A CASE STUDY OF WORKING CAPITAL MANAGEMENT OF MACHHAPUCHCHHRE BANK LIMITED

Submitted to:

Office of the Dean
Faculty of Management
Tribhuvan University

In Partial Fulfillment of the Requirement for the
Master of Business Studies (MBS)

Submitted by:

Pooja Devkota
Roll No.: 499/064
T.U. Regd.: 7-2-444-25-2004
2nd Year Exam Roll No.: 280294

Central Department of Management

Kirtipur, Kathmandu
Nepal
July, 2011

RECOMMENDATION

This is to certify that the thesis

Submitted by

Pooja Devkota

Entitled

"**A Case Study of Working Capital Management of Machhapuchchhre Bank Limited"**

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

……………………	……………………	....
Jagat Timilsina	**Prof. Dr. Jay Krishana Pathak,**	**Prof. Dr. Dev Raj Adhikari**
Thesis Supervisor	Chairperson, Research Committee	Head, Central Department of Management

Date:…………………..

VIVA – VOICE SHEET

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

Pooja Devkota

Entitled

"A Case Study of Working Capital Management of Machhapuchchhre Bank Limited"

And found the thesis to be the original work of the student written according to the Prescribed format. We recommend this thesis to be accepted as partial Fulfillment of the requirement for Master of Business Studies (M.B.S.)

Viva-voice Committee:

Chairperson,Research Commiottee: ……………………

Member (Thesis Supervisor): ……………………

Member (External Expert): …………………….

Head, Central Department of Management: ……………………

Date:………………….

DECLARATION

I hereby declare that the work reported in this theses entitled**" A case study of Working Capital Management of Machapuchchhre Bank Limited"** submitted to Central Department, Faculty of Management Tribhuvan University is my original work. It is done in the form of particular fulfillment of the required for the Master's Degree of Business Studies (M.B.S.) under the supervision and guidance of Mr.Jagat Timilsina.

……………………

Pooja Devkota

Researcher

Roll No.: 499/064

Central Department of Management

Date:…………………..

ACKNOWLEDGEMENTS

My indebtedness and gratitude goes to the many individuals, who have assisted to shape this thesis in the present form, cannot be adequately conveyed in a few sentences. First of all, my gratitude goes to all the teachers and staffs of the Central Department of Management, T.U., whose sound theoretical knowledge provided me the basis for the preparation of the thesis.

I would like to express my great sense of gratitude to my respected research supervisor Mr. Jagat Timilsina Lecturer of Central Department of Management, T.U., Kirtipur, for this invaluable supervision, constructive comments and suggestions, which gave the final shape of this thesis.

In the same way, I would like to extend my propound gratitude to Prof.Dr.Jay Krishna Pathak, Chairperson of Research Committee, Central Department of Management T.U. Kirtipur, for granting me an opportunity to carry out this research. I am also thankful to all my colleagues for their effort and support in this research work.

Finally, my thanks go to respected father and mother whose inspiration and financial support helped me to achieve this success. At this moment, I must not forget my sister, brother for their great support in every steps of my study period. Once again, I'd like to express my heartfelt thanks to every one who helped me directly and indirectly in this thesis work.

Pooja Devkota

TABLE OF CONTENTS

CHAPTER 3

CHAPTER 4

CHAPTER 5

LIST OF TABLES

LIST OF GRAPHS

CHAPTER – I

INTRODUCTION

1.1 General Background

Financial institution can be considered as the catalyst to the economic growth of a country. The development process of a country involves the mobilization and development of the resources. Development of the trade, commerce and industry are the prime requisite for the attainment of the economic, social and political goals. To fulfill the purpose of planning, financial functions more often dominate the other functions." there is always lack of finance of underdeveloped economy because natural resources are either underutilized or unutilized in productive sectors or even other purposes i.e. social welfare and so on. Likewise underdeveloped countries are not deficient on land, water, mineral, forest or power resources, though they are untapped; constituting only potential resources (Dewett, 1995:). 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 people, such resources have not been properly utilized. Hoarding could be on of the reasons for this. So banks and other financial institutions play a vital role to encourage thrift and discourage hoarding by mobilizing the resources and removing the habit of hoarding. They pursue rapid economic growth, developing the bank 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. Thus, this gives the individuals to burrow the funds against future income, which may improve the economic well being of the burrower.

Earlier banks were different from modern commercial banks in many respects. the banks which operated in the past combined central banking functions, such as issues of currency with commercial banking functions like accepting deposits and financial business. In course of time this practice was abandoned and specialized institutions for the central banking functions were created. Now the central bank can be easily distinguished from commercial banks due to their objectives and unique functions.

Modern commercial banks can be identified by different names as business banks, retail banks, clearing banks, joint venture bank and merchant banks etc. no matter what name we give to banks they all perform same basic functions i.e.; they provide the link between lenders and the burrowers. Basically by charging the rate of interest to the burrowers slightly higher than they pay to the lenders, the banks make their profits. This is known as financial intermediations.

Commercial banks are the suppliers of finance for the trade and industry and play a vital role in the economic and financial life of country. By investing the saving in the productive areas, they help in the formation of capital. The qualitative credit policy ensures certain portion of the credit of bank invested in the productive and priority areas so that there may not be shortage of resources in such areas. In addition to flexible monetary and credit policy improve the prevailing slow down in economic activities to alleviate sluggish credit expansion to the private sector form the banking sector. Rural people of underdeveloped countries like Nepal need various banking facilities. In most of the countries, the banks are concentrated in the urban and semi urban sector and the rural sector is neglected due to risk and low return. But the main source of national income of developing countries comes from very rural sector. In fact, the rural development is the key to the economic development without which other sector of the economic cannot be flourished.

1.1.1 Origin of Bank

The term of bank can be understand as an institution that deals with money and credit. It is an intermediate financial institution, which will collect money from the public or institutions and in turn advances loan to any person or institutions that need by creating credit.

The first meaning of bank has been derived from the Italian word 'Banko' which refers to accumulation of money or stock (share). In the Italian Business Houses, banking was called "Banchi". Similarly the word Banchi has also been derived from the German word Banch that signifies mount. Hence the meaning of bank has been firstly derived from "banco" and secondly from German word "Banch".

A bank is a financial institution engaged in the monetary transactions. It receives deposits and lends to those who need money for some purpose paying and charging interest at some fixed rate percentage per annum. Bank also provides agency services such as remitting and collecting cash on behalf of the customers, opening bank drafts and letter of credit facilities, underwriting shares of newly establish companies and many more.

Banking is a business of providing financial services to customers and business. It helps in every sectors of economy such as trade industry and commerce. It is an important aid to business. Banks provide finance to which is the foundation of every business activity.

In ancient Vedic Era, there was crude form of banking because deposits pledges, politics of loans and interest can be traced from Manu Smriti. In 15th and 16th century, Roman emperor collapsed, as a result, revival of commercial and trading in European countries. Similarly, following communities or groups also revived commercial banking transactions. Such as:-

a) The Merchant Traders

b) Goldsmith

c) The Money Lenders

Therefore, in accordance with the opinion of great economist, G. Growther, these three groups are the ancestors of bankers. Whereas in the connection to traceable origin and development of banking institution in the world, "The bank of Venice of Italy was established in 1157 A.D. as the first banking institution in the world the second banking institution namely, "The Bank of Barcelona" of Spain was established in 1401 A.D. After that, "The Bank of England" was incorporated in 1964 A.D. as the first Joint Stock Bank and later on it become the central bank in the world in 1884 A.D. (Dahal, 2002: 11).

Rose, Peter S., Commercial bank Management

Singh, Hriday B., Banking and Insurance

1.2 Development of Bank

In Nepal, "Tejarath" was established in the 1933 B.S. i.e., 1873 A.D. it was established for providing loans for government employees. But it did not collect deposit from the general public. As such, Nepal Bank Limited was established in 1994 B.S. (1937A.D.) as the first commercial bank in Nepal was established 128 years after the establishment of bank India. Therefore Nepal lacks behind 128 years even for establishing simple banking institution. (American Institute of Banking, 1972: 345).

Nepal Rastra Bank was established in 2012 B.S. Nepal Industrial Development Corporation (NIDC) was established in 2016 B.C. Similarly, Rasta Banijya Bank (RBB) was established in 2022 B.C. Agricultural Development Bank of Nepal (ADBN) was established in 2022 B.C.

From 1984 A.S., His Majesty's Government of Nepal also adapted the free economic policy or economic liberalization policy. HMG\N established 5 regional rural development banks under the control and supervision of NRB.

The 5 regional rural development banks are the follows:

1. Eastern Rural Development Bank
2. Central Rural Development Bank
3. Western Rural Development Bank
4. Mid-Western Rural Development Bank
5. Far-Western Rural Development Bank

Consequently, in 1942 B.S. (1985 A.D.), HMG\N allowed to established different banks and financial institutions under private sector. In order to operate all commercial banks uniformly under a single act, Commercial Bank Act, 2031 B.S. has been enacted. However, at present, Bank and Financial Institution Ordinance 2060 has been enacted by revoking pervious commercial bank Act, Finance Company Act, etc. (Garg, 1977: 271).

1.3 Focus of the Study

The concept of financial institutions in Nepal was introduced when the first commercial bank, the Nepal Bank Limited (NBL), was established in 30th Kartik, 1994 B.S. as a semi-government Organization. In the fiscal year 2039/040, a new banking policy was introduced for the establishment of new banks by the joint investments of foreign nations. The establishment of the joint venture banks gave a new horizon to the financial sector of the country. Commercial banks are the hearts of the financial sectors. They hold the deposits of the many persons, government establishment and business units. They make funds available through their lending and investing activities to burrowers, individuals, business firms and government establishments. In doing so, they assist both the flow of goods and services from producers to consumers and the financial activities of the government. They provide a large portion of medium of exchange and they are the media through which monetary policy is affected. These facts show that the commercial banking system of the nation is important to the functioning of the economy.

Bank is the business Organization where monetary transaction occurs; it creates funds from its clients saving and lends the same to the needy person or business companies in terms of loans, advances and investments. So proper financial decision- making is more important in banking transaction for its efficiency and profitability. Most of the financial decisions of the banks are concerned with current assets and current liabilities. The working capital management of the bank is different from other type of business enterprises. It also needs efficient management. Investment in working capital of other business enterprises is part of current assets of bank's working capital and we can consider deposits and short-term borrowing as a part of current liabilities. So this study is a reference regarding the working capital management.

1.4 Statement of the Problem

The management of working capital is synonymous to the management of 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 out as to how much working capital needed by a particular business organization. An Organization which is not willing to take more financial risks can go for more short-term liquidity. The more of short term liquidity means more of current assets and less of current liabilities. The less current liabilities implies less short-term financing heading to the lower returns resulting from the use of more high cost long term financing. So it is very essential to analyze and find out problems and its solutions to make efficient use of funds for minimizing the risk of loss to attain profit objective.

There are altogether 31 commercial (joint venture) banks. Among them Machhapuchchhre bank is the one which is playing very important role in the economic development of the country. Wrong decisions on working capital management of this bank not only affect the liquidity and profitability of the bank but also economic condition of the country.

Working capital management on bank is also difficult that of manufacturing and non-manufacturing business organization. Commercial banks are great monetary institutions which are playing important role to general welfare of the economy. The responsibility of commercial banks is more than any other financial institutions. They must be ready to pay on demand without warning or notice, a good share of their liabilities. Bank collect funds from different types of deposits for providing loan and advances to different sector. To get higher return, banks must try increase funds from deposits as well as their investment. The first motive of banking business is to burrow public saving and lend to needy people. But commercial banks always face the problem for utilizing more deposits as investment fully and productively. The gap between collection of deposits and disbursement of loans increase the cash balance on bank, which requires paying its large amount of idle cash balance also decrease profitability of banks

The selected commercial banks i.e. Machhapuchchhre bank is seen well on the account of its performance and profitability as well. It is the question of the study that whether there is any relationship of working capital management with regard its performance and profitability as well.

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

What is banks image in relation to working capital?

Which of current assets are more problematic in mach bank?

What is the leading pattern of loan and advances and other investment?

What are the components of working capital, which affect the operating income of Machhapuchchhre bank?

1.5 Objectives of the Study

Working capital generally refers the current assets and net working capital refers the differences between current assets and current liabilities. The balanced working capital is most important for every Organization.

The main objectives of this study are to examine of the management of working capital in Machhapuchchhre bank. The specified objectives of this study are as follows:

- To explore the liquidity position of Machhapuchchhre bank limited.
- To evaluate the factors affecting the size of working capital of Machhapuchchhre bank limited.
- To analyze the impact of working capital in profitability.

On the basis of the analysis, to provide recommendation and suggestions for the improvement of working capital management of Machhapuchchhre bank limited.

1.6 Significance of the Study

Nepalese commercial banks are operating in the competitive environment. In this situation, banks have to adopt suitable strategies for their existence. They should balance and co-ordinate the different functional areas of business concern. The success or failure of any Organization depends on its strategies, which is affected by working capital management. Working capital management is the crux of the problem to prepare the proper strategies on its favors. So the study might be helpful for the management of the concerned bank as well as it might be valuable for the researcher, scholars, students who want to study into the working capital management of the commercial bank. Working capital is the size of investment in each type of current assets. Each of the current assets should be managed efficiency and effectly. It is because decision regarding working capital affects not only the porofitability of the firm in the short-term but also it's very survival in the long term. Working capital is regarded as the life blood and now of a business concern and is essential to accommodate the smooth operations of any organization. The success or failure of any organization depends on it strategy on it's favor. If the working capital management financial viability and the company could not able to sustain itself in long run. Therefore it is felt significant to the management to be more concentrate in the area of working capital management.

1.7 Limitation of the Study

The scope of the present study has been limited in terms of period of study as well as sources and nature of data. The period covered by the study extend over 5 years 2061/62-2065/66. At the time of conducting the present study, the data could be available up to 2066 only. The copies of financial statement of 2067could not be obtained, as the closing has not been completed. Thus there may be a chance of falling to address the current situation.

Likewise, the study is focused on balance sheet and income statement maintained by the bank and published in annual reports, where the information was given in concerned form.

1.8 Organization of the Study

The entire study has been divided into five chapters. They are:

1. Introduction
2. Review of Literature
3. Research Methodology
4. Data Presentation and Analysis
5. Summary, Conclusion and Recommendation

The **introduction chapter** covers, general background, origin of bank, development of bank, focus of the study, statement of problem, objective of the study, significance of the study, limitation of the study and organization of the study.

In the **second chapter** the pertinent literature and studies have been reviewed making logical and meaningful groupings into conceptual framework and review of journals and previous studies.

The **third chapter** furnishes the research methodology encompassing research design, population and sample, nature and sources of data, data processing, tools for analysis of data.

The **fourth chapter** deals with presentation, analysis and interpretation of data. It consists of major findings of the research.

The **fifth chapter** covers summary, conclusion and recommendation.

CHAPTER – II

REVIEW OF LITERATURE

This chapter reviews the available literature on the subject concerned. It is subdivided into two sections. The first section deals with the conceptual framework of working capital management. The second section deals with relating of some available literature including review of books, articles and thesis.

2.1 Conceptual Review

It covers meaning and concept of working capital, classification of working capital, need of working capital, working capital policy, financing of working capital, determinants of working capital and techniques of working capital analysis.

2.1.1 Meaning and Concept of Working Capital

Any business Organization needs various types of assets in order to carry out its operation. Some assets are required to meet the needs of regular activities and some others are required especially to meet day to day expenses and short term obligation. The assets such as cash, marketable securities, accounts receivable and inventories, which are known as current assets, are required to be maintained at certain level depending upon the volume of production and sales.

Working capital is a furnish investment in short term assets (Weston, 1981). Working capital is a firm's investment in short term assets-cash, short term securities, accounts receivable and inventories (Weston & Brigham, 1984). The cash and marketable securities are respectively considered as purely liquid and near liquid assets where as the accounts receivable and inventories are not. However they can be liquidated as and when necessary within a period of less than one year. In short, working capital is the source of financing current assets and it includes short as long term financing (Surendra Pradhan, 2000).

Working capital management is concerned with the problem that arises in the management of the current assets and current liabilities. It affects the overall functional areas of business Organization. Thus, the success or failure of any business organization virtually depends upon the efficiency of working capital management. It is the lifeblood and controlling nerve center for any type of business organization because without the proper control upon it no business Organization can run smoothly. As, it is management of current assets and current liabilities; it plays the crucial role in success and failure of an Organization as it deals with that part of assets, which are transformed from one form to another form during the course of manufacturing cycle.

Therefore, the role of working capital management is more significant for every business Organization irrespective of their nature. There are two concepts of working capital i.e. Gross concept and net concept.

a) Gross Concept:- It refers to the firms investment in current assets i.e. cash, marketable securities, inventories and accounts receivable.

b) Net Concept:- It can be defined in two ways.

i) Most common definition of working capital is the difference between current assets and current liabilities.

ii) The alternative definition is that portion of a firm's current assets which is financed with long term funds (L.J Gitman, 1988).

According to the net concept working capital refers to the difference between current assets and current liabilities. In other words, it is that part of current assets financed with long term funds. It focuses on the liquidity position of the firm and suggests extending which working capital need to be financed by permanent sources of funds. It is not very useful to compare the performance of different firms as a measure of liquidity, but it is quite useful for internal control. This concept helps to compare the liquidity of the same firm over a time (Khan $ Jain, 1999).

According to the gross concept, we refer to the capital invested in current assets of a firm. It focuses only the optimum investment on current assets and financing of current assets (Radhe Shyam Pradhan, 1986). It includes cash, short term securities, inventory and accounts receivables. The level of current assets may be fluctuating with the changing business activity. Thus, this concept can help earning more profit through maximum utilization of current assets. This concept is called quantitative concept.

Working capital management is the effective lifeblood of any business. Hence, the management of working capital plays a vital role for existence of any business organization successfully. Proper management of working capital must ensure adequate amount of working capital as per need of business firm's. It should be in good health and efficiently circulated. To have adequate, healthy and efficient circulation of working capital, it is necessary that working capital be properly determined and allocated to its various segments, effectively controlled and regularly reviewed. In the opinion of well-known Indian professor I.M. Pandey, there are specially two concepts of working capital i.e. gross concept and net concept. The term net working capital refers to the difference between current assets and current liabilities. Current liabilities are those claims of outsiders, which are expected to mature for payment with an accounting year and includes creditors, bills payable, bank overdraft and outstanding expenses. Net working capital arises when current assets exceed current liabilities. A negative working capital occurs when current liabilities are in excess of current assets (R.M.Srivastav, 1984).

2.1.2 Classification of Working Capital

Working Capital can be classified into two categories:

i) Permanent or fixed working capital

ii) Variable or temporary or fluctuating working capital

i) Permanent Working Capital:-

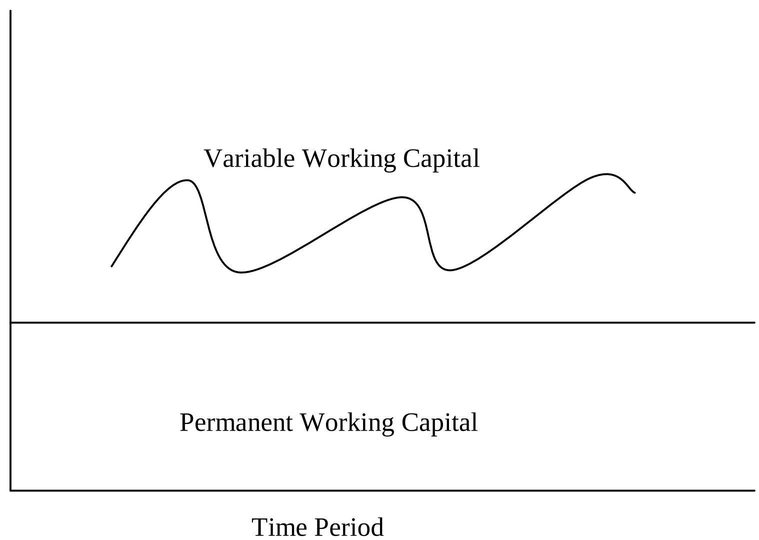
It refers to that level of current assets which is required on a continuous basis over the entire year. Any business Organization cannot operate regular production and sales functions in the absence of this portion of working capital.

As expressed by Stephan H. and Chorle," it is difficult to determine which part of working capital is needed permanently in the business and what amount not often a normal minimum level of operations is identifiable for a firm, and the difference between working capital typically incurred at that level of operation can be viewed as the amount of permanent working capital. This difference between minimum normal current assets and minimum normal current liabilities is known as permanent net working capital and it is the amount that is to be financed by permanent sources of capital (Hiramani Ghimere, 2002).

ii)Temporary Working Capital:

It refers to that portion of working capital, which is required over permanent working capital. Any amount over and above the permanent working capital is temporary, fluctuating or variable working capital. For example, extra inventory of finished goods will have to be maintained to support the peak period of sales and investments in receivable may also increases during such period. On the other hand, investments in raw materials, working process and finished goods will fall if the market is slack. The extra working capital needed is called the fluctuating or variable or temporary working capital.

Figure 2.1: Types OF Working Capital



Adopted From: I.M. Pandey, Financial Management, p808

2.1.3 Need of Working Capital

The management of working capital has been regarded as one of the conditioning factors in the decision making issue. It is no doubt, very difficult to point out as to how much working capital is needed by a particular business organization, but it is very essential to analyze and find out the solution to make an efficient use of funds for minimizing the risk of loss to attain profit objectives. Thus goes the importance of working capital in operating life of a company. A successful business keeps its working capital moving rapidly. Thus it is also a lead circulating capital or a moving capital. The transmutation of a company's working capital into income and profits and back into working capital is one of the most dynamic and vital aspects of business operation. And only this movement of current assets keeps the business alive. A fully equipped factory without the supply of materials to process and without cash to pay bills and a store without stock to sell is of no use. These circumstances emphasize the importance of working capital in a business firm (I.M Pandey, 2007).

The need of working capital or current assets can not be overemphasized. The objective of financial decision-making is to maximize the shareholder's wealth. To achieve this, it is necessary to generate sufficient profits. The extent to which profit can be earned will naturally depend upon the magnitude of the sales among other things. A successful sales programmed is in other words, necessary for earning profit by any business extremes. However, sale does not convert into cash instantly; there is invariably a time lag between the sales of goods and receipt of cash.

There is, therefore, a need of working capital in the form of current assets to deal with the problem of arising out of the lack of immediate realization of cash against goods sold. Therefore, sufficient working capital is necessary to sustain sale activity. Technically, this is referred to as the operating or cash cycle. The operating cycle can be said to be at the near of the need for working capital. "Operating cycle is the time duration required to convert sales, after the conversion of resources into inventories into cash.

Most of the firms aim at maximizing to wealth of shareholders. The firm should earn sufficient return from its operation. The extent to which profit can be earned naturally depends upon the magnitude of sale among the other things. For constant operation of business, every firm need to hold the working capital components like cash, receivable, inventories etc. It means that working capital in all organization should be neither less nor more than what is required. P.V. Kulkarni has expressed the need of adequate working capital for the following reasons.

i) It protects a business from the adverse effect of shrinkage i.e. the value of current assets. When the value of assets decreases, the possibility of the firm's insolvency increases.

ii) It is possible to pay off all the current obligations promptly and to take advantage of cash discounts.

iii) It ensures, to a greater extent, the maintenance of a company's credit standing and provides for such emergencies as strike, floods, fires, etc.

iv) It permits the carrying of inventories at a level that would enable a business to serve the needs of its customers satisfactorily.

v) It enables a company to extend favorable credit terms to customers.

vi) It enables a company to operate its business more efficiently because there is no delay in obtaining material, etc. on credit.

vii) It enables a business to withstand the period of depression smoothly.

viii) There may be operating losses or decreased retained earnings.

ix) There may be excessive non-operating or extra ordinary losses.

x) The management may fall to obtain funds from other sources for the purpose of expansion.

There is a great possibility of the above situation occurring in any type of business. Only an adequate working capital can help to solve these problems easily. Both excessive capitals as well as inadequate working capital are unfavorable for efficient financial management.

2.1.4 Working Capital Policy

A firm's net working capital position is not only important as an index of liquidity but it is also used as a measure of the firm's risk. Risk, in this regard, means chances of the firm being unable to meet its obligations on due date. "Working capital management involves deciding upon the amount and composition of current assets and how to finance these assets.

These decisions involve trade off between risk and profitability. The greater the relative proportion of liquid assets. The lesser the profitability as well as the risk of ruing out of cash all other things being equal. The longer the composite maturity schedule of securities used to finance the firm, the lesser the risk of cash insolvency all other things being equal.

Again the profits of the firms are likely to be less. Resolution of the trade off between risk and profitability with respect to these decisions depends upon the risk preferences of management.

Working capital policy refers to the firm's basic policies regarding target level of each category of current assets and how current assets will be financed (J.Fred Weston, 1996). So, first of all, the firm has to determine how much funds should be invested in working capital in gross concept. Every firm can adopt different financing policy according to the financial manager's attitude towards the risk return trade off. One of the most important decisions of final manager is how much current liabilities should be used to finance current assets. Every firm has to find out the different sources of funds for working capital.

2.1.4.1 Current Assets Investment Policy

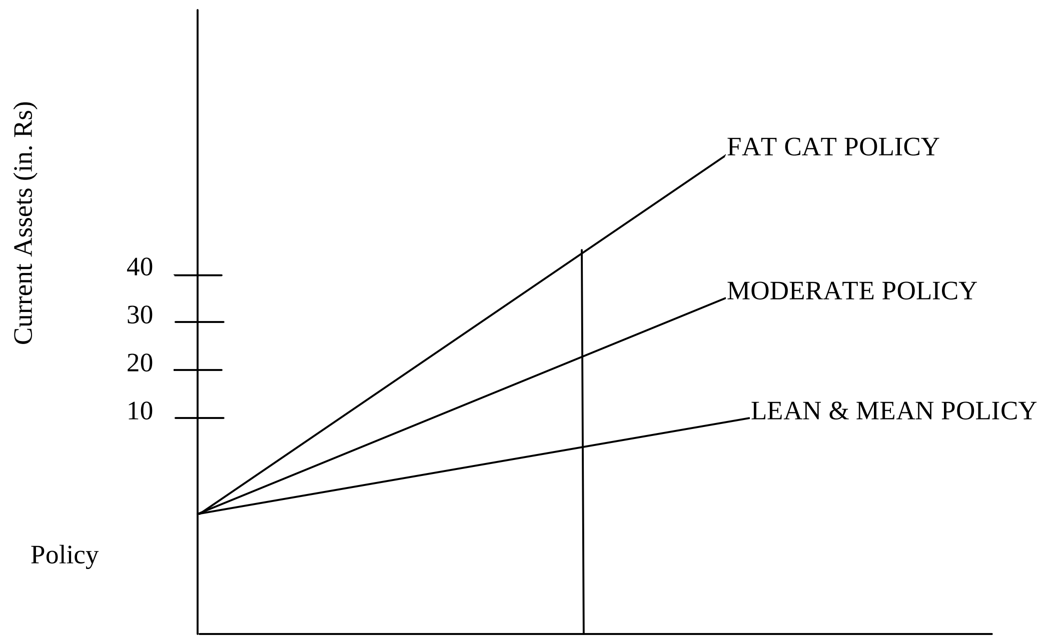
Current assets investment policy refers to the policy regarding the total amount of current assets to be carried to support the given level of sales. There are three alternatives current assets investment policies- fat cat, lean and mean and moderate (Weston, 1996).

A) Fat Cat Policy:- This is known as relaxed current assets investment policy. In this policy, the firm holds relatively large amount of cash, marketable securities, inventory and receivable to support a given level of sales. This policy creates longer inventory and cash conversion cycles. It also creates the longer receivable collection period due to the liberal credit policy. Thus, this policy provides the lowest expected return on investment.

B) Lean and Mean Policy:- In lean and mean policy, a firm holds the minimum amount of cash, marketable securities, inventory and receivable to support a given level of sales. This policy tends to reduce the inventory and receivable conversion cycle. Under this policy firm allows a fight credit policy and bears the risk of losing sales.

C) Moderate Policy:- In moderate policy, a firm holds the amount of current assets in between the relaxed and restrictive policies. Both risk and return are moderate in this policy.

Figure 2.2: Alternative Current Assets Investment Policies



Adopted from: Westen, Besley & Brigham, Essentials of managerial Finance (p-345).

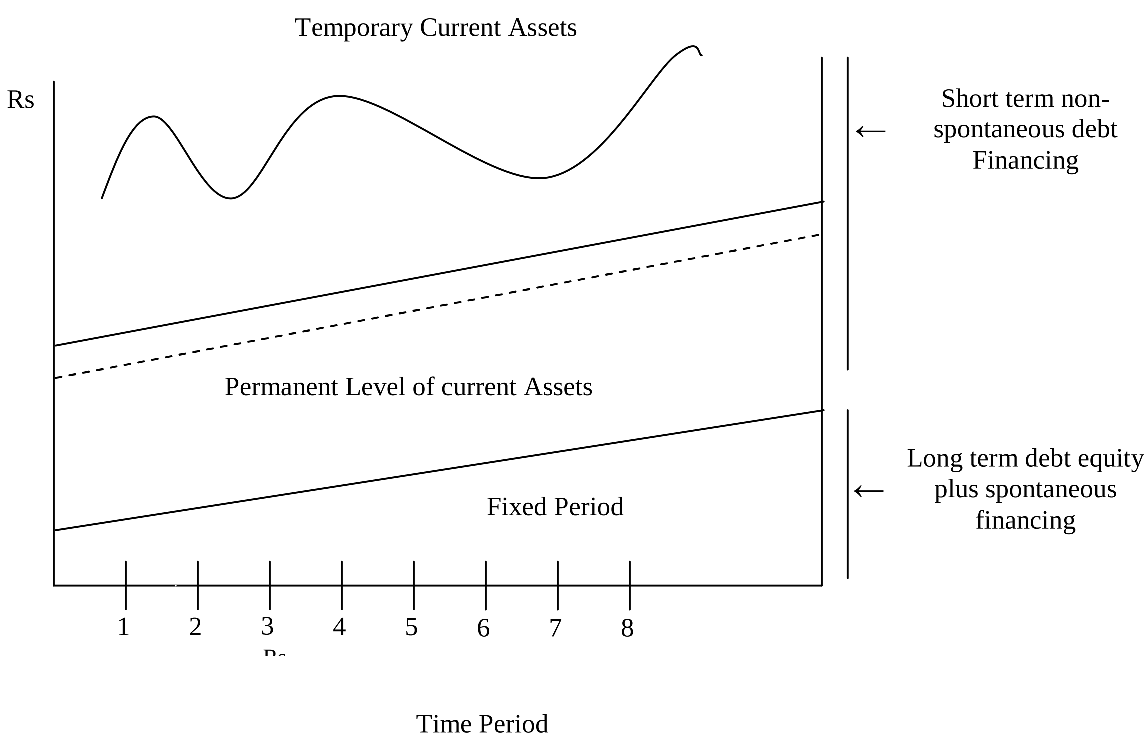
2.1.4.2 Current Assets Financing Policy

It is the manners in which the permanent and temporary current assets are financed. Current assets are financed with funds raised from different sources. But cost and risk affect the financing of any assets. Thus, current assets financing policy should clearly outline the sources of financing. There are three variants aggressive, conservation and matching policies of current assets financing.

A) Aggressive Policy:- In an aggressive policy, the firm finances a part of its permanent current assets with short term financing and rest with long term financing. In other words, the firm finances not only temporary current assets but also a part of permanent current assets with short term financing. Fig.3 shows that short term financing finance 50% of the permanent current assets.

In general, interest rate increases with time i.e. shorter the time, lower the interest rate. It is because lenders are risk adverse and risk generally increases with the length of lending period. Thus, under financing rather than long term financing on the other side, if the firm finances its permanent current assets by short term financing, then it runs the risk of renewing the borrowing again and again. This continued financing exposes the firm to certain risk. It is because, in future the expenses will fluctuate wide and also, it may be difficult for the firm to raise the fund during the stringent periods. In conclusion, there is higher risk, higher return and low liquidity position under this policy.

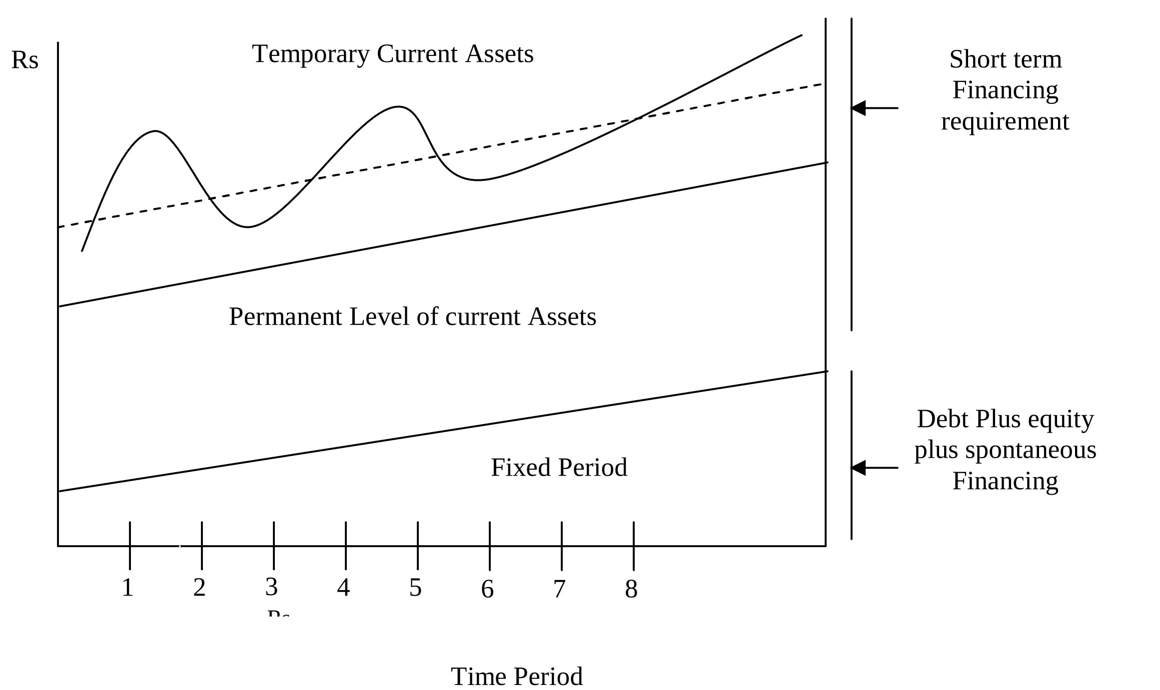
Figure 2.3: Aggressive Financing Policy



Adopted from: Weston, Besley and Briham, Essentials of Management Finanace (p.347)

B) Conservative Policy:- In this policy the firm uses long term financing to finance not only fixed assets and permanent assets but also a part of the temporary current assets. This policy leads to high level of current assets, with long conversion cycle low level of current liabilities and higher interest cost. The risk and return are lower than that of aggressive policy and liquidity position is higher than that of aggressive one. The risk adverse management follows this policy:-

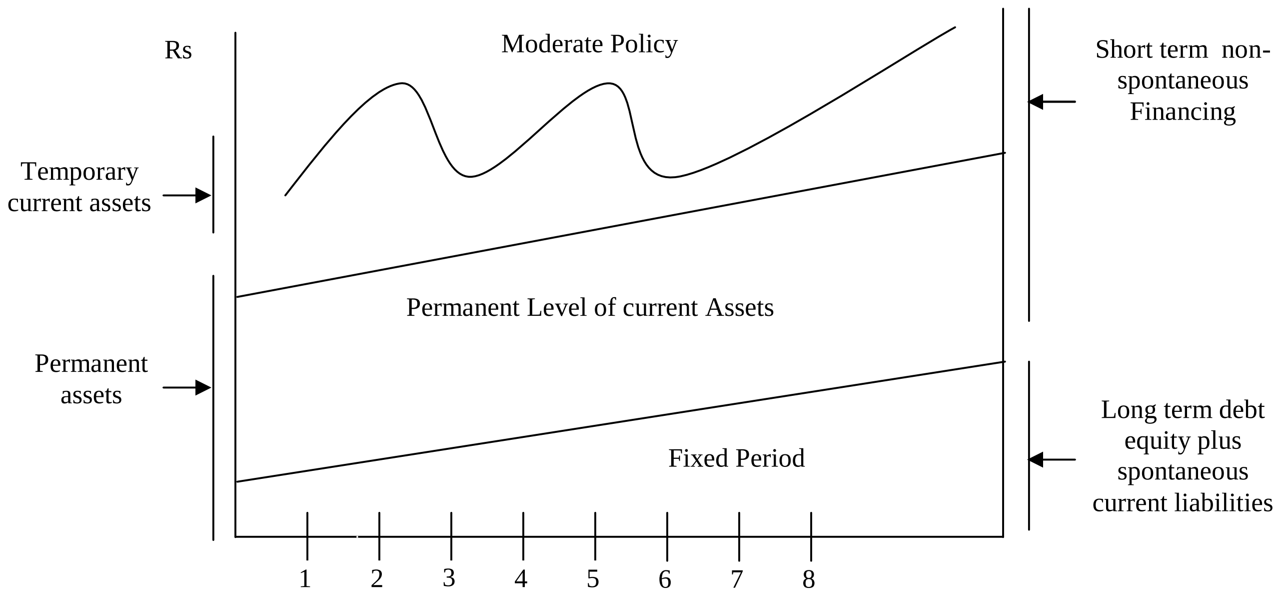
Figure 2.4: Conservative Policy



Adopted From: Weston, Besley and Brigham, Essentials of management Finance (p.347)

C) Moderate Policy:- In this policy the firm finances the permanent current assets with long term financing and temporary with short term financing. It lies in between the aggressive and conservative policies. It leads to neither high nor low level of current assets and current liabilities. Fig.5 shows temporary working capital is financed by short term financing and long term by long term financing. Thus, working capital is zero under this policy.

Figure 4.5: Moderate Policy



Adopted From: Weston, Besely and Brigham, Essentials of Management Finance (p.347)

2.1.5 Financing of Working Capital:-

The firm's working capital assets policy is never set in volume; It is always established in conjunction with the firm's working capital financing policy. Every business Organization required additional assets whether they are in stable or growing conditions. The most important function of financial manager is to determine the level of working capital and to decide how it to be financed. Financing of any assets is concerned with two major factors - cost and risk. Therefore, the financial management must determine an appropriate financing mix, or decide how current liabilities should be used to finance current assets. However, a number of financing mixes are available to the financial manager. He can resort generally three kinds of financing.

A) Long Term Financing:- Long term financing has high quality and low profitability. Ordinary shares, debenture, preference share, retained earning and long-term debt of financial institution are major source of long term financing.

B) Short Term Financing:- A firm must arrange its short-term credit in advance. The sources of short-term financing of working capital are trade credit and bank borrowing.

i) Trade Credit: - It refers to the credit that a customer gets from suppliers of goods in the normal course of business. The buying firms have not to pay cash immediate for the purchase is called trade credit. It is mostly an informal arrangement and is granted on an open account basis. Another form of trade credit is bills payable. It depends upon the term of trade credit (James C.Van Horne, 1994).

ii) Bank Overdraft: - Bank credit is the primary institution sources for working capital financing. For the purpose of bank credit, amount of working capital requirement has to be estimated by the borrowers and banks are approached with the necessary supporting data.

After availability of this data, bank determines the maximum credit based on the margin requirement of the security. The types of loan provided by commercial banks are loan arrangement overdraft arrangement commercial papers etc.

C) Spontaneous Financing: - Spontaneous financing arises from the normal operating of the firms. The two major sources of such financing are trade credit (i.e. credit and bills payable) and accruals. Whether trade credit is free of cost or not actually depends upon the terms of trade credit (S.Pradhan, 2000).

Financing manager of the firm would like to finance its working capital with spontaneous sources as much as possible. In practice, the real choice of current of assets financing is either short-term or long-term sources. This versus long term financing. Hence, the financing of working capital depends upon the working capital policy, which is perfectly dominated by management attitude towards the risk return.

There are three basic approaches for determining an appropriate working capital financing mix:

i) Hedging Approach:- if the firm attempts to match asset and liability maturities, the working capital financing policy is termed as moderate (maturity matching of self liquidity) policy. Hedging approach is a method of financing where each asset would be offset with a financing instrument of the same approximate maturity.

"With a hedging approach short-term or seasonal variations in current assets would be financed with short-term debt; the permanent components of current assets and all fixed assets would be financed with long term debt or with equity. With a hedging approach to finance the borrowing and payment schedule for short-term financing current assets less spontaneous financing (James C.Van Horn, 2000).

Here, as the level of permanent current assets increases, the long term financing level also increases similarly, as the level of temporary or variable current assets increases, the level of short- term financing also increases. However, due to the uncertainty of expected lives of assets exact matching is not always possible.

ii) Conservative Approach:- The financing policy of firm is said to be conservative when it depends more on long term funds for financing needs under a conservative plan the firm finances its permanent assets and also part of temporary current assets, with long term finance. In the periods when the firm has no need for temporary current assets the idle long term funds can be invested in the tradable securities to conserve liquidity (I.M.Pandey, 1992).

This approach raise heavily on long term financing, as a result firm has possibility of financing, the problems of shortage of funds. In conservative approach, permanent capital is used to finance all permanent assets requirements or also to meet some or all of the seasonal demands (Weston & Brigham, 1996).

ii) Aggressive Approach:- A firm can follow aggressive policy in financing its assets under an aggressive policy; the firm finances a part of its permanent current assets with short-term financing. The relatively more use of short-term financing makes the firm more risky.

2.1.6 Determinants of Working Capital

There are no set rules of formulate to determine the working capital requirement of the firm. The importance of efficient working capital management is an aspect of overall financial management. Thus a firm plans its operations with adequate working capital requirement or it should have neither too excess nor too inadequate working capital. A number of factors affect different firm in different ways. Internal policies and environment changes also affect the working capital. Generally the following factors affect the working capital requirement of the firm.

i) Nature and Size of business:- The working capital requirement of a firm depends upon the nature and size of business. If the size of the firm is bigger, then it requires more working capital, while small firm needs less working capital. Trading and financial firms require larger amount of working capital relatively to public utilities.

ii) Credit Policy:- Credit Policy also affects the working capital requirement depends on terms of sales. Different terms may be followed by different customers according to their credit worthiness. If the firm follows the liberal credit policy, then it requires more working capital. Conversely, if a firm follows the stringent policy, it requires less working capital.

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

iv) Growth and Expansion: - Growth and expansion also affect the working capital requirement of firm. However, it is difficult to precisely determine the relationship between the growth and expansion of the firm and working capital needs. But the other things being the same growing firm needs more working capital than those static ones.

v) Price Level Change: - Price level changes also affect the working capital requirement of a firm. Generally, a firm requires maintaining the higher mount of working capital if the price level rises. Because the same level of current assets need more funds due to the increasing price. In conclusion, the implication of changing price level of working capital position will vary from to firm depending on the nature and other relevant consideration of the operation of the concerned firms.

2.1.7 Technique of Working Capital analysis

There are various techniques of working capital analysis. They are as follows:

2.1.7.1 Ratio Analysis

Ratio analysis has been the major tool used in the interpretation and evaluation financial statements. The literature on financial statement analysis has discussed continuously the use of ratio analysis. Besides this, the accounting and finance text books which can be expected to report the more important analysis techniques in chapters on external analysis of financial statements also emphasize the use of ratio analysis (Melvin C.O. 1973).

Ratio analysis is the principal technique used in judging the condition portrayed by the financial statement. By using this technique, the analysis can judge financial growth and development and the present condition of a business enterprise.

A ratio is simply one number expressed in term of another. It is found by dividing one number, the base into the other. A percentage is also a kind of ratio in which the base is taken as equaling 100 and the quotient is expressed as per hundred of the base (Robert N.Anthony, 19964).

Ratios are simply a means of highlighting in arithmetical terms the relationship between figures drawn from financial statement. In the words of J. Batty the term 'accounting ratios' is used to describe significant relationship which exist between figures shown on a balance sheet, in a profit and loss account in budgetary Organization (J.Batty, 1963).

The technique of ratio analysis is getting wider acceptance in accounting and mathematical world. In this regard Mr. Helfert states that the ratio analysis provides guides and clues especially in spotting trends towards better or poor performance, and in finding out significant deviation from any average or relatively applicable standard (Erich A.Helfert, 1957).

There are two schemes of expressing relationship in ratios. The first one is the 'phrase method', such as, two for one and the second one is the 'percentage method' such as, 200 percentage etc. The percentage scheme has the advantage of greater precision because it may develop facts which will be easily remembered.

Although ratio analysis is widely in use but it should be remembered that one ratio cannot give entire picture.

In fact the ratios tend to give simply an indication which assists considerably in appraisal of the financial position and operations of the Organization. Ratios by themselves are not conclusions. Therefore it should always be kept in mind that ratios are only guides in analysis of financial statements and not conclusive ends in themselves (S.Winton Korn, 1969). Further, if ratio is to be important, it must also aid the analyst in making his immediate decision. This classification is based on certain tests, which the ratios are intended to serve. It can also be classified according to the different economic aspects of the firm's operations.

According to this classification, the various ratios have grouped as follows:

a) Liquidity Ratios

These ratios measure the liquidity position of a business enterprise and thereby indicate whether or not the enterprise is able to meet its current obligations as and when they fall due for payment. The main liquid ratios are:

i) Current Ratio
ii) Liquid (Acid test/ Quick) Ratio
iii) Absolute Liquidity Ratio
iv) Debtors Turnover Ratio
v) Creditors Turnover Ratio
vi) Inventory Turnover Ratio

b) Leverage and Long-term Solvency Ratio

These ratio measure the long-term financial position of a business enterprise and indicate the contribution of financing by owners as compared to financing by outsiders. The main leverage and long-term solvency ratios are:

i) Debt Equity Ratio
ii) Debt to total Capital Ratio
iii) Interest Coverage Ratio
iv) Cash Flow Debt Service Ratio
v) Capital Gearing

c) Activity Ratio

These ratios measure the efficiency with which the resources of a business enterprise have been employed and thus indicate the speed with which key assets are being turned over into sales. The main activity ratios are.

i) Inventory Turnover Ratio
ii) Debtors Turnover Ratio
iii) Fixed Assets Turnover Ratio
iv) Total Assets Turnover Ratio
v) Working Capital Turnover Ratio
vi) Payable Turnover Ratio
vii) Capital Employed Turnover Ratio

d) Profitability Ratios

These ratios measure the performance and effectiveness of a business enterprise. The main profitability ratios are:

I) In relation to Investments
i) Return on Investment
ii) Return on Capital Employed
iii) Return on Equity Capital
iv) Return on Total Resources
v) Earning per share
vi) Price-Earning Ratio
II) In relation to sales
vii) Gross profit Ratio
viii) Operating Ratio
ix) Operating Profit Ratio
x) Net Profit Ratio
xi) Expense Ratio

This classification is virtually oriented to the needs of owners, investors and leaders.

Naturally, some ratios are more important than others though the conclusions derived from them may have to be read together for getting an idea about the financial position of the firm. This basis of classification of ratios has been recommended by the British Institute of Management for inter-firm comparisons and following categories of ratios have been suggested by the institute (N.L.Hinrorani, 1973).

a) Primary Ratio:

As the principal motivating force for any commercial undertaking is profit, success is measured by the size of profit in relation to capital employed and this has been termed as 'primary ratio'.

b) Secondary Ratios:

This basis of classification being primarily from the point of view of inter-firm comparisons. If the earning power of a unit as depicted by the primary ratio does not at least equal that of other similar concerns, there is probably some factors of combinations of factors, which does not permit a business to be operated efficiently. Such factors may be isolated by means of other types of ratios, referred to as 'Secondary Ratios' which are further divided into following sub classes:

i) Supporting Ratios.

ii) General Explanatory Ratios.

iii) Specific Explanatory Ratios.

In fact there are various items appearing at profit and loss account and balance sheet. The scope for comparing one item with another is enormous and so it is important to be selective. This limits the calculations and makes the presentations of selected ratios simple and readily understandable. No decision maker wants a jungle of figures and so the ratios chosen should be the key ones, logically grouped. The ratios have logically been classified into three main groups.

i) Operating ratios, which are concerned with how the company is trading, and take no account of how the company is financed?

ii) Financial ratios, which measure the financial structure of the company and show how it relates to the trading activities.

iii) Investment ratios, which relates to the number of ordinary shares and their market price to the profits, dividends, and assets of the company.

Almost every ratio is useful but no ratio alone can satisfy the need of all the parties and so the selection of a ratio depends upon the needs of the party for which analysis is being undertaken.

Limitation of Ratio Analysis

1. Ignores qualitative aspects:- Although qualitative factors may be more important than the quantitative factors, the ratio analysis ignores the qualitative aspect as it is basically a quantitative analysis, For example, while deciding whether to sell goods to a customers on credit or not, the ratio analysis relies on the financial statements submitted by him and his character or intention to pay will not form part of the analysis which, in fact could be the most important factor.

2. False Result: - The quality of the ratio depends upon the quality of the accounts on the basis of which these are established. The ratios can only be accurate, if the books of accounts are correctly drawn up. This is because the ratios are based on the information provided by the financial statement. For

example, if the closing stock is over-valued, both the financial position and profitability will be shown better than what they actually are.

3. Absence of universal standard: No fixed standards can be laid down for ideal ratios. They cannot be a single standard ratio, which can indicate the true performance of the business at all times and in all circumstances. Every firm has to work in different situations and circumstances. For example, current ratio is generally considered to be ideal if current assets are twice of the current liabilities. However, in case of those concerns, which have adequate arrangements with their bankers for providing funds when they require, it may be perfectly ideal if current assets are equal to or slightly more than current liabilities.

4. Ignores price-level changes: The comparability of ratio suffers, if the prices of the commodities in two different years are not the same. In reality, prices do not remain the same and ratio analysis does not have an in-built mechanism to adjust the changing price. A ratio can be accurately interpreted only if the effect of change in prices, which may have taken place is adjusted in the ratio.

5. Historical Analysis: ratios are only indicators, they cannot be taken as final regarding good or bad financial position of the business, are historical in nature unless the ratio analysis is based on the projected financial statements prepaid to plan the future.

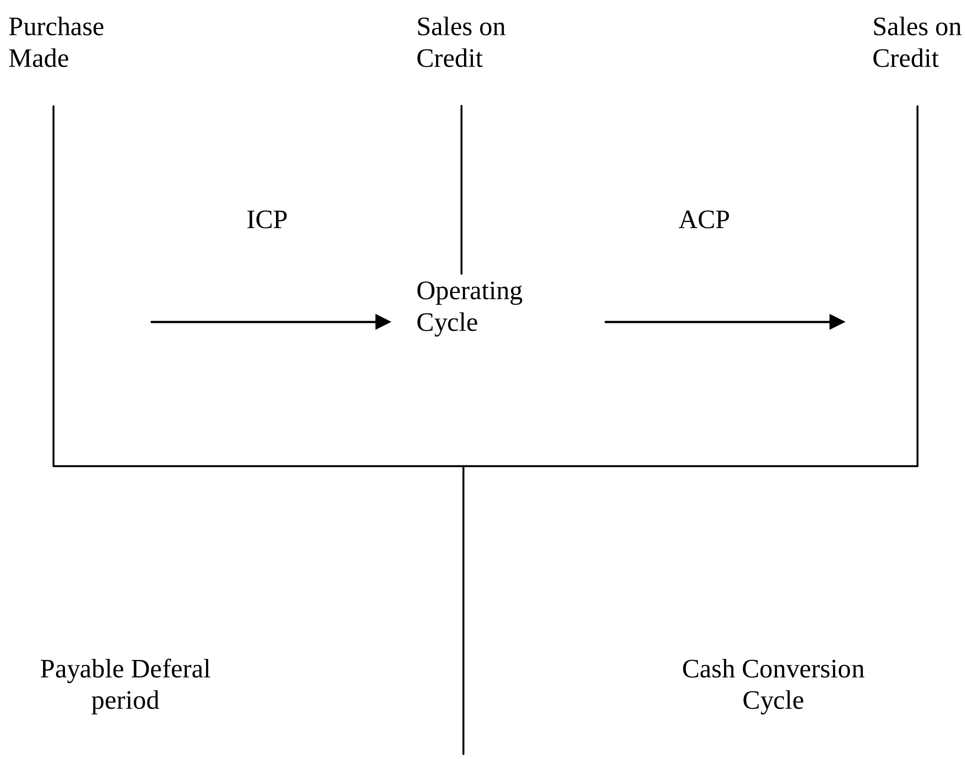
6. Ratios alone are not adequate: Ratios are only indicators, they cannot be taken as final regarding good or bad financial position of the business. No ratio may be regarded as good or bad, it may be an indication that a firm is week or strong, but it must never be taken as proof of either one.

It may, therefore, be concluded that ratio analysis, if done mechanically, is not only misleading but also dangerous. It is indeed a double-edged sword which requires a great deal of understanding and sensitivity of the management process rather than mechanical skill.

2.1.7.2 Cash Conversion Cycle

A cash conversion cycle reflects the net time interval in days between actual cash expenditures of the firm on productive resources and ultimate recovery of cash. The following figure shows the cash conversion cycle for a firm.

Figure 2.6: Operating Cycle of Manufacturing Firm



As shown in above, once the purchase of raw material is made, the inventory conversion period determines the number of days it takes to produce and sell the product. The average collection period determines the average number of days it takes to collect credit sales. The operating cycle which measure the number of days from purchase as to when cash is received.

Operating cycle (oc) =ICP-ACP

Because the raw materials typically are not paid for immediately we most also determine how long the firm defers its payment. The difference between the operating cycle and the deferral period is the cash conversion cycle.

Cash conversion cycle=operating cycle-payable deferral period.

The cash conversion cycle is a quick and convenient way to analysis the outing liquidity of the firm over time. We see that the conversion cycle approach may pick up information by other liquidity measures. The cycle shows how much of time need to collect cash.

a) Inventory Conversion Period (ICP)

Inventory turnover = Cost of goods sold

Average inventory

ICP= 365 days

Inventory turnover

Average inventory

Cost of goods sold*365

b) Received conversion period

Receivable conversion period indicates the number of days debtors turnover into cash. Its analysis determines the collect ability of debtors and thus, the efficiency of collection effect in ascertaining the firms comparative strength and advantage relative to its credit policy. Receivable turnover can be calculated by dividing total sales of the year ended balance of debtor and receivable conversion period is calculated by dividing the number of days in a year (i.e. 365 days) by receivable turnover.

$$\text{Receivable Turnover} = \frac{\text{Sales}}{\text{Debtors}}$$

RCP = 365 days

Receivable Turnover

Debtors/Receivables

Sales

c) Payable Conversion Period

Payable conversion period indicates the number of days creditors turnover each year. It is calculated by dividing the sum of account payable and outstanding expenses by the sum of cost of goods sold and general expenses and multiple by the number of days in a year (i.e.365 days)

$$\text{PCP} = 365 \text{ days} \times \frac{\text{Account Pyable} + \text{Outstanding Expenses}}{\text{Cost of Goods Sold} + \text{General Expenses}}$$

2.1.7.3 Trend Analysis

The trend analysis is the study of change of the data shown in financial statements over a period of time. It involves the computations of percentage relationship that each statement item bears to the same item in the base year. The earliest year involved in comparison is generally taken as the base year with reference to which all other statements are studied. If the earliest year is not a normal year, any other year involved in comparison may be taken as the base year.

In the computation of trend percentage (or trend ratios), the first step is to take up necessary items for a number of years from the statements. It is so because the trend ratios are generally not computed for each and every item of the statement as 100. The third and last step is to compute trend ratios by dividing each item of remaining statements with the corresponding item of base year statement. Thus, the method of computation of trend ratios is the same as that of index numbers.

As a matter of fact, the trend ratios may be thought as index numbers showing relative changes if financial data over a period of time. Khan $ Jain state "Trend ratios indicate the direction of change in the performance improvement, deterioration or constancy over the year (Man Mohan & Goyal, 1982). Thus trend analysis is a dynamic method of analysis. It enables an analyst to see the future of a concern in its right perspective by making an indication in which it (concern) is going. I.M. Pandey mentions, "The trend analysis of ratio adds considerable significance to the financial analysis because it studies ratios of several years and isolates the exceptional insurances occurring in one or two periods (Geoffery Holmes $ Alan Sugden, 1979).

2.1.7.4 Funds Flow Analysis

The term “Funds Flow” statement consists of two terms: ’Funds ’ and ’Flow’. The term 'Funds' refers to all pecuniary resources that can be measured in terms of money. It may be interpreted as cash or working capital or all financial resources. Net working capital is concerned with the differences between total current assets and total current liabilities.

The term 'flow' refers to the movement of funds during a period of time. The procurement of funds, during the particular period of time is called inflow of funds and the use of funds for the particular period of time is out flow of funds. So, movement of funds is concerned with the inflow and outflow of funds.

The statement which is designed to highlight the changes in the financial position of a business Organization during the two periods of time is known as funds flow statement. According to A.N. Anthony," A funds flow statement is a statement prepared to indicate the increases in the cash resources and the utilization of such resources by a business during the accounting period."

According to Smith and Brown," A funds flow statement is prepared in summary from to indicate changes occurring in terms of condition between two different balance sheet dates."

According to Foulke," A statement of sources and application of funds is a technical device designed to analyze the changes in the financial position of business enterprise between two dates."

According to P. Chandra," The funds flow statement, also called the statement of changes in financial position, shows the sources and the uses of funds during a given accounting period. This statement, drawing on the information contained in the balance sheet and the profit and loss account, provides insights into the movement of funds and helps in understanding the changes in the structure of assets, liabilities, and owner's equity."

On the basis of above definition it can be said that the comparative study of two balance sheets of a concern prepaid for two different years for knowing the financial activities of a company is known as funds flow statement. The main purpose of funds flow analysis; to acquire the clear, information about the financial transaction that brings changes in the resources of a company. It reflects the management's efforts in generating funds from various sources and the uses to which they are put for generating income without sacrificing the financial health of the entity. Therefore, this statement is of great important to both creditors and owners as it enables them to obtain information concerning financing and investing activities of a business enterprise and the consequent changes in its financial position for a period. The genesis of the funds flow statement is the limited role performed by the financial statements in providing the details about the funds the business received from each sources and the amount of funds used for each purpose throughout the year. A funds flow statement will help the management in allocating the scare resources for meeting the productive requirement of the business. The uses of funds should be planned in such a manner that the available resources are put to the best use. The allocation should ensure that the business in a position to make payment of interest and loan installments as per the agreed schedule. It is a test of effectiveness with which the working capital is used by the management during a particular period. The adequacy or inadequacy of working capital will guide the management to take possible steps for effective use of surplus working capital or make arrangements in case of inadequacy of working capital.

Activities conducted by the business or any other actions by the management which results in the inflow of funds is considered as sources of funds. On the other hand, funds utilized for various purpose are considered as applied and hence known as application or uses of funds.

Sources of Working Capital

a) Funds from Operations:- The major source of working capital is the funds from operation, which refer to those funds which are generated by carrying out the central operations of a business.

b) Proceeds from the sale of non-current assets: - Sale of non-current assets tantamount to conversion of a non-current assets to a current assets and is a source of fund regardless of the fact whether the asset it sold for a gain or loss.

c) Long-term Borrowing: - Long-term borrowing, such as issue of debentures and convertible bonds, results in the increase of current asset (cash) and therefore an increase in the working capital. In case of short-term borrowing, the increase of current assets is offset by an increase in the current liability and therefore result in no change in working capital.

d) Issue of shares for cash: - Issue of shares results in an inflow of current assets and is, therefore, a source. In the case of sole proprietorship and partnership concerns additional capital introduced is a source of funds.

e) Non-operating Income: - Incomes like dividends, interest received from operations outside the framework of the central operation of a business results in an inflow of current assets and therefore, to be shown as a sources.

Applications of Working Capital

Purchase of Fixed Assets:- The purchase of long-term assets, such as plant and equipment, either reduces current assets and or increases current liabilities. Consequently, the working capital is reduced.

a) Redemption or Payment of long-term debt: Repayment of a short-term debt is not considered as the uses of fund, since both current assets and current liabilities are reduced by the same amount. But the payment of a long-term debt results in the reduction of a current assets and is, therefore, use of fund.

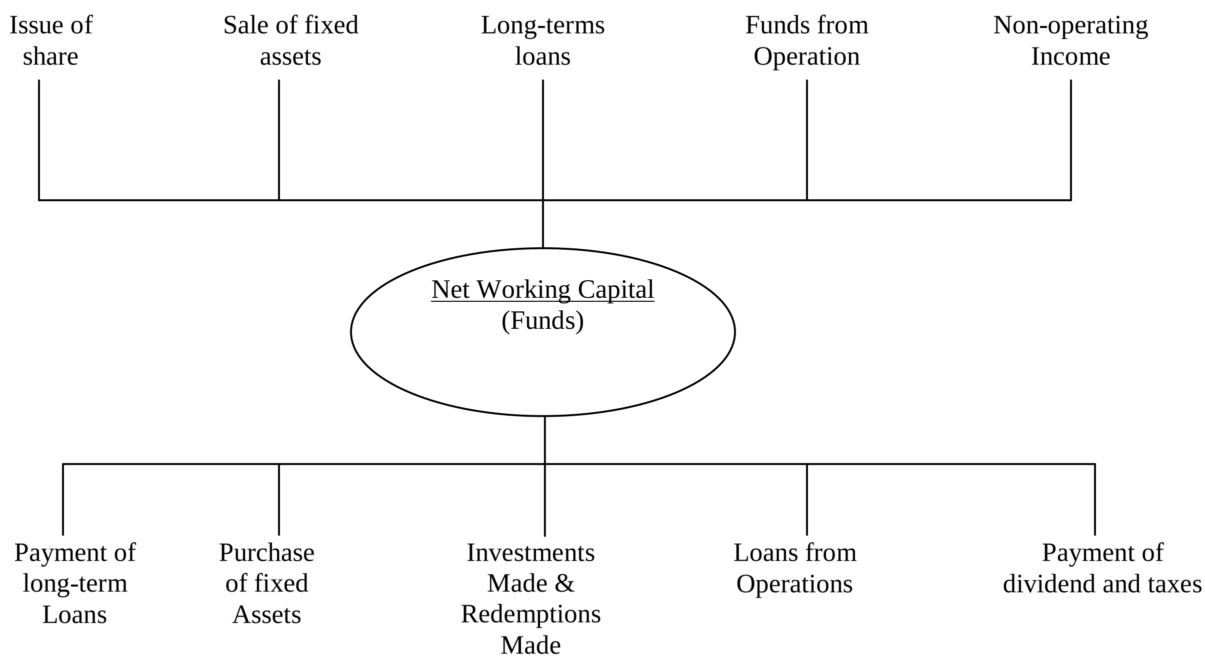
b) Redemption of preference shares or Investment made: When cash is paid to redeem preference shares or to purchase securities as investment, working capital is reduced and therefore is use of fund.

c) Loss from Operations: Any loss from the operation results in more outflow of funds as compared to inflow of funds and is, therefore, use of funds.

d) Payment of dividend, tax etc: any dividend or tax paid in cash result in outflow of current assets, therefore, an application of funds.

The sources and applications of funds are diagrammatically depicted in the following figure.

Figure 2.7: Sources



2.2 Review of Books

For the working capital management, I.M. Pandey has described various aspects of working capital management. He has divided working capital management into five chapters. The first chapter deals with the concept of the working capital, need for working capital, determinants of working capital, dimensions of working capital management, optimum level of current assets, and working capital trends in India. In the second chapter he has described the management of cash and marketable securities, where he has deals with facts of cash management, motives for holding cash, cash planning, managing the cash flows, determining the optimum cash balance, investment in marketable securities. In the third chapter, he has described the management of receivable, in which he has dealt with goals of credit management optimum credit policy, aspects of credit policy credit producers for individual accounts. In the forth chapter of the inventory management, he has described the need to hold inventories, objectives of inventory management, inventory management techniques, selective inventory control technique and financial managers role in inventory management.

The management needs to determine the size of working capital as accurately as possible. It should be neither over invested nor under invested. There is no precise way to determine the exact amount of current assets for any firm. For that, the data and the problems of each company should be analyzed. There is no specific rule to finance the current assets. Keeping in the view the constraints of the individual company, a proper mix of long term and short-term sources of the finance should be invested in current assets. For an Organization, therefore, is necessary to pay proper intention to the relevant factors which generally influences the working capital requirement of the firm. Such determinants of working capital differ from one enterprise to another. Some of the most common and important determinants are,

- Nature and size of the business
- Sales and demands condition
- Technology and manufacturing policy
- Credit policy
- Availability of credit
- Operating efficiency and
- Price level changes

A firm, then taking those demands under consideration, should determine optimum size of investment in each type of current, e.g. cash, receivable and investor. Those factors affect different enterprises differently and also vary from time to time. All factors of separate importance of the factors changes for a firm over time.

A firm can have different levels of current assets to support the same level of output. Its proportion upon the fixed assets of the firm indicates the working capital policy of the firm namely conservative and aggressive in two extreme ends. Dividing current assets by fixed assets gives current assets to fixed assets (CA/FA) ratio. Assuming a constant level of fixed assets, a higher CA/FA ratio means an aggressive current assets policies assuming other factors to be constant. Higher level of current assets implies greater liquidity and solvency of the firm. There is less risk of technical insolvency, but a considerable amount of funds will be tied up in current assets, which causes to lower profitability, a firm can take an aggressive current assets policy maintaining lower level of current assets, which will lower the solvency of the firm and the level of the risk in the same manner. Thus, the reasonable approach is to balance the cost of maintaining current assets and risk associated in such a way that the trade off between risk and return is minimized.

The well known professor Weston and Brigham have given some theoretical insights into working capital management after their various research studies on it. The bond conceptual findings of their study provide sound knowledge and guidance for the further study on the field of management of working capital in any enterprise and naturally to this study as well. They explain, in the beginning, the importance of working capital, concept of working capital, financing of working capital, the use of short-term versus long-term debts, relationship of current assets of fixed assets. In the next chapter they have dealt with the various components of the working capital and their effective management techniques. The components of working capital they have dealt with the cash, marketable securities, receivables and inventory for the efficient management of the cash, they have explained the different cash management models. They have also explained the major sources and forms of short-term financing, such as trade credit, loans from commercial banks and commercial papers.

Van Horne (1994) has categorized the various components of working capital i.e. liquidity, receivable and inventory and current liabilities and grouping them according to the way they affect valuation. He has also described the different methods for efficient management of cash and the marketable securities. For the management of the receivables, different credit and the collection policies have been described and various principles of inventory have been examined for inventory management and control.

Suniti Shrestha (1995) study on portfolio behavior of commercial banks in Nepal and selected two local commercial banks, three joint-venture banks and one development banks as a sample for the study. Some major findings of her study are as follows,

- Total deposits have been the major sources of fund for all the banks. Capital and reserve funds do not seem to have changed much over the year.
- The user of the fund analysis shows that the resource of the commercial banks is allocated in the liquid funds, investment on securities, loans and advances. Bills purchased and discounted.
- Among the portfolio, for Nepalese banks loan and advances share highest volume of the resources and the bills purchased and discounted the least over the year.

- The excess reserve of the commercial banks shows unused resource. The cash reserve exceeds much more than the required cash reserve.

Surendra Pradhan (2000) in his book" Basic of Financial Management," has shed light on financing of working capital as: "There are two ways of financing working capital requirements i.e., internal and external sources. Internal sources include use of retained earnings, depreciation funds and share capital. External sources include trade credit, advance from customers, short-term deposit, cash credit, short–term government loan etc." generally a source or a combination of various sources of financing to be used depends on the types of current assets (Permanent and Variable) to be maintained. The long-term sources such as stock issues, debs and bonds are appropriate to use for the permanent type of current assets only if the spontaneous type of short-term sources are not enough to not available to cover the required sized of permanent current assets. Types of financing may be distinguished into three groups;

i. Long-term financing: The sources of long-term financing include long term debt (i.e. term loans and bonds), common stocks, and preferred stock and retained earnings.

ii. Short-term financing: It includes short-term bank loan, notes payable, line of credit, overdraft, factoring, pledging, blanket lien etc. Those are obtained for the period less than one year.

iii. Spontaneous financing: It includes operating sources like trading credits, accounting payable, accruals etc.

A company can follow three approaches on the mix of short-term and long-term source of financing, namely conservative, aggressive and matching approach. If more short-term funds are used in financing fixed and current assets it can be considered as aggressive approach. Conservative approach refers to more use of long-term financing, which is less risky than aggressive approach. Matching approach is to finance variable current assets by short-term sources and permanent current assets by long-term source. In working capital management, an important aspect is matching the type of financing with the type of assets. However, the degree of managerial aggressiveness often guides in choosing a certain combination of short-term and long-term financial for working capital.

2.3 Review of Thesis

Giri (1986) in his study has attempted to evaluate "Working Capital Management of Balaju Textile Industry Limited." The major findings of his study are not so significant improvement in working capital during study period. Increased working capital was financed by sales of fixed assets or sources of share capital; CAS was financed by long-term financing and high level of sluggish inventory's amount to unnecessary tied-up of funds, impairment of profit and increased costs.

He has suggested for efficient working capital management of BTIL. It is better to fix a minimum target rate of return, make regular check to identify both excess and deficient current assets from the appropriate combination of long-term and short-term sources to preserve liquidity and maintain stability; take necessary actions for disposing a huge inventory with tied-up working capital, involved huge carrying cost risk of losses; sick position and work inefficiency of corporation should improve.

He has set only three research questions to analyze working capital management of BTIL, which is insufficient. He has used ratio analysis as a research tools. But he has not done analysis to evaluate the relationship of current assets components with total current assets. Similarly, he has set null hypothesis but has not tested it through appropriate tools to find out whether null hypothesis is accepted or rejected. So, we can say it is not fully analytically type of research.

Joshi (1986) in his study seeks to have true insight into the working capital management in Biratnagar Jute Mill. The study is concerned with the management of current asses and covers five years period (2061/62 to 2065/66).

The study has embodied various financial ratios for measuring Biratnagar Jute Mill's financial viability. The study is based on secondary data with opinion survey method and limited to gross concept of working capital. The study has indicated the mismanagement of inventory, no proper policy of cash holding and heavy dependence on short-term bank credit. He has recommended for effective working capital management of the mill by planning realistic turnover target specimen, designing effective inventory management program, following productive investments approach preparing effective sales plan and exhaustive market research program, using short-term bank credit up to certain reasonable limit, maintaining optimum cash balance and making proper utilization of accumulated collection debts.

An analytical study of working capital management in public sector brick factory conducted by Shrestha (1988) tried to make a comparative assessment of working capital management of public sector brick factories in Nepal. He has analyzed various components of working capital like cash, inventory, receivable and current liabilities. The study is based on two government brick factories; Harisiddhi and Bhaktapur brick factory. He found that there is no proper relation between liquidity turnover and profitability of two brick factories. There is no combination between fixed capital and working capital. The analysis indicates that the working capital portion is totally neglected. He has suggested using financial tools to forecast the working capital. The factories have to keep the record up to date according to standard format. The management must have to be serious regarding working capital management.

His study is basically comparative type. He has analyzed various working capital components through ratio analysis to compare between two brick factories. He has not used the hypothesis text to verify the significance of working capital components between two factories.

Keshav Raj Joshi (1989) in his thesis entitled' A study on the financial performance of the banks' concludes that the liquidity position pf the commercial banks are sound. Their debts is equity ratio of local commercial banks higher than JVBs. Conservative credit policy is followed by commercial banks for assets utilization that's why more investment is done on loans and advances. Assets utilization for the purpose of earning is two third of the total assets. The main source of income for these banks is interest from loans advances and overall profitability position of NABIL is better than others.

Anir Rajbhandari (2047) in her thesis entitled" Working Capital Management (A Case study of Nepal Bank Limited)," has done research work for ten years period, 2034 to 2043 B.S. she has drawn some major findings from her study were as follows. The bank has heavy liquid assets that reflect the improper utilization of bank fund due to heavy growth in deposit and other burrowed capital. The volume of shares capital became insufficient. Rate of return on shareholders investments is considered insufficient; the bank could not utilize its funds and not paid attention to the portfolio management in investment.

Narendra Bahadur Amatya (1993) Conducted his study entitled" The thesis entitled" An appraisal of financial position of Nepal Bank Limited" analyzed, interpret the financial position of the bank from 1980/81 to 1989/90. Main findings of the study are as follows.

Regarding the liquidity management, the bank is in a better position. But the bank has been following a uniform policy to finance current assets and current liabilities.

The bank is successful in deposit collection but it has always adopted conservative and traditional credit policy.

The trade and commerce advances are playing major role in the credit composition of the bank. Although the reserve of the bank is increasing gradually, the reserve plays a nominal role in credit expansion control.

The major control of the investment of the bank is in HMG's securities. And the volume of transaction is high in all respects but the bank does not show higher ratio of profit or it shown a decreasing trend of profit.

Prem Kumar Shrestha (1994) in his study on "Working Capital Management in his study on “working capital management in Bhrikuti Paper Mills Ltd," considered the financial statement of this Organization for the five fiscal years from 2044/45 to 2048/49 B.S. He has drawn some conclusions from the study. The major components of the current assets are cash and bank balances, inventories and receivables. Among them cash and bank balance hold the largest portion and has fluctuating trend. Due to the lack of definite credit and collection policy the receivables are increasing year after year. Various turnovers are decreasing which indicate that current assets are not properly utilized in the mill. The liquidity position of the mill is not bad; it is due to decrease trend of current liabilities. Although, mill is earning profits, its profitability is not encouraging one because its return on total assets is not high enough.

Ramji Poudel (1997) Conducted his study entitled "A comparative analysis of financial performance between NBL and NGBL" has drawn some major findings. Although the liquidity position of NBL is better than NGBL but on the whole current assets of these banks are adequate to meet the current liabilities. NGBL has better credit position than NBL, in terms of short-term investment. It also found that NBL has better turnover and highly levered than NGBL. Joint-venture banks such as NGBL is fast growing, the overall profitability are higher but government owed commercial banks such as NBL has higher expenditure and the profit making capacity is lower and gradually decreasing.

Niraj K.C (2000) Conducted his study entitled "Comparative study of working capital management of NBL and NABIL Ltd" aims to examination the management of working capital in NBL and NABIL. The specific objectives taken in his study are:

1. To study the current assets and current liabilities and their impact and relationship to each other of NBL and NABIL.
2. To analyze the comparative study of working capital management of NBL and NABIL.

3. Recommendation and suggestion for the improvement of working capital management NBL and NABIL in future.

Study has mentioned the following findings:

1. The average cash and bank balance and loan and advance are higher on NABIL than NBL. Management of loan and advance is more problematic in NBL than NABIL.
2. Interest income of NBL is better than NABIL.
3. Liquidity management policy of these two banks is significantly different.
4. NABIL has the better utilization of deposits in income generating activity than NBL. It also shows that NABIL has better investment efficiency in loan and advances.
5. Due to more conservative working capital policy risk of insolvency is lesser but cost of fund is higher on NBL than NABIL.
6. Profitability position of NABIL is far better although NBL earned higher interest than NABIL.

2.4 Review of Different Studies

Shrestha (1983) in his study "Working capital management in public enterprises” states that manager often lacks the basic knowledge of working capital and its overall impact on the operative efficiency and financial viability of public enterprises. The study has been based on sample of ten enterprises i.e. Birgunj Sugar Factory, Janakpur Cigerette Factory, Roghupati Jute Mills, Dairy Development Corporation, National Trading Ltd, Royal Drugs Ltd, National Construction Company of Nepal, Harisiddhi

Brick and Tile Factory, Nepal Cheeuri Ghee Industry Ltd and Chandesowri Textile Factory Ltd. The study has pointed at certain policy flows such as deficient financial planning, neglect of working capital management, deviation between liquidity and turnover etc. he has suggested some measures for their effective operation and efficient result. The problem can be sorted out through identification of needed funds, development of paper management information system, determination of sound combination of short-term and long-term sources to finance working capital requirements.

The study is based on ratio analysis. He has selected different types and nature of PEs. That is why with lower turnover has higher liquidity position. The author should have selected similar nature of PEs or analysis should have made separately. He has taken only one year data of the study. But to find the real situation of PEs it should be more than five years.

Dr. Radhe Shyam Pradhan (1986) has published a book on management of working capital in Nepalese PEs. This book is based on the study of nine manufacturing public enterprises of Nepal for the duration of ten years from 1973 to 1982 A.D. He has aimed to provide useful insight into the existing and forthcoming corporations on working capital behavior. In this study, he has dealt with various issues Viz; type of working capital policy followed by those PEs, liquidity position, structure of working capital and its various components with changes of volume of sales in those PEs. In the study he reveals that most of the selected enterprises achieved a trade off between risk and return there-by following neither an aggressive nor a conservative approach. Almost all the selected PEs has the positive net working capital and much of the growth in net working capital at deflated prices has been much lower. The liquidity measure shows a poor liquidity position in majority of MPEs. It has been noticed that the enterprises had either negative cash flows or earning before tax, or they had excessive net current debts, which could not be paid within a year.

Of the current assets, this is, on an average, half of the total assets in PEs. The share inventories is the largest followed by receivables and cash. There had been improvement in utilization of current assets in the majority of PEs.

He also noticed that the adjustment speed of actual to desire balance had been observed as higher for cash followed by inventories. However the speed of adjustment was much slower in all these cases. The results were, therefore, surprising, as the adjustment of even cash holding was not immediate. Further more, the inclusion of capacity utilization in the models did not seem to have contributed much to the demand function of working capital and its various components. Thus capacity utilization a significant variable affecting these demand functions was doubtful. This book, thus, provides an extensive and comprehensive survey on the overall liquidity position, working capital, working capital utilization and demand functions of current assets.

Pradhan in his study aims at examining the various aspects of management of working capital in selected manufacturing public enterprises of Nepal. The specific objectives undertaken in his study are;

1. To conduct risk return analysis of liquidity of working capital position.
2. To assets the short-term financial liquidity position of the enterprises.
3. To assets the structure and utilization of working capital and
4. To estimate the transaction demand functions of working capital and its various components.

His study has mentioned the following findings:

1. It has been found that the most of the selected enterprises have been activities a trade off between risk and return thereby following neither aggressive nor a conservative approach
2. It has showed a poor liquidity position of most of the enterprises. This poor liquidity position has been noticed as the enterprises have either negative cash flows or negative earnings before tax or they have excess net current debts, which cannot be paid within a year.
3. The Nepalese manufacturing public enterprises have, on an average, half of their total assets in the form of current assets. Of all the different components of current assets, the share of inventories in total assets, on an average, is largest followed by receivables, and cash in most of the selected enterprises.
4. The economics of scale have been highest for inventories followed by cash and gross working capital, receivables and net working capital.
5. The regression results also show that the level of working capital and its components and enterprises desires to hold depend not only sales but on holding costs also.

His study is concerned with inter relationship that exist between managing current assets and current liabilities. The study manages to focus on net working capital concept. The study has employed ratio analysis, discriminate analysis and econometrics models for its analysis.

From the review of above mentioned bunch of research works it is clear that there is a sort of research work on study of working capital management of

Machhapuchchhre Bank. This study of working capital management of Machhapuchchhre Bank is different from other previous research works.

CHAPTER – III

RESEARCH METHODOLOGY

Research methodology is a sequential procedures and methods to achieve the objectives of the study. A sound research study needs to follow a proper methodology in order to achieve predetermined objectives. The methodology adopted in this study for the fulfillment of the stated objectives consists of research design, nature and sources of data, collection of data, data processing and tools for analysis of data.

3.1 Research Design

Research design is a plan structure and strategy of investigation convinced so as to obtain answer to research questions and to control variances. It includes important procedures and techniques for guiding, analyzing and evaluating the study. Analytical as well as descriptive approaches have been followed in the present study.

3.2 Population and Sample

Among all the branches of Machhapuchchhre bank limited, its central office has been taken as sample for this study. Financial statements of latest 5 years from 2061/62 to 2065/66 have been taken as sample data for the study of working capital management.

3.3 Sources of Data

The study is mainly based upon the secondary data; the data relating to financial performance are directly obtained from concerned bank. The supplementary data and performance obtained from unpublished official records of concerned bank, booklets, journals, and other organization like security exchange center and Nepal Rastra Bank.

3.4 Data Processing

Methods of analysis are applied s simple a possible. The obtained data are presented in various tables, diagrams, and charts with supporting interpretation. Those details calculations that cannot show in the body part of the report are presented in appendices at the end.

3.5 Tools for Analysis of Data

On the basis of historical data both financial and statistical tools are used to analyze different variables.

3.5.1 Financial Tools

In this research study various financial tools are employed for the analyze. There are various ratios but in this study some selected ratios among them are used.

A. Liquidity Ratio:

Liquidity ratios are used to measure a firm's ability to meets its current obligations as they come due. This ratio is used to measure the company's short-term obligations with short-term resources available at a given point of time.

I. Current Ratio:

The current ratio measures the extent to which the claims of short-term creditors are covered by short-term assets. It is determined by dividing current assets by current liabilities.

Current Ratio=Current Assets/Current Liabilities

II. Quick Ratio:

It is calculated by deducting inventories from current assets and then dividing the reminder by current liabilities. Inventories are excluded because it may be difficult to liquidate them at their full book value.

Quick Ratio=Quick Assets /Quick Liabilities

III. Cash and Bank Balance to Current, Margin and Other deposit Ratio (without fixed deposit):

This ratio is employed to measure whether the bank and cash balance is sufficient to cover its current calls margin including deposits. It is calculated by dividing cash and bank balance by saving margin and current deposits (excluding fixed deposits). The ratio is calculated as:

= Cash and Bank Balance/ Deposit (except fixed deposits)

IV. Saving Deposit to Total Deposit Ratio:

Saving deposit is the interest bearing short-term deposit. The ratio is developed in order to find out the proportion of saving deposit, which is interest bearing and short-term in nature. It is found out by dividing the total amount of saving deposits by the amount of total deposit, which is given as follows:

= Saving Deposit /Total Deposit

B. Activity Ratio/Turnover Ratio:

Activity ratios are intended to measure the effectiveness to employment of the resources in a business concern. Through these ratios, it is known whether the funds employed have been used effectively in the business activity or not. The following are the ratios employed to analyze the activeness of concerned joint venture.

I. Loan and Advances to Total Deposit Ratio:

This ratio assesses to what extend, the banks are able to utilize the deposits funds to earn profit by providing loans and advances. It is computed by dividing the total amounts of loans and advances by total deposited funds. The formula used to compute this ratio is as:

=Loans and Advances / Total Deposits

High ratio is the symbol of higher / proper utilization of funds and low ratio is the signal of balance remained unutilized/idle.

II. Loan and Advances to Fixed Deposit Ratio:

This ratio examines that how many times the funds is used in loans and advances against fixed deposits. For commercial banks, fixed deposits are long-term interest bearing obligations, whereas investment in loans and advances are the main sources of earning. This ratio is computed dividing loans and advances by fixed deposits as under. A low ratio indicates idle cash balance. It means total funds are not properly utilized. This ratio is computed as:

=Loan and Advances /Fixed deposits

III. Loan and Advances to Saving Deposits Ratios:

This ratio assesses, how many times the fund is used to loans and advances against saving deposits. Saving deposits are interests bearing short-term interest bearing deposits are utilized for generating the income, is calculated, dividing the amount of loan and advances by total deposit in saving account. The following formula is used to calculate this ratio.

=Loan and Advances /Total saving deposits

C. Profitability ratio:

Profitability ratios indicate the degree of success in achieving desired profit. Various profitability ratios are calculated to measure the operating efficiency of business enterprises.

3.5.2 Statistical Tools:

In this research study, some statistical tools are used for the analysis. The tools are as follows.

(A) Trend Analysis:

The tools that are used to show the grandly increase of variable over a period of time is known as trade analysis. With the help of trade analysis the tendency of variables over the period of time can be seen clearly.The following formula is used to calculate the trend analysis.

Y= a+bx

(B) Correlation Analysis:

Correlation is statistical tools that we can use to describe the decrease to which one variable is linearly related to another. The coefficient of correlation majors the degree of relationship between two sets of figures.The following formula is used to calculate the correlation coefficient.

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

3.6 Period Covered

This study covers a period of five years from 2061/62 to 065/66 of the bank. The analysis is done on the basis of the data for thesis five years.

CHAPTER – IV

PRESENTATION AND ANALYSIS OF DATA

The major objective of this study is a study of the management of working capital of Machhapuchchhre Bank. The major variables of the study are cash and bank balance, loan and advances and investment in government securities. In this chapter relevant data and information of working capital as well as balance sheet of Machhapuchchhre Bank are presented and analyzed accordingly. It covers to analyze the ratio as well as trend and composition of current assets and liabilities, liquidity and profitability of this bank. The financial variables are also compared with the help of available statistical tools.

4.1 Composition of Working Capital

To operate the business different kinds of assets are needed. For the day to day business operation different types of current assets are required. The compositions of current assets are Machhapuchchhre Bank is cash and bank balance, loan and advances, Government securities. Bills purchased are discounted and other current assets prepaid expenses, outstanding income like interest receivable, salary debtors etc. are including in other current assets.

The following table shows the current assets compositions of Machhapuchchhre Bank of the study period.

Table 4.1

Components of Current Assets

(Rs. In million)

Fiscal Year	2061/62	2062/63	2063/64	2064/65	2065/66
Cash	121.55	280.42	385.94	560.31	7431.19
Bank	609.58	533.50	898.13	1028.24	2023.45
Money at call	15	718.47	694	70	-
Investment	468.61	1190.82	1278.46	1443.55	1246.15
Loan advance	5061.42	6068.42	7129.89	8642.32	12516
Other Assets	94.06	173.23	161.64	218.22	297.80
Total	6370.23	8964.86	10548.06	11962.65	16826.6

(Source: - Appendix – 1)

From the above table, among all the components of current assets, loan and advances occupied highest position in each of the study period.

Following ratios have been calculated to analyze the composition of working capital of Machhapuchchhre Bank.

4.2 Percentage of Current Assets on Total Assets

Current assets are generally required to meet the working capital, which helps to fulfill the need of daily business requirements. Higher percentage of current assets on total assets shows the greater liquidity position of the bank; the lower shows the risk of insolvency and vice-versa.

Table 4.2

Percentage of Current Assets on Total Assets

(Rs. in million)

Fiscal Year	Current Assets	Total Assets	% of C.A. on T.A.
2061/62	6370.23	6456.46	98.66
2062/63	8964.86	9068.83	98.84
2063/64	10548.06	10810.3	97.57
2064/65	11962.65	12498.54	95.71
2065/66	16826.6	17490.75	96.20
Average	10934.48	11265.17	97.39

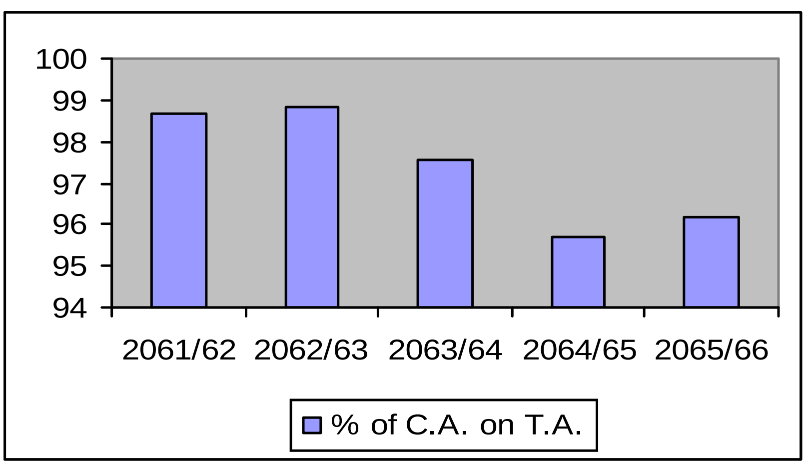
Source: - Table – 1 and Appendix – 1)

The table shows the proportion of current assets which range between 95.71% in 2064/65 to 98.84% in 2062/63.

The above percentage of current assets on total assets are also shown in the following Bar Diagram.

Graph 4.1

Percentage of Current Assets on Total Assets



4.3 Percentage of Cash and Bank Balance to Total Current Assets

The ratio directly affects the working capital management of the bank. Lower shows the ground liquidity management of the company

Table 4.3

Percentage of Cash and Bank Balance to Current Assets

(Rs. in million)

Fiscal Year	Cash and bank Balance	Current Assets	% of Cash and Bank Balance to Current Assets
2061/62	731.13	6370.23	11.47
2062/63	813.92	8964.86	9.07
2063/64	1284.07	10548.06	12.17
2064/65	1588.55	11962.65	13.27
2065/66	9455.43	16826.6	40.21
Average	2774.62	12271.33	17.23
S.D.			12.93
C.V.			0.7504

(Source: - Appendix – 1 and table – 1)

The above table shows that the percentage of cash and bank balance to current assets are increasing every year except in 2062\63. The ratio has ranged between 9.07% (2062\63) and 40.21% (2065\67). The average cash and bank balance is 17.23%. Similarly, the standard deviation is 12.93 and coefficient of variation is 0.7504.

4.4 Percentage of Bills Purchased and discounted to Total Current Assets.

Table 4.4

Percentage of Bills Purchased and discounted to Total Current Assets

(Rs. in Million)

Fiscal Year	Loans, Advances & Bills Purchased	Total Assets	% of current Assets on Total Assets.
2061/62	5061.43	6370.23	79.45
2062/63	6068.42	8964.86	67.69
2063/64	7129.89	10548.06	67.59
2064/65	8642.32	11962.65	72.24
2065/66	12516	16826.6	53.23
Average	7883.61	12271.33	68.04
S.D.			9.58
C.V.			0.1407

(Source: - Appendix – 1 and table – 1)

The above table shows that the Loan and advances are fluctuating during the study period. It is highest 79.45% (2061\62) and lowest 53.23% (2065\66). The average Loan advances & Bills Purchased is 68.04. Similarly, the standard deviation is 9.58 and coefficient of variation is 0.1407.

4.5 Percentage of Money at Call and Short Notice to Total Current Assets

Table 4.5

Percentage of Money at Call and Short Notice to Total Current Assets

(Rs. in Million)

Fiscal Year	Money at call and short Notice	Total current Assets	% of money at call and short Notice to total Current Assets
2061/62	15	6370.23	0.23
2062/63	781.47	8964.86	8.71
2063/64	694	10548.06	6.57
2064/65	70	11962.65	0.58
2065/66	-	16826.6	-
Average	7883.61	12271.33	3.21
S.D.			4.11
C.V.			1.28

(Source: - Appendix – 1 and table – 1)

The above table shows that the percentage of Money at Call and Short Notice to Total Current Assets are fluctuating during the study period. The ratio has ranged between 0.23% (2061\62) and 8.71% (2062\63) with average of 3.21%. Similarly, the standard deviation is 4.11 and coefficient of variation is 1.28.

4.6 Percentage of other Current Assets to Total Current Assets

Table 4.6

Percentage of the Current Assets to Total Current Assets

(Rs. in Million)

Fiscal Year	Other Current Assets	Total Current Assets	% of other Current Assets to total Current Assets
2061/62	94.06	6370.23	1.47
2062/63	173.23	8964.86	1.93
2063/64	161.64	10548.06	1.53
2064/65	218.22	11962.64	1.82
2065/66	293.30	16826.6	1.74
Average	188.09	10934.48	1.69
S.D.			0.19
C.V.			0.1124

(Source: - Appendix – 1 and table – 1)

The above table shows that the other current assets to current assets are fluctuating during the study period. the ratio has ranged between 1.47% (2061\62) and 1.93% (2062\63) with average of 1.69%. Similarly, the standard deviation is 0.19 and coefficient of variation is 0.1124.

4.7 Components of Current Liabilities

Current liabilities include Debtors, Bills Payable and other Liabilities firm should maintain the optimal Level of Liquidity in order to enable the organization to meet the current obligations. Firm has to raise funds from short term as well as long term liabilities according to its financing policy.

So, the composition of Current Liabilities must be analyzed for proper management of working capital.

Table 4.7

Current Liabilities Components of Machhapuchchhre Bank.

Fiscal Year	2061/62	2062/63	2063/64	2064/65	2065/66
Components of deposit	5586.80	7893.29	9475.45	11102.24	15596.79
Bills payable	9.32	11.36	21.48	10.31	24.44
Income tax liabilities	-	10.46	7.37	3.03	11.76
proposed dividend	-	5.64	-	8.64	-
Other current Liabilities	68.37	86.29	70.22	122.45	157.58
Total Current Libilities	5664.49	8007.04	9574.52	11246.67	15790.57

(Source: - Appendix – 1)

From the above table, Deposits occupied highest portion in each of the study period. Following ratios have been calculated to analyze the working capital of Machapuchhre Bank.

4.8 Percentage of Current Liabilities on total Liabilities

Table 4.8

Percentage of Current Liabilities on total Liabilities

(Rs. in Million)

Fiscal Year	Current Liabilities	Total Liabilities	% of other Current Liabilities on Total Liabilities
2061/62	5664.49	6456.46	87.73
2062/63	8007.04	9069.83	88.28
2063/64	9574.52	10807.61	88.59
2064/65	11246.67	12498.54	89.98
2065/66	15790.57	17490.75	90.27
Average	10056.658	11264.638	88.97

(Source: - Appendix – 1 and table – 7)

The above table shows the percentage of Current Liabilities to Total Liabilities ranges from 87.73% in 2061/62 to 90.24% in 2065/66 having average of 88.97%.

4.9 Percentage of Bills Payable and other Current Liabilities to Current Liabilities

Other current Liabilities includes sundry creditors, outstanding expenses and interest payable etc.

Table 4.9

Percentage of Bills payable & other Current Liabilities to Current Liabilities

(Rs. in Million)

Fiscal Year	Bills Payable and other current Liabilities	Current Liabilities	% of bills payable and other liabilities to Total Current Liabilities.
2061/62	77.69	5664.49	1.37
2062/63	97.65	8007.04	1.22
2063/64	91.7	9574.52	0.95
2064/65	132.76	11246.67	1.18
2065/66	182.02	15790.57	1.15
Average	116.36	10056.658	1.17
S.D.			0.1510
C.V.			0.1282

(Source: - Appendix – 1 and table – 7)

The above table shows that the bills payable and other current liabilities percentage is fluctuated over the study. The ratio has ranged between 0.95% (2063/64) and 1.22 (2062/630. With average 1.17%.Similarly, The standars deviation is 0.1510 and Coefficient of variation is 0.1282.

4.10 Percentage of saving Deposits to Total Current Liabilities

Table 4.10

Percentage of saving Deposits to Total Current Liabilities

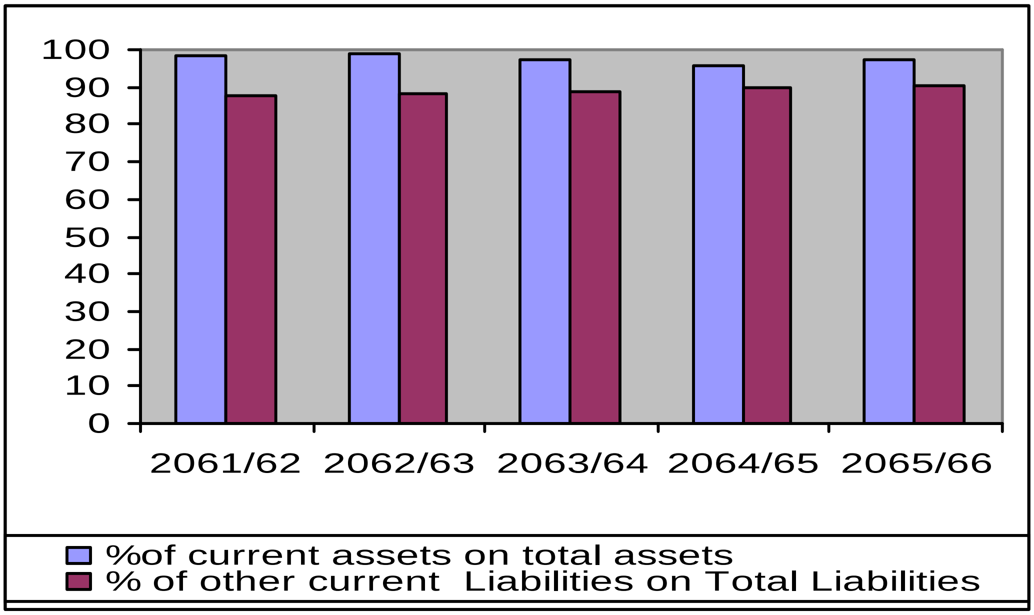
(Rs. in Million)

Fiscal Year	Deposit	Total Current Liabilities	% of Deposits to Total Current Liabilities
2061/62	5586.80	5664.49	98.62
2062/63	7893.29	8007.04	98.57
2063/64	9475.45	9574.52	98.96
2064/65	11102.24	11246.67	98.71
2065/66	15596.79	15790.57	98.77
Average	9930.91	10056.658	98.72
S.D.			0.15
C.V.			0.00151

(Source: - Appendix – 1 and table – 7)

The above table shows that the Deposits to total current liabilities are fluctuated over the study period. It is highest 98.96% (2063/64) and lowest 98.57% (2062/63) with average 98.72%. Similarly, the standard deviation is 0.15 and coefficient of variation is 0.00151.

Graph 4.2: The Composition of Current Assets & current Liabilities on total assets are also shown in the following bar diagram



(Sources: - Table 2 and table 8)

4.11 Analysis of Liquidity Ratio

The ratio is appropriate to study the liquidity of the Bank, since the study is focus on working capital management of the bank. We are going to analyze the liquidity ratio in two appropriate which are current ratio & quick ratio.

4.11.1 Current ratio

The current ratio is computed by dividing the current assets by current liabilities. Current assets are those assets which can be converted into within an accounting year.

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

The following table shows the current ratio to analyze the working capital management Machhapuchchhre Bank.

Table 4.11

Calculation of Current Ratio

Fiscal Year	Current Assets	Current Liabilities	Ratio
2061/62	6370.23	5664.49	1.12
2062/63	8964.86	8007.04	1.11
2063/64	10548.06	9574.52	1.10
2064/65	11962.65	11246.67	1.06
2065/66	16826.6	15790.57	1.06
Average	10934.48	50283.29	1.09
S.D.			0.028
C.V.			0.02568

(Source: - Appendix – 1, Table – 2, 8)

From the above table shows that the current assets and current liabilities of MBL are increasing for all the time. The current ratio is decreasing in 2064/65 and 2065/66 year and is increasing in the rest of the year. The highest ratio is 1.12 in year 2061/62 and lowest in 1.06 in year 2065/66. The standard deviation is 0.028. Similarly, coefficient of variation are 0.02568.

4.11.2 Quick Ratio

Quick ratio established a relation ship between quick or liquid assets and current liabilities. An asset is liquid if it can be converted into cash immediately or reasonably soon without a loss of original value. Cash is a most liquid asset. Other assets which are considered to be relatively liquid and include in quick assets in case of this Bank are Bank Balance and Investments. Statements in the case of this bank include investments in government securities. The quick ratio is considered as perfect when the ratio comes to 1:1 quick ratio also measure the liquidity position of the company. The quick ratio of the company can be found by dividing total of quick assets by total current liabilities.

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

The following table shows the quick ratio of Machhapuchchhre Bank.

Table 4.12

Calculation of Quick Ratio

Fiscal Year	Quick Assets	Current Liabilities	Ratio
2061/62	1199.74	5664.49	0.21
2062/63	2004.75	8007.04	0.25
2063/64	2562.54	9574.52	0.26
2064/65	2032.11	11246.67	0.18
2065/66	4012.79	15790.57	0.25
Average	2362.38	50283.29	0.23
S.D.			
C.V.			0.1434

(Source: Appendix – 1, Table – 8)

From the above table, the Quick assets are increasing every year except in 2064/65. The Quick ratio are fluctuating over the year of the study. It is highest 0.26 (2063/64) and lowest 0.18 (2064/65). In the 2061/62 and 2064/65 year of study, the yearly Quick ratio are lower than the average ratio. However, the ratios are higher than the average ratio in the 2062/63. 2063/64 and 2065/66 years. The standard diviation is 0.0339. Similarly, coefficient of variation is 0.1434.

4.12 Cash and Bank Balance to Deposit Ratio

The ratio shows the ability of banks immediate funds to cover their deposits. It can be calculated by dividing cash and bank balance by deposits.

The following table shows the cash and bank balance to deposit Ratio.

$$\text{Cash and Bank Balance to Deposit Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Total Deposits}}$$

Table 4.13

Cash and Bank Balance to Deposit Ratio

(Rs. in million)

Fiscal Year	Cash and Bank Balance	Deposits	Ratio
2061/62	731.13	5586.80	0.13
2062/63	813.92	7893.29	0.10
2063/64	1284.07	9475.45	0.13
2064/65	1588.56	11102.24	0.14
2065/66	2766.64	15596.79	0.17
Average	1436.86	9930.91	0.134
S.D.			0.0251
C.V.			0.1873

(Source: Appendix – 1,)

From the above table shows that the ratio of MBL are increasing over for all the year of study period except second year. It is highest in the year 2065/66 and lowest in the year 2062/63. The average ratio is 0.134. The ratio are lower than average only in the second year. In the first and third year ratio are equal to the average ratio and rest of the two year of study period has higher than average value. The standard deviation is 0.0251. Similarly, coefficient of variation are 0.1873.

4.13 Activity of Turn over Ratio

Activity ratios are used to evaluate the efficiency with which the firm manages to evaluate the utilizes its assets. These ratios are also calculated to evaluate the speed with which assets are being converted and turnover. These ratios moreover, help in measuring the banks ability to utilize their available resources.

4.13.1 Loan and Advances to Total Deposits Ratio

This ratio measures the extent to which bank is successful in utilizing the outstanding the outsiders funds for the profit generating purpose. In other words how quickly total collected deposits are converted into loan and advances given to the client to earn income. It is calculated as follows:

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

The following table shows the loan and Advances to Total Deposit Ratio.

Table 4.14

Loan and Advances to Total Deposits Ratio

(Rs. in million)

Fiscal Year	Loan Advance	Deposit	Ratio
2061/62	5061.43	5586.80	0.90
2062/63	6068.42	7893.29	0.76
2063/64	7129.89	9475.45	0.75
2064/65	8642.32	11102.24	0.77
2065/66	12516.01	15596.79	0.80
Average	7883.61	9930.91	0.796
S.D.			0.0610

C.V.			0.0767

(Source: Appendix – 1,)

The above table shows that loan and advance are increasing for all the year of study period. However the loan and advance to total deposit ratio are fluctuating every year. The ratio is highest in year 2061/62 i.e 0.90 and lowest in year 2063/64i.e 0.75. The average ratio is 0.796 which is lower than its yearly ratio in 2061/62 and 2065/66 and higher than its yearly ratio in 2062/63, 2063/64 and 2064/65. The standard deviation is 0.0610.Similarly, coefficient of variation are 0.0767.

4.14 Profitability Ratio

Profit is an important factor that determines the firm's expansion and diversification. A required level of profit in necessary for the firm's growth and survives in the competitive environment. Various ratios can be developed upon the profit under different circumstances. These different ratios are called profitability ratios, which are required to support the purpose of the study.

4.14.1 Net Profit to Total Assets Ratio

This ratio is useful in measuring the profitability of all financial resources invested in the firm's assets. The return on assets or profit to assets ratio is calculated by dividing the amount of net profit by the amount of total assets employed. The ratio can be calculated as:

Net Profit to Total Assets Ratio = $\frac{Net\ \mathrm{Pr}\,ofit}{Total\ \mathrm{Assets}}$

Table 4.15

Net Profit to Total Assets Ratio

(Rs. in million)

Fiscal Year	Net Profit	Total Assets	Ratio
2061/62	84.87	6456.46	0.0131
2062/63	133.99	9069.83	0.0147
2063/64	74.0	10810.3	0.0068
2064/65	85.01	12498.54	0.0068
2065/66	123.25	17490.75	0.0070
Average	100.22	11265.17	0.00968
S.D.			0.003894
C.V.			0.4022

(Source: Appendix – 1)

The above table shows that the overall profitability ratio is fluctuating for the year. Ratio is same for year 2063/64 and 2064/65. The ratio is highest in 2062/63i.e 0.0147% and lowest in 2064/65i.e 0.0068%. The average ratio is 0.00968%. The standard deviation is 0.003894. Similarly, coefficient of variation is 0.4022.

4.14.2 Net Profit to Current Assets Ratio

It measures the profit to current assets. Higher ratio indicates higher utilization of current assets to earn profit and vice-versa. This ratio calculated as:

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

The following table shows this ratio.

Table 4.16

Net Profit to Current Assets Ratio

(Rs. in million)

Fiscal Year	Net Profit	Current Assets	Ratio
2061/62	84.87	6370.23	0.0133
2062/63	133.99	8964.86	0.0149
2063/64	74.08	10548.06	0.0070
2064/65	85.01	11962.65	0.0071
2065/66	123.25	16826.6	0.0073
Average	100.22	10934.48	0.00992
S.D.			0.003859
C.V.			0.389

(Source: Appendix – 1, Table – 1)

The above table shows that the Net profit to current assets ratio has ranged between 0.0070 (2064/65) and 0.0149 (2062/63). The average ratio is 0.00992%. The standard deviation is 0.003859. Similarly, coefficient of variation is 0.389.

4.14.3 Net Profit to Deposit Ratio

Deposits are mobilized for investment loan and advances to the public in generating revenue. The ratio measures the percentage of profit earned from the utilization of the total deposits. It is calculated as follows:

The following table shows the net profit to Deposit Ratios:

Table 4.17

Net Profit to Deposit Ratio

(Rs. in million)

Fiscal Year	Net Profit	Deposit	Ratio
2061/62	84.87	5586.80	0.0151
2062/63	133.99	7893.29	0.0169
2063/64	74.08	9475.45	0.0078
2064/65	85.01	11102.24	0.0076
2065/66	123.25	15596.79	0.0079
Average	100.22	9930.91	0.01106
S.D.			0.004556
C.V.			0.4119

(Source: Appendix – 1,)

The above table shows that the ratio are fluctuating during entire period of study. The highest ratio is 0.0076 in year 2062/63 and lowest is 0.0076 in year 2064/65. The average ratio is 0.01106. The standard deviation is 0.004556. Similarly, coffecient of variation is 0.4119.

4.15 Statistical Analysis of the Available Data

To perform research analysis, statistical analysis measures the different variables and their relationship with the help of various statistical tools. So that it helps to analyze working capital management. The various statistical tools are used mainly for the following purposes.

a) To determine whether the relationship exists or not

b) To determine whether the relationship is significant or not

c) To determine cause and effect relationship if any

4.15.1 Relationship Between Current Assets and Current Liabilities

Table 4.18

Relationship Between Current Assets and Current Liabilities

(Rs. in million)

Fiscal Year	Current Assets (x)	Current liabilities (y)	xy	X^2	Y^2
2061/62	6370.23	5664.49	36084104.13	40579830.25	32086446.96
2062/63	8964.86	8007.04	71781992.61	80368714.82	64112689.56
2063/64	10548.06	9574.52	100992611.4	111261569.8	91671433.23
2064/65	11962.65	11246.67	134539976.9	143104995	126487586.1
2065/66	16826.6	15790.57	265701605.2	283134467.6	249342100.9
Total	x X54672.4	y X50283.29	xy X609100290.2	x^2 =658449577.5	y^2 =563700256.8

(Source: Appendix – 1, Table – 1.7)

Decision: The value of correlation between current assets and current liabilities is found to be 0.9994. The coefficient of determination is the square of the correlation coefficient i.e. r^2 which is r^2= 0.9988 = 9.9811. Thus, we can conclude that the variation in the CL explains only 9.98 of the variation in the current assets.

4.15.2 Relationship between Cash and Bank Balance to Current Liabilities

Table 4.19

Relationship between Cash and Bank Balance to Current Liabilities

(Rs. in million)

Fiscal Year	Cash and Bank Balance (x)	Current liabilities (y)	xy	X^2	Y^2
2061/62	731.13	5664.49	4141478.57	534551.07	32086446.96
2062/63	813.92	8007.04	6517089.99	662465.76	64112689.56
2063/64	1284.07	9574.52	12294353.9	1648835.76	91671433.23
2064/65	1588.56	11246.67	17866010.1	2523522.87	126487586.1
2065/66	2766.64	15790.57	43686822.58	7654296.89	249342100.9
Total	x X7184.32	y X50283.29	xy X84505755.14	x^2 =13023672.35	y^2 =563700256.8

(Source: Appendix – 1,)

Decision: The value of correlation between cash and bank balance and current liabilities is found to be 0.9790. The coefficient of determination is the square of the correlation coefficient i.e. r^2 which is r^2= 0.9585 Thus, we can conclude that the variation in the Current Liabilities explains only 95.85of the variation in the cash and bank balance.

4.15.3 Relationship between Loan and Advance and Deposit

Table 4.20

Relationship between Loan and Advances and Deposit

(Rs. in million)

Fiscal Year	Loan and Advance (x)	Deposit (y)	xy	X^2	Y^2
2061/62	5061.43	5586.80	28277197.12	25618073.6	31212334.24
2062/63	6068.42	7893.29	47899798.9	36825721.3	62304027.02
2063/64	7129.89	9475.45	67558916.2	50835331.41	89784152.7
2064/65	8642.32	11102.24	95949110.8	74689694.98	123259733
2065/66	12516.01	15596.79	195209579.6	156650506.3	243259858.3
Total	x X39418.07	y X49654.57	xy X434894602.6	x^2 =344619327.6	y^2 =549820105.3

(Source: Appendix – 1,)

Decision: The value of correlation between loan and advance to deposit to be 0.9912 i.e. positive correlations. The coefficient of determination is the square of the correlation coefficient i.e. r^2 and it measure the extent of association between two variables. Here coefficient of determination r= 0.9912 which is $r^{2} = 0.9826$. Thus, we can conclude that the variation is the deposit explaining only 99.12 of the variation is the loan advances.

4.15.4 Relationship between Net Profit and Total Assets

Table 4.21

Relationship between Net Profit and Total Assets

(Rs. in million)

Fiscal Year	Net Profit (x)	Total Assets (y)	xy	X^2	Y^2
2061/62	84.68	6456.46	546733.03	7170.70	41685875.73
2062/63	133.99	9069.83	1215266.52	17953.32	82261816.23
2063/64	74.08	10807.61	800827.02	5487.84	116862586.1
2064/65	85.01	12498.54	1062500.88	7226.70	156213502.1
2065/66	123.25	17490.75	2155734.93	15190.56	305926335.6
Total	x X501.01	y X56325.88	xy X5781062.38	x^2 =53029.12	y^2 =702950115.8

(Source: Appendix – 1)

Decision: The value of correlation between Net profit and toatal assets is found to be 0.3117. The coefficient between Net profit and total assets is found to be 0.3117. The coeffivient of determination is the square of the correlation coefficient i.e. r^2 and it measure the extent of association between two variables. Here coefficient of determination (r2)= (0.3117)2=0.0975. Thus, we can conclude that the variables and total assets is explain only 9.71 of the variation and the Net profit.

4.15.5 Relationship between Net Profit and Net Working Capital

Net working capital is the difference between current Assets and current Liabilities.

Now the relationship between Net Profit and Net working capital is shown below.

Table 4.22

Relationship between Net Profit and Net Working Capital

(Rs. in million)

Fiscal Year	Net Profit (x)	Net working capital (y)	xy	X^2	Y^2
2061/62	84.87	705.74	59896.15	7202.91	498068.94
2062/63	133.99	957.82	128338.30	17953.32	917419.15
2063/64	74.0	973.54	72041.96	5476	947780.13
2064/65	85.01	715.98	60865.45	7226.70	512627.36
2065/66	123.25	1036.03	127690.69	15190.56	1073358.16
Total	x X501.12	y X4389.11	xy X448832.55	x^2 =53049.49	y^2 =3949253.74

(Source: Appendix – 2)

Decision: The value of correlation between Net profit and Net working capital is found to be 0.5416. The coefficient of determination is the square of the correlation coefficient i.e r^2 and it measures the extent of association between two variables. Here coefficient of determination (r^2) = 0.2933. Thus, we can conclude that the variation and the total assets explain only 29.33 of the variation of Net profit.

4.16 Trend Analysis

Trend analysis is done to know the increasing or decreasing trend of the variables. Trend analysis for the following variables are done below.

4.16.1 Calculation of Trend value of cash and Bank Balance to Current Assets Ratio

Table 4.23

Calculation of Trend value of cash and Bank Balance to Current Assets Ratio

X	X^2	Cash and bank Balance to Current Assets (Y) (Actual value)	XY	Trend Value $Y_{CE}\ \mathrm{X}\, a\, \Gamma\, bx$
-2	4	11.47	-22.94	17.23-2 | 6.168= 4.89
-1	1	9.07	-9.07	17.23-1 | 6.168= 11.06
0	0	12.17	0	17.23+0 | 6.168=17.23
1	1	13.27	13.27	17.23+1 | 6.168=23.39
2	4	40.21	80.42	17.23+2 | 6.168=29.56
Total	$\phi x^2 = 10$	$\phi y^2 = 86.19$	$\phi XY = 61.68$	

(Source: Table - 3)

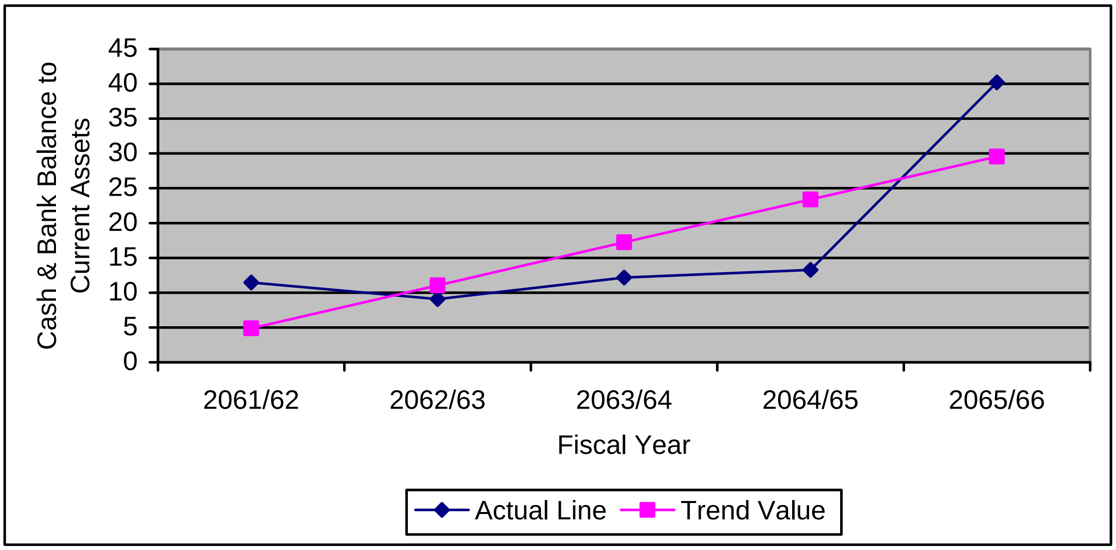
$$a = \frac{Y}{n} \quad = \frac{86.19}{5} \quad = 17.23$$

$$b = \frac{XY}{X^2} \quad = \frac{61.68}{10} \quad = 6.168$$

The above table shows that trend value of cash and bank balance to current assets ratios ranges from 4.89 to 29.56.

Graph 4.3

Trend value of cash and Bank Balance to Current Assets Ratio



4.16.2 Calculation of Trend Value of Loan and Advance to Current Assets

Table 4.24

Calculation of Trend Value of Loan and Advance to Current Assets

X	X^2	% of loan and advance to current Assets (Y) (Actual value)	XY	Trend Value $Y_{CE} \ X a \Gamma bx$
-2	4	79.45	-158.9	68.04-2 ∣ -4.78= 77.6
-1	1	67.69	-67.69	68.04-1 ∣ -4.78= 72.82
0	0	67.69	0	68.04+0 ∣ -4.78=68.04
1	1	72.24	72.24	68.04+1 ∣ -4.78=63.26
2	4	53.23	106.46	68.04+2 ∣ -4.78=58.48
Total	$\phi X^2 = 10$	$\phi Y^2 = 340.2$	ϕXY= -47.89	

(Source: Table - 4)

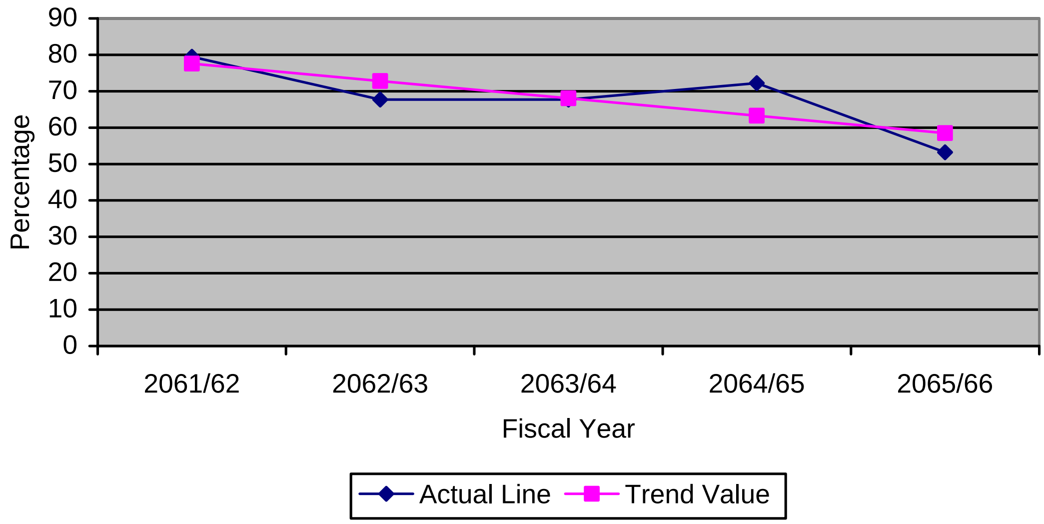
$$a = \frac{Y}{n} \qquad = \frac{340.2}{5} \qquad = 68.04$$

$$b = \frac{XY}{X^2} = \frac{Z47.89}{10} = -4.78$$

The above table shows that trend value of Loan and advance to current assets ratios ranges from 58.48 to 77.6.

Graph 4.4

Trend Value of Loan and Advance to Current Assets



4.16.3 Calculation of Trend Value of Current Ratio

Table 4.25

Calculation of Trend Value of Current Ratio

X	X^2	Current Ratio (Y) (Actual value)	XY	Trend Value Y_{CE} X $a\,\Gamma\,bx$
-2	4	1.12	-2.24	1.09+ (-0.061 $\mid$ -2)=1.212
-1	1	1.11	-1.11	1.09+ (-0.061 $\mid$ -1)=1.151
0	0	1.10	0	1.09+ (-0.061 $\mid$ -0)=1.09
1	1	1.06	1.06	1.09+ (-0.061 $\mid$ 1)=1.029
2	4	1.06	2.21	1.09+(-0.061 $\mid$ 2)=0.968
Total	$\phi X^2 = 10$	$\phi Y^2 = 5.74$	$\phi XY^2 = -1.23$	

(Source: Table -11)

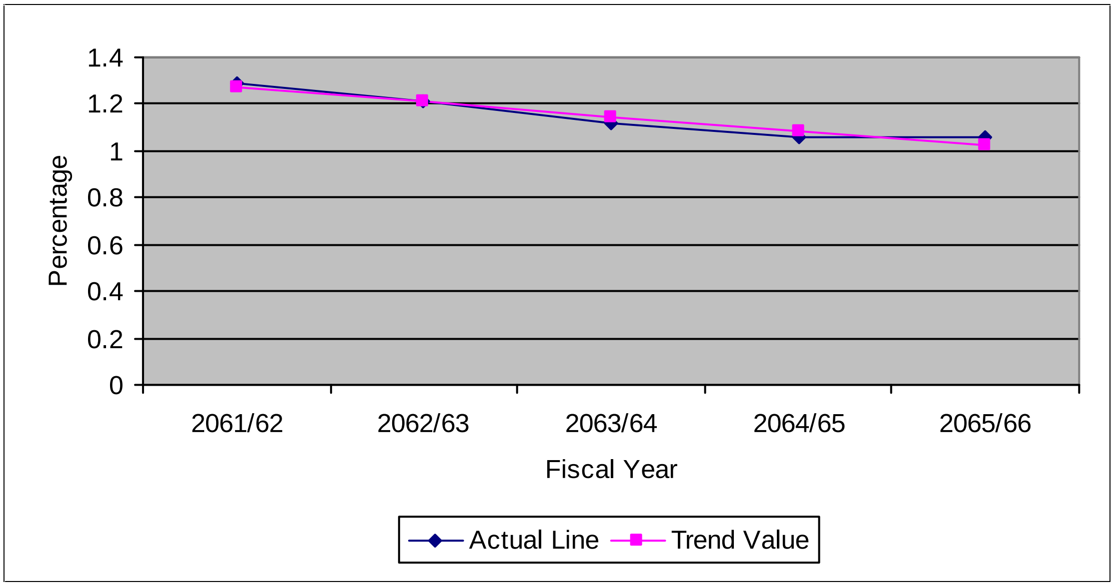
$$a = \frac{Y}{n} \qquad = \frac{5.45}{5} \qquad = 1.109$$

$$b = \frac{XY}{X^2} \qquad = \frac{Z0.61}{10} \qquad = -0.061$$

The above table shows that trend value of current ratio ranges from 0.968to 1.212.

Graph 4.5

Trend Value of Current Ratio



4.16.4 Calculation of Trend Value of Quick Ratio

Table 4.26

Calculation of Trend Value of Quick Ratio

X	X^2	Quick Ratio (Y) (Actual value)	XY	Trend Value Y_{CE} X a Γ bx
-2	4	0.21	-0.42	0.03-2 × 0.001=0.028
-1	1	0.25	-0.25	0.03 -1 × 0.001=0.029
0	0	0.26	0	0.03+0 × 0.001=0.03
1	1	0.18	0.18	0.03+1 × 0.001=0.031
2	4	0.25	0.5	0.03+2 × 0.001=0.032
Total	$\phi X^2 = 10$	$\phi Y^2 = 1.15$	$\phi XY = 0.01$	

(Source: Table - 12)

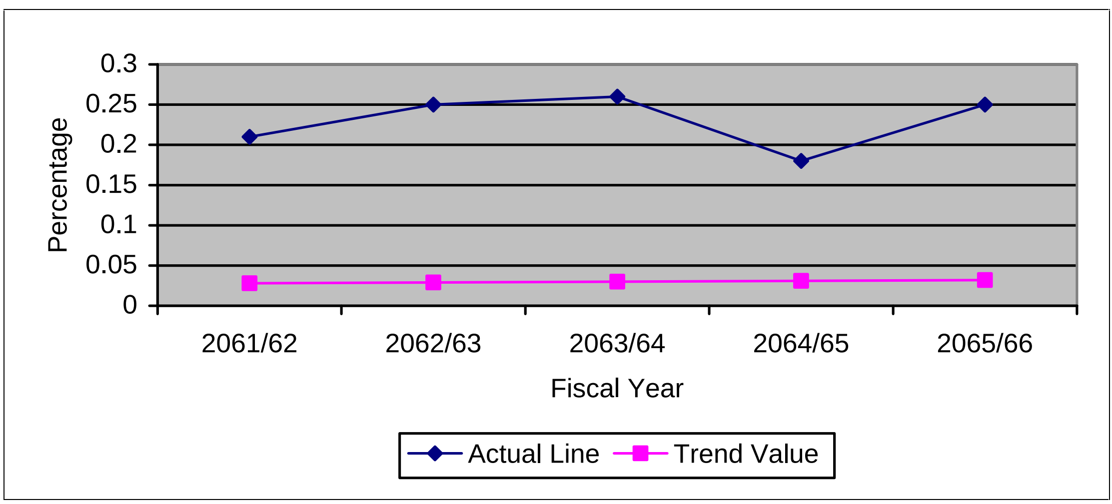
$$a = \frac{Y}{n} = \frac{1.15}{5} = 0.03$$

$$b = \frac{XY}{X^2} = \frac{0.01}{10} = 0.001$$

The above table shows that trend value of Quick ratio ranges from 0.028 to 0.032.

Graph 4.6

Trend Value of Quick Ratio



4.17 Major Findings

The major findings of the above calculation are summarized below.

a. The major components of the current assets in Machhapuchchhre bank are bank balance, loan and advances and other current assets. Prepaid expenses, outstanding income like interest receivable and sundry debtors etc are included in other current assets. Among all the current assets, loan and advances occupied highest than other components in each of the study period.

b. The proportion of current assets to total assets is nearly consistent between the ranges of 95.71% in 2064/65 to 98.84% in 2062/63 having average of 97.61%.

c. The percentage of cash and bank balance on total assets ranges from 8.97% in 2062/63 to 39.11% in 2065/66 with average of 16.69%. Similarly, percentage of cash and bank balance on current assets ranges from 9.07% in 2062/63to 40.21% in 2065/66 having average of 10.68%. It reflects the good position of cash in MPB.

d. The percentage of loan and advance and Bills purchased to total current assets ranges from 53.23% in 2065/66 to 79.45% in 2061/62 having average of 68.04%. Similarly, percentage of money at call and short notice to total current assets ranges from 0.23% in 2061/62 to 8.71% in 2062/63 proportion of other current assets on total current assets ranges from 1.24% in 2065/66to 1.93% in 2062/63 having average of 1.59%.

e. The major components of current liabilities in Machhapuchchhre Bank are saving deposit, Bills payable and other current liabilities.

Among all the current liabilities, deposits occupied highest than other components in each of the study period.

f. The portion of current liabilities on total liabilities ranges from 87.73% in 2061/62 to 90.27% in 2065/66 having average of 88.97%. High portion of current liabilities on total liabilities in preferable for the bank.

g. The percentage of bills payable and other current liabilities ranges from 0.95% in 2063/64 to 1.37% in 2061/62 having average of 1.17%. Similarly, the percentage of saving deposit to current liabilities ranges from 9857% in 2062/63 to 98.96% in 2063/64 having average of 88.97%.

h. The liquidity position of the bank is analyzed with the help of current ratio and quick ratio. The current ratio of Machhapuchchhre Bank ranges from 1.06% in 2064/65 to 1.12% in 2061/62 having average of 1.09%. The standard current ratio of the company is 2:1 comparing with the standard ratio; the calculated current ratio becomes too small. Similarly, the quick ratio ranges from 0.18% in 2064/65 to 0.26% in 2063/64 having average of 0.23% quick assets and pure liquid in nature.

i. The ability of the bank immediately funds to cover their deposits in analyzed by cash and bank balance to deposits ratio. Cash and bank balance to deposits ratio ranges from 0.10% in 2062/63 to 0.17% in 2065/66 having average of 0.134%. From the calculated ratio the cash and bank balance is not sufficient to cover the immediate deposits.

j. Activity ratio is analyzed with the help of loan and advances to total deposit ratio, loan and advances to total deposit ratio, loan and advances to saving deposit ratio and loan and advances to total deposits ratio are in increasing trend.

k. The profitability position of the bank is analyzed with the help of net profit to total assets ratio Net profit to Current Assets ratio and net profit to total deposit ratio. In each of the study period, the bank earns profit.

l. The value of correlation between current assets and current liabilities is found to be 0.9994 i.e. positive correlations.

m. The value of correlation between Net Profit to total assets is found to be 0.3117% i.e. positive correlation.

n. Trend analysis of cash and bank balance to current assets, trend analysis of loan and advances to current assets, trend analysis of current ratio are trend analysis of quick ratio are done to know the increasing or decreasing trend of the above ratios. All above calculated trend lines show the increasing trend of above calculated ratios.

CHAPTER –V

SUMMARY, CONCLUSION & RECOMMENDATIONS

5.1 Summary

The study is concentrated on the various aspects of the working capital management with special references to the selected Bank Machhapuchchhre Bank. It covers the period of five years from 2061/62 to 2065/66.

The main objectives of the study was to the working capital management of Machhapuchchhre Bank as well as liquidity and profitability. To fulfill this objective and other objectives are described in chapter one, an appropriate research methodology has developed which include ratio analysis as a financial tools, mean, standard deviation, correlation coefficient, probable error and trend analysis as statistical tools.

The study has focused on profitability and liquidity position of the bank, for this different ratios are calculated. Under these the ratios and their trend position as studied in the chapter four. In order to test the relationship between the various components of working capital, Karl Pearson's Coefficient is calculated and analyzed.

The Necessary data are derived from the balance sheet of Machhapuchchhre Bank for the period of five ears from fiscal year 2061/62 to 2065/66. Now, in this chapter an attempt has been made to present summary, conclusion and some suggestion and recommendations.

5.2 Conclusion

In conclusion it can be said that working capital management is one of the most important parts of every institution. Working capital is a crucial capital, which is often compared of life blood of the human being. After analyzing the Machhapuchchhre bank using various financial and statistical tools various important conclusions have been derived from the study.Here, the bank is getting prosperous position. It has been clearly the current assets of bank are properly utilized. The overall return position is very satisfactory.

5.3 Recommendations

On the basis of the above findings of the study, following recommendations are made:

a. Out of total current assets proportion of cash and Bank Balance, and loans Advances and Bills purchased are in highest proportion.

b. Total deposit turnover position of bank is in increasing trend. So total deposits turnover position in satisfactory.

c. Machhapuchchhre Bank earns profit. It has been cleared that current assets of bank is properly utilized. For the efficient utilization of current assets the management should identify its strength and weak points.

d. The bank mobilized capital should be made available for the investment in productive enterprises, Whether the business is small, medium or large sized, thus the bank should expand its credit to promote economic development more rapidly.

e. The bank should grab more opportunities as soon as possible adopting efficient and latest market strategies.

Appendix – 1

Machhapuchchhre Bank

Five Years summarized Balance Sheet

Particular	2061/62	2062/63	2063/64	2064/65	2065/66
<u>Assets</u>					
<u>Current Assets</u>					
Cash	121.55	280.42	385.94	560.32	743.19
Bank Balance	609.58	533.50	898.13	1028.24	2023.45
Money at call and short notice	15	718.47	694	70	
Investment	468.61	1190.82	1278.46	1443.55	1246.15
Loans, Advances and Bills Purchased	5061.43	6068.42	7129.89	8642.32	12516.01
Other Assets	94.06	173.23	161.64	218.22	297.80
<u>Fixed Assets</u>	86.21	104.94	259.53	535.89	664.15
Total Assets	6456.46	9069.83	10807.61	12498.54	17490.75
<u>Liabilities</u>					
<u>Current Liabilities</u>					
Deposits	5586.80	78.93.29	9475.45	11102.24	15596.79
Bills payable	9.32	11.36	21.48	10.31	24.44
Income tax Libilities	-	10.46	7.37	3.03	11.76
Proposed dividend	-	5.64	-	8.64	-
Other Liabilities	68.37	86.29	70.22	122.45	157.58
Total Current Liabilities	5664.49	8007.04	9574.52	11246.67	15790.57
Share Capital	550	715	821	901.34	1479.26
Reserve & Funds	87.73	216.09	185.64	262.01	220.92
Borrowing	154.21	131.67	228.50	88.51	-
Total Liabilities Capital	6456.46	9069.83	10807.61	12498.54	17490.75

Appendix – 2

Calculation of Net Working Capital

Fiscal Year	Current Assets	Current Liabilities	Net working Capital
2061/62	6370.23	5664.49	705.74
2062/63	8964.86	8007.04	957.82
2063/64	10548.06	9574.52	973.54
2064/65	11962.65	11246.67	715.98
2065/66	16826.6	15790.57	1036.03

(Source: Table 2 & 8)

BIBLIOGRAPHY

Bhandary, Anir Raj (2047). *Working Capital Management, A Case Study of Nepal Bank Ltd*. An unpublished Master's Degree Thesis Submitted to Faculty of Management, Tribhuvan University, Kirtipur,Kathmandu.

Dahal, Sarita & Bhuwan (2002), *A Handbook of Banking, Kathmandu*, Asmita Books and Stationary.

Garg, K.N. (1997) *Money, Banking, Trade & Finance,* Allahabad, Kitab Mahal.

Giri, Rajendra (1986). *A Case Study of Working Capital Management Balaju Textile Industry Limited***.** An Unpublished Master's Degree Thesis Submitted to Faculty of Management, Tribhuvan University, Kirtipur,Kathmandu.

Hamption, John J. and Wagner, Cealia L. (1983). *Working Capital Management*, USA.

Joshi, Arjun Lal (1986).*A Study on Working Capital Management of Biratnagar Jute Mill Ltd***.** An Unpublished Master's Degree Thesis Submitted to Faculty of Management, Tri Kirtipur.

K.C.Niraj (2000) *Comparative study of Working Capital Management of NBL and NABIL,* An Unpublished Master's degree thesis Submitted to Faculty of Management, T.U., Kirtipur Kathmandu.

Kothari, C.R. (1984). *Quantitative Techniques*. New Delhi,Vikash Publishing Pvt. Ltd.

Levin, Richard I. & Rubin, Dadki S. (1991), *Statistical for Management,* New Delhi, Parentice-Hall of India Pvt.Ltd.

Pandey, I.M. (2007) *Financial Management*, New Delhi, Vikash Publishing House.

Poudel, Ramji (1997). *A Comparative Analysis of Financial Performance Between Nepal Bank Ltd*, And Grindlays Bank Ltd, An Unpublished Master's Degree Thesis, Submitted to Faculty of Management, T. U, Kirtipur.

Pradhan, Surendra (2000). *Basis of Financial Management*, Kathmandu, Educational Enterprises.

Shrestha, Manohar Krishna (1983). *Working Capital Management PEs,: A Study on Financial Results and Constraints*, A quarterly ISDOC Bulletin, Kathmandu, Vol.8, No 1-4.

Shrestha, Prem Kumar (1994), *A study on Working Capital Management in Bhrikuti Paper Mills Ltd*, An unpublished Master's Degree Thesis Submitted to Faculty of Management, T.U, Kirtipur.

Shrestha, Suniti (1995). *Portfoilo Behavior of Commercial Banks in Nepal*, Kathmandu: Dangol Printers.

Ahrestha, Sushil Chandra (1988), *A Comparative Study of Working Capital Management m Public Sector Brick Factories*. An unpublished Master's Degree Theses Submitted to Faculty of Management, T.U. Kirtipur.

Smith, K.V. (1974**).** *Management of working Capital*, New York, West Publishing Co.

Van Horne, James C. (1994), *Financial Management and Policy*, New Delhi, Prentice Hall of India.

Weston, J. Fred & Brigham, Eugence F. (1984), *Managerial Finance*, Chicago: The Dryden Press.

Websites

http:\\ www.google.com\search

http:\\ www.mbl.com