STUDY ON WORKING CAPITAL MANAGEMENT OF NABIL BANK LIMITED AND NEPAL INVESTMENT BANK LIMITED

Submitted to

Office of the Dean

Faculty of Management

Tribhuvan University

Submitted by

GITA KHANAL

Lumbini Banijya Campus

T.U. Registration No. : 7-2302-51-2003

Exam Roll No.: 1256

In partial fulfillment of the requirement for the degree of

Master in Business Studies (M.B.S)

April, 2013

Butwal

RECOMMENDATION

This is to certify that the thesis:

Submitted by

GITA KHANAL

Entitled

STUDY ON WORKING CAPITAL MANAGEMENT OF NABIL BANK LIMITED AND NEPAL INVESTMENT BANK LIMITED

Has been prepared as approved by this department in the prescribed format of Faculty of Management. This thesis is forwarded for examination.

_____	_____
Mr. Bharat Bhusal	Dr. Ishwor Gautam
(Thesis Supervisor)	(Head of Research Department)
	(Campus Chief)

Date: ……..

VIVA - VOCE SHEET

We have conducted the viva-voce examination of the thesis presented by

Submitted by

GITA KHANAL

Entitled

STUDY ON WORKING CAPITAL MANAGEMENT OF NABIL BANK LIMITED AND NEPAL INVESTMENT BANK LIMITED

And found the thesis to be the original work of the student written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirements for Master's Degree in Business Studies (M.B.S.)

VIVA-VOCE COMMITTEE

Head of Research Department	Dr. Ishwor Gautam
Member (Thesis Supervisor)	Mr. Bharat Bhusal
Member (External Expert)	…….

DECLARATION

I here by declare that the work reported in this thesis entitled “STUDY ON WORKING CAPITAL MANAGEMENT OF NABIL BANK LIMITED AND NEPAL INVESTMENT BANK LIMITED" submitted to Office of the Dean, Faculty of Management, Tribhuvan University is my original work done in the form of partial fulfillment of the requirement of Master of Business Studies (MBS) under the guidance and supervision of Mr. Bharat Bhusal of Lumbini Banijya Campus.

Researcher
Gita Khanal

ACKNOWLEDGEMENT

I am pleased to present this dissertation for the partial fulfillment of the requirement for the degree of Master in Business Studies (MBS), which could enhance the capabilities of students in the field of research work. I would like to thank a number of people for their support and assistance in making this thesis possible.

First of all, I would like to express my sincere gratitude to my supervisor Mr. Bharat Bhusal for encouraging and guiding me throughout the study. Without his invaluable feedback and continuous support this work would not have come in this shape. I would like to thank the members of the evaluating committee for their interest, feedback and involvement in this thesis.

In particular, I am grateful to the staffs and officials of Nabil Bank Limited and Nepal Investment Bank Limited for providing necessary data and information without which the completion of dissertation could be impossible

I extend my heartfelt thanks personally to Dr. Ishwor Gautam (Chief, Lumbini Banijya Campus) for their constant inspiration and valuable suggestions during the course of my study.

I extend my warm thanks to my family member and my friends for their continuous inspiration and support during the entire period of the study. Finally I would like to express a warm regard to the entire concerned person who helped and directed me for the successful completion of my Thesis.

Gita Khanal

Table of Contents

Page No

List of Tables

List of Figures

ABBREVIATION

BOK	Bank of Kathmandu Limited
BS	Bikram Sambat (Abbreviation of Bikram Era)
CEO	Chief Executives Officer
CV	Coefficient of Variation
EBL	Everest Bank Limited
EPS	Earning Per Share
HBL	Himalayan Bank Limited
G/N	Government of Nepal
HCCL	Himal Cement Company Limited
JCF	Janakpur Cigarette Factory
JVB	Joint Venture Bank
MBA	Master in Business Administration
MBL	Machhapuchre Bank Limited
MBS	Master in Business Studies
NABIL	Nabil Bank Limited
NBL	Nepal Bank Limited
NIBL	Nepal Investment Bank Limited
NRB	Nepal Rastra Bank
NTL	National Trading Limited
NTDC	Nepal Trade Development Corporation
PE	Price Earnings
RBB	Rastra Banijya Bank
SCBNL	Standard Chartered Bank Nepal Limited
STCL	Salt Trading Corporation Limited

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

After the introduction of democracy in year the 2046 B.S., the promulgations of various economic liberalization policies by the government in different time provided flexibility to the growth of the financial institutions since the he economic liberalization policy of the Government has encouraged the establishment and growth of financial institutions. In Nepal, different types of financial institutions such as commercial banks, development banks, financial institution and co-operatives are in operation.

Financial institutions can be considered as one of the major tools for the economic growth of a country. The development process of a country involves the mobilization and development of resources. Development of trade, commerce and industry are the prime requisite for the attainment of the economic, political and social goals. To fulfill the purpose of planning, financial functions more often dominate the other functions. “There is always lack of finance in underdeveloped economy because natural resources are underutilized in productive sectors. Similarly, undeveloped countries are not deficient in land, water, mineral, forest or power resources, though they may be unused.” So in these countries for the rapid development of the economy, there should be proper mobilization of resources.

Due to various difficulties or even ignorance of the people, such resources have not been properly utilized. Hoarding could be one of the reasons for this. So, banks and other financial institutions play a vital role to encourage thrift and discourage hoardings by mobilizing resources and removing the habit of hoarding. They pursue rapid economic growth, developing the banking habit among the people, collecting the small-scattered resources in one bulk and utilizing them in further productive purposes and rendering other valuable services to the country.

Nepal Rastra Bank Ltd. was established with an objective of supervising, protecting and directing the functions of commercial banking activities. Consequently, another

commercial bank fully owned by the government, Rastriya Banijya Bank was established in 2022 B.S. under the Banijya Bank Act 2021 B.S. In the fiscal year 2039/40, new banking policy was introduced for the establishment of new banks with joint venture with foreign banks. Its objective was to create healthy competitive banking market and to provide reasonable banking facilities to the people. The establishment of joint venture banks started a new horizon to the financial sector of the country. Nepal Arab Bank Limited (NABIL) is the first joint venture commercial bank incorporated in 2041 B.S. In 2043 B.S. the second joint venture bank, Nepal Indosuez Bank Ltd (currently Nepal Investment Bank Limited) was established. In the same year, Nepal Grindlays Bank Limited (currently Standard Chartered Bank Nepal Limited) in the form of JVB was also established. But most JVBs came into existence after the initiation of government's policy of economic liberalization and privatization in 2049 B.S. Himalayan Bank Ltd (2049), Nepal NABIL Bank Ltd (2050), Nepal Bangladesh Bank Ltd (2051), Everest Bank Ltd (2051) and Bank of Kathmandu (2052) came into existence in chronological order. Under favorable environment, various other banks were established thereafter.

Banking is a crucial part of national economy and a channel to mobilize economy's financial resources and extension of credit to the business or service enterprises. Commercial banks are the life blood of the financial system. They hold the deposits of individuals, government establishment and business units. They make funds available through their lending and investing activities to borrowers, individuals, business firms and government establishments. In doing so, they assist both the flow of goods and services from the producers to consumers and the financial activities of the government. Proper financial decision making is extremely important in banking transaction for its efficiency and profitability. Most of the financial decisions of a bank are concerned with current assets and current liabilities. Working capital management decision is one among various other financial decisions. The working capital management of a bank is different from other types of business enterprises. It also needs to fulfill the requirement of working capital of other type of business enterprise. It also needs to efficiently manage its own working capital. Investment in working capital of other business enterprises is a part of current assets of bank's working capital and deposits and short-term borrowings can be considered as a part of current liabilities.

Working capital management is concerned with all decisions and acts that influence the determination of appropriate level of current assets and their efficient use as well as choice of method of financing them, keeping in view of liquidity. If a company's current assets do not exceed its current liabilities, then it may run into trouble paying back creditors in the short term. The worst-case scenario is it will lose the image as well as trust of the public.

It also suggests the investors an idea of the company's underlying operational efficiency. Money that is tied up in the inventory or money that customers still owe to the company cannot be used to pay off any of the company's obligations. So, if a company is not operating in the most efficient manner, it will show up as an increase in the working capital. This can be seen by comparing the working capital from one period to another: slow connection may signal an underlying problem in the company's operations. No area of business is intimately related to its other areas as the area of working capital management. Working capital policies affect marketing, personnel, production and other functions. Almost every activity of business or everything that happens in the business is related to working capital decision.

Working capital is a financial metric which represents operating liquidity available to a business, organization, or other entity, including governmental entity. Along with fixed assets such as plant and equipment, working capital is considered a part of operating capital. Net working capital is calculated as current assets minus current liabilities. It is derivation of working capital that is commonly used in valuation techniques such as discounted cash flows. If current assets are less than current liabilities, an entity has a working capital deficiency, also called a working capital deficit.

Net Working Capital = Current Assets - Current Liabilities

Net Operating Working Capital = Current Assets - Non Interest bearing Current Liabilities

Equity Working Capital = Current Assets - Current Liabilities - Long Term Debt

A company can be capable with assets and profitability but short of liquidity if its assets cannot readily be converted into cash. Positive working capital is required to ensure that a

firm is able to continue its operations and that it has sufficient funds to satisfy both maturing short term debt and upcoming operational expenses. The management of working capital involves managing inventories, accounts receivables, payable and cash.

Decisions relating to working capital and short term financing are referred to as working capital management. These involve managing the relationship between a firm's short term assets and its short term liabilities. The goal of working capital management is to ensure that the firm is able to continue its operations and that it has sufficient cash flow to satisfy both maturing short term debt and upcoming operational expenses.

By definition, working capital management entails short term decisions- generally, relating to the next one year period-which is reversible. These decisions are therefore not taken on the same basis as capital investment decisions rather they are based on cash flows or profitability.

- One measure of cash flow is provided by the cash conversion cycle, the net number of days from the outlay of cash for raw material to receiving payment from the customer. As a management tool, this metric makes explicit the inter relatedness of decisions relating to investors, accounts receivable and payable, cash. Because this number effectively corresponds to the time that the firm's cash is tied up in operations and unavailable for other activities, management generally aims at a low net count.
- In this context, the most useful measure of profitability is return on capital. The result is shown as a percentage, determined by dividing relevant income for the 12 months by capital employed. Firm value is enhances when and if the return on capital which results from working capital management, exceeds the cost of capital, which results from capital investment decisions as above. Return on capital measures are therefore useful as a management tool, in that they link short term policy with long term decision making.
- Another factor affecting working capital management is credit policy of the firm. It includes buying of raw material and selling of finished goods either in cash or on credit.

Guided by the above criteria, management will use a combination of policies and technique for the management of working capital. These policies aim at managing the

current assets and short term financing, such that cash flows and returns are acceptable.

- Cash management, identifies the cash balance which allows for the business to meet day to day expenses, but reduces cash holding costs.
- Inventory management, identifies the level of inventory which allows for uninterrupted production but reduces the investment in raw materials and minimizes reordering costs and hence increases cash flow. Besides this the lead times in production should be lowered to reduce work in progress and similarly the finished goods should be kept on as low level as possible to avoid over production.
- Debtor's management identifies the appropriate credit policy i.e. credit terms which will attract customers, such that any impact on cash flow and the cash conversion cycle will be offset by increased revenue and hence return on capital.
- Short term financing, identifies the appropriate source of financing, given the cash conversion cycle, the inventory is deadly financed by credit granted by the supplier however it may be necessary to utilize a bank loan or to convert debtors to cash through.

The insufficient management of working capital will lead to loss of profit in short run but it will ultimately lead to the downfall of the enterprise in long run. A deeper understanding of the importance of working capital can lead not only to material savings in the economical use of capital but can also assert in further the ultimate aim of business. An excessive investment in working capital will lower the rate of return while inadequate investment will hamper the solvency position and growth, thereby affecting the smooth operation of the business.

Positive working capital means that the company is able to pay off its short-term liabilities. Negative working capital means that a company currently is unable to meet its short-term liabilities with its current assets (cash, account receivable and inventory). Generally speaking, companies with higher amounts of working capital are better positioned for success. They have the liquid assets needed to expand their business operations as desired.

Working capital is among the many important things that contribute to the success of a business. Without it, a business may cease to function properly or at all. Not only does a

lack of working capital render a company unable to build and grow, but it may also leave a company with too little cash to pay its short-term obligations. Simply put, a company with a very low amount of working capital may be at risk of running out of money and may even be forced toward bankruptcy.

1.2 Statement of the Problems

In most of the enterprises the management of working capital has been misunderstood as the management of money rather that it's efficient utilization. The management of working capital is synonymous to the management to short term liquidity. It has been regarded as one of the conditioning factor in the decision making issues, it is no doubt, very difficult to point as to how much working capital is 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 solution to make efficient use of funds for minimizing the risk of loss to attain profit objective.

Joint venture banks like Nabil Bank Ltd and Nepal Investment Bank Ltd are playing an important role in the economic development of the country. Wrong decision on working capital management of these two commercial banks not only affects the liquidity and profitability of the bank but also economy and banking system of the country. So, it is very essential to analyze and find out problem and its solution to make efficient use of funds for minimizing the risk of loss to attain profit objective.

As mentioned above, following are the major problems that have been identified for the purpose of this study:

- Is the working capital properly managed in NABIL and NIBL?
- How are the Assets and Liabilities managed?
- What lending pattern of loan and advances and other investment will be profitable?
- What components of working capital affect the operating income of NABIL and NIBL?

1.3 Objectives of the study

The main objective of this study is to highlight and examine the management of working capital of Nabil Bank Ltd and Nepal Investment Bank Ltd. The specific objective of this study is as follows:

- To analyze the profitability condition of the bank.
- To evaluate the utilization of Working Capital.
- To identify the major aspects for balancing the working capital.

1.4 Significance of the study

This study can be helpful for the management of NIBL and NABIL to adopt appropriate working capital position and to make sound strategy in the future. This study can further be helpful to carry out further research study in the same field. This study will diagnose the relationship of working capital management to the efficiency of the enterprises as a while. It can also prove to be helpful for the management to improve its efficiency as well as the probability with proper management of working capital and its components.

The study might be helpful to make the shareholders aware regarding the working capital management i.e. liquidity and profitability of their banks. The comparison will help them identify the productivity of their funds in each of these two banks.

The study might be helpful to go deep into the matters as to why the working capital management of their banks is better (or worse) than their competitors.

The customers, financing agencies, stock exchanges and stock traders are interested in the performance of banks and the customers (both depositors and debtors) can identify to which bank they should go. The financial agencies can understand where there is more security and stock exchange, stock brokers and stock traders can find out the relative worth of their stock of each bank.

The study will be helpful for the Policy makers (G/N and NRB), while formulating the policy regarding the commercial banks.

1.5 Limitations of the study

The study has been made for the partial fulfillment of the requirement for the Masters

Degree in Business Studies (MBS) but not a comprehensive study. This study has been conducted with certain limitations. The time is one of the factors of limitations. The scope of the present study has been limited in terms of period of study as well as sources and nature of data. The limitations of this study are as follows:

The limitations of this study are as follows:

- This study has been confined to only two of the banking institutions.
- The study is mainly based on secondary data. It is done mostly on the basis of the published financial documents like balance sheet, profit and loss account and other related journals, magazines and books etc. Reliability of the findings depends upon these data available in these organization web sites and other financial magazine.
- The study follows with specific tools such as ratio analysis, mean, CV, correlation and hypothesis.
- The report has taken only 5 year of data for the study.
- Findings and suggestion may not be applicable to other unrelated sectors.

1.6 Organization of the study

This study has been divided in to five chapters. They are as follows:

1. Chapter One: It consists of the introductory part which deals with the background of the study, profile, statement of problems, objective and limitation of the study and organization of the study.

2. Chapter Two: It deals with the review of literatures relating to concept of working capital management, types of working capital, working capital policy, determinant of working capital, need of working capital, financing of working capital, review of books and review of journals/articles and dissertation related to the study.

3. Chapter Three: Its is related to the research methodology, which deals with research design, nature and sources of data, population and sample, period covered, data gather

procedure and tools of data analysis. For the analysis, various financial and statistical tools have been used which are discussed in details in this third chapter.

4. Chapter Four: It deals with the presentation and analysis of relevant data and information through a definite course of research design. The chapter also presents the results relating to working capital management.

5. Chapter Five: It is concerned with the summary of the study. Various conclusions are drawn from the study and recommendations are provided for improving the future performance.

Besides these chapters Bibliography and Appendix are also presented at the end of the research.

CHAPTER 2.

REVIEW OF LITERATURE

2.1 Conceptual Frameworks

The goal of working capital is to manage current assets and current liabilities of the firm to keep at satisfactory level. It helps the firm to operate day to day transaction without any interruption. If the firm cannot maintain the satisfactory level of working capital, it is likely to become insolvent and may even be forced to bankruptcy. Working capital management involves deciding upon the account and composition of current assets and to finance the assets, the decisions involves tradeoff between risk and profitability.

Working capital management practices in Nepalese organization provide totally a different picture. The past trend of many organizations had given emphasis in fixed assets, so they are facing financial problem all the time and result shows the lower efficiency. The government policy concentrate more on fixed assets have overlooked the financing of working capital. So in order to create the culture of risk bearing ability through commercial prudence and professionalism, the aspect of working capital should be treated in the same way as fixed capital, which deciding the structure of the companies. Short-term financial decision has never received much attention in the literature of finance. More emphasis had been given to long tern financial decision.

By analyzing above concept of working capital, we can conclude that all the corporate, whether public or private, manufacturing or non-manufacturing needs to have adequate working capital. The consideration level of investment in current assets should avoid two danger points: excessive and inadequate investment in current assets. Excessive investment in current assets should be avoided as it impairs firm's profitability, an idle investment yields nothing. On the other hand, inadequate investment in working capital can threaten solvency of the firm, if it fails to meet its current obligations. It should be realized that working capital needs of the firm might be fluctuating with changing business activity. So the effective management of working capital is must for the success of any organization. To have the adequate healthy and effective working capital, it should

properly determine, control and review regularly. Working capital management is the process of planning and controlling the level and mix of the current assets of the firm as well as financing their assets.

It is therefore recognized fact that any mistake made in management of working capital can level to adverse effects in business and reduce the liquidity, turnover and profitability and increase the total cost of financing the enterprises. The skill of working capital management should be unique as to make efficient use of funds for minimizing the risk of loss to attain profit objective.

An efficient working capital management has a significant effect toward the creation of a firm's value. It is a fact that financial managers in the firms used to give concentration on managing long term financial decisions, especially capital structure, investment decisions, company valuation and dividends decisions. Only little attention was given to managing the short term assets and liabilities, managers began to realize the importance of investigating those short term assets and liabilities since the working capital management has an important role for the firms profitability and risk and the overall value of the firm.

There is no doubt about the criticality of this issue to firms as holding too much working capital in inefficient and holding too little is dangerous to the organization's survival. This study looks at two major financial institutions in Nepal: Nabil Bank Ltd and Nepal Investment Bank Ltd, to investigate their methods of managing their working capital and identifies how organizations create balance in their working capital,

Working capital, also known as net working capital, is a financial metric which represents operating liquidity available to a business. Along with fixed assets such as plant and equipment, working capital is considered a part of operating capital. It is calculated as current assets minus current liabilities. If current assets are less than current liabilities, an entity has a working capital deficiency, also called a working capital deficient. Working capital management is simple and a straight forward concept for ensuring the ability of the organization to fund the difference between the short term assets and short term liabilities (Harris 2005). Current working capital management became an important issue to all firms: overall, it can minimize companies risk and

maximize the organization's good will.

2.1.1 Importance or advantage of adequate working capital

a. ***Solvency of the business:*** Adequate working capital helps in maintaining the solvency of the business by providing uninterrupted of production.
b. ***Goodwill:*** Sufficient amount of working capital enables a firm to make prompt payments and also helps to build and maintain the goodwill.
c. ***Easy loans:*** Adequate working capital leads to high solvency and credit standing can arrange loans from banks and other on easy and favorable terms.
d. ***Cash discounts:*** Adequate working capital also enables a concern to avail cash discounts on the purchase and hence reduces cost.
e. ***Regular supply of raw materials:*** Sufficient working capital ensures regular supply of raw material and continuous production.
f. ***Regular payment of salaries and other day to day commitments:*** It leads to the satisfaction of the employees and raises the morale of its employees, increases their efficiency, reduces wastage and costs and enhances production and profits.
g. ***Exploitation of favorable market conditions:*** If a firm is having adequate working capital then it can exploit the favorable market conditions such as purchasing its requirement in bulk when the prices are lower and holdings its inventories for higher prices.
h. ***Ability to face crisis:*** A concern can face the situation during the depression.
i. ***Quick and regular return on investments:*** Sufficient working capital enables a concern to pay quick and regular of dividends to its investors and gains confidence of the investors and can raise more funds in the future.
j. ***High morale:*** Adequate working capital brings an environment of securities, confidence, high morale which results in overall efficiency in a business.

2.2 Disadvantages of excessive working capital:

a. Excessive working capital means ideal funds which earn no profit for the firm and business cannot earn the required rate of return on its investments.
b. Redundant working capital leads to unnecessary purchasing and accumulation of inventories.

c. It may reduce the overall efficiency of the business.
d. If a firm is having excessive working capital then the relations with banks and other financial institution may not be maintained.
e. Due to lower rate of return in investments, the values of shares may also fall.
f. The redundant working capital gives rise to speculative transactions.

2.2.1 Disadvantages of inadequate working capital

Every business needs some amount of working capital. The need for working capital arises due to the time gap between production and realization of cash from sales. There is an operating cycle involved in sales and realization of cash. There are time gaps in purchase or raw material and production; production and sales; and realization of cash. Thus working capital is needed for following purposes:

- For the purpose of raw material, components and spares.
- To pay wages and salaries.
- To incur day to day expenses and overload costs such as office expenses.
- To meet the selling costs as packing, advertising etc.
- To provide credit facilities to the customer.
- To maintain the inventories of the raw material, work in progress, stores and spares of finished stock.

For studying the need of working capital in business, one has to study the business under varying circumstances such as a new concern requires a lot of funds to meet its initial requirements such as promotion and formation etc. these expenses are called preliminary expenses and are capitalized. The amount needed for working capital depends upon the size of the company and ambitious of its promoters. Greater the size of the business unit, generally larger will be the requirements of the working capital.

The requirement of the working capital goes on increasing with the growth and expensing the business till it gains maturity. At maturity the amount of working capital required is called normal working capital.

There are other factors also influencing the need of working capital in a business.

2.2.2 Definition of Terms

Before understanding the concept of working capital, it is very important to understand the various terms that involved in working capital. Here, we are going to some of them:

A. Current Assets:

Current assets are generally defined as cash and other assets that can be converted into cash within one year or one operating cycle, whichever is longer. As a rule, current assets can be turned into cash, and used to pay a current liability within one year. The five major items that usually appear under current assets include: cash, marketable securities, account receivables, inventories and prepaid items. Here, in our study we have included: Cash & Bank Balance, Loan & Advances, Investment and Other Assets.

B. Current Liabilities:

Current Liabilities are generally defined as any debts that must be paid within one year or one operating cycle whichever is longer. Current Liabilities has also been defined as obligations whose liquidation is reasonably expected to require use of existing resources properly classified as current assets, or the creation of other current liabilities. Typically, current liabilities appear on the balance sheet and include items such as bills payable, income tax payable and the current portion of debt. Here, in our study we have included: Borrowings, Deposits, Bills Payable Proposed Dividends, Income Tax Liabilities and Other Liabilities.

C. Quick or Liquid Assets:

An asset that can be converted into cash quickly and with minimal impact to the price received. For an asset to be liquid it needs an established market with enough participants to absorb the selling without materially impacting the price of the asset. There also needs to be a relative ease in the transfer of ownership and the movement of the asset. Liquid assets are generally regarded in the same light as cash because their prices are relatively stable when they are sold on the open market. Here, in our study we have included Cash and Bank Balance as quick/liquid assets.

2.2.3 Concept of Working Capital

There are two concepts of working capital which are mentioned below:

A. Gross Working Capital

Kulkarni in his book describes Gross working capital simply refers to firm's investment on current assets. Current assets are those assets which can be converted into cash with in an accounting year or operating cycle. It includes cash, short-term securities, debtors, bills receivable and stocks. From the management point of view, the gross concept deals with the problem of managing individual current assets in day to day operation. The excessive investment in current assets affects the profitability, as idle investment yields noting. Similarly, inadequate investment in current assets makes it difficult to carry out day-to-day operation of the organization. It also enables a firm to plan and control funds to maximize the return on investment

R.S. Pradhan and K.D. Koirala express their view about concept of Gross Capital as, "If all the expenses needed to run the day-to-day operation of business such as amount to be invested in form of cash, finished goods, receivable etc are put together it is called working capital." Thus, working capital and total current assets are synonymous. This concept is knows as quantitative concept.

Gross Working Capital = Total Current Assets

B. Net Working Capital

Net working capital refers to the difference between current assets and current liabilities. Current liabilities are those claims of an outsider, which are expected for payment with in accounting year; include cash, bills payable and outstanding expenses. Net working capital can be negative or positive. A positive net working capital will arise when current assets exceeds current liabilities. A negative net working capital will occur when current liabilities are in excess of current assets. Net working capital can be more useful for analysis of the tradeoff between profitability and risk.

Now a day, the net concept has overcome to gross concept because the gross concept is narrow in terms of working capital, as it does not indicate the firms' liquidity correctly and do not compared with current liabilities. Sufficient procurement of funds in business cannot be made without having current liabilities.

From management point of view, gross working capital deals with the problem of managing individual current assets in the day-to-day operation. But for having ling rum

view of working capital, we have to concentrate on the net value of current assets. The gross concept is important to newly established companies where liabilities have not been acquired immediately, but the net concept is important for both newly established and operating concerns where some amount of current liabilities are maintained for the payment of different creditors, income taxes, bills payable, secured and unsecured loans etc.

Besides, the gross working capital and net working capital there is another concept called "Zero Net Working Capital" in which the firm maintains the balance between sums of inventories receivable with the amount of account payables. It means account payables are maintained through inventories and receivables and reduces the need of external financing

The definition described virtually represents the characteristics of working capital. Following are the characteristics of working capital:

A. Short Life:

The working capital is characterized by assets with a life of less than one year such as cash, marketable securities, account receivables etc. this life span leads to high volatility in the level of investment.

B. Nearness to cash or liquidity:

The basis characteristics constitute the first line of defense against technical solvency. Cash is the liquid assets having zero conversion time 100% conversation rates but for the inventory and marketable securities two factors- nearness to cash or amount of time required converting assets into cash and price on conversion must be considered.

C. Lack of synchronization:

Since the enterprises cannot produce on order only cannot insist on cash payment, there is always the problem of synchronization in cash receipts and distributions. It is also due to the level of investments in working capital that is affected by the sales volume, production policies and collection policies.

The basic characteristics of working capital as mentioned above indicate that it is term of capital intended to be kept moving or circulating and its potential for earning comes from movements. Though the expenditure can be controlled and planned, its income is usually

subject to random variation and is not controllable.

2.2.4 Need for Working Capital

The need for working capital to run day-to-day business activities cannot be underestimating. It helps to achieve entire goal of the business to run smoothly and uninterrupted.

A. The transaction motive

The transaction motive refers to the holding of cash to meet day-to-day requirement of the business to run smoothly and in an uninterrupted basis.

B. Precautionary motive

The precautionary motive refers to the holding of cash to meet the random and unforeseen fluctuations in cash flow i.e. unpredictable change in demand and supply, strikes, unexpected slow down in collection of account receivable.

C. Speculation motive

The speculation motive refers to the desire of a firm to take advantage of opportunities, which present themselves at unexpected moment. They can make purchases at favorable price or reduce price on payment of immediate cash, speculative interest rate etc.

2.2.5 Types of Working Capital

There are two types of working capital which are mentioned below:

A. Permanent Working Capital

Permanent working capital refers to that level of current assets which is required on continuous basis over the entire year. Organization cannot operate its regular operation and sales functions in the absence of this portion of working capital. It includes the amount of cash, receivable and inventory mentioned as current assets to carry operations at any time. Therefore, manager 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.

B. Variable Working Capital

Variable working capital is also known as temporary seasonal and fluctuate working capital. It represents that portion of working capital, which is required over permanent working capital. If the nature of production and sales of a firm directly related to seasonable variation, it should stock extra raw materials; work in process and inventory

of finished goods. Therefore this portion of working capital depends upon the nature of firm's production, relation between labor and management. The following figure clearly shows about the portion of working capital. It firm has sound management of this portion of working capital; it can easily win the other competitor in the cutthroat of the market.

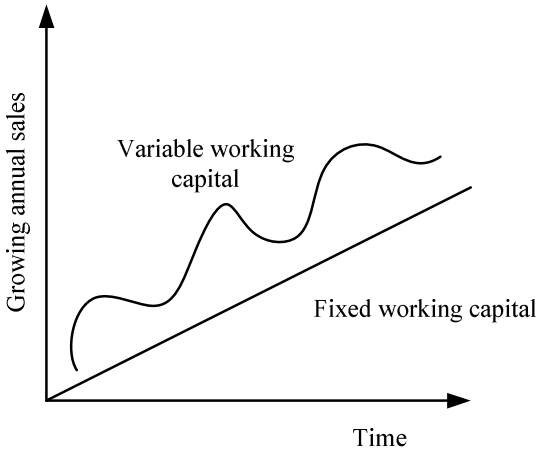

Figure 0:1 Types of working capital

2.2.6 Determinations of Working Capital Policy

There are no set rules to determine the working capital requirement of a firm. The firm itself should manage working capital in proper way by considering the need of the business. The total working capital requirement is determined by a wide variety of factors and these factors could affect different enterprise differently and they do vary from time to time. Generally, following factors affects the working capital requirement of the organization.

A. Nature of business

Working capital requirement of a firm are basically related to the nature of the business. Trading and financial firm needs large sum of money to be invested in a working capital. Public organization need limited working capital only for the use of cash sales and supply services. Working capital for the manufacturing concern falls between the two extreme requirement of trading firm and public enterprises.

B. Manufacturing cycle

Shorter the manufacturing period (cycle), the lesser will be the need of working capital to finance and vice versa.

C. Production Policies

Production polices are also another factor, which affects in determining the working capital requirement. For instance, if a firm produces seasonal goods, then it will be sold in a certain month of the year and inventories will be kept at minimum level, this increases working capital. If the work of business is done manually, the requirement of working capital will be more.

D. Business fluctuation

Business fluctuation and business cycle also affects the need of a working capital. Time and cycle fluctuation effects demand of the product that in turn affects the temporary and variable working capital need. In boom period when sales increases, the firm need its investment in purchasing inventories, additional funds may be required to invest in plant and machinery to meet the increased demand. At the time of boom, more investment has to be made in stock and the need of working capital increases but during the time of recession and depression low amount of working capital is enough.

E. Growth and Expansion of Business

The volume of assets, sales as well as expansion activities of the enterprises has direct bearing upon the need of working capital. The business firms having the program of expansion, development and modernization have to manage more working capital. It might also need working capital to utilize its full production and operation capacity of fixed assets. Higher the volume and expansion of activities of the enterprises, the higher will be needed of working capital and vice-versa.

F. Credit Policy

The firm may adopt liberal credit policy or the tight credit policy. A firm with liberal policy gives longer credit period to the customer. It results in the higher receivables thereby increasing the need for the working capital. On the other hand, a firm having tight credit policy gives shorter credit policy that decreases the investment in account receivables thereby reducing the need for working capital.

G. Price Level Change

The fluctuations in price level have greater influence in determining the need of working capital. The firm requires maintaining high amount of working capital if the price level rises due to increase in cost of inputs.

H. Sales Volume

The fluctuation in demand and supply of the product affects the level of working capital. The higher the volume of sales, the higher will be need of working capital. It is because; the firm needs additional inventories to support the payment of additional labor that is needed to support the increased sales.

I. Cash Conversion Cycle

Working capital is also called a circulating capital. The larger the cash conversion cycle, the larger will be the need of working capital and vice versa.

J. Others

Factors such as coordination between production and distribution activities, conservative dividend policy as well as liberal depreciation policy strengthen the working capital position of the organization.

2.2.7 Working Capital Policy

Working capital refers to the firms basic policies relating to the target level of each category of current assets and how current assets to be financed. Deciding how much current assets to be maintained and how to finance them are crucial issues of working capital management because the level of current assets and financing them have direct impact on the firms' profitability, liquidity and risk.

Basically there are two policies of working capital to examine the above two issues:

2.2.8 Current Assets Investment Policy

Current assets investment policy refers to the policy regarding the total amount of current assets to be carried out to support the given level of sales. How much a firm to invest in current assets will depend on its operating cycle? There are three alternative current assets investment policy relaxed, moderate and restricted. Under each policy, a different amount of working capital is carried to support each level of sales.

A. Relaxed Current Assets Investment Policy

Relaxed current assets investment policy is also called conservative, flexible and flat cat policy. In this, the organization holds relatively large amount of current assets i.e. cash, marketable securities, inventory and receivable to support the given level of sales. In addition the company is motivated to sale by applying liberal credit policy. Therefore, this policy creates the longer receivable collection period. It is also used to create longer

inventory and cash conversion cycle. Thus, the policy provides the lowest expected return on investment with lower risk.

B. Restricted Working Capital Investment Policy

It is also called as tight, lean and mean, aggressive policy. Under this, the organization has high control in current assets. The company holds minimum level of inventories, marketable securities, receivable and cash to support the level of sales. This policy tends to reduce the inventories, receivables, cash conversion period. The company follows tight credit policy and bears the risk of losing sales.

C. Moderate Working Capital Investment Policy

In this policy, a company holds the amount of current assets in between the relaxed and restricted policy. The ratio of current assets to sales is neither too high nor too low under this policy. Both the risk and return are moderate in this policy.

2.2.9 Current Assets Financing Policy

Current assets financing is one of the concerning topic of working capital management, working capital management involves deciding upon the amount and composition of current assets and how to finance these assets. This decision involves tradeoff between risk and profitability. The financing of current assets through short-term and long-term sources is different regarding the cost and flexibility. Therefore, business enterprises have to identify the way to apply financing mix on current assets financing.

A. Aggressive Financing Policy

The aggressive financing policy is quite risky lending to high profitability and low liquidity. Under this policy, firm finance its entire temporary current assets and a part of permanent current assets from short term financing and permanent requirement by long term source, some extremely aggressive firm may even finance a part of their fixed assets with short term financing. The relatively more use of short term financing makes the firm more risky. There is higher risk, higher return and low liquidity position under this aggressive policy.

B. Conservative Financing Policy

The financing policy of the firm is said to be conservative when it depend more in long-

term funds for financing need. Under this policy, the firm finances its permanent current assets and part of temporary current assets through long-term funds, while short-term funds are used in the event of an emergency. When the firm does not need temporary current assets, the idle long term fund can be invested on marketable securities. This policy is less risky lending to profitability and high liquidity. Thus risk and return are lower than aggressive policy and liquidity position is higher than aggressive policy. So, the policy is also known as very safe financing policy.

C. Moderate Financing Policy

This approach lies between aggressive and conservative policy. It is neither too risky not less risky. It lies between a low liquidity, high profitability case and high liquidity low profitability case. Under this policy, the firm finances its permanent current assets with long term financing and temporary current assets with short term financing. It aims at achieving a tradeoff between profitability and liquidity. In other words, a firm adopts that financing plan, which matches assets and liabilities, maturates, so it is also called maturity matching policy. This approach is also called self-liquidating approach.

2.2.10 Goals of Working Capital Management

The firms' policies for managing its working capital should be designed to achieve three goals. (Hampton, 1998)

A. Adequate Liquidity

If a firm lacks sufficient cash to pay its bill when due, it will experience continual problem. The most important goal is to achieve for liquidity for conducting day to day operation.

B. Minimization of Risk

In selecting its source of financing payables and other short term liabilities may involve relatively low cost. The firm must ensure that these near term obligation do not become expensive compared to the current assets on hand to pay them. The matching of assets and liabilities among the current account is a task of minimizing the risk of being unable to pay bills and other.

C. Contribution on Maximizing Firms Value

The firm holds working capital for the same purpose as any other assets, which are to

maximize the present value of common stock and value of firm. It should not hold idle cash any more than it should have idle fixed assets. The investment of excess cash, minimizing of inventories, and seedy collection of receivables and elimination of unnecessary and costly short term financing all contributes for maximization of the firms' value.

D. Adequacy of Working Capital

Pandey,1999 in his book it has been mentioned that proper functioning of business operation will be ensured only when the management would maintain tight amount of working capital on continuous basic. Both excessive and as well as inadequate working capital position are dangerous from the firms' point of view, which is reflected below

The disadvantages of excessive working capital are:

- It results in unnecessary accumulation of inventories. Thus, chances of inventory mishandling, waste, theft and losses increase.
- It is an indication of defective credit policy and stock collection period. Consequently, higher incidence of bad debts results, which adversely affects profit.
- Excessive working capital makes management co placement, which degenerates, into managerial inefficiency.
- Tendencies of accumulation inventories tend to make speculative profit grow. This may tend to make dividend policy liberal and difficult to cope with in future when the firm is unable to make speculative profit.

The disadvantages of inadequate working capital are:

- Its stagnate growth. It becomes difficult for the firm to undertake profitable projects for non-availability of working capital funds.
- It becomes difficult to implement operating plans and achieve the firms profit target.
- Operating inefficiency creep in when it becomes difficult even to meet day to day commitment.
- Fixed assets are not efficiently utilized for the lack of working capital funds. Thus, the firms' profitability would deteriorate.
- Paucity of working capital fund render the firm unable to avail attraction credit opportunities etc.

2.3 Review of Journals

Different analysts have approached working capital management in different ways. A review of these approaches is important in order to develop an approach that can be employed in the context of selected organization. Articles, journals, bulletins are of great significance for thesis writing. It adds extra input in study. So, various published articles, journals relating to working capital management published by different management expert are reviewed.

Prof. Dr. Shrestha (1983) in his study has conducted an empirical observation of ten-selected PEs. He has focused on the liquidity, turnover and profitability position of sampled enterprises. He states that the managers often lack basic knowledge of working capital and its overall impacts on the operative efficient and financial viability of public enterprises. In his analysis, he focus that four PEs had maintained sufficient liquidity position, two PEs is excessive and the remaining four had failed to maintain desirable liquidity position. On the turnover side, two PEs had negative working capital turnover, four had adequate turnover, one had high turnover and the remaining three had not satisfactory turnover on net working capital. He has also found that out of ten PEs, six were operating in loses while only four were getting same percentage of profit. Based on Prof. Dr. Manohar K. Shrestha has brought certain policy issues such as lack of suitable financing, planning negligence toward working capital management, deviation between liquidity and turnover of assets and in ability to show positive relationship between positive between turnover and return on net working capital. He has also suggested the measures to overcome above policy issues like identification of needed funds, regular checks and development of management information system, positive attitude toward risk and profit and determination of right combination of short term and long term sources of funds to finance working capital.

Pradhan and Koirala (1983) had jointly published an article on “Working Capital Management in Nepalese Corporation”. This article aims to find out the difficulties, problem and importance to current assets management and also aims to find the motive for holding cash and inventory. They have focused on evaluation of the working capital position of selected manufacturing and Non-manufacturing Corporation of Nepal. They sampled five manufacturing and six non- manufacturing PEs. This study is concerned on

the size of investment and need to control the investment in current assets, significance of current assets management. Major finding of this study are as follows:

Investment in current assets had declined over a period of time in both manufacturing and Non-manufacturing Corporation. However, the manufacturing companies had consistently more investment in cash and receivable compared to non Manufacturing Corporation.

- Management of working capital was more difficult than that of fixed assets capital. They found the high level of inventories in manufacturing ones.
- Inventory management was a great significance in Manufacturing Corporation and the management of cash and receivable was a great significance in non-manufacturing corporations.
- The major motive for holding cash in Nepalese corporation was to provide a reserve for routine not outflow of cash to keep on the production process and sales.

Another article relating to working capital management is by Prof. R.S. Pradhan (1988). He studied on "The demand for working capital by Nepalese Corporation". For the analysis he has selected nine manufacturing public corporation within the 12 years data from 1973 to 1984. In earlier studies concerning the demand for cash and inventories by business firms didn't report unanimous finding. A lot of controversies exist with respect o the present economics of scales, role of capital cost, capital utilization rate and the speed with actual cash and inventories are adjusted to describe cash and inventories respectively. The pooled registration results show that the demand for working capital and its component is a function of both sales and their capital cost.

Dr. K. Acharya (1985) had published his articles regarding "Problem and implement in the management of working capital in Nepalese enterprises". He has described operational and organizational problem as a two major problem faced by Nepalese PEs regarding working capital management. In his number of studies, it has been repeatedly found that the gross efficiency exists in the operation of public enterprise. He stats most of the Nepalese enterprises has misunderstood the management of working capital as the management of money and managers are found conscious about receiving the money rather than its efficient utilization. Thus, existing problem in the finance are mostly

directed towards the management of working capital rather than in any area. Lack of regular evaluation of financial result as well as regular internal and external audit system, most of PEs being unable to present their capital requirement with proper justification, functioning of finance department was not satisfactory, some PEs are facing the problem of under utilization of capital.

He has stressed on high cost of production, which have left PEs in less secured position. He further added the cost of reduction is only possible reassure for smooth operation and long term existence of the public enterprises in Nepal. The cost reduction program is highly associated with the optimization of working capital. Increase of current liabilities than current assets,, not following the current ration 2:1, slow inventories in PEs, change in working capital in relation to fixed capital had very low impact over the profitability, PEs have not followed the conventional proportional of debt to equity as 1:1, very thin transmutation of capital employed into sales, absent or inefficient information management system, ineffective use of performance evaluation tools and techniques, and working capital management has never been considered as a managerial job.

He has suggested avoiding the system crises decision, which prevailed frequency in the operation and also to strictly follow the set system and method of decision making to achieve set objectives.

Joseph A. Mauriello (1962) has presented an article on “Working Capital Concept”. This article looks afresh at the problem of determining working capital, and proposes a simple yet comprehensive restatement of principles with respect to current assets and current liabilities. The working capital measures liquidity of a concern. It is important to management as it measures the liquidity of capital and acts an indicator of balance in the assets and liabilities structure of the company bank and the other short term creditors are vitally interested in the amount of working capital from the standpoint of evaluating the prospect of repayment of their claims against the company. Achieve more efficient financial management and eliminate unnecessary hits to the company’s bottom line.

With today’s unsetting economic conditions, there is no more challenging area in finance than working capital management. This seminar address all the key issues from organization and improving control over you r company’s cash flows to identifying key

friction point among the various financial function (cash, marketable securities, inventories, account receivable and payable and notes payable) to establishing efficient investment and borrowing approaches and developing a global working capital management system. You will discover and effective way to broaden your horizons and lean how specific of working capital management works separately and together.

How you will benefit:

- Create an effective, company-wide working capital management system
- Handle cash flows more efficiently
- Develop successful strategies for short term liquidity
- Enhance the conversion of account receivable to cash
- Measure and control the cost of your company's working capital management
- Measure and control the cost of your company's working capital management
- Apply a global approach to working capital management, incorporating major foreign subsidiaries into your system.

2.4 Review of Previous Thesis

Various research works has been done by MBS and MBA students in different aspects of commercial banking, such as financing performance, working capital management etc. Studies and reviews on working capital management of other organization and their conclusion are relevant to my study. Some reviewed previous dissertations are as follows:

Shrestha (2003) has carried out a study on "A study on Working Capital Management with respect to National Trading Limited and Salt Trading Corporation Limited". Her main objective is to present the overall picture of working capital of the stated concern. The major findings of the study are as follows:

- The Current Assts to Total Assets of NTL and STCL both are in fluctuating trend.
- The investment in current assets is high in both of the trading companies with respect to its total assets and net fixed assets.
- Cash and bank balance holds the highest portion followed by inventory in NTL whereas cash and bank holds the least portion in STCL and inventory holds the highest portion.

- The turnover position of the NTL and STCL is satisfactory in comparison of the liquidity position of NTL.

Lamsal (2004) has conducted research on "A comparative study of Working Capital Management of NABIL and Standard Chartered Bank Nepal Limited". The main objectives are:

- To study the current assets and current liabilities and their impact on liquidity and profitability.
- To analyze the liquidity, assets utilization, long term solvency and profitability of both banks.
- To analyze the comparative study of working capital management between NABIL and SCBNL.

Based on his findings, the Standard Chartered should seriously adjust its policy of investment on loan and advances with collected funds and increased their portion of loan and advances in total current assets. Fixed deposits and saving deposits turnover position are also not satisfactory on both banks. Therefore, NABIL and SCBNL should give proper attention on collection of over dated loan and advances and utilization of idle funds as well. Interest earned to total assets ratio is higher cost on Nabil but net profit ratios are less than SCBNL. It is due to higher cost on NABIL. By adopting the matching working capital management policy, instead of adopting conservative working capital policy NABIL as well as SCBNL could improve its profitability in the short run as well as long run.

The major findings of his study were:

- The major components of current assets in NABIL and SCBNL are cash and bank balance, loan and advances and government securities.
- The liquidity position of SCBNL is better than NABIL.
- The turnover position of NABIL is better than SCBNL. The NABIL has better utilization of deposits in income generating activity than SCBNL.
- A long term debt to net worth ratio of NABIL is higher than SCBNL during the study period.
- Net profit to total assets and net position to total deposit ratio are always higher on

SCBNL than NABIL. Cost of services to total assets ratio of NABIL is higher than SCBNL during the study period.

- The average value of interest earned to total assets ratio of NABIL is higher than c.

Bhattarai (2008) a student of management finished his research study about working capital management "Working Capital Management of Cigarette Industry in Nepal with special reference to Janakpur Cigarette Factory (JCF)". He has used data from 2003/4-2007/8. The main objective of his study were to evaluate the performance of management of working capital of JCF, measure 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.

The major findings of his study were as follows:

- The factory's liquid financial position is weak from the creditor's point of view.
- Inventory of the factory has not been management efficiently.
- Receivable cash has not been management 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.

Thapa (2009) has conducted research on "Comparative study of Working Capital Management Nepal Bank Limited and Nabil Bank Limited".

The major objectives of the research are:

- To review the related literature of recent development in working capital management.
- To analyze the comparative study of working capital management of NBL and NABIL.
- To study the current asset and current liabilities and their impact and relationship with each other of NBL and NABIL.

Based on his findings, he has recommended that NBL should reduce or replace fixed deposits by collecting higher amount of short term deposits; NBL as well as NABIL should give proper attention on collection of over-dated loan and advances and utilization of idle fund as well as loan and advances. NBL should reduce its cost through reducing high cost deposits and operate in a proper way so that it can have least operating cost which further maximize its profitability and maximize shareholders return. Both banks should adopt the matching working capital management policy instead of adopting conservative working capital policy.

The major findings of his study were:

- The major components of current assets in NBL and NABIL are cash, bank balance, loan advances and government securities.
- Out of the major three current assets components, cash and bank balance holds the smallest portion in NBL. On the other hand, government securities hold the small portion in NABIL. The interest income of NBL was better than NABIL.
- The trend of quick ratio, cash and bank balance to deposit ratio, cash and bank balance to deposit ration, cash and bank balance to current assets, margin and other deposit ratios of NBL and NABIL are decreasing. The liquidity position of NBL was always better than NABIL.
- Fixed deposit to total deposit, ratio of NBL was always higher than same of NABIL for the study period.
- The turnover positions of NBL are in fluctuating trend but turnover positions of NABIL are decreasing in first three increasing in last two years of study period. NABIL has the better utilization of deposits in income generating activity than NBL. Also the NABIL has better involvement efficiency on loan and advances.
- Large portion of long term debt is used in current assets of both banks but relatively it is higher on NBL than NABIL. Both banks follow conservative working capital policy but NBL has more conservative working capital than NABIL. Due to more conservative working capital policy, risk of insolvency is lesser but cost of fund is higher on NBL and NABIL.
- The profitability position of NABIL is far better although NBL earned higher

interest NABIL.

Bansal (2009) had carried out a research entitled 'A study on working capital management of commercial bank. During the study, she had used secondary data and used many financial tools analyzing the working capital management .The major finding of the study are as follows.

- The net working capital of both banks is positive.
- In case of profitability position, both banks have constant level of growth in profitability during the study period.
- The liquidity position of both bank are increasing trend, it shows the satisfactory level of working capital.
- The major components of current assets of both bank are cash and bank balance loan and advance and government securities.

Gadtaula (2010) on working capital management of Nepal Tread development corporation (NTDC) His study based on ten years financial statements from the year 2005/06 to 2008/09.He has used various statistical tool like standard deviations coefficient of variation , regression analysis , test of hypothesis ratio analysis etc to adopt this study.

From the analysis of the above tools he has found that the working capital situation of the corporation was neither poor nor sound .The current assets percentage was greater in total assets the level of current assets to sales were not constant in an every year indicated unfavorable .

There was a lack position of the sales with accumulation of inventory .After finding these situation in NTDC has suggested for the proper inventory policy , the sales should be promoted the tea plantation land has to be increased, applied the sound labor personnel management policy etc.

Sapkota (2011) on the study on working capital management in Himal cement company limited, they took five years data from 2004/05 to 2008/09 for study .He used ratio analysis only for the analysis of working capital and receivables should be managed in optimum level He suggested that the company should determine certain rate on its

investment and sales target should be set to recoup and overcome the problem of loss The HCCL has to maintained proper liquidity position .He has also found that the absence of proper guideline for funds inventory control , costs control selling process ,investment policy in current assets and management responsibilities and lack of proper rules and regulation of the government policy. Mr Sapkota has used only ratio analysis to study the working capital management in HCLL. He has missed the use of correlation coefficient in order to test the relationship and significance in between the components of working.

Khanal (2012) In profitability position the interest earned to total assets ratio of the insurance was fluctuating trend over the study period .The net profit to total assets ratio was also fluctuating trend during the study period .The net profit to total premium ratio was decreasing trend during the study period .It seems not to satisfactory level .In liquidity position the net working capital of the insurance company was increasing trend during the study period and the current ration of insurance company was decreasing trend during the study period .It seems to be satisfactory position of liquidity .The cash and bank balance to total premium ratio of NLIC was fluctuating during the study period. But it seems to be satisfactory level.

In activity or turn over position the loan and advances to total premium ratio of the company was decreasing trend during the study period .It shows the low capital of the insurance to mobilize its premium. In correlation analysis, the coefficient of correlation between loan and advances and total premium is in signification over the study period. The coefficient of correlation between loan and advances and net profit and net working capital, cash and bank balance and current liabilities are significant over the study period. The company has been able to declare increase bonus rate to the policyholders. The company has provided 20% bonus share declared last year from its profit.

2.4.1 Research Gap

Many research studies have been conducted by the different students, experts and researchers about working capital management. There have been found numerous research studies on financial companies and public enterprises regarding working capital. Some studies are related to case study of single company and some other is comparative

in nature. But the comparative study of working capital management between two financial companies can be hardly found. From the review of related studies no study have been found (working capital management) as a comparative study in the contest of NIBL and NABIL. The financial and statistical tools used by most of the researchers were ratio analysis, test of hypothesis and regression analysis. This research includes different tools like ratio analysis, correlation analysis and trend analysis as specific tools.

This research study made on “A comparative study of working capital management of Nepal Investment Bank Limited and NABIL Bank Ltd” will be an effort to analyze on detail about working capital management of the two banks as a comparative study in present situation with the help of various related financial as well as statistical tools and techniques. The study can be beneficial to all the concerned parties like investors, policy maker and student to carry on further studies.

CHAPTER 3.

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology describes the systematic and sequential methods and procedures applied for conducting the study. Research methodology is a set of sequential steps adopted by a researcher in studying a research problem with certain objectives. In other words, research methodology describes the method and procedures applied in the entire aspect of the study. Through research methodology researcher can get appropriate guidelines and knowledge about the various sequential steps to adopt a systematic analysis to derive a valid and meaningful conclusion. Research methodology is the investigation tools of any certain area and it means clearly observation of certain object. Proper methodology should be designed and adopted for the systematic and in depth analysis of research problem or subject area of investigation backed by collection presentation and interpretation of relevant details or data.

This chapter contains the tools and techniques these are applied on the study. The financial and statistical tools which are used for the analysis and presentation of data are described in this chapter. It includes research design, population and sample, data collection procedure and processing, tools and methods of analysis. The followings are the details of research methodology used in the analysis.

3.2 Research Design:

Research design is the plan, structure or a framework used by the researcher for the conduction of the study conceived so as to obtain answers to research questions and to control variances. To achieve the objectives of the study, descriptive as well as analytical research design were used in this study based on the secondary data.

3.3 Population and Sample

A small portion chosen from the population for studying its properties is called a sample and the number of units in the sample is known as the sample size. The method of selecting for study a small portion of the population to draw conclusion about characteristics of the population is known as sampling. Sampling may be defined as the selection of part of the population on the basis of which judgment or inference about the universe is made.

At present, there are 28 commercial banks operating in Nepal. Due to time and resource factors, it is not possible to study all of them regarding the study topic. Therefore, sampling will be done selecting from population. The samples to be selected are as follows:

- Nabil Bank Ltd.
- Nepal Investment Bank Ltd.

The reason of choosing the above two bank for study since both the bank are operating in the country for more than two decades and their capital structure are similar to one another as well as their financial status is good and consistent growth for many years.

Likewise, financial statement of five years (form 2007/08 to 2011/12) is selected as samples for the purpose of it.

3.4 Nature and Sources of Data

The data used in this study are secondary in nature. Published annual reports of the concerned banks are taken as basic sources of data. The data relating to financial performance are directly obtained from the concerned banks website. Previous related studies to the subject are also counter as source of information.

3.5 Data Gather Procedure

Since the data have been obtained from secondary sources, after collection of financial statement, master sheet of financial data have been extracted and tabulated as per the need of this study. In order to process the data, financial statement and other available information were reviewed. These data were grouped in different tables and charts

according to their nature. Most of the data have been compiled in one form and processed and interpreted as required. To some extent opinion survey or informal interview and questionnaire are conducted to obtain more information prove the reliability of the different published data.

3.6 Data Processing and Presentation:

The information and data obtained from the different sources are in row form. From that information, direct presentation is not possible. So it is necessary to process data and converts it into required form. After then only, the data are presented for this study. This process is called data processing. For the study, only required data are taken from the secondary source and presented. Likewise, in some case graphical presentation is also made. For presentation, different tables are used. These calculations that are related to this study are done with the help of scientific calculator as well as computer software program.

3.7 Tools of Data Analysis

Financial as well as the statistical tools are used it make the analysis more convenient, reliable and authentic. For data analysis, different items from the balance sheet and other statements are tabulated. For data analysis, different items from the balance sheet and other statement are tabulated. Their ratios, percentages, mean, median, standard deviation and coefficients of variations are then calculated and presented in the tables. To study the relation between two or more variables, correlation, coefficients are also calculated. In order to know about the sources and applications of the fund, funds flow statement is prepared. Likewise, trend analysis is also used to know the trend of various ratios. Following are the brief introductions of the financial and statistical tools used in this study:

3.7.1 Financial Tools

Financial ratios are calculated to ascertain the financial condition of the firm. It is the relationship between financial variables contained in the financial statements (i.e. balance sheet, profit and loss account, income statements etc). It helps the related partied to spot out the financial strength and weakness of the firm. There are several financial tools, which can be applied in order to analyze the performance of commercial banks. The

financial tools used in this study are as follows:

- Profitability Ratio.
- Activity or Turnover Ratio.
- Liquidity Ratio.

Similarly, net working capital and composition of working capital in terms of cash and bank balance percentage, loan and advances percentage government securities percentage and miscellaneous current assets percentage are also calculated.

A. Profitability Ratio:

The profitability ratio, as the name suggests, measures the operating profitability in terms of profit margin return on equity and return on total investment and reflects the over efficiency and effectiveness of management. Shareholders, banks, government, tax collectors and employees are concerned with the profitability of the company. The shareholders are interested with their rate of return; employees in the future prospect of the company, government in company's tax payment capacity and bankers in the perspective of the company. A required level of profit is necessary for survival and growth of a firm in a competitive environment.

Profitability can be measured in terms of relationship between net profit and assets. This ratio is also known as profit to asset ratio. It measures the profitability of the investment.

Various ratios can be developed based upon the profit under different circumstances. These different ratios are called profitability ratios, which are required to support the purpose of the study. The profitability ratios calculated in this study are:

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 computed as follows:

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

b. Net Profit to Total Assets Ratio:

Profit to total asset 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 the amount of net profit by the amount of total assets employed:

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

c. Net Profit to Total Deposit Ratio:

This ratio measures the percentage of profit earned from the utilization of the total deposits. Deposits are mobilized for investment, loan and advances to the public for generating revenue. Higher ratio indicates the return from investment on loans and lower ratio indicates that the funds are not properly mobilized.

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

d. Cost of Service to Total Assets Ratio:

A sound management always tries to utilize its larger amount of assets with minimum cost. Cost of services to total assets ratio is useful in measuring the utilization of assets with cost of services. The ratio can be expressed as:

$$\text{Cost of Service to Total Assets} = \frac{\text{Cost of Service}}{\text{Total Assets}}$$

B. Activity or Turnover Ratio;

The funds of creditors and owners are invested in various assets to generate sales and profit. Activity ratios are used to evaluate the efficiency with which the firm manages and utilizes its assets. This ratio indicates how quickly certain assets are converted into cash. From this ratio it can be known whether or not the business activities are efficient. These ratios are also called turnover ratio because they indicate speed with which assets are converted or turnover into profit generating assets. These ratios moreover help in measuring the bank's ability to utilize their available resources. Following ratios are used under the activity ratio:

a. Loan and Advances to Total Deposit Ratio:

The ratio assesses to what extent the bankers are able to utilize the depositors fund to earn

profit by providing loans and advances. In other words, how quickly total collected deposits are converted into loans and advances are given to the client to earn income. It is computed by dividing the total amount of loan and advances to total deposit fund. Higher ratio indicates higher/proper utilization of funds and low ratio is the signal of inefficiency or remaining idle.

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

b. Loan and Advances to Fixed Deposit Ratio:

This ratio differs slightly from the former one because it includes the fixed deposit only. The ratio measures how much amount is used in loans and advances in comparison to fixed deposits. Fixed deposits are interest bearing long term obligations where as loan and advances are the major sources of investment in generating income for commercial banks. It is calculated as follows:

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

c. Loan and Advances to Savings Deposit Ratio:

This ratio is also employed for the purpose of measuring utilization of savings deposit in generating revenue by giving loan and advances to the client i.e. to determine to what extent collected saving deposit amount is being deployed in providing loan and advances to generate income. Savings deposits are interest bearing obligation for short term purpose whereas loan and advances are the short term investment for revenue income. This ratio indicated how much short term interest bearing deposits are utilized for income generating purpose. It is calculated as follows:

$$\text{Loan and Advances to Savings Deposit Ratio} = \frac{\text{Loan \& } Advances}{\text{Saving Deposit}}$$

C. Liquidity Ratio

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 position of the company. These ratios are calculated to judge the

long term as well as short term financial position of concerned firm. Liquidity of any business organization is directly related to the working capital or current assets and current liabilities of that organization. One of the main objectives of working capital management is keeping good liquidity position. Commercial banks need liquidity to meet loan demand and deposit withdrawals. Without good liquidity, bank is not able to operate its function. To measure the banks solvency position or ability to meet its short term obligation, various liquidity ratios are calculated. The liquidity ratios calculated in this study are as follows;

a. Current Ratio

Current ratio reflects the strength of current assets available with the company over its current liabilities into cash in one accounting year. This ratio indicated the current short term solvency position of the bank. The current ratios are the ratios of total current assets to current liabilities. Higher current ratio indicates better liquidity position. In other words, current ratio represents a margin of safety and larger the amount of current assets in relation to the current liabilities, the more the bank's ability to meet its current obligations. By definition,

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

b. Quick Ratio

Quick ratio is used to measure the ability of concerned firms to pay current obligations (short term) without depending on other liquid assets of current ratio. It provides relationship between quick assets with current liabilities. An asset is liquid if it can be converted into cash immediately or reasonably soon without a loss of value. Cash is the most liquid asset. Other assets that are considered to be relatively liquid and included in quick assets are book debts and marketable securities. This quick ratio can be found out by dividing the total quick assets by total liabilities.

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

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

This ratio shows the ability of banks immediate funds to cover their (Current margin, Call

and Saving) deposits. It can be calculated by dividing cash and bank balance by deposits (excluding fixed deposits). This ratio can be expressed as:

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

E. Composition of Working Capital

To operate a business, different kinds of assets are needed. For the day to day business operation, different types of current assets are utilized. In case of Nabil Bank Ltd. and Nepal Investment Bank Ltd. the main components of current assets are cash and bank balance, loan and advances and government securities. Miscellaneous current assets are also a component of current assets. Prepaid expenses, outstanding income like interest receivable and other current assets are included in miscellaneous current assets. In this study, composition percentage of following components:

- Cash and bank balance percentage.
- Loan and advances percentage.
- Government securities percentage.
- Miscellaneous current assets percentage.

F. Net Working Capital:

Net working capital is 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. A negative net working capital occurs when current liabilities are in excess of current assets.

3.7.2 Statistical Tools

Various financial tools mentioned above are used to analyze the working capital management. Likewise, the relationship between different variables related to the study topics can also be drawn using statistical tools.

A. Mean or Average

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

together all the terms and dividing this by the total number of items. Mean or average is represented as:

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

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

Where,

$\bar{X}$ = Arithmetic Mean

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

N = Number of terms

B. Standard Deviation:

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

$$\sigma = \frac{v\sum_d 2}{n-1}$$

Where,

σ = Standard Deviation

$v\sum d^2$ = Sum of squares of the deviations measured form the arithmetic average

n = Number of items

C. Coefficient of Variation

The coefficient of variation is the ratio of standard deviation to the mean for a given sample used to measure spread. It can also be thought of as the measure of relative risk. Larger the coefficient of variation greater the risk relative to the average of variables. Mathematically,

$$CV = \sigma^2$$

Where,

CV = Coefficient of variation

σ = Standard deviation

$\bar{X}$ = Arithmetic mean.

D. Coefficient of Correlation:

Correlation is statistical tool, which is used to describe the degree to which one variable is linearly related to another. The coefficient of correlation measures the degree of relationship between two sets of figures. Among the various method of finding out coefficient of correlation, Karl Pearson's method is applied in the study. The result of coefficient of correlation is always between +1 and -1. Where r, the coefficient of correlation is +1, there is perfect relationship between two variables and vice versa. When r is 0, there is no relationship between the two variables. The formula for the calculation of coefficient of correlations between X and Y is given below

E. Trend Analysis:

Trend analysis is an analysis of financial ratio over time and is used to determine the improvement of determination of its financial situation. The trend line is represented by following equation:

$$Y_c = a + bx$$

Where,

Y_c = 1 Estimated value of Y for given value X in coordinate axes

a = Y intercept of mean of Y value

b = slope of the line or rate of change

x = variable in time axis

To find the values of a & b, we have to solve the following equations:

$$\sum Y = N_a + b \sum x^2 \ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

$$\sum XY = a\sum X + b\sum X^2 \ldots\ldots\ldots\ldots (2)$$

CHAPTER 4.

PRESENTATION AND DATA ANALYSIS

The major objective of this study is a comparative study of the management of working capital of Nepal Investment Bank Ltd and NABIL Bank Ltd. The major variables of the study are cash and bank. The main purpose of this chapter is to analyze and explain the collected data to achieve the objective of the study. In this chapter relevant data and information of working capital as well as financial performance of Nepal Investment Bank Ltd and NABIL Bank ltd are presented, compared and analyzed accordingly. To reach towards precise interpretation, this study analyses composition of current assets, different ratios such as liquidity, profitability, trend analysis etc.

4.1 Profitability analysis

4.1.1 Profitability Ratio

Profitability ratio is the measurement of efficiency. It provides the degree of success in achieving designed profit; here profitability is measured in terms of various ratios as follows:

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. This ratio can be calculated as below:

$$\text{Interest Earned to Total Assets Ratio} = (\text{Interest Earned})/(\text{Total Assets})$$

The following table presents the interest earned to total assets ratio of NABIL and NIBL:

Table 4-1 Interest Earned to Total Assets Ratio

Fiscal Year	NIBL	NABIL
2063/64	0.06	0.06
2064/65	0.06	0.05
2065/66	0.06	0.06
2066/67	0.08	0.08
2067/68	0.10	0.09
Average	**0.07**	**0.07**
Std. Dev	**0.019**	**0.015**
C.V.	**0.264**	**0.221**

(Sources: Appendices 7& 8)

The table 4.1 shows that the Interest Earned and Total Assets ratio of NIBL and NABIL Bank Ltd is in increasing trend. In case of NIBL, the Interest Earned to Total Assets Ratio is lowest (0.06) in the year 2063/64, 2064/65 and 2065/66 and highest (0.10) in the year 2067/68. The average ratio of NIBL is 0.07. In case of NABIL, the Interest Earned to Total Assets Ratio is lowest (0.05) in the year 2064/65 and highest (0.09) in the year 2067/68. The average ratio of NABIL is 0.07. The average ratio of both Financial Institutions is same. The Standard Deviation of NIBL and NABIL are 0.019 and 0.015 respectively. The Coefficient of Variation of NIBL is 0.264 and NABIL is 0.221. The C.V. of NABIL is lower than that of NIBL. This shows that there is less variation in interest earned to total assets ratio maintained by NABIL compared to NIBL.

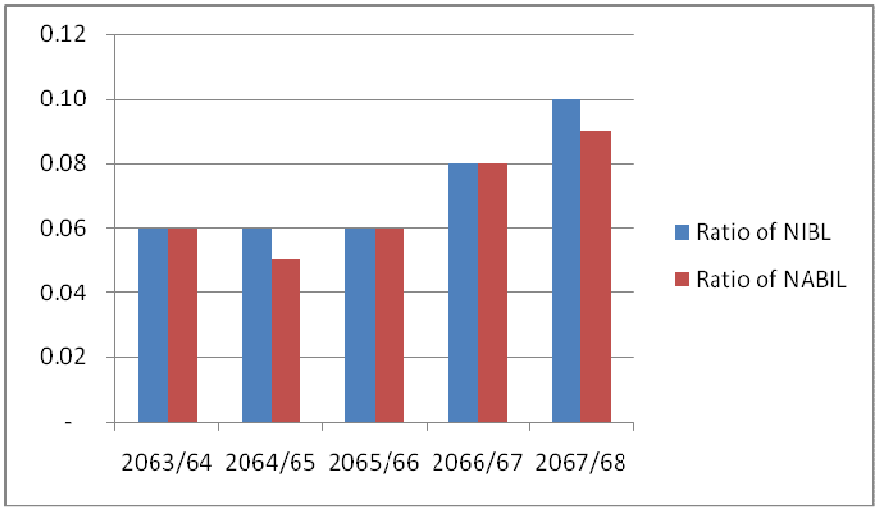

Figure 4:1 Interest Earned to Total Assets Ratio

According to Fig 4.1, the trend and actual lines of NIBL are always higher than NABIL during the study period, except in the year 2065/66 when the ratio of NIBL and NABIL are equal. So, the above analysis helps to conclude that the Interest Earned to Total Assets ratio of NIBL is better than NABIL. This implies that NIBL is efficiently using funds to earn interest income.

a. Net Profit to Total Assets Ratio

It measure the profitability of all financial resources invested compared to total assets of a firm. This ratio can be calculated as follows:

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

The following table shows the Net Profit to Total Assets ratio of NABIL and NIBL:

Table 4-2 Net Profit to Total Assets Ratio

Fiscal Year	NIBL	NABIL
2063/64	0.02	0.03
2064/65	0.02	0.02
2065/66	0.02	0.02
2066/67	0.02	0.02
2067/68	0.02	0.02
Average	**0.02**	**0.02**
Std. Dev	**0.002**	**0.002**
C.V.	**0.109**	**0.078**

(Sources: Appendices 7, & 8)

The table 4.2 shows that the Net Profit and Total Assets Ratio of NIBL is constant and NABIL is fluctuating: highest (0.03) in the Fiscal Year 2063/64 and lowest 0.02 in the remaining four years during the study period. The yearly ratio of NABIL is higher than NIBL in the first year and for the remaining year it's equal. Therefore, the average Net Profit to Total Assets Ratio of NIBL and NABIL are equal i.e. 0.02. The Standard Deviation of NIBL and NABIL are 0.002. The Coefficient of Variation of NIBL is 0.109 and NABIL is 0.078. The C.V. of NABIL is lower than that of NIBL. This shows that there is less variation in Net Profit to Total Assets ratio maintained by NABIL compared to NIBL.

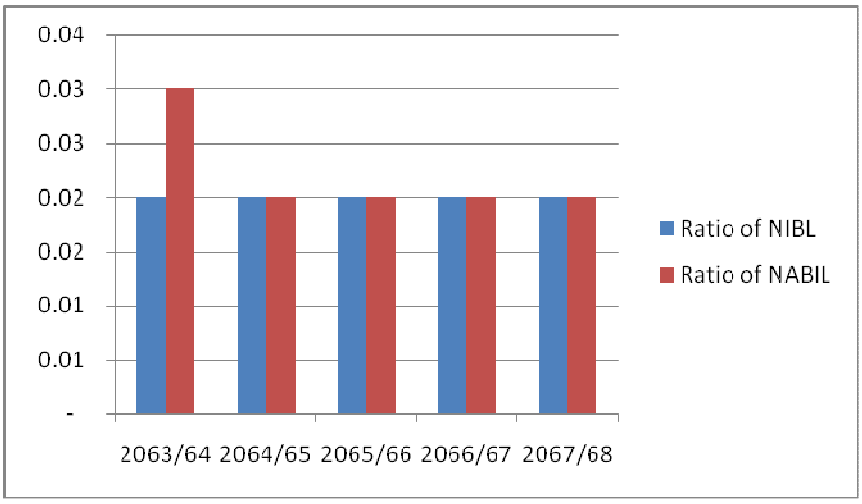

Figure 4:2 Net Profit to Total Assets Ratio

According to Graph 2 Shows that the trend and actual lines of NABIL is higher in the first year and for the remaining four year the ratio of NIBL and NABIL are equal. So, the above analysis helps to conclude that the Net Profit to Total Assets ratio of NABIL is better than NIBL. This implies that NABIL is efficiently using its total assets to earn profit.

b. Net Profit to Total Deposit Ratio

This ratio measures the percentage of profit earned from the utilization of the total deposits. Higher ratio indicated higher return from investment on loans and lower ratio

indicates that the funds are not properly mobilized. The ratio can be calculated as follows:

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

The following table shows the net profit to total deposit ratio of NABIL and NIBL:

Table 4-3 Net Profit to Total Deposit Ratio

Fiscal year	**NIBL**	**NABIL**
2063/64	0.02	0.03
2064/65	0.02	0.02
2065/66	0.02	0.03
2066/67	0.03	0.02
2067/68	0.02	0.03
Average	**0.02**	**0.03**
Std. Dev	**0.003**	**0.002**
C.V.	**0.116**	**0.085**

(Sources: Appendices 7 & 8 **)**

According to Table 4.3 the Net Profit and Total Deposit ratio shows that :

In case of NIBL, the Net Profit to Total Deposit Ratio is lowest (0.02) in the year 2063/64, 2064/65, 2065/66 and 2067/68 and highest (0.03) in the year 2066/67. The average ratio of NIBL is 0.02. In case of NABIL, the Net Profit to Total Deposit Ratio is lowest (0.02) in the year 2066/67 and highest (0.03) in the year 2063/64, 2064/65, 2065/66 and2067/68. The average ratio of NABIL is 0.03. The average ratio of NABIL (0.03) is higher than that of NIBL (0.02). The Standard Deviation of NIBL and NABIL is 0.003. The Coefficient of Variation of NIBL is 0.116 and NABIL is 0.097. The C.V. of NABIL is lower than that of NIBL.

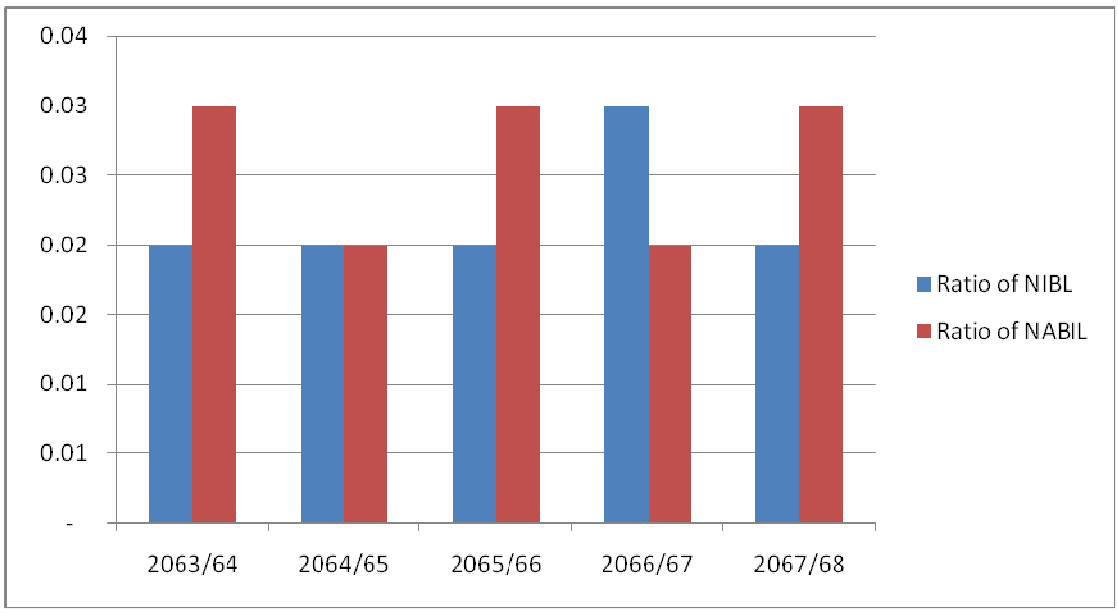

Figure 4:3 Net Profit to Total Deposit Ratio

According to Fig 4.3 the trend and actual lines of NABIL are always higher that NIBL during the study period. So, the above analysis helps to conclude that the Net Profit to Total Deposit Ratio of NABIL is better than NIBL. This implies that NABIL is efficiently using its total deposit to earn profit.

c. Cost of Services to Total Asset Ratio:

This measures the utilization of assets with cost of services of an organization. A sound management always tries to utilize its larger amount of assets with minimum cost. Hence, higher ratio indicates, efficient utilization of assets with minimum cost of services to earn profit and vice versa. This ratio can be calculated as follows:

$$\text{Cost of Services to Total Assets Ratio} = \frac{\text{Cost of Services}}{\text{Total Assets}}$$

The following table shows the cost of services to total assets ratio of NIBL and NABIL:

Table 4-4 Cost of Service to Total Asset Ratio

Fiscal year	**NIBL**	**NABIL**
2063/64	0.03	0.03
2064/65	0.03	0.03
2065/66	0.04	0.03
2066/67	0.05	0.05
2067/68	0.07	0.06
Average	**0.04**	**0.04**
Std. Dev	**0.016**	**0.013**
C.V.	**0.376**	**0.333**

(Sources: Appendices 5, 6 7 & 8)

According to Table 4.4 the Cost of Services and Total Assets is in increasing trend during the study period. Hence, the Cost of Services to Total Assets Ratio is also increasing.

In case of NIBL, the Cost of Services to Total Assets Ratio is lowest (0.03) in the year 2063/64 and 2064/65 and highest (0.07) in the year 2067/68. The average ratio of NIBL is 0.04. In case of NABIL, the Cost of Services to Total Assets Ratio is lowest (0.03) in the year 2063/64, 2064/65 and 2065/66 and highest (0.06) in the year 2067/68. The average ratio of NABIL is 0.04. The average ratio of NIBL and NIBL is equal. The Standard Deviation of NIBL and NABIL is 0.016 and 0.013 respectively. The Coefficient of Variation of NIBL is 0.376 and NABIL is 0.333. The C.V. of NABIL is lower than that of NIBL.

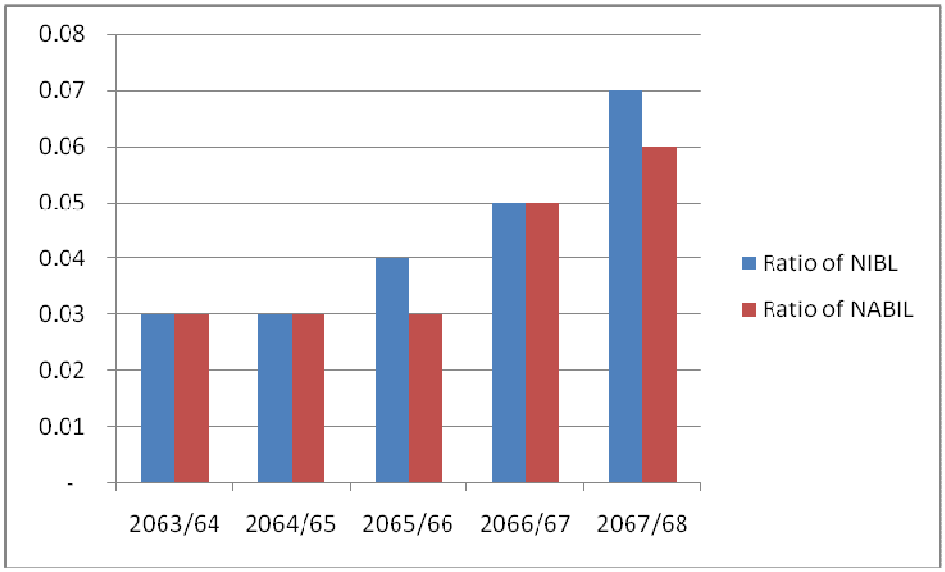

Figure 4:4 Cost of Service to Total Assets Ratio

According to Fig 4.4 the trend and actual lines of NIBL and NABIL are same during the first two year of the study period. However, the ratio of NIBL has increased and is higher than that of NABIL during the last three year of the study period. So, the above analysis helps to conclude that the Cost of Services to Total Assets Ratio of NIBL is better than NABIL. This implies that NIBL is efficiently using its assets with minimum cost than NABIL.

4.1.2 Activity or Turnover Ratio

The funds of creditors and owners are invested in various assets to generate sales and profit. Activity ratio is used to evaluate the efficiency with which the firm manages and utilizes its assets. This ratio indicated how quickly certain assets are converted into cash. From this ratio it can be known whether or not the business activities are efficient. These ratios are also known as Turnover Ratio because they indicate speed with which assets are converted or turnover into profit generating assets. These ratios help in measuring bank's ability to utilize their available resources.

a. Loan and Advances to Total Deposit Ratio:

This measures the utilization of depositor's fund to earn profit by providing loans and advances. Higher ratio indicated higher/proper utilization of funds and low ratio is the

indication of inefficient utilization of the funds. This ratio is calculated as below:

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

The following table shows the Loan and Advances to Total Deposit Ratio of NIBL and NABIL:

Table 4-5 Loan and Advances to Total Deposit Ratio

Fiscal year	**NIBL**	**NABIL**
2063/64	0.71	0.67
2064/65	0.78	0.67
2065/66	0.78	0.74
2066/67	0.80	0.70
2067/68	0.82	0.77
Average	**0.78**	**0.71**
Std. Dev	**0.044**	**0.044**
C.V.	**0.056**	**0.062**

(Sources: Appendices 3, 4, 7 & 8)

According to Table 4.5 the Loan & Advances and Total Deposit of NIBL and NABIL are in increasing trend during the study period.

In case of NIBL, the Loan and Advances to Total Deposit Ratio is lowest (0.71) in the year 2063/64 and highest (0.82) in the year 2067/68. The average ratio of NIBL is 0.78. In case of NABIL, the Loan and Advances to Total Deposit Ratio is lowest (0.67) in the year 2063/64 and 2064/65 and highest (0.77) in the year 2067/68. The average ratio of NABIL is 0.71. The average ratio of NIBL is higher (0.78) than that of NABIL (0.71). The Standard Deviation of NIBL and NABIL is 0.44. The Coefficient of Variation of NIBL is 0.056 and NABIL is 0.062. The C.V. of NIBL is lower than that of NABIL.

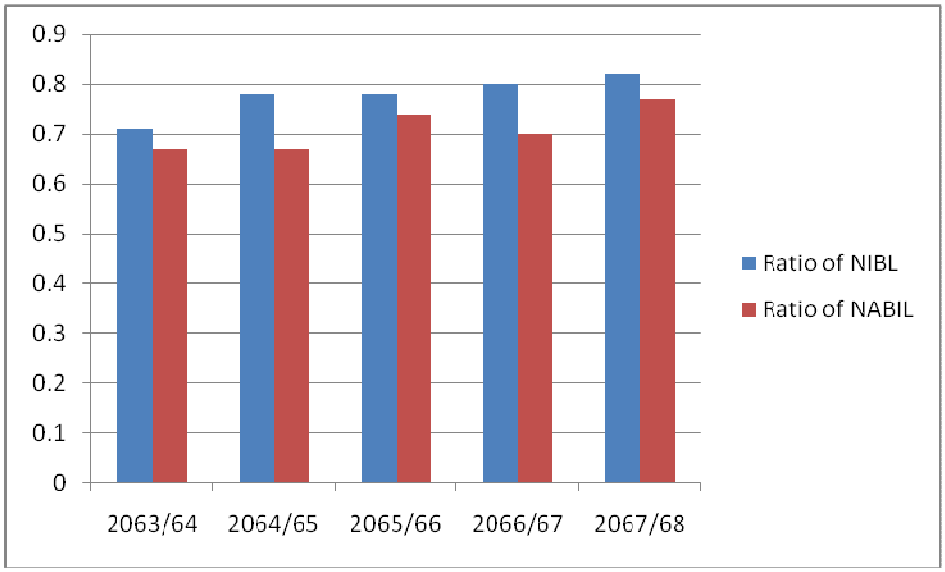

Figure 4:5 Loan and Advances to Total Deposit Ratio

Fig 4.5 shows the trend and actual lines of NIBL are higher than NABIL during the study period. So, the above analysis helps to conclude that the Loan and Advances to Total Assets Ratio of NIBL is better than NABIL. This implies that NIBL is efficiently converting its Deposits into Loan and Advances to earn income/profit.

b. Loan and Advances to Fixed Deposit Ratio

This ratio measures how much amount is used in loans and advances in comparison to the fixed deposits. Higher this ratio indicates efficient utilization of fixed deposit funds by providing loans and advances to generate higher income and vice versa. This ratio is calculated as below:

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

The following table shows the Loan and Advances to Fixed Deposit Ratio of NIBL and NABIL:

Table 4-6 Loan and Advances to Fixed Deposit Ratio

Fiscal year	**NIBL**	**NABIL**
2063/64	2.30	2.86
2064/65	3.40	2.52
2065/66	3.12	3.32
2066/67	2.40	2.19
2067/68	2.24	2.26
Average	**2.69**	**2.63**
Std. Dev	**0.531**	**0.466**
C.V.	**0.197**	**0.177**

(Sources: Appendices 3, 4, 7 & 8)

According to Table 4.6 the Loan & Advances and Fixed Deposit of NIBL and NABIL are in increasing trend during the study period. In case of NIBL, the Loan and Advances to Fixed Deposit Ratio is lowest (2.24) in the year 2067/68 and highest (3.40) in the year 2064/65. The average ratio of NIBL is 2.69. In case of NABIL, the Loan and Advances to Total Deposit Ratio is lowest (2.19) in the year 2066/67 and highest (3.32) in the year 2065/66. The average ratio of NABIL is 2.63. The average ratio of NIBL is higher (2.69) than that of NABIL (2.63). The Standard Deviation of NIBL and NABIL is 0.531 and 0.466 respectively. The Coefficient of Variation of NIBL is 0.197 and NABIL is 0.177. The C.V. of NABIL is lower than that of NIBL.

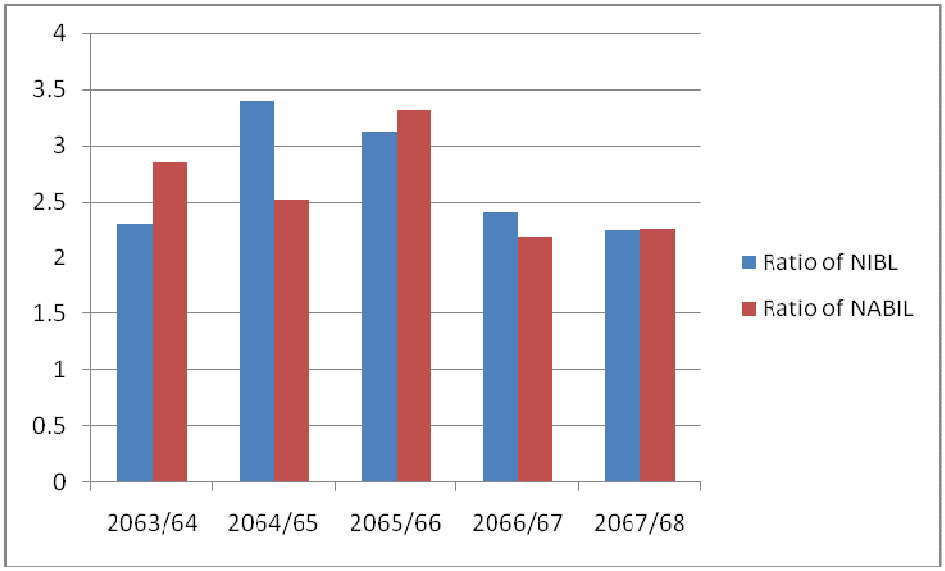

Figure 4:6 Loan and Advances to Fixed Deposit Ratio

According to Fig 4.6 the trend and actual lines of NIBL and NABIL are changing during the study period. So, the above analysis helps to conclude that the Loan and Advances to Fixed Assets Ratio of NABIL was higher than NIBL in the first year and after that the ratio of NIBL greater than that of NABIL. This implies that during the first year of the study NABIL had efficiently converted its Fixed Deposit into Loan and Advances to earn income/profit and after than NIBL has effectively been doing so.

c. Loan and Advances to Savings Deposit Ratio

It measures the utilization of savings deposits in generating revenue by giving loan and advances to the client. It helps to determine what extent of collected saving deposit amount is being deployed in providing loans and advances. This ratio is calculated as below:

$$\text{Loan and Advances to Savings Deposit Ratio} = \frac{\text{Loan \& } \textit{Advances}}{\text{Saving Deposit}}$$

The following table shows the Loan and Advances to Savings Deposit Ratio of NIBL and NABIL:

Table 4-7 Loan and Advances to Saving Deposit Ratio

Fiscal year	**NIBL**	**NABIL**
2063/64	1.61	1.53
2064/65	1.97	1.76
2065/66	2.12	1.89
2066/67	2.81	2.34
2067/68	3.05	2.66
Average	**2.31**	**2.03**
Std. Dev	**0.599**	**0.460**
C.V.	**0.259**	**0.226**

(Sources: Appendices 3, 4, 7 & 8)

According to Table 4.7 the Loan & Advances and Savings Deposit of NIBL and NABIL are changing during the study period. In case of NIBL, the Loan and Advances to Savings Deposit Ratio is lowest (1.61) in the year 2063/64 and highest (3.05) in the year 2067/68. The average ratio of NIBL is 2.31. In case of NABIL, the Loan and Advances to Total Deposit Ratio is lowest (1.53) in the year 2063/64 and highest (2.66) in the year 2067/68. The average ratio of NABIL is 2.03. The average ratio of NIBL is higher (2.31) than that of NABIL (2.03). The Standard Deviation of NIBL and NABIL is 0.599 and 0.460 respectively. The Coefficient of Variation of NIBL is 0.259 and NABIL is 0.226. The C.V. of NABIL is lower than that of NIBL.

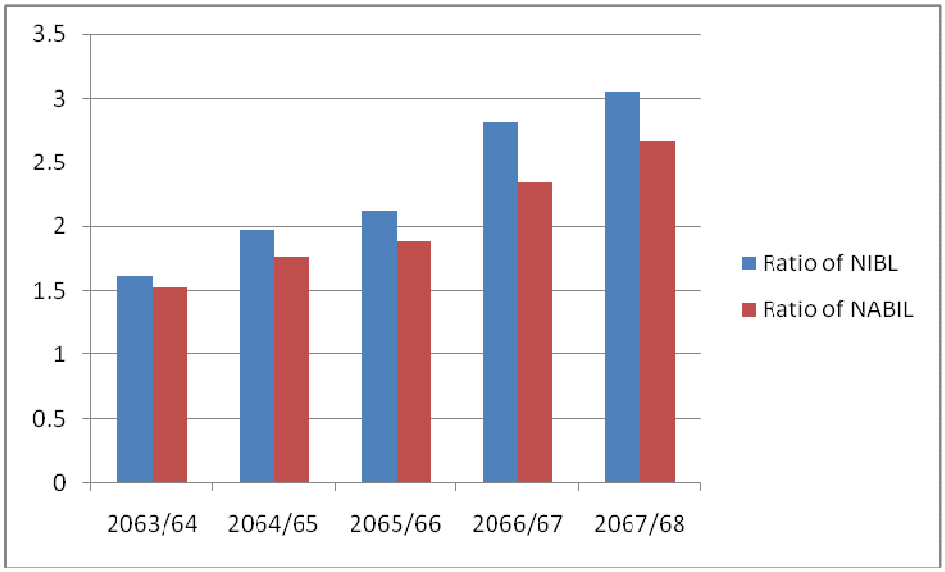

Figure 4.7 Loan and Advances to Saving Deposit Ratio

The Fig 4.7 shows the trend and actual lines of NIBL and NABIL are increasing during the study period. So, the above analysis helps to conclude that the Loan and Advances to Savings Deposit Ratio of both Financial Institutions are increasing. However, the ratio Loan and Advances to Savings Deposit of NIBL is higher than that of NABIL. This implies that NIBL is efficiently using its savings deposit for loan and advances to earn income/profit.

4.1.3 Liquidity Ratio

Liquidity ratio of any business organization is directly related with the working capital or current with the current capital of that organization. In other words, one of the main objectives is to check the sound liquid position. Bank is different organization which is engaged in mobilization of funds. Therefore without sound liquidity position, bank is not able to operate its function.

To measure the bank's solvency position or ability to meet its short-term obligation, various liquidity ratios are calculated and to know the trend of liquidity, trend analysis of major liquidity ratios have been calculated.

a. Current Ratio

This ratio indicates the current short term solvency position of the bank. Higher current

ratio indicates better liquidity position. In other words, current ratio represents a margin of safety i.e. a cushion of protection for creditor and higher the Current Ratio higher the margin of safety. This ratio is calculated as below:

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

The following table shows the Current Ratio to compare the working capital management of NIBL and NABIL:

Table 4-8 Current Ratio

Fiscal year	**NIBL**	**NABIL**
2063/64	1.08	1.07
2064/65	1.08	1.06
2065/66	1.08	1.07
2066/67	1.09	1.07
2067/68	1.10	1.07
Average	**1.08**	**1.07**
Std. Dev	**0.008**	**0.005**
C.V.	**0.008**	**0.004**

(Sources :Appendices 3, 4, 7 & 8)

According to Table 4.8 the Current Assets and Current Liabilities of NIBL and NABIL are both increasing during the study period. In case of NIBL, the Current Ratio is lowest (1.08) in the year 2063/64, 2064/65 and 2065/66 and highest (1.10) in the year 2067/68. The average ratio of NIBL is 1.08. In case of NABIL, the Current Ratio is lowest (1.06) in the year 2064/65 and highest (1.07) in the remaining year of the study period. The average ratio of NABIL is 1.07. The average ratio of NIBL is higher (1.08) than that of NABIL (1.07). The Standard Deviation of NIBL and NABIL is 0.008 and 0.005 respectively. The Coefficient of Variation of NIBL is 0.008 and NABIL is 0.004. The C.V. of NABIL is lower than that of NIBL.

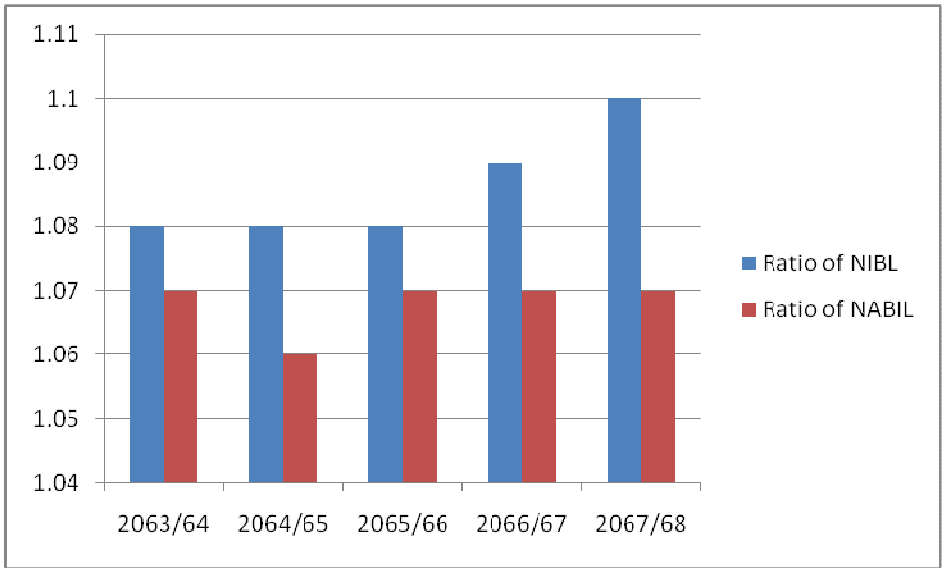

Figure 4:8 Current Ratio

The Fig 4.8 shows the trend and actual lines of NIBL and NABIL are changing during the study period. So, the above analysis helps to conclude that the Current Ratio of both Financial Institutions is fluctuating. However, the Current Ratio of NIBL is higher than that of NABIL. This implies that NIBL has more ability to meet its current obligation that NABIL.

b. Quick Ratio

Quick ratio establishes a relationship between quick or liquid assets: assets that can be converted into cash immediately and current liabilities. It measures the ability of concerned firms to pay current obligation without depending on other liquid assets of current ratio. This ratio is calculated as below:

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

The following table shows the Quick Ratio of NIBL and NABIL:

Table 4-9 Quick Ratio

Fiscal year	**NIBL**	**NABIL**
2063/64	0.11	0.08
2064/65	0.11	0.13
2065/66	0.16	0.10
2066/67	0.13	0.09
2067/68	0.16	0.09
Average	**0.14**	**0.10**
Std. Dev	**0.026**	**0.021**
C.V.	**0.195**	**0.212**

(Sources: Appendices 7 & 8)

According to Table 4.9 the Quick/Liquid Assets and Current Liabilities of NIBL and NABIL are changing during the study period. In case of NIBL, the Quick Ratio is lowest (0.11) in the year 2063/64 and highest (0.16) in the year 2065/66 and 2067/68. The average ratio of NIBL is 0.14. In case of NABIL, the Quick Ratio is lowest (0.08) in the year 2063/64 and highest (0.13) in the year 2064/65. The average ratio of NABIL is 0.10. The average ratio of NIBL is higher (0.14) than that of NABIL (0.10). The Standard Deviation of NIBL and NABIL is 0.026 and 0.021 respectively. The Coefficient of Variation of NIBL is 0.195 and NABIL is 0.212. The C.V. of NIBL is lower than that of NABIL. This shows that NIBL has lower risk. This implies that there is less variation in quick ration than that of NABIL.

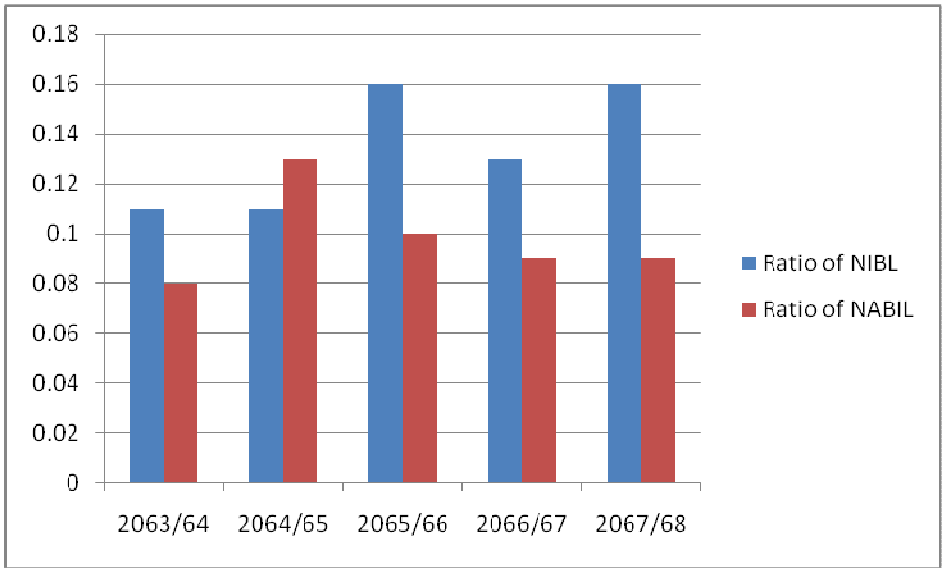

Figure 4:9 Quick Ratio

According to the Fig 4.9 the trend and actual lines of NIBL and NABIL are changing during the study period. It shows that the quick ratio of NIBL is always higher than that of NABIL. The above analysis helps to conclude that the quick ratio of NIBL is always better than NABIL: the liquidity position of NIBL is better than NABIL.

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

This ratio measures the bank's ability to immediately fund their deposits. This ratio is calculated as below:

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

The following table shows the Cash and Bank Balance to Deposit Ratio of NIBL and NABIL:

Table 4-10 Cash and Bank Balance to Deposit Ratio

Fiscal year	NIBL	NABIL
2063/64	0.17	0.11
2064/65	0.14	0.20
2065/66	0.23	0.14
2066/67	0.20	0.14
2067/68	0.26	0.15
Average	**0.20**	**0.15**
Std. Dev	**0.048**	**0.032**
C.V.	**0.238**	**0.218**

(Sources: Appendices 7 & 8)

According to Table 4-10 the Cash and Bank Balance and Total Deposit excluding Fixed Deposit of NIBL and NABIL are changing during the study period. In case of NIBL, the Ratio is lowest (0.14) in the year 2064/65 and highest (0.26) in the year 2065/66 and 2067/68. The average ratio of NIBL is 0.20. In case of NABIL, the Ratio is lowest (0.11) in the year 2063/64 and highest (0.20) in the year 2064/65. The average ratio of NABIL is 0.15. The average ratio of NIBL is higher (0.20) than that of NABIL (0.15). The Standard Deviation of NIBL and NABIL is 0.048 and 0.032 respectively. The Coefficient of Variation of NIBL is 0.238 and NABIL is 0.218. The C.V. of NABIL is lower than that of NIBL. This shows that there is less variation in Cash and Bank Balance to Deposit (excluding Fixed Deposit) maintained by NABIL compared to NIBL.

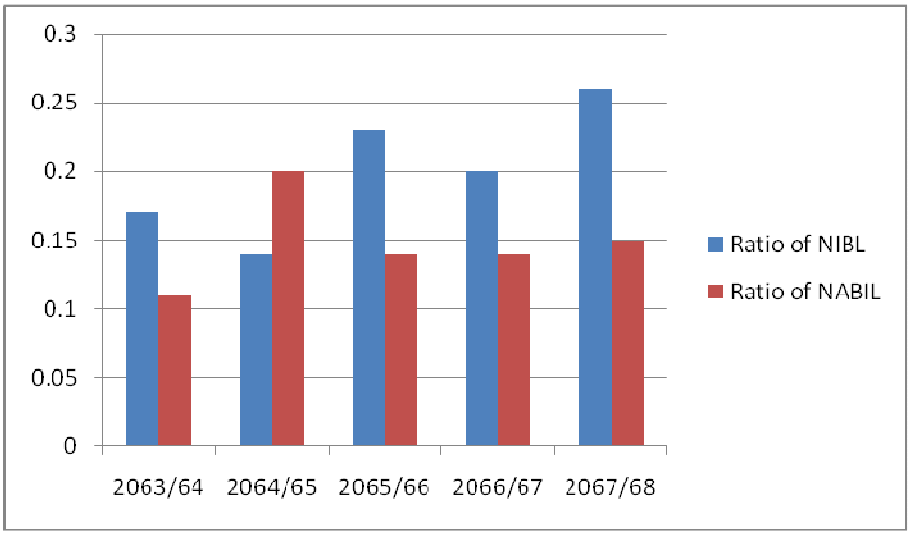

Figure 4:10 Cash and Bank Balance to Deposit Ratio

Fig 4.10 shows the trend and actual lines of NIBL and NABIL are changing during the study period. It shows that the Cash and Bank Balance to Deposit Ratio (excluding Fixed Deposit) of NIBL is always higher than that of NABIL except in the Fiscal Year 2064/65. The above analysis helps to conclude that the ratio of NIBL is better than NABIL: the NIBL has the ability to immediately fund their deposit than that of NABIL.

4.2 Evaluation of Working Capital Utilization

Business needs different types of assets to operate its activities. Few needed assets are for long term fulfillment of the business activities and few assets are needed to carry out the day to day operation of the business. The assets that are used to carry out day to day operation of the business are known as current assets. The composition of current assets of Nepal Investment Bank Ltd and NABIL Bank Ltd are:

Table 4-11 Current Assets Component of NIBL

(Rs. In '000)

Particulars	Nepal Investment Bank Ltd				
Current Assets:	**2063/64**	**2064/65**	**2065/66**	**2066/67**	**2067/68**
Cash & Bank Balance	2,804,484.00	3,754,942.00	7,918,003.00	6,815,890.00	8,290,371.00
Loan & Advances	17,286,427.00	26,996,652.00	36,241,207.00	40,318,308.00	41,095,515.00
Investment	6,505,679.99	6,874,023.63	7,399,811.70	8,635,530.13	7,423,106.53
Other Assets	233,672.00	276,847.00	390,653.00	399,438.00	439,388.00
Total Current Assets	**26,830,262.99**	**37,902,464.63**	**51,949,674.70**	**56,169,166.13**	**57,248,380.53**
Details on Appendices 1, 3 & 7					

Table 4-11 shows that current assets composition of Nepal Investment Bank Ltd. Cash and Bank Balance of the Bank is in increasing trend. However, Cash and Bank Balance has decreased in the year 2066/67 and has increased after that year. Loan and Advances, Investment and Other Assets are also in increasing trend. Hence, the Total Current Assets of the Bank is also in an increasing trend during the study period. From this table it can be also concluded that NIBL has not depended upon other bank or financial institution to fulfill the short term requirement of the Bank.

Table 4-12 Current Assets Component of NABIL Bank

(Rs. In '000)

Particulars	**NABIL Bank Ltd**				
Current Assets:	**2063/64**	**2064/65**	**2065/66**	**2066/67**	**2067/68**
Cash & Bank Balance	1,963,358.00	4,623,503.00	3,925,400.00	4,518,243.00	4,889,061.00
Loan & Advances	15,545,779.00	21,365,053.00	27,589,933.00	32,268,873.00	38,034,098.00
Investment	8,945,310.57	9,939,771.43	10,826,379.00	13,600,916.61	13,003,205.53
Other Assets	512,050.00	606,394.00	864,696.00	882,005.00	1,201,984.00
Total Current Assets	**26,966,497.57**	**36,534,721.43**	**43,206,408.00**	**51,270,037.61**	**57,128,348.53**
Details on Appendices 2, 4 & 8					

Table 4.12 shows the components of Current Assets of NABIL Bank Ltd. Cash and Bank Balance of the bank is changing during the study period. In the first two year of the study period Cash and Bank Balance has increased, decreased in the third year and again increased in the final two years. Loan and Advances, Investment and Other Assets are also in increasing trend. Hence, the total Current Assets is in an increasing trend during the study period. This table reveals that this bank will also managed the cash without depended with other financial institution.

From the above table the total amount of Current Assets of NIBL and NABIL is increasing ever year during the study period. Composition of current assets to total assets has also been plotted in graph in Bar Diagram to make data comprehensible.

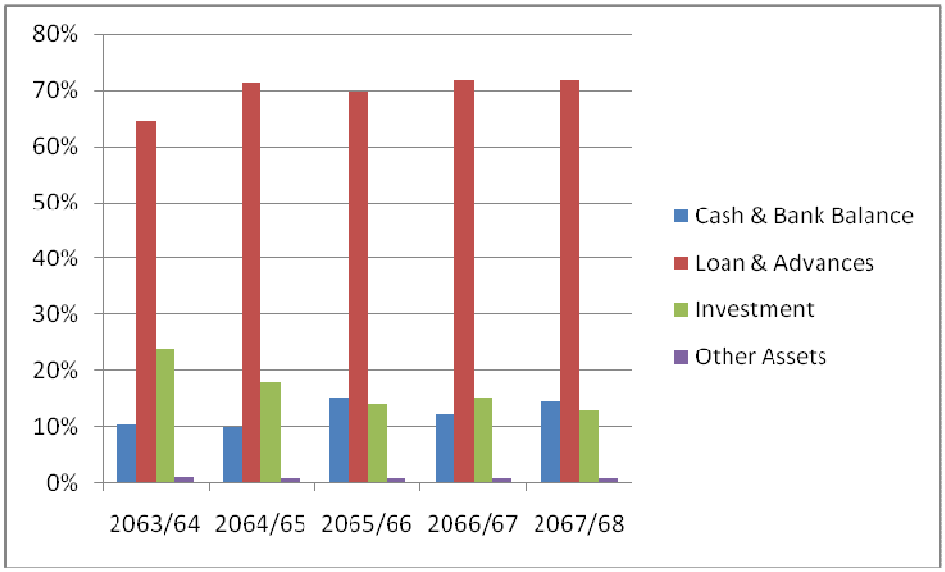

Figure 4:11 Composition of Current Assets of NIBL

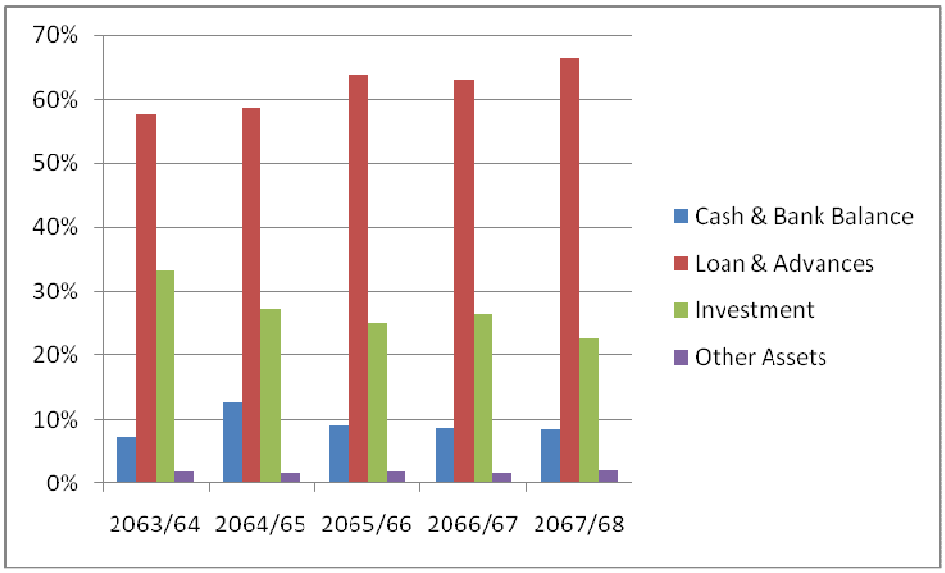

Figure 4:12 Composition of Current Assets of NABIL

4.2.1 Cash and Bank Balance Percentage

Cash and Bank Balance percentage of NIBL was changing throughout the study period. It was highest in the year 2065/66 i.e. 15% and lowest in the year 10% i.e.2063/64 and 2064/65. The average Cash and Bank Balance percentage of NIBL is 12%. Likewise, Cash and Bank Balance percentage of NABIL was also changing throughout the study period. It was highest in the year 2064/65 i.e. 13% and lowest in the year 2063/64 i.e. 7% the average Cash and Bank Balance percentage of NABIL is 9%. The study shows that

the average Cash and Bank Balance percentage of NIBL (12%) is higher than NABIL (%). It shows that NIBL s maintaining good percentage of Cash and Bank Balance than NABIL.

4.3 Major Aspects for Balancing the Working Capital

Net working capital is the difference between current assets and current liabilities. Net working capital can be positive and negative. A positive net working will rise when current assets exceed current liabilities. A negative working capital occurs when current liabilities are in excess of current assets. All the organization should have just adequate working capital to serve in competitive market. Excessive or inadequate working capital is dangerous from the firm's points of view.

Table 4-13 Net Working Capital of NIBL and NABIL

Fiscal year	NIBL	NABIL
2063/64	1,917,541.99	1,770,153.57
2064/65	2,765,943.63	2,079,161.43
2065/66	3,896,710.70	2,769,252.00
2066/67	4,499,145.13	3,252,060.61
2067/68	5,101,313.53	3,853,427.53
Average	**3,636,131.00**	**2,744,811.03**
Std. Dev	**2,582,678.70**	**1,697,049.38**
C.V.	**0.71**	**0.62**

(Sources: Appendix 1, 2, 3, 4, 7 & 8)

Excessive investment working capital affects a firm's profitability just as idle investment yields nothing. In the same way inadequate or negative working capital may be harmful to the organization. So, net working can be more useful for the analysis of trend-off between profitability and risk. It enables a firm to determine how much amount is left for operational requirement.

According to Table 4.13 the Net Working Capital (NWC) of NIBL and NABIL during

the study period are calculated. The Net Working Capital of both NIBL and NABIL are in increasing trend during the study.

It has been observed that in both financial institutions NIBL & NABIL is lowest in the year 2063/64 and highest in the year 2067/68. However, NWC of NIBL is higher than that of NABIL. The Standard Deviation and Co-efficient of Variation of NIBL is higher than that of NABIL. This shows that there is less variation in Net Working Capital maintained by NABIL compared to NIBL.

The above details have been plotted in the following Bar Diagram:

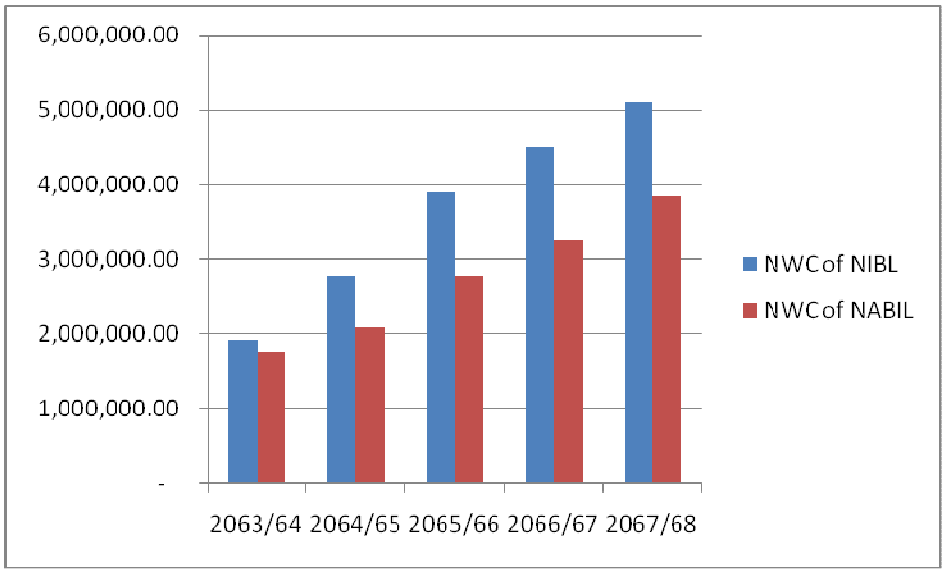

Figure 4:13 Net Working Capital of NIBL and NABIL

Fig 4.13 shows that the trend and actual lines of NIBL and NABIL are changing during the study period. It shows that the Net Working Capital of NIBL is always higher than that of NABIL. The above analysis helps to conclude that the ratio of NIBL is better than that of NABIL.

4.3.1 Correlation between Cash & Bank Balance and Current Liabilities:

Cash and Bank Balance are most liquid components of current assets. This is required to meet the unexpected short term obligation i.e. current liabilities. The coefficient of correlation between cash and bank balance and current liabilities is to measure the degree of relationship between these two variables. Here, a current liability is independent variable Y and cash and bank balance is dependent variable X.

Table 20 shows the coefficient of correlation between cash and bank balance and current liabilities i.e. r, P.E. r, 6P.E. of NIBL and NABIL during the study period.

Table 4-14 Correlation Analysis between Cash & Bank Balance and Current Liabilities

Bank	R	P.E.(r)	6P.E.(r)	Implication
NIBL	0.9483	0.0292	0.1752	**Significant**
NABIL	0.8138	0.0978	0.5868	**Significant**
Sources: Appendix 7 & 8				

From the table 4-14 we can find that the coefficient of correlation between Cash and Bank Balance and Current Liabilities in NIBL "r" is 0.9483. This shows that there is positive relationship between two variables. In context to probable error the value of "r" is more than six times of P.E.r i.e. 0.1752. Thus this results significant relationship between Cash & Bank Balance and Current Liabilities.

In case of NABIL Bank Ltd, coefficient of correlation "r" between Cash & Bank Balance and Current Liabilities is 0.8138. This also, shows that here is positive relationship between two variables. By considering probable error the value of "r" is six times more than P.E.r which is 0.5868. This concludes that there is significant relationship between Cash & Bank Balance and Current Liabilities.

4.4 Trend Analysis

The tools that are applied to show increase and decrease of variables over a period of time are known as Trend Analysis. It helps to determine the improvement of its financial situation. With the help of trend analysis the variable over can be seen clearly.

The trend line is represented by following equation:

$$Y = a + bx \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (i)$$

Where,

Y = 1 Estimated value of Y for given value X in coordinate axes

a = Y intercept of mean of Y value

b = slope of the line or rate of change

X = variable in time axis

To find the values of a & b, we have to solve the following equations:

$$\sum Y = Na + b\sum_{x} 2 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (ii)$$

$$\sum XY = a\sum X + b\sum_{x} 2 \ldots\ldots\ldots\ldots\ldots\ldots\ldots (iii)$$

4.4.1 Trend Analysis of Current Ratio Assets

From the calculation of current ratio trend as per Appendix 18 and 19, the value of constant 'a' and 'b' are as follows:

Nepal Investment Bank Ltd (NIBL)	a = 1.07	b = 0.005
NABIL Bank Ltd (NABIL)	a = 1.07	b = 0.001

(Sources: Appendix 7, 8, 18 and 19)

Here the rate of change on Current Ratio percentage of 'b' in NIBL and NABIL is positive. This indicates that the percentage is in increasing trend in both financial institutions. Though the trend rate of NIBL and NABIL is positive it is increasing slowly. However, the rate of change is higher in NIBL than NABIL.

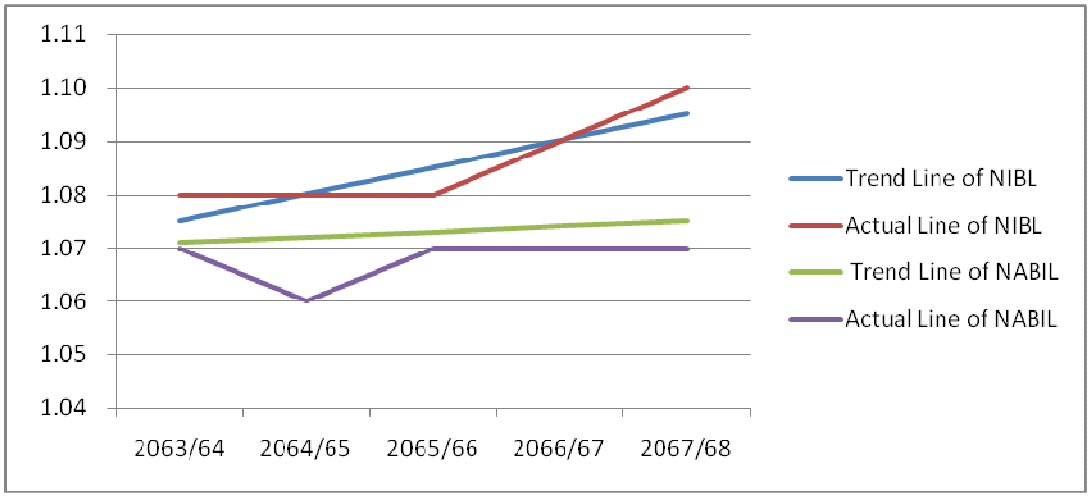

Figure 4:14 Actual and Trend Line of Current Ratio

The above graph represents that the actual and trend line of NIBL is higher than NABIL during the study period. Also, it states the trend line of NIBL is increasing higher than NABIL.

4.4.2 Trend Analysis of Quick Ratio Assets

From the calculation of Quick Ratio trend as per Appendix 20 and 21, the value of constant 'a' and 'b' are as follows:

Nepal Investment Bank Ltd (NIBL)	a = 0.098	b = -0.012
NABIL Bank Ltd (NABIL)	a = 0.092	b = 0.002

The trend rate on Quick Ratio 'b' of NABIL is positive so its quick ratio is in increasing trend and the trend rate on Quick Ratio 'b' of NIBL is negative so its quick ratio is in decreasing trend. This indicates that NIBL is slowly reducing its liquidity.

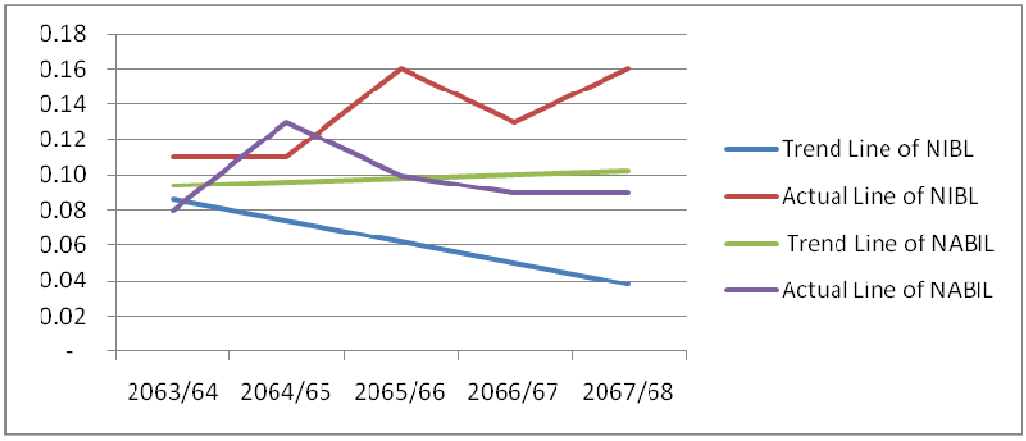

Figure 4:15 Actual and Trend Line of Quick Ratio

The figure Shows that the actual line of NIBL and NABIL are fluctuating. Trend line of NIBL is in decreasing trend where as trend line of NABIL slightly increasing. During the study period, the trend line of NABIL is higher than that of NIBL.

4.5 Major Findings

The major findings of the study during the period of five years in Nepal Investment Bank Ltd and NABIL Bank Ltd are:

- The major components of current assets in Nepal Investment Bank Ltd (NIBL) and

NABIL Bank Ltd are Cash & Bank Balance, Loan & Advances, Investment and Other Current Assets. During the study period, the proportion of Cash & Bank Balance, Loan & Advances, Investment and Other Current Assets to total Current Assets on an average of NIBL are 13%, 70%, 16% and 1% and NIBL are 9%, 63%, 26% and 2% respectively. It shows that average Cash & Bank Balance and Loan & Advances are higher in NIBL and Investment and Other Current Assets are higher in NABIL. The trend value of Cash & Bank Balance, Loan & Advances and Other Current Assets is negative and Investment on Government Securities is positive in NIBL. It shows that NIBL is increasing its fund on income generating investments. Whereas, Loan & Advances, Investment and Government Securities and Other Current Assets is positive and Cash & Bank Balance is negative in NABIL. It shows that NIBL is increasing its fund on income generating current assets.

- The ratio such as Current Ratio, Quick Ratio and Cash and Bank Balance to Deposit Ratio (excluding Fixed Deposit) helps to analyze the liquidity position of banks and financial institutions. The average current ratio of NIBL and NABIL is 1.08 and 1.07 respectively. The current ratio trend of NIBL and NABIL is 0.005 and 0.001 respectively which is positive. The average quick ratio of NIBL and NABIL is 0.14 and 0.10 respectively. The quick ratio trend of NIBL is -0.012 which is negative and NABIL is 0.002 which is positive. The Cash and Bank Balance to Deposit Ratio (excluding Fixed Deposit) of NIBL and NABIL is 0.20 and 0.15 respectively. As the above ratio of NIBL is higher than NABIL, NIBL has better liquidity position than that of NABIL.
- The average value of Loan and Advances to Total Deposit Ratio, Loan and Advances to Fixed Deposit Raito and Loan and Advances to Savings Deposit Ratio of NIBL are 0.78, 2.69 and 2.31 and NABIL are 0.71, 2.63 and 2.03 respectively. While analyzing the turnover of these two banks it shows that NIBL has slightly better turnover than NABIL. Therefore, NIBL has better utilization of deposits in income generating activity and has better investment efficiency than NABIL.
- Savings Deposit to Total Deposit Ratio of NIBL and NABIL are changing during the study period. The ratio of NIBL range from 0.27 to 0.44 with an average ratio of 0.35 and ratio of NABIL range from 0.29 to 0.44 with an average ratio of 0.36. It shows

that the average ratio of NABIL than that of NIBL which shows that out of total deposit NABIL has more savings deposit than that of NIBL. Therefore, it concludes that NABIL has more short term and less costly sources of fund than NIBL.

- The average of Fixed Deposit to Total Deposit Ratio of NIBL and NABIL are respectively 0.30 and 0.28. This ratio of NIBL is higher compared to that of NABIL during the study period. Therefore, it concludes that the NIBL has more long term and costly sources than NABIL.
- The efficiency of any bank can be measured by profitability, which can be analyzed from different ways. Though the average value of interest earned total assets ratio of both NIBL and NABIL is 0.07, the ratio of NIBL range from 0.06 to 0.10 and ratio of NABIL range from 0.06 to 0.09. Though both financial institutions are effectively using its total assets to earn the interest income, considering the data during the study period it shows that NIBL is more efficiently using it total assets to earn the interest income compared to NABIL.
- Also, the average value of Cost of Services to Total Assets of both NIBL and NABIL is 0.04. This implies that both financial institutions are equally using its total in cost effective way. Considering the data during the study period, the ratio of NIBL range from 0.03 to 070 and NABIL range from 0.03 to 0.06. It implies that NIBL has better profitability position than NABIL.
- The net working capital of both NIBL and NABIL is positive during the study period. The average net working capital of NIBL and NABIL is NPR 3,636.13 mio and NPR 2,744.81 mio respectively. During the study period the net working capital of NIBL is always higher than that of NABIL. The CV of NIBL and NABIL is 0.71 and 0.62 respectively which shows that there is very high variability of net working capital maintained by NIBL compare to NABIL. The above analysis helps to conclude that the ratio of NIBL is better than that of NABIL.
- Coefficient of correlation between Cash and Bank Balance and Current Liabilities shows that there is significant relationship between the two variables. The value of 'r' of NIBL and NABIL is 0.8123 and 0.9660 respectively. It shows that the holding cash and bank balance of NIBL and NABIL is related with current liabilities. Also, coefficient of correlation between loan and advances and net profit of NIBL 'r' is

0.9575 and NABIL is 0.9886. This shows that there is significant relationship between loan and advances and total deposit.

- Coefficient of correlation between Loan and Advances and Investment on Government Securities is significant in both banks. The correlation coefficient between Loan and Advances and Total Deposit of NIBL and NABIL ‘r’ is 0.9975 and 0.9908 respectively. Considering the probable error, the value of ‘r’ is greater than 6PE hence, we can conclude that there is significant relationship between loan and advances and total deposit. Similarly, the coefficient of correlation between Investment on Government Securities and Total Deposit ‘r’ is 0.8123 and 0.996 respectively, which is greater than six times of P.E. Hence, it shows that there is significant relationship between investment on government securities and total deposits.

CHAPTER 5.

SUMMARY, CONCLUSION AND RECOMMENDATION

The term working capital is very sensitive area of financial management normally used in the banking sector to improve their efficiency and for the betterment of the organization. Hence, this chapter is the dedicated chapter for the research because this chapter is entirely focuses on comparative analysis conclusion of two commercial banks.

This chapter consists of mainly three parts: Summary, Conclusion and Recommendation. In summary part, revision or summary of all four chapters is made. In conclusion part, the result from the research is summarized and in recommendation part, suggestion and recommendation is made based on the result and experience of thesis. Recommendation is made for improving the present situation to the concerned parties as well as for further research.

5.1 Summary

Working capital management decision is one among various other financial decisions. Working capital management entails short term decisions- generally, relating to the next one year period-which is reversible. These decisions are therefore not taken on the same basis as capital investment decisions rather they are based on cash flows or profitability. In most of the enterprises the management of working capital has been misunderstood as the management of money rather that it's efficient utilization. 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 solution to make efficient use of funds for minimizing the risk of loss to attain profit objective.

The study has been organized into five major chapters each denotes some aspect of the study of working capital management.

The first chapter focus on the brief introduction which covers the background of the study, industrialization and its role in Nepal, brief history of Nepal Investment Bank Ltd and NABIL Bank Ltd., introduction of working capital management and purpose of the study. It includes the statement problem, significance of the study and its limitations.

The second chapter deals with theoretical concepts of different literature review for journals, books, dissertation, which will help to provide knowledge about the development and progress made by earlier researcher on the concerned topic. The summarization of the period has been done to provide knowledge about the background of the work done earlier researchers.

In the third chapter, an appropriate research methodology has been applied to fulfill the stated objective of the study. This chapter includes research design, nature and sources of data, data processing, tools and techniques used. The research design of the study is descriptive and analytical in nature. The data are collected from the secondary sources. Financial ratio such as current ration, quick ratio, turnover ratio, profitability ratio etc has been used. Similarly, statistical tools like Karl Pearson's coefficient, probable error and trend analysis have been used.

One of the most important chapters of this research is chapter four which is presentation and analysis of data which have been used to present, analyze and interpret the necessary data. The necessary data are derived from the balance sheet and profit and loss statement of Nepal Investment Bank Ltd and NABIL Bank Ltd for the period of five year from fiscal year 2063/64-2067/68 as provided in the bank's website. The data collected have been presented in tables, figures and comparative interpretation has been made by using various financial and statistical tools.

5.2 Conclusion

As we are well aware that deposit is the raw material and life blood of all the banks to survive in the industry. Bank should have optimal effective policy to collect the deposit in various accounts. Higher the deposit higher will be the day to day operations and thereby increasing the profit. Banks should not invest their fund unsystematically, they should invest their fund after doing various portfolio analysis and comparative study. If a bank does not have sound working capital management it may be problematic in the future to operate day to day transaction and there would be the possibility of bankruptcy. Hence, if the bank only concentrates on their working capital there is high change of default risk. There is positive and negative impact of working capital management.

The conclusions of analysis are as follows:

- The liquidity position of Nepal Investment Bank Ltd and NABIL Bank Ltd is not meeting the standard ratio i.e. 2:1. But also it can be considered good, as its current assets is excess than current liabilities in both of the financial institutions. While examining trend analysis, it shows that the current ratio trend of NIBL and NABIL is in increasing trend, however, the rate of change is higher in NIBL compared to that of NABIL. This implies that NABIL bank is trying to utilize its idle money in income generating sector to increase its profitability compared to that of NIBL.
- The profitability position of NIBL and NABIL are similar. However, in terms of net profit to total deposit ratio NABIL is slightly better than compared to NIBL. The banks should use its working fund to earn higher rate of profit. Both of the banks have positive profitability ratio.
- The turnover position of NIBL is better than NABIL. NIBL has efficiently utilized its deposits in loan and advances so that it could reduce its idle balance than compared to NABIL.
- The major components of current assets of NIBL and NABIL are Cash & Bank Balance, Loan & Advances, Investment on Government Securities and Other Current Assets. The major proportion of working capital comprises of Loan & Advances and

Investments. During the study period, the proportion of Cash & Bank Balance, Loan & Advances, Investment and Other Current Assets to total Current Assets on an average of NIBL are 13%, 70%, 16% and 1% and NIBL are 9%, 63%, 26% and 2% respectively. It shows that average Cash & Bank Balance and Loan & Advances are higher in NIBL and Investment and Other Current Assets are higher in NABIL.

- The net working capital of both NIBL and NABIL is positive during the study period. The average net working capital of NIBL and NABIL is NPR 3,636.13 mio and NPR 2,744.81 mio respectively. During the study period the net working capital of NIBL is always higher than that of NABIL. The CV of NIBL and NABIL is 0.71 and 0.62 respectively which shows that there is very high variability of net working capital maintained by NIBL compare to NABIL. The above analysis helps to conclude that the ratio of NIBL is better than that of NABIL.
- Correlation Analysis between Loan & Advances and Total Deposits, Investment on Government Securities and Total Deposits, Cash & Bank Balance and Current Liabilities and Loan & Advances and Net Profit shows that there is a significant relationship between these variables in both financial institutions.
- The trend value of Cash & Bank Balance, Loan & Advances and Other Current Assets is negative and Investment on Government Securities is positive in NIBL. It shows that NIBL is increasing its fund on income generating investments. Whereas, Loan & Advances, Investment and Government Securities and Other Current Assets is positive and Cash & Bank Balance is negative in NABIL. It shows that NIBL is increasing its fund on income generating current assets.

5.3 Recommendation:

At the end of the research here are recommendations made on the basis of the above study:

- The proportion of Loan & Advances is more than 50% average out of the total current assets in both of the banks, which can be considered as good but this proportion is changing over the study period. Bank should give first priority to invest its fund on loan and advances to get higher return. So, the bank should not decrease its investment in loan and advances below 50% of total current assets.

- The turnover of the commercial banks is the primary factor for generating income. Loan and advances to total deposit ratio is less than one. Fixed deposit and saving deposit turnover position are also not satisfactory on both banks. Due to poor turnover position, the chances of bad debts and non-earning idle funds are high. Therefore, both NIBL and NABIL should give proper attention on collection of over dated loan and advances and utilization of idle funds as loan and advances.
- In both NIBL and NABIL, saving deposit to total deposit ratio is less than 50%. Hence, both should try to increase its savings deposit accounts balance than other accounts.
- The liquidity position of both NIBL and NABIL is below the normal standard. Hence, both banks should try to increase its current assets.
- From turnover ratios, investment policy of NIBL seems to be better than that of NABIL during the study period. It is therefore necessary for NABIL to utilize its deposits in income generating activities by better investment efficiency on loan and advances.
- Positive working capital represents the sound financial management of the banks. Similarly, negative working capital represents the poor financial management of the banks. The net working capital of NIBL and NABIL is both positive and is in the increasing trend. Both banks should try to keep optimum size of investment in current assets and current liabilities.
- The average proportion of loan and advances NIBL and NABIL out of the total current assets is 70% and 62% respectively. The proportion of loan and advances of NABIL is lower than that of NIBL. Hence, NABIL should adjust its policy of investment on loan and advances with collected funds and increase the proportion of loan and advances in total current assets.

BIBLIOGRAPHY

Text Books

Gupta S.C. (1987) **"Fundamentals of Statistics"** Himalayan Publishing House.

Gupta S.C. (1987) **"Statistical Methods"** Sultan Chand and Sons Publishing House.

Khan M.Y. & Jain P.K. (1992) **"Financial Management"** Tata McGraw Hill Ltd.

Kothari C.R. (1990) **"Research Methodology Method and Techniques"** Wishwa Prakashan.

Pandey I.M. (2000) **"Financial Management"** Bikas Publishing House Pvt. Ltd.

Pradhan R.S. (1986) **"Management of Working Capital"** National Book Organization, New Delhi.

Shrestha (1995) **"Portfolio Behavior of Commercial Banks in Nepal".**

Van Horne J.C. (1998) **"Financial Management and Policy"** Printice Hall of India Company.

Van Horne J.C. & Wachowicz J.M. (2000) **"Fundamental of Financial Management"** Printice Hall of India Company.

Weston J.F. & Copeland T.E. (1990) **"Managerial Finance"** The Dryden Press.

Wolff H.K & Panta P.R. (1999) **"A Hand Book for Social Science Research and**

Thesis Writing" Buddha Academic Enterprises Pvt. Ltd.

Journals and Articles

Annual Report, Nabil Bank Limited, *Fiscal Year 2063/64 to 2067/68*

Annual Report, Nepal Investment Bank Limited, *Fiscal Year 2063/64 to 2067/68*

Nepal Commercial Bank Act 2031

Dr. Acharya K. (1985) **"Problem and implementation in the management of Working Capital in Nepalese Enterprises".**

Mauriello ,Joseph A. (1962) **"Working Capital Concept".**

Prof. Pradhan Radhe Shyam and Koirala Kundan Dut (1983) **"Working Capital Management in Nepalese Corporations".**

Prof.. Pradhan, R.S (1988) **"The demand for Working Capital by Nepalese Corporation".**

Dissertation

Acharya Sajna **"A comparative study on Working Capital Management of Nepal Investment Bank Ltd and Everest Bank Ltd".**

Bansal (2009) **"A study on working capital management of commercial bank".**

Bhattarai (2008) **"Working Capital Management of Cigarette Industry in Nepal with special reference to Janakpur Cigarette Factory".**

Gadtaula (2010) **"Working capital management of Nepal Trade development corporation (NTDC)".**

Lamsal (2004) **"A comparative study of Working Capital Management of NABIL and Standard Chartered Bank Nepal Limited".**

Sapkota (2011) **"Study on working capital management in Himal cement company limited".**

Shrestha (2003) **"A study on Working Capital Management with respect to National trading Limited and Salt Trading Corporation Limited".**

Thapa (2009) **"A comparative study on Working Capital Management of Nepal Bank Ltd and NABIL Bank Ltd."**

Websites :

Nepal Rastra Bank: http://www.nrb.org.np/

Nepal Investment Bank Ltd: http://www.nibl.com.np/

Nabil Bank Ltd: http://www.nabilbank.com/

APPENDIX

Components of Cash & Bank Balance NRs. ('000)-Appendix 1

Particulars	Nepal Investment Bank Ltd				
	2063/64	2064/65	2065/66	2066/67	2067/68
Cash Balance	763,984.00	1,464,483.00	1,833,462.00	1,525,442.00	1,718,666.00
Bank Balance	1,677,530.00	2,290,459.00	6,084,541.00	5,290,448.00	6,421,705.00
Money to Call & Short Notice	362,970.00	-	-	-	150,000.00
Total Cash & Bank Balance	2,804,484.00	3,754,942.00	7,918,003.00	6,815,890.00	8,290,371.00

Components of Cash & Bank Balance NRs. ('000)-Appendix 2

Particulars	NABIL Bank Ltd				
	2063/64	2064/65	2065/66	2066/67	2067/68
Cash Balance	270,407.00	511,427.00	674,395.00	635,987.00	744,592.00
Bank Balance	1,129,418.00	2,159,715.00	2,698,117.00	764,112.00	1,691,957.00
Money to Call & Short Notice	563,533.00	1,952,361.00	552,888.00	3,118,144.00	2,452,512.00
Total Cash & Bank Balance	1,963,358.00	4,623,503.00	3,925,400.00	4,518,243.00	4,889,061.00

Components of Loan & Advances NRs. ('000)-Appendix 3

Particulars	Nepal Investment Bank Ltd				
	2006/07	2007/08	2008/09	2009/2010	2010/11
	2063/64	2064/65	2065/66	2066/67	2067/68
Loan, Advances & Bills Purchased	17,286,427.00	26,996,652.00	36,241,207.00	40,318,308.00	41,095,515.00
Total Cash & Bank Balance	17,286,427.00	26,996,652.00	36,241,207.00	40,318,308.00	41,095,515.00
Total Cash & Bank Balance	34,572,854.00	53,993,304.00	72,482,414.00	80,636,616.00	82,191,030.00

Components of Loan & Advances NRs. ('000)-Appendix 4

Particulars	NABIL Bank Ltd				
	2006/07	2007/08	2008/09	2009/2010	2010/11
	2063/64	2064/65	2065/66	2066/67	2067/68
Loan, Advances & Bills Purchased	15,545,779.00	21,365,053.00	27,589,933.00	32,268,873.00	38,034,098
Total Cash & Bank Balance	15,545,779.00	21,365,053.00	27,589,933.00	32,268,873.00	38,034,098.00

Cost of Services NRs. ('000)- Appendix 5

Particulars	Nepal Investment Bank Ltd				
	2006/07	2007/08	2008/09	2009/2010	2010/11
	2063/64	2064/65	2065/66	2066/67	2067/68
Interest Expenses	685,530.00	992,158.00	1,686,973.00	2,553,847.00	3,620,337.00
Personnel Expenses	145,371.00	187,150.00	225,721.00	279,851.00	326,543.00
Cost of Services	830,901.00	1,179,308.00	1,912,694.00	2,833,698.00	3,946,880.00

Cost of Services NRs. ('000)- Appendix 6

Particulars	NABIL Bank Ltd				
	2006/07	2007/08	2008/09	2009/2010	2010/11
	2063/64	2064/65	2065/66	2066/67	2067/68
Interest Expenses	555,710.00	758,436.00	1,153,280.00	1,960,108.00	2,955,431.00
Personnel Expenses	240,161.00	262,908.00	339,898.00	366,940.00	454,042.00
Cost of Services	795,871.00	1,021,344.00	1,493,178.00	2,327,048.00	3,409,473.00

Details of NIBL NRs. ('000)- Appendix 7

Particulars	**Nepal Investment Bank Ltd NRs. ('000)**				
	2006/07	**2007/08**	**2008/09**	**2009/2010**	**2010/11**
	2063/64	**2064/65**	**2065/66**	**2066/67**	**2067/68**
Current Assets:					
Cash & Bank Balan	2,804,484.00	3,754,942.00	7,918,003.00	6,815,890.00	8,290,371.00
Loan & Advances	17,286,427.00	26,996,652.00	36,241,207.00	40,318,308.00	41,095,515.00
Investment	6,505,679.99	6,874,023.63	7,399,811.70	8,635,530.13	7,423,106.53
Other Assets	233,672.00	276,847.00	390,653.00	399,438.00	439,388.00
Total Current Asse	**26,830,262.99**	**37,902,464.63**	**51,949,674.70**	**56,169,166.13**	**57,248,380.53**
Fixed Assets	759,456.00	970,092.00	1,060,752.00	1,136,247.00	1,108,448.00
Less: Depreciation	14,787.00	182,795.00	332,251.00	437,216.00	437,216.00
Net Fixed Assets	**744,669.00**	**787,297.00**	**728,501.00**	**699,031.00**	**671,232.00**
Total Assets	**27,574,931.99**	**38,689,761.63**	**52,678,175.70**	**56,868,197.13**	**57,919,612.53**
Liabilities:					
Borrowings	-	-	38,800.00	37,315.00	280,764.00
Current Deposits	2,546,692.00	3,745,732.00	4,484,561.00	4,805,295.00	4,701,496.00
Savings Deposits	10,742,332.00	13,688,767.00	17,066,252.00	14,324,256.00	13,490,307.00
Call Deposits	3,683,145.00	9,072,995.00	13,513,907.00	14,140,027.00	13,568,019.00
Fixed Deposit	7,516,687.00	7,944,233.00	11,633,380.00	16,825,148.00	18,378,300.00
Bills Payable	32,401.00	78,839.00	82,338.00	38,144.00	8,250.00
Proposed Dividends	43,650.00	93,468.00	481,414.00	602,274.00	602,274.00
Income Tax Liabilit	295.00	24,083.00	38,297.00	37,195.00	-
Other Liabilities	347,519.00	488,404.00	714,015.00	860,367.00	1,117,657.00
Total Current Liab	**24,912,721.00**	**35,136,521.00**	**48,052,964.00**	**51,670,021.00**	**52,147,067.00**
Net Worth	1,878,124.00	2,686,786.00	3,907,840.00	4,585,393.00	
Total Liabilities	**26,790,845.00**	**37,823,307.00**	**51,960,804.00**	**56,255,414.00**	**52,147,067.00**
Net Profit after Ta	**501,399.00**	**696,732.00**	**900,619.00**	**1,265,950.00**	**1,176,641.00**
Interest Earned	1,584,987.00	2,194,276.00	3,267,941.00	4,653,521.00	5,803,440.00
Interest Expenses	685,530.00	992,158.00	1,686,973.00	2,553,847.00	3,620,337.00
Net Interest Income	**899,457.00**	**1,202,118.00**	**1,580,968.00**	**2,099,674.00**	**2,183,103.00**

Details of NABIL NRs. ('000)- Appendix 8

Particulars	NABIL Bank Ltd NRs. ('000)				
	2006/07	2007/08	2008/09	2009/2010	2010/11
	2063/64	2064/65	2065/66	2066/67	2067/68
Current Assets:					
Cash & Bank Balan	1,963,358.00	4,623,503.00	3,925,400.00	4,518,243.00	4,889,061.00
Loan & Advances	15,545,779.00	21,365,053.00	27,589,933.00	32,268,873.00	38,034,098.00
Investment	8,945,310.57	9,939,771.43	10,826,379.00	13,600,916.61	13,003,205.53
Other Assets	512,050.00	606,394.00	864,696.00	882,005.00	1,201,984.00
Total Current Asse	**26,966,497.57**	**36,534,721.43**	**43,206,408.00**	**51,270,037.61**	**57,128,348.53**
Fixed Assets	286,895.00	598,039.00	660,989.00	779,540.00	935,089.00
Less: Depreciation	317,322.00	357,940.00	336,910.00	386,747.00	455,724.00
Net Fixed Assets	**(30,427.00)**	**240,099.00**	**324,079.00**	**392,793.00**	**479,365.00**
Total Assets	**26,936,070.57**	**36,774,820.43**	**43,530,487.00**	**51,662,830.61**	**57,607,713.53**
Liabilities:					
Borrowings	882,573.00	1,360,000.00	1,681,305.00	74,900.00	1,650,599.00
Current Deposits	3,758,108.00	5,727,554.00	5,978,869.00	8,620,899.00	6,456,719.00
Savings Deposits	10,187,354.00	12,159,966.00	14,620,407.00	13,786,586.00	14,288,520.00
Call Deposits	3,961,633.00	5,563,441.00	8,438,271.00	9,295,058.00	12,110,043.00
Fixed Deposit	5,435,190.00	8,464,086.00	8,310,708.00	14,711,158.00	16,840,831.00
Bills Payable	83,515.00	238,422.00	463,139.00	425,444.00	415,768.00
Proposed Dividends	509,418.00	437,373.00	361,325.00	434,737.00	608,931.00
Income Tax Liabilit	-	38,777.00	80,232.00	24,904.00	44,104.00
Other Liabilities	378,553.00	465,941.00	502,900.00	644,291.00	859,406.00
Total Current Liab	**25,196,344.00**	**34,455,560.00**	**40,437,156.00**	**48,017,977.00**	**53,274,921.00**
Net Worth	2,055,115.00	2,439,825.00	3,129,020.00	3,840,179.00	4,566,981.00
Total Liabilities	**27,251,459.00**	**36,895,385.00**	**43,566,176.00**	**51,858,156.00**	**57,841,902.00**
Net Profit after Ta	**673,960.00**	**746,468.00**	**1,031,053.00**	**1,141,051.00**	**1,337,745.00**
Interest Earned	1,587,759.00	1,978,697.00	2,798,486.00	4,049,712.00	5,254,030.00
Interest Expenses	555,710.00	758,436.00	1,153,280.00	1,960,108.00	2,955,431.00
Net Interest Income	**1,032,049.00**	**1,220,261.00**	**1,645,206.00**	**2,089,604.00**	**2,298,599.00**

Appendix 10

Calculation of Trend Value of Cash and Bank Balance of Nepal Investment Bank Ltd (NIBL)

Year	X	X^2	Cash & Bank Balance (Y)	XY	a	b	Trend (Y=a+bX)
2063/64	1	1	10.45	10.45	15.53	-1.03	14.50
2064/65	2	4	9.91	19.82	15.53	-1.03	13.47
2065/66	3	9	15.24	45.72	15.53	-1.03	12.44
2066/67	4	16	12.13	48.52	15.53	-1.03	11.41
2067/68	5	25	14.48	72.40	15.53	-1.03	10.38
n=5	∑X = 15.00	∑X2 =55.00	∑Y = 62.21	∑XY = 196.91			

Here, actual equation of the liner trend is Y= a + bX-----(i)

The values of the constants a and b can be determined by solving following normal equations:

∑Y = na + b ∑X ----------(ii)
XY = a ∑X + b ∑X2-------(iii)

Substituting the values of n, ∑X, ∑Y, ∑XY, and ∑X2 in equation (ii) and (iii) we get

62.21 = 5a + 15b--------(iv)
196.91 = 15a + 55b------(v)

Now, multiplying (iv) by 3 and then subtracting (v) we get

186.63 = 15a + 45b
196.91 = 15a + 55b

\- - -

10.28 = -10b
or, b = -1.03

Putting the value of b in (iv) we get

62.21 = 5a - 15.45b
or, a = 15.53

Substituting the values of a and b in (i), we get, the regression equation of Y and X

Appendix 11

Calculation of Trend Value of Cash and Bank Balance of NABIL Bank Ltd (NABIL)

Year	X	X^2	Cash & Bank Balance (Y)	XY	a	b	Trend (Y=a+bX)
2063/64	1	1	7.28	7.28	9.67	-0.13	9.54
2064/65	2	4	12.66	25.32	9.67	-0.13	9.41
2065/66	3	9	9.09	27.27	9.67	-0.13	9.28
2066/67	4	16	8.81	35.24	9.67	-0.13	9.15
2067/68	5	25	8.56	42.80	9.67	-0.13	9.02
n=5	∑X = 15	∑X2=55	∑Y = 46.40	∑XY = 137.91			

Here, actual equation of the liner trend is Y= a+bX-----(i)

The values of the constants a and b can be determined by solving following normal equations:

∑Y = na + b ∑X ----------(ii)
XY = a ∑X + b ∑X2-------(iii)

Substituting the values of n, ∑X, ∑Y, ∑XY, and ∑X2 in equation (ii) and (iii) we get

46.40 = 5a + 15b--------(iv)
137.91 = 15a + 55b------(v)

Now, multiplying (iv) by 3 and then subtracting (v) we get

139.20 = 15a + 45b
137.91 = 15a + 55b

- - -

1.29 = -10b
or, b = -0.13

Putting the value of b in (iv) we get

46.40 = 5a - 1.95
or, a = 9.67

Substituting the values of a and b in (i), we get, the regression equation of Y and X.

Appendix 12

Calculation of Trend Value of Loan and Advances of NIBL

Year	X	X^2	Loan and Advances (Y)	XY	a	b	Trend (Y=a+bX)
2063/64	1	1	64.43	64.43	74.39	-1.53	72.86
2064/65	2	4	71.23	142.46	74.39	-1.53	71.33
2065/66	3	9	69.76	209.28	74.39	-1.53	69.80
2066/67	4	16	71.78	287.12	74.39	-1.53	68.27
2067/68	5	25	71.78	358.90	74.39	-1.53	66.74
n=5	∑X = 15	∑X2=55	∑Y = 348.98	∑XY = 1,062.19			

Here, actual equation of the liner trend is Y= a+bX-----(i)

The values of the constants a and b can be determined by solving following normal equations:

∑Y = na + b ∑X ----------(ii)
XY = a ∑X + b ∑X2-------(iii)

Substituting the values of n, ∑X, ∑Y, ∑XY, and ∑X2 in equation (ii) and (iii) we get

348.98 = 5a + 15b--------(iv)
1,062.19 = 15a + 55b------(v)

Now, multiplying (iv) by 3 and then subtracting (v) we get

1,046.94 = 15a + 45b
1,062.19 = 15a + 55b

- - -

15.25 = -10b

or, b = -1.53

Putting the value of b in (iv) we get

348.98 = 5a - 22.95

or, a = 74.39

Substituting the values of a and b in (i), we get, the regression equation of Y and X.

Appendix 13

Calculation of Trend Value of Loan and Advances of NABIL

Year	X	X^2	Loan and Advances (Y)	XY	a	b	Trend (Y=a+bX)
2063/64	1	1	57.65	57.65	55.21	2.23	57.44
2064/65	2	4	58.48	116.96	55.21	2.23	59.67
2065/66	3	9	63.86	191.58	55.21	2.23	61.90
2066/67	4	16	62.94	251.76	55.21	2.23	64.13
2067/68	5	25	66.58	332.90	55.21	2.23	66.36
n=5	∑X = 15	∑X2=55	∑Y = 309.51	∑XY = 950.85			

Here, actual equation of the liner trend is Y= a+bX-----(i)

The values of the constants a and b can be determined by solving following normal equations:

∑Y = na + b ∑X ----------(ii)

XY = a ∑X + b ∑X2-------(iii)

Substituting the values of n, ∑X, ∑Y, ∑XY, and ∑X2 in equation (ii) and (iii) we get

309.51 = 5a + 15b--------(iv)

950.85 = 15a + 55b-------(v)

Now, multiplying (iv) by 3 and then subtracting (v) we get

928.53 = 15a + 45b

950.85 = 15a + 55b

\- - -

(22.32) = -10b

or, b = 2.23

Putting the value of b in (iv) we get

309.51 = 5a + 33.45
or, a = 55.21

Substituting the values of a and b in (i), we get, the regression equation of Y and X.

Appendix 14

Calculation of Trend Value of Government Securities of NIBL

Year	X	X^2	Government Securities (Y)	XY	a	b	Trend (Y=a+bX)
2063/64	1	1	24.25	24.25	9.40	2.53	11.93
2064/65	2	4	18.14	36.28	9.40	2.53	14.46
2065/66	3	9	14.24	42.72	9.40	2.53	16.99
2066/67	4	16	15.37	61.48	9.40	2.53	19.52
2067/68	5	25	12.97	64.85	9.40	2.53	22.05
n=5	∑X = 15	∑X2=55	∑Y = 84.97	∑XY = 229.58			

Here, actual equation of the liner trend is Y= a+bX-----(i)

The values of the constants a and b can be determined by solving following normal equations:

∑Y = na + b ∑X ----------(ii)
XY = a ∑X + b ∑X2-------(iii)
Substituting the values of n, ∑X, ∑Y, ∑XY, and ∑X2 in equation (ii) and (iii) we get

84.97 = 5a + 15b--------(iv)
229.58 = 15a + 55b-------(v)

Now, multiplying (iv) by 3 and then subtracting (v) we get

254.91 = 15a + 45b
229.58 = 15a + 55b

- - -

25.33 = -10b
or, b = 2.53

Putting the value of b in (iv) we get

84.97 = 5a + 37.95
or, a = 9.40

Substituting the values of a and b in (i), we get, the regression equation of Y and X.

Appendix 15

Calculation of Trend Value of Government Securities of NABIL

Year	X	X^2	Government Securities (Y)	XY	a	b	Trend (Y=a+bX)
2063/64	1	1	33.17	33.17	20.45	2.15	22.60
2064/65	2	4	27.21	54.42	20.45	2.15	24.75
2065/66	3	9	25.06	75.18	20.45	2.15	26.90
2066/67	4	16	26.53	106.12	20.45	2.15	29.05
2067/68	5	25	22.76	113.80	20.45	2.15	31.20
n=5	∑X = 15	∑X2=55	∑Y = 134.73	∑XY = 382.69			

Here, actual equation of the liner trend is Y= a+bX-----(i)

The values of the constants a and b can be determined by solving following normal equations:

∑Y = na + b ∑X ----------(ii)
XY = a ∑X + b ∑X2-------(iii)

Substituting the values of n, ∑X, ∑Y, ∑XY, and ∑X2 in equation (ii) and (iii) we get

134.73 = 5a + 15b--------(iv)
382.69 = 15a + 55b-------(v)

Now, multiplying (iv) by 3 and then subtracting (v) we get

404.19 = 15a + 45b
382.69 = 15a + 55b

- - -

21.50 = -10b
or, b = 2.15

Putting the value of b in (iv) we get

134.73 = 5a + 32.25

or, a = 20.45

Substituting the values of a and b in (i), we get, the regression equation of Y and X.

Appendix 16

Calculation of Trend Value of Other Current Assets of NIBL

Year	X	X^2	Other Current Assets (Y)	XY	a	b	Trend (Y=a+bX)
2063/64	1	1	0.87	0.87	0.832	-0.022	0.81
2064/65	2	4	0.73	1.46	0.832	-0.022	0.79
2065/66	3	9	0.75	2.25	0.832	-0.022	0.77
2066/67	4	16	0.71	2.84	0.832	-0.022	0.74
2067/68	5	25	0.77	3.85	0.832	-0.022	0.72
n=5	∑X = 15	∑X2=55	∑Y = 3.83	∑XY = 11.27			

Here, actual equation of the liner trend is Y= a+bX-----(i)

The values of the constants a and b can be determined by solving following normal equations:

∑Y = na + b ∑X ----------(ii)
XY = a ∑X + b ∑X2-------(iii)

Substituting the values of n, ∑X, ∑Y, ∑XY, and ∑X2 in equation (ii) and (iii) we get

3.83 = 5a + 15b--------(iv)
11.27 = 15a + 55b-------(v)

Now, multiplying (iv) by 3 and then subtracting (v) we get

11.49 = 15a + 45bc
11.27 = 15a + 55b

- - -

0.22 = -10b
or, b = -0.022

Putting the value of b in (iv) we get

3.83 = 5a + 15*-0.022
or, a =0.83

Substituting the values of a and b in (i), we get, the regression equation of Y and X.

Appendix 17

Calculation of Trend Value of Other Current Assets of NABIL

Year	X	X^2	Other Current Assets (Y)	XY	a	b	Trend (Y=a+bX)
2063/64	1	1	1.90	1.90	2.014	0.046	2.06
2064/65	2	4	1.66	3.32	2.014	0.046	2.11
2065/66	3	9	2.00	6.00	2.014	0.046	2.15
2066/67	4	16	1.72	6.88	2.014	0.046	2.20
2067/68	5	25	2.10	10.50	2.014	0.046	2.24
n=5	∑X = 15	∑X2=55	∑Y = 9.38	∑XY = 28.6			

Here, actual equation of the liner trend is Y= a+bX-----(i)

The values of the constants a and b can be determined by solving following normal equations:

∑Y = na + b ∑X ----------(ii)
XY = a ∑X + b ∑X2-------(iii)

Substituting the values of n, ∑X, ∑Y, ∑XY, and ∑X2 in equation (ii) and (iii) we get

9.38 = 5a + 15b--------(iv)
28.6 = 15a + 55b-------(v)

Now, multiplying (iv) by 3 and then subtracting (v) we get

28.14 = 15a + 45b
28.6 = 15a + 55b

- - -

(0.46) = -10b
or, b = -0.046

Putting the value of b in (iv) we get

9.38 = 5a - 15*0.046
or, a =2.014

Substituting the values of a and b in (i), we get, the regression equation of Y and X.

Appendix 18

Calculation of Trend Value of Current Ratio of NIBL

Year	X	X^2	Current Ratio(Y)	XY	a	b	Trend (Y=a+bX)
2063/64	1	1	1.08	1.08	1.07	0.005	1.08
2064/65	2	4	1.08	2.16	1.07	0.005	1.08
2065/66	3	9	1.08	3.24	1.07	0.005	1.09
2066/67	4	16	1.09	4.36	1.07	0.005	1.09
2067/68	5	25	1.1	5.50	1.07	0.005	1.10
n=5	∑X = 15	∑X2=55	∑Y = 5.43	∑XY = 16.34			

Here, actual equation of the liner trend is Y= a+bX-----(i)

The values of the constants a and b can be determined by solving following normal equations:

∑Y = na + b ∑X ----------(ii)
XY = a ∑X + b ∑X2-------(iii)

Substituting the values of n, ∑X, ∑Y, ∑XY, and ∑X2 in equation (ii) and (iii) we get

5.43 = 5a + 15b--------(iv)
16.34 = 15a + 55b-------(v)

Now, multiplying (iv) by 3 and then subtracting (v) we get

16.29 = 15a + 45b
16.34 = 15a + 55b

- - -

(0.05) = -10b
or, b = 0.005

Putting the value of b in (iv) we get

5.43 = 5a +15*0.005
or, a =1.07

Substituting the values of a and b in (i), we get, the regression equation of Y and X.

Appendix 19

Calculation of Trend Value of Current Ratio of NABIL

Year	X	X^2	Current Ratio(Y)	XY	a	b	Trend (Y=a+bX)
2063/64	1	1	1.07	1.07	1.07	0.001	1.07
2064/65	2	4	1.06	2.12	1.07	0.001	1.07
2065/66	3	9	1.07	3.21	1.07	0.001	1.07
2066/67	4	16	1.07	4.28	1.07	0.001	1.07
2067/68	5	25	1.07	5.35	1.07	0.001	1.08
n=5	∑X = 15	∑X2=55	∑Y = 5.34	∑XY = 16.03			

Here, actual equation of the liner trend is Y= a+bX-----(i)

The values of the constants a and b can be determined by solving following normal equations:

∑Y = na + b ∑X ----------(ii)
XY = a ∑X + b ∑X2-------(iii)

Substituting the values of n, ∑X, ∑Y, ∑XY, and ∑X2 in equation (ii) and (iii) we get

5.34 = 5a + 15b--------(iv)
16.03 = 15a + 55b-------(v)

Now, multiplying (iv) by 3 and then subtracting (v) we get

16.02 = 15a + 45b
16.03 = 15a + 55b

- - -

(0.01) = -10b
or, b = 0.001

Putting the value of b in (iv) we get

5.34 = 5a + 15*0.001
or, a =1.065

Substituting the values of a and b in (i), we get, the regression equation of Y and X.

Appendix 20

Calculation of Trend Value of Quick Ratio of NIBL

Year	X	X^2	Quick Ratio(Y)	XY	a	b	Trend (Y=a+bX)
2063/64	1	1	0.11	0.11	0.098	-0.012	0.09
2064/65	2	4	0.11	0.22	0.098	-0.012	0.07
2065/66	3	9	0.16	0.48	0.098	-0.012	0.06
2066/67	4	16	0.13	0.52	0.098	-0.012	0.05
2067/68	5	25	0.16	0.80	0.098	-0.012	0.04
n=5	∑X = 15	∑X2=55	∑Y = 0.67	∑XY = 2.13			

Here, actual equation of the liner trend is Y= a+bX-----(i)

The values of the constants a and b can be determined by solving following normal equations:

∑Y = na + b ∑X ----------(ii)
XY = a ∑X + b ∑X2-------(iii)

Substituting the values of n, ∑X, ∑Y, ∑XY, and ∑X2 in equation (ii) and (iii) we get

0.67 = 5a + 15b--------(iv)
2.13 = 15a + 55b-------(v)

Now, multiplying (iv) by 3 and then subtracting (v) we get

2.01 = 15a + 45b
2.13 = 15a + 55b

- - -

0.12 = -10b
or, b =. -0.012

Putting the value of b in (iv) we get

0.67 = 5a + 15*-0.012
or, a = 0.098

Substituting the values of a and b in (i), we get, the regression equation of Y and X.

Appendix 21

Calculation of Trend Value of Quick Ratio of NABIL

Year	X	X^2	Quick Ratio(Y)	XY	a	b	Trend (Y=a+bX)
2063/64	1	1	0.08	0.08	0.092	0.002	0.09
2064/65	2	4	0.13	0.26	0.092	0.002	0.10
2065/66	3	9	0.10	0.30	0.092	0.002	0.10
2066/67	4	16	0.09	0.36	0.092	0.002	0.10
2067/68	5	25	0.09	0.45	0.092	0.002	0.10
n=5	∑X = 15	∑X2=55	∑Y = 0.49	∑XY = 1.45			

Here, actual equation of the liner trend is Y= a+bX-----(i)

The values of the constants a and b can be determined by solving following normal equations:

∑Y = na + b ∑X ----------(ii)
XY = a ∑X + b ∑X2-------(iii)

Substituting the values of n, ∑X, ∑Y, ∑XY, and ∑X2 in equation (ii) and (iii) we get

0.49 = 5a + 15b--------(iv)
1.45 = 15a + 55b-------(v)

Now, multiplying (iv) by 3 and then subtracting (v) we get

1.47 = 15a + 45b
1.45 = 15a + 55b

- - -

0.12 = -10b
or, b =. 0.002

Putting the value of b in (iv) we get

0.49 = 5a + 15*0.002
or, a = 0.092

Substituting the values of a and b in (i), we get, the regression equation of Y and X.