	% Change in Net Working Capital
2063/64	13594	6000	7594	-
2064/65	16850	7088	9762	28.55
2065/66	30322	14298	16024	64.15
2066/67	37228	17949	19279	20.31
2067/68	45155	21802	23353	21.13
Average			15202	

Source: Appendix-6

Table 4.6
Net Working Capital of NIBL

(Rs In Million)

Fiscal Year	Current Assets	Current Liabilities	Net Working Capital	% Change in Net Working Capital
2063/64	26597	12668	13929	-
2064/65	37626	17911	19715	41.54
2065/66	51559	24665	26894	36.41
2066/67	55770	26585	29185	8.52
2067/68	56809	26797	30012	2.84
Average			23947	

Source: Appendix-8

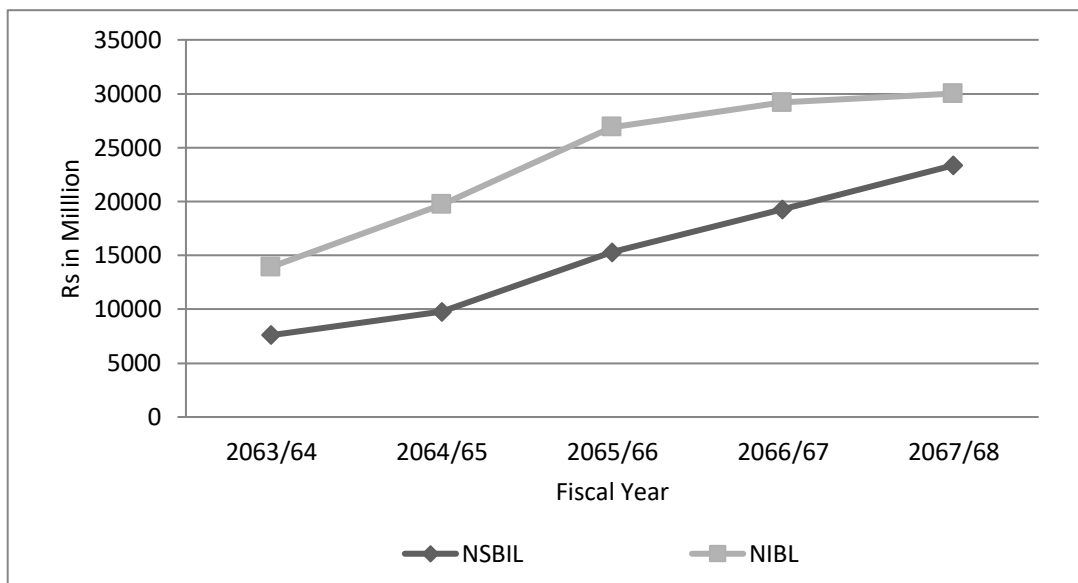
Table 4.5 and 4.6 shows that the net working capital of both the banks is increasing every year under study periods. The average net working capital of NSBIL is Rs. 15202 million. The net working capital of NSBIL range from Rs. 7594 million to Rs. 23353 million.

Similarly, the average net working capital of NIBL is Rs. 23947 million. The net working capital of NIBL ranges from Rs. 13929 million to Rs. 30012 million.

Both the banks have positive net working capital in the whole study periods which implies that there is sufficient amount required for operational requirements in these years.

Figure 4.7

Actual Trend Line of Net Working Capital of NSBIL and NIBL



The above figure depicts that both bank's net working capital trends are in increasing trend.

4.4 Ratio Analysis

Ratio analysis is the process of determining and interpreting numerical relationship between variables of financial statement. Ratio is used as an index for evaluating the financial position and performance. It helps to analysts to make and compare quantitative judgment about the financial position and performance of the banks.

4.4.1 Liquidity Ratio

Liquidity ratio measures the ability of the firm to meet its current obligations. A firm should ensure that it doesn't suffer from the liquidity crunch and also that it is

not too much highly liquid. The failure of a company to meet its obligation, due to lack of very high degree of liquidity is also bad, idle or non-performing assets earn nothing. The firm's funds will be unnecessarily tied up in the current assets. Therefore, it is necessary to strike a proper balance between liquidity and lack of liquidity.

As for as commercial banks are concerned, bank must maintain satisfactory liquidity position to satisfy the credit needs of the customers or community, meet demand for demand deposits, pay maturity obligation in time and convert to assets into cash to satisfy immediate needs without loss to the bank and without consequent impact on profitability of the bank. To measure the liquidity position of the two banks, the following measures of liquidity ratio has been calculated.

4.4.1.1 Current Ratio

Current assets refer to these assets that can be converted into cash within very short period of time. And current liabilities are these liabilities that are to be paid within a very short period of time. Now, current ratio shows the relationship between current assets and current liabilities. It is calculated by dividing current assets by current liabilities.

The following table and graph shows that comparative current ratios between NSBIL and NIBL.

Table 4.7
Current Ratio (Times) of NSBIL and NIBL

(Rs. In Million)

Fiscal Year	NSBIL			NIBL		
	Current Assets	Current Liabilities	Ratio	Current Assets	Current Liabilities	Ratio
2063/64	13594	6000	2.26	26597	12668	2.09
2064/65	16850	7088	2.37	37626	17911	2.10
2065/66	30322	14298	2.12	51559	24665	2.09
2066/67	37228	17949	2.07	55770	26585	2.09
2067/68	45155	21802	2.07	56809	26797	2.12
Average			2.18			2.10

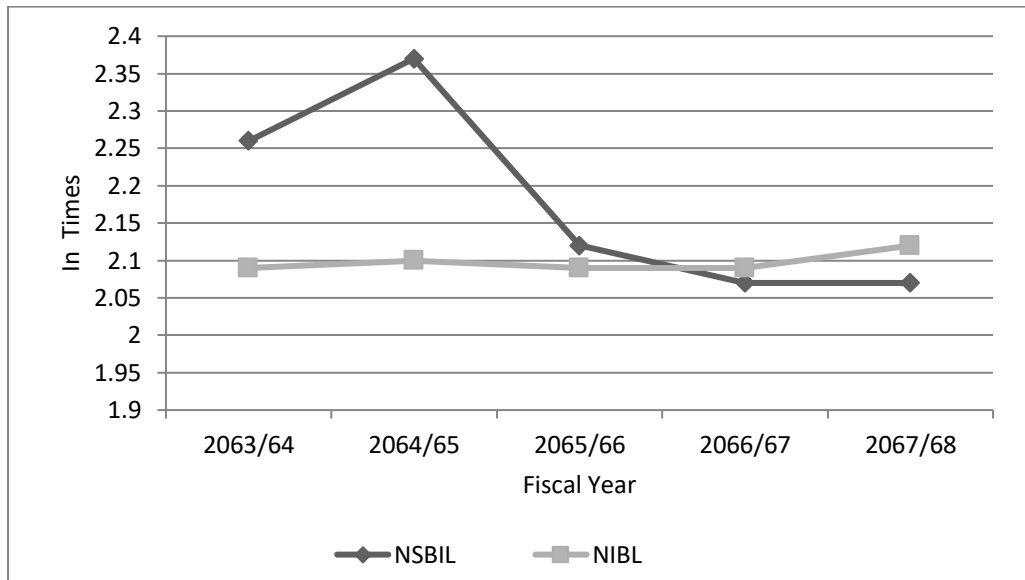
Source: Appendix-6 and 8

The above table shows that current ratios of both the banks are in satisfactory position. Average current ratio of NSBIL is 2.18. But there is highest ratio 2.37 times in F/Y2064/65 and lowest is 2.07 times which includes two consecutive F/Y i.e. F/Y 2066/67 and 2067/68.

Similarly, average current ratio of NIBL is 2.10 times. But there is highest ratio 2.12 times in F/Y2067/68 and lowest ratio 2.09 times in F/Y2063/64, 2065/66 and 2066/67. The above analysis shows that in terms of liquidity position where current ratio is considering both of the banks liquidity position is satisfactory. But with comparing to one bank to another NSBIL is more liquid bank than NIBL.

This relation can be depict in following figure also,

Figure 4.8
Actual Trend Line of Current Ratio



Above trend line shows that NSBIL actual current ratio trend line is smoothly more than actual current line trend of NIBL.

4.4.1.2 Quick Ratio

Quick ratio particularly considers the relationship between quick assets and current liabilities. An asset is said to be quick if it can be converted into cash immediately without any significant loss of original value. For our purpose, cash and bank balance, money at call and short notice and investment in government securities are considered as quick assets. The purpose of calculating quick ratio is to test or verify the ability of the firm for immediate payment of current liabilities and it is calculated by dividing quick assets by current liabilities.

The following table shows that the comparative quick ratios between NSBIL an NIBL.

Table 4.8
Quick Ratio (Times) of NSBIL and NIBL

Fiscal Year	NSBIL			NIBL		
	Quick Assets	Current Liabilities	Ratio	Quick Assets	Current Liabilities	Ratio
2063/64	4133	6000	0.69	9311	12668	0.74
2064/65	4736	7088	0.67	10629	17911	0.59
2065/66	15190	14298	1.06	15318	24665	0.62
2066/67	19747	17949	1.10	15452	26585	0.58
2067/68	23789	21802	1.09	15713	26797	0.58
Average			0.922			0.622

Source: Appendix-5,6 and 7,8

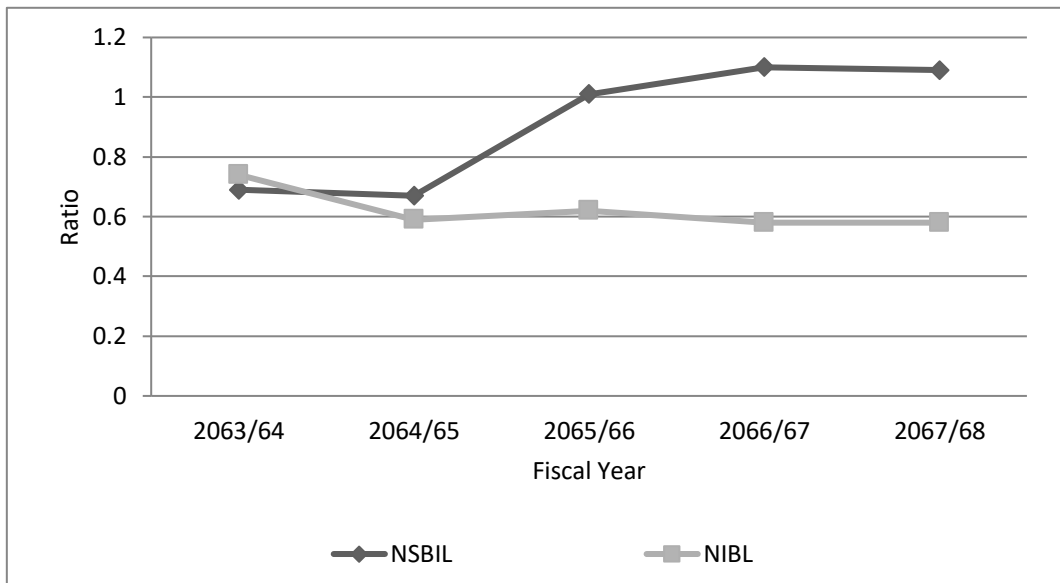
The above table shows that the quick ratios of both of the banks are fluctuating over the study period. In case of NSBIL, there is highest quick ratio in F/Y2066/67 at 1.10 times and lowest at 0.67 times in F/Y2064/65. The average quick ratio of NSBIL is 0.922 times.

Similarly, in NIBL, there is highest quick ratio in F/Y2063/64 at 0.74 times and lowest at 0.58 times in two financial year i.e. F/Y2066/67, and 2067/68. The average quick ratio of NIBL is 0.662 times.

The above analysis shows that both banks are in a good position to pay current liabilities. However, NSBIL is better than NIBL as for quick ratio is concerned.

The above calculated ratios can be depicted by graphs also,

Figure 4.9
Actual Trend Line of Quick Ratio



The above figure also depicted that the actual trend line of NSBIL is higher than NIBL. Hence, NSBIL is in better condition than NIBL as far as quick ratio is concerned.

4.4.1.3 Cash and Bank Balance to Total Deposit Ratio (Excluding Fixed Deposit)

This ratio shows the ability of banks immediate funds to cover their deposits i.e. current margin call and saving, deposits. This study considers 50% of total deposit as fixed deposit of both of the bank. This ratio can be calculated by dividing cash and bank balance to total deposit except fixed deposit.

The following table shows that the comparative cash and bank balance to total deposits except fixed deposit of NSBIL and NIBL.

Table 4.9

Cash and Bank Balance to Total Deposit Ratio (Excluding Fixed Deposit)

(Rs. In Million)

Fiscal Year	NSBIL			NIBL		
	Cash and Bank Balance	Total Deposit	Ratio	Cash and Bank Balance	Total Deposit	Ratio
2063/64	1123	5722	0.19	2442	12244	0.20
2064/65	1343	6858	0.19	3755	17225	0.21
2065/66	1904	13978	0.14	7918	23349	0.34
2066/67	3441	17448	0.20	6816	25047	0.27
2067/68	4878	21207	0.23	8140	25069	0.32
Average			0.19			0.27

Source: Annual Report of NSBIL and NIBL from F/Y 2063/64 to 2067/68

The above table shows that the ratios between cash and bank balance to total deposit except cash in fluctuating over the study period.

In case of NSBIL, there is highest cash and bank balance to total deposit except fixed deposit ratio in F/Y2067/68 at 0.23 times and lowest at 0.14 times in F/Y2065/66. The average cash and bank balance to total deposit except fixed deposit ratio of NSBIL is 0.19 times.

Similarly in NIBL, there is highest cash and bank balance to total deposit except fixed deposit ratio in F/Y2065/66 at 0.34 times and lowest at 0.20 times in F/Y2063/64. The average cash and bank balance to total deposit except fixed deposit ratio of NIBL is 0.27 times.

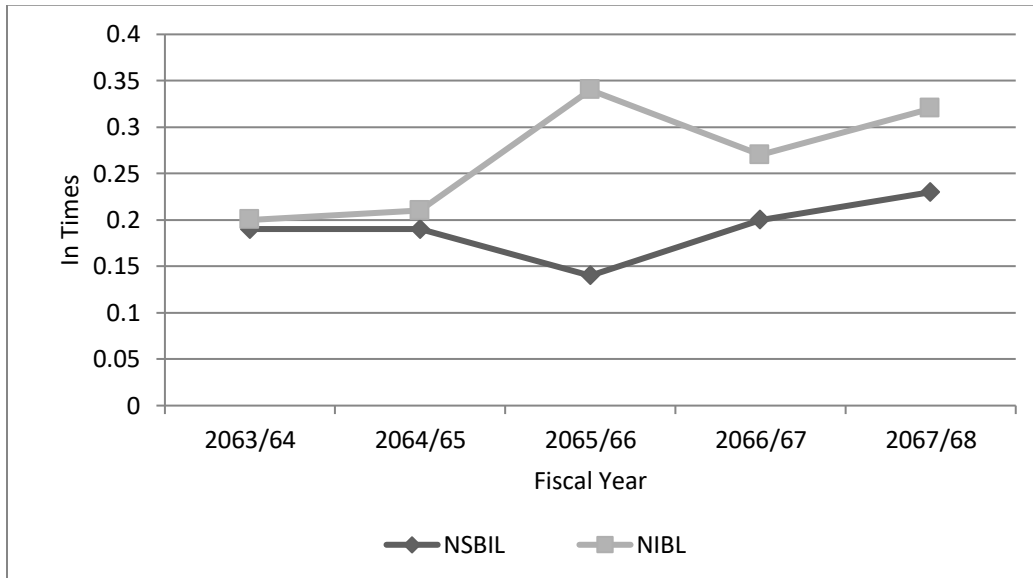
The above analysis shows that NIBL holds more cash balance than NSBIL. The higher ratio of NIBL shows the ability of banks immediate funds to cover its

current margin call and saving deposit is better than NSBIL. Hence, we can conclude that liquidity position of NIBL is better than NSBIL.

The above calculated ratios can be depicted by graphs also,

Figure 4.10

Actual Trend Line of Cash and Bank Balance to Total Deposit



The above figure also depicts that the actual trend line of NIBL is higher than NSBIL. Hence, NIBL is to be considering better liquidity condition than NSBIL as for as cash and bank balance to total deposit ratio is concerned.

4.4.2 Activity or Turnover Ratio

Activity or Turnover Ratio is used to evaluate the efficiency of assets used in the firm. In other way, these ratios provide the idea about how efficiently firm’s management success to convert their assets or resources to positive cash flows.

4.4.2.1 Loan, Advances and Bill Purchase to Total Deposit Ratio

This ratio measures the extent to which banks are successful in utilizing their assets to profit generating purpose. In other way, how quickly total deposits are

converted into loans, advance and bills purchased to earn returns on them. It is calculated by dividing loans, advances and bills purchased by total deposits.

The following table shows the effectiveness of the total deposit of NSBIL and NIBL.

Table 4.10
Loan, Advances and Bill Purchase to Total Deposit Ratio

(Rs. In Million)

Fiscal Year	NSBIL			NIBL		
	Loan, Advance and Bills Purchase	Total Deposit	Ratio	Loan, Advance and Bills Purchase	Total Deposit	Ratio
2063/64	9461	11445	0.82	17286	24489	0.71
2064/65	12114	13715	0.88	26997	34452	0.78
2065/66	15132	27957	0.54	36241	46698	0.77
2066/67	17481	34896	0.50	40318	50095	0.80
2067/68	21366	42415	0.50	41096	50138	0.82
Average			0.65			0.77

Source: Annual Report of NSBIL and NIBL from F/Y 2063/64 to 2067/68

The above table shows that the ratio between loan and advances and bill purchased to total deposit in case of NSBIL there is decreasing but in case of NIBL there is increasing over the study period.

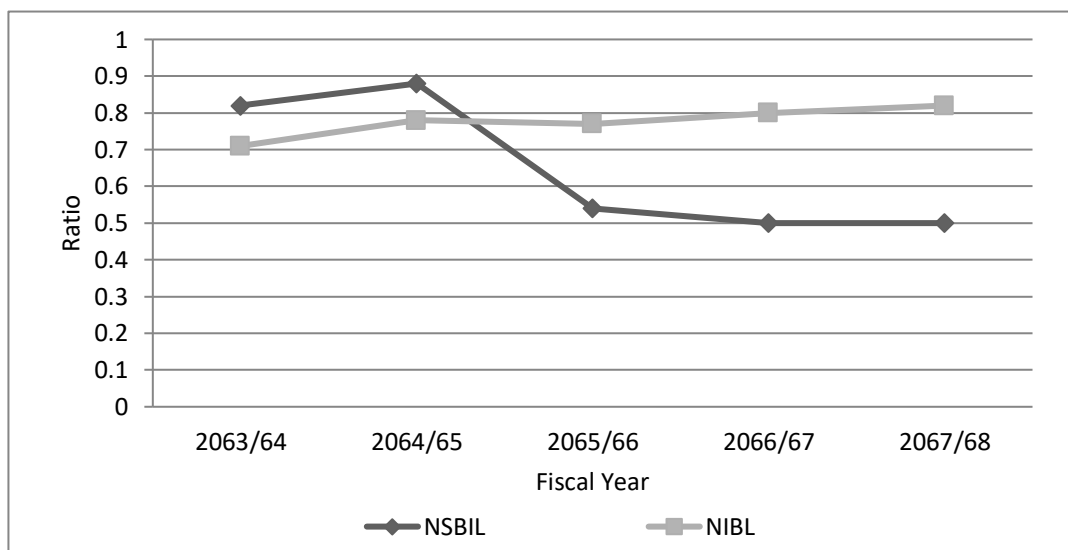
In case of NSBIL, there is highest loan, advances and bill purchased to total deposit ratio in F/Y2064/65 at 0.88 and lowest at 0.50 in two financial year i.e. in F/Y2066/67 and 2067/68. The average loan, advances and bill purchase to total deposits ratio of NSBIL is 0.65.

Similarly, in case of NIBL, there is highest loan, advances and bill purchased to total deposit ratios in F/Y2067/68 at 0.82 and lowest at 0.71 in F/Y2063/64. The

average loan, advances and bill purchase to total deposit ratios of NIBL is 0.77. The above analysis shows that loan advances and bill purchased to total deposit ratio of NIBL is better than that of NSBIL. It indicates that NIBL is utilizing assets more effectively for the profit generation purpose on loan advances and bill purchased than NSBIL. The above calculated ratio can be presented by graphs also,

Figure 4.11

Loan, Advances and Bill Purchase to Total Deposit Ratio



The above figure also depicts the actual trend line of NIBL is higher than NSBIL. Hence, NIBL is to be considered better activity or turnover condition than that of NSBIL as far as loan, advances and bill purchase to total deposit ratio is concerned.

4.4.2.2 Loan, Advance and bill purchased to Fixed Deposit Ratio

This ratio examines how many times the fund is used in loan and advances against the fixed deposit. It can be calculated by dividing loan, advances and bill purchased by fixed deposit.

The following table shows the ratio of loan, advances and bill purchased to fixed deposits of NSBIL and NIBL.

Table 4.11
Loan, Advances and Bill Purchases to Fixed Deposit Ratio

(Rs. In Million)

Fiscal Year	NSBIL			NIBL		
	Loan, Advance and Bills Purchase	Fixed Deposit	Ratio	Loan, Advance and Bills Purchase	Fixed Deposit	Ratio
2063/64	9461	5722	1.65	17286	12244	1.41
2064/65	12114	6858	1.76	26997	17225	1.57
2065/66	15132	13978	1.08	36241	23349	1.55
2066/67	17481	17448	1.01	40318	25047	1.61
2067/68	21366	21207	1.01	41096	25069	1.64
Average			1.30			1.56

Source: Annual Report of NSBIL and NIBL from F/Y 2063/64 to 2067/68

The above table shows that the ratio between loan, advances and bill purchased to fixed deposit in case of NSBIL there is decreasing but in case of NIBL there is increasing ratio over the study period. In case of NSBIL, there is highest loan, advances and bill purchase to total fixed deposit ratio at 1.76 in F/Y2064/65 and lowest at 1.01 in two financial year i.e. in F/Y2066/67 and 2067/68. The average loan, advances and bill purchase to fixed deposit ratio of NSBIL is 1.30.

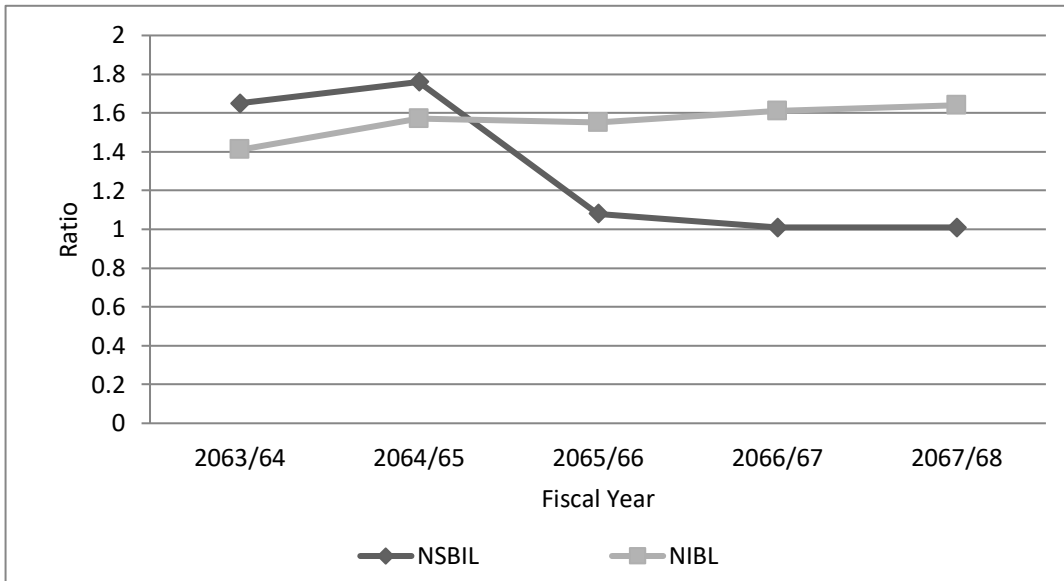
Similarly, in case of NIBL, there is highest loan, advance and bill purchased to fixed deposit ratio is 1.64 at F/Y2067/68 and lowest in F/Y2063/64 at 1.41. The average loan, advances and bills purchase to fixed deposit ratio of NIBL is 1.56.

Therefore, the above analysis shows that loan, advance and bill purchased to fixed deposit ratio of NIBL is better than NSBIL. It is concluded that NIBL is utilizing its fixed deposit in loan, advance and bill purchase more efficiently than NSBIL.

The above calculated ratio can be presented in graphs also,

Figure 4.12

Loan, Advances and Bill Purchases to Fixed Deposit Ratio



The above figure also depicts the actual trend line of NIBL is higher than NSBIL. Hence, NIBL is to be considering better activity or turnover condition than that of NSBIL as for as loan, advance and bill purchased to fixed deposit ratio is concerned.

4.4.3 Profitability Ratio

Particularly profitability ratio sees the company's profit position or in other way profitability ratio measure the company's profit earning capacity. This ratio mainly shows the combined effects of liquidity, asset management and debt management on operating outcomes. And thus, profitability ratio gives us the idea about of how profitable the firm is. We can measure profitability ratios by different ratios pattern.

4.4.3.1 Interest Earned to Total Assets Ratio

This ratio is used to determine total interest earned from investments over the total assets of a firm or company. This ratio can be calculated by dividing interest

earned by total assets of the firm. The following table shows the interest earned to total assets ratio of NSBIL and NIBL.

Table 4.12
Interest Earned to Total Assets Ratio

(Rs. In Million)

Fiscal Year	NSBIL			NIBL		
	Interest Earned	Total Assets	Ratio (%)	Interest Earned	Total Assets	Ratio (%)
2063/64	831	13901	5.98	1585	27591	5.74
2064/65	971	17187	5.64	2194	38873	5.64
2065/66	1460	30917	4.72	3268	53011	6.16
2066/67	2270	38048	5.96	4653	57305	8.12
2067/68	3104	46088	6.74	5803	58357	9.94
Average			5.81			7.12

Source: Annual Report of NSBIL and NIBL from F/Y 2063/64 to 2067/68

The above table shows that the ratio between interest earned to total assets in case of NSBIL there is fluctuating whereas in NIBL there is increasing over the study period.

In case of NSBIL, there is highest interest earned to total assets ratio in F/Y2067/68 by 6.74% and lowest ratio in F/Y2065/66 by 4.72%. The average interest earned to total assets ratio of NSBIL is 5.81%.

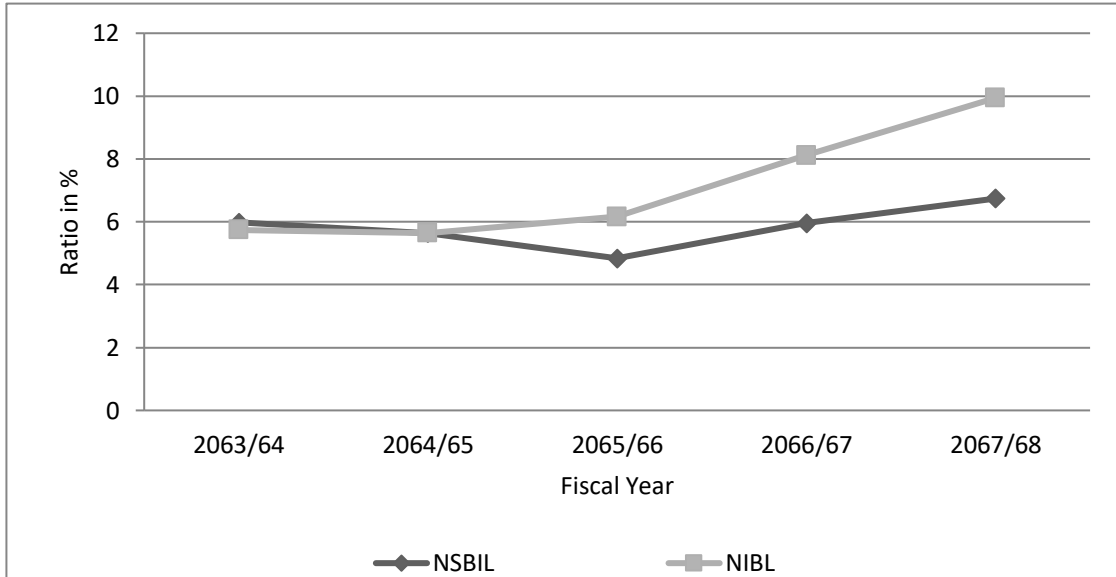
Similarly in case of NIBL, there is highest interest earned to total assets ratio in F/Y2067/68 by 9.94% and lowest ratio in F/Y2064/65 by 5.64%. And the average interest earned to total assets ratio of NIBL is 7.12%.

Now, the above analysis shows that interest earned to total assets ratio of NIBL is better than that of NSBIL. Hence, we conclude that profitability position of NIBL is strong than NSBIL.

The above calculated ratio can be depicted by graphs also,

Figure 4.13

Actual Trend Line of Interest Earned to Total Assets Ratio



The above figure also depicts the actual trend line of NIBL is higher than NSBIL. Hence, NIBL is to be consider better profitability position or condition than that of NSBIL as for as interest earned to total assets is concerned.

4.4.3.2 Net Profit to Total Assets Ratio

This ratio is useful in measuring the profitability of all financial resources invested compared to total assets of a firm. This ratio is calculated by dividing net profit after tax by total assets.

The following table shows the net profit after tax (NPAT) to total assets ratio of NSBIL and NIBL.

Table 4.13
NPAT to Total Assets Ratio

(Rs. In Million)

Fiscal Year	NSBIL			NIBL		
	Net Profit (NPAT)	Total Assets	Ratio (%)	Net Profit (NPAT)	Total Assets	Ratio (%)
2063/64	255	13901	1.83	501	27591	1.82
2064/65	248	17187	1.44	697	38873	1.79
2065/66	316	30917	1.03	901	53011	1.70
2066/67	392	38048	1.03	1266	57305	2.21
2067/68	465	46088	1.01	1177	58357	2.01
Average			1.27			1.91

Source: Annual Report of NSBIL and NIBL from F/Y 2063/64 to 2067/68

The above table shows that the ratio between NPAT to total assets in case of NSBIL, there is decreasing, where as in NIBL there in fluctuating trend over the study period.

In case of NSBIL, there is highest NPAT to total assets ratio in F/Y2063/64 by 1.83% and lowest ratio in F/Y2067/68 by only 1.01%. The average NPAT to total assets ratio of NSBIL is 1.27%.

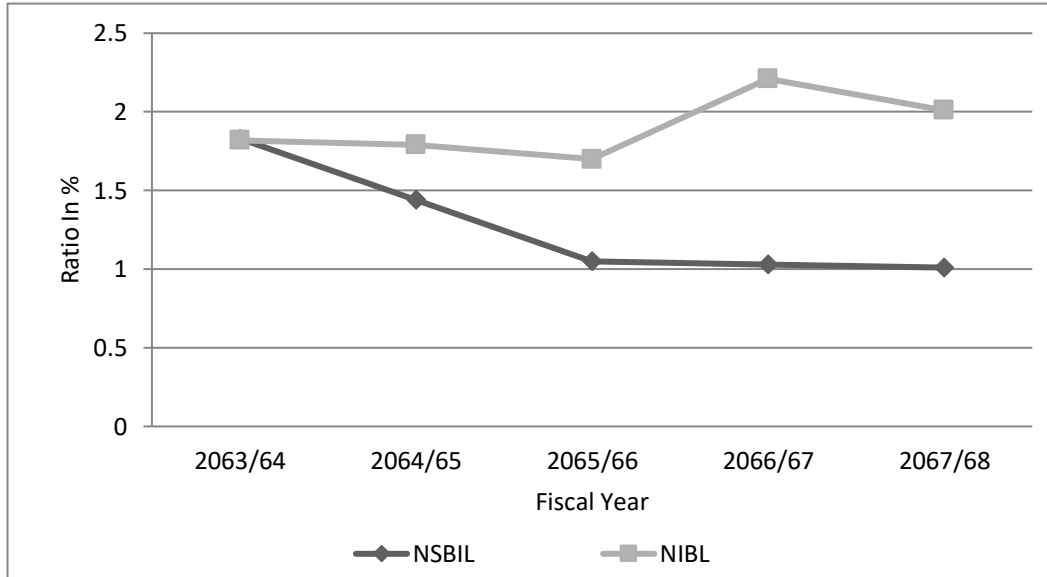
Similarly, in case of NIBL, there is highest NPAT to total assets ratio in F/Y2066/67 by 2.21% and lowest ratio in F/Y2065/66 by 1.70%. The average NPAT to total assets ratio of NIBL is 1.91%.

Now, the above analysis shows that NPAT to total assets ratio of NIBL is slightly better than that of NSBIL. Hence, we conclude here that profitability position of NIBL is slightly strong than NSBIL.

The above calculated ratio can be depicted by graphs also,

Figure 4.14

Actual Trend Line of NPAT to Total Assets Ratio



The above figure also depicts the actual trend line of NIBL is slightly higher than NSBIL. Hence, NIBL is to be considering better profitability position or condition than that of NSBIL as far as NPAT to total assets ratio is concerned.

4.4.3.3 Net Profit to Total Deposit Ratio

This ratio measures the extent to which banks are successful in earning profits by efficiently using collected deposits. This ratio is calculated by dividing NPAT by total deposit.

The following table shows the net profit after tax (NPAT) to total deposits of NSBIL and NIBL.

Table 4.14
NPAT to Total Deposit Ratio

(Rs. In Million)

Fiscal Year	NSBIL			NIBL		
	Net Profit (NPAT)	Total Deposit	Ratio (%)	Net Profit (NPAT)	Total Deposit	Ratio (%)
2063/64	255	11445	2.23	501	24489	2.05
2064/65	248	13715	1.81	697	34452	2.02
2065/66	316	27957	1.13	901	46698	1.92
2066/67	392	34896	1.12	1266	50095	2.53
2067/68	465	42415	1.01	1177	50138	2.34
Average			1.46			2.17

Source: Annual Report of NSBIL and NIBL from F/Y 2063/64 to 2067/68

The above table shows that the ratio between NPAT to total deposits in case of NSBIL there is decreasing trend. However in NIBL, there is fluctuating trend over the study period.

In case of NSBIL, there is highest NPAT to total assets ratio in F/Y2063/64 by 2.23% and lowest ratios in F/Y2067/68 by 1.01%. The average NPAT to total assets ratio of NSBIL is 1.46%.

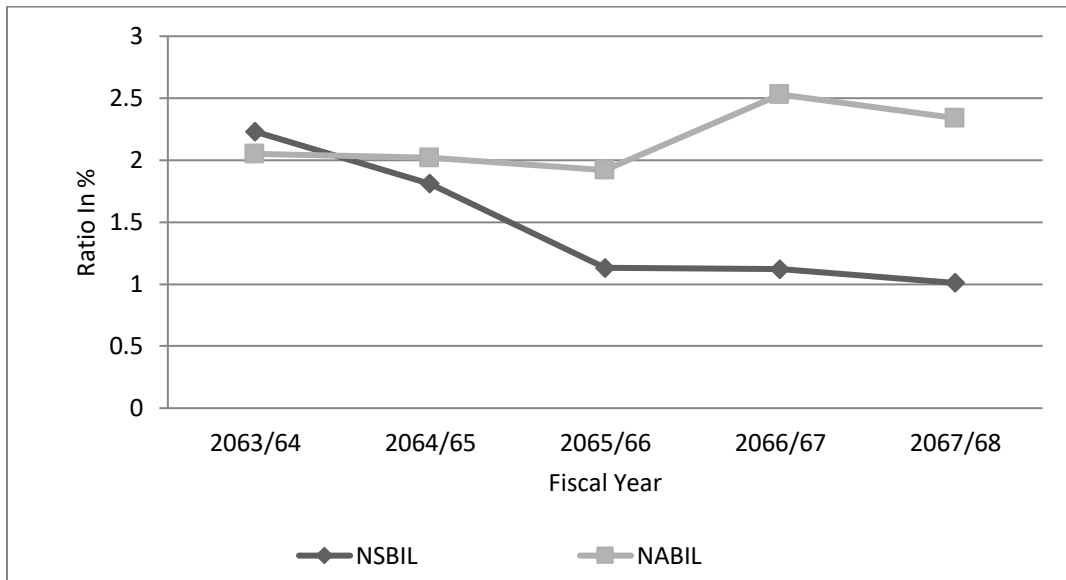
Similarly, in case of NIBL, there is highest NPAT to total deposit ratio in F/Y2066/67 by 2.53% and lowest ratios in F/Y2065/66 by 1.92%. The average NPAT to total deposit ratio of NIBL is 2.17%.

Now, the above analysis shows that NPAT to total deposit ratio of NIBL is slightly better than that of NSBIL. Hence, we conclude here that profitability position of NIBL is slightly strong than NSBIL.

The above calculated ratio can be depicted by graphs also.

Figure 4.15

Actual Trend Line of NPAT to Total Deposit Ratio



The above figure also depicts the actual trend line of NIBL is slightly higher than NSBIL. Hence, NIBL is to be considering better profitability condition or position than that of NSBIL as for as NPAT to total deposit ratio is concerned.

4.5 Statistical Analysis

4.5.1 Correlation Analysis

Correlation analysis is the statistical tool generally used to describe the degree to which one variable is related to another. There are various phenomena which are related to each other. For instance, when demand of a certain commodity increases, then its price goes up and when its demand decreases than its price comes down. The theory by means of which quantitative connection between two sets of phenomena are determined is called correlation theory. On the basis of the theory of correlation, one can study the comparative changes occurring in two related phenomena and their cause effect analysis.

4.5.1.1 Relationship between Investment on Government Security and Total Deposit

The coefficient of correlation between investment on government security and total deposit is to measure the degree of relationship between two variables. Banks utilizes its deposits on loan and advances, some part of idle deposits are investment on government securities. In our analysis deposit is to be considered as independent variable (y) and a government security is dependent variable (x). The purpose of computing coefficient of correlation in this case is to justify whether or not the excess deposits are significantly used in government securities and whether there is any relationship between these two variable i.e. government securities and total deposit. The following table shows the coefficient of correlation between government securities and total deposits of NSBIL and NIBL during the study period.

Table 4.15

Coefficient of Correlation between Government Securities and Total Deposit

Bank	r	PEr	6PEr	result
NSBIL	0.99	0.006	0.036	Significant
NIBL	0.81	0.103	0.622	Significant

Source: Appendix- 9

The above table shows that the coefficient correlation between government securities and total deposits of NSBIL and NIBL. The calculated value of 'r' is 0.99 for NSBIL and 0.81 for NIBL. Which shows the high degree of positive correlation between government securities and total deposit.

By considering the Probable Error i.e. PEr, since the value of 'r' is greater than 6PEr for both of the banks, it can be concluded that the relationship between government securities and total deposit is highly significant. Which means higher amount of leads to higher amount of total deposit and vice-versa.

4.5.1.2 Relationship between Loan, Advance and Bill Purchased to Net Profit

The prime activity of a commercial bank is to collect deposit and invest these funds on loan, advance and bill purchase to generate higher profit. Large amount of loans and advances generates higher interest which helps to create higher profit to the bank. The analysis of coefficient of correlation helps to management to see the degree of relationship between loan, advance, bill purchase and net profit. Here, loans advance and bill purchased has been considered as independent variable (y) whereas net profit has been considered as dependent variable (x). The purpose of computing the coefficient of correlation between loans, advances, bills purchase and net profit is to verify. Whether the loans, advance and bill purchase significantly generates profit or not and whether there is any relationship between these two variables.

The following table shows the coefficient of correlation between loan, advance and bills purchase to net profit of NSBIL and NIBL.

Table 4.16
Coefficient of Correlation between Loan, Advance and
Bills Purchase to Net Profit

Bank	r	PEr	6PEr	Result
NSBIL	0.96	0.0236	0.142	Significant
NIBL	0.95	0.0294	0.176	Significant

Source: Appendix-10

The above table shows the coefficient of correlation between loan, advance, bills purchase and net profit of NSBIL and NIBL. The calculated value 'r' is 0.96 for NSBIL and 0.95 for NIBL. Which shows the high degree positive correlation between loan, advance and bills purchase and net profit.

By considering the Probable Error i.e. PEr, since the value of 'r' is greater than 6PEr, for both of the banks. Thus, it can be concluded that the relationship between loan, advance and bills purchase and net profit is highly significant. This means higher amount of loan, advance and bills purchase leads to higher amount of returns.

4.5.1.3 Relationship between Loan, Advance and Bills Purchase and Total Deposit

The coefficient of correlation between loan, advance and bills purchase to total deposit is to measure the degree of relationship between them. Here, deposit is to be considered as independent variable (y), where as loan, advances and bills purchase is to be considered as dependent variable (x). The purpose of computing the coefficient of correlation is to verify whether the depends are significant used in loans, advance and bills purchase or not and whether there is any relationship between these two variables.

The following table shows the coefficient of correlation between loan, advance and bills purchase to total deposit of NSBIL and NIBL.

Table 4.17
Coefficient of Correlation between Loan, Advance and Bills Purchase and Total Deposit

Bank	r	PEr	6PEr	Result
NSBIL	0.98	0.01945	0.0716	Significant
NIBL	0.99	0.006	0.036	Significant

Source: Appendix-11

The above table shows that coefficient of correlation between loan, advance and bills purchase and total deposit of NSBIL and NIBL. The calculated value of 'r' is 0.98 for NSBIL and 0.99 for NIBL. This shows the high degree positive

correlation between loan, advance and bills purchase and total deposit. By considering the probable error i.e. PEr, since the value of 'r' is greater than 6PEr for both of the banks. Thus, it can be concluded that the relationship between loan, advance and bill purchase and total deposit is highly significant. Which means higher amount of deposits leads to higher amount of loan, advance and bills purchase.

4.6 Major Findings of the Study

The major findings of this study are summarized as below:

- The major components of current assets in NSBIL and NIBL are loan, advance and bills purchase, investment made in government securities and cash and bank balance. In the study period, the proportion of loan, advance and bills purchase, investment in government securities and cash and bank balance to total current assets on an average are 57.14%, 33.48% and 8.51% in NSBIL and 70.34%, 17.12% and 12.21% in NIBL, respectively. Both of the banks utilize less amount of money at call and short notice as current assets portfolio.
- Both of the banks had fluctuating trend line of cash and bank balance. However, actual trend line of NIBL is always higher than NSBIL in the study period.
- Similarly, both of the banks had decreasing trend in money at call and short notice. Although this is less consuming current assets items of both of the banks. However, NSBIL uses more amount of money at call and short notice than that of NIBL.
- In case of investment trend, NSBIL has fluctuating trend and NIBL has decreasing trend. However in average actual trend line of NSBIL is always higher than that of NIBL.
- In case of loan, advance and bills purchase trend, both the bank have fluctuating trend. Although this item is more consuming current assets items

of both the banks. NIBL is better condition than that of NSBIL as for as loan, advance and bills purchase is concerned.

- The net working capital of both NSBIL and NIBL are positive in the study period. This shows sufficient amount of working capital for operational requirement in the banks. The average net working capital of NSBIL is Rs. 15202 million and that of NIBL is Rs. 23947 million. The net working capital of NSBIL ranges from Rs. 7594 million to Rs. 23353 million. Whereas in NIBL, it ranges from Rs. 13929 million to Rs. 30012 million.
- The liquidity position of NSBIL and NIBL were analyzed with current ratio, quick ratio and cash and bank balance to total deposit (except fixed deposit). The current ratios of NSBIL and NIBL ranges from 2.07 to 2.37 times and 2.09 to 2.12 times respectively. The average current ratio of NSBIL and NIBL are 2.18 and 2.10 times respectively. This shows that NSBIL is more liquid than NIBL as for as current ratio is concerned.
- The quick ratios of NSBIL and NIBL range from 0.67 to 1.10 times and 0.58 to 0.74 times respectively. The average quick ratio of NSBIL and NIBL are 0.922 times and 0.622 times respectively. This shows that NSBIL is more liquid bank than NIBL as for as quick ratio is concerned.
- The cash and bank balance to total deposit (excluding fixed deposit) of NSBIL and NIBL ranges from 0.14 to 0.23 and 0.20 to 0.34 respectively. The average cash and bank balance to total deposit ratio of NSBIL and NIBL are 0.19 and 0.27 respectively. This shows that NIBL is better liquid condition as for as cash and bank balance to total deposit is concerned.
- The activity or turnover ratio of NSBIL and NIBL were analyzed with loan, advance and bills purchase to total deposit ratio and loan, advance and bills purchase to total fixed deposit ratio. The loan, advance and bills purchase to total deposit ratio of NSBIL and NIBL were ranges from 0.50 to 0.88 and 0.71 to 0.82 respectively. The average loan, advance and bill purchase to total deposit ratio are 0.65 and 0.77 respectively. The higher turnover ratio of

NIBL shows that it was utilizing its deposits for income generating more effective than that of NSBIL.

- The loan, advance and bills purchase to fixed deposit ratio of NSBIL and NIBL were ranges from 1.01 to 1.76 and 1.41 to 1.64 respectively. The average loan, advance and bills purchase to fixed deposit ratio are 1.30 and 1.56. The higher turnover ratio of NIBL shows that it was utilizing its fixed deposit for income generating more effectively than that of NSBIL.
- The profitability position of NSBIL and NIBL were analyzed through interest earned to total assets ratio, net profit to total assets ratio and net profit to total deposit ratio. The interest earned to total assets ratio of NSBIL and NIBL were ranges from 4.72% to 6.74% and 5.64% to 9.94%. The average interest earned to total assets of NSBIL and NIBL are 5.81% and 7.12%. The higher profitability ratio of NIBL shows that, it was able to generate more earning by utilizing its assets than that of NSBIL.
- Net profit to total assets ratios of NSBIL and NIBL were ranges from 1.01% to 1.83% and 1.70% to 2.21%. The average net profit to total assets ratio of NSBIL and NIBL are 1.27% and 1.91%. Here, NIBL seems more profitable bank with company to NSBIL as for as net profit to total asset ratio is concerned.
- Net profit to total deposit ratio of NSBIL and NIBL were ranges from 1.01% to 2.23% and 1.92% to 2.53%. The average net profit to total deposit ratio of NSBIL and NIBL are 1.46% and 2.17%. Here, NIBL seems more profitable bank with compare to NSBIL as for as net profit to total deposit is concerned.
- While analyzing the correlation coefficient, investment on government securities and total deposits of both the banks NSBIL and NIBL are highly correlated. The value of 'r' of NSBIL is 0.99 and 0.81 in NIBL. It correlation between investment on government security and total deposit of NSBIL is highly significant than NIBL.

- The relationship between loan, advance and bills purchase and net profit of both the banks NSBIL and NIBL are highly correlated. The value of 'r' of NSBIL is 0.96 and 0.95 in NIBL. It shows that, correlation between loan, advance and bills purchase to net profit of NSBIL is slightly more significant than NIBL.
- The relationship between loan, advance and bills purchase and total deposit of both the banks NSBIL and NIBL are highly correlated. The value of 'r' of NSBIL is 0.98 and 0.99 in NIBL. It shows that correlation between loan, advance and bills purchase to total deposit of NIBL is slightly more significant than NSBIL.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Nepal is a landlocked country in South Asia with an area of 1,47,181 square kilometer and a population of 26.4 million. Nepal is the world's 93rd largest country by land mass and 41st most popular country. Nepal is the second richest country in the world in water resource with hydroelectricity production capacity of 83,000 megawatt. Nepal is rich in its geographical, natural and cultural diversity. But, the country still is in the group of least developed country in the world. Agriculture sector is the backbone of Nepalese economy.

The prosperity of every developing country can only be ensured by its economic growth. The role of commercial banks in the economic growth of the nation is very prominent. By mobilizing the scattered idle resources, commercial bank pools the fund in a sizable volume in order to feed to the fund requirement of productive sector of the economy such investments in the banks.

Productive sector promote trade and industrialization in the country there by raising the employment opportunities and earning to the labors and materials and make boosts saving in banks leads to creation of capital for large investments. All these effect will roll the economy to soaring heights.

To remain as the major contributing factor to the growth of the economy, the banks also have to need sustainable existence and growth themselves. For sustainable existence and growth of a bank, it must ensure reasonable level of working capital. Reasonable liquidity position, activity position and profitability position maintain good working capital for banks.

Working capital is the life blood for banks. Typically, working capital affects the daily operation of any business and working capital management is primarily concerned with the management of current assets, current liabilities and interrelationship between them.

In banking sector, we have now already 32 commercial banks. The main objective of the study is to study how effectively commercial banks of Nepal managing their working capital. Because of time and resource constraints made is to focus only two commercial banks NSBIL and NIBL for the study. To make this thesis more clear and understandable to readers, available data and information are analyses and interpreted by financial and statistical tools by suitable tables and diagrams. This study work has been divided into five chapters i.e. introduction, review of literature, research methodology, data presentation and Analysis and summary, conclusion and recommendations. In the course of thesis work, basically secondary data are used of both of the banks from financial year 2063/64 to 2067/68.

To fulfill the objective as mentioned earlier, an appropriate research methodology has been developed, which includes financial and statistical tools. In financial tools, primarily ratio analysis is considered which consists of the composition of working capital, liquidity position, activity position and profitability position under statistical tools, correlation analysis, hypothesis testing and trend analysis are considered. The entire thesis study is concerned about the how effectively both of the banks are managing their capital and ultimately this study recommend some suggestions to the management.

5.2 Conclusion

The concept of working capital management is a very important financial management tool in today's business world. It is primarily concerned with how company manages its short term fund or assets of business and whether the company made efficient working capital or not. If the firm or business does not maintain the satisfactory level of working capital, it disturbed the day to day operation of business and ultimately it may even be forced into insolvent or bankruptcy. Particularly, this study concerned with to know about the management of working capital in commercial banks with reference to Nepal SBI Bank Limited (NSBIL) and Nepal Investment Bank Limited (NIBL). Following are the conclusive highlights of managing of working capital in two selected commercial banks.

- The major components of current assets of both of the banks are loan, advance and bills purchase and investment. Both banks utilize less amount of money at call and short notice in current assets portfolio.
- The figure of cash and bank balance of NIBL is higher than that of NSBIL. So, actual trend line of NIBL is always higher than NSBIL. Similarly, NSBIL uses more amount of money at call and short notice than that of NIBL.
- Average investment trend line of NSBIL is always higher than NIBL. And similarly, NIBL is in better condition than NSBIL as for as loan, advance and bills purchase trend line is concerned.
- The net working capitals of both banks are positive in the study period. This shows sufficient amount of working capital in the banks.
- The liquidity position of NSBIL is better than that of NIBL as for as current ratio is concerned. Similarly, by comparing by quick ratio, NSBIL is more liquid bank than NIBL. But if cash and bank balance to total deposit is concerned, than NIBL seems more liquid than NSBIL.

- In the course of analyzing activity or turnover position of the banks, firstly loan, advance and bills purchase to total deposit ratio of NIBL seems more favorable condition than that of NSBIL. And Similarly, NIBL has higher turnover ratio as for as loan, advance and bills purchase to fixed deposit ratio is concerned. Therefore, NIBL is more efficient bank than NSBIL in case of activity or turnover matters.
- In the course of analyzing profitability of the banks, NIBL seems more profitable banks than NSBIL during the study period. In the analysis of profitability like interest earned to total assets ratio, net profit to total assets ratio and net profit to total deposit ratio, NIBL is seems more profitable than NSBIL.
- In the course of analyzing relationship between variables. Firstly, both of the banks have high correlation in investment on government securities and total deposit. But comparatively correlation between investment on government security and total deposit of NSBIL is highly significant than NIBL. The relationship between loan, advance and bill purchase and net profit of both banks are high positive. But NSBIL is slightly more significantly correlated than NIBL. Similarly, the relationship between loan, advance and bill purchase and total deposit of both banks are high positive. But NIBL is slightly more significantly correlated than NSBIL.

5.3 Recommendation

On the basis of comparative study of working capital management of NSBIL and NIBL, following suggestions are recommended to improve the working capital management system in the banks.

- Both banks utilizes more amount of fund in loan, advances and bills purchased of current assets they should give attention to other types of current assets too.

- Both banks should be maintaining sufficient fund in money at call and short notice. Both of the banks underestimate it.
- NIBL should be focused to improve the liquidity position. It should be maintained optimum current assets and current liabilities amount volume.
- NSBIL should be focused of improve its activity ratio. The bank is in weaker position than NIBL.
- NSBIL also should focus on improvement of profitability on the banks. All the ratios analyzing in the study are not favorable to NSBIL. It needs to invest most productive sectors.
- Both of the banks should diversify their portfolio besides giving emphasis on limited assets. It needs to invest its fund in the securities of other than government security also.
- Both of the banks should maintain positive relationship between investment on government to total deposit, loan, advance and bills purchase to net profit and loan, advance and bills purchase to total deposits in coming year too, to maximize benefits.
- Other indirect recommendation are:
 - Research and Development mechanism should be introduced to utilize banks assets in most productive sector.
 - Sufficient skilled manpower should be hired.
 - Well equipped technology should to introduce.
 - Banks are suggested to invest in deprived sector as directed by Nepal Rastra Bank in order to contribute to the overall development of the country.

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Nepal SBI Bank Limited: [http:// www.nepalsbi.com.np](http://www.nepalsbi.com.np)

Nepal Stock Exchange: [http:// www.nepalstock.com.np](http://www.nepalstock.com.np)

APPENDICES

Appendix-1

Balance Sheet of NSBIL (2063/64 to 2067/68)

(Rs In Million)

Assets	2063/64	2064/65	2065/66	2066/67	2067/68
Cash Balance	288	308	652	816	1008
Balance with NRB	557	404	444	1843	2331
Balance with Banks/ financial Institution	278	631	808	783	1539
Money at Call and Short Notice	350	304	-	-	-
Investment	2660	3089	13286	16306	18911
Loan, Advances and Bills Purchased	9460	12114	15132	17481	21366
Fixed Assets	97	120	254	418	417
Non-Banking Assets	4	-	-	-	-
Other Assets	208	218	341	402	517
Total Assets	13901	17187	30917	38048	46088
Current Liabilities					
Share Capital	648	875	875	1861	2103
Reserve and Fund	515	540	838	589	776
Debenture and Bonds	200	200	200	200	200
Borrowings	815	1627	727	-	-
Deposits Liabilities	11445	13715	27957	34896	42415
Bills Payable	49	75	63	72	81
Proposed Dividend	91	12	25	83	93
Income Tax Liabilities	-	-	-	-	-
Other Liabilities	137	143	232	345	419
Total Liabilities	13901	17187	30917	38048	46088

Appendix-2

Profit and Loss Account of NSBIL (2063/64 to 2067/68)

(Rs In Million)

Particular	2063/64	2064/65	2065/66	2066/67	2067/68
Interest Income	831	971	1460	2270	3104
Interest Expenses	412	455	825	1444	2096
Net Interest Income	419	516	636	826	1008
Commission and Discount	52	51	79	132	247
Other Operating Income	12	20	53	79	95
Exchange Profit	49	52	61	70	71
Total Operating Income	534	638	829	1107	1421
Staff Expenses	53	75	122	130	255
Other Operating Expenses	120	152	224	344	445
Exchange Loss	-	-	-	-	-
Operating Profit Before Provision for Possible Loss	366	411	483	633	721
Provision for Possible Losses	59	57	40	62	46
Operating Profit	301	353	442	570	674
Non-Operating Income/Loss	0	0	3	3	3
Provision for Possible Loss Written Back	79	30	199	57	179
Profit from Regular Operations	379	383	644	629	856
Profit/Loss from Extraordinary Activities	-	-	(156)	(37)	(138)
Net Profit After Considering All Activities	379	383	487	592	719
Provision for Staff Bonus	34	35	44	53	65
Provision for Income Tax:					
-Current Year	87	106	133	183	207
-Up to Previous Year	3	1	3	(28)	(5)
Deferred Tax Income(Expense)	-	(6)	(9)	(8)	(13)
Net Profit(Loss)	255	248	316	392	465

Appendix-3

Balance Sheet of NIBL (2063/64 to 2067/68)

(Rs In Million)

Assets	2063/64	2064/65	2065/66	2066/67	2067/68
Cash Balance	764	1464	1833	1525	1719
Balance with NRB	1381	1820	4411	3237	4009
Balance with Banks/ financial Institution	296	470	1673	2053	2412
Money at Call and Short Notice	363	-	-	-	150
Investment	6506	6874	7400	8636	7423
Loan, Advances and Bills Purchased	17286	26997	36241	40318	41096
Fixed Assets	759	970	1061	1136	1108
Non-Banking Assets	1	0	-	-	-
Other Assets	234	277	391	399	439
Total Assets	27591	38873	53011	57305	58357
Current Liabilities					
Share Capital	801	1204	2407	2409	3011
Reserve and Fund	1077	1483	1501	2176	2148
Debenture and Bonds	800	1050	1050	1050	1050
Borrowings	-	-	39	37	28
Deposits Liabilities	24489	34452	46698	50095	50138
Bills Payable	32	79	82	38	8
Proposed Dividend	44	93	481	602	602
Income Tax Liabilities	0	24	38	37	-
Other Liabilities	348	488	714	860	1118
Total Liabilities	27591	38873	53011	57305	58357

Appendix-4

Profit and Loss Account of NIBL (2063/64 to 2067/68)

(Rs In Million)

Particular	2063/64	2064/65	2065/66	2066/67	2067/68
Interest Income	1585	2194	3268	4654	5803
Interest Expenses	(686)	(992)	(1687)	(2554)	(3620)
Net Interest Income	899	1202	1581	2100	2183
Commission and Discount	164	215	183	243	269
Other Operating Income	47	66	114	168	153
Exchange Profit	135	166	185	224	228
Total Operating Income	1246	1650	2063	2735	2834
Staff Expenses	(145)	(187)	(226)	(280)	(327)
Other Operating Expenses	(243)	(313)	(361)	(434)	(456)
Exchange Loss	-	-	-	-	-
Operating Profit Before Provision for Possible Loss	857	1149	1477	2021	2051
Provision for Possible Losses	(130)	(136)	(166)	(93)	(267)
Operating Profit	728	1013	1311	1928	1784
Non-Operating Income/Loss	1	7	3	11	8
Loss Provision Written Back	67	102	115	50	107
Profit from Regular Operations	796	1122	1428	1989	1899
Profit/Loss from Extraordinary Activities	-	-	-	-	(53)
Net Profit After Considering All Activities	796	1122	1428	1989	1846
Provision for Staff Bonus	(72)	(102)	(130)	(181)	(168)
Income Tax Provision:					
-Current Year	(222)	(323)	(390)	(533)	(500)
-Up to Previous Year	-	-	7	-	-
Deferred Tax Income(Expense)	-	-	(16)	(9)	1
Net Profit(Loss)	501	697	901	1266	1177

Appendix-5

Composition of Quick Asset of NSBIL

Fiscal Year	2063/64	2064/65	2065/66	2066/67	2067/68
Cash and Bank Balance	1123	1343	1904	3441	4878
Money at Call and Short Note	350	304	-	-	-
Investment	2660	3089	13286	16306	18911
Quick Assets	4133	4736	15190	19747	23789

Appendix-6

Composition of Current Liabilities of NSBIL

Rs In Million

Fiscal Year	2063/64	2064/65	2065/66	2066/67	2067/68
Deposits (Total Deposits of 50%) (Short Term Deposit)	5723	6858	13978	17448	21208
Bills Payable	49	75	63	72	81
Proposed Dividend	91	12	25	83	93
Income Tax Liabilities	-	-	-	-	-
Other Liabilities	137	143	232	345	419
Current Liabilities	6000	7088	14298	17949	21802

Appendix-7

Composition of Quick Asset of NIBL

Fiscal Year	2063/64	2064/65	2065/66	2066/67	2067/68
Cash and Bank Balance	2442	3755	7918	6816	8140
Money at Call and Short Note	363	-	-	-	150
Investment	6506	6874	7400	8636	7423
Quick Assets	9311	10629	15318	15452	15713

Appendix-8

Composition of Current Liabilities of NIBL

Rs In Million

Fiscal Year	2063/64	2064/65	2065/66	2066/67	2067/68
Deposits (Total Deposits of 50%) (Short Term Deposit)	12244	17226	23349	25048	25069
Bills Payable	32	79	82	38	8
Proposed Dividend	44	93	481	602	602
Income Tax Liabilities	0	24	38	37	-
Other Liabilities	348	488	714	860	1118
Current Liabilities	12668	17911	24665	26585	26797

Appendix -9

Calculation of Correlation Coefficient between Government Security and Total Deposit of NSBIL

GS(x)	TD(y)	X=x- \bar{x}	X ²	Y=y- \bar{y}	Y ²	XY
2660	11445	-8190	67076100	-14641	214358881	119909790
3089	13715	-7761	60233121	-12371	153041641	96011331
13286	27957	2436	5934096	1871	3500641	4557756
16306	34896	5456	29767936	8810	77616100	48067360
18911	42415	8061	64979721	16329	266636241	131628069
ΣX = 54252	ΣY = 130428		ΣX^2 = 227990974		ΣY^2 = 715153504	ΣXY = 400174306

$$\bar{X} = \frac{\Sigma X}{n} = \frac{54252}{5} = 10850$$

$$\bar{Y} = \frac{\Sigma Y}{n} = \frac{130428}{5} = 26086$$

$$\begin{aligned} \therefore r_{XY} &= \frac{\Sigma XY}{\sqrt{\Sigma X^2} \sqrt{\Sigma Y^2}} = \frac{400174306}{\sqrt{227990974} \sqrt{71515304}} = \frac{400174306}{45099 \times 26742} \\ &= \frac{400174306}{403782805} = 0.99 \end{aligned}$$

$$\begin{aligned} P.Er. &= 0.6745 \times \frac{1-r^2}{\sqrt{n}} \\ &= 0.6745 \times \frac{1-(0.99)^2}{\sqrt{5}} = 0.006 \end{aligned}$$

6P.Er. 0.036

**Calculation of Coefficient of between Government Securities and Total
Deposit of NIBL**

Financial Year	GS(x)	TD(y)	X=x- \bar{x}	X ²	Y=y- \bar{y}	Y ²	XY
2063/64	6506	24489	-862	743044	-16685	278389225	14382470
2064/65	6874	34452	-494	244036	-6722	45185284	3320668
2065/66	7400	46698	32	1024	5524	30514576	176768
2066/67	8636	50095	1268	1607824	8921	79584241	11311828
2067/68	7423	50138	55	3025	8964	80353296	493020
	ΣX	ΣY		ΣX^2		ΣY^2	ΣXY
	=36839	=205872		=2598953		=514026622	=29684754

$$\bar{X} = \frac{\Sigma X}{n} = \frac{36839}{5} = 7368 \quad \bar{Y} = \frac{\Sigma Y}{n} = \frac{205872}{5} = 41174$$

$$\begin{aligned} \therefore r_{XY} &= \frac{\Sigma XY}{\sqrt{\Sigma X^2} \sqrt{\Sigma Y^2}} = \frac{29684754}{\sqrt{2598953} \sqrt{514026622}} = \frac{29684754}{1612.12 \times 22672} \\ &= \frac{2968475}{36550235} = 0.81 \end{aligned}$$

$$\begin{aligned} P.Er. &= 0.6745 \times \frac{1-r^2}{\sqrt{n}} \\ &= 0.6745 \times \frac{1-(0.81)^2}{\sqrt{5}} = 0.103 \end{aligned}$$

$$6P.Er. = 0.622$$

Appendix -10

Calculation of Correlation Coefficient between Loan, Advance and Bills

Purchase and Net Profit of NSBIL

Fiscal Year	Net Profit(x)	Loan, Advance and Bills Purchase (y)	$X=x-\bar{x}$	X^2	$Y=y-\bar{y}$	Y^2	XY
2063/64	255	9461	-81	6561	-5650	31922500	457650
2064/65	248	12114	-88	7744	-2997	8982009	263736
2065/66	317	15132	-19	361	21	441	399
2066/67	397	17481	61	3721	2370	5616900	144570
2067/68	465	21366	129	16641	6255	39125025	806895
	ΣX =1682	ΣY =75554		ΣX^2 =35028		ΣY^2 =85646875	ΣXY =1673250

$$\bar{X} = \frac{\Sigma X}{n} = \frac{1682}{5} = 336 \quad \bar{Y} = \frac{\Sigma Y}{n} = \frac{75554}{5} = 15111$$

$$\begin{aligned} \therefore r_{XY} &= \frac{\Sigma XY}{\sqrt{\Sigma X^2} \sqrt{\Sigma Y^2}} = \frac{1673250}{\sqrt{35028} \sqrt{85646875}} = \frac{1673250}{187.157 \times 9254.56} \\ &= \frac{1673250}{1732056} = 0.96 \end{aligned}$$

$$\begin{aligned} P.Er. &= 0.6745 \times \frac{1-r^2}{\sqrt{n}} \\ &= 0.6745 \times \frac{1-(0.96)^2}{\sqrt{5}} = 0.0236 \end{aligned}$$

$$6P.Er. = 0.142$$

**Calculation of Correlation Coefficient between Loan, Advance and Bills
Purchase and Net Profit of NIBL**

Financial Year	Net Profit(x)	Loan, Advance and Bills Purchase (y)	X=x- \bar{x}	X ²	Y=y- \bar{y}	Y ²	XY
2063/64	501	17286	-407	165649	-15101	228040201	6146107
2064/65	696	26997	-212	44944	-5390	29052100	1142680
2065/66	900	36241	-8	64	3854	14853316	-30832
2066/67	1266	40318	358	128164	7931	62900761	2839298
2067/68	1176	41096	268	71824	8709	75846681	2334012
	$\sum X$ =4539	$\sum Y$ =161938		$\sum X^2$ =410645		$\sum Y^2$ =410693059	$\sum XY$ =12431265

$$\bar{X} = \frac{\sum X}{n} = \frac{4539}{5} = 908 \quad \bar{Y} = \frac{\sum Y}{n} = \frac{161938}{5} = 32387$$

$$\begin{aligned} \therefore r_{XY} &= \frac{\sum XY}{\sqrt{\sum X^2} \sqrt{\sum Y^2}} = \frac{12431265}{\sqrt{410645} \sqrt{410693059}} = \frac{12431265}{641 \times 20266} \\ &= \frac{12431265}{12990226} = 0.95 \end{aligned}$$

$$\begin{aligned} \text{P.Er.} &= 0.6745 \times \frac{1-r^2}{\sqrt{n}} \\ &= 0.6745 \times \frac{1-(0.95)^2}{\sqrt{5}} = 0.0294 \end{aligned}$$

$$6\text{P.Er.} = 0.176$$

Appendix-11

Calculation of Correlation Coefficient between Loan, Advance and bills purchase and total deposit of NSBIL

Financial year	Loan, advance and bills purchase (x)	Total Deposit (y)	X=x- \bar{x}	X ²	Y=y- \bar{y}	Y ²	XY
2063/64	9461	11445	-5650	31922500	-14641	214358881	82721650
2064/65	12114	13715	-2997	8982009	-12371	153041641	37075887
2065/66	15132	27957	21	441	1871	3500641	39291
2066/67	17481	34896	2370	5616900	8810	77616100	20879700
2067/68	21366	42415	6255	39125025	16329	266636241	102137895
	ΣX =75554	ΣY =130428		ΣX^2 =85646875		ΣY^2 =715153504	ΣXY =242854423

$$\bar{X} = \frac{\Sigma X}{n} = \frac{75554}{5} = 15111$$

$$\bar{Y} = \frac{\Sigma Y}{n} = \frac{130428}{5} = 26086$$

$$\begin{aligned} \therefore r_{XY} &= \frac{\Sigma XY}{\sqrt{\Sigma X^2} \sqrt{\Sigma Y^2}} = \frac{242854423}{\sqrt{85646875} \sqrt{715153504}} = \frac{242854423}{9254.56 \times 26742} \\ &= 0.98 \end{aligned}$$

$$\begin{aligned} P.Er. &= 0.6745 \times \frac{1-r^2}{\sqrt{n}} \\ &= 0.6745 \times \frac{1-(0.98)^2}{\sqrt{5}} = 0.01945 \end{aligned}$$

$$6P.Er. = 0.0716$$

**Calculation of Correlation Coefficient between Loan, Advance and Bills
Purchase and Total Deposit of NIBL**

Financial year	Loan, advance and bills purchase(x)	Total Deposit (y)	X=x- \bar{x}	X ²	Y=y- \bar{y}	Y ²	XY
2063/64	17286	24489	-15101	228040201	-16685	278389225	251960185
2064/65	26997	34452	-5390	29052100	-6722	45185284	36231580
2065/66	36241	46698	3854	14853316	5524	30514576	21289496
2066/67	40318	50095	7931	62900761	8921	79584241	70752451
2067/68	41096	50138	8709	75846681	8964	80353296	78067476
	$\sum X$ =161938	$\sum Y$ =205872		$\sum X^2$ =410693059		$\sum Y^2$ =514026622	$\sum XY$ =458301188

$$\bar{X} = \frac{\sum X}{n} = \frac{161938}{5} = 32387 \qquad \bar{Y} = \frac{\sum Y}{n} = \frac{205872}{5} = 41174$$

$$\therefore r_{XY} = \frac{\sum XY}{\sqrt{\sum X^2} \sqrt{\sum Y^2}} = \frac{458301188}{\sqrt{20266} \sqrt{22672}} = 0.99$$

$$\begin{aligned} \text{P.Er.} &= 0.6745 \times \frac{1-r^2}{\sqrt{n}} \\ &= 0.6745 \times \frac{1-(0.99)^2}{\sqrt{5}} = 0.006 \end{aligned}$$

$$6\text{P.Er.} = 0.036$$